InnServices Utilities Inc.

Innisfil Heights Sewage Pumping Station 6

Schedule ‘B’ Municipal Class Environmental Assessment

PROJECT FILE REPORT



PREPARED FOR:

InnServices Utilities Inc.

July 2025

PROJECT NO. 121031

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GLOSSARY OF TERMS

Ainley	Primary engineering consultant for the Class EA process.
Alternative	A possible approach to fulfilling the goal and objective of the study or a component of the study.
Class EA	Municipal Class Environmental Assessment, a planning process approved under the EA Act in Ontario for a class or group of municipal undertakings. The process must meet the requirements outlined in the "Municipal Class Environmental Assessment" document (Municipal Engineers Association, October 2000, as amended). The Class EA process involves evaluating the environmental effects of alternative solutions and design concepts to achieve a project objective and goal and includes mandatory requirements for public consultation.
Design Concept	A method of implementing an alternative solution(s).
Dewatering	Removal of water from an area under consideration, usually for construction purposes, or to avoid potential contamination.
EA Act	*Environmental Assessment Act*, R.S.O. 1990, c.E.18 (Ontario)
Effluent	Liquid after treatment. Effluent refers to the liquid discharged from a Waste Water Treatment Plant to a receiving water.
EIA	Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account interrelated socio-economic, cultural and human-health impacts, both beneficial and adverse.
Evaluation Criteria	Criteria applied to assist in identifying the preferred solution(s).
Forcemain	A pressurized pipe used to convey pumped wastewater from a sewage pumping station.
Geotechnical Investigation	Study of the engineering behavior of earth materials such as soil properties, rock characteristics, natural slopes, earthworks and foundations, within the study area
Gravity Sewer	A pipe that relies on gravity to convey sewage.
Hydrogeological	Study of the distribution and movement of groundwater in soil or bedrock.
Infiltration/Inflow (I&I)	Rainwater and groundwater that enters a sanitary sewer during wet weather events or due to leakages, etc.
Intensification	A process of development within existing urban areas that are already largely developed. Refers specifically to the redevelopment of lots to increase occupancy.
Local Conservation Authority	A conservation authority is a local, community-based natural resource management agency based in Ontario. Conservation authorities are mandated to develop programs to further the conservation, restoration, development and management of Ontario's natural resources.
LSRCA	Lake Simcoe and Region Conservation Authority
Master Servicing Plan (MSP)	A comprehensive plan to guide long-term development in a particular area that is broad in scope. It focuses on the analysis of a system for the purpose of outlining a framework for use in future individual projects.
MECP	Ministry of the Environment, Conservation and Parks, the provincial agency responsible for water, wastewater and waste

	regulation and approvals, and environmental assessments in Ontario.
Official Plan (OP)	An official plan describes upper, lower or single–tier municipal council's policies on how land in a community should be used. It is prepared with input from members in a community and helps to ensure that future planning and development will meet the specific needs of the community.
Preferred Solution	The alternative solution which is the recommended course of action to meet the objective statement based on its performance under the selection criteria.
ROW	Right-of-way applies to lands which have an access right for highways, roads, railways or utilities, such as wastewater conveyance pipes.
Sanitary Sewer	Sewer pipe that conveys sewage to a sewage pumping station or sewage treatment plant. Part of the sewage collection system.
Sanitary Sewer Collection System	The system consists of gravity pipes, manholes, tanks, lift stations, control structures, and forcemains. It is designed to collect wastewater from both residential and non-residential areas and transport the flow to the wastewater treatment plant.
Service Area	The defined area that will receive sewage servicing.
Sewage	The liquid waste products of domestic, industrial, and manufacturing activities directed to the sanitary sewage collection system.
Sewage Pumping Station (SPS)	A facility containing pumps to convey sewage through a forcemain to a higher elevation.
Water Pollution Control Plant (WPCP)	A plant that treats wastewater to remove solids, contaminants and other undesirable materials before discharging the treated effluent back to the environment.
Study Area	The area under investigation in which construction may take place in order to provide servicing to the Service Area.
Surficial Geology	Surficial geology refers to the study of landforms and the unconsolidated sediments that lie beneath them.
Threatened Species	A species likely to become endangered in Canada if the factors affecting its vulnerability are not reversed.
Trenchless technology	Methods of installing a utility, such as a sewer, without excavating a trench, including directional drilling, microtunneling etc.
Wastewater	See Sewage
Wet Well	The tank of a sewage pumping station where wastewater is collected before pumping.

1. BACKGROUND

1.1 Introduction

InnServices Utilities Inc. completed the *Innisfil Master Servicing Plan Update* (MSP Update) in 2018 which identified short- and long-term strategies for both water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018) and Official Plan Amendment No. 1. The MSP Update meets the goal to protect the environment and public health. It considers aligned infrastructure projects within the 2018 Transportation Master Plan (TMP) to minimize or avoid potential disruptions to residents. Major rehabilitation and optimization projects are also taken into account in the MSP Update to extend the servicing life of the existing infrastructure.

As part of the MSP Update various alternatives were examined in order to provide servicing to the first phase of the expansion plan of the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. In order to promote, facilitate and maximize the planned expansion of this area, the MSP Update identified that a municipal sanitary sewage collection system is required and the preferred solution to be 'Alternative 6B'. The MSP Update identified "Alternative 6, Option B' as the preferred option (Figure 1). The existing Lakeshore wastewater system servicing Alcona and the surrounding area consists of a network of sanitary sewers, seven sewage pumping stations, and the Lakeshore Water Pollution Control Plant (WPCP). Alternative 6B establishes a sanitary collection system connected to the existing Lakeshore wastewater system via Innisfil Beach Road for the first phase of development, projected up to the year 2031. As part of this alternative, several sewage pumping stations were proposed along the sewer route, including the new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6).

The MSP Update recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district. Each proposed SPS requires a Schedule B Municipal Class Environmental Assessments (MCEA) prior to its construction. The MSP Update categorized the proposed SPS projects by suggested implementation timeline (i.e., within short-term 2019 -2023, mid-term 2024 -2031, and long-term post 2031) and identified the expected triggers for their implementation.

Under Section 18.4 of the MSP Update, Recommended Wastewater MSP, the IH SPS 6 and forcemain was suggested for implementation under the short-term timeline. The 'trigger' to initiate planning is the proposed new developments in Innisfil Heights, which would require infrastructure to convey wastewater flows.

This Class EA focuses on the proposed new IH SPS 6 to be located on Innisfil Beach Road in the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic area and direct it to the Lakeshore WPCP.

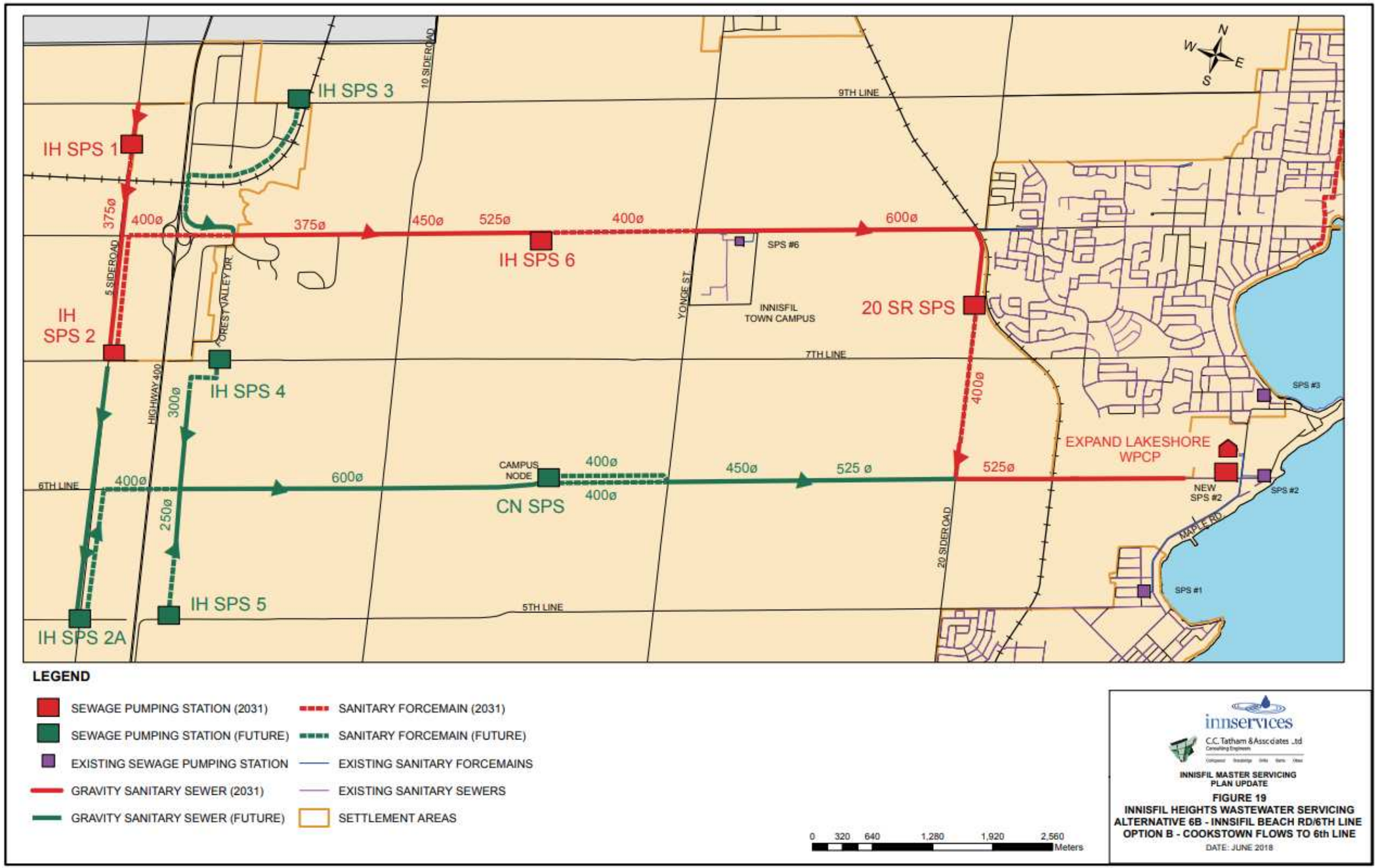


Figure 1 – Innisfil Heights Wastewater Servicing Alternative 6B, MSP Figure

1.2 Class Environmental Assessment Process

The Municipal Class Environmental Assessment document (amended 2024) as published by the Municipal Engineers Association outlines a planning process for municipalities to follow so as to complete infrastructure projects in an environmentally responsible manner and in accordance with the *Environmental Assessment Act* (*EA Act*). Based on the scope of the proposed improvements, a Schedule 'B' level of planning was determined to be required. A Schedule 'B' project requires completion of Phases 1 & 2 of the Class EA process as illustrated in Figure 2, which is generally comprised of the following tasks:

PHASES 1 & 2

- Identify the problem/opportunity;
- Issue Notice of Study Commencement
- Inventory the existing environment (physical, natural, social and economic);
- Develop alternative solutions to address the problem/opportunity;
- Evaluate proposed alternative solutions;
- Consult with the public, review agencies, relevant stakeholders;
- Select the Preferred Solution giving consideration to the evaluation and any feedback received through consultation;
- Establish mitigation measures to minimize potential environmental impacts;
- Document the process in a Project File Report (PFR);
- Issue a Notice of Completion followed by a 30-day review period; and
- Address and final comments and conclude the Class EA process.

Consultation is a key component of the Class EA process as it allows members of the public, Indigenous communities, and review agencies opportunity to provide relevant information and feedback for consideration.

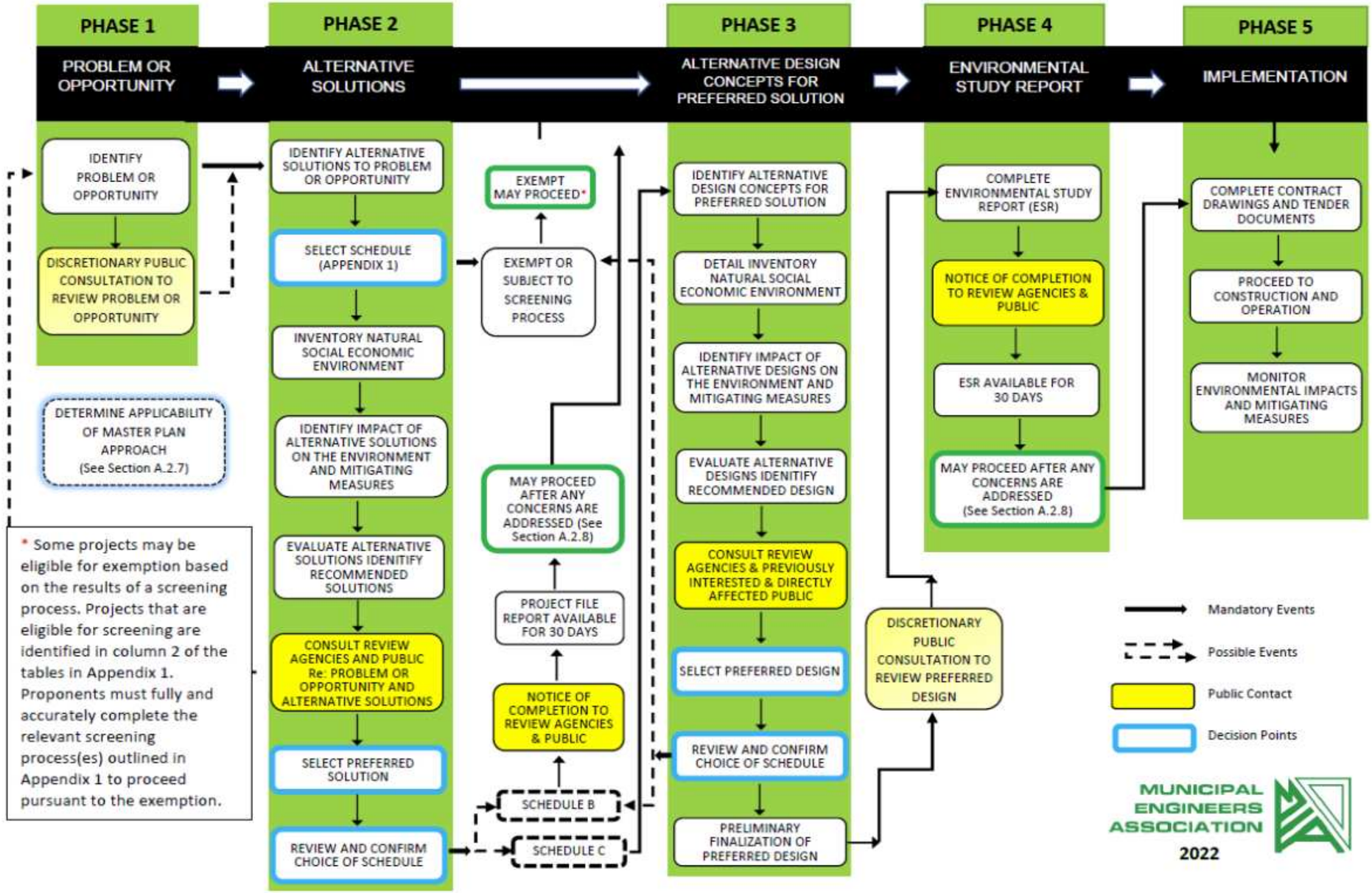


Figure 2 – Municipal Class Environmental Assessment Flow Chart

1.3 Objective of this Report

The objective of this project file report is to document the Class EA, Schedule 'B', planning process for the project. This report identifies the deficiencies affecting the project study area; the Problem/Opportunity Statement to be addressed; the alternative solutions considered; the evaluation of these alternatives to demonstrate the decision-making process leading to the selection of the preferred solution; and the consultation process. Decision-making criteria includes impacts on technical environment, natural environment, cultural and social environment and economic environment.

1.4 Project Team

The project team involved in the completion of this Schedule 'B' Class EA includes the following:

Proponent: InnServices Utilities Inc.

Prime Consultant: Ainley Group

Sub-Consultants: Azimuth Environmental Consultants Limited

Archaeological Service Inc.

GEI Consultants

2. PLANNING POLICY AND THIS CLASS EA

This section provides a brief discussion of various land use planning policies and principles to illustrate the consistency of this project in relation to provincial, regional and municipal planning goals.

2.1 Provincial Policy Statement (2024)

The *Provincial Policy Statement (2024)* provides policy direction relating to land use planning and development in Ontario. Section 3 of the *Planning Act* stipulates that all decisions affecting planning matters are to be consistent with the *Provincial Policy Statement (PPS)*. Policies applicable to this project include the following:

- Section 3.1.1 "Infrastructure and public service facilities shall be provided in an efficient manner while accommodating projected needs."
- Section 3.6.2 "Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. For clarity, municipal sewage services and municipal water services include both centralized servicing systems and decentralized servicing systems."
- Section 4.1.1 "Natural features and areas shall be protected for the long term."
- Section 4.6.1 "Protected heritage property, which may contain built heritage resources or cultural heritage landscapes, shall be conserved."

As the current project is following a Municipal Class Environmental Assessment process consideration is being given to the potential to impact the physical, natural, social, and economic environment prior to selection of the preferred solution. Various studies have been completed to obtain a better understanding of the existing conditions of the study area so that impacts can be properly assessed, and appropriate mitigation developed.

2.2 Places to Grow Act (2005)

Under the *Places to Grow Act (2005)*, the Growth Plan for the Greater Golden Horseshoe (2020) is the Ontario government's initiative to plan for growth and development in a way that supports economic prosperity, protects the environment, and helps communities achieve a high quality of life. A framework for water and wastewater infrastructure investments in the Greater Golden Horseshoe area are provided to optimize existing and future investments to serve growth to the year 2031 and beyond. Population and employment growth for each municipality, including the Town of Innisfil are required to be accommodated through intensification in existing settlement area.

2.3 Safe Drinking Water Act (2002)

The *Safe Drinking Water Act, 2002* (SDWA) and the *Drinking Water System Regulation* (O.Reg. 170/03 as amended) regulate the treatment and distribution of drinking water, including the regulation and control of drinking water systems. Requirements for all the water systems within treatment and testing processes are specified under *the Drinking Water Systems Regulation (O. Reg. 170/03 as amended).*

2.4 Clean Water Act (2006)

The purpose of the *Clean Water Act ,2006 (CWA)* is to provide protection of municipal drinking water at the source and to safeguard human health and the environment. It aims to protect existing and future drinking water sources. The CWA and its regulations ensure that municipal drinking water supplies such as the groundwater wells in Churchill, Stroud and Innisfil Heights, and the surface water intake at the Lakeshore WPCP are protected through prevention by the development of watershed-based source protection plans. The source protection plans identify vulnerable areas within each municipality and provide policies to address existing and future risks to municipal drinking water sources. This project is subject to the South Georgian Bay Lake Simcoe Source Protection Plan (2015, amended June 2021) and is within the Lake Simcoe and Couchiching/Black River Source Protection Area.

2.5 Ontario Water Resources Act (1990)

Under the *Ontario Water Resources Act, 1990 (OWCA),* the construction and operation of wastewater treatment facilities is regulated and controlled in Ontario including the Lake Simcoe basin. Requirements for the planning, design, construction and operations of wastewater systems are specified, along with the requirements that systems must satisfy in order for the province to grant approval for establishing, altering, extending, or replacing wastewater system components.

2.6 Lake Simcoe Protection Act (2008)

The purpose of the *Lake Simcoe Protection Act, 2008 (LSPA)* is to protect and restore the ecological health of the Lake Simcoe watershed, providing a legislative framework for the development of the *Lake Simcoe Protection Plan (LSPP)* and setting out its objectives. Development of the LSPP collaborated with key partners, including Indigenous communities, municipalities, local conservation authorities, agricultural and commercial sectors and residents to set objectives to reduce the discharge of pollutants and the loadings of nutrients to the Lake Simcoe watershed and to the lake. It also sets out policies that prohibit the establishment of new municipal sewage treatment plants in the Lake Simcoe watershed.

2.7 Town of Innisfil Official Plan (2018)

At the municipal level, provincial policy is implemented through the Town of Innisfil Official Plan (OP). "Our Place" Official Plan 2018 guides development of the Town of Innisfil to the year 2031 and provides the vision, goals and policies to plan growth in a responsible and sustainable way while maintaining a sense of community.

A previous released Official Plan Amendment No.1 (OPA No.1) was approved by the County of Simcoe in October 2009, specifying future population and employment growth in the Town of Innisfil. By 2031, the population target is 65,000 and employment target is 32,500.

The Town OP provides a pro-active strategy for adapting to and mitigating climate change by managing both the built and natural environment. This is achieved through the regulation of land use and development patterns, ensuring that they align with the objectives of climate change adaptation and mitigation.

2.8 Town of Innisfil Transportation Master Plan (2018)

A Transportation Master Plan (TMP) is a long-range strategic plan that identifies transportation infrastructure requirements to address existing challenges and support growth. The Town of Innisfil TMP builds upon the Town's OP and serves to advance Innisfil's Community Strategic Plan, Inspiring Innisfil 2020. The 2018 TMP update was taken into consideration in the preparation of the MSP Update to ensure appropriate alignment of the two studies and consideration of the phasing of infrastructure projects to minimize disruptions to residents and business owners.

2.9 Climate Change

The MECP guidance document entitled "Considering Climate Change in the Environmental Assessment Process" provides guidance relating to the Ministry's expectations for considering climate change in the preparation, execution and documentation of EA studies and processes. The Guide is now a part of the Environmental Assessment Program's Guides and Codes of Practice. The environmental assessment of proposed undertakings is to consider how a project might impact climate change and how climate change may impact a project.

The guide outlines two types of climate change effects for consideration. The first is, it discusses the impact a project can exert on climate change, focusing on its potential to mitigate climate change by decreasing carbon emissions and/or preserving natural landscapes that serve as carbon sinks. Secondly, it addresses how climate change affects a project, emphasizing the importance of assessing the project's ability to adapt to climate change impacts.

Climate Change was considered during the course of this Class EA, and mitigation and adaptation measures were incorporated into the evaluation of alterative solutions, as discussed further in Section 3.5 and 10.11 of this report.

3. EXISTING CONDITIONS

3.1 Study Area

The Town of Innisfil is one of sixteen municipalities within the County of Simcoe, located on the western shore of Lake Simcoe. Innisfil Heights located in the northwest of Innisfil is designated as a Strategic Settlement Employment Area including a commercial/industrial area in the 2018 Town's Official Plan. The Study Area is located on the north and south sides of Innisfil Beach Road between 10 Sideroad and Yonge Street, (Figure 3). and is defined as the overall area on Innisfil Beach Road on which a new sewage pumping station can be located to best service the Strategic Settlement Employment Area.

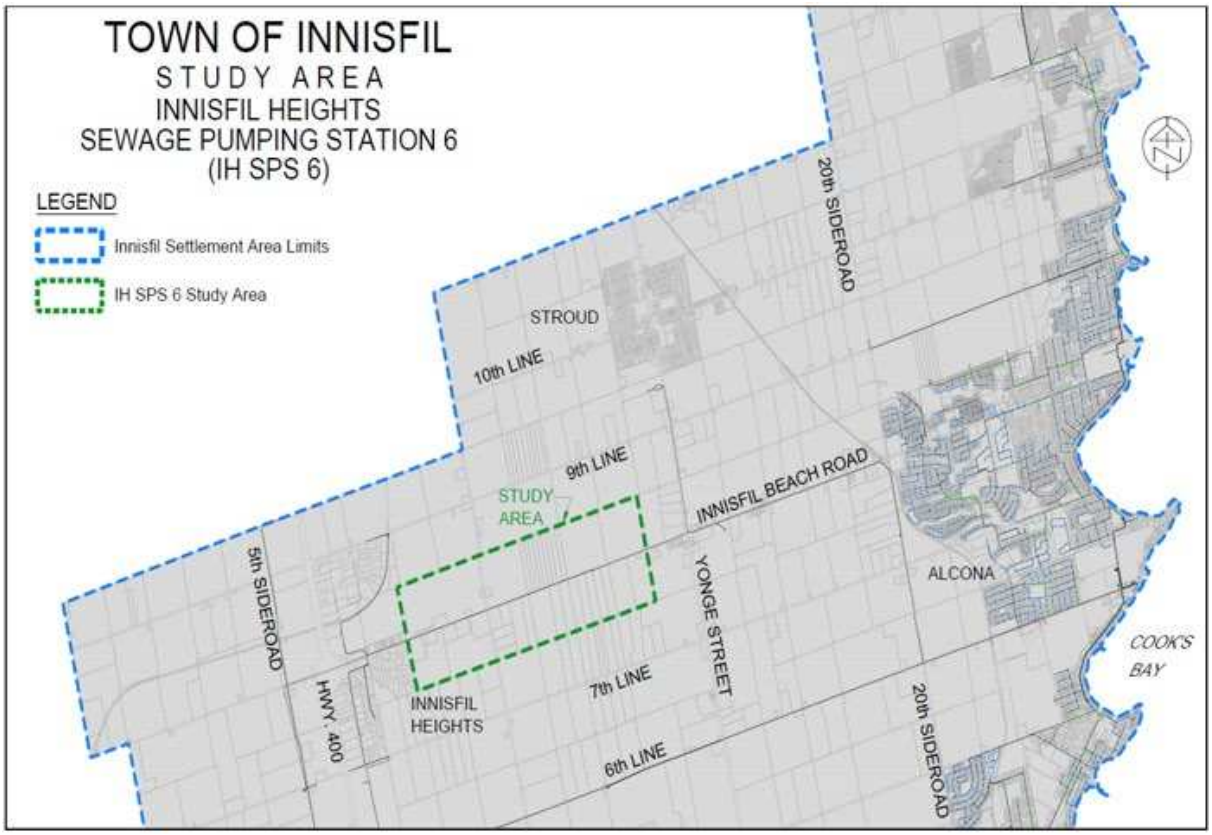


Figure 3 – IH SPS 6 Study Area

Innisfil Heights is located in the northwestern area of Innisfil. The existing land use within the study area is primarily a mix of rural uses, agricultural land and open green space lands (Figure 4). Innisfil Beach Road is a major Highway 400 exit and represents the primary commercial and tourism gateway to Innisfil.

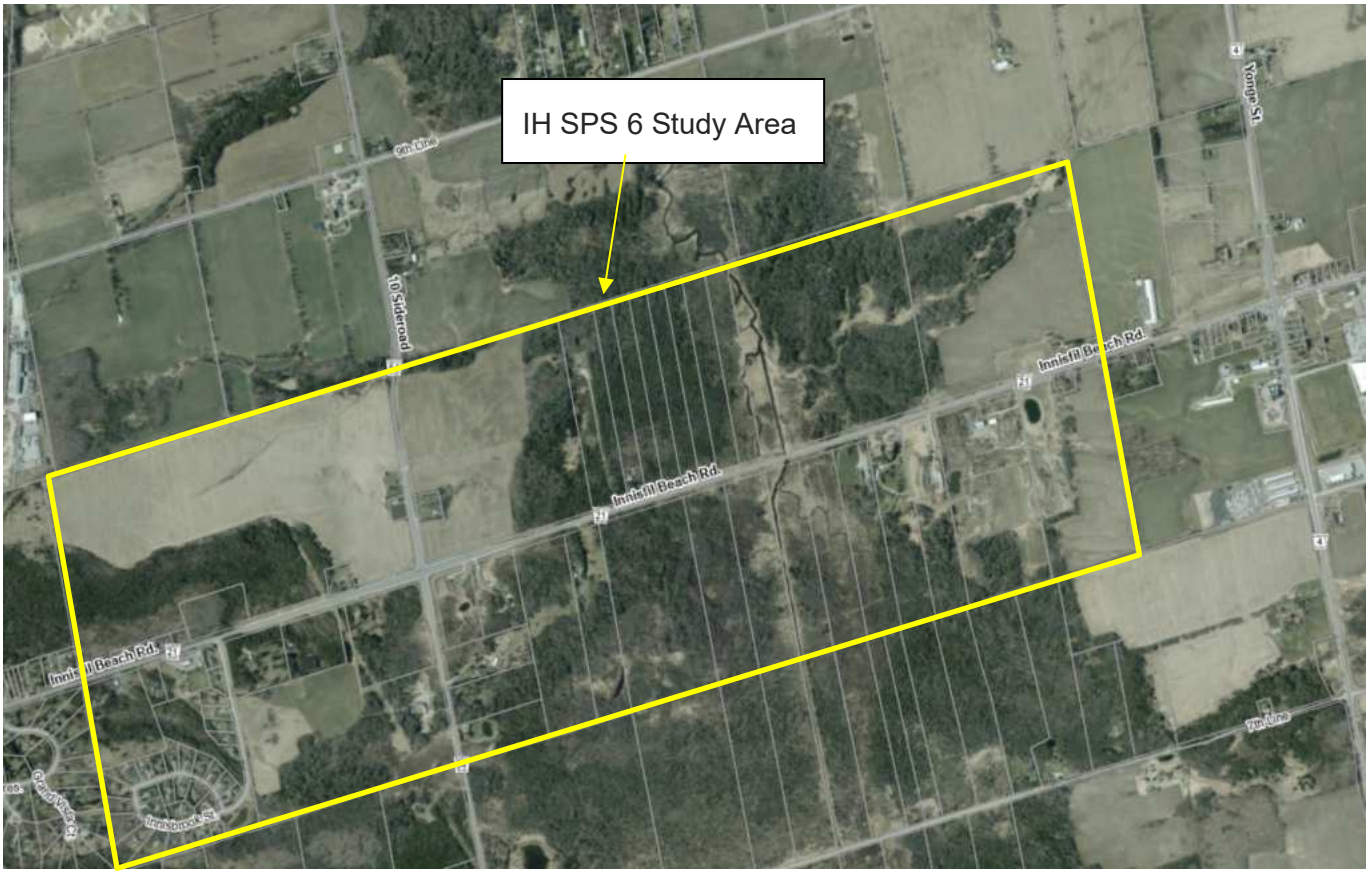


Figure 4 – Aerial Map of Study Area

(Source: County of Simcoe Mapping)

Innisfil Height's economic district and residential community rely on individual septic systems for wastewater disposal.

3.2 Technical/Physical Environment

This section describes the characteristics of the study area to provide context and allow for accurate evaluation of potential impacts. Various studies have been competed to determine existing environmental conditions as well as to identify any potential impacts the alternatives solutions pose to the environment within the Study Area.

3.2.1 Existing Wastewater Flows

The MSP Update (InnServices Utilities Inc., 2018) reviewed the daily wastewater flows measured at the Lakeshore WPCP from 2007 to 2017 and were reviewed to determine the per capita wastewater generation rates. Considering five years of data from 2013 to 2017 at the Lakeshore WPCP, the average per capita wastewater flow was 334 L/p/day (Litre per person per day). Of this average flow, a portion is considered base domestic flow and the other dry weather infiltration. The dry weather flow averaged 288 L/p/day in the period between 2013 and 2017. The five-year average inflow and

infiltration (I/I) contribution was 46 L/p/day. However, contribution of I/I to the average flow was higher in 2017 than in previous years.

Analysis of the peak daily wastewater flow data shows that the per capita peak flow was lower in the period between 2013 and 2017, averaging 716 L/p/day. The estimated wet weather I/I contribution to the peak flow varies: the highest per capita I/I was 560 L/p/day in 2016, less than was estimated based on earlier data.

3.2.2 Existing Wastewater System

The Lakeshore wastewater system consists of a network of sanitary sewers, nine sewage pumping stations, and the Lakeshore WPCP. Current SPS #6 services the Town Campus, including the Town Hall, the Multi Use Recreational Facility (MURF), the Ontario Provincial Police (OPP) building and a new private school. Existing SPS #6 with 2 pumps has rated capacity of 10 L/s which can also serve existing and future population in 2031. SPS #7 serves a small area in Alcona North, which means once future development on Spring Street proceeds it will be eliminated.

3.2.3 Projected Wastewater Flows

IH SPS 6 is designed to handle an Average Daily Flow (ADF) of 41.4 L/s, with a peak wet weather flow of 84.0 L/s, as detailed in Appendix A – IH SPS 6 Future Flows Memorandum.

This station will service an existing industrial/commercial area of 228.4 hectares, a residential area of 77.9 hectares with 321 residences, and 25.2 hectares of future industrial development. Wastewater will be conveyed through forcemain and trunk sewer along Innisfil Beach Road. The flow will also include wastewater transferred from four proposed pumping stations (IH SPS 1, 2, 3, and 5), collectively contributing to the system's capacity to manage sewage flow from the Innisfil Heights economic area. The system is designed to accommodate the area's planned growth while ensuring wastewater infrastructure efficiency during peak flow conditions.

Table 1 provides a summary of the projected flows for the IH SPS 6.

Table 1 – Flow Projection Summary to IH SPS 6

Identification	Designation	Area (ha)	Residence	ADF Estimate (L/s)	Peak Wet Weather Flow Estimate (L/s)
Existing Industrial/Commercial [1]	Industrial / Commercial	228.4	-	4.6	9.3
Existing Residential	Residential	77.9	321	1.2	3.5
IH SPS 1	-	-	-	8.6	17.2
IH SPS 2	-	-	-	13.2	26.5
F-1	Industrial	25.2	-	2.9	5.8

Identification	Designation	Area (ha)	Residence	ADF Estimate (L/s)	Peak Wet Weather Flow Estimate (L/s)
IH SPS 3	-	-	-	4.8	9.7
IH SPS 5	-	-	-	6.0	12.0
Total		**331.5**	**321**	**41.4**	**84.0**

[1] ADF for existing industrial/commercial lands is based on the historical water usage data over the past 5 years from Innisfil Heights.

3.2.4 Geotechnical and Hydrogeological Conditions

GEI Consultants, on behalf of Ainley Group, completed Geotechnical and Hydrogeological Background Conditions reports that discuss the background site conditions (Figure 5). The investigation is based on a desktop review of previous findings in the area. A copy of the full report is included in Appendix B.

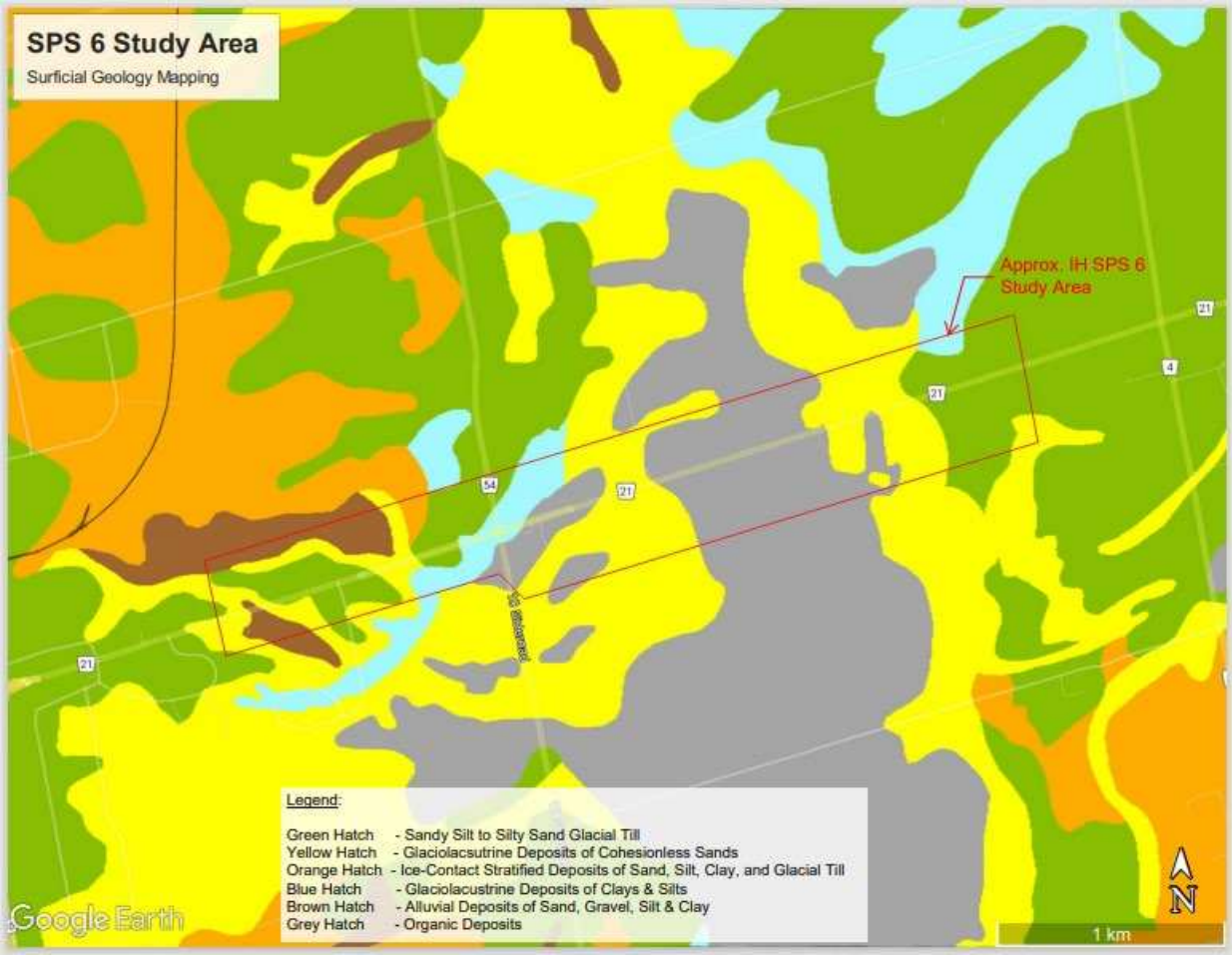


Figure 5 – Surficial Geology Mapping

Glacial Till Deposits:

Based on the subsurface conditions encountered near the study area, it is expected that the glacial till deposits will be cohesionless, compact to very dense, and competent / favourable for the support of buildings, structures, construction and drilling equipment, and for support of shoring wall tie-backs or anchors.

- Glacial till deposits are well graded and laboratory testing the from the nearby MTO and GEI boreholes indicate a relatively high percentage of fines. The glacial till is expected to be less permeable than the sand deposits, which can significantly reduce water taking rates and potential complications during construction dewatering.
- The lower permeability will reduce the dewatering radius of influence which reduces the potential impacts to nearby surface water features, drinking water wells, or settlement of nearby land.
- An excavation made fully within glacial till has a reduced potential to require a PTTW from the MECP (i.e., less than 400,000 L/day of pumping).
- Cobbles and boulders may be embedded within the deposits. This has a potential to interfere with caisson drill rigs (e.g., for shoring wall installation) or during excavations and would need to be addressed in construction contracts.
- There is a reduced potential for temporary cased holes or drilling mud to install caisson piles for shoring walls or for augered holes for tie-backs.

Cohesionless Sand Deposits (Alluvial or Glaciolacustrine):

- It is expected that the sand deposits encountered on site, either from grade or below the glacial till deposits, will be competent for the support of buildings, structures, construction access and drilling equipment, and for support of shoring wall tie-backs or anchors. Geotechnical & Hydrogeological Background Conditions Report IH SPS 6, Innisfil, Ontario Project No. 2103505
- The major consideration for the sand deposits is groundwater control and constructability. Depending on the grain size distribution and percentage of fines, higher groundwater flow rates are expected for excavations made into the sands.
- Higher flow rates may require a more robust dewatering system and increases the potential for a PTTW from the MECP. The dewatering radius of influence will also be higher in the sands which has an increased potential to impact nearby surface water features, drinking water wells, or settlement of nearby land.
- There is an increased potential for temporary cased holes or drilling mud to install caisson piles for shoring walls or for augered holes for tie-backs.
- There may be cobble or gravel zones within the sands that can increase the difficulty of excavation or caisson installation for shoring walls.

If deposits of glaciolacustrine clay area encountered, the considerations will be similar to the glacial till. Based on this preliminary review, the easternmost extent of the SPS 6 study area (east of Lover's Creek Swamp) is considered the best location from geotechnical and hydrogeological engineering perspectives.

- There appears to be the highest probability for deeper glacial till deposits in this area based on the geology mapping, MECP well records, and nearby GEI boreholes. Sand deposits may still be encountered underlying the glacial till.

- The grades are closer to Elev. 270 metres, or about 20 metres higher than Lover's Creek. This reduces the potential for artesian groundwater conditions and the groundwater table is likely deeper below grade in the area.
- There are fewer nearby drinking water wells, surface water features, or structures that could be impacted by dewatering activities. The two nearby wells are also screened at 25 metres below grade or deeper.
- The higher elevation may also help the civil engineer design or optimize the pumping system due to potential energy.

Based on this preliminary review, the westernmost extent of the SPS 6 study area (west of Lover's Creek Swamp) is considered the second-best location from geotechnical and hydrogeological engineering perspectives. This end of the site has an elevation of 290 metres and groundwater levels may be deeper here than elsewhere on site. However, it is expected that there is an increased potential to encounter thinner glacial till deposits at grade or wet sands closer to surface. There are more nearby wells and structures that could be impacted by dewatering compared to the east end of the study area.

Based on this preliminary review, the footprint within the evaluated wetland of Lover's Creek Swamp is considered the least preferred location from geotechnical and hydrogeological perspectives.

3.3 Natural Environment

The Lake Simcoe Region Conservation Authority (LSRCA) is a local watershed management organization, incorporated under the *Conservation Authorities Act* (1946), regulated under Ontario Regulation 179/06. A portion of the study area is within lands regulated by the LSRCA and a permit may be required for this project.

Azimuth Environmental Consulting, Inc. (Azimuth) on behalf of Ainley Group, completed an Environmental Constraints Analysis of Natural Heritage Features within the study area. Sections 3.3.1 to 3.3.4 provide a summary of the environmental constraints analysis and consideration of potential impacts. A copy of the report is included in Appendix D. The study approach used by Azimuth involved background information research and field surveys from the roadway.

3.3.1 Vegetation and Vegetation Communities

The study area includes several natural heritage components including woodlands and wetlands that are intermixed with agricultural, rural residential and commercial lands. A total of twelve vegetation communities were identified. Vegetation units were generally classified using Ecological Land Classification for Southern Ontario protocols.

The road right of way (ROW) was typically composed of open 'field' habitat composed of opportunistic herbaceous/grass species. Riparian/wetland vegetation typically exists in proximity to the mapped watercourses within the study area and within the ROW. Although not considered a Key Natural Heritage Feature, many of the rural properties are treed and include hedgerows that border the properties.

The Lover's Creek Provincially Significant Wetland (PSW) extends through the central portion of the study area. Woodland habitat has been identified within the study area and are largely contiguous with adjacent woodland/wetland areas and therefore, may be considered to be significant as per local, regional and provincial planning policies. (Figure 5 identifies the presence of the key natural heritage features).

3.3.2 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) Natural Heritage Information Centre database identifies records for one species listed as provincially Special Concern, Snapping Turtle. These records are likely associated with the wetland habitat found within the study area including the Lover's Creek PSW.

The following list only considers species that have a moderate or high possibility of occurring within the study area:

- American Ginseng (Endangered): Potential habitat for this species occurs within the Sugar Maple Deciduous Forest
- Blanding's Turtle (Threatened): Potential habitat for Blanding's Turtle within Lover's Creek PSW
- Bobolink (Threatened): Potential nesting habitat for Bobolink occurs within the agricultural lands of the study area;
- Butternut (Endangered): While no Butternut were identified during 2021 field surveys, potential
    - habitat for this species occurs within the forest and treed swamp communities in addition to individual trees on rural properties or within hedgerows
- Eastern Meadowlark (Threatened): Potential habitat for Eastern Meadowlark occurs within the agricultural lands of the study area
- Least Bittern (Threatened): Potential habitat for Least Bittern occurs within Lover's Creek PSW
- Endangered Bats (Little Brown Myotis, Northern Myotis and Tri-colored Bat): Forest and treed swamp (wetland) habitat provides potential habitat for Endangered bat species.

3.3.3 Watercourses and Fish Habitat

The study area includes numerous drainage features all associated with Lover's Creek within the Lover's Creek subwatershed. The main branch of Lover's Creek is located centrally in the Lover's Creek PSW, and several unnamed tributaries of Lover's Creek discharge to the PSW. On the west side of the main branch, tributary drainage crosses Innisfil Beach Road from north to south, then crosses the 10th Sideroad, before crossing Innisfil Beach Road a second time northward, entering the PSW wetland and ditch network of the roadway. Ditch drainage discharges to the PSW as well as to the main Lover's Creek crossing.

The fish community in Lover's Creek and tributaries is recognized as supporting coldwater habitat for Brook Trout (Salvelinus fontinalis), however the main branch at Innisfil Beach Road generally hosts a warmwater assemblage of commonly found fish species. The Lover's Creek watershed includes municipal drains, regulated by the Ontario Ministry of Agriculture. The drains present in the study area are characteristic of permanently flowing water, with sensitive fish species present that includes fall spawning fish species such as Brook Trout. There are no records of aquatic SAR in this watershed. All drainage features, including ditch networks hydraulically connected to tributaries and creek crossings are protected under the Federal Fisheries Act.

3.3.4 Groundwater

The Ministry of Environment, Conservation and Parks (MECP) Source Protection Information Atlas was reviewed to confirm if the subject study area is located within a designated vulnerable area. The study area is with a Highly Vulnerable Aquifer with a score of 6, and an intake Protection Zone 3. These scores indicate that there is no significant threat to drinking water in these locations and therefore no specific polices apply from the South Georgian Bay Lake Simcoe Source Protection Plan.

There are private wells present within the study area. If dewatering is required for construction, compliance with applicable standards and permits will be required.

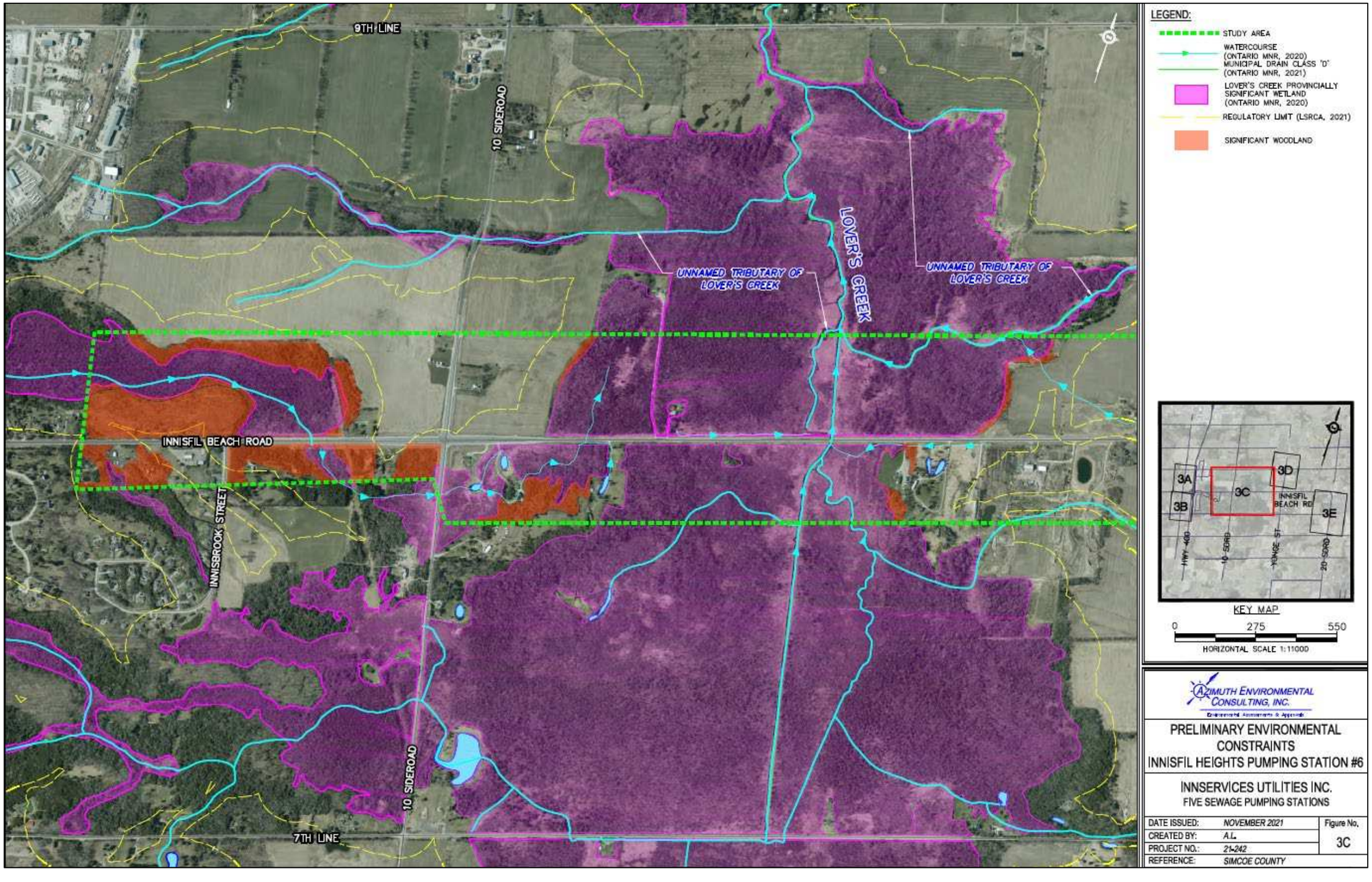


Figure 6 – Key Natural Heritage Features

3.4 Cultural Environment

Archaeological Services Inc. on behalf of Ainley Group completed a Stage 1 Archaeological Assessment, a scoped Cultural Heritage Report as part of the IH SPS 6 Municipal Class EA. Copies of the full reports are included in Appendix F and H.

3.4.1 Stage 1 Archaeological Study

Background research determined that there are five previously registered archaeological sites located within 1km of the Study Area, three of which are located within 50m of the study area. Current conditions indicate that parts of the Study Area exhibit archaeological potential. These lands require Stage 2 Archaeological Assessment by test pit and pedestrian survey at 5m intervals prior to any proposed construction activities. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees, or being previously assessed. These lands do not require further archaeological assessment. Further archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands if the proposed work extend beyond the current Study Area.

3.4.2 Cultural Heritage Resources

The purpose of the cultural heritage report is to present an inventory of known and potential built heritage resources and cultural heritage landscapes, identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures. The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with a rural land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are no previously identified features of cultural heritage value within the Innisfil Heights Sewage Pumping Station 6 study area. A total of four cultural heritage landscapes (CHL) and two built heritage resources (BHR) were identified during the fieldwork. Figures 6 and 7 provide mapping completed by ASI indicating the presence of heritage resources as described.



Figure 7 – Location of Identified BHR and CHL in the West Half of the Study Area



Figure 8 – Location of Identified BHR and CHL in the East Half of the Study Area

(Source: Cultural Heritage Report by Archaeological Services Inc.)

3.5 Climate Change

As per the MECP guidance document referenced in Section 2.9, the project's potential impacts to climate change and how climate change may impact the project were considered. Climate change concerns generally relate to the increased concentration of greenhouse gases in the atmosphere, which can result in a rise in the global mean surface temperature. Increased temperatures worldwide are creating changes in climate that is resulting in extreme weather events.

The current project is relatively small in scale, as it involves the construction of only one sewage pumping station. The construction footprint is limited, and it extends up to the property line, where it will connect to the future municipal system through the sewage forcemain located in the ROW. Climate change has the potential to result in increased storm events that can lead to flooding. This is a small-scale project and a long-term increased risk to surface flooding is not anticipated; however, the project will increase paved surfaces and therefore, impermeable areas. During the preliminary design stage, we may explore the implementation of Low Impact Development (LID) measures for increased infiltration, which will assist in reducing potential environmental impacts. Stormwater will be managed to control both storm flow maintained at the pre- development level and quality managed to meet requirements.

Mitigation and adaptation measures will be further discussed in Section 10.11.

4. PHASE 1 – PROBLEM/OPPORTUNITY STATEMENT

The purpose of Phase 1 of the Class EA process is to develop a problem/opportunity statement that clearly identifies the issue, challenge, or opportunity that is being reviewed and addressed. The problem/opportunity statement that has been developed for InnServices' New Innisfil Heights Sewage Pumping Station 6 is as follows:

> *"Identify and develop a preferred solution (location) for new sewage pumping station 6 on Innisfil Beach Road to meet future capacity requirements in the Strategic Settlement Employment Area."*

5. PHASE 2 - PROPOSED ALTERNATIVE SOLUTIONS

5.1 Preliminary Screening Criteria

As part of Phase 2 of the Class EA process, several alternatives have been developed to address the problem/opportunity statement. A Preliminary Screening was conducted to eliminate alternatives that would not meet the basic criteria below.

- Screening Criteria No. 1 – Does the alternative meet the problem/opportunity statement?
- Screening Criteria No. 2 – Does the alternative meet the minimum technical requirements?
- Screening Criteria No. 3 - Can the alternative be implemented without facing significant impacts that mitigation measures could not address?

5.2 Preliminary Screening of Long List Alternative Solutions

The long list of alternative solutions was evaluated against the screening criteria outlined in Section 5.1. The results of the screening evaluation are presented in Table 2, alternatives carried forward for further consideration are highlighted in light blue.

Table 2 – Ability of Alternatives to Meet Preliminary Screening Criteria

Alternative	Description	Feasibility
A: Do Nothing	No changes from the existing conditions.	Will not solve the problem, as it does not facilitate development stated in the MSP and the Town of Innisfil Official Plan. Not carried forward for further evaluation.
B: Limit Development	Inconsistent with the MSP and Town of Innisfil Official Plan.	Not feasible. This option will not be carried forward for further evaluation.
C: Construction of a New Pumping Station	Will allow for the collection and conveyance of all wastewater generated within the Innisfil Heights economic area to the Water pollution Control Plant (WPCP) and facilitate development consistent with the Town of Innisfil Official Plan.	Six alternative locations have been identified for evaluation.

5.3 Alternative Sites for the Shortlisted Solutions

The footprint of the SPS is small in comparison to the land parcel of the study area. The full length of the parcel frontage was evaluated to result less inconvenience to the property owner, thorough geotechnical investigation (boreholes results), and elevation changes across the site. Selected land parcels which are along Innisfil Beach Road were picked to avoid commercial-used lands, stay away from any nearby structures to the frontage, and specified residential dwelling/parcels, if possible. The alternative sites identified for evaluation were:

Alternative 1A

1A is located on the north side of Innisfil Beach Road, west of 10 Sideroad. This site is within close proximity to the existing catchment area. The site is on private property with a land use characterized as agricultural.

Alternative 2A

The site is located on the south side of Innisfil Beach Road, west of 10 Sideroad within the KSHF Wetland adjacent to the Lover's Creek. The site is on private property with a land use characterized as potential significant woodland habitat and within lands regulated by the LSRCA.

Alternative 3A

The site is located on the north side of Innisfil Beach Road, west of 10 Sideroad. The site is on private property with a land use characterized as agricultural and located outside of lands regulated by the LSCRA.

Alternative 4A

The site is located on the South side of Innisfil Beach Road, East of 10 Sideroad within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) and within a LSRCA regulated area.

Alternative 5A

The site is located on the north side of Innisfil Beach Road, east of 10 Sideroad within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) and within an LSRCA regulated area.

Alternative 6A

This alternative does not meet the minimum technical requirements because the excessive depth of a wet well required to provide gravity drainage to the site.

An overall plan showing each alternative is provided in Figure 9.



Figure 9 – Preliminary Alternatives (1A – 6A)

5.4 Secondary Screening of Alternative Sites for the Shortlisted Solutions

A preliminary analysis of site alternatives was conducted to evaluate the environmental impacts each alternative might present and the potential for mitigation. Table 3 provides a discussion on the extent to which each site alternative meets the preliminary screening criteria.

Table 3 – Secondary Screening of Alternative Sites

Alternative	Discussion on Ability of Alternative to Meet Preliminary Screening Criteria	Carried Forward for Further Evaluation
Alternative 1A	Preliminary analysis indicates that it will be possible to construct the SPS at this site while meeting the minimum technical requirements and without potential significant impacts that may be unmitigable.	✓
Alternative 2A	The site is located within the KSHF Woodland adjacent to the Lover's Creek complex in an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 3A	Preliminary analysis indicates that it will be possible to construct the SPS at this site while meeting the minimum technical requirements and without facing major constraints.	✓
Alternative 4A	The site is located within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) an within an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 5A	The site is located within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) an within an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 6A	This alternative does not meet the minimum technical requirements because the excessive depth of a wet well required to provide gravity drainage to the site.	✗

Based on the ability of alternatives to meet the above three preliminary screening criteria, 1A and 3A are found to be the alternatives that can be carried forward for further evaluation. They are analyzed as possible site locations to construct the SPS with minimum technical requirements and the least potential environmental impacts.

6. Detailed Evaluation of Alternative Solutions

6.1 Detailed Evaluation Criteria

It was found that Alternatives 1A and 3A passed the preliminary screening criteria to be carried forward for further evaluation. These proposed alternative solutions were then evaluated with respect to their impact on the environment. The completion of the evaluation considered a number of factors, which were separated into evaluation criteria:

- **Physical/Technical Environment:** Suitability of Elevation and Topography, Geotechnical Suitability, Hydrogeological Suitability, Hydraulics and Utilities
- **Natural Environment:** Proximity to Key Natural Heritage Feature or Regulated Area, Terrestrial Vegetation/Wildlife (Including SAR), Surface Water and Fisheries and Groundwater

- **Cultural and Social Environment:** Archaeological Resources, Cultural Heritage Resources, Aesthetics (Noise, Odour, Visibility), Impacts to Property Owners, Climate Change/Air Quality and Impacts to Adjacent Business/Commercial Properties
- **Economic Environment:** Operating and Maintenance Costs, Capital costs and Land Acquisition Costs

6.2 Evaluation Scoring

A scoring system shown in Table 4 was created where a score of 1-2 represents the most preferred alternative, as it will address the key concerns, but create the least amount of environmental impact. A score of 5 is indicative of a least preferred alternative as it has a higher potential to impact the environment.

Table 4 – Scoring System

Level of Impact	
No Impact	1
Minimal Impact	2
Moderate Impact	3
Significant Impact	4
Most Significant Impact	5

The evaluation scoring for each alternative is presented in Table 5 to provide a simplified, visual comparison. A full discussion on the evaluation of each criteria is found in Section 6.3.

Table 5 – Evaluation Matrix for Alternative 1A and 3A

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
TECHNICAL ENVIRONMENT (the DO-NOTHING option does not address the technical environment)			
Suitability of Elevation and Topography	3	3	Under both Alternatives the location of sites poses a technical disadvantage due to topography. Preliminary layout indicates that there is adequate space for station footprint within each Alternative site.
Geotechnical Suitability	2	4	Preliminary review of area under Alternative 1A shows soils are likely sandy silt to sandy glacial till which is considered favourable soil type for the SPS construction. Investigation of area of Alternative 3A shows Soils likely to be glaciolacustrine clays and silts to the west and organics to the east portion of the property. Organics are not suitable for the support of foundations.
Hydrogeological Suitability	3	4	Hydrogeological conditions to be confirmed. Preliminary review indicates water levels at Site 1A may be deeper than water levels at 3A.
Hydraulics	2	2	Under both Alternatives careful consideration to the hydraulics would be required during design and transient analysis of the forcemain would be required to ensure proper placement of air/vacuum release valves.
Utilities	3	1	Under both site locations overhead hydro is located on opposite side of road, which lends to an easier construction. However, other utilities are located on the southeast corner of the lot close to Site 1A including an existing transformer, telecommunications junction box and a gas line. This may require additional coordination and permits.
NATURAL ENVIRONMENT			
Proximity to Key Natural Heritage Feature or Regulated Area	1	3	Alternative 3A site is within a regulated area under the LSRCA and is within 100m of the Lover's Creek Provincially Significant Wetland. Alternative 1A is just outside of the LSRCA regulated area. The Do-Nothing option would have no impact on natural heritage features.
Terrestrial Vegetation/Wildlife (Including SAR)	1	1	Both alternatives avoid major impacts to vegetation and wildlife. The preferred alternative will be studied further to consider site specific impacts. Do Nothing avoids impact to terrestrial vegetation and wildlife.
Groundwater	1	3	Under Alternative 3A there is more potential for dewatering to be required during construction. The Do-Nothing option would not have an impact on groundwater.
CULTURAL AND SOCIAL ENVIRONMENT			
Archaeological Resources	3	3	Both site alternatives exhibit archaeological resource potential and further investigation is required to confirm and to develop suitable mitigation measures. The Do-Nothing option would not have an impact on archaeological resources.
Cultural Heritage Resources	1	1	Both site alternatives have been confirmed as having no potential for Cultural Heritage impacts. The sites are more than 50m from all heritage properties. The Do-Nothing option would not have an impact on cultural heritage resources.
Aesthetics (noise, odour, visibility)	2	2	Both alternatives are nearby to one nearby residential home. Both alternatives are situated on agricultural land, minimizing proximity to the public. The Do-Nothing option would not have an aesthetic impact.
Impacts to Property Owners	4	4	Both Alternatives will impact private property owners, as land acquisition is required. Temporary impacts are anticipated during construction and may impact traffic along Innisfil Beach Road. Mitigation measures can be implemented to minimize disturbances. The Do-Nothing option would not have an impact on property owners.
Climate Change/Air Quality	3	3	Both alternatives are similar in air quality and climate change impacts. The Do-Nothing option would mean that the Strategic Settlement Employment Area would not be serviced by a wastewater system.
Impacts to Adjacent Business/Commercial Properties	3	3	Both alternatives will have some impact on agricultural land use. Land will need to be acquired from farm lands. The Do-Nothing option would have a significant impact on business and commercial properties because they would no be developable.

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
ECONOMIC ENVIRONMENT (the Do-Nothing option would have significant economic impacts for future growth)			
Operating and Maintenance Costs	3	2	Alternative 1A will have higher long term operating costs since it requires the longest pumping distance.
Capital Costs	3	3	The capital costs for the SPS will be similar under each alternative site location.
Land Acquisition Costs	3	3	Both site locations will require private property acquisition.
TOTAL SCORE			
	41	**45**	

6.3 Evaluation Discussion

6.3.1 Technical/Physical Environment Evaluation

a) Suitability of Elevation and Topography

Alternatives 1A and 3A both pose a technical disadvantage due to topography referring to the physical features and characteristics of the surface of a particular area, such as elevation, shape of the land and natural features.

The site of Alternative 1A is at significantly higher elevation from surrounding lands, minimizing the potential for excessive dewatering requirements.

There is adequate space for the station footprint within each Alternative site based on preliminary layout.

b) Geotechnical Suitability Concerns

Alternative 1A likely has sandy silt to sand glacial till soil types based off the preliminary review of area. Those two soil types are considered favourable types for the SPS construction. Investigation shows that soils in Alternative 3A area are likely to be glaciolacustrine clays and silts to the west, and organics to the east portion of the property. For construction of foundations, organics are not considered a suitable material.

c) Hydrogeological Suitability Concerns

Alternative 1A may have deeper water level (lower elevation of the water table or groundwater surface within an aquifer) than Alternative 3A. Excessive pumping or extraction of groundwater from wells can cause deeper water level, which might result in water shortage for human consumption and agriculture.

d) Hydraulics

Alternatives 1A and 3A both take into considerations the hydraulics (properties and behavior of liquids, such as pressure, velocity) during design and transient analysis of the forcemain to ensure proper placement of air/vacuum release valves. Under Alternative 1A, before the forcemain raise up to the discharge location (280 mASL), it will need to travel downwards to approximately 245 mASL first at the intersection with Young Street.

e) Utilities Impacts

Under both Alternatives 1A and 3A, there are utility considerations. Hydro poles are located on the southern side of Innisfil Beach Road, which lends to easier construction as relocation of the hydro poles would not be required. Close to the site of Alternative 1A there are other utilities located on the southeast corner of the site including a transformer, telecommunications junction box, and an underground gas line, additional coordination and permits may be required.

6.3.2 Natural Environment Evaluation

a) Proximity to Key Natural Heritage Feature or Regulated Area

Alternative 3A site is within a regulated area under the LSRCA and is within 100m of the Lover's Creek Provincially Significant Wetland. Alternative 1A is outside of the LSRCA regulated area. The footprint of the SPS is approximately 10m x 15m with wetwell/drywell configuration. The

forcemain under each alternative are identical, which is connected to the trunk sewer located along the Innisfil Beach Road. Impacts on birds are minimal as the footprint is small. (Footprint of the site, wetwell type, actual drawing, FM would be same for all alternatives, birds' impact is minimal)

b) Terrestrial Vegetation/Wildlife (Including SAR)

Both sites of Alternative 1A and 3A are within land designated as agricultural. There is potential for nesting habitat for Bobolink (Threatened) and Eastern Meadowlark (Threatened) to occur within the agricultural lands of the study area. While no Butternut (Endangered) were identified during 2021 field surveys, potential habitat for this species occurs within the forest and treed swamp communities in addition to individual trees on rural properties or within hedgerows.

a) Surface Water and Fisheries

All drainage features, including ditch networks hydraulically connected to tributaries and creek crossings are protected under the Federal Fisheries Act. There are no drainage features present within either site Alternative 1A or 3A.

b) Ground Water

There is more potential for dewatering to be required during construction under Alternative 3A as there is a MECP recorded water well locating approximately 130m away from the proposed site location.

6.3.3 Cultural and Social Environment Evaluation

a) Archaeological

Through the Stage 1 Archaeological Assessment it was determined that portions of the study area exhibit archaeological potential. Both Alternative 1A and 3A need further Stage 2 investigation to confirm and to develop suitable mitigation measures.

b) Cultural Heritage

Alternative 1A and 3A have no potential for Cultural Heritage impacts. Both sites are more than 50m from all heritage properties. There is no underground SPS components proposed for both alternatives will be placed within cultural heritage parcels.

c) Aesthetics (Noise, Odour, Visibility)

Both Alternative 1A and 3A are close to one nearby residential home and situated on agricultural land. Alternative 3A is approximately 50m closer to the closest residential or commercial building than Alternative 1A. Noise and odour issue could be addressed by mitigation plans during detail design stage. Visibility impacts would be the same for both alternatives to Property Owners.

d) Impacts to Property Owners

Both Alternatives will impact private property owners as the sites are both on private property and land acquisition will be required. Temporary impacts are anticipated during construction to surrounding land owners and may impact traffic along Innisfil Beach Road. To minimize disturbances, mitigation measures can be implemented.

e) Climate Change and Air Quality

Alternative 1A and 3A have similar impacts on climate change and air quality. Typical air quality impacts from construction are anticipated such as exhaust fumes from heavy machinery, but will be limited in duration. Dust will be expected from the construction works to a minor degree and will be managed through standard construction practices. There are sensitive receptors such as residential dwellings along Innisfil Beach Road, with some being within 200m of sites Alternative 1A and 3A.

f) Impacts to Adjacent Business or Commercial Properties

Both Alternatives will have some impacts on agricultural land use as both lands are used for agricultural purpose for now.

6.3.4 Economic Environment

a) Operating and Maintenance Costs

Alternative 1A has higher long-term operating costs than Alternative 3A due to the longer pumping distance. Under Alternative 3A, the long-term operating costs are likely similar at this site when compared to others, considering that the lower static head differential may be balanced out to a degree by the longer pumping distance.

b) Capital Costs

Similar capital costs for the SPS under each alternative site location as the wetwell depth is determined by total wastewater flow and the flow is identical for both alternatives.

c) Land Acquisition Costs

Private property acquisition is required under both alternatives. Both lands are currently under agricultural uses and they are adjacent to each other. Therefore, the market values are similar.

7. CONSULTATION

The Innisfil Heights Sewage Pumping Station 6 Class EA included an active public consultation program that sought the comments and concerns of the public and other stakeholders. Responses to comments and concerns were provided throughout the project via a number of means, including responses provided by project team members to emails and phone calls, and materials provided to the project contact list and posted on the project website.

A summary of all comments received and responses provided can be found in Table 6. A complete consultation record can be found in Appendix M – Consultation Records. The contact information for all public member comments has been removed.

7.1 Notice of Study Commencement

A Notice of Study Commencement was placed in the Innisfil Journal newspaper for the September 16th and 30th, 2021 editions and a copy of the notice was also posted on the Town of Innisfil's and InnServices' websites. A mail out to area residents adjacent to the project study area, relevant review agencies as well as Indigenous communities and nations was issued on September 16th, 2021 providing notification of the commencement of the project. Copies of the issued letters and notices, as well as the agency mailing list and copies of all comments received and associated responses as a result of the Notice of Study Commencement are included in Appendix I.

MECP staff provided a formal letter dated December 20th, 2021 that acknowledged that the study is following the approved environmental planning process for a Schedule B project under the Municipal Class Environmental Assessment. The letter had attached "Areas of Interest" document that provides guidance regarding the ministry's interests with respect to the Class EA process. The letter continued to describe the Crown's duty to consult and provided information on Indigenous communities the proponent is required to consult with as they may be potentially affected by the proposed project. Comments were received from the City of Barrie regarding future works and servicing in the City of Barrie through adjacent lands to the study area. A summary of the comments and responses is also provided in Table 6 in Section 7.6.

The project team received a letter from Curve Lake First Nation in regard to the proposed Innisfil Heights Sewage Pumping Station. The letter provided information on *Curve Lake First Nation's Consultation and Accommodation Standards*. The project team responded to Curve Lake First Nation and an introductory project meeting was held on January 12th, 2022 to review the project with Curve Lake First Nation. Ongoing consultation with Curve Lake has occurred throughout the project process and is further described in Section 7.4.

7.2 Notice of Public Information Centre

A Notice of Public Information Centre was published on the Town of Innisfil's & InnServices' websites and social media accounts in April 2022. The notice was published in the *Innisfil Journal* in the March 31st and April 28th, 2022 editions.

The PIC virtual presentation material provided information pertaining to the Municipal Class EA Schedule 'B' planning process and its application to the current project. The scopes of the location of the study area were identified as well as a description of the existing conditions. Six (6) Alternatives to address the identified problem/opportunity statement were presented to the public for their review and input. An Evaluation Table was created that summarized the potential impacts associated with each alternative for each site location. Through this evaluation, a preliminary preferred solution was identified although it was noted that the final Preferred Solution would be selected based on continued evaluation and consideration of comments received during the consultation period. With the PIC being conducted as a pre recorded presentation, it enabled the presentation to be uploaded to the Town of Innisfil's & InnServices' websites for interested parties to view at a later date.

In response to the Notice of PIC, comments were received from Saugeen Ojibway Nation (SON) that indicated they had reviewed the notice provided and determined the project was outside of SON territory and would not be commenting further. Inquiry was received from Huron Wendat Nation regarding completed archaeological studies completed and future field investigations. A copy of the Stage 1 Archaeological Assessment report and the Cultural Heritage report were sent to Huron Wendat Nation on May 30th, 2022. This correspondence also informed Huron Wendat Nation that at this time no field work has been scheduled and that communication would continue with Huron Wendat Nation.

The project team also received comments from the LSRCA. Planning staff from the LSRCA identified that Alternative 1A site is not within lands regulated by LSRCA, but the site within Alternative 3A is and a permit would be required for any work at this site. It was further identified that both Alternative 1A and 3A are identified as ecological significant groundwater recharge areas under the Lake Simcoe Protection Plan.

Appendix J includes a copy of the Notice of the PIC period, and Appendix K contains a copy of the PIC materials.

7.3 Notice of Completion

The Notice of Completion was posted on the Town of Innisfil's and InnServices' websites on February 21st, 2025, to indicate that the Project File Report was available for public review.

In response to the Notice, comments were received from Hydro One Networks Inc. and the Ministry of Citizenship and Multiculturalism, both confirming that they had no comments on the report.

A copy of the Notice of Completion is included in Appendix L.

7.4 Consultation with First Nations

Throughout this Class EA, engagement with the following First Nation (FN) has occurred.

- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation
- Beausoleil First Nation
- Curve Lake First Nation
- Mississaugas of Scugog Island First Nation
- Hiawatha First Nation
- Alderville First Nation
- Huron-Wendat Nation
- Métis Nation of Ontario (MNO)
- Saugeen First Nation
- Chippewas of Nawash Unceded First Nation
- Saugeen Ojibway Nation (as the consultation contact for Saugeen First Nation and Chippewas of Nawash Unceded First Nation).

Consultation with the above mention communities is required as outlined in the MECP's letter dated December 20th, 2021.

The Notice of Study Commencement was sent to all the above-mentioned FNs on October 5th, 2021, to inform them about the initiation of this EA. The notice outlined the type of project, provided a brief overview, and included the contact information of the project team. Following the distribution of the notice, MNO and Beausoleil First Nation acknowledged receipt on the same day.

On November 1st, 2021, the Saugeen Ojibway Nation (SON) indicated that this EA was not a priority for them and stated they would not be further engaged.

The Huron-Wendat Nation expressed interest in any archaeological studies or fieldwork related to the project. The Stage 1 Archaeological Assessment report was provided on May 30th, 2022.

Details of the consultation with Curve Lake First Nation (CLFN) are provided in Section 7.4.1.

The Notice of Public Information Center was issued on March 31st, 2022, to provide details about the availability date of the presentation materials and the link to access it. It also included information on the method and timeline for submitting comments.

SON confirmed on April 11th, 2022, that the project is outside of their territory and, therefore, they would not be participating in the consultation. The Huron-Wendat Nation requested to participate in the Stage 2 Archaeological Field Assessment on June 8th, 2022, which subsequently took place on July 5th, 2022.

Public Information Center was held on April 21st, 2022 and the comment deadline for public closed on May 12th, 2022. The preferred alternative solution was provided after public commenting period.

The Stage 2 Archaeological Field Assessment was conducted on September 6th, 2024. InnServices sent notices to all interested FNs on August 20th, 2024, with Ainley following up on August 30th, 2024. However, no participation requests were received.

The Haudenosaunee Development Institute (HDI) contacted the project team on September 10th, 2024, after the assessment, requesting participation. The project team informed HDI that the assessment report would be circulated for review.

On November 8th, 2024, the Stage 2 Archaeological Assessment report was provided to the Huron-Wendat Nation, Chippewas of Rama First Nation, CLFN, and HDI. On January 20th, 2025, the Huron-Wendat Nation provided a letter stating that they had no outstanding concerns regarding the report. No comments or concerns were received from the other FNs.

The Notice of Completion was issued on February 21st, 2025, to provide details about the availability date of the Project File Report and the link to access it. It also included information on the method and timeline for submitting comments.

As noted, the Notice of Study Commencement and the Notice of Public Information Centre were provided to Alderville First Nation on the respective dates listed above. No responses were received during the EA process indicating a desire to engage or participate. After the Notice of Completion was issued, Alderville First Nation contacted the project team and shared their Consultation Protocol, requesting that a full consultation process be carried out. While the project team fully respects the principles outlined in the protocol, this Class EA has now been completed. Given the timing of Alderville First Nation's request for engagement, it is not feasible to restart a separate consultation process with them. Additionally, the Proponent's current policy does not allow funding dedicated consultation processes.

7.4.1 Consultation with Curve Lake First Nation

Teleconference and in-person meetings were held with members of Curve Lake First Nation to discuss the project as follows:

An initial introductory meeting held on January 12th, 2022 – A general overview of this class EA and consultation framework were provided to CLFN. CLFN advised they will review all draft reports and provide feedback and recommendations regarding mitigation plans. By the time of meeting, the progress of background studies was presented to CLFN. Background studies including Cultural Heritage report, Stage 1 Archeological report, Environmental Constraints report and geotechnical desktop report were submitted to CLFN for review on February 28th, 2022.

Consultation meeting held on May 4th, 2022 – CLFN reviewed reports that were provided to date.

Discussion on Environmental Constraints report – CLFN shared their comments in a letter dated May 11th, 2022. Ainley responded with a letter on May 21st, 2022. These comments were further discussed during a teleconference on June 2, 2022.

Consultation meeting held on June 2nd, 2022 – Reports were reviewed by CLFN. Once the dates of additional field studies are confirmed, Ainley agreed to provide CLFN with the opportunity to join the field review.

CLFN participated in a site visit on July 5th, 2022. Prior to the visit, Ainley provided them with the conceptual site plans for review.

A consultation meeting was held on September 23rd, 2022 – This meeting was to present the PIC display boards to CLFN to provide opportunities to comment and ask questions.

CLFN issued a Technical Field Memorandum on September 29th, 2022, addressing the land base and ecology surrounding the proposed SPS and its alternative locations. Additionally, they noted that it requires the development of an Environmental Monitoring Plan to ensure cultural integrity during and after the construction phase.

Ainley provided a comparison letter regarding IH SPS 6 alternatives to CLFN on April 6th, 2023.

A letter was issued to CLFN to inform them the intention to start the Notice of Completion on June 19th, 2023.

CLFN confirmed on March 5th, 2024 that this EA can proceed to next step (completion stage) if all actions mentioned in previous communications are completed.

An invitation was sent to CLFN on August 20th, 2024, to attend the Stage 2 Archaeological field assessment. The Stage 2 Archaeological Assessment report was subsequently provided to CLFN for review on November 8th, 2024.

7.5 Consultant with Property Owners/Consulting Group

The Public Information Centre identified Alternative 1A – site location 7524 10th Sideroad, as the preliminary preferred solution. On August 15th, 2022, a letter was provided to the property owner advising that this alternative best addressed the need for a new sewage pumping station with limited potential to impact the environment. A response was requested and a draft site plan was provided.

Ainley Group and InnServices met with Jeff Wohlgemuth, the owner of 7524 10th Sideroad, to further discuss the site as the preferred option for siting IH SPS 6.

Mr. Wohlgemuth discussed that Eisses Farms is a family-run business that relies heavily on the farmland they own. The Eisses family has previously had land acquired from them for municipal infrastructure further east on Innisfil Beach Road.

Ainley outlined why the site is preferable for the location of the sewage pumping station and discussed benefits to the property, such as a future connection to the system. However, Mr. Wohlgemuth, made it clear that they see no benefit to allowing the SPS to be situated on their property. He noted that he had reviewed the PIC presentation and noted that the second preferred option (site 2) is the property across the road and that the scoring is very similar. The elevation of site 2 is 3m lower than site 1 and therefore is better from a technical perspective. The property owner noted that the other site was bought by a developer and therefore the SPS could be a benefit for them. Whereas, Eisses Farms runs a substantial farming operation on their land and have no interest in future development. Ainley will consider this in the evaluation under scoring related to property owner impacts and business impacts.

Ainley reviewed the EA scoring sheet and reconsidered Evaluation Criteria Items; Impacts to Property Owners' and 'Impacts to adjacent properties increasing Alternative 1A's score to 5. It was noted that there are potential benefits to the owner of 7535 10th Sideroad that could be negotiated. Additionally, it

was confirmed that the station would not be built within 100m of the adjacent wetlands and in the vicinity of anticipated poor-quality soils and therefore scoring of items was revised.

Curve Lake attended a site visit to view both sites from an ecological perspective and provided comment that site 3A was preferrable.

Following review by Ainley and InnServices, it was determined that the property located at 7535 10th Sideroad, would be a more suitable location for the pumping station. This property is privately owned, with Royal LePage Your Community Realty Inc. serving as the consulting firm for the property owner and responsible for providing comments on project-related documents.

The property owner met with InnServices and Ainley on July 3rd, 2023, to discuss the SPS location and the necessary field studies for the land. A Permission to Enter agreement was finalized on September 26th, 2023. Following a geotechnical investigation assessing soil suitability, the SPS location was determined. Access to the SPS was coordinated between InnServices and the property owner to utilize the existing entry to the land, as illustrated in the subsequent figure presented in Section 8.

7.6 Summary of Comments

The following Table 6 summarizes all comments received during the EA period. Contact information for all public member comments has been removed.

Table 6 – Comment Summary Table

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
AGENCY COMMENTS			
Notice of Commencement – September 2021			
1.	Public Enquiries Contact Centre Indigenous Services Canada and Crown Indigenous Relations and Northern Affairs Canada aadnc.infopubs.aandc@canada.ca	**Comment received via email September 16, 2021:** An automated response was received, "This is an automatic confirmation that we have received your message."	No response required.
2.	Ralph Scheunemann City of Barrie Ralph.Scheunemann@barrie.ca	**Comment received via email September 16, 2021:** "The map in the attached notice is out of date and include the Hewitt's and Salem Secondary Plan Areas which were annexed by Barrie in 2010. Also, I thought that Innisfil was interested in revisiting servicing from Barrie, will that be looked at in a separated study our does the Study Area in the attached map also need to be updated?" **Comment received via email October 6, 2021:** "Please note that an area greater than what is suggested in the Innisfil Master Servicing Plan (see catchment associated with IH SPS #3 in the figure below) could potentially be serviced by gravity from Barrie which could affect the ultimate sizing of the IH SPS 6. I'm curious about one thing. If I understand the map below correctly, the 20 SR sewage pump station and New SPS#2 pump station are ultimately needed to service the IH SPS 6. What is the status of those pump station EA approvals? Is there an interim option that doesn't require the 20 SR SPS and the upgrades associated with the New SPS#2? I assume there potentially is otherwise the existing SPS #6 servicing the Innisfil Town Campus wouldn't work."	**Response provided by Ainley Group October 5, 2021:** "We have revised the boundary and will ensure that the updated map is used moving forward. This environmental assessment is for one of the sewage pumping stations outlined in the 2018 Master Servicing Plan's preferred solution for the Innisfil Heights economic area only. The preferred solution identifies Option 6B - Establish a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road' for the first phase of Development. InnServices will be working on a 2022 MSP update which will re-visit the servicing to Barrie Option for Stroud and Innisfil Heights." **Response provided by Ainley Group November 1, 2021:** "Please find attached, our response to your follow-up question about the IH SPS 6" A copy of response letters found in Appendix M of the Project File Report
3.	Peter Dorton Senior Project Manager Ministry of Transportation 159 Sir William Hearst Avenue, 7th Floor Toronto, ON M3M 0B7 peter.dorton@ontario.ca	**Comment received via email September 16, 2021:** "The Innisfil Heights Sewage Pumping Station 6 Study Area is beyond MTO's permit control area. MTO review and approvals are not required."	MTO has been removed from the project contact list.
4.	Ken Mott District Planner NDMNRF - Midhurst District	**Comment received via email September 17, 2021:** "Could I ask you to please remove Dan Thompson's name from your contact list for this and any other projects in Innisfil and only use my contact info below? Thanks for your attention to this."	Contact list has been updated.

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
	Ken.Mott@Ontario.ca		
5.	Chunmei Liu Regional Environmental Planner – Central Region MECP chunmei.liu@ontario.ca	**Comment received via email December 20, 2021:** "The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Town of Innisfil (proponent) has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Class Environmental Assessment (Class EA). The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. Further information is provided at the end of the Areas of Interest document relating to recent changes to the *Environmental Assessment Act* through Bill 197, Covid-19 Economic Recovery Act 2020." The letter continued to describe the Crown's duty to consult and provided information on Indigenous communities the proponent is required to consult with as they may be potentially affected by the proposed project. A copy of the full letter and attachments can be found in Appendix M.	No response required.
Notice of Public Information Centre – April 2022			
1.	Ralph Scheunemann City of Barrie Ralph.Scheunemann@barrie.ca	**Comment received via email March 31, 2022:** "Where will the PS be located? Is there a document I can review? Is servicing from Barrie one of the alternatives being considered? Sounds like your Class EA might be finished before the Master Servicing Plan is updated. What if the Master Servicing Plan recommends servicing from Barrie?"	**Response provided by Ainley Group March 31, 2022:** The Class EA is going to propose a few locations for consideration. Those options are currently being developed and will be presented at the PIC on April 21st. The final option will be selected after the PIC, based on feedback from all public, agencies, InnServices, and First Nations. Servicing from Barrie is not part of this Class EA and will be looked at again in the next Master Servicing Plan update. If the updated MSP recommends servicing from Barrie, it would take the existing capacity of the system into consideration and include recommendations for increasing capacity if that is found to be necessary at that time.
2.	Brent Thomas Fire Chief Town of Innisfil/Town of Bradford West Gwillimbury bthomas@innisfil.ca	**Comment received via email April 1, 2022:** "No initial concerns from Fire at this time."	No response required.
3.	Taylor Stevenson Senior Environmental Regulations/Capital Projects Analyst Lake Simcoe Region Conservation Authority t.stevenson@LSRCA.on.ca	**Comment received via email May 4, 2022:** "Thank you for circulating the LSRCA for the above noted EA phase. Based on review of the presentation, I offer the following comments: • Alternative 1A is located outside of the LSRCA regulated area, therefore a permit will not be required from our office for the construction of the new Innisfil Heights Sewage Pumping Station. • Alternative 3A is regulated by the LSRCA for lands adjacent to a PSW, therefore a permit will be required from our office for the construction of the Innisfil Sewage Pumping Station.	**Response provided by Ainley Group May 4, 2022:** Thank you for the feedback. We will take the information into consideration when evaluating the alternatives.

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
		• Both Alternative 1A and 3A are identified as ecological significant groundwater recharge areas under the Lake Simcoe Protection Plan (LSPP). If there are any Planning Act applications required as part of the development, additional technical studies may be requested by LSRCA planning staff (e.g. stormwater management, water balance, phosphorous)."	
Notice of Completion – February 2025			
1.	Hydro One Networks Inc. SecondaryLandUse@HydroOne.com	**Comment received via email March 11, 2025:** "Please see the attached for Hydro One's Response." A copy of the response letter can be found in Appendix M.	No response required.
2.	Dan Minkin Heritage Planner Ministry of Citizenship and Multiculturalism Dan.Minkin@ontario.ca	**Comment received via email March 24, 2025:** "Please see our comments attached." A copy of the response letter can be found in Appendix M.	No response required.
INDIGENOUS NATION COMMENTS			
Notice of Commencement – September 2021			
1.	Métis Nation of Ontario Consultations Consultations@metisnation.org	**Comment received via email October 5, 2021:** An automated response was received, "The MNO is adjusting standard work practices due to the Covid-19 outbreak and to better enable staff to work remotely. **Please note that the MNO's Lands, Resources and Consultations (LRC) Branch will no longer review hard copy consultation notices mailed to MNO offices.** The LRC Branch will review all electronic notices and process them in accordance with our standard operating procedures. All consultation notices must be sent electronically to consultations@metisnation.org. The Métis Nation of Ontario's LRC Branch acknowledges your information notice. The MNO reserves the right to request additional information, meetings and consultations in respect of the project should the MNO deem it to be necessary."	No response required.
2.	Lance Copegog Executive Assistant to Chief and Council Beausoleil First Nation lcopegog@chimnissing.ca	**Comment received via email October 5, 2021:** "Please update your contact list to include Susan Copegog, Consultation. She can be contacted via email at consultations@chimnissing.ca."	Contact list has been updated.
3.	Dominic Ste-Marie Huron Wendat Nation Dominic.Sainte-Marie@wendake.ca	**Comment received via email October 8, 2021:** "Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will be necessary as part of this project? Are there any shapefiles (.shp) available for this project?"	**Response provided by Ainley Group November 10, 2021:** "The Class Environmental Assessment (EA) for Innisfil Heights Sewage Pumping Station 6 (IH SPS6) will include a Stage 1 Archaeological Assessment and a Cultural Heritage assessment. We will provide you with a copy once completed. If the Stage 1 Archaeological Assessment indicates that a Stage 2 assessment is necessary, the Stage 2 assessment will also be performed and its

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
			findings incorporated into the study. If any field work is required, you will be informed and there will be the opportunity for involvement. Please note that we will be completing five SPS Class EA's over the next several months including IH SPS 1, IH SPS 2, IH SPS 6, Stroud and 20th Sideroad SPS. The shapefile is relevant to all of the Class EA's outlined herein."
4.	Kaitlin Hill Lands and Resources Consultation Liaison Curve Lake First Nation Government Services Building 22 Winookeeda Street, Curve Lake, ON K0L 1R0 KaitlinH@curvelake.ca	**Comment received via email October 21, 2021:** "Please find attached a letter from Curve Lake First Nation in regard to the proposed Innisfil Heights Sewage Pumping Station. We look forward to learning more about your project." The letter provided information on *Curve Lake First Nation's Consultation and Accommodation Standards.* **Comment received via email November 6, 2021:** "Thank you for your e-mail. I suggest that we schedule a meeting to discuss the project in more detail – so that can better assess how to approach engagement and consultation. We are currently booking into January 2022. We are available the morning of January 12th at 10am if that works for your team? In the meantime, we would be interested in receiving any natural heritage studies or environmental studies to date. Please be advised that we prefer to have the opportunity to be directly participating in any environmental fieldwork of studies that may be taking place on our treaty territories. We have particular concern for cultural keystone species that have significant value to our community, as well as protecting our harvesting rights and having access to practice those activities."	**Response provided by Ainley Group November 5, 2021:** "Thank you for providing Curve Lake First Nation's feedback on the Class EA for the Innisfil Heights Sewage Pumping Station 6. Please find attached, our responses to the comments and questions. The study team is open to the formation of a Joint Consultation Committee, if Curve Lake First Nation considers the nature of our project to be appropriate for joint consultant. Please advise and we will reach out to you to discuss. Should there be additional questions or comments please feel free to contact us." A copy of the response letter including the CLFN letter can be found in Appendix M.
5.	Emily Martin Saugeen Ojibway Nation Environment Office manager.ri@saugeenojibwaynation.ca	**Comment received via email November 1, 2021:** "I am looking into this further, but my sense is this won't be a priority for our office and we won't be able to engage further."	No response required.
Notice of Public Information Centre – April 2022			
1.	Dominic Ste-Marie Huron Wendat Nation Dominic.Sainte-Marie@wendake.ca	**Comment received via email April 1, 2022:** Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will be necessary as part of this project?	**Response provided by Ainley Group May 30, 2022:** A Stage 1 Archeological report and a Cultural Heritage report were completed as a part of the EA process and are attached. The Stage 1 Archeological report shows that the recommended site alternative exhibits archeological resource potential and further investigation is required to confirm and develop mitigation measures. A Stage 2 archaeological assessment by pedestrian survey at five metre intervals has been recommended prior to any proposed construction activities.

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
			The cultural heritage report confirms that there is no potential for cultural heritage impacts. The recommended site alternative is more than 50m from all heritage properties. Please feel free to contact us if you have any questions or would like to discuss further.
2.	Emily Martin (she/her) Resources and Infrastructure Manager manager.ri@saugeenojibwaynation.ca	**Comment received via email April 11, 2022:** "Thank you for reaching out to the Saugeen Ojibway Nation's Environment Office. The project you contacted us about is outside of SON Territory so we will not be participating in consultation. For future reference, more information about the Saugeen Ojibway Nation's territory and consultation requirements can be found here: https://www.saugeenojibwaynation.ca/resources ."	No response required.
Notice of Completion – February 2025			
1.	Julie Kapyrka Consultation Manager Alderville First Nation jkapyrka@alderville.ca	**Comment received via email March 10, 2025:** "Please see attached." A copy of the response letter can be found in Appendix M. **Comment received via email April 4, 2025:** "Thank you for your e-mail. As per our original correspondence letter of March 10, 2025, please provide us with a Notice of Request to Consult as per guidance and direction in Alderville First Nation's Consultation Protocol (attached, see Pages 11-13)." A copy of the response letter can be found in Appendix M. **Comment received via email May 29, 2025:** "Thank you for your e-mail. Please follow the guidance in the letter issued by Chief Simpson regarding the consultation process and the information we expect to receive regarding this project. Regardless of whether InnServices has a Consultation policy or not, we expect to understand any and all impacts to our treaty rights and how they are being mitigated." **Comment received via email June 19, 2025:** "Thank you for your e-mail, however, this is not an appropriate Notice of Request to Consult – as laid out in our Consultation Protocol per the guidance in the correspondence letter from Chief Simpson. Please see pages 11-13 for the required information. Please send us the appropriate requested information. We can then assess the depth and breadth of consultation that may be required here. Please be advised that the PPS 2024 requires early engagement with First Nations regarding planning matters. Please also note that the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) has been recognized in Canada and is now law through the United Nations Declaration Act (UNDA). InnServices would do well to uphold the law and work to create more positive relationships with First Nations treaty rights holders. The Williams Treaties First Nations through the 2018 Settlement have	**Response provided by InnServices March 18, 2025:** "Thank you for your email. InnServices is committed to fostering strong relationships with First Nation groups and are open to future meetings to assist in your review of our project. Please note however that at this time, InnServices does not have an established First Nations Consultation Policy and will not be able to provide payment for fees including but not limited to capacity funding, review, and file fees. Please let me know if you have any questions." **Response provided by InnServices May 29, 2025:** "Thank you for your email. InnServices is committed to fostering strong relationships with First Nation groups and are open to future meetings to assist in your review of our project. Please note however that at this time, InnServices does not have an established First Nations consultation policy and will not be able to provide payment for fees including but not limited to capacity funding, review, site visits, and file fees. The Archaeological studies for this EA have been completed. If you are interested we can send you the final reports?" **Response provided by InnServices June 18, 2025:** "Thank you for your email. In response, please accept this email as a "Notice of Request to Consult" for the Innisfil Heights SPS 6 EA. Below is the link to the Project File Report which contains all of the Environmental Assessment information including the completed Stage 1 and 2 Archaeological study's, Environmental Impact Assessment and First Nations Consultation Records. Please let me know if you have any questions." **Response provided by Ainley Group June 27, 2025:**

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
		had their harvesting rights re-affirmed in ALL pre-confederation treaties made with the Crown. Communities have rights protected through treaty but also through Section 35 of the Canadian Constitution. Alderville First Nation has a responsibility to understand how projects undertaken by InnServices may impact our harvesting rights. We encourage InnServices to respect Alderville First Nation's Consultation Protocol and provide to us the requested information."	"Please find attached the response letter regarding the requirement to file the "Notice of Request to Consult." Should you have any questions or require further clarification, please don't hesitate to let us know." A copy of the response letter can be found in Appendix M.
PUBLIC COMMENTS			
Notice of Commencement – September 2021			
1.	SCS Consulting Group Ltd.	**Comment received via email February 23, 2022:** "We are following up to confirm when the Public Information Centres have been scheduled for each SPS. We understand that Innisfil Heights SPS No. 6 PIC is planned for Q1 2022. Please confirm."	**Response provided by Ainley Group March 22, 2022:** In response to your email below, we are still confirming the schedule of the PICs for the five sewage pumping stations. We can confirm that the PIC for IH SPS 6 is planned for April 21st. A notice will be issued shortly. We have been engaged by a First Nations Group which has lengthened the overall schedule of the project. As well, further consultation is required for the Stroud SPS which has delayed the PIC further into the year. If you have any additional questions, please do not hesitate to contact us.
Notice of Public Information Centre – April 2022			
	No comments were received from the public during the Notice of PIC consultation period.		
Notice of Completion – February 2025			
	No comments were received from the public during the Notice of Completion consultation period.		

8. PREFFERED SOLUTION

8.1 Preferred Site Location

Following the completion of the Public Information Centre and the review of all received comments, the preferred alternative location was initially identified at 7524 10th Sideroad. However, after negotiations with the property owner and the field visit with CLFN, the final Preferred Solution location was adjusted accordingly.

Alternative 3A – Site Location at 7535 10th Sideroad

The alternative best addresses the need for a new sewage pumping station with limited potential to impact the environment as following aspects:

- Proximity to Utilities: Located away from critical existing utilities such as a transformer, telecommunication junction box, and gas line, reducing the need for additional coordination and permitting.
- Efficient Pumping Distance: A shorter distance for pumping, leading to potentially lower operational costs and increased efficiency.
- Environmental Considerations: Minimal impact on local vegetation and wildlife, preserving the ecological integrity of the area.
- Cultural Heritage Preservation: The location is 50m away from any BHRs and CHLs, and therefore requires no further assessment.



Figure 10 – Alternative 3A Location and Approximate SPS Footprint

The anticipated timing for next steps includes; property acquisitions and detailed design to be completed within the year 2025, with construction implemented in 2026.

8.2 Proposed SPS Location

Following the selection of the preferred location, a geotechnical investigation, environmental constraints analysis and Stage 2 Archaeological Assessment were conducted at 7535 10th Sideroad to identify a suitable placement for the SPS. The final location also considers discussions with the property owner and traffic considerations, as Innisfil Beach Road is a major road in the Town of Innisfil.

8.2.1 Geotechnical Investigation

GEI Consultants, on behalf of Ainley Group, has completed a geotechnical investigation at 7535 10th Sideroad. This investigation assesses site conditions, including soil type, constructability considerations, and design considerations based on on-site soil sampling and monitoring well observations.

In general, the subsurface conditions at the site consist of surficial topsoil, fill, and clayey silt layers overlying approximately 1.5 to 4.6 m of sandy silt to sand and silt, underlain by a deposit of clayey silt to silt.

The findings indicate that the soil stratigraphy is consistent across the area.

A copy of the full report is included in Appendix C.

8.2.2 Environmental Impact Study

Azimuth, on behalf of Ainley Group, has completed a scoped Environment Impact Study (EIS) at 7535 10th Sideroad.

The analysis confirms that environmental conditions do not limit the construction of the IH SPS 6. The proposed works align with policies of the ESA, County of Simcoe Official Plan, Town of Innisfil Official Plan, and Lake Simcoe Protection Plan, though a permit from the Lake Simcoe Region Conservation Authority (LSRCA) under O. Reg. 41/24 may be required. Based on the Conservation Authorities Act (O. Reg. 41/24), the regulated areas around wetlands extends 30m from any wetlands instead of 120m from the previous Conservation Authorities Act (1946) (O. Reg. 179/06).

The analysis confirms that environmental conditions do not pose limitations for the construction of IH SPS 6. The proposed works comply with the policies of the *Endangered Species Act* (ESA), the County of Simcoe Official Plan, the Town of Innisfil Official Plan, and the Lake Simcoe Protection Plan. However, a permit from the Lake Simcoe Region Conservation Authority (LSRCA) under *O. Reg. 41/24* may be required. Under the updated *Conservation Authorities Act (O. Reg. 41/24)*, the regulated area around wetlands extends 30m from any wetland, compared to the previous 120m under the *Conservation Authorities Act (1946) (O. Reg. 179/06)*.

Significant Woodlands, Provincially Significant Wetlands, and Candidate Significant Wildlife Habitat are not expected to be adversely affected if mitigation measures are followed. Similarly, no negative impacts are anticipated on drainage features, open water units, or fish habitats during or after construction with proper precautions in place.

A copy of the EIS report is included in Appendix E.

8.2.3 Stage 2 Archaeological Study

The Stage 1 assessment for the IH SPS 6 project was previously completed in 2022 as mentioned in section 3.4. Background research and a property inspection determined that the Study Area retained archaeological potential and Stage 2 pedestrian survey at five metre intervals was recommended.

Stage 2 pedestrian survey at five metre intervals was conducted on the selected site location, in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists. No archaeological resources were encountered during the Stage 2 survey, and no further archaeological assessment is recommended.

A copy of the Stage 2 Archaeological report is included in Appendix G.

8.2.4 Preliminary Site Layout

Figure 11 below illustrates the preliminary layout of the SPS.

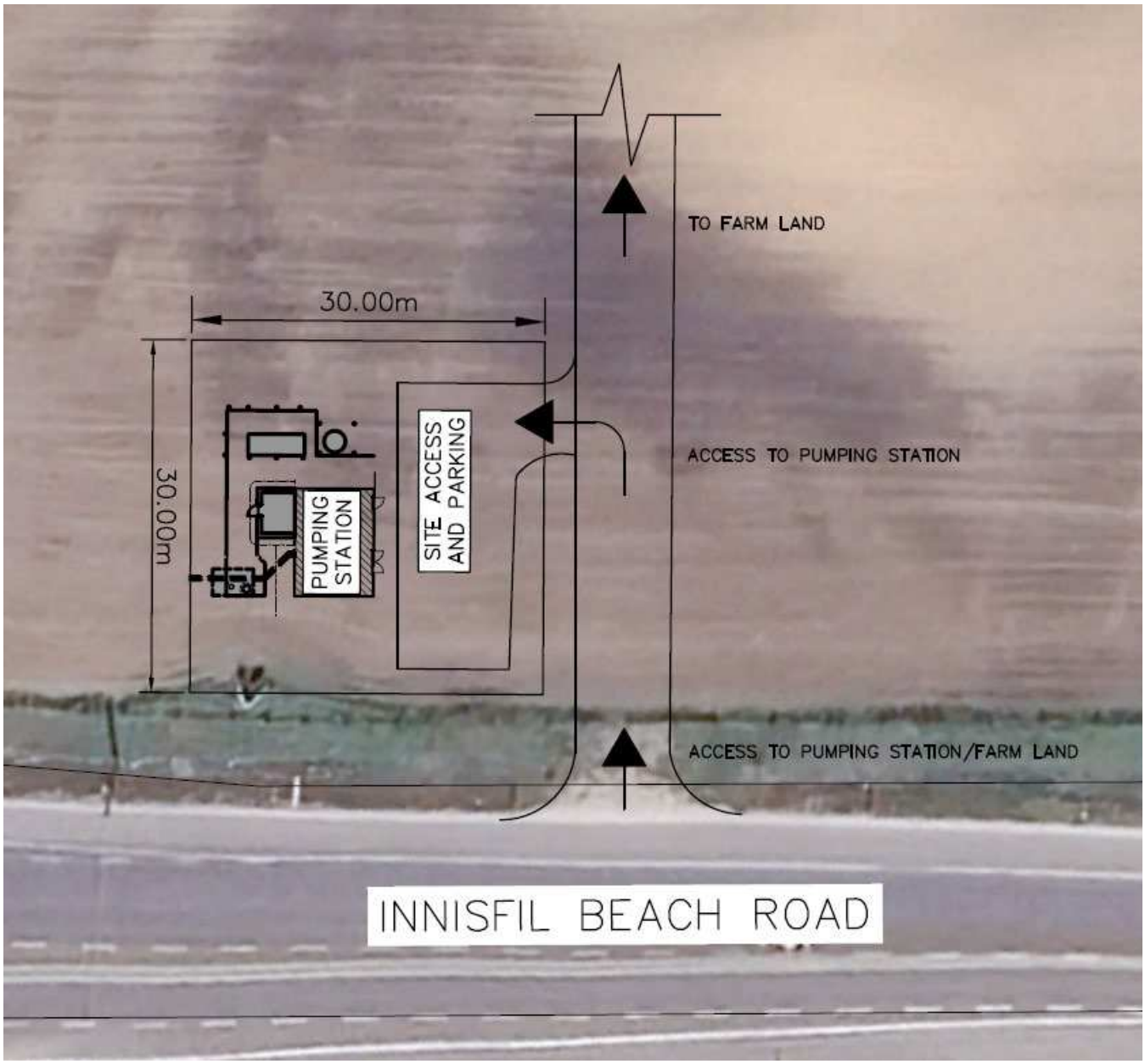


Figure 11 – Preliminary Layout of the SPS

9. COST ESTIMATE

Based on the Cost Estimate Classification System (AACE International, 2020), the cost estimate used for the feasibility study is a Class 4 estimate, which considers equipment costs or parametric models, with an expected accuracy range of -30% to +50%.

The cost estimate presented in this Section has been prepared base on the following assumptions:

- Costing of common equipment and construction materials has been based on Ainley's past project experience.
- Structural and architectural cost estimates are based on Ainley's past experience with similar scope projects as detailed Geotechnical investigation is not available at this time.
- Division 1 costs are 20% of Divisions 2 to 16.
- A 40% Construction Contingency has been carried. However, considering the size of the project and gaps in information available for existing construction, this may have to be increased. This will be determined at a later design stage.
- A 10% Contractor's Profit has been assumed.
- Costs for Bell/Rogers and other utilities are not included. These costs are unforeseen at this moment and will be paid by the Owner directly.
- No contaminated soils have been assumed on site.
- Estimated construction cost is in 2025 dollars.
- Exclusions:
    - InnServices costs (approvals, SCADA, site investigations, etc.)
    - Engineering Costs
    - Impacts due to inflation and escalation

Table 7 below summarizes the cost estimate for constructing a SPS categorized by individual divisions.

Table 7 – Cost Estimate for IH SPS 6

Description	Cost
Division 1 General Requirements	$1,094,602
Division 2 Site Works	$1,723,013
Division 3 Concrete	$930,442
Division 4 Masonry	$40,500
Division 5 Metals	$134,377
Division 6 Wood and Plastics	$30,000
Division 7 Thermal and Moisture Protection	$130,960
Division 8 Doors and Windows	$60,000
Division 9 Finishes	$30,000
Division 11 Equipment	$1,199,818
Division 13 Instrumentation, Control and SCADA	$271,200

Description		Cost
Division 14 Hoisting System		$100,000
Division 15 Mechanical		$242,000
Division 16 Electrical		$580,700
Subtotal		**$6,567,611**
Construction Contingency (40 % of subtotal)		$2,627,045
Contractor's Profit (10% of subtotal)		$656,761
Total	**Total (w/o HST)**	**$9,851,417**
Tax	**HST (13%)**	**$1,280,684**
Grand Total	**Grand Total (Including HST)**	**$11,132,101**

10. MITIGATION

The following sub-sections outline the mitigation measures that are to be included in the development of the detailed design for the implementation of the Preferred Solution. The anticipated approvals and permitting requirements are also described.

10.1 Migratory Birds

As outlined in the EIS report (Appendix E), vegetation clearing should occur outside of the breeding bird season (April 1 through August 31) to prevent nest destruction to comply with the *Migratory Birds Convention Act* and the *Fish and Wildlife Conservation Act*. Winter season, during frozen ground conditions, is the ideal period for tree and vegetation removal if feasible. In the event that tree removal must occur within the breeding bird window a qualified biologist must screen the area. Clearing in identified nesting areas would be prohibited until such time that it has been confirmed that the young have fledged.

10.2 Wetlands

In order to mitigate the potential short and long-term impacts to the wetland complex the following key mitigation and protection measures are proposed for implementation:

- Install environmental protection and erosion control fencing along the limits of the reconstruction area prior to the commencement of construction (includes prior to vegetation removal).
- Prior to work near any type of marsh or removal of marsh vegetation, if construction activities occur within the period of April to July, areas with standing water that may support amphibians are to surveyed by a qualified biologist for the presence of amphibians. If present these are to be relocated to outside of the construction area to suitable habitats.
- Prior to construction works, a qualified ecologist will inspect the work area for the presence of regionally rare plant species (specifically Stiff Marsh Bedstraw and Hoary Sedge) that if present will be transplanted to a suitable location outside the impact zone.
- The Edge Management Plan is to be implemented and the plantings installed as outlined on the Edge Management Plan drawings and details.

- Machinery or equipment will be maintained and refueled within the construction area defined by the ESC measures, and at no time will approach within 30 m of the watercourses or wetland areas.
- Any equipment, stockpiled material or construction material will be stored within the construction area defined by the ESC measures, and in a manner that prevents sediment or deleterious substances from entering any watercourses or wetland areas.
- All work areas are to be effectively isolated from wetland communities and drainage features with appropriate ESC measures in order to ensure that deleterious substances do not enter these areas at any time.

10.3 Groundwater and Surface Water

- To minimize the potential for erosion and off-site transport of sediment into surface water features and the natural environment, the project will implement Best Practices related to erosion and sediment control. ESC measures used by the contractor on all construction should meet guidelines as outlined in Erosion and Sediment Control Guideline for Urban Construction, December 2006 (ESC Guideline), prepared by the Greater Golden Horseshoe Area Conservation Authorities.
- All exposed and newly constructed surfaces should be stabilized using appropriate means in accordance with the characteristics of the exposed soils. These surfaces should be fully stabilized and re-vegetated with native species as quickly as possible following the completion of the works.
- No sediment, sediment-laden water or deleterious substances are to be discharged into watercourses/drainage features at any time. A response plan for spills will be developed before work commences. This plan will be implemented immediately in the event of a sediment release or spill of a deleterious substance and an emergency spill kit will be kept on site.
- All ESC measures are to be inspected daily including after every rainfall, cleaned, maintained and/or adjusted accordingly to ensure sediment does not enter drainage features at any time.
- Any dewatering (if required) is to be filtered to remove sediment prior to discharging to a well vegetated area at least 30 m from a watercourse.
- Given the proximity of wells to the roads, if construction dewatering is required, affected wells in the vicinity will be identified during detailed design and the development of a monitoring program to predict or confirm actual effects during construction and plan for the replacement of such supplies temporarily as needed.
- Any in-water works during culver replacements should be completed in the appropriate construction timing window. The new culvert will be placed at a slight offset so existing culvert remains functional until new culvert is installed.
- To ensure compliance with CTC-SPP Policy SAL-11 regarding the application of road salt, best management practices will be implemented by InnServices and the Town's Road Operations Staff.

10.4 Species at Risk

- If a SAR is encountered during construction, all works in the immediate area must cease. The Contract Administrator must contact the MECP at SAROntario@ontario.ca. Harassment to SAR should not occur during construction activities.

10.5 Erosion and Sediment Control Measures (ESC)

As outlined in the EIS report (Appendix E), the diligent implementation of ESCs is required for all construction activities to minimize the extent or accidental or unavoidable impacts to adjacent vegetation communities, wildlife habitat and fish habitat. Further recommendations for the ESC plan include:

- The ESC measures should remain in place and in good working condition for the duration of the project, until landscaping and sodding has stabilized.
- ESC fencing/measures are to be erected as near to the development as possible.
- ESC measures are to be installed prior to beginning work and are maintained in working order throughout all stages of construction activities.
- That ESC fencing be erected to specifications outlined in Ontario Provincial Standard Drawings (OSPD), being at a minimum, a double row of sediment silt fencing consisting of a non-woven geotextile with straw bales staked in between.
- Material storage should be located at least 30m away from natural features and enclosed with effective ESCs to avoid potential indirect impacts to natural features onsite.

10.6 Excess Materials Management

- Activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's document entitled "Rules for Soil Management and Excess Soil Quality Standards" includes both "Soil Rules" and "Excess Soil Standards" which are incorporated by reference into the excess soil regulation and must be read alongside the regulation.
- All waste generated during construction must be disposed of in accordance with Ministry requirements.

10.7 Archaeological Resources

The Stage 2 Archaeological Assessment report (Appendix G) indicated that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archeological deposit. In the event that archaeological remains are found during subsequent construction activities, the contractor should be advised to stop work immediately and take the appropriate actions as noted below:

- Should previously unknown or un-assessed deeply buried archaeological resources be uncovered, they may be a new archaeological site and; therefore, subject to section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with section 48 (1) of the Ontario Heritage Act. The Heritage Operations Unit of the Ministry of Culture must be immediately notified at 807-468-2450.
- In the event that human remains are encountered, the proponent or person discovering human remains must immediately notify the police or coroner and the Registrar of the Bereavement Authority of Ontario at 647-483-2645 or 1-807-468-2450.
- Construction activities and staging should be suitably planned and undertaken to avoid impacts to identified cultural heritage resources.

10.8 Built Heritage and Cultural Landscapes

The site location is at least 50m away from any identified Built Heritage Resources (BHRs) or Cultural Heritage Landscapes (CHLs) as outlined in the Cultural Heritage Report (Appendix H). Therefore, no impacts are anticipated, and no mitigation is required.

10.9 Utilities and Servicing

The utility companies are aware of this project. Communication will continue to occur in anticipation of utility relocation as part of this project. Existing utilities will be considered during design.

10.10 Property Impacts

The following measures will assist in keeping impacts to a minimum:

- Construction shall utilize measures to minimize impacts to local traffic to the extent feasible and to maintain access during construction.
- Entrances are to be kept open except when construction activities are taking place in front of the entrance.
- Property acquisition is required and discussions with the affected property owners will continue and if feasible InnServices will incorporate their suggestions into detailed design.

10.11 Climate Change

10.11.1 Potential Impact and Mitigation Based on Energy Efficiency

As for constructing one (1) sewage pumping station, long-term increased risk to surface flooding is not anticipated. There will be an increase in hydroelectric power requirements to operate the sewage pumping station but the related impacts to climate change are considered to be minimal. Several measures can be considered to improve the energy efficiency of a structure including:

- Select high-performance, energy efficient pumps and optimize pump control
- Use LED lights and motion sensers for lighting

In addition, rating systems targeting at reducing energy usage and meeting climate change targets, such as Leadership in Energy & Environmental Design (LEED) and Envision, can be taken into consideration to improve the energy efficiency during design, construction, and operation and maintenance.

10.11.2 LEED Green Building Rating System

LEED is an internationally recognized green building certification system and standard for all building types and all building phases, which is developed by the U.S. Green Building Council (USGBC).

LEED-certified buildings are critical to addressing climate change and meeting environmental, social and governance goals. The system includes a set of rating systems for the design, construction, operation and maintenance of green buildings, homes, and neighborhoods.

To achieve LEED certification, a project earns points by adhering to prerequisites and credits that address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality. Four levels of certification will be assigned to the projects based on the number of points they achieve: Certified (40-49 points), Silver (50-59 points), Gold (60-79 points) and Platinum (80+) points.

10.11.3 Envision Sustainable Rating System

Envision is a sustainability framework and rating system that enables a thorough examination of the sustainability and resiliency of all types of civil infrastructure, which is developed by the Institute for Sustainable Infrastructure (ISI) in collaboration with the Zofnass Program for Sustainable Infrastructure at Harvard University's Graduate School of Design.

The system is designed to help infrastructure stakeholders implement more sustainable, resilient, and equitable projects. Envision helps communities cut green house gas (GHG) emissions, create good-paying "green" jobs, address environmental justice, and meet climate-change targets.

10.11.4 Climate Change Impact and Mitigation

Climate change has the potential to result in increased storm events that can lead to flooding. Climate change concerns generally relate to the increased concentration of greenhouse gases in the atmosphere, which can result in a rise in the global mean surface temperature. Increased temperatures worldwide are creating changes in climate that is resulting in extreme weather events. Reasonable risk reduction measures should be investigated at the detailed design stage to manage the additional challenged presented by climate change.

Stormwater management (Minimize the potential of environmental spill)

- Design new sewage pumping station with an elevated peak instantaneous factor
- Emergency power supply system for critical equipment
- Include the provision of site space for snow storage

Increased mean atmospheric temperature

- Equip the facilities with more robust insulation

10.11.5 LID Stormwater Management Measures

Low Impact Development (LID) is an innovative state-of-the-art approach to managing stormwater by controlling and treating precipitation where it falls, as a resource to be managed and protected rather than a waste.

The MECP document entitled "Low Impact Development Stormwater Management Guidance Manual (2022)" provides information on the benefits of managing rain where it falls and snow melts, including performance guidance on controlling natural systems, and the sustainability of communities.

A LID stormwater management system may include many different types and combinations of LID approach or practice to reduce the volume of stormwater runoff or filters the stormwater runoff on its way to the receiver:

- Rainwater harvesting (roof runoff, prefabricated storage unit, cistern)
- Soakaways, infiltration trenched and chambers (infiltration galleries, French drains, dry well)
- Permeable Pavements (pervious concrete, porous asphalt, permeable interlocking concrete pavers, plastic or concrete grid systems, rubberized granular surfaces)

11. PERMITS AND APPROVALS

During detailed design permits and approvals will need to be acquired from the following agencies:

- Ministry of Environment, Conservation and Parks: During detailed design, the extent and need of the removal will be determined. This would constitute a significant dewatering exercise and a Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR) registration may be required.
- Ministry of Environment, Conservation and Parks: MECP will issue Environmental Compliance Approvals (ECA) for sewage, air and noise, which will delineate the physical extent of the works being approved and the compliance requirements for effluent quality, odour, and noise as well as outlining monitoring and reporting requirements. ECA applications will require completion of the designs and design reports.
- Ministry of Natural Resources and Forestry (MNRF): MNRF will require application for a permit for any works that affect species at risk, fish or bird habitat, as well as work in or near rivers. Applications will require submission of an Environmental Management Plan that delineates all potential impacts as well as planned mitigations.
- Lake Simcoe Region Conservation Authority (LSRCA): The site is located outside of the regulated area of LSRCA but is classified as a “highly vulnerable aquifer”. As a result, specific approvals may need to be obtained from LSRCA in order to proceed with selected site during detailed design. These approvals are essential to ensure compliance with environmental regulations and guidelines set by the conservation authority for projects within their jurisdiction.
- Town of Innisfil: The Town will require application for building permits for any building works including the SPS.
- InnPower: A range of permits and inspection will be required from InnPower involving incoming power, protective systems, and installation compliance.
- Technical Standards and Safety Authority (TSSA): TSSA approval will be required for installation of the diesel generator and any fuel systems.

REFERENCES

InnServices Utilities Inc. (2018). *Innisfil Master Servicing Plan Update.* Innisfil, Ontario

AACE International (2020). *Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Process Industries*

Appendix A

IH SPS 6 Future Flow Technical Memorandum

Innisfil Heights
Schedule 'B' Municipal
Class Environmental Assessment
Sewage Pumping Station 6

Technical Memorandum
Future Flows

FINAL

January 2025

Ainley GROUP CONSULTING ENGINEERS PLANNERS

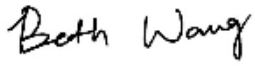
Innisfil Heights
Municipal Class Environmental Assessment

Technical Memorandum
Future Flows

Project No. 121031

Prepared for:
InnServices Utilities Inc.

Prepared By:



Beth Wang, E.I.T.

Reviewed by:



Wendy Smeh, C.E.T., PMP.

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1.0 Introduction

This Technical Memorandum has been prepared in support of the Innisfil Heights Schedule B Municipal Class Environmental Assessment (Class EA). The 2018 Master Servicing Plan (MSP) identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

This Technical memorandum is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil, which will receive flows from the Innisfil Heights economic areas (including wastewater flows from IH SPS 1, IH SPS 2, IH SPS 3, IH SPS 4 and IH SPS 5) and direct it to the Lakeshore Wastewater Treatment Plant.

2.0 Objectives

The objectives of this Technical Memorandum are as follows:

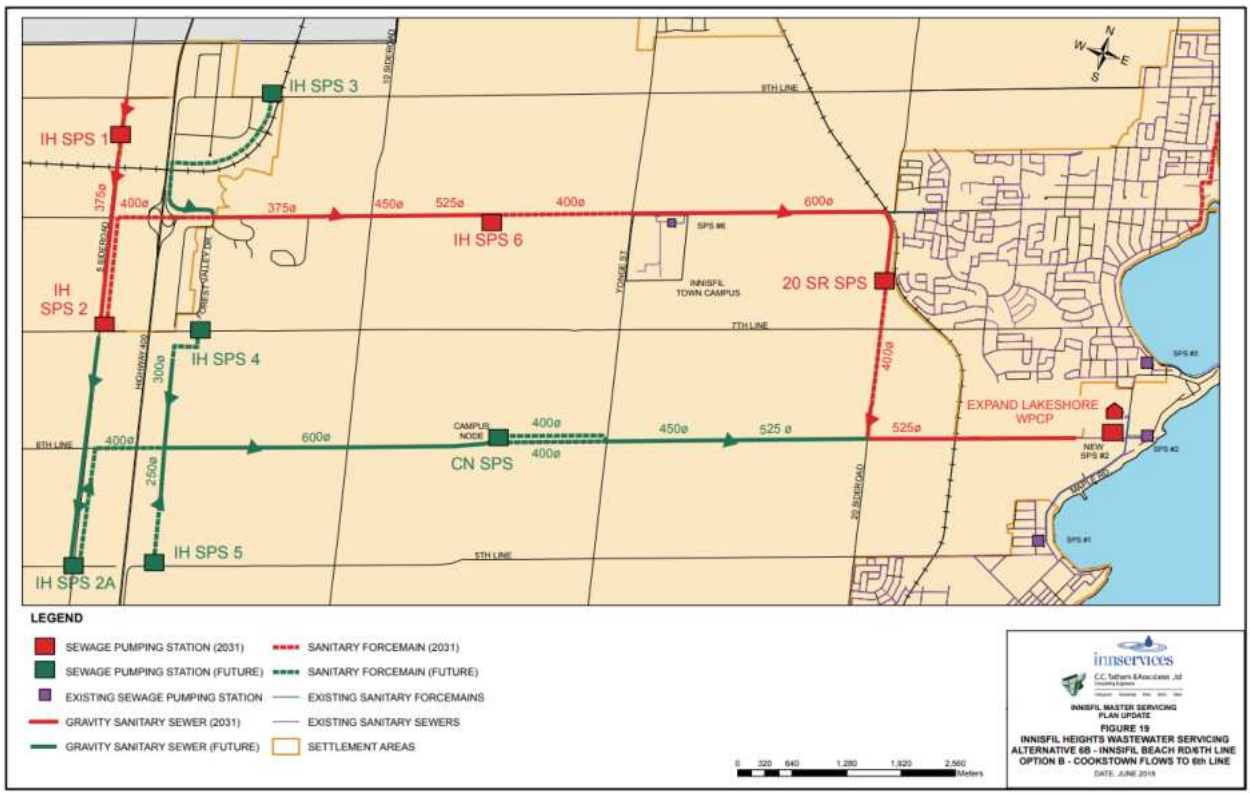
- Review historical documents and provide overview,
- Project future wastewater flows from servicing area to IH SPS 6,
- Assess the quantity of future wastewater flows to proposed truck sewer on Innisfil Beach Road.

3.0 Historical Documents Overview

3.1 Innisfil Master Servicing Plan Update in 2018

As part of the 2018 MSP (completed by C.C. Tatham & Associates Ltd.), various alternatives were examined in order to provide servicing for the first phase of the Innisfil Heights economic district expansion, an area designated as a Strategic Settlement Employment Area. In order to promote, facilitate and maximize the planned expansion of this area, the MSP identified that a municipal sanitary sewage collection system is required. The MSP identified “Alternative 6, Option B” as the preferred option. Alternative 6 establishes a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road and 20th Sideroad for the first phase of development up to year 2031. Several sewage pumping stations were identified along the sewer route including the new IH SPS 6.

Figure 1 below shows the sanitary collection system provide future servicing needs recommended in MSP.



*Map from 2018 Innisfil Master Servicing Plan Upgrade

Figure 1 – Innisfil Heights MSP: Alternative 6B

4.0 Wastewater Flow Design Basis

4.1 Design Assumptions

Table 1 outlines the design criteria used to generate the estimated average daily flow for new residential, commercial and industrial development as well as inflow and infiltration from development in Town of Innisfil.

Table 1 – Design Criteria

Description	Rate
Population Density	2.52 persons per unit
Residential Average Flow (Incl. Average I&I)	325 L/c/d
Residential Peak Domestic Flow	275 L/c/d
Residential Peak Flow (Incl. Peak I&I)	400 L/c/d
Commercial and Industrial Flow (Incl. Average I&I)	10 m3/ha/d
Peak Commercial and Industrial Flow (Incl. Peak I&I)	20 m3/ha/d

4.2 Build-out of Proposed Servicing Area

The build-out of the servicing area for IH SPS 6 is defined as the complete development of the proposed lands to address the short- and long-term needs of the Innisfil Heights economic area. IH SPS 6 will collect wastewater flows from following sources:

- IH SPS 1;
- IH SPS 2 (with flow from IH SPS 4);
- IH SPS 3;
- IH SPS 5;
- the future proposed industrial land (F-1);
- the existing industrial/commercial area; and
- the existing residential area.

It should be noted that IH SPS 3, IH SPS 4 and IH SPS 5 are proposed potential stations that may be constructed in the future but are outside the scope of this EA.

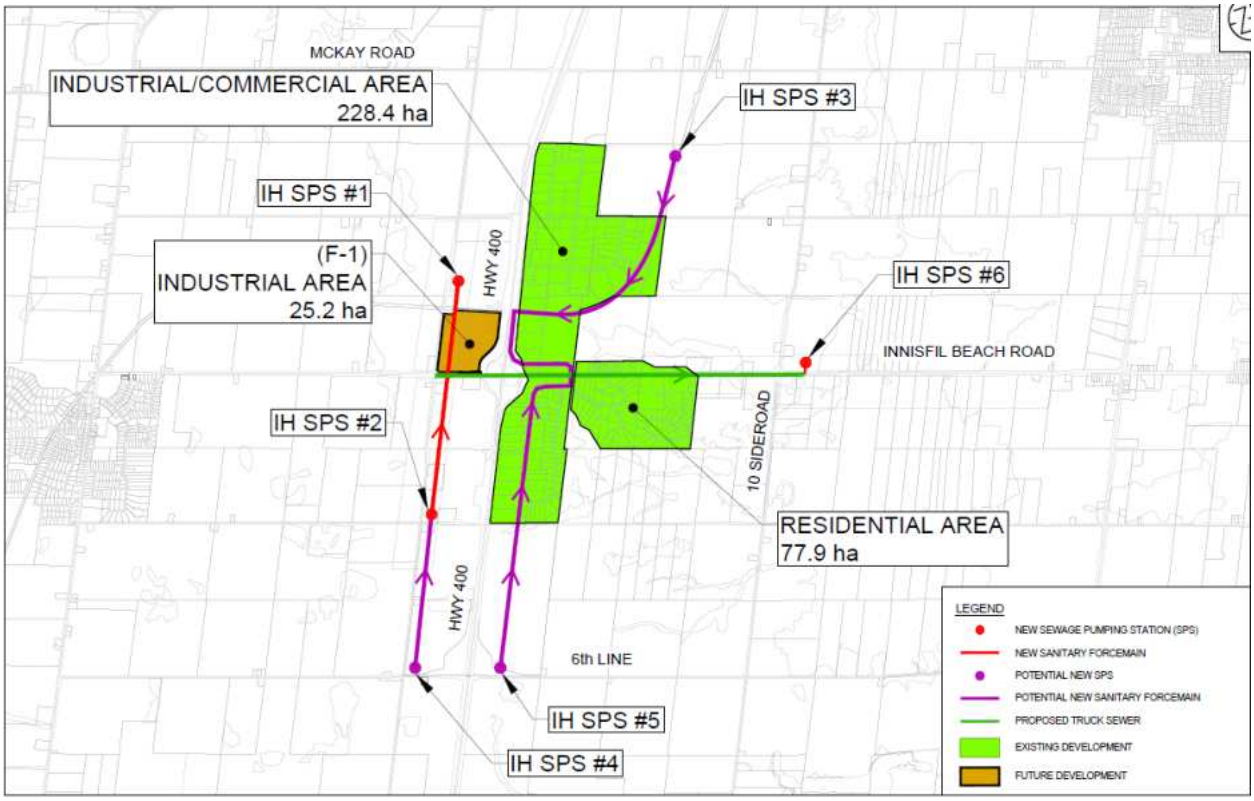


Figure 2 – Planned Development Areas Connected to IH SPS 6

The proposed construction location of IH SPS 6 is at the South side of 7535 10th Sideroad.

Flow contributions from commercial/industrial growth areas are calculated based on the design criteria provided in Table 1 above. The growth areas considered within the analysis are listed in Table 2 and are reflected in Figure 2.

Commercial and Industrial Average Daily Flow (ADF) estimates are calculated on the following basis:

$$ADF = Area * Commercial\ and\ Industrial\ Design\ Flow$$

Commercial and Industrial Peak Wet Weather Flow (PWWF) estimates are calculated on the following basis:

$$PWWF = Area * Peak\ Commercial\ and\ Industrial\ Design\ Flow$$

Residential ADF estimates are calculated on the following basis:

$$ADF = Residence * Residential\ Average\ Flow\ Criteria$$

Residential PWWF estimates are calculated on the following basis:

$$PWWF = Residence * Residential\ Peak\ Domestic\ Flow * Peaking\ Factor + Residence * Residential\ Peak\ Flow\ Criteria$$

Table 2 – Wastewater Flows from Proposed Servicing Area

Identification	Designation	Area (Ha)	Residence	ADF Estimate (L/s)	PWWF Estimate (L/s)
Existing Industrial/Commercial [1]	Industrial / Commercial	228.4	-	4.6	9.3
Existing Residential	Residential	77.9	321	1.2	3.5
IH SPS 1	-	-	-	8.6	17.2
IH SPS 2	-	-	-	13.2	26.5
F-1	Industrial	25.2	-	2.9	5.8
IH SPS 3	-	-	-	4.8	9.7
IH SPS 5	-	-	-	6.0	12.0
Total		**331.5**	**321**	**41.4**	**84.0**

[1] ADF for existing industrial/commercial lands is based on the historical water usage data over the past 5 years from Innisfil Heights. According to the design criteria shown in Table 1, the PWWF is calculated as twice the ADF.

IH SPS 6 will service an existing industrial/commercial area of 228.4 hectares, a residential area of 77.9 hectares with 321 residences, and 25.2 hectares of future industrial development. It will also receive flows from IH SPS 1, IH SPS 2 (with flow from IH SPS 4), IH SPS 3, and IH SPS 5.

According to the design criteria outlined in Table 1, IH SPS 6 is expected to handle a total ADF of 41.4 L/s and a total PWWF of 84.0 L/s.

It is important to note that PWWF is typically 3.5 to 4.5 times the ADF. Based on the Town's design criteria for commercial and industrial lands, the PWWF is 2 times ADF.

5.0 Summary

- IH SPS 6 receives wastewater flows from the Innisfil Heights economic areas through a proposed trunk along the Innisfil Beach Road.
- The ADF contributions to IH SPS 6 is 41.4 L/s and the PWWF is 84.0 L/s.

Appendix B

Geotechnical and Hydrogeological Background Conditions Report

December 3, 2021

Ainley & Associates Limited
550 Welham Road
Barrie, Ontario
L4N 8Z7

Attn: Wendy Smeh, C.E.T., PMP

RE: Geotechnical & Hydrogeological Background Conditions Report
Innisfil Heights Sewage Pumping Station 6
Innisfil Beach Road between Innisfil Heights Crescent and Yonge Street
Project No. 2103505

GEI Consultants (GEI) was retained by Ainley & Associates Limited (Ainley) to complete geotechnical and hydrogeological reports discussing the background site conditions for five (5) potential Sewage Pumping Stations (SPS) in Innisfil, Ontario. The work is being completed as part of a Municipal Class Environmental Assessment and preliminary design for the Sewage Pumping Stations being carried out by Ainley. Each SPS study area covers a large footprint and the exact SPS locations have not been selected at this time. An overall site plan showing each study area is included in Enclosure 1.

The background reports by GEI review publicly available sources of subsurface information, surficial geology and bedrock mapping, and local experience about nearby soil and groundwater conditions to discuss geotechnical and hydrogeological engineering constraints for each SPS study area. These background reports will help the design team select the best location for the SPS structure within each area. Once the locations are selected, GEI will advance one (1) borehole with a monitoring well installation in each proposed SPS location and provide preliminary geotechnical and hydrogeological design reports.

The current report contains the results of the background review and provides engineering discussion for SPS 6, located along Innisfil Beach Road generally between Innisfil Heights Crescent and 600 metres west of Yonge Street. The total length of SPS 6 is approximately 3.7 km and extends about 200 to 300 metres north and south of Innisfil Beach Road. A site plan showing the SPS 6 study area is in Enclosure 1. The background reports for the other SPS study areas are included under separate covers.

1. BACKGROUND REVIEW

The SPS 6 study area is located along Innisfil Beach Road generally between Innisfil Heights Crescent and 600 metres west of Yonge Street. A site plan showing the SPS 6 study area is in Enclosure 1.

Existing subsurface investigations, geotechnical reports, or hydrogeological reports were not provided for the study area. An overview of the subsurface conditions expected to be encountered on site were established using a range of publicly available information and are summarized below.

1.1. Physiology and Geology Mapping

Surficial geology mapping from the Ontario Geological Survey (OGS) was reviewed and is provided in Enclosure 2. The mapping indicates that approximately the western 1.1 km of the study area is underlain by a combination of cohesionless glacial till, glaciolacustrine sand deposits, alluvial deposits of sand, gravel, silt and clay, or glaciolacustrine deposits of clays and silts. The middle 2 km of the study area is underlain mostly by organic deposits (marshland associated with Lover's Creek Swamp) with some zones of glaciolacustrine sands. The eastern 600 metres is shown to consist of cohesionless glacial till or glaciolacustrine sands.

The study area is within the physiographic region known as the Peterborough Drumlin Field (Chapman and Putnam, 1984) which is dominated by drumlinized till plains.

At depth, the study area is underlain by bedrock of the Lindsay Formation (Simcoe Group), which consists primarily of limestone. Drift thickness mapping from the Ontario Division of Mines (1974) indicates bedrock is deeper than 150 metres below grade in the area.

Geotechnical boreholes available on a database from the Ministry of Energy, Northern Development and Mines (MENDM) were reviewed. However, no boreholes were found within or around the study area.

1.2. MECP Water Well Records and PTTW Mapping

Ministry of Environment, Conservation and Parks (MECP) water well records were reviewed for the site and surrounding area. Numerous well records were found in the area, but 12 representative well records were selected and are included in Enclosure 3 with their locations also shown in Enclosure 3. Three (3) wells were completed prior to 1970s, four (4) completed during the 1970s, three (3) during the 1980s, one (1) in 1990, and one (1) in 2005. The stratigraphic descriptions within the MECP well records are typically inaccurate due to the methodology in which they are determined (observations of cuttings and no consistency between descriptions of soil between different drillers). Though this is the case, an overall sense of the stratigraphy can still be determined.

The two easternmost well records indicate that 16 to 46 metres of “clay” (assumed to represent glacial till deposits) was encountered, underlain by sands and gravels. The well records through the middle of the study area typically encountered sands at grade with some interbedded clay deposits. The western well records typically encountered thin deposits of “clay” (again, likely glacial till) at grade underlain by sands, or sands from grade. Unstabilized water levels were noted to be about 5 metres below grade or deeper on the well records.

The online MECP Permit to Take Water (PTTW) database shows there are no active PTTWs within the study area. The nearest permits are at Highway 400 and Innisfil Beach Road, and consist of the following:

- Four (4) PTTWs – Construction dewatering for groundwater and surface water. Water taking rates range from 65,000 L/day to 400,000 L/day.
- Two (2) PTTWs – Municipal water supply. Both permits allow up to about 3 million L/day of groundwater for the Town of Innisfil water supply.

1.3. Simcoe County Mapping

Online mapping from Simcoe County was reviewed for the study area and selected maps are provided in Enclosure 4.

Lover’s Creek flows from south to north near the middle of the study area, and there are various tributaries that flow into the creek from the east and west. Lover’s Creek Swamp is an evaluated wetland and the extent of the swamp is visible on the plan in Enclosure 4. It is expected that the swamp areas will contain organic deposits at grade, the groundwater table is likely near surface or at / above grade in these areas.

Simcoe mapping provides 2 metre contour intervals. The eastern extent of the study area is near Elev. 270 metres and slopes down to the west to Elev. 248 to 250 metres through most of Lover’s Creek Swamp in the middle of the site. The western extent of the study area is near Elev. 290 metres and similarly slopes down towards Lover’s Creek. A tributary flows from west to east in the northern part of the study area before crossing under Innisfil Beach Road and outletting into Lover’s Creek. The tributary is depressed relative to the surrounding grades.

The study area is generally not located within a Significant Groundwater Recharge Area. The nearest Wellhead Protection Areas are about 0.9 km west of the study area and are associated with the Town of Innisfil municipal drinking water wells. A Highly Vulnerable Aquifer underlies approximately half of the site.

1.4. MTO Boreholes

The Ontario Ministry of Transportation (MTO) Foundation Library online database was searched for any MTO geotechnical reports and boreholes near the study area. The nearest geotechnical reports were completed in the 2002, 2017, and 2020 for MTO work near the Innisfil Beach Road

Overpass between Highway 400 and Innisfil Beach Road, about 1 km west of the study area. Selected boreholes advanced in 2000 and 2019 as part of these investigation are provided in Enclosure 5.

The boreholes from 2000 were advanced to a maximum depth of 10.8 metres and encountered hard clayey and sandy silt glacial till. A monitoring well was installed at the bottom of the deeper borehole and groundwater was measured at 7.7 metres below grade (Elev. 298 metres) on March 15, 2001.

The 2019 boreholes were advanced to depths of approximately 10 to 14 metres below grade and primarily encountered very dense deposits of cohesionless silty sand glacial till. The glacial till was interbedded with cohesionless and wet deposits of wet sands and silts in some locations, and was also underlain by very dense and wet sands in some locations at 4 to 7 metres below grade. Monitoring wells were installed in selected boreholes and the stabilized water levels were measured at 4.5 to 7 metres below grade (Elev. 300 to 295 metres) in April of 2020.

1.5. GEI Boreholes

GEI completed a project in 2021 on the intersections of Yonge Street and Innisfil Beach Road, approximately 600 metres east of the study area. Geotechnical boreholes were advanced to a maximum depth of 6.4 metres below grade during which the investigation and encountered generally dense to very dense sand and silt glacial till. Two of the boreholes encountered wet and very dense sands below the glacial till at 3 to 4.5 metres below grade. Stabilized groundwater levels were measured at 3.5 to 4.5 metres below grade in the monitoring wells.

2. GEOTECHNICAL AND HYDROGEOLOGICAL CONSIDERATIONS

Preliminary design drawings or other information for the SPS structures are not available. It is expected that the SPS structure will consist of a wet well extending approximately 9 to 10 metres below grade, a small on-grade structure or pump house, and various pipes and manholes.

Lover's Creek Swamp is an extensive wetland system with a significant footprint within the study area for SPS 6. The key geotechnical and hydrogeological considerations for the wetland areas include the following:

- Thick organic deposits are expected at grade. Organic deposits are weak and often create access or bearing issues for drilling and construction equipment.
- Organics are not suitable for the support of foundations. Deeper foundations may be required for any on-grade structures built as part of the SPS.
- A shoring system may be required to support the excavation for the wet well. If the shoring system is supported using tie-backs or anchors, they may need to extend deeper below grade below any thicker organic zones.
- Wetland areas often indicate that groundwater is near or at the ground surface (or above grade) which has implications for construction access, and for dewatering to construct the

wet well or below grade structures. Depending on the expected water taking rates during construction, a posting on the Environmental Activity and Sector Registry (EASR) or a Permit to Take Water (PTTW) from the Ministry of Environment, Conservation and Parks (MECP) may be required. The MECP may not permit dewatering from an evaluated wetland area.

- There may be a potential for artesian groundwater conditions closer to the wetland areas, caused by the sloping topography. Artesian conditions can develop when there is a more permeable soil (e.g. wet sands) confined by an overlying lower permeability soil (e.g. glacial till) on a slope. The potentiometric surface within the confined sands can be above the ground surface, meaning excavations that penetrate the confining layer will encounter flowing groundwater at the ground surface.
- For these reasons, it is recommended that SPS 6 be located outside of a wetland area.

The following considerations and recommendations are derived from the surficial geology mapping, MTO boreholes, GEI boreholes, and MECP well records:

- Glacial Till Deposits:
    - Based on the subsurface conditions encountered near the study area, it is expected that the glacial till deposits will be cohesionless, compact to very dense, and competent / favourable for the support of buildings, structures, construction and drilling equipment, and for support of shoring wall tie-backs or anchors.
    - Glacial till deposits are well graded and laboratory testing the from the nearby MTO and GEI boreholes indicate a relatively high percentage of fines. The glacial till is expected to be less permeable than the sand deposits, which can significantly reduce water taking rates and potential complications during construction dewatering.
    - The lower permeability will reduce the dewatering radius of influence which reduces the potential impacts to nearby surface water features, drinking water wells, or settlement of nearby land.
    - An excavation made fully within glacial till has a reduced potential to require a PTTW from the MECP (i.e. less than 400,000 L/day of pumping).
    - Cobbles and boulders may be embedded within the deposits. This has a potential to interfere with caisson drill rigs (e.g. for shoring wall installation) or during excavations and would need to be addressed in construction contracts.
    - There is a reduced potential for temporary cased holes or drilling mud to install caisson piles for shoring walls or for augered holes for tie-backs.
    - Glacial till is considered the most favourable soil type for the SPS construction.
- Cohesionless Sand Deposits (Alluvial or Glaciolacustrine):
    - It is expected that the sand deposits encountered on site, either from grade or below the glacial till deposits, will be competent for the support of buildings, structures, construction access and drilling equipment, and for support of shoring wall tie-backs or anchors.

- The major consideration for the sand deposits is groundwater control and constructability. Depending on the grain size distribution and percentage of fines, higher groundwater flow rates are expected for excavations made into the sands.
- Higher flow rates may require a more robust dewatering system and increases the potential for a PTTW from the MECP. The dewatering radius of influence will also be higher in the sands which has an increased potential to impact nearby surface water features, drinking water wells, or settlement of nearby land.
- There is an increased potential for temporary cased holes or drilling mud to install caisson piles for shoring walls or for augered holes for tie-backs.
- There may be cobble or gravel zones within the sands that can increase the difficulty of excavation or caisson installation for shoring walls.

If deposits of glaciolacustrine clay area encountered, the considerations will be similar to the glacial till. Based on this preliminary review, the easternmost extent of the SPS 6 study area (east of Lover's Creek Swamp) is considered the best location from geotechnical and hydrogeological engineering perspectives.

- There appears to be the highest probability for deeper glacial till deposits in this area based on the geology mapping, MECP well records, and nearby GEI boreholes. Sand deposits may still be encountered underlying the glacial till.
- The grades are closer to Elev. 270 metres, or about 20 metres higher than Lover's Creek. This reduces the potential for artesian groundwater conditions and the groundwater table is likely deeper below grade in the area.
- There are fewer nearby drinking water wells, surface water features, or structures that could be impacted by dewatering activities. The two nearby wells are also screened at 25 metres below grade or deeper.
- The higher elevation may also help the civil engineer design or optimize the pumping system due to potential energy.

Based on this preliminary review, the westernmost extent of the SPS 6 study area (west of Lover's Creek Swamp) is considered the second-best location from geotechnical and hydrogeological engineering perspectives. This end of the site has an elevation of 290 metres and groundwater levels may be deeper here than elsewhere on site. However, it is expected that there is an increased potential to encounter thinner glacial till deposits at grade or wet sands closer to surface. There are more nearby wells and structures that could be impacted by dewatering compared to the east end of the study area.

Based on this preliminary review, the footprint within the evaluated wetland of Lover's Creek Swamp is considered the least preferred location from geotechnical and hydrogeological perspectives.

3. CONCLUSION

We trust this information is sufficient for your present purposes. Should you have any questions concerning the above, or can be of any further assistance, please do not hesitate to contact the undersigned.

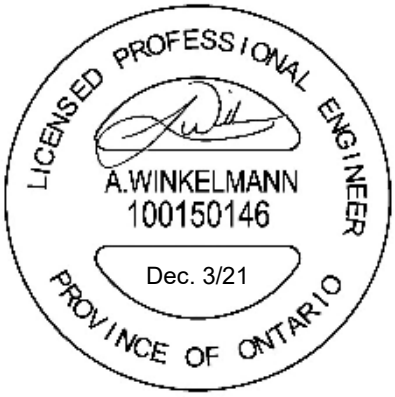
Yours truly,
GEI Consultants

Prepared By:



Russell Wiginton, P.Eng.
Senior Geotechnical Engineer

Reviewed By:



Alexander Winkelmann, P.Eng.
Geotechnical and Earth Sciences Manager

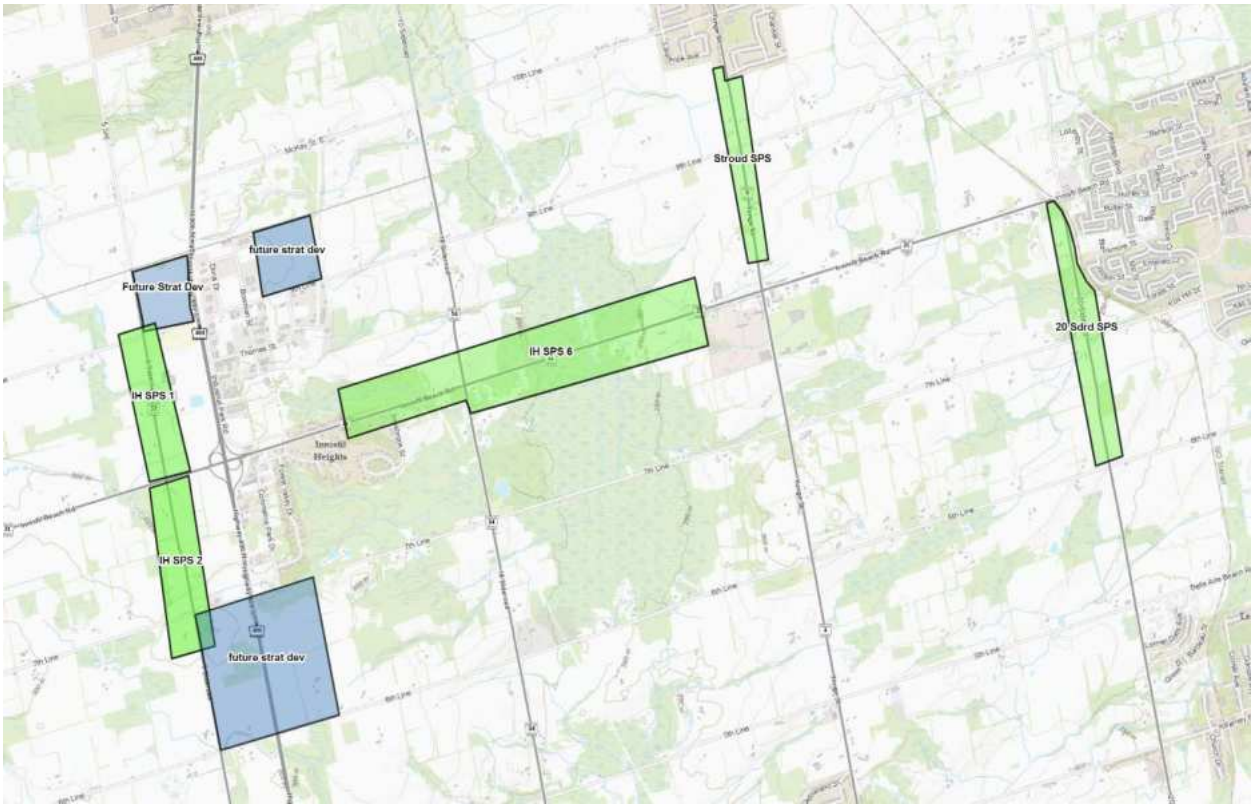
Enclosures (5)

Study Area Locations
Surficial Geology Mapping
MECP Well Record Locations and Well Records
Simcoe County Maps
MTO Boreholes and Borehole Location Plans

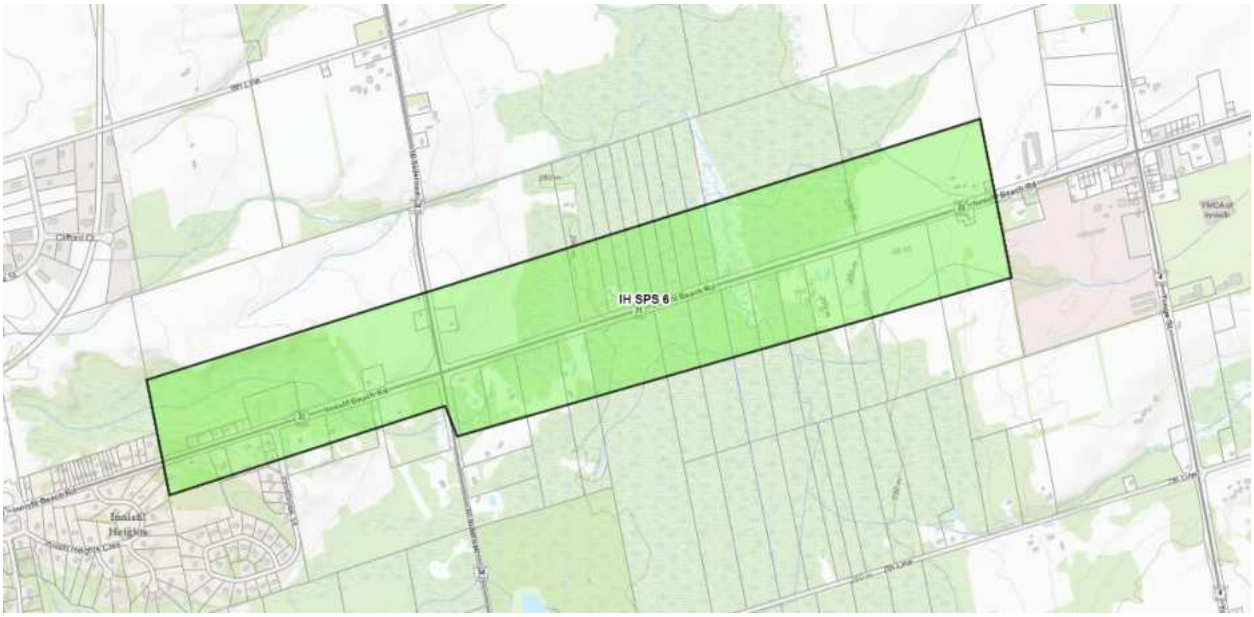
ENCLOSURE 1

Study Area Maps

OVERALL PLAN



IH SPS 6

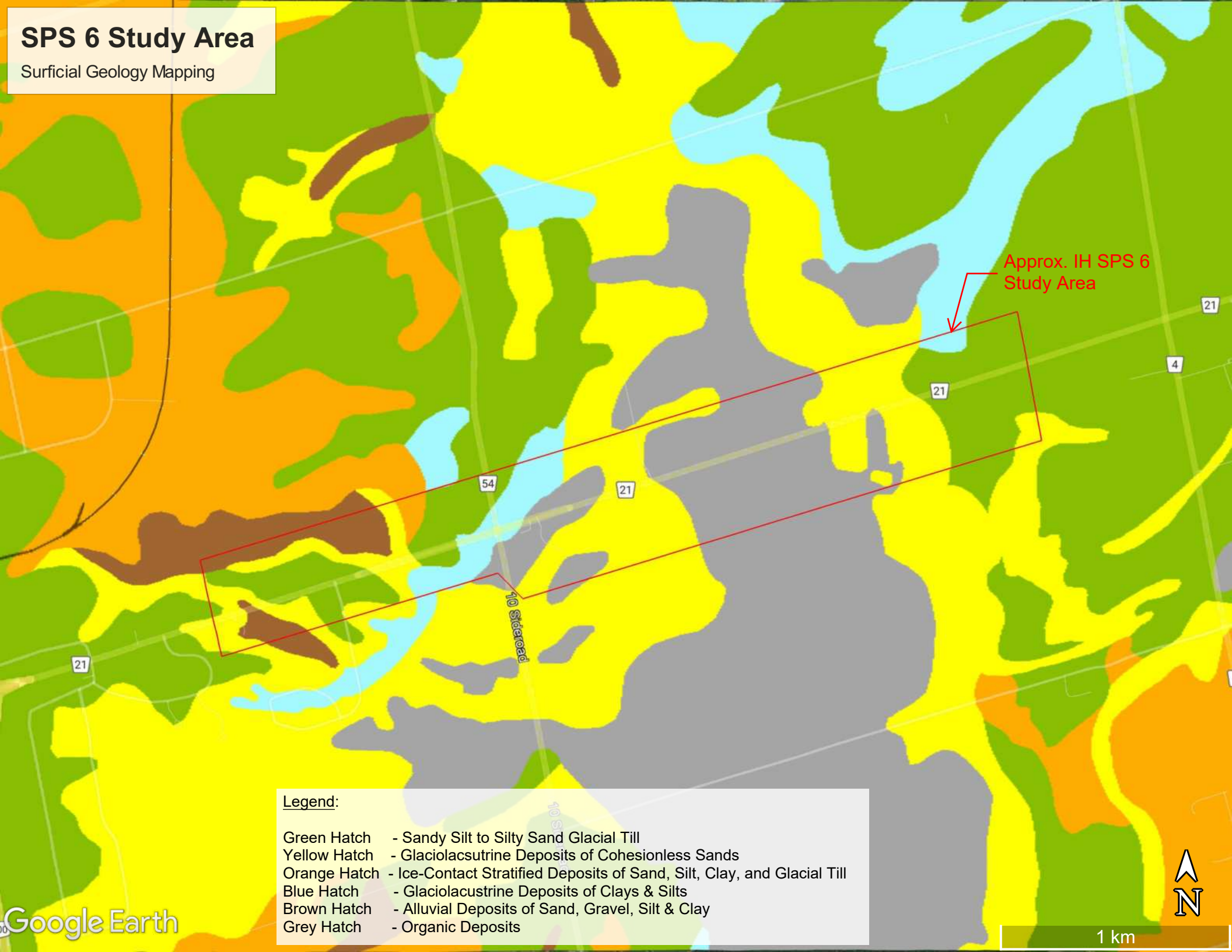


ENCLOSURE 2

Surficial Geology Mapping

SPS 6 Study Area

Surficial Geology Mapping



ENCLOSURE 3

MECP Well Record Locations and Well Records


SPS 6 Study Area
Selected MECP Water Well Records
Legend
Well ID & Approx. Location
5705621
5723608
5739618
5710809
5701132
5709502
5727211
5724086
5710852
5720710
5701075
5708796
Approx. IH SPS 6 Study Area
10 Sideroad
21
54
N
1 km
Google Earth

UTM | 17 | Z | 610 | 8 | 25 | E
Con S | R | 4910 | 4 | 6 | 0 | 3 | N
Elev Lot 5 | R | 0 | 9 | 3 | 0 | 1

The Ontario Water Resources Commission Act

WATER WELL RECORD

WATER RESOURCES DIVISION
MAR 21 1966
57 N. 1075
ONTARIO WATER RESOURCES COMMISSION

Basin 2/C | 1
County or District Lenox
Township, Village, Town or City Napanee
Con. 2 VII Lot [redacted] 9 43
Date completed 28 (day) Feb. (month) 1966 (year)
Owner [redacted] (print in block letters)
Address RR # Thornton

Casing and Screen Record

Inside diameter of casing 30 in
Total length of casing 40
Type of screen Filed well
Length of screen
Depth to top of screen
Diameter of finished hole 36 in

Pumping Test

Static level 26
Test-pumping rate 2 G.P.M.
Pumping level
Duration of test pumping
Water clear or cloudy at end of test clear
Recommended pumping rate 2 G.P.M.
with pump setting of 39 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Brown clay	0	5	28	Fresh
Sand.	5	40		

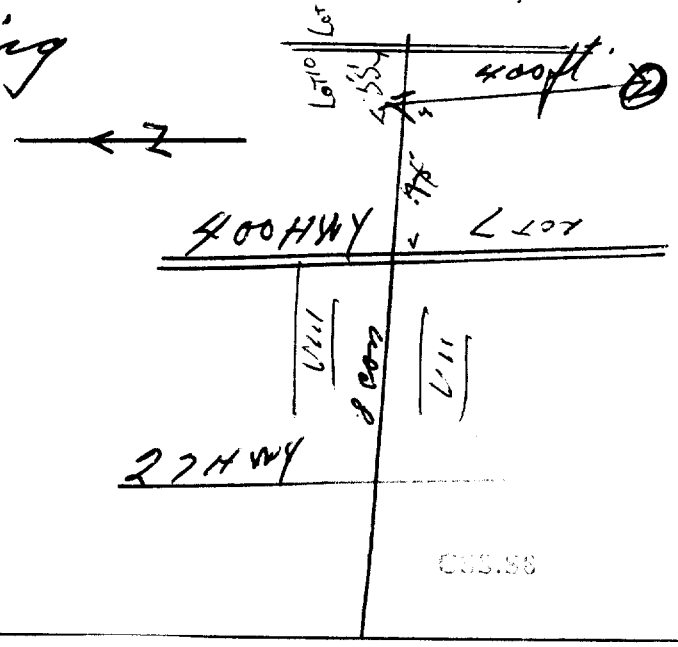
For what purpose(s) is the water to be used? Farm
Is well on upland, in valley, or on hillside?
Drilling or Boring Firm Roth Well Digging
Address R.R.# Cookstown
Licence Number 61
Name of Driller or Borer B. Roth
Address Same
Date Feb. 28/66
B. Roth
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 17 6073143 E
16R 4904998 N
Elev. 1st R 0895

57 No 1132

The Ontario Water Resources Commission Act

WATER WELL RECORD

Basin 27 | 1 Simcoe
County or District ... Township, Village, Town or City Innisfil

Con. 8 Lot 10 Date completed 14 (day) Oct. (month) 65 (year)

[redacted] dress RR#1 Thornton

Casing and Screen Record

Inside diameter of casing 30 in
Total length of casing 50'
Type of screen Tiled well
Length of screen
Depth to top of screen
Diameter of finished hole 36 in

Pumping Test

Static level 39
Test-pumping rate 2 G.P.M.
Pumping level —
Duration of test pumping —
Water clear or cloudy at end of test CLEAR
Recommended pumping rate 2 G.P.M.
with pump setting of 48' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Sand	0	38		
Grey Sandy clay.	38	50	39	fresh.

For what purpose(s) is the water to be used? HOUSE

Is well on upland, in valley, or on hillside?

Drilling or Boring Firm Roth Well Digging

Address RR#4 Cookstown

Licence Number 61

Name of Driller or Borer B. Roth

Address Same

Date Dec 9/65

B Roth

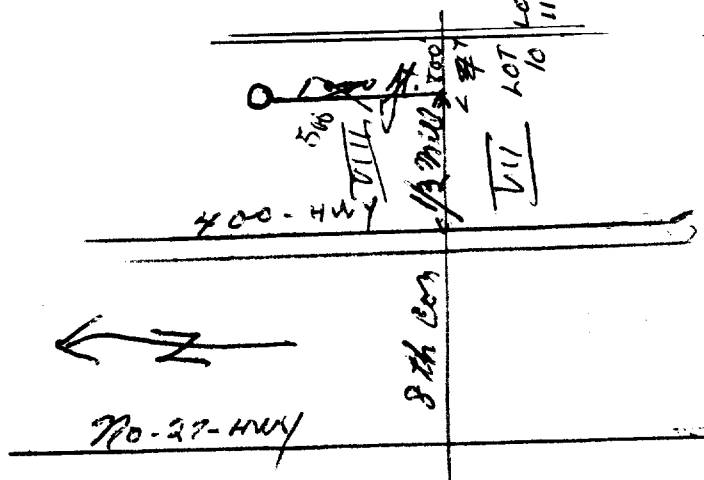
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.S8

17 409950 Con VIII
.4 490576 Lot 14
4 0880 CODED
22

5705621

J.B.

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Simcoe — Township, Village, Town or City Innisfil

Con. 8 & 9 — Lot 14 — Date completed 9 (day) May (month) 1964 (year)

[redacted] ress RR#1 Stroud Ont

Casing and Screen Record

Inside diameter of casing 6¼"

Total length of casing 25'

Type of screen —

Length of screen —

Depth to top of screen —

Diameter of finished hole 6¼"

Pumping Test

Static level 30'

Test-pumping rate 10 G.P.M.

Pumping level 70'

Duration of test pumping 3 hrs

Water clear or cloudy at end of test clear

Recommended pumping rate 7 G.P.M.

with pump setting of 60 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
Top soil	0	1		
Brown clay, pebbles, Boulders.	1	54		
Brown clay mixed with sand & Gravel	54	81		
Med To course sand	81	84		
fine To course Gravel	84	85	85	Fresh

For what purpose(s) is the water to be used? house (Domestic)

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm Henry Hammers

Address RR#3 Barrie Ont

Licence Number 2945

Name of Driller or Borer [redacted]

Address [redacted]

Date May 9/64

Henry Hammers.

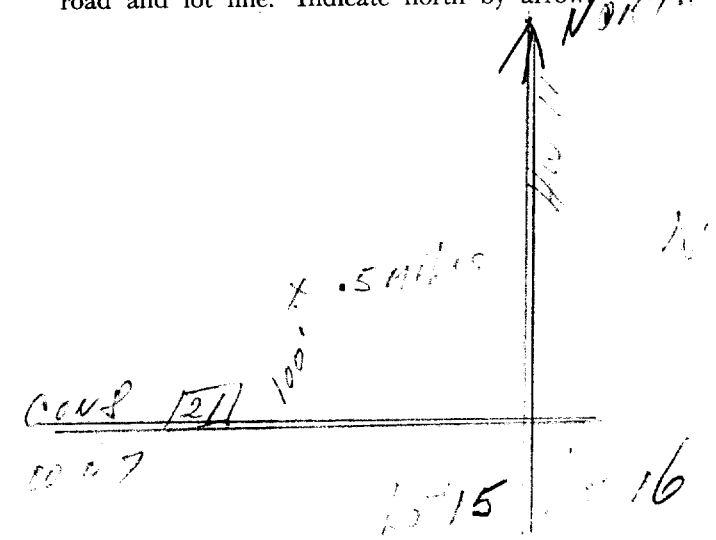
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

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Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



233.38

The Ontario Water Resources Commission Act

WATER WELL RECORD

3101SE

Water management in Ontario

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11 (1 2) | 5708796 | MUNICIP. 57005 (10 14) | CON. GAN (15) | 07 (22 23 24)

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Simcoe	Innisfil	7	010

[redacted] RR# 1 Thornton, Ontario. DATE COMPLETED (48-53) DAY 06 MO 05 YR 72

NG 04700 (24) | RG | ELEVATION 0875 (26) | RC 5 (30) | BASIN CODE 22 (31) | II | III | IV (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
Grey	Sand			0	30

31 | 0030228

32 (1 2 | 10 | 14 15 | 21 | 32 | 43 | 54 | 65 | 75 | 80)

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0015 (10-13)	1 ☒ ~~FRESH~~ 3 ☐ SULPHUR (14); 2 ☐ SALTY 4 ☐ MINERAL
(15-18)	1 ☐ FRESH 3 ☐ SULPHUR (19); 2 ☐ SALTY 4 ☐ MINERAL
(20-23)	1 ☐ FRESH 3 ☐ SULPHUR (24); 2 ☐ SALTY 4 ☐ MINERAL
(25-28)	1 ☐ FRESH 3 ☐ SULPHUR (29); 2 ☐ SALTY 4 ☐ MINERAL
(30-33)	1 ☐ FRESH 3 ☐ SULPHUR (34); 2 ☐ SALTY 4 ☐ MINERAL (80)

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
30 (10-11)	1 ☐ STEEL (12); 2 ☐ GALVANIZED; 3 ☒ CONCRETE; 4 ☐ OPEN HOLE	2½	0	~~30~~ 0030 (13-16)
(17-18)	1 ☐ STEEL (19); 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			(20-23)
(24-25)	1 ☐ STEEL (26); 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			(27-30)

SCREEN

SIZE(S) OF OPENING (SLOT NO.) (31-33)	DIAMETER INCHES (34-38)	LENGTH FEET (39-40)
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET (41-44)	(80)

61 PLUGGING & SEALING RECORD

DEPTH SET AT – FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
(10-13)	(14-17)	
(18-21)	(22-25)	
(26-29)	(30-33) (80)	

71 PUMPING TEST

PUMPING TEST METHOD (10): 1 ☐ PUMP 2 ☒ BAILER

PUMPING RATE (11-14): 0002 GPM. DURATION OF PUMPING (15-16 HOURS) 01 (17-18 MINS.) 00

STATIC LEVEL (19-21)	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (25): 1 ☐ PUMPING 2 ☒ RECOVERY			
		15 MINUTES (26-28)	30 MINUTES (29-31)	45 MINUTES (32-34)	60 MINUTES (35-37)
015 FEET	~~024~~ 027 ~~24~~ 6 FEET	~~24~~ 9 FEET	~~18~~ 12 FEET	017 ~~13~~ FEET	015 ~~75~~ FEET

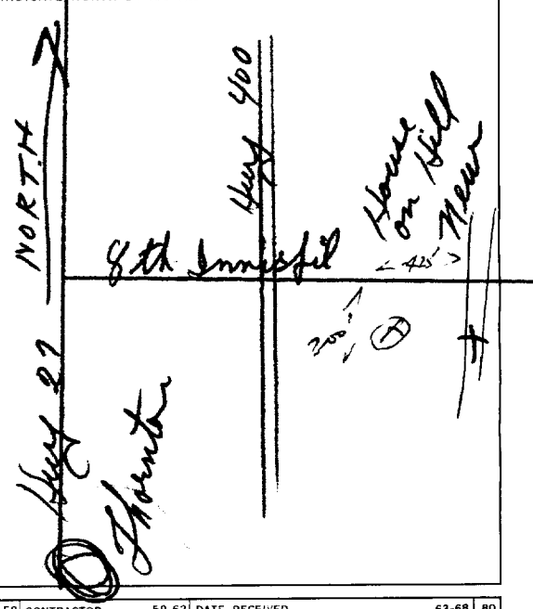
IF FLOWING, GIVE RATE (38-41)	PUMP INTAKE SET AT	WATER AT END OF TEST (42)
GPM.	FEET	1 ☒ ~~CLEAR~~ 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING (43-45)	RECOMMENDED PUMPING RATE (46-49)
☐ SHALLOW ☐ DEEP	027 FEET	0002 GPM.

(50-53) 000.2 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL (54)

1 ☒ ~~WATER SUPPLY~~ 5 ☐ ABANDONED, INSUFFICIENT SUPPLY
2 ☐ OBSERVATION WELL 6 ☐ ABANDONED, POOR QUALITY
3 ☐ TEST HOLE 7 ☐ UNFINISHED
4 ☐ RECHARGE WELL

WATER USE (55-56) 01

1 ☒ ~~DOMESTIC~~ 5 ☐ COMMERCIAL
2 ☐ STOCK 6 ☐ MUNICIPAL
3 ☐ IRRIGATION 7 ☐ PUBLIC SUPPLY
4 ☐ INDUSTRIAL 8 ☐ COOLING OR AIR CONDITIONING
☐ OTHER 9 ☐ NOT USED

METHOD OF DRILLING (57)

1 ☐ CABLE TOOL 6 ☒ ~~BORING~~
2 ☐ ROTARY (CONVENTIONAL) 7 ☐ DIAMOND
3 ☐ ROTARY (REVERSE) 8 ☐ JETTING
4 ☐ ROTARY (AIR) 9 ☐ DRIVING
5 ☐ AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: Roth well Registered — LICENCE NUMBER: 4608
ADDRESS: RR# 5 Barrie Ont.
NAME OF DRILLER OR BORER — LICENCE NUMBER: 4608
SIGNATURE OF CONTRACTOR: B Roth — SUBMISSION DATE: DAY 12 MO 5 YR 72

OFFICE USE ONLY

DATA SOURCE (58): 1 — CONTRACTOR (59-62): 4608 — DATE RECEIVED (63-68): 010672 (80)
DATE OF INSPECTION — INSPECTOR
REMARKS: CSS.S8
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OWRC COPY

The Ontario Water Resources Commission Act

WATER WELL RECORD

310/SE

Water management in Ontario

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11 (1 2) | 5709502 (3 9) | MUNICIP. 5700S (10 14) | CON. 6GN (15 22 23 24) | 07

COUNTY OR DISTRICT: SIMCOE | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: INNISFIL | CON., BLOCK, TRACT, SURVEY, ETC.: CON # 7 | LOT (25-27): 011

[redacted] Barrie

DATE COMPLETED (48-53): DAY 07 MO 09 YR 72

UTM ING 104860 (24) RC H (25) | ELEVATION 0825 (26) | RC 5 (30) | BASIN CODE 22 (31) | II | III | IV (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
BLACK	TOPSOIL			0	1
YELLOW	CLAY	SAND		1	11
BROWN	CLAY			11	15
GREY	CLAY	STONES		15	37
"	SAND	GRAVEL, STONES		37	40
"	CLAY			40	60
BROWN	SAND			60	—

31: 0991803 | 0011 5ast 28 | 0915 6 05T | 0937 2 ast 12 | 0940 2 28 W 12 | 0960 2 05T

32:

41 WATER RECORD

WATER FOUND AT FEET	KIND OF WATER
37 40	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
60 0060	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
05	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	60 0060
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT – FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER | PUMPING RATE GPM | DURATION OF PUMPING HOURS MINS

STATIC LEVEL: 01 FEET | WATER LEVEL END OF PUMPING: FEET

WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY

15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
FEET	FEET	FEET	FEET

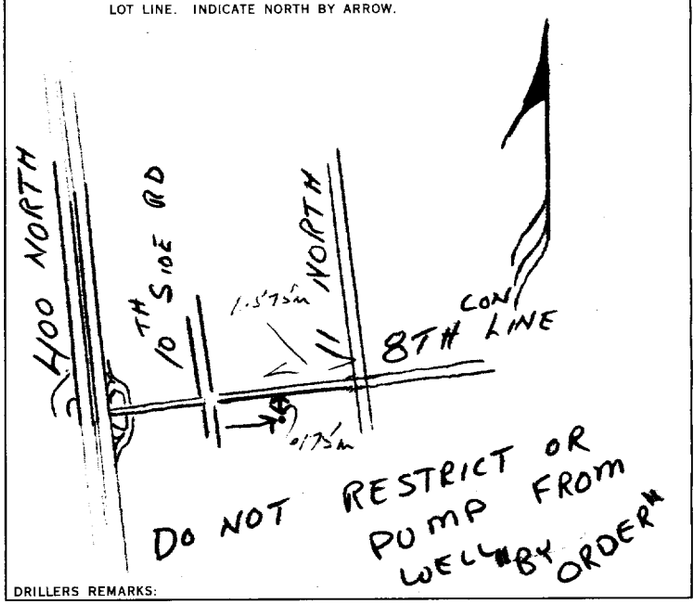
IF FLOWING, GIVE RATE: 0075 GPM | PUMP INTAKE SET AT FEET | WATER AT END 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING FEET | RECOMMENDED PUMPING RATE GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL (54)
1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE (55-56) 01
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER 9 ☐ NOT USED

METHOD OF DRILLING (57)
1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☒ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: KNELSEN WATER WELLS | LICENCE NUMBER: 3203

ADDRESS: RR # 1 BARRIE

NAME OF DRILLER OR BORER: WAYNE KNELSEN | LICENCE NUMBER: 3213

SIGNATURE OF CONTRACTOR | SUBMISSION DATE: DAY 13 MO 9 YR 72

OWRC COPY

OFFICE USE ONLY

DATA SOURCE (58): 1 | CONTRACTOR (59-62): 3203 | DATE RECEIVED (63-68): 160273 (80)

DATE OF INSPECTION | INSPECTOR

REMARKS: CSS.SS

P | W

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

310/5E

Ontario

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11 | 5710809 | MUNICIP. 57005 | CON. C & N | 08

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	INNISFIL	CON 8	011

[redacted] RR#1 STROUD ONT — DATE COMPLETED: DAY 29 MO 11 YR 73

RC | ELEVATION | RC | BASIN CODE | I | II | III | IV

1 5710809 17 607713 4905097 4 875 5 23 OCT 20, 1975 82

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BLACK				0	1
BROWN	SAND	CLAY		1	17
GREY	CLAY			17	73
BROWN	SAND			73	75

OWRC P.7

31 | 0001828 | 0011762805 | 0073205 | 0075628

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0073 / 75	1 ☒ FRESH 3 ☐ SULPHUR / 2 ☐ SALTY 4 ☐ MINERAL
15-18	1 ☐ FRESH 3 ☐ SULPHUR / 2 ☐ SALTY 4 ☐ MINERAL
20-23	1 ☐ FRESH 3 ☐ SULPHUR / 2 ☐ SALTY 4 ☐ MINERAL
25-28	1 ☐ FRESH 3 ☐ SULPHUR / 2 ☐ SALTY 4 ☐ MINERAL
30-33	1 ☐ FRESH 3 ☐ SULPHUR / 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
05	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0072
17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			20-23
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			27-30

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
010	05 INCHES	03 FEET

MATERIAL AND TYPE: JOHNSON S.S. — DEPTH TO TOP OF SCREEN: 0072 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER — PUMPING RATE: 0005 GPM — DURATION OF PUMPING: 01 HOURS 15 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
015 FEET	045 FEET		045 FEET	045 FEET	045 FEET	045 FEET

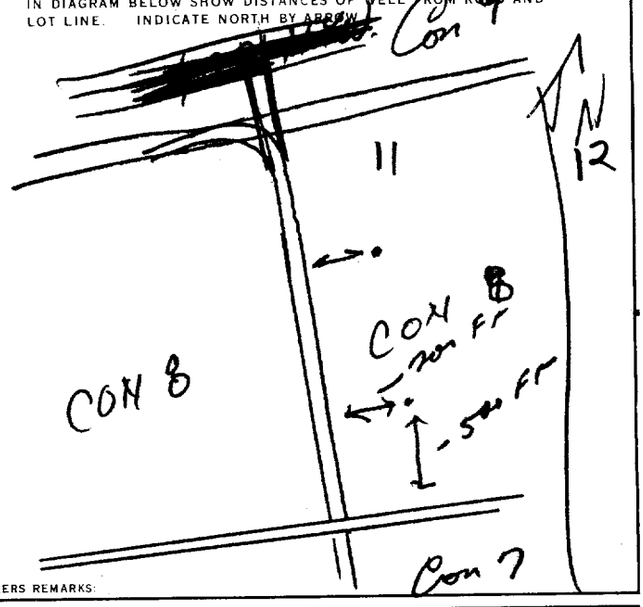
IF FLOWING, GIVE RATE: GPM — PUMP INTAKE SET AT: FEET — WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP — RECOMMENDED PUMP SETTING: 065 FEET — RECOMMENDED PUMPING RATE: 0005 1/2 GPM

50-53: GOOD

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

1 ☒ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: KNELSEN WATER WELLS — LICENCE NUMBER: 3203

ADDRESS: RR#1 BARRIE ONT

NAME OF DRILLER OR BORER: WAYNE KNELSEN — LICENCE NUMBER: —

SIGNATURE OF CONTRACTOR: [signature] — SUBMISSION DATE: DAY 1 MO 11 YR 77

OFFICE USE ONLY

DATA SOURCE: 1 — CONTRACTOR: 3203 — DATE RECEIVED: 19 03 74

DATE OF INSPECTION: 6/12/74 — INSPECTOR: [signature]

REMARKS: CSS.88 JP

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 07-091

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

31 D5E

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 5710852 | MUNICIP. 57005 | CON. CON 07

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Simcoe	Innisfil	7 BP	009 BP

[redacted] TOBOUD ONT

DATE COMPLETED DAY 10 MO. 01 YR. 74

ELEVATION 4600 RC 5 | ELEVATION 0920 RC 5 | BASIN CODE 22

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Sand	Silt		0	58
Grey	clay	"		58	143
Brown	Sand	clay		143	1116
"	"		Wet	1116	1501
"	"	clay		1501	

31 | 0058628806 | 0114320506 | 0114662805 | 0151162891 | 0151628805

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0146	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
05	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0148
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
010	05.000	03

MATERIAL AND TYPE: Johnson SS | DEPTH TO TOP OF SCREEN: 0148 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
		Rubber Packer.

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☑ BAILER | PUMPING RATE: 0010 GPM | DURATION OF PUMPING: 01 HOURS 30 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☑ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
040 FEET	055 FEET		055 FEET	055 FEET	055 FEET	055 FEET

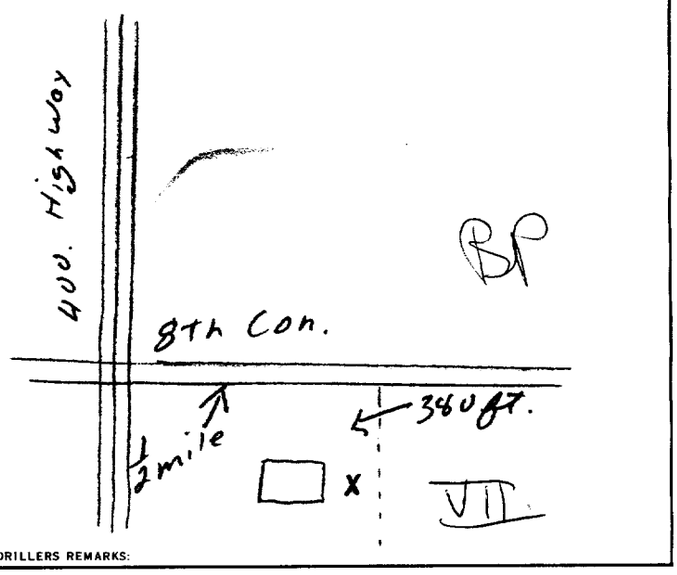
IF FLOWING, GIVE RATE: GPM. | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☑ DEEP | RECOMMENDED PUMP SETTING: 075 FEET | RECOMMENDED PUMPING RATE: 0010 GPM.

GPM./FT. SPECIFIC CAPACITY: ———•———

LOCATION OF WELL 0604

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: 1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 55-56: 01 — 1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 57: 1 ☑ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Knelsen Water Wells | LICENCE NUMBER:

ADDRESS: RR #1 Barrie Ont

NAME OF DRILLER OR BORER: Gord Kent | LICENCE NUMBER: 3135

SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE: DAY 12 MO. 1 YR. 74

OFFICE USE ONLY

DATA SOURCE 58: 1 | CONTRACTOR 59-62: 3203 | DATE RECEIVED 63-68: 190374

DATE OF INSPECTION: May 12 76 | INSPECTOR: LN

REMARKS: CSS.S8 | P BP | WI

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FORM 7 07-091

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

5720710

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	Wainfleet Twp	Con 8	9

[redacted] #1 Thornton L0L2N0

DATE COMPLETED: DAY 29 MO Apr YR 86

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BLUE	CLAY	SMALL STONES.	SOFT.	44	52.

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
35.	1 ☑ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
24"	1 ☐ STEEL 2 ☑ GALVANIZED 1 ☐ CONCRETE 4 ☐ OPEN HOLE	16GA.	42	52.
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE:

DEPTH TO TOP OF SCREEN FEET:

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
10-13	14-17	CEMENT GROUT
18-21	22-25	BETWEEN CULVERT
26-29	30-33	AND CONCRETE

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☑ BAILER	GPM	1 HOURS ____ MINS

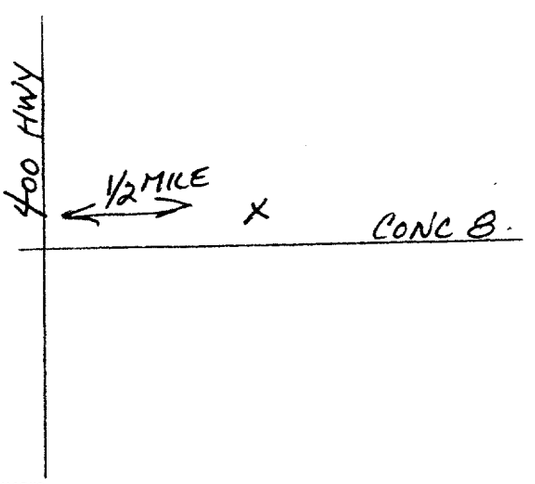
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☑ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
35 FEET	40 FEET		FEET	FEET	FEET	6 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☑ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☑ DEEP	40. FEET	3. GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS:

FINAL STATUS OF WELL
1 ☑ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED

WATER USE
1 ☑ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF DRILLING
1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☑ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Tom LaRue	3367

ADDRESS: RR#1 Smithville

NAME OF DRILLER OR BORER	LICENCE NUMBER
Paul Kelly	

SIGNATURE OF CONTRACTOR: Tom LaRue

SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED

210586

DATE OF INSPECTION | INSPECTOR

REMARKS

CSS ES

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FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 5723608 | MUNICIP. 5,7,0,0,5 | CON.

COUNTY OR DISTRICT: [redacted] | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: INNISFIL. | CON. BLOCK, TRACT, SURVEY, ETC.: CON. 7 | LOT: 13

[redacted] R 2 STROUD 456250 | DATE COMPLETED: DAY 19 MO 7 YR 88

HING | RC. | ELEVATION | RC | BASIN CODE: II III IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BROWN	SAND			0	14
GREY	SAND	CLAY		14	16
GREY	CLAY	SAND		16	40
GREY	CLAY			40	42
GREY	GRAVEL			42	49.
GREY	GRAVEL		CLEAN	49.	51.

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
49-51	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
5	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	49
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
30	5 INCHES	3 FEET

MATERIAL AND TYPE: ST STEEL. | DEPTH TO TOP OF SCREEN: 48. FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☑ PUMP 2 ☐ BAILER | PUMPING RATE: 15. GPM | DURATION OF PUMPING: 1 HOURS : MINS

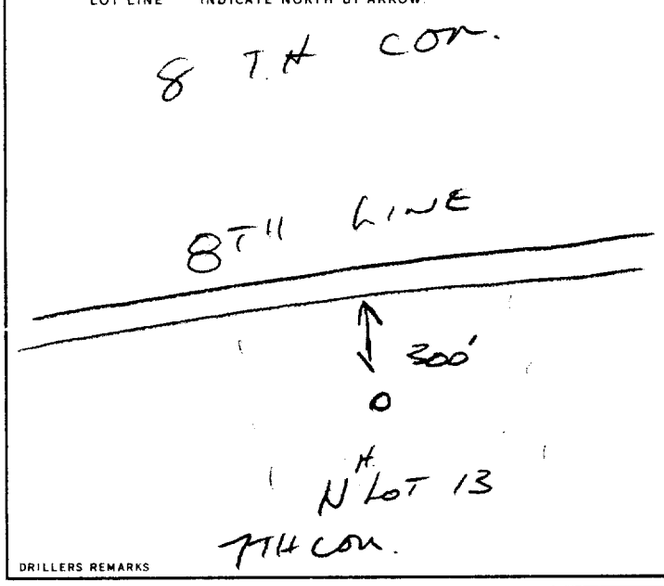
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
+4 FEET	FEET		12 FEET	12 FEET	12 FEET	12 FEET

IF FLOWING, GIVE RATE: 8 GPM | PUMP INTAKE SET AT: — FEET | WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☑ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING: 20 FEET | RECOMMENDED PUMPING RATE: 10-15 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE

1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

1 ☑ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: KWELSEN WATER WELL | LICENCE NUMBER: 3203

ADDRESS: RR#1 BARRIE

NAME OF DRILLER OR BORER: WAYNE KWELSEN. | LICENCE NUMBER: T-036

SIGNATURE OF CONTRACTOR: Wayne Kwelsen | SUBMISSION DATE: DAY 21 MO 08 YR 88

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR: 3203 | DATE RECEIVED: AUG 11 1988

DATE OF INSPECTION | INSPECTOR

REMARKS: CSS.ES

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Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 5724086 — MUNICIP 5,7,0,0,5 — CON.

COUNTY OR DISTRICT: [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: INNISVILLE — CON — BLOCK, TRACT, SURVEY, ETC: 8 — LOT: 8

[redacted] BOX 148 TIBERTON.

DATE COMPLETED: DAY 21 MO 10 YR 88

RC — ELEVATION — RC — BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BLACK	TOPSOIL	—	—	0	1
BROWN	SAND	SILT	COARSE LOOSE	1	18
BROWN	SAND	SILT CLAY	COMPACTED	18	35
BROWN	SAND	SILT STONE	MEDIUM & LOOSE	35	161

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
161	1 ☑ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 1/4	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	+2	55
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
14	6 INCHES	4 FEET

MATERIAL AND TYPE: STAINLESS — DEPTH TO TOP OF SCREEN: 57 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
53	57	4" PACKER & 5" DROP PIPE.

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER — AIR

PUMPING RATE: 5 GPM — DURATION OF PUMPING: 4 HOURS ____ MINS

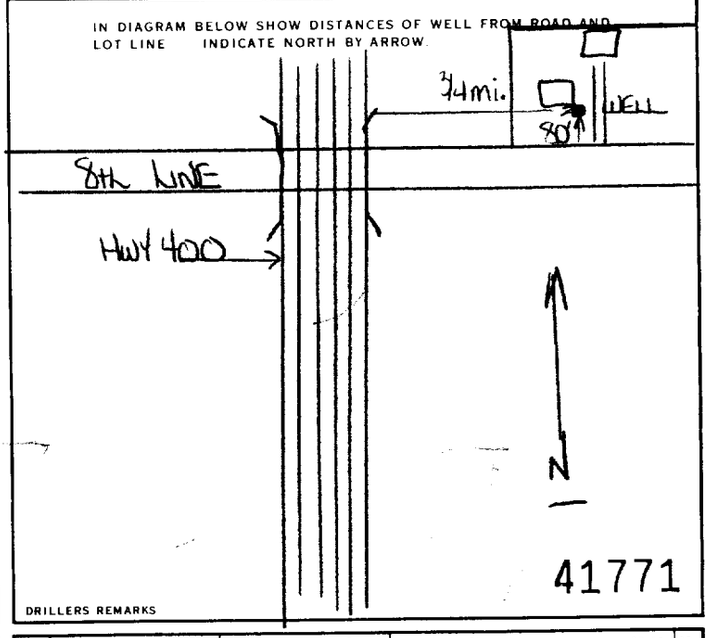
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
40' FEET	FEET	FEET	FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE: GPM — PUMP INTAKE SET AT: FEET — WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP — RECOMMENDED PUMP SETTING: 55 FEET — RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



41771

DRILLERS REMARKS

FINAL STATUS OF WELL
1 ☑ WATER SUPPLY — 2 ☐ OBSERVATION WELL — 3 ☐ TEST HOLE — 4 ☐ RECHARGE WELL — 5 ☐ ABANDONED, INSUFFICIENT SUPPLY — 6 ☐ ABANDONED, POOR QUALITY — 7 ☐ UNFINISHED — ☐ DEWATERING

WATER USE
1 ☑ DOMESTIC — 2 ☐ STOCK — 3 ☐ IRRIGATION — 4 ☐ INDUSTRIAL — ☐ OTHER — 5 ☐ COMMERCIAL — 6 ☐ MUNICIPAL — 7 ☐ PUBLIC SUPPLY — 8 ☐ COOLING OR AIR CONDITIONING — 9 ☐ NOT USED

METHOD OF CONSTRUCTION
1 ☐ CABLE TOOL — 2 ☑ ROTARY (CONVENTIONAL) — 3 ☐ ROTARY (REVERSE) — 4 ☐ ROTARY (AIR) — 5 ☐ AIR PERCUSSION — 6 ☐ BORING — 7 ☐ DIAMOND — 8 ☐ JETTING — 9 ☐ DRIVING — ☐ DIGGING — ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: R&B WELL DRILLING LTD — WELL CONTRACTOR'S LICENCE NUMBER: 4645

ADDRESS: RR#2 BEETON. LOG 1A0

NAME OF WELL TECHNICIAN: CARL M. COMER — WELL TECHNICIAN'S LICENCE NUMBER: D0256

SIGNATURE OF TECHNICIAN/CONTRACTOR — SUBMISSION DATE: DAY 31 MO 10 YR 88

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 4645 — DATE RECEIVED: NOV 16 1988

DATE OF INSPECTION — INSPECTOR

REMARKS

CSS.ES

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FORM NO. 0506 (11/86) FORM 9

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 5727211 — MUNICIP 5705 — CON. CON 07

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY ETC	LOT
[redacted]	Innisfil	7	10

[redacted] 21 THORNTON ONT. LOT 2ND — DATE COMPLETED DAY 11 MO 09 YR 90

RC. ELEVATION RC. BASIN CODE II III IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BLACK	TOP SOIL			0	1
BROWN	SAND	CLAY		1	15
GREY	CLAY	GRAVEL		15	85
GREY	SAND		FINE - MED W/B	85	89
GREY	SAND		MED - COARSE W/B	89	92
BROWN	SAND		MED - COARSE W/B	92	96
GREY	SAND	CLAY		96	100

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
85-96	1 ☒ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☒ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
5	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	+2	92
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
14	5 INCHES	3 FEET

MATERIAL AND TYPE: JOHNSON — DEPTH TO TOP OF SCREEN: 92 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
89	92	K-PACKER & LEAD
8	12	BENSEAL

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	20 GPM	1 HOURS ___ MINS

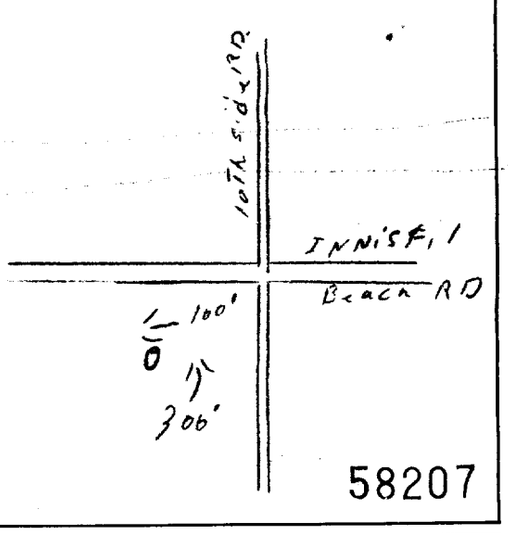
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
+1 FEET	20 FEET	1 ☒ PUMPING 2 ☐ RECOVERY	20 FEET	20 FEET	20 FEET	20 FEET

IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☒ SHALLOW ☐ DEEP	20 FEET	20 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



58207

DRILLERS REMARKS

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED; ☐ DEWATERING

WATER USE

1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF CONSTRUCTION

1 ☐ CABLE TOOL; 2 ☒ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☐ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING; ☐ DIGGING; ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: MARKHAM DRILLING — WELL CONTRACTOR'S LICENCE NUMBER: 3660

ADDRESS: RR#1 SHANTY BAY ONT

NAME OF WELL TECHNICIAN: PETER MARKHAM — WELL TECHNICIAN'S LICENCE NUMBER: 70364

SIGNATURE OF TECHNICIAN/CONTRACTOR: Peter Markham — SUBMISSION DATE: DAY 14 MO 09 YR 90

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 3660 — DATE RECEIVED: SEP 19 1990

DATE OF INSPECTION — INSPECTOR

REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ontario — Ministry of the Environment

Well Tag Number: A023466 (W)
A023466

Well Record
Regulation 903 Ontario Water Resources Act

page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only
MUN | CON | LOT

Well Owner's Information and Location of Well Information

First Name	Last Name	Mailing Address (Street Number/Name, RR, Lot, Concession)
SPRING	TREE FARM	1925 INNISFIL BEACH ROAD

County/District/Municipality	Township/City/Town/Village	Province	Postal Code	Telephone Number (include area code)
SIMCOE	INNISFIL	Ontario	L9S 4B4	

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
SIMCOE	INNISFIL	14	7

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
2475 INNISFIL BEACH RD	INNISFIL	51R1666 PART 2

GPS Reading: NAD 83 | Zone 17 | Easting 609570 | Northing 4905638 | Unit Make/Model: GARMIN | Mode of Operation: ☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
BROWN	CLAY			0	30'
GREY	CLAY			30'	112'
GREY	SAND		COARSE	112'	134'

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)

Water Record

Water found at ___ Metres / Kind of Water
☐ ___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
☐ ___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
☐ ___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☐ Clear and sediment free
☐ Other, specify

Chlorinated ☐ Yes ☐ No

Construction Record

Inside diam (centimetres)	Material	Wall thickness (centimetres)	Depth From	Depth To (Metres)
Casing				
6"	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	219	0	122'
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam		Slot No.		
5	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	14	122'	134'
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method: A

	Draw Down Time (min)	Draw Down Water Level (Metres)	Recovery Time (min)	Recovery Water Level (Metres)
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs +___ min	2		2	
Final water level end of pumping ___metres	3		3	
Recommended pump type. ☐ Shallow ☒ Deep	4		4	
Recommended pump depth. 120' (metres)	5		5	
Recommended pump rate. 30GPM (litres/min)	10		10	
	15		15	
If flowing give rate - 10GPM (litres/min)	20		20	
	25		25	
If pumping discontinued, give reason. FLOWING	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at (Metres) From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	20'	12 BAG'S 3/8 HOLE PLUG.	

Method of Construction

☐ Cable Tool ☒ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☒ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
LONE STAR WELL DIGGING	3413

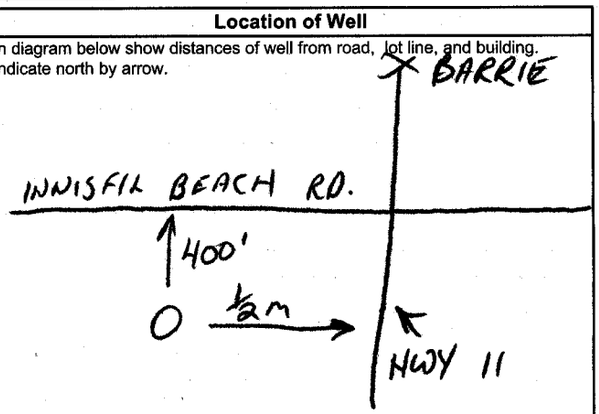
Business Address (street name, number, city etc.): P.O. 280 NEFROY ONT N0R1N0.

Name of Well Technician (last name, first name)	Well Technician's Licence No.
JAMES MOORE	N01

Signature of Technician/Contractor: X [signature]
Date Submitted: YYYY 2005 MM 03 DD 11

Location of Well

In diagram below show distances of well from road, lot line, and building. Indicate north by arrow.



Audit No. Z 24018
Date Well Completed: YYYY 2005 MM 03 DD 11
Was the well owner's information package delivered? ☐ Yes ☐ No
Date Delivered: YYYY MM DD

Ministry Use Only

Data Source	Contractor
.	3413
Date Received: YYYY MM DD APR 19 2005	Date of Inspection: YYYY MM DD
Remarks	Well Record Number

0506E (09/03)

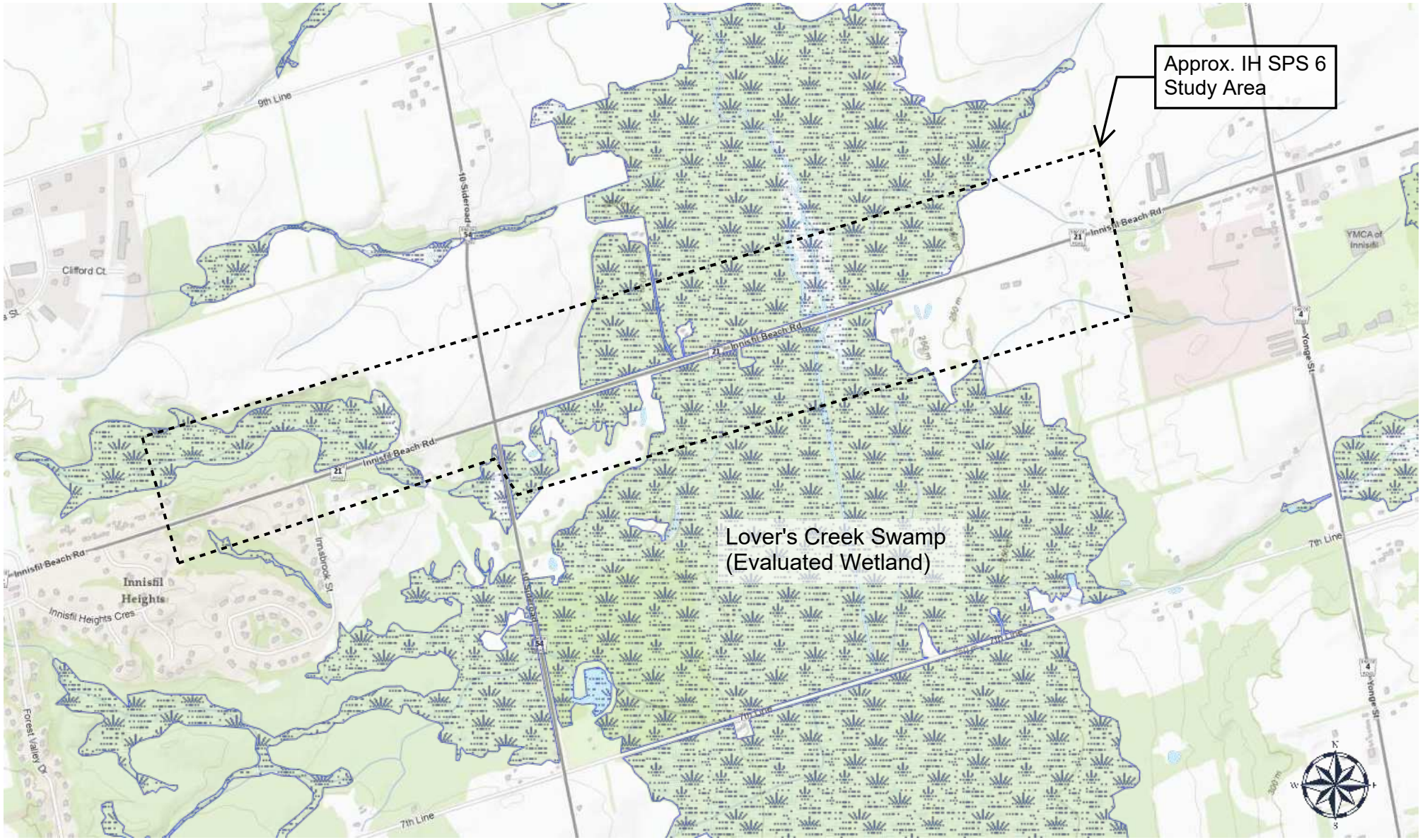
Contractor's Copy ☐ Ministry's Copy ☑ Well Owner's Copy ☐

Cette formule est disponible en français

ENCLOSURE 4

Simcoe County Maps

Wetland Areas



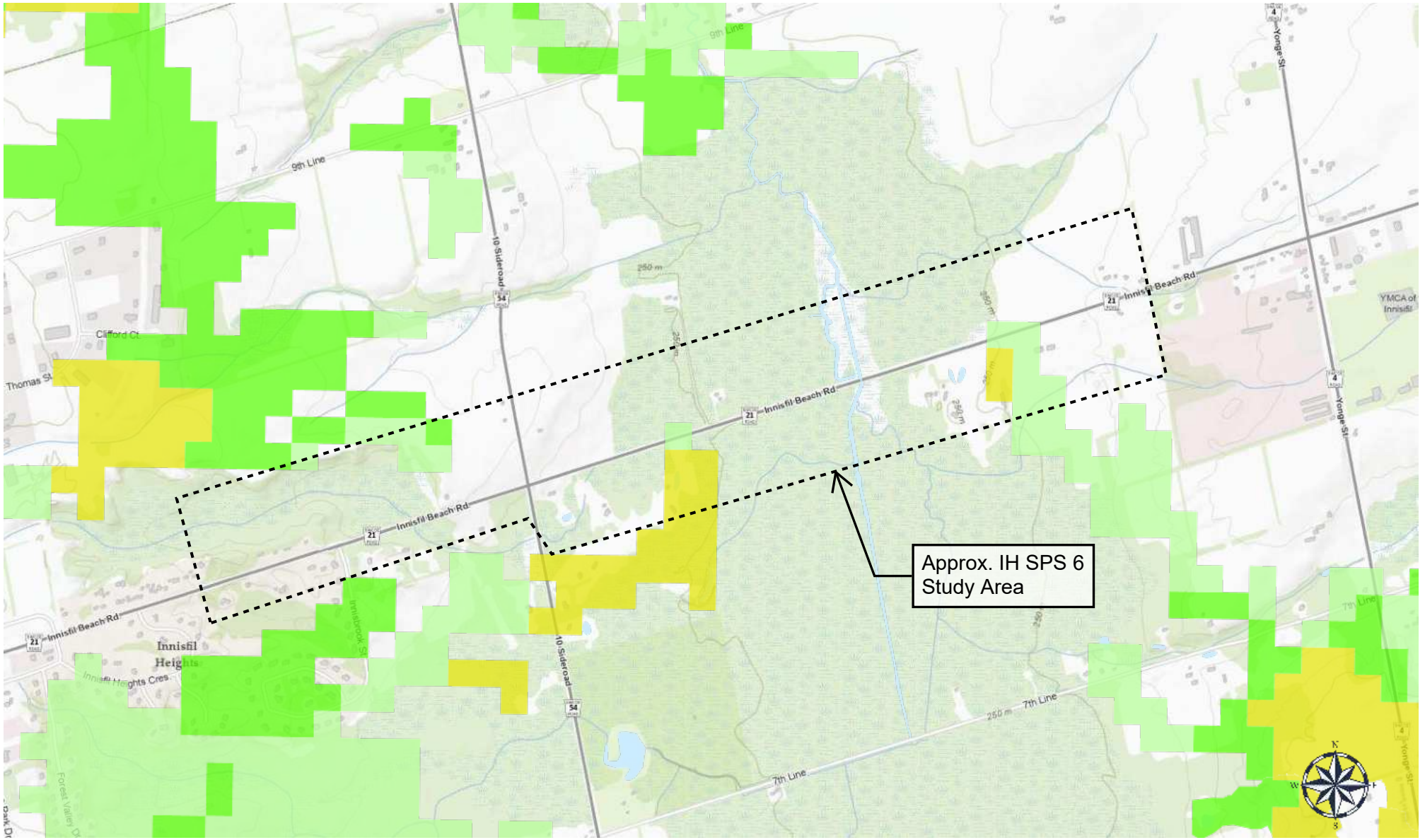
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0 200 600m

1 : 18,056

Nov 25, 2021

Significant Groundwater Recharge Areas



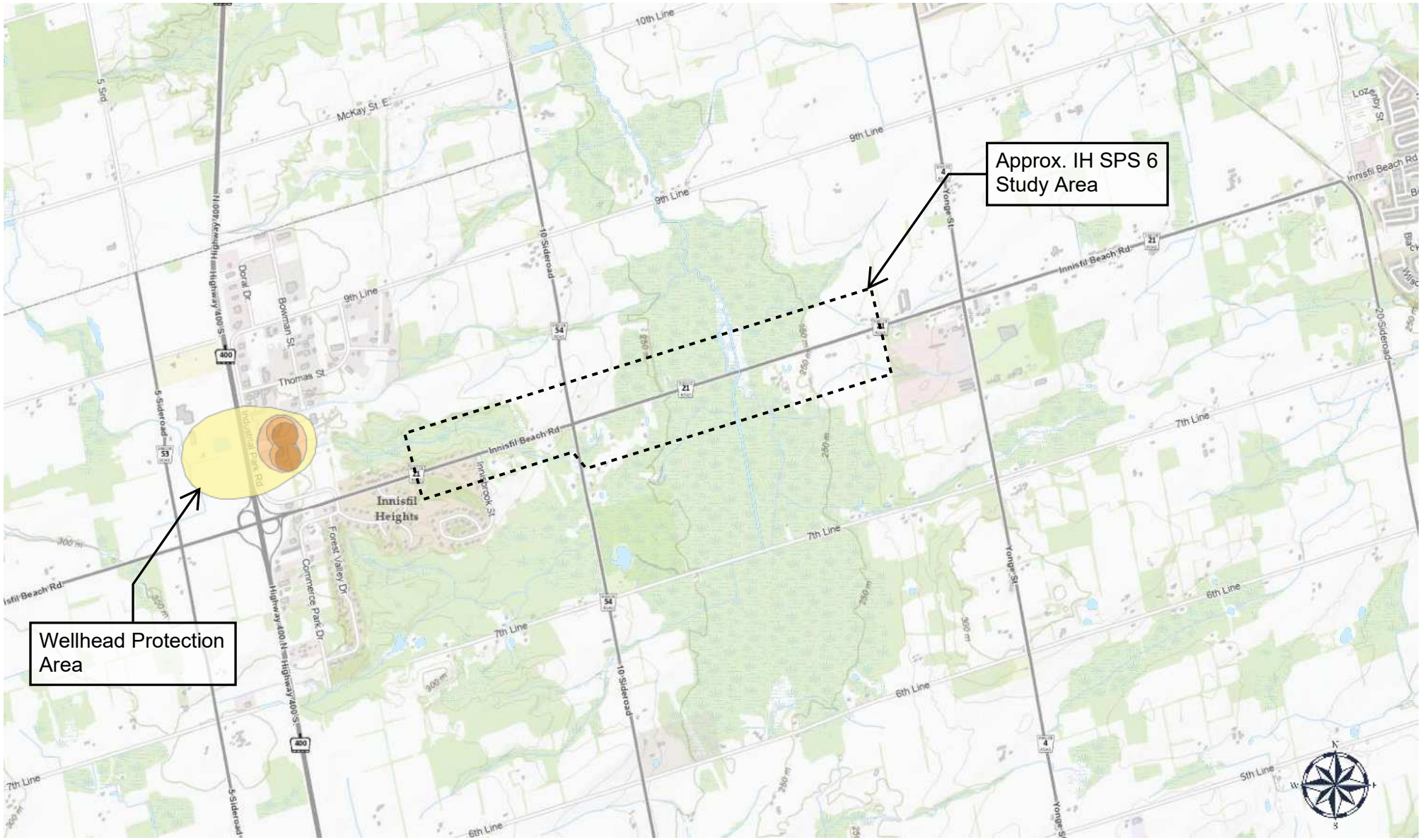
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0 200 600m

1 : 18,056

Nov 25, 2021

Wellhead Protection Areas



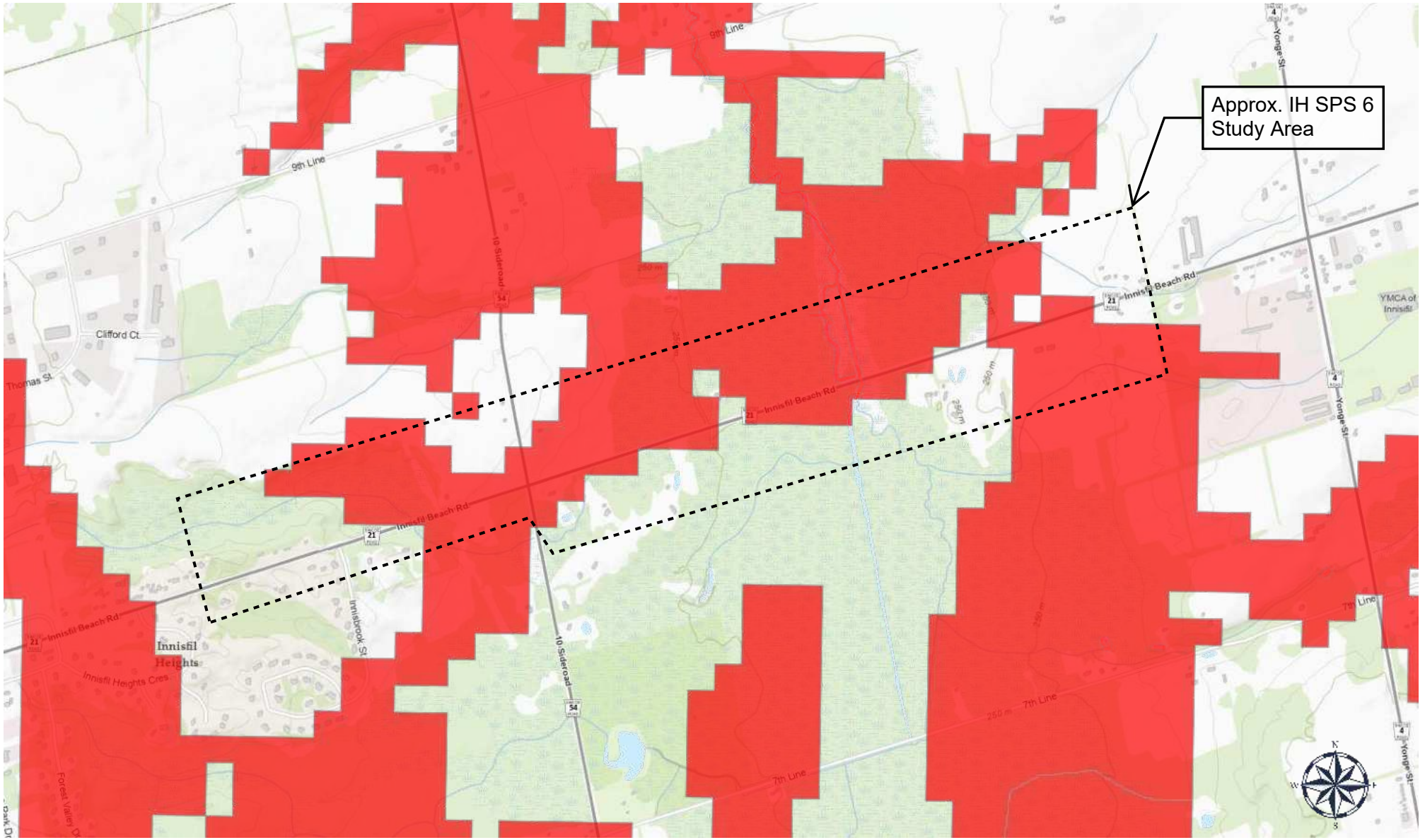
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0 1 2 3km

1 : 36,112

Nov 25, 2021

Highly Vulnerable Aquifers



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0 200 600m

1 : 18,056

Nov 25, 2021

ENCLOSURE 5

MTO Boreholes and Borehole Location Plans

RECORD OF BOREHOLE No B4-1 1 OF 1 METRIC

PROJECT 001-1143F
W.P. 30-95-00
DIST SW HWY 400
DATUM Geodetic

LOCATION N 4905036.5; E 290509.0
BOREHOLE TYPE 108mm DIAMETER SOLID STEM AUGERS
DATE Oct.24/2000

ORIGINATED BY AZ
COMPILED BY LCC
CHECKED BY ASP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × REMOULDED) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
302.7	GROUND SURFACE										
0.0	Topsoil										
0.2	Clayey Silt with sand, some gravel (Till) Hard Brown Moist		1	SS	120		302				
			2	SS	125		301		o ⊣		11 37 43 9
300.6											
2.1	Silty Sand, some gravel, trace clay Very dense Brown Dry		3	SS	103/.15						
300.0							300				
2.7	Clayey Silt with sand, some gravel (Till) Hard Brown Moist		4	SS	151/.15				o		
			5	SS	101/.15		299				
			6	SS	109/.15		298		o H		
	Cobbles at 5.5m and 5.8m depth										
296.5			7	SS	113/.15		297				
6.2	END OF BOREHOLE										

Notes:
1. Refusal to auger advance was encountered at 1.4m depth. Borehole was relocated 1m west and drilling continued.
2. Borehole dry on completion of drilling operations.

$+^3, \times^3$: Numbers refer to Sensitivity $\circ^{3\%}$ STRAIN AT FAILURE

ON_MOT 0011143F.GPJ ON_MOT.GDT 14/1/02

RECORD OF BOREHOLE No B4-2 1 OF 1 METRIC

PROJECT 001-1143F
W.P. 30-95-00 LOCATION N 4904989.7; E 290437.7 ORIGINATED BY AZ
DIST SW HWY 400 BOREHOLE TYPE 108mm DIAMETER SOLID STEM AUGERS COMPILED BY LCC
DATUM Geodetic DATE Oct.24/2000 CHECKED BY ASP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × REMOULDED) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
305.6	GROUND SURFACE										
0.0 / 305.1	Topsoil										
0.5 / 304.1	Clayey Silt with sand, some organics (Fill) Stiff Dark brown Moist		1	SS	11		305				
1.5 / 303.4	Silty Sand, trace gravel, clay and organics (Fill) Compact Dark brown Moist		2	SS	27		304		○		
2.2	Clayey Silt with sand, trace gravel (Till) Hard Brown becming grey at 7.3m depth Moist		3	SS	48		303				
			4	SS	141/.25				○		
	Cobbles at 3.7m depth		5	SS	101/.15		302				
			6	SS	115/.15		301		○		
	Silty sand, trace clay and gravel (Till) encountered in Sample 7.		7	SS	43		300				
			8	SS	210	▽	299		○		
			9	SS	240		298				
294.8			10	SS	135/.15		297				
10.8	END OF BOREHOLE						296				
							295				

Notes:
1. Borehole dry on completion of drilling operations.
2. Water level in piezometer measured at 7.7m depth (Elev.297.9m) on March 15, 2001.

$+^3, \times^3$: Numbers refer to Sensitivity $\circ^{3\%}$ STRAIN AT FAILURE

ON_MOT 0011143F.GPJ ON_MOT.GDT 14/1/02

DIST HWY 400
CONT. No.
GWP No. 30-95-00

INNISFIL BEACH ROAD OVERPASS HWY 400
BOREHOLE LOCATION PLAN

SHEET

Golder Associates

Golder Associates Ltd.
MISSISSAUGA, ONTARIO, CANADA

HIGHWAY 400

INNISFIL BEACH ROAD

SIMCOE ROAD 21

B4-1

B4-2

19+700

19+600

19+500

N 4 905 000

N 4 904 900

E 290 400

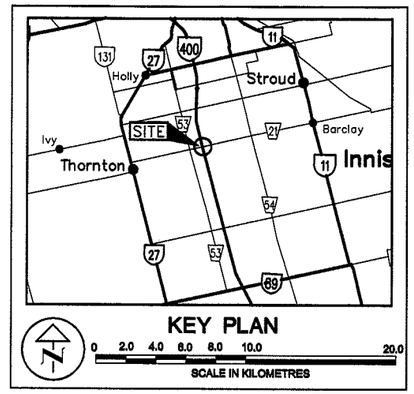
E 290 500

E 290 600

B&H

CB

LS



KEY PLAN

0 2.0 4.0 6.0 8.0 10.0 20.0
SCALE IN KILOMETRES

LEGEND

- Borehole, previous investigation
- Borehole, present investigation

No.	ELEVATION	LOCATION NORTHING	LOCATION EASTING
B4-1	302.7	4,905,036.5	290,509.0
B4-2	305.6	4,904,989.7	290,437.7

REFERENCE
This drawing was created from digital file "50201.dwg" provided by URS Cole Sherman

0 10 20 30 40 50 100m
SCALE IN METRES

METRIC
DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN

NO.	DATE	BY	REVISION

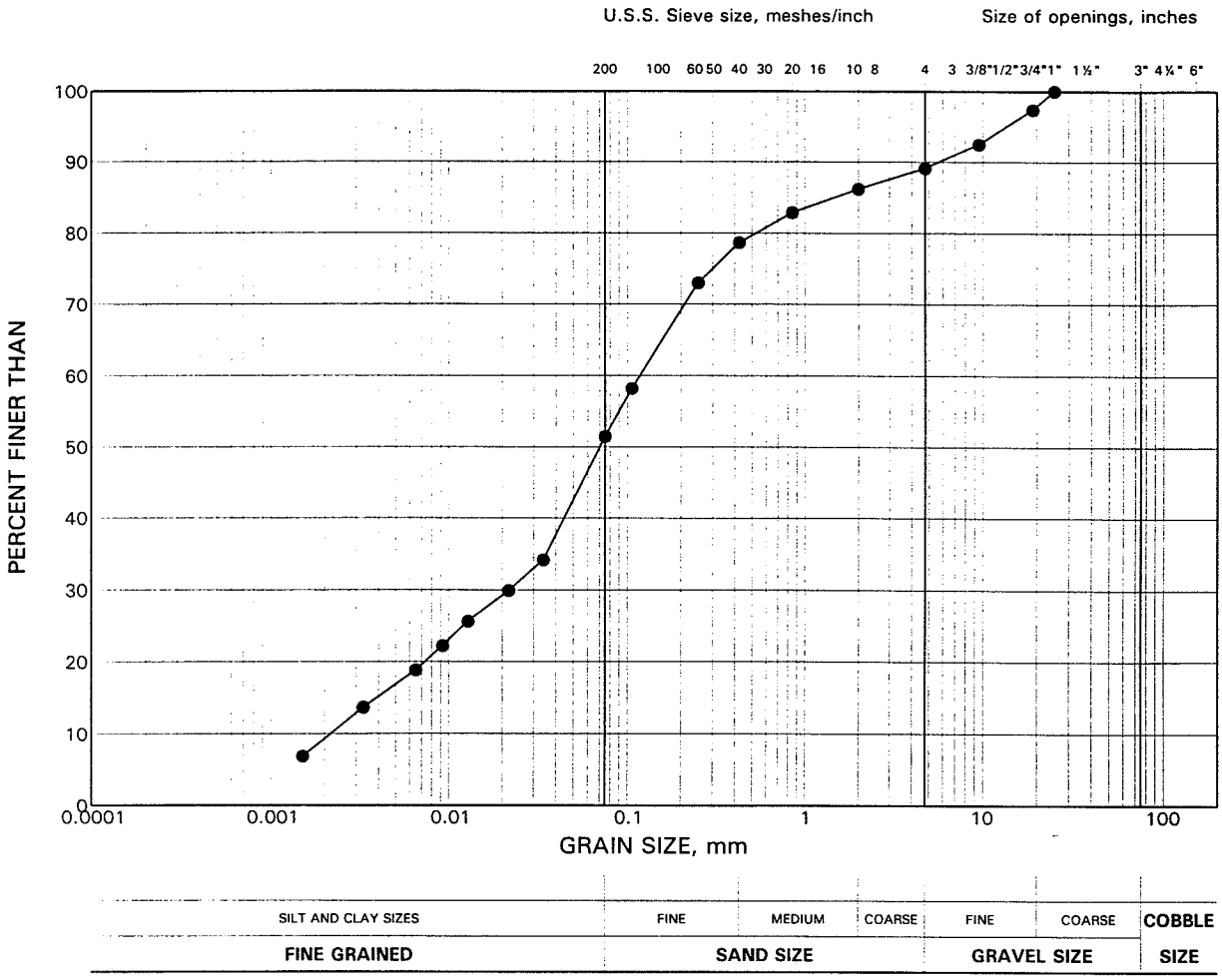
Geocres No.

HWY. No. 400		PROJECT NO.: 001-1143F	
SUBM'D. LCC	CHKD: ASP	DATE: JANUARY 2001	SITE 30-210
DRAWN: MHW	CHKD. LCC	APPD. ASP	DWG. 1

P1143F09.DWG

GRAIN SIZE DISTRIBUTION TEST RESULT
Clayey Silt Till

FIGURE 1



LEGEND

SYMBOL	BOREHOLE	SAMPLE	ELEVATION (m)
●	B4-1	2	300.9

Project 001-1143F

Golder Associates

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-01 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION , MTM NAD 83 Zone10: N 4 904 060.6 E 290 615.1 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.22 - 2019.05.24 LATITUDE 44.276410 LONGITUDE -79.677701 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
302.3	GROUND SURFACE								
0.0	**TOPSOIL:** (150mm)								
0.2	**SAND** and **SILT**, trace gravel, occasional rootlets Loose Brown Moist (FILL)		1	SS	5		302		
301.6									
0.7	**SAND**, trace gravel, trace to some silt, trace to some clay Loose to Compact Brown Moist		2	SS	5				0 86 14 (SI+CL)
			3	SS	22		301		
300.1									
2.2	**SAND**, silty, trace to some gravel, some clay Very Dense Brown Moist (TILL)		4	SS	61		300		
			5	SS	60		299		
			6	SS	100/ 0.100		298		
			7	SS	62		297		17 50 20 13
			8	SS	100		296		
			9	SS	100/ 0.200		295		
							294		
							293		Augers grinding at 9.9m

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L

WATER CONTENT (%) 20 40 60

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-01 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION , MTM NAD 83 Zone10: N 4 904 060.6 E 290 615.1 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.22 - 2019.05.24 LATITUDE 44.276410 LONGITUDE -79.677701 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
292.1	**SAND**, silty, trace to some gravel, some clay (TILL) Very Dense Brown Moist						292				
10.2	**CLAY**, silty, some sand Hard Brown Moist (TILL)		10	SS	82		291				0 17 48 35
290.6											
11.7	**SAND**, silty, trace gravel, trace clay Very Dense Brown Moist (TILL)		11	SS	81		290				
289.5											
12.8	END OF BOREHOLE AT 12.8m. BOREHOLE OPEN AND WATER LEVEL AT 11.6m UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen.										

WATER LEVEL READINGS

DATE	DEPTH(m)	ELEV.(m)
2019.06.04	7.1	295.2
2020.04.08	7.3	295.0

$+^3$, $\times^3$: Numbers refer to Sensitivity

15 20 10 5 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-02 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 117.6 E 290 618.1 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.27 - 2019.05.27 LATITUDE 44.276923 LONGITUDE -79.677664 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
301.1	GROUND SURFACE									
0.0	**ASPHALT** (150mm)						301			
0.2	**SAND** and **GRAVEL** Brown Moist (FILL)		1	GS				○		
300.4										
0.7	**SAND** and **SILT**, some gravel Compact Brown Moist (FILL)		1	SS	25		300	○		
299.6										
1.4	**SAND**, silty, some gravel, some clay Dense to Very Dense Brown Moist (TILL) occasional cobbles from 2.3m to 2.9m		2	SS	49			○		
							299			
			3	SS	49			○		19 50 17 14
							298			
			4	SS	56			○		
							297			
			5	SS	87			○		Augers grinding from 4.6m to 4.9m
							296			
295.4						▽				Spoon wet at about 5.4m depth
5.6	**SAND** and **SILT**, trace clay Very Dense Brown Wet		6	SS	86		295	○		0 56 35 9
293.9										
7.2	**SAND**, silty, some gravel, some clay Very Dense Grey Moist (TILL)		7	SS	100/ 0.150		294			
							293	○		
				SS	100/ 0.225		292			

Continued Next Page

+ ^{3}, × ^{3}: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-02 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 117.6 E 290 618.1 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.27 - 2019.05.27 LATITUDE 44.276923 LONGITUDE -79.677664 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
290.9							291				
10.2	END OF BOREHOLE AT 10.2m. WATER LEVEL AT 5.5m UPON COMPLETION. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG AND AUGER CUTTINGS TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-03 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 163.0 E 290 595.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.22 - 2019.05.22 LATITUDE 44.277331 LONGITUDE -79.677943 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
304.3	GROUND SURFACE								
0.0	**TOPSOIL:** (150mm)								
0.2	**SAND** and **SILT**, occasional organics Compact Brown Moist (FILL)		1	SS	10		304		
303.6 0.7	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)		2	SS	31		303		
			3	SS	100/				
			4	SS	100/ 0.250		302		
			5	SS	67		301		8 60 19 13
			6	SS	81		300		
			7	SS	53		299		
297.2 7.2	**SAND**, trace to some silt, trace gravel, trace clay Very Dense Brown Moist to Wet		8	SS	62		298		3 82 15 (SI+CL)
			9	SS	60		297		
							296		
							295		

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 20 40 60

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

15 20 10 5 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

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Ontario

THURBER

RECORD OF BOREHOLE No DC-03 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 163.0 E 290 595.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.22 - 2019.05.22 LATITUDE 44.277331 LONGITUDE -79.677943 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, trace to some silt, trace gravel, trace clay Dense Brown Moist						294				
			10	SS	39				○		
292.6							293				
11.7	**SAND**, silty, trace gravel, trace to some clay Very Dense Brown Moist (TILL)										
291.7			11	SS	100		292		○		5 61 34 (SI+CL)
12.6	END OF BOREHOLE AT 12.6m. WATER LEVEL AT 10.0m UPON COMPLETION BOREHOLE THEN CAVED-IN TO 7.3m. BOREHOLE BACKFILLED WITH AUGER CUTTINGS AND BENTONITE HOLEPLUG TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-04 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 188.8 E 290 603.4 ORIGINATED BY BI

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.28 - 2019.05.28 LATITUDE 44.277564 LONGITUDE -79.677850 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
301.8	GROUND SURFACE								
0.0	**ASPHALT** (150mm)								
0.2	**SAND** and **GRAVEL**, trace silt, trace clay Brown Moist (FILL)		1	GS					
301.2									
0.7	**SAND** and **SILT**, trace gravel Compact Brown Moist (FILL)		1	SS	19		301		
300.4									
1.4	**SAND**, silty, some gravel, some clay Very Dense Brown Moist (TILL)		2	SS	73		300		19 52 16 13
			3	SS	73		299		
			4	SS	86		298		
			5	SS	87		297		
			6	SS	100/0.250	▽	296		
294.8							295		
7.1	**SILT**, clayey, some sand Hard Brown Moist (TILL)		7	SS	100/0.175		294		0 13 67 20
293.3									
8.5	**SAND**, silty, some gravel, trace to some clay Very Dense Brown Moist (TILL)		8	SS	100/0.200		293		Augers grinding at 9.9m
292.3									
9.5	END OF BOREHOLE AT 9.5m. BOREHOLE CAVED-IN TO 7.6m. WATER LEVEL AT 5.8m UPON								

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa 20 40 60 80 100
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE

PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 20 40 60

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 15 5 10 (%) STRAIN AT FAILURE

Ministry of Transportation
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RECORD OF BOREHOLE No DC-04 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 188.8 E 290 603.4 ORIGINATED BY BI

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.28 - 2019.05.28 LATITUDE 44.277564 LONGITUDE -79.677850 CHECKED BY SKP

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES						GR SA SI CL
	Continued From Previous Page										
	COMPLETION. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG AND AUGER CUTTINGS TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

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RECORD OF BOREHOLE No DC-05 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 219.2 E 290 582.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.21 - 2019.05.21 LATITUDE 44.277837 LONGITUDE -79.678107 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
304.6	GROUND SURFACE										
0.0	**TOPSOIL:** (125mm)										
0.1	**SAND** and **SILT**, some clay, trace gravel Loose Brown Moist (FILL)		1	SS	9		304				
			2	SS	7						
303.2											
1.4	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		3	SS	100/ 0.050		303				Spoon bouncing at 1.4m. Borehole relocated to 2.0m south
			4	SS	70		302				4 58 21 17
			5	SS	100/ 0.250		301				
			6	SS	100/ 0.250		300				6 60 18 16
			7	SS	100		299				
			8	SS	100		298				
			9	SS	100/ 0.225		297				17 54 17 12
294.7							296				Auger refusal at 9.9m and grinding
							295				

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 / 10 / 5 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No DC-05 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 904 219.2 E 290 582.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.21 - 2019.05.21 LATITUDE 44.277837 LONGITUDE -79.678107 CHECKED BY SKP

SOIL PROFILE			SAMPLES					DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100		UNIT WEIGHT	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	γ kN/m^3	GR SA SI CL
	Continued From Previous Page										
9.9	END OF BOREHOLE AT 9.9m. BOREHOLE OPEN AND DRY UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen. WATER LEVEL READINGS DATE DEPTH(m) ELEV.(m) 2019.06.04 7.1 297.5 2020.04.08 7.3 297.4										

$+^3$, $\times^3$: Numbers refer to Sensitivity

$\oplus$ (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-01 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 297.4 E 290 374.6 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.06 - 2019.05.06 LATITUDE 44.287537 LONGITUDE -79.680747 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	"N" VALUES	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
305.8	GROUND SURFACE				
0.0	**TOPSOIL** (125mm)				
0.1	**SAND** and **SILT**, some gravel Loose Brown Moist (FILL)	1	SS	7	
305.1					
0.7	**SAND** and **SILT**, trace gravel, some clay Very Dense Brown Moist (TILL)	2	SS	59	Augers grinding from 0.8m to 1.5m
		3	SS	81	1 43 43 13
303.6					
2.2	**SAND**, some silt, trace clay Dense to Very Dense Brown Moist	4	SS	37	
		5	SS	48	0 85 12 3
		6	SS	52	
	Wet	7	SS	47	Spoon wet at 6.1m
297.9		8	SS	28	0 49 47 4
7.9	**SAND** and **SILT**, trace clay Compact Brown to Grey Moist to Wet				
296.2					
9.6	**SAND**, silty, some gravel, trace clay Dense to Very Dense (TILL)				

GROUND WATER CONDITIONS

ELEVATION SCALE: 305, 304, 303, 302, 301, 300, 299, 298, 297, 296

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa 20 40 60 80 100
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE

PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 20 40 60

UNIT WEIGHT γ kN/m^3

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 / 10 / 5 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-01 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 297.4 E 290 374.6 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.06 - 2019.05.06 LATITUDE 44.287537 LONGITUDE -79.680747 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page							20 40 60 80 100	20 40 60		
	SAND, silty, some gravel, trace clay Dense to Very Dense Brown Moist (TILL)		9	SS	39						
294.8			10	SS	100/ 0.200		295				Spoon bouncing at 11.0m
11.0	END OF BOREHOLE AT 11.0m. BOREHOLE OPEN AND WATER LEVEL AT 6.0m UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen. WATER LEVEL READINGS DATE DEPTH(m) ELEV.(m) 2019.06.04 5.5 300.3 2020.04.09 6.3 299.6										

$+^3$, $\times^3$: Numbers refer to Sensitivity

15 20 10 5 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-02 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 349.3 E 290 382.5 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.30 - 2019.05.30 LATITUDE 44.288004 LONGITUDE -79.680649 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
309.1	GROUND SURFACE									
0.0 / 308.8	**ASPHALT** (300mm)						309			
0.3 / 308.5	**SAND** and **GRAVEL** Brown Moist (FILL)		1	GS						
0.7	**SAND**, silty, some gravel, trace to some clay, oxidized stains Compact to Dense Brown Moist (FILL)		1	SS	14		308			
			2	SS	15					12 50 24 14
			3	SS	40		307			
306.2										
3.0 / 305.8	**SILT**, clayey, some sand, trace gravel Hard Brown Moist (FILL)		4	SS	39		306			
3.4	**SAND**, silty, trace gravel, trace clay Dense Brown Moist (FILL)						305			
305.0 / 4.1	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)		5	SS	38					4 51 29 16
			6	SS	75		304			
302.0							303			
7.2	**SAND**, some silt, trace to some clay Very Dense Brown Moist		7	SS	85		302			
			8	SS	56	▽	301			
							300			

Continued Next Page

+ ^{3}, × ^{3}: Numbers refer to Sensitivity

15 (20, 10, 5) (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-02 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 349.3 E 290 382.5 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.30 - 2019.05.30 LATITUDE 44.288004 LONGITUDE -79.680649 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa: ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, some silt, trace clay Very Dense Brown Moist						299				
			9	SS	61		298		○		0 66 34 (SI+CL)
			10	SS	51		297		○		
			11	SS	47		296		○		
294.8	Very Dense						295				
14.3	END OF BOREHOLE AT 14.3m. WATER LEVEL AT 9.8m UPON COMPLETION. BOREHOLE THEN CAVED-IN TO 9.1m. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG, AND AUGER CUTTINGS TO 0.3m, THEN ASPHALT PATCH TO SURFACE.										

+ ³, × ³: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-03 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 416.9 E 290 351.8 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.07 - 2019.05.07 LATITUDE 44.288612 LONGITUDE -79.681037 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
305.4	GROUND SURFACE										
0.0	**TOPSOIL** (150mm)										
0.2	**SAND** and **SILT**, trace gravel Loose to Compact Brown Moist (FILL)		1	SS	7		305		○		
			2	SS	16				○		
303.9							304				
1.4	**SILT**, trace sand, trace to some clay Dense Brown Moist		3	SS	40				○		
			4	SS	34		303		○		0 8 82 10
			5	SS	45		302		○		
301.3											
4.1	**SAND**, silty, trace gravel, trace to some clay Very Dense to Dense Brown Moist to Wet (TILL)		6	SS	73	▽	301		○		0 58 34 8
			7	SS	42		300				
							299		○		
			8	SS	42		298		○		
							297				
							296		○		1 61 22 16

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-03 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 416.9 E 290 351.8 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.07 - 2019.05.07 LATITUDE 44.288612 LONGITUDE -79.681037 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, silty, trace gravel, trace to some clay Very Dense Brown Moist to Wet (TILL)		9	SS	91		295				
294.4			10	SS	100/ 0.175				○		
11.0	END OF BOREHOLE AT 11.0m. WATER LEVEL AT 6.0m UPON COMPLETION. BOREHOLE THEN CAVED-IN TO 6.4m. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG AND AUGER CUTTINGS TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-04 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 447.0 E 290 343.3 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.07 - 05/07/2019+ LATITUDE 44.288883 LONGITUDE -79.681143 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH kPa (○ UNCONFINED, ● QUICK TRIAXIAL, + FIELD VANE, × LAB VANE)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
304.9	GROUND SURFACE										
0.0	**TOPSOIL** (125mm)										
0.1	**SAND** and **SILT**, some organics Loose Brown Moist (FILL)		1	SS	8				○		
304.2 0.7	**SAND**, silty, trace gravel, some clay, silt seams Dense Brown Moist (TILL)		2	SS	36		304		○		4 63 22 11
			3	SS	46		303		○		
302.7 2.2	**SAND** and **SILT**, trace gravel, trace clay Very Dense Brown Moist (TILL)		4	SS	79				○		
			5	SS	68		302		○		5 42 45 8 3 52 36 9
300.8 4.1	**SAND**, trace silt, trace clay Dense to Very Dense Brown Moist						301				
			6	SS	49		300		○		
	Wet		7	SS	69		299		○		
							298				
			8	SS	91		297		○		0 94 6 (SI+CL)
							296				
	Moist to Wet		9	SS	100		295		○		

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-04 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 447.0 E 290 343.3 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.07 - 05/07/2019+ LATITUDE 44.288883 LONGITUDE -79.681143 CHECKED BY SKP

ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (20 40 60 80 100): ○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, trace silt, trace clay Very Dense Brown Moist to Wet										
			10	SS	86		294		○		
293.6											
11.3	END OF BOREHOLE AT 11.3m. WATER LEVEL AT 6.4m UPON COMPLETION. BOREHOLE CAVED-IN TO 8.2m. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen.										

WATER LEVEL READINGS

DATE	DEPTH(m)	ELEV.(m)
2019.06.04	5.6	299.3
2020.04.09	5.8	299.1

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-05 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 497.8 E 290 356.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.29 - 2019.05.29 LATITUDE 44.289341 LONGITUDE -79.680983 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
312.0	GROUND SURFACE										
0.0	**ASPHALT** (150mm)										
0.2	**SAND** and **GRAVEL** Brown Moist (FILL)		1	GS							
311.3 / 0.7	**SAND**, silty, trace gravel, some clay Compact to Very Dense Brown Moist (FILL)		1	SS	30		311				
			2	SS	24		310				
			3	SS	30		309				
			4	SS	51		308				2 61 25 12
			5	SS	32		307				
	Dark brown clay pockets		6	SS	30		306				
			7	SS	45		305				
303.3 / 8.7	**SAND**, silty, trace gravel, some clay, occasional cobbles Very Dense Brown Moist (TILL)		8	SS	100/ 0.150		304				Augers grinding at 9.4m Spoon bouncing
302.0							303				
							302				

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-05 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 497.8 E 290 356.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.29 - 2019.05.29 LATITUDE 44.289341 LONGITUDE -79.680983 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
10.0	**SILT**, clayey with sand, trace gravel Hard Brown Moist (TILL)		9	SS	88		301				3 40 36 21
300.3											
11.7	**SAND**, silty, trace gravel, trace to some clay Very Dense Brown (TILL)		10	SS	93		300				
298.7						▽	299				
13.3	**SAND**, trace silt, trace clay Very Dense Brown Wet		11	SS	74		298				0 93 7 (SI+CL)
297.7											
14.3	END OF BOREHOLE AT 14.3m. WATER LEVEL AT 13.1m UPON COMPLETION. BOREHOLE THEN CAVED-IN TO 12.8m. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG, AND AUGER CUTTINGS TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

+ ^{3}, × ^{3}: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-06 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 630.3 E 290 329.6 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.16 - 2019.05.16 LATITUDE 44.290533 LONGITUDE -79.681320 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
312.4	GROUND SURFACE										
0.0	**ASPHALT** (125mm)										
0.1	**SAND** and **GRAVEL** Brown Moist						312				
311.7	(FILL)										
0.7	**SAND**, silty, trace gravel, some clay Compact to Dense Brown Moist (FILL)		1	SS	17						
			2	SS	35		311				
310.2											
2.2	Clayey silt		3	SS	19		310				2 53 25 20
309.5											
3.0			4	SS	36		309				
			5	SS	40		308				
			6	SS	32		307				
305.8							306				
6.6	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)										
	Sand layer, wet		7	SS	34		305				6 62 17 15
							304				
	cobbles and boulders		8	SS	58		303				Augers grinding at 8.8m. Borehole did not advance beyond 8.9m depth. No recovery at SS8 Borehole was moved 5m north.
302.5											

Continued Next Page

+ ^{3}, × ^{3}: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-06 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 630.3 E 290 329.6 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.16 - 2019.05.16 LATITUDE 44.290533 LONGITUDE -79.681320 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa: ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
9.9	**SAND**, silty, trace gravel, trace to some clay Very Dense Brown Moist (TILL)		9	SS	50		302		○		
300.7							301				
11.7	**SILT**, clayey with sand, trace gravel Very Stiff Brown Moist (TILL)		10	SS	29		300		⊣		2 46 30 22
299.2							299				
13.3	**SAND**, silty, trace gravel, trace to some clay Compact Brown Moist (TILL)		11	SS	27				○		
298.1											
14.3	END OF BOREHOLE AT 14.3m. BOREHOLE DRY UPON COMPLETION. BOREHOLE BACKFILLED WITH HOLEPLUG AND AUGER CUTTINGS TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-07 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 668.9 E 290 298.3 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.14 - 2019.05.14 LATITUDE 44.290879 LONGITUDE -79.681713 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
303.8	GROUND SURFACE										
0.0	**TOPSOIL** (150mm)										
0.2	**SILT**, some sand,, some clay, some organics Compact Brown Moist (FILL)		1	SS	13						
303.2											
0.6	**SAND**, silty, some clay, trace to some gravel Compact to Dense Brown Moist (TILL) Clayey Silt inclusion at 1.6m		2	SS	26		303				
			3	SS	15		302				10 51 23 16
			4	SS	36		301				
300.9											
2.9	**SILT**, clayey, with sand, trace gravel Very Stiff Brown Moist (TILL)		5	SS	17		300				5 44 29 22
299.7											
4.1	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		6	SS	100/ 0.300	▼	299				
			7	SS	100/ 0.275		298				5 56 22 17
296.7							297				
7.1	**SAND**, some silt, trace gravel Loose Brown Wet		8	SS	4		296				
295.1											
8.7	Compact		9	SS	30		295				
							294				

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-07 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 668.9 E 290 298.3 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.14 - 2019.05.14 LATITUDE 44.290879 LONGITUDE -79.681713 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH kPa (○ UNCONFINED, ● QUICK TRIAXIAL, + FIELD VANE, × LAB VANE)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
293.2	**SAND**, some silt, trace gravel Compact Brown Wet		10	SS	29				○		
10.5	END OF BOREHOLE AT 10.5m WATER LEVEL AT 6.7m UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen.										

WATER LEVEL READINGS

DATE	DEPTH(m)	ELEV.(m)
2019.06.04	4.7	299.1
2020.04.09	4.8	299.0

$+^3$, $\times^3$: Numbers refer to Sensitivity

(%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-08 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 718.2 E 290 286.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.10 - 2019.05.10 LATITUDE 44.291322 LONGITUDE -79.681866 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
304.9	GROUND SURFACE								
0.0	**TOPSOIL** (200mm)								
0.2	**SAND**, silty, trace gravel, some clay Loose Brown Moist (TILL)		1	SS	9				
304.2									
0.7	Dense to Very Dense		2	SS	53		304		
			3	SS	49		303		4 54 29 13
			4	SS	49		302		
			5	SS	88		301		
300.9									
4.0	**SILT**, some sand, some clay Very Dense Brown Moist		6	SS	76		300		0 14 70 16
299.3									
5.6	**SAND**, some silt, trace gravel Very Dense Brown Moist to Wet		7	SS	100/ 0.275	▽	299		
			8	SS	100/ 0.250		298		
							297		
							296		
	Loose Wet		9	SS	9		295		

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa 20 40 60 80 100
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE

PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 20 40 60

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 15 5 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-08 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 718.2 E 290 286.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.10 - 2019.05.10 LATITUDE 44.291322 LONGITUDE -79.681866 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, trace silt, trace clay Very Dense Brown Wet										
293.8			10	SS	100/ 0.275		294		○		0 97 3 (SI+CL)
11.1	END OF BOREHOLE AT 11.1m. WATER LEVEL AT 5.8m UPON COMPLETION. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG AND AUGER CUTTINGS TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

15 20 10 5 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-09 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 769.9 E 290 302.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2018.05.15 - 2019.05.15 LATITUDE 44.291788 LONGITUDE -79.681668 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100	SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
310.7	GROUND SURFACE											
0.0	**ASPHALT** (175mm)											
0.2	**SAND** and **GRAVEL** Brown Moist (FILL)											
309.9							310					
0.8	**SAND**, silty, trace gravel, some clay Compact to Dense Brown to Black Moist (FILL)		1	SS	13							4 54 26 16
			2	SS	37		309					
308.5												
2.2	Clayey silt		3	SS	28							2 52 26 20
307.7							308					
3.0			4	SS	17							
306.6							307					
4.1	**SAND**, silty, some clay, trace gravel Very Dense to Dense Brown Moist (TILL)		5	SS	58							
			6	SS	32		306					
304.7							305					
6.0	**CLAY**, silty, with sand, trace gravel Hard Brown Moist (TILL)		7	SS	39							4 41 28 27
303.5							304					
7.2	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		8	SS	68		303					
			9	SS	55		302					Augers grinding
							301					

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 / 10 / 5 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-09 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 769.9 E 290 302.2 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2018.05.15 - 2019.05.15 LATITUDE 44.291788 LONGITUDE -79.681668 CHECKED BY SKP

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES						GR SA SI CL
	Continued From Previous Page										
	SAND, silty, trace gravel, some clay Very Dense Brown Moist (TILL)						300				
			10	SS	69				○		6 48 29 17
							299				
298.1			11	SS	100/ 0.250				○		
12.6	END OF BOREHOLE AT 12.6m. BOREHOLE DRY UPON COMPLETION. BOREHOLE BACKFILLED WITH AUGER CUTTINGS AND CONCRETE TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-10 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 807.4 E 290 271.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.292126 LONGITUDE -79.682049 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
304.5	GROUND SURFACE								
0.0	**TOPSOIL** (200mm)								
0.2	**SAND** and **SILT**, trace gravel, trace clay Compact Brown Moist (FILL)		1	SS	11				
303.8 0.7	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)		2	SS	33				
			3	SS	36				
	Clayey silt inclusion at 2.4m		4	SS	54				4 55 27 14
			5	SS	42				
			6	SS	76	▽			Augers grinding at 5.3m
			7	SS	79				No recovery Spoon bouncing at 6.1m
			8	SS	100/ 0.225				1 56 27 16
			9	SS	100/ 0.275				4 54 24 18

DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100

SHEAR STRENGTH kPa 20 40 60 80 100
○ UNCONFINED + FIELD VANE
● QUICK TRIAXIAL × LAB VANE

PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 20 40 60

ELEVATION SCALE: 304 303 302 301 300 299 298 297 296 295

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 / 10 / 5 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-10 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 807.4 E 290 271.9 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.292126 LONGITUDE -79.682049 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (UNCONFINED, QUICK TRIAXIAL, FIELD VANE, LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
293.5	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		10	SS	100/ 0.200		294		o		
11.0	END OF BOREHOLE AT 11.0m. WATER LEVEL AT 5.2m UPON COMPLETION. BOREHOLE CAVED-IN TO 9.1m. BOREHOLE BACKFILLED WITH BENTONITE HOLEPLUG AND AUGER CUTTINGS TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-11 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 856.6 E 290 265.8 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.09 - 2019.05.09 LATITUDE 44.292568 LONGITUDE -79.682126 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
303.8	GROUND SURFACE									
0.0	**TOPSOIL** (150mm)									
0.2	**SAND** and **SILT**, trace gravel, trace clay Compact Brown Moist (FILL)		1	SS	13		303			
303.1 0.7	**SAND**, silty, trace to some gravel, some clay Very Dense Brown Moist (TILL)		2	SS	84					6 49 28 17 Augers grinding from 3.0m to 4.5m
			3	SS	100/ 0.275		302			
			4	SS	66		301			
			5	SS	63		300			
			6	SS	100/ 0.225	▼	299			14 54 19 13
297.4			7	SS	91		298			
6.4	**CLAY**, silty, with sand, trace gravel Hard Brown Moist (TILL)						297			2 28 31 39
296.3 7.5	**SAND**, some gravel, trace to some silt and clay Very Dense Brown Moist to Wet		8	SS	100/ 0.225		296			12 73 15 (SI+CL)
294.6							295			
9.1	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		9	SS	100/ 0.150		294			

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-11 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 856.6 E 290 265.8 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.09 - 2019.05.09 LATITUDE 44.292568 LONGITUDE -79.682126 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
292.7	**SAND**, silty, trace gravel, some clay Very Dense Brown Moist (TILL)		10	SS	100/ 0.200		293		○		
11.0	END OF BOREHOLE AT 11.0m WATER LEVEL AT 9.1m UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen.										

WATER LEVEL READINGS

DATE	DEPTH(m)	ELEV.(m)
2019.06.04	4.8	299.0
2020.04.09	4.6	299.1

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-12 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 905.4 E 290 277.7 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.15 - 2019.05.15 LATITUDE 44.293007 LONGITUDE -79.681979 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100	SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
307.0	GROUND SURFACE											
0.0	**ASPHALT** (125mm)											
0.2	**SAND** and **GRAVEL** Brown Moist (FILL)											
306.2												
0.8	Clayey **SILT** with sand, trace gravel, trace silt Stiff to Very Stiff Brown Moist (FILL)		1	SS	12		306					4 46 29 21
			2	SS	21							
304.9							305					
2.1	**SAND**, silty, some gravel, some clay Compact to Dense Brown Moist (TILL)		3	SS	15							
			4	SS	17		304					15 44 21 20
							303					
			5	SS	35		302					
							301					
			6	SS	35							
							300					
			7	SS	29		299					
298.3												
8.7	**SILT**, clayey, with sand, trace gravel Hard Brown Moist (TILL)						298					
			8	SS	53							1 19 59 21
297.1												

Continued Next Page

$+^3$, $\times^3$: Numbers refer to Sensitivity

15 20 10 5 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-12 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 905.4 E 290 277.7 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.15 - 2019.05.15 LATITUDE 44.293007 LONGITUDE -79.681979 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE) (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
9.9	**SAND**, silty, trace gravel, trace clay Very Dense Brown Moist (TILL)		9	SS	100/ 0.300		296		○		
295.7											
11.3	END OF BOREHOLE AT 11.3m. BOREHOLE DRY UPON COMPLETION. BOREHOLE BACKFILLED WITH AUGER CUTTINGS TO 0.2m, THEN ASPHALT PATCH TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-13 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 946.8 E 290 252.4 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.293380 LONGITUDE -79.682296 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
302.8	GROUND SURFACE										
0.0	**TOPSOIL** (150mm)										
0.2	**SILT**, sandy, some organics Loose Brown Moist (FILL)		1	SS	6				○		
302.1							302				
0.7	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)		2	SS	78				○		
			3	SS	38		301		○		7 52 28 13
			4	SS	76				○		
299.9							300				
3.0	Compact		5	SS	25	▽			○		4 51 45 (SI+CL)
298.7							299				
4.1	Layer of sand, occasional cobbles Wet		6	SS	100/ 0.125		298		○		Spoon bouncing at 4.5m
			7	SS	100/ 0.250		297		○		Spoon bouncing at 5.5m No recovery at 6.0m
			8	SS	63		296				
							295		○		
			9	SS	79		294				
292.9							293		○		8 58 20 14 Augers grinding at 9.8m

Continued Next Page

+ ^{3}, × ^{3}: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

Ministry of Transportation
Ontario

THURBER

RECORD OF BOREHOLE No HF-13 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 946.8 E 290 252.4 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.293380 LONGITUDE -79.682296 CHECKED BY SKP

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV / DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES						GR SA SI CL
	Continued From Previous Page										
9.9	END OF BOREHOLE AT 9.9m. WATER LEVEL AT 3.7m UPON COMPLETION. BOREHOLE CAVED-IN AT 8.2m. BOREHOLE BACKFILLED WITH HOLEPLUG AND AUGER CUTTINGS TO SURFACE.										

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20

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Ontario

THURBER

RECORD OF BOREHOLE No HF-14 1 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 999.0 E 290 245.4 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.293849 LONGITUDE -79.682386 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT 20 40 60 80 100 / SHEAR STRENGTH kPa ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE × LAB VANE 20 40 60 80 100	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 20 40 60	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
302.0	GROUND SURFACE									
0.0	**TOPSOIL** (125mm)									
0.1	**SAND** and **SILT** some clay Loose to Compact Brown Moist (FILL)		1	SS	9					
300.9			2	SS	31		301			
1.1	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist (TILL)		3	SS	60		300			
			4	SS	64					9 56 24 11
	occasional cobbles at 3.0m		5	SS	100/ 0.200		299			Spoon bouncing at 3.4m
297.9							298			
4.1	**SILT**, clayey, with sand, trace gravel Hard Brown Moist (TILL)		6	SS	61		297			3 46 35 16
296.4										
5.6	**SAND**, silty, trace gravel, some clay Dense to Very Dense Brown Moist to Wet (TILL)		7	SS	40		296			
							295			
			8	SS	100/ 0.275		294			
							293			
			9	SS	100/ 0.225					

Continued Next Page

+^{3}, ×^{3}: Numbers refer to Sensitivity

15 (20, 10, 5) (%) STRAIN AT FAILURE

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Ontario

THURBER

RECORD OF BOREHOLE No HF-14 2 OF 2 METRIC

GWP# 2493-15-00 LOCATION MTM NAD 83 Zone10: N 4 905 999.0 E 290 245.4 ORIGINATED BY BL

DIST Central HWY 400 BOREHOLE TYPE Hollow Stem Augers COMPILED BY BH

DATUM Geodetic DATE 2019.05.08 - 2019.05.08 LATITUDE 44.293849 LONGITUDE -79.682386 CHECKED BY SKP

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH kPa (20 40 60 80 100): ○ UNCONFINED, ● QUICK TRIAXIAL, + FIELD VANE, × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (20 40 60)	UNIT WEIGHT γ kN/m^3	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued From Previous Page										
	SAND, silty, trace gravel, some clay Very Dense Brown Moist (TILL)										
290.8			10	SS	79		291		○		0 59 23 18
11.3	END OF BOREHOLE AT 11.3m WATER LEVEL AT 7.6m UPON COMPLETION. Piezometer installation consists of 25mm diameter Schedule 40 PVC pipe with a 3.0m slotted screen.										

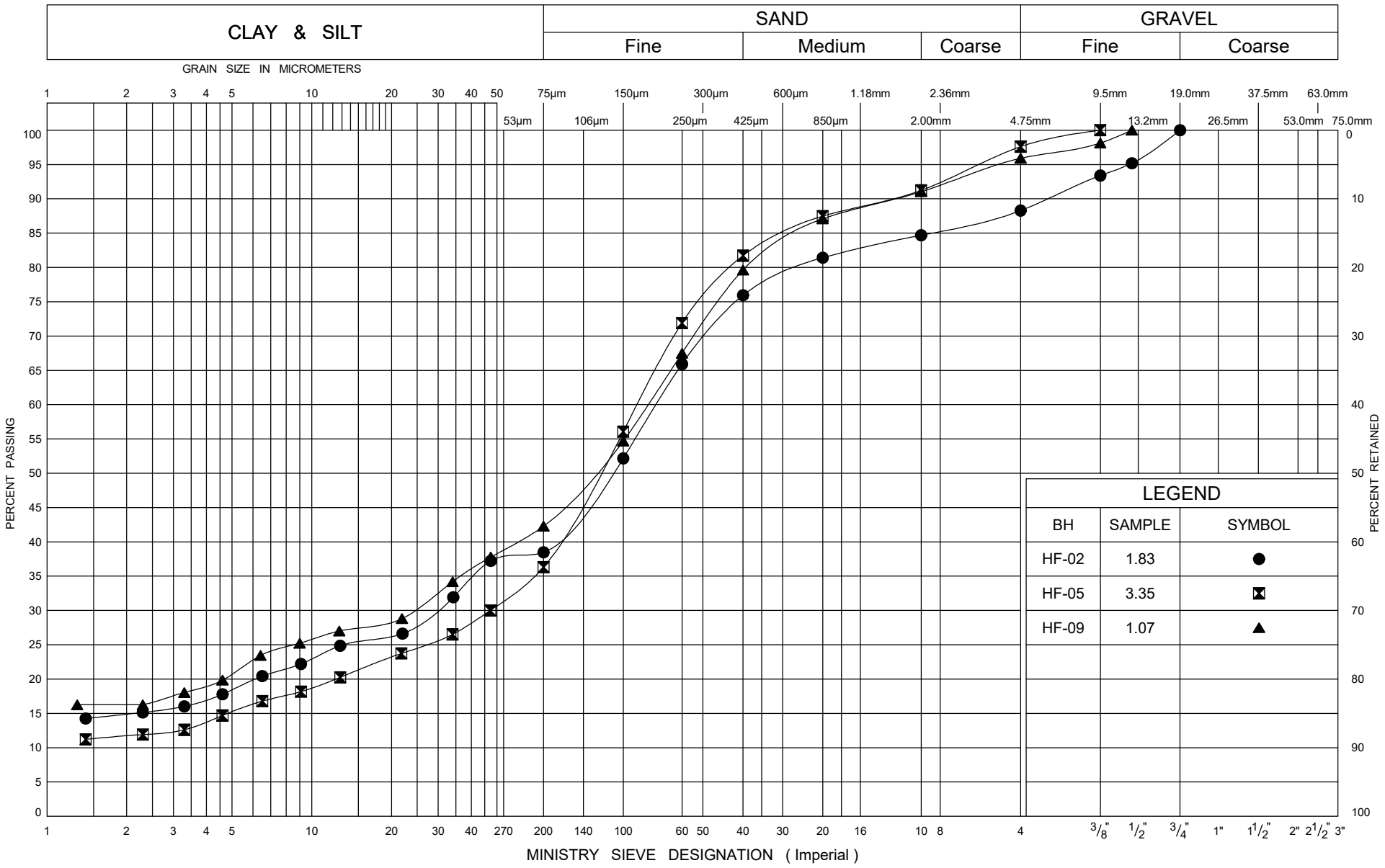
WATER LEVEL READINGS

DATE	DEPTH(m)	ELEV.(m)
2019.06.04	4.6	297.4
2020.04.09	4.4	297.6

$+^3$, $\times^3$: Numbers refer to Sensitivity

20 / 15 5 / 10 (%) STRAIN AT FAILURE

ONTMT4S2 MTO-21110.GPJ 2017TEMPLATE(MTO).GDT 4/28/20



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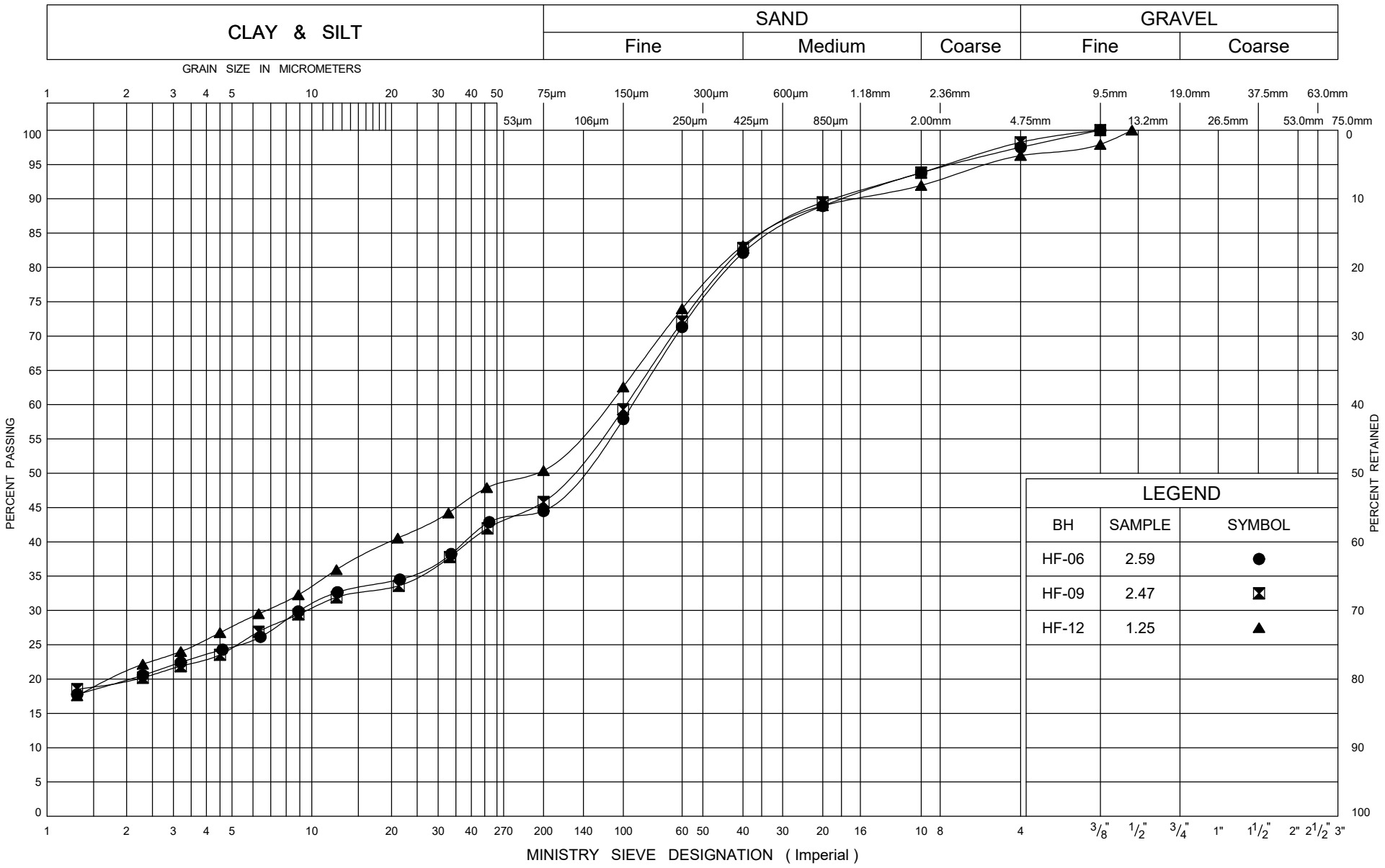
GRAIN SIZE DISTRIBUTION

Silty SAND Fill

FIG No B1

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/18/19



ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19

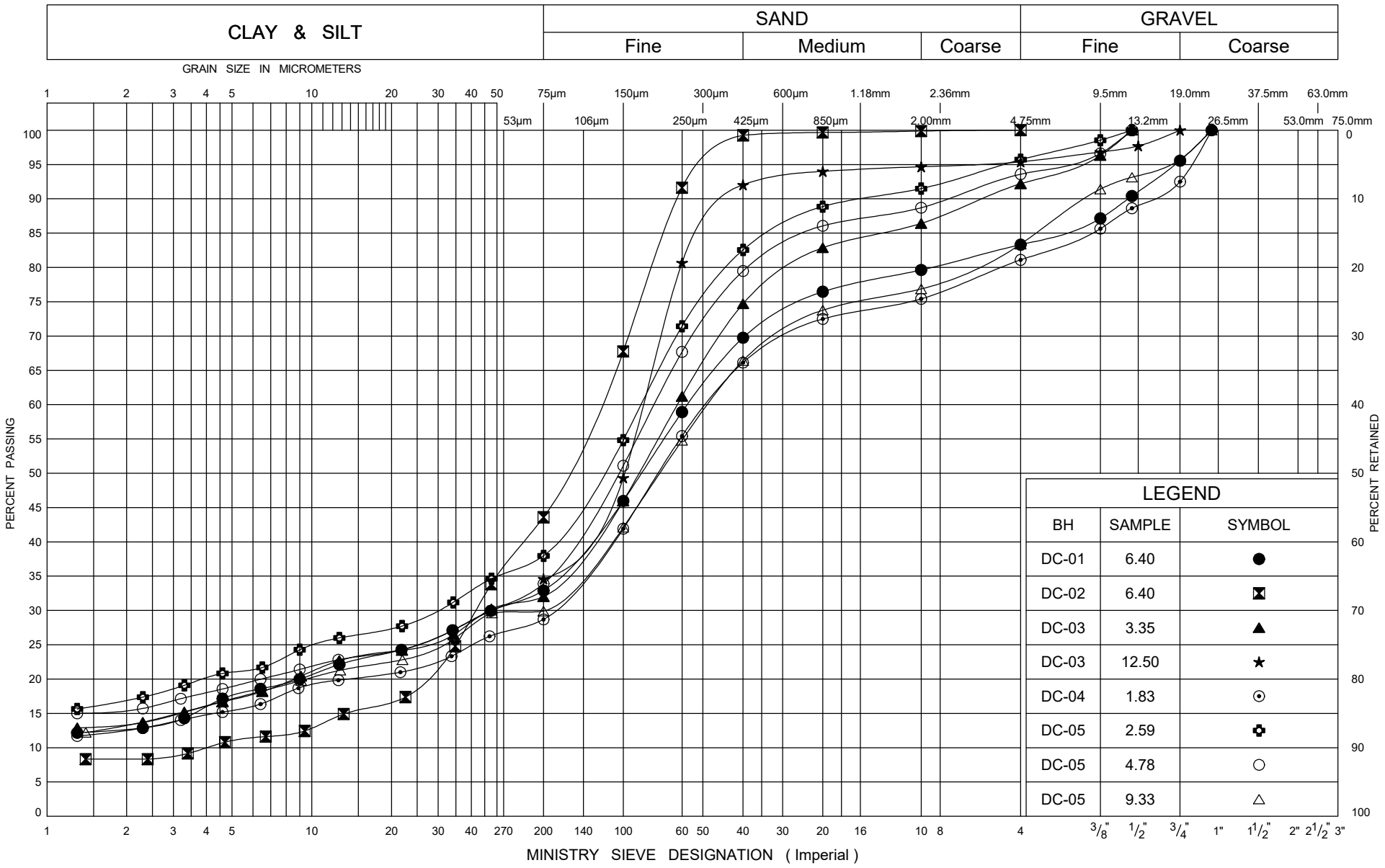
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GRAIN SIZE DISTRIBUTION

Clayey SILT Fill

FIG No B2

W P 2493-15-00



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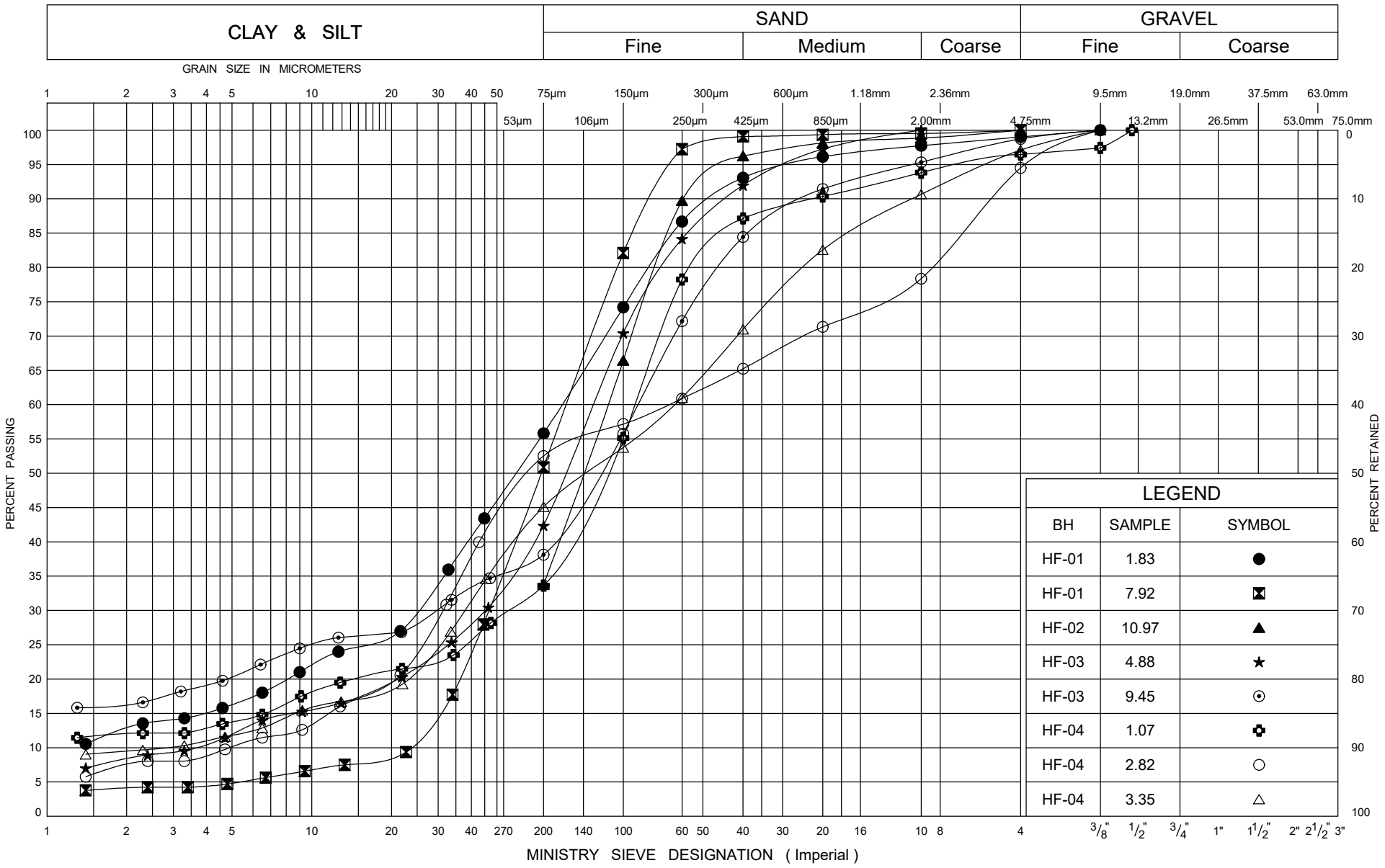
GRAIN SIZE DISTRIBUTION

Silty SAND Till

FIG No B3

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19



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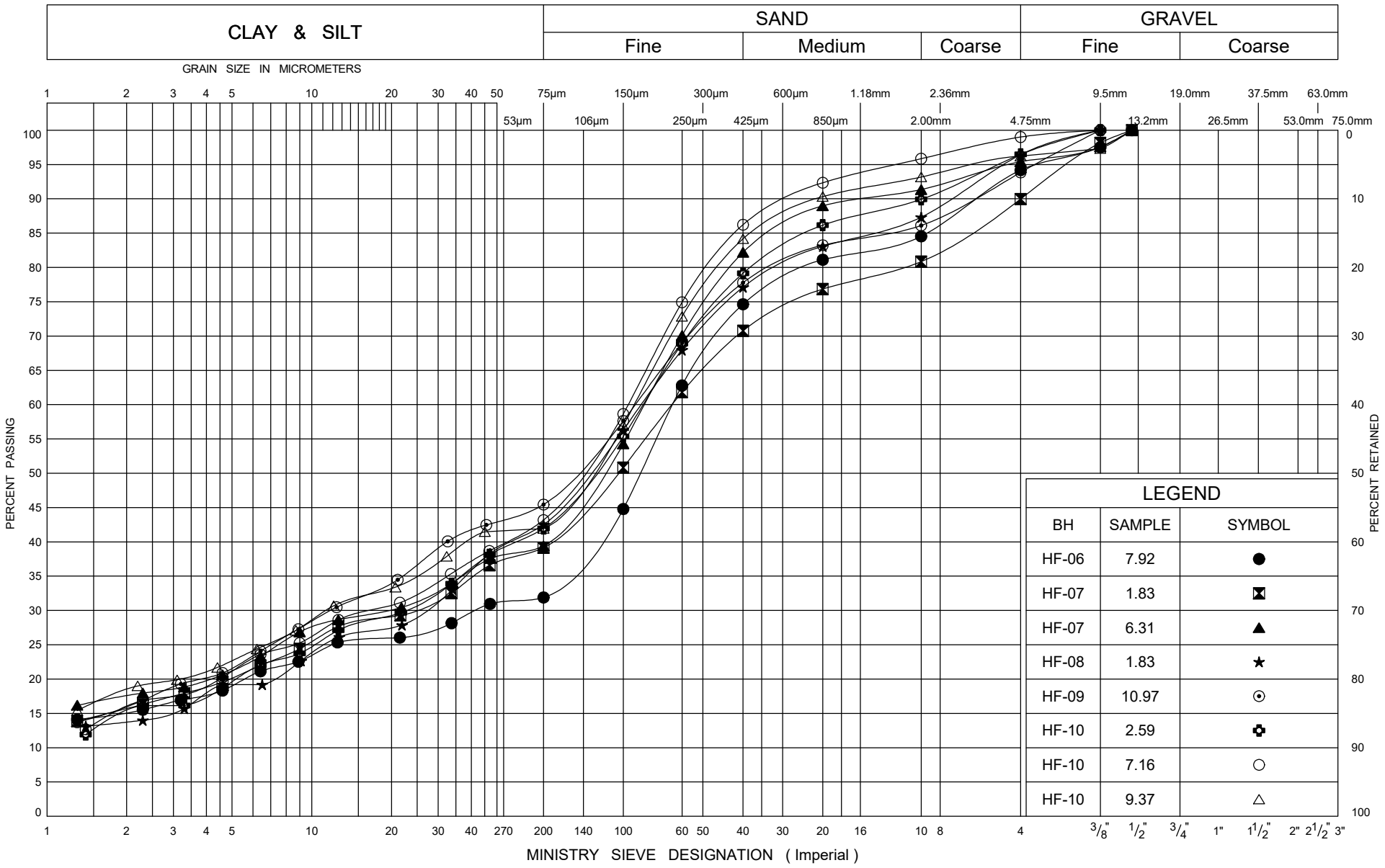
GRAIN SIZE DISTRIBUTION

Silty SAND Till

FIG No B4

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19



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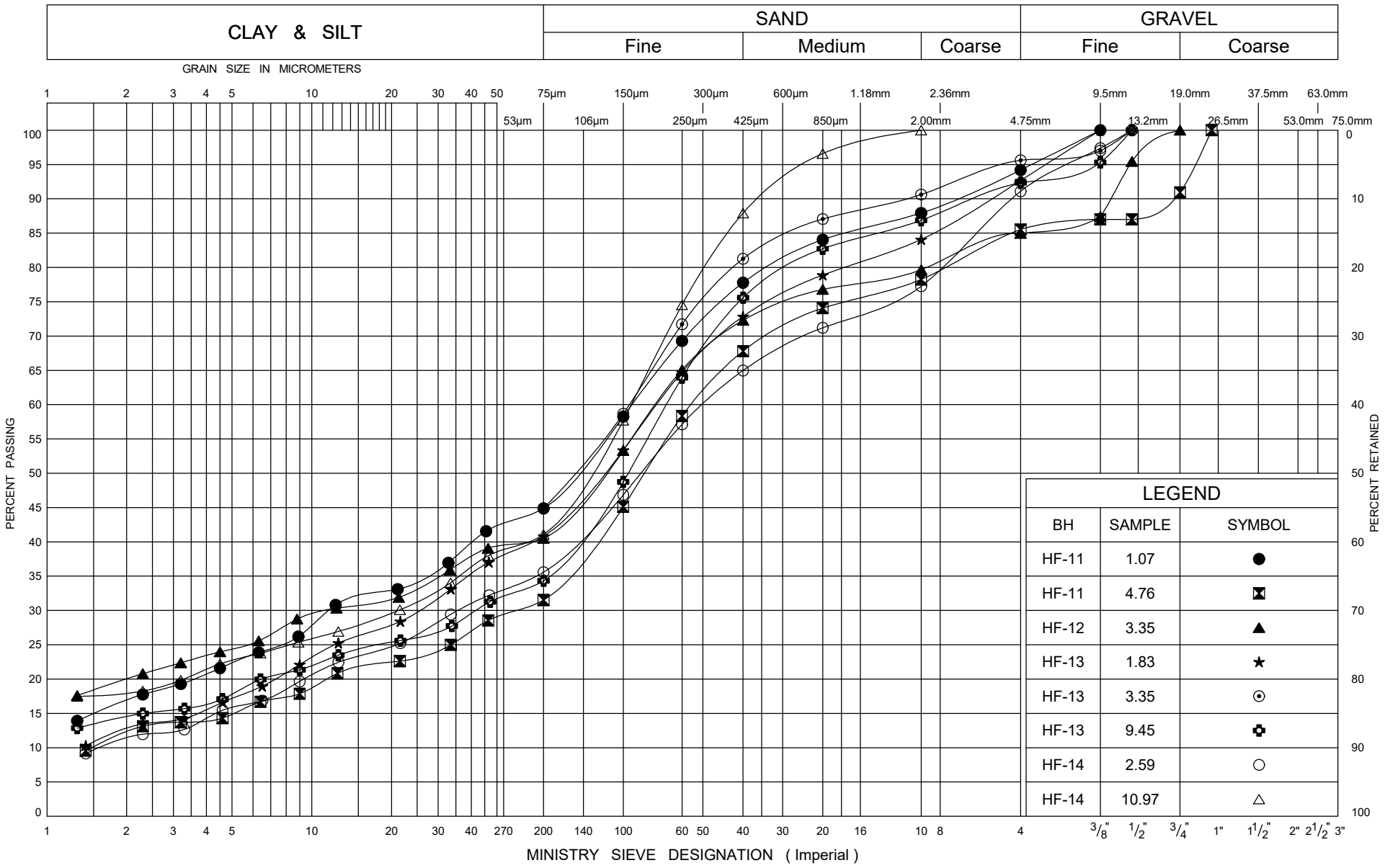
GRAIN SIZE DISTRIBUTION

Silty SAND Till

FIG No B5

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19



ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19

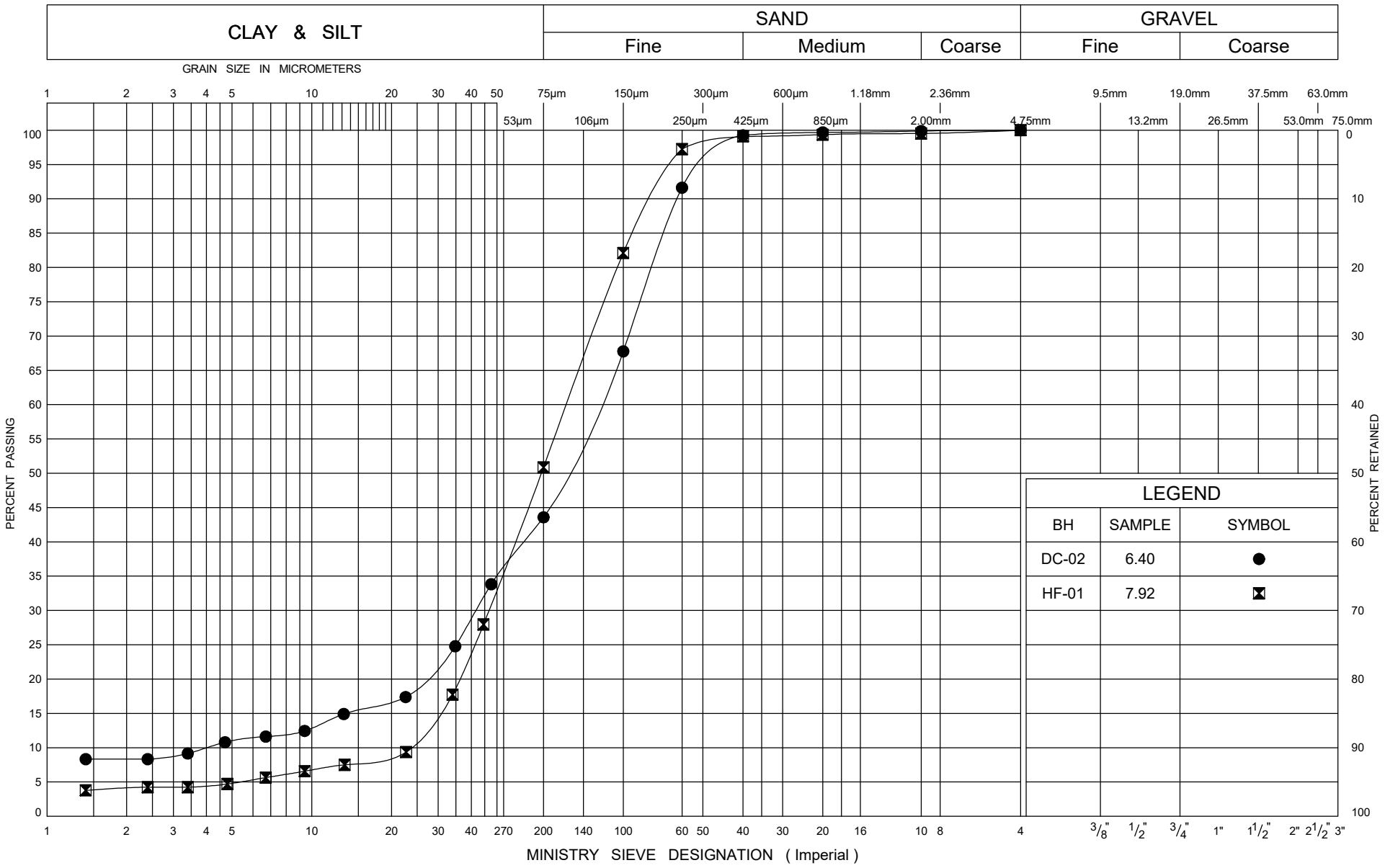
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GRAIN SIZE DISTRIBUTION

Silty SAND Till

FIG No B6

W P 2493-15-00



ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/18/19

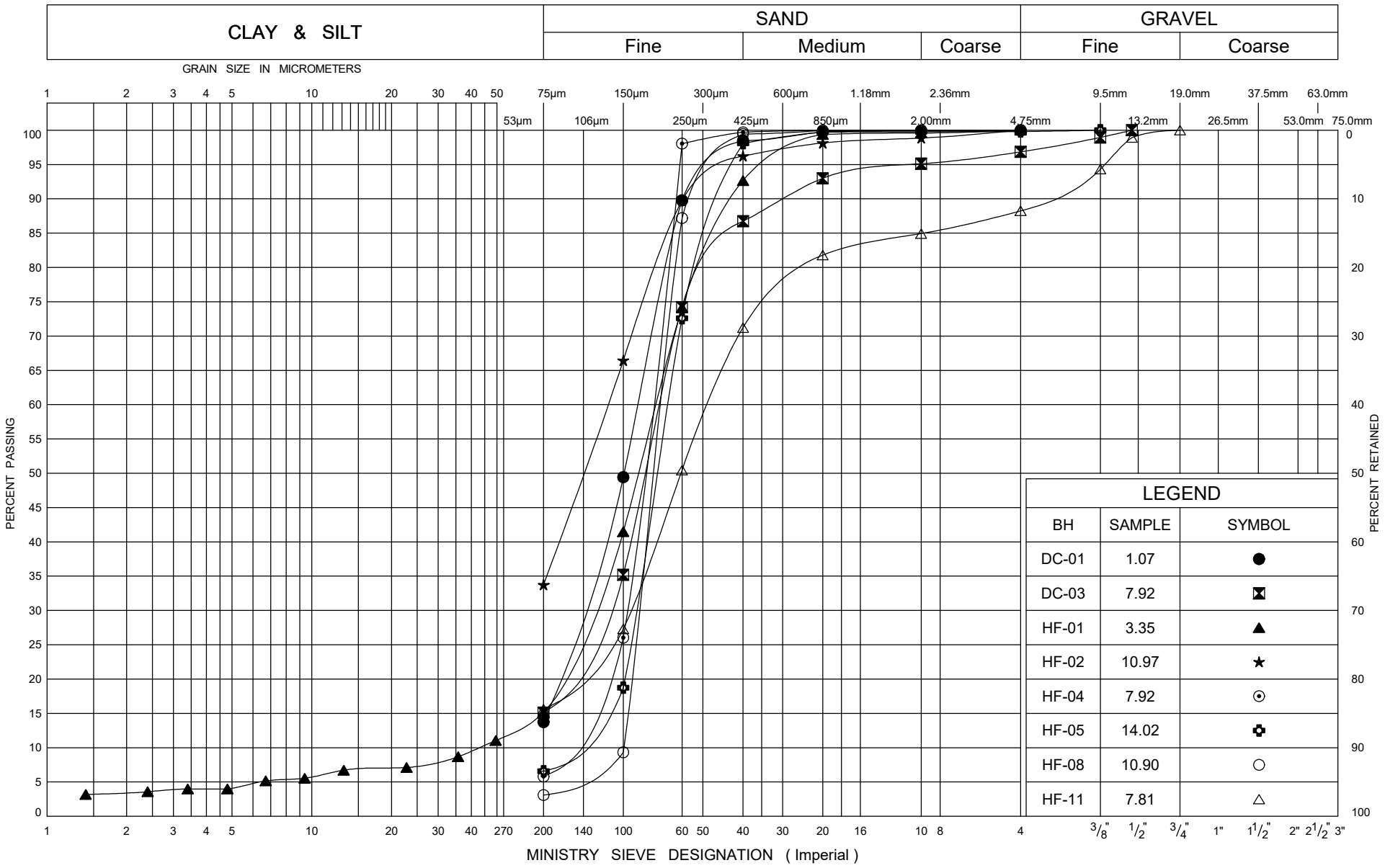
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GRAIN SIZE DISTRIBUTION

SAND and SILT

FIG No B7

W P 2493-15-00



ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/26/19

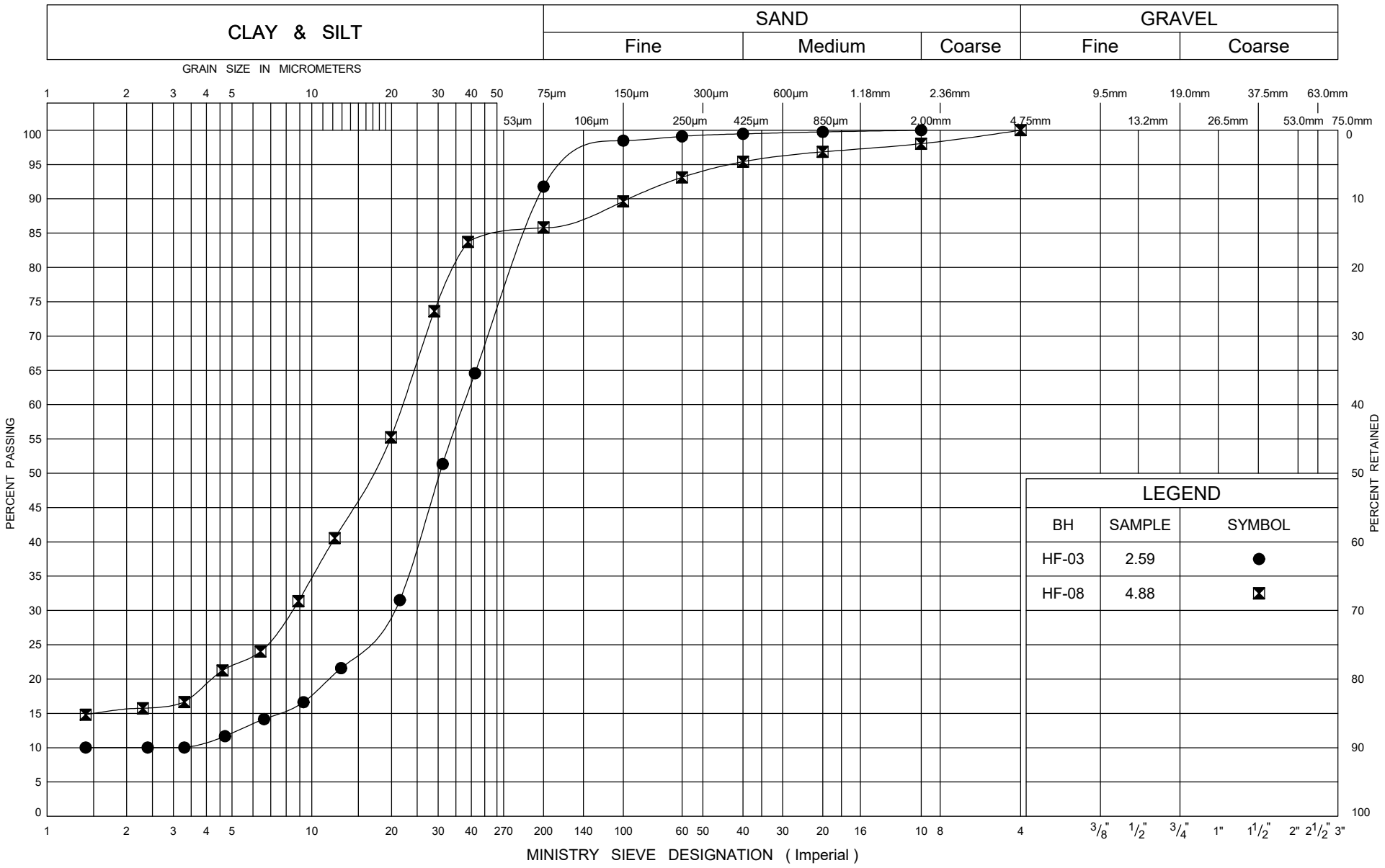
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GRAIN SIZE DISTRIBUTION

SAND

FIG No B8

W P 2493-15-00



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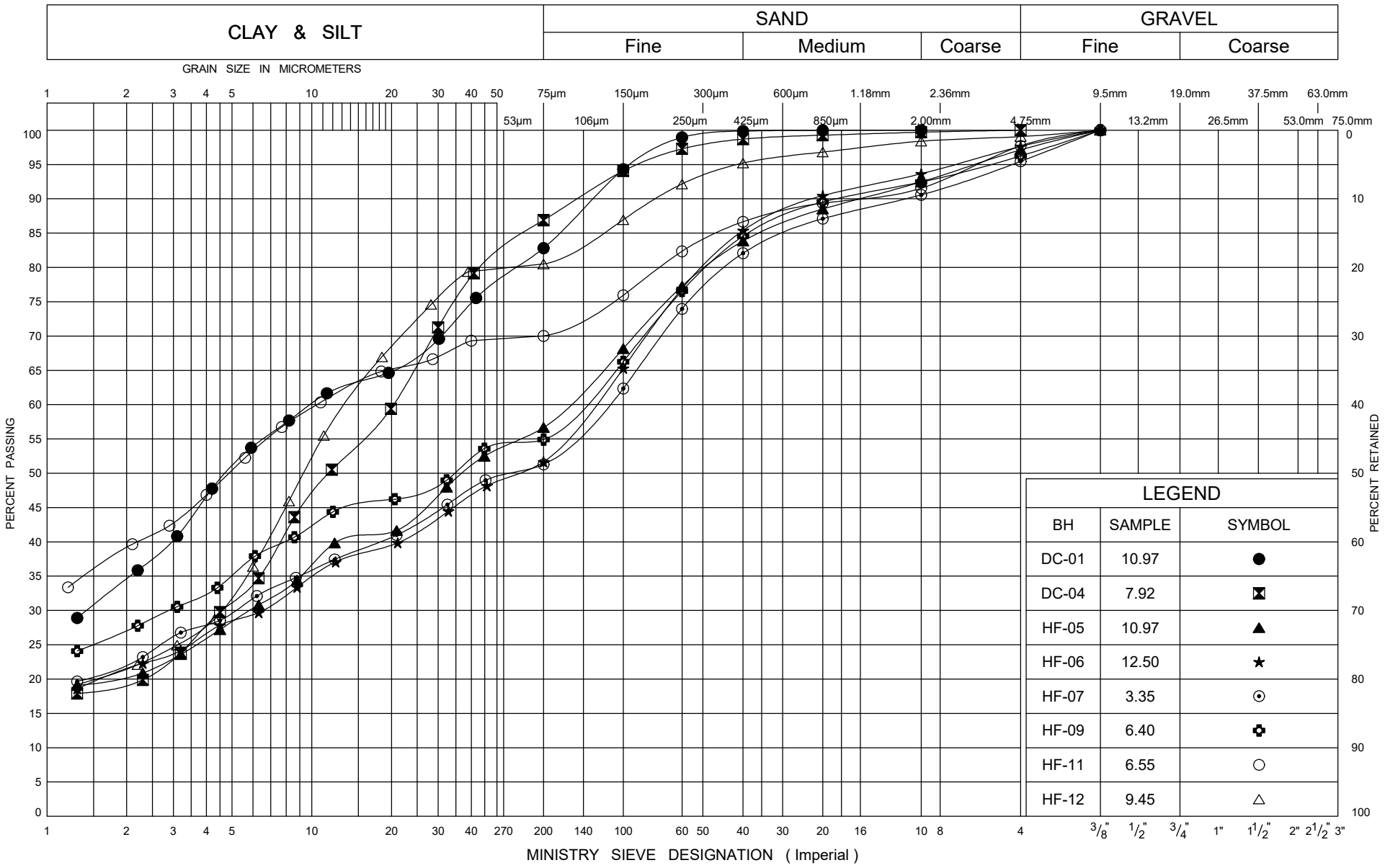
GRAIN SIZE DISTRIBUTION

SILT

FIG No B9

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/26/19



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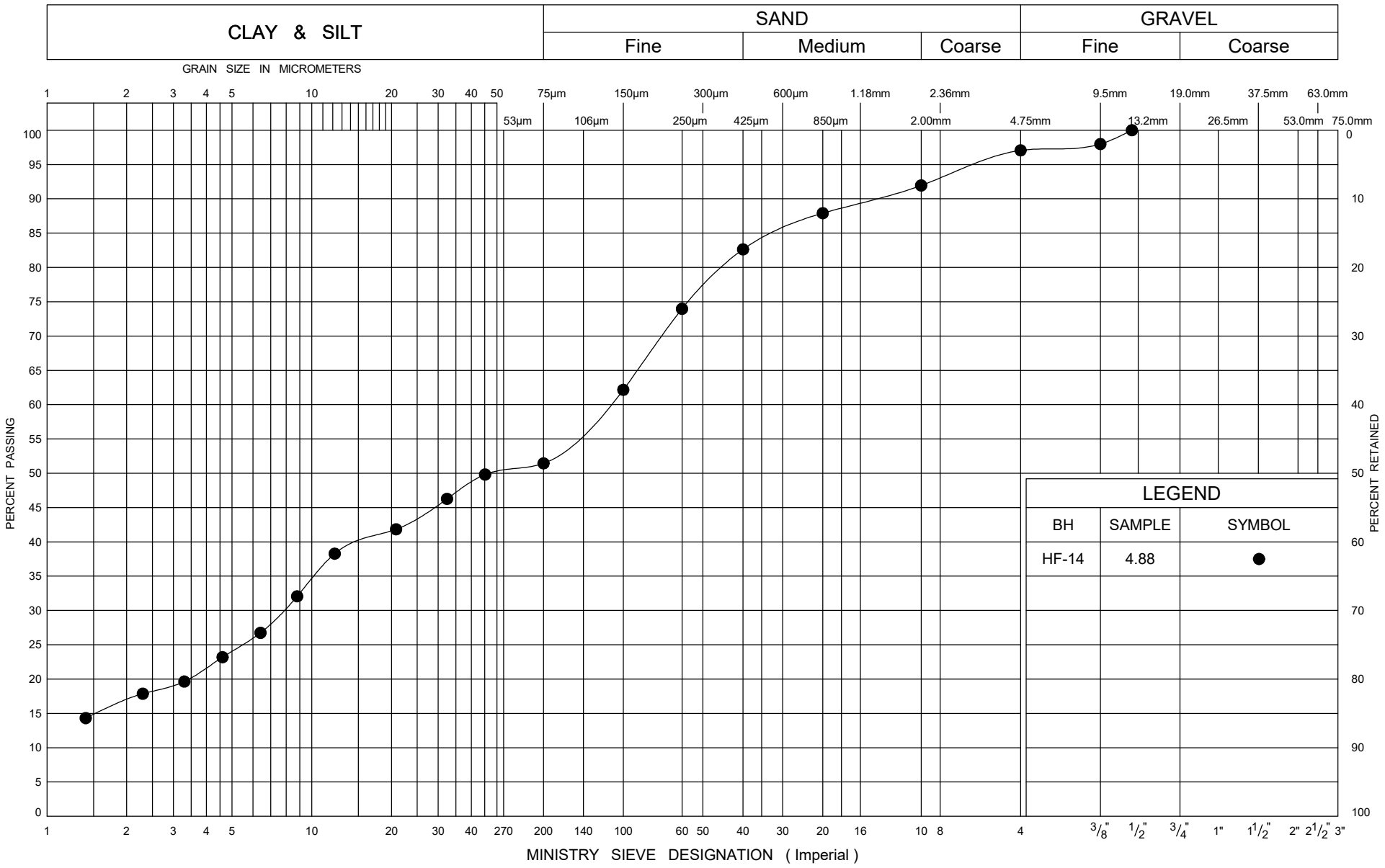
GRAIN SIZE DISTRIBUTION

Silty CLAY Till to Clayey SILT Till

FIG No B10

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/26/19



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GRAIN SIZE DISTRIBUTION

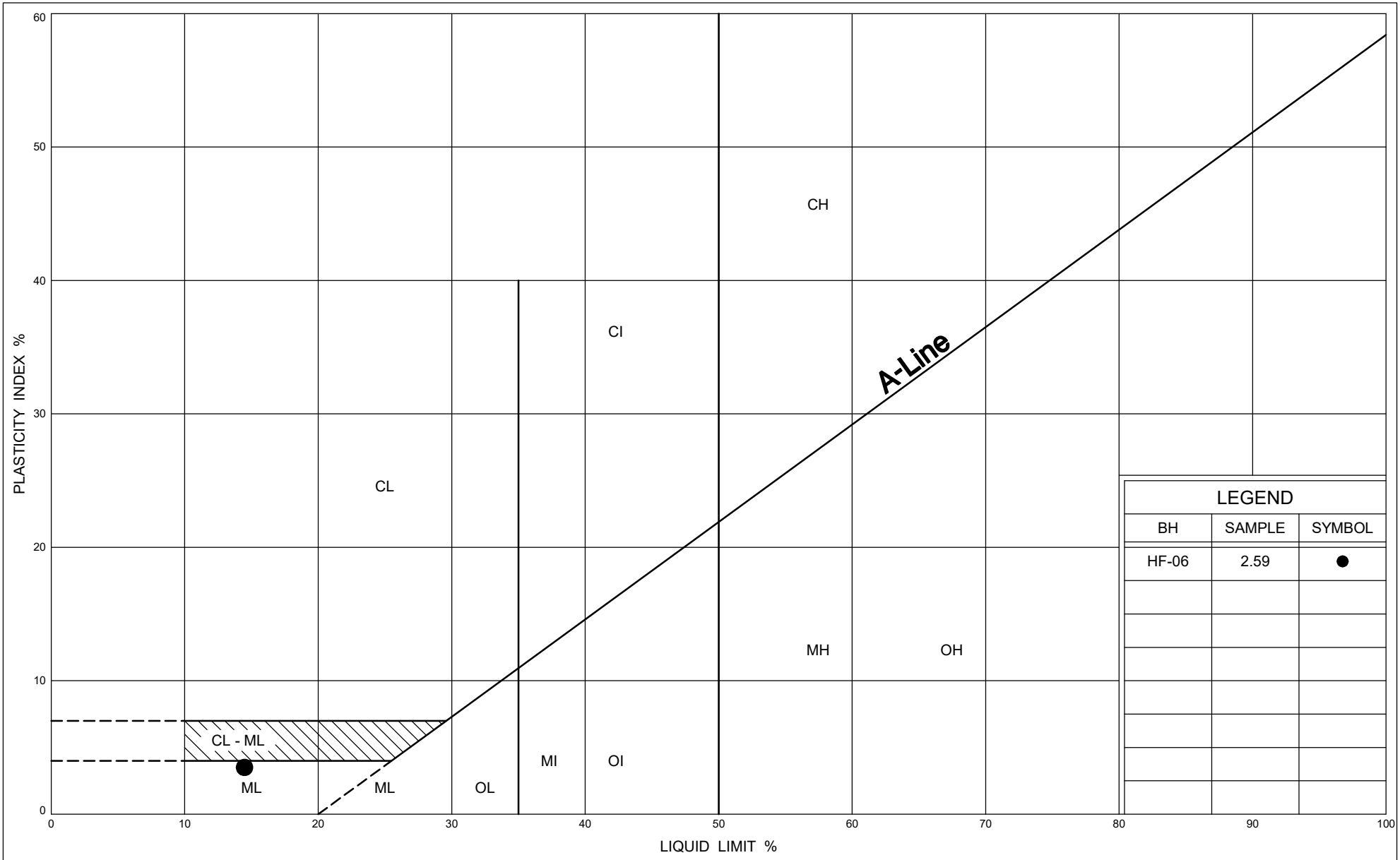
Silty CLAY Till to Clayey SILT Till

FIG No B11

W P 2493-15-00

ONTARIO MOT GRAIN SIZE 2 MTO-21110.GPJ ONTARIO MOT.GDT 7/26/19

Oct 75, FF - S - 21



ONTARIO MOT PLASTICITY CHART MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19

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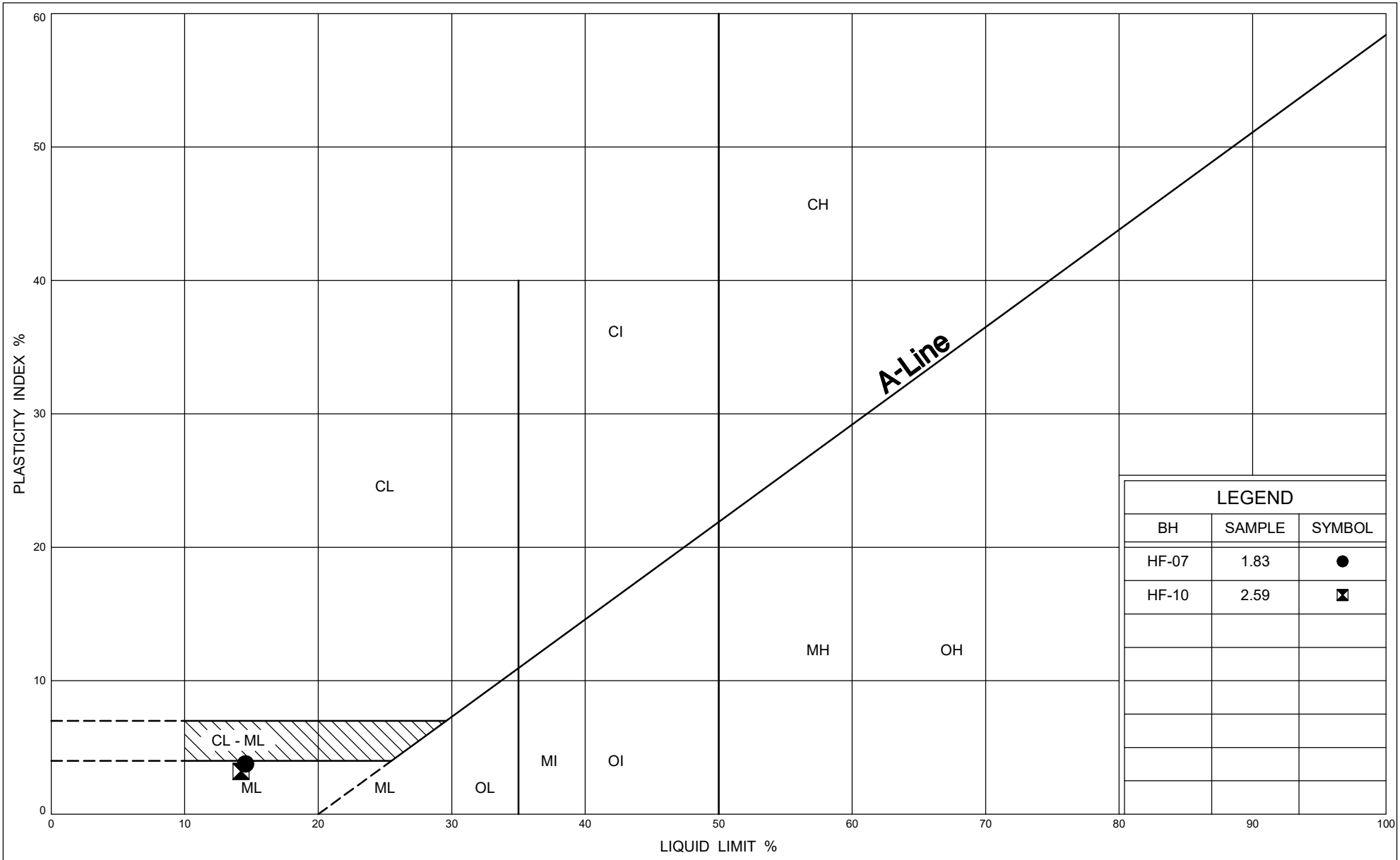
PLASTICITY CHART

Clayey SILT Zone in the Silty SAND Fill

FIG No B12

W P 2493-15-00

Oct 75, FF - S - 21



ONTARIO MOT PLASTICITY CHART MTO-21110.GPJ ONTARIO MOT.GDT 7/25/19

Ministry of Transportation
Ontario

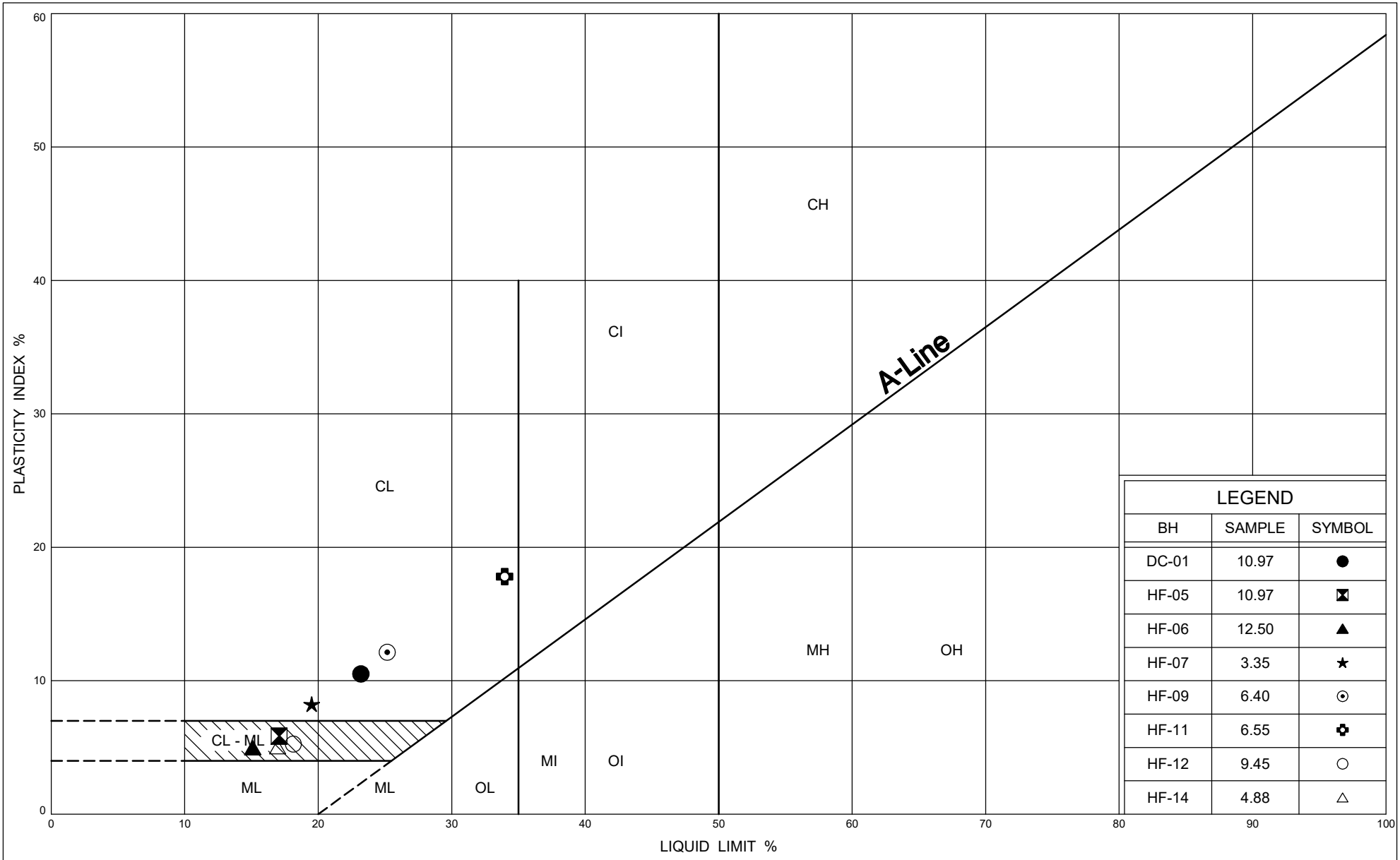
PLASTICITY CHART

Clayey SILT Zone in the Silty SAND Till

FIG No B13

W P 2493-15-00

Oct 75, FF - S - 21



ONTARIO MOT PLASTICITY CHART MTO-21110.GPJ ONTARIO MOT.GDT 7/26/19

Ministry of Transportation
Ontario

PLASTICITY CHART

Silty CLAY Till to Clayey SILT Till

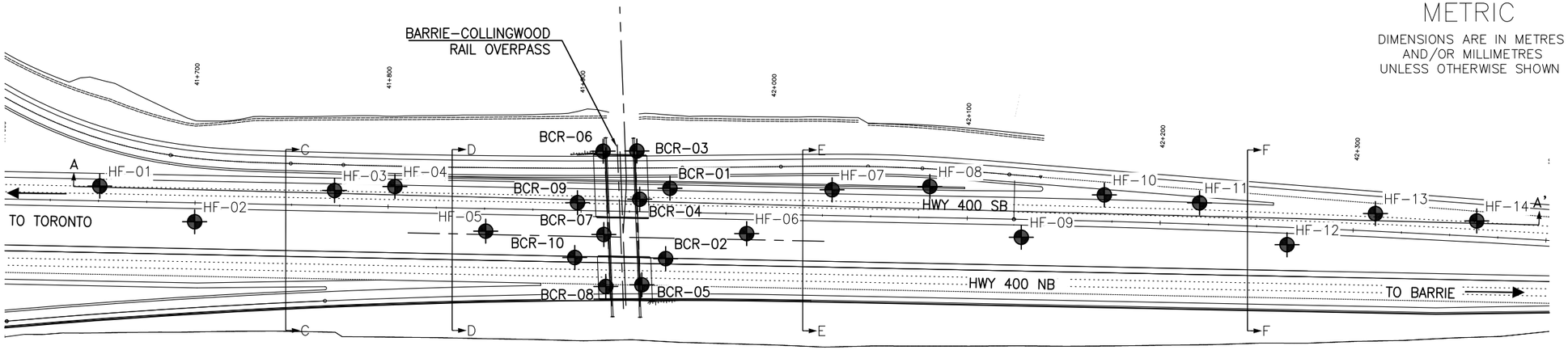
FIG No B14

W P 2493-15-00

MINISTRY OF TRANSPORTATION, ONTARIO

METRIC

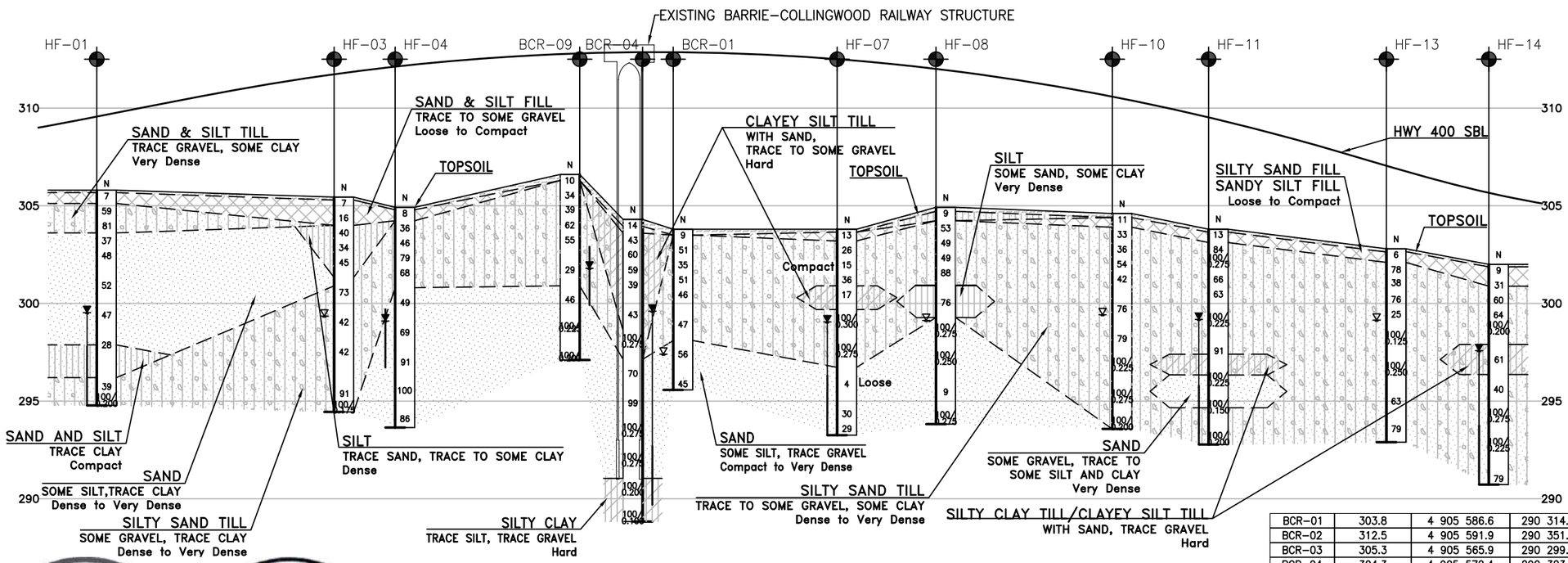
DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN



PLAN

50 0 50 100m

SCALE 1:2500



BCR–01	303.8	4 905 586.6	290 314.8
BCR–02	312.5	4 905 591.9	290 351.0
BCR–03	305.3	4 905 565.9	290 299.5
BCR–04	304.3	4 905 572.4	290 323.6
BCR–05	312.5	4 905 582.6	290 366.8
BCR–06	304.6	4 905 548.8	290 303.1
BCR–07	312.4	4 905 558.0	290 345.3
BCR–08	312.4	4 905 564.5	290 371.5
BCR–09	306.6	4 905 541.3	290 332.0
BCR–10	312.4	4 905 545.7	290 360.1

PROFILE ALONG ℄ OF HIGHWAY 400 SB EMBANKMENT (A–A')

50 0 50 100m H 1:2500

5 0 5 10m V 1:250

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35314509
05/04/2020
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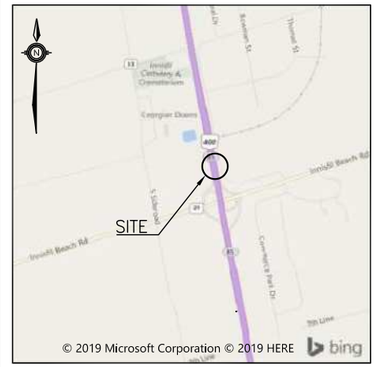
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GWP No 2493–15–00

SHEET

HIGHWAY 400
HIGH FILLS APPROX. STATIONS
41+600 TO 42+400
BOREHOLE LOCATIONS AND SOIL STRATA

McINTOSH PERRY

THURBER ENGINEERING LTD.



44.288 KEYPLAN –79.681

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
HF–01	305.8	4 905 297.4	290 374.6
HF–02	309.1	4 905 349.3	290 382.5
HF–03	305.4	4 905 416.9	290 351.8
HF–04	304.9	4 905 447.0	290 343.3
HF–05	312.0	4 905 497.8	290 356.2
HF–06	312.4	4 905 630.3	290 329.6
HF–07	303.8	4 905 668.9	290 298.3
HF–08	304.9	4 905 718.2	290 286.2
HF–09	310.7	4 905 769.9	290 302.2
HF–10	304.5	4 905 807.4	290 271.9
HF–11	303.8	4 905 856.6	290 265.8
HF–12	307.0	4 905 905.4	290 277.7
HF–13	302.9	4 905 946.8	290 252.4
HF–14	302.0	4 905 999.0	290 245.4

-NOTES-

1) The boundaries between soil strata have been established only at Borehole locations. Between Boreholes the boundaries are assumed from geological evidence.
2) This drawing is for subsurface information only. Surface details and features are for conceptual illustration.
3) Coordinate system is MTM NAD 83 Zone 10.

GEOCRES No. 31D-742

REVISIONS		
DATE	BY	DESCRIPTION

DESIGN	RPR	CHK	RPR	CODE	LOAD
DRAWN	BH	CHK	SKP	SITE	STRUCT

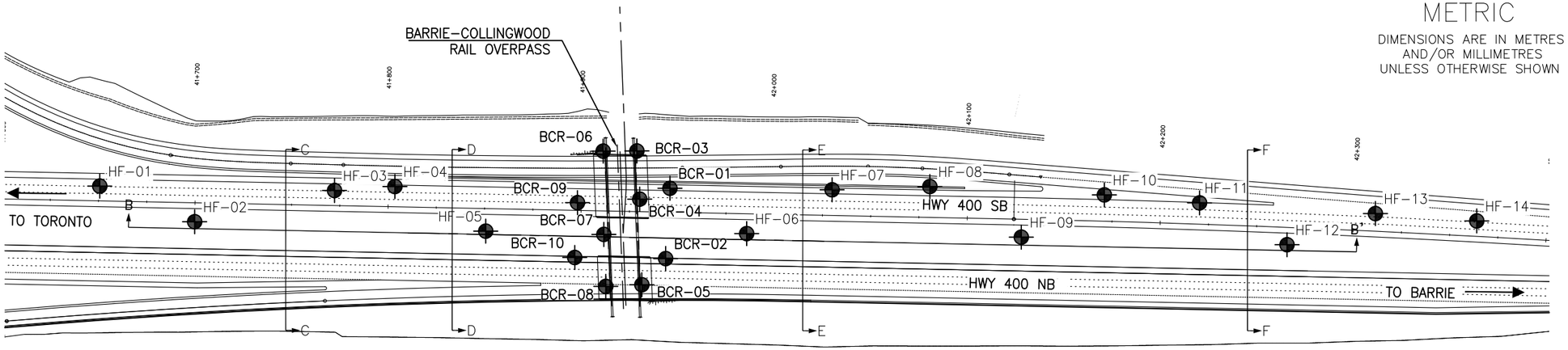
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DWG 1

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MINISTRY OF TRANSPORTATION, ONTARIO

METRIC

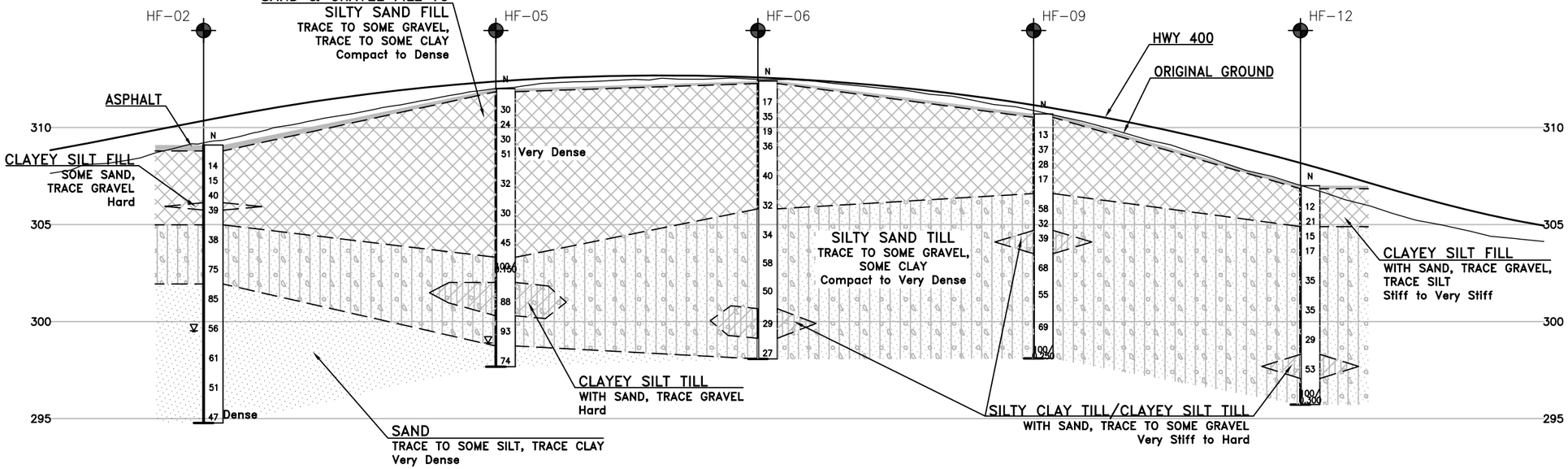
DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN



PLAN

50 0 50 100m

SCALE 1:2500



PROFILE ALONG ℄ OF HIGHWAY 400 (B–B')

50 0 50 100m H 1:2500

5 0 5 10m V 1:250

BCR–01	303.8	4 905 586.6	290 314.8
BCR–02	312.5	4 905 591.9	290 351.0
BCR–03	305.3	4 905 565.9	290 299.5
BCR–04	304.3	4 905 572.4	290 323.6
BCR–05	312.5	4 905 582.6	290 366.8
BCR–06	304.6	4 905 548.8	290 303.1
BCR–07	312.4	4 905 558.0	290 345.3
BCR–08	312.4	4 905 564.5	290 371.5
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BCR–10	312.4	4 905 545.7	290 360.1

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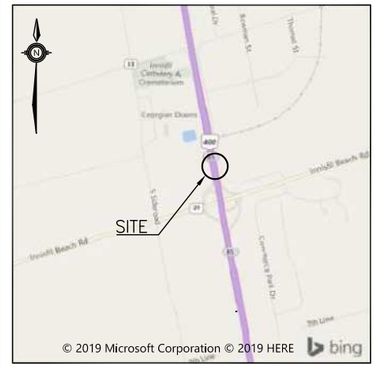
CONT No
GWP No 2493–15–00

SHEET

HIGHWAY 400
HIGH FILLS APPROX. STATIONS 41+600 TO 42+400
BOREHOLE LOCATIONS AND SOIL STRATA

McINTOSH PERRY

THURBER ENGINEERING LTD.



44.288 KEYPLAN –79.681

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
HF–01	305.8	4 905 297.4	290 374.6
HF–02	309.1	4 905 349.3	290 382.5
HF–03	305.4	4 905 416.9	290 351.8
HF–04	304.9	4 905 447.0	290 343.3
HF–05	312.0	4 905 497.8	290 356.2
HF–06	312.4	4 905 630.3	290 329.6
HF–07	303.8	4 905 668.9	290 298.3
HF–08	304.9	4 905 718.2	290 286.2
HF–09	310.7	4 905 769.9	290 302.2
HF–10	304.5	4 905 807.4	290 271.9
HF–11	303.8	4 905 856.6	290 265.8
HF–12	307.0	4 905 905.4	290 277.7
HF–13	302.9	4 905 946.8	290 252.4
HF–14	302.0	4 905 999.0	290 245.4

-NOTES-

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2) This drawing is for subsurface information only. Surface details and features are for conceptual illustration.
3) Coordinate system is MTM NAD 83 Zone 10.

GEOCRES No. 31D-742

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METRIC

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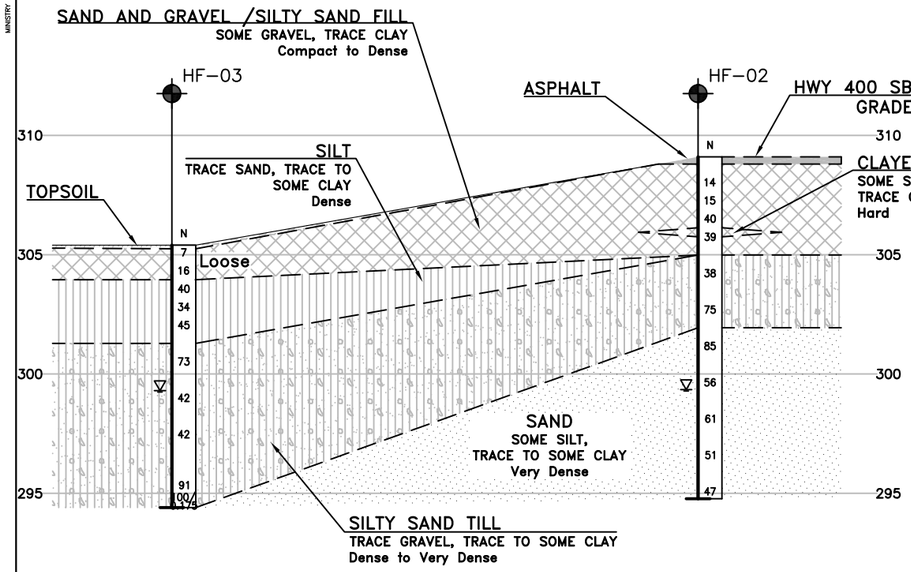
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GWP No 2493-15-00

HIGHWAY 400
HIGH FILLS APPROX. STATIONS 41+600 TO 42+400
BOREHOLE LOCATIONS AND SOIL STRATA

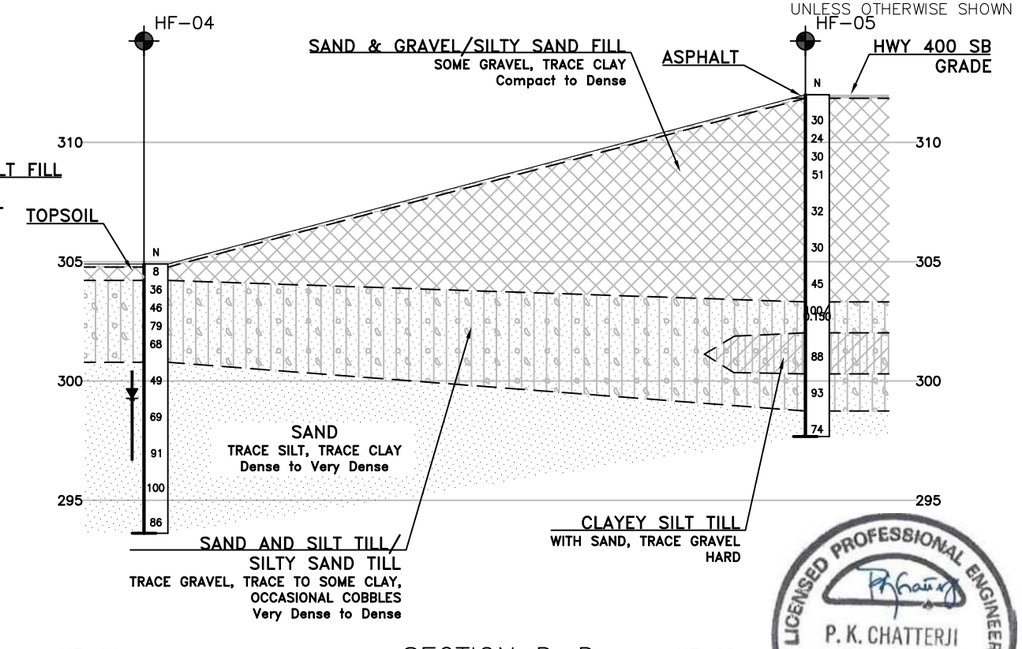
SHEET

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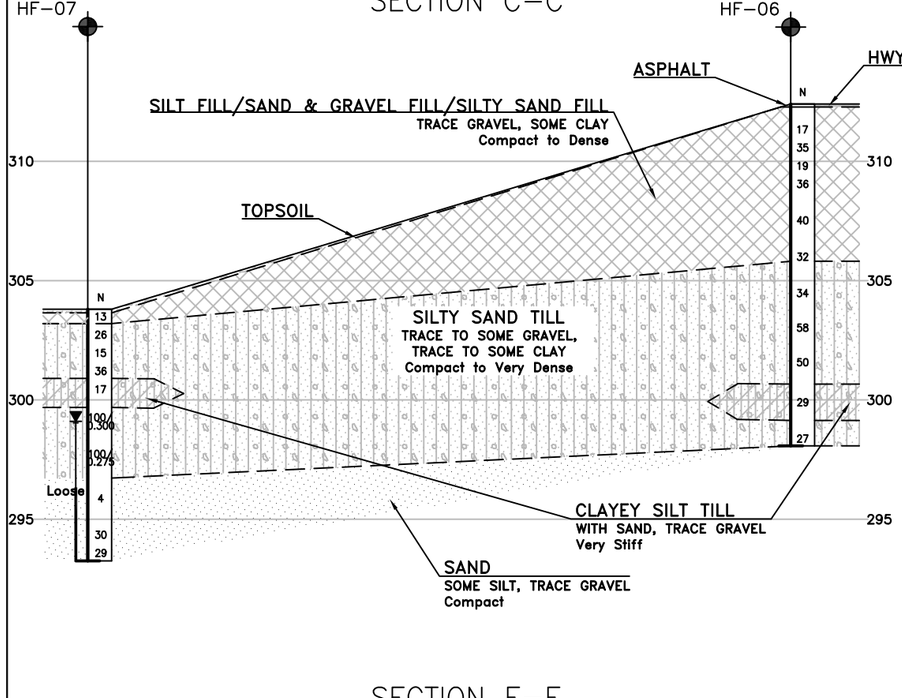
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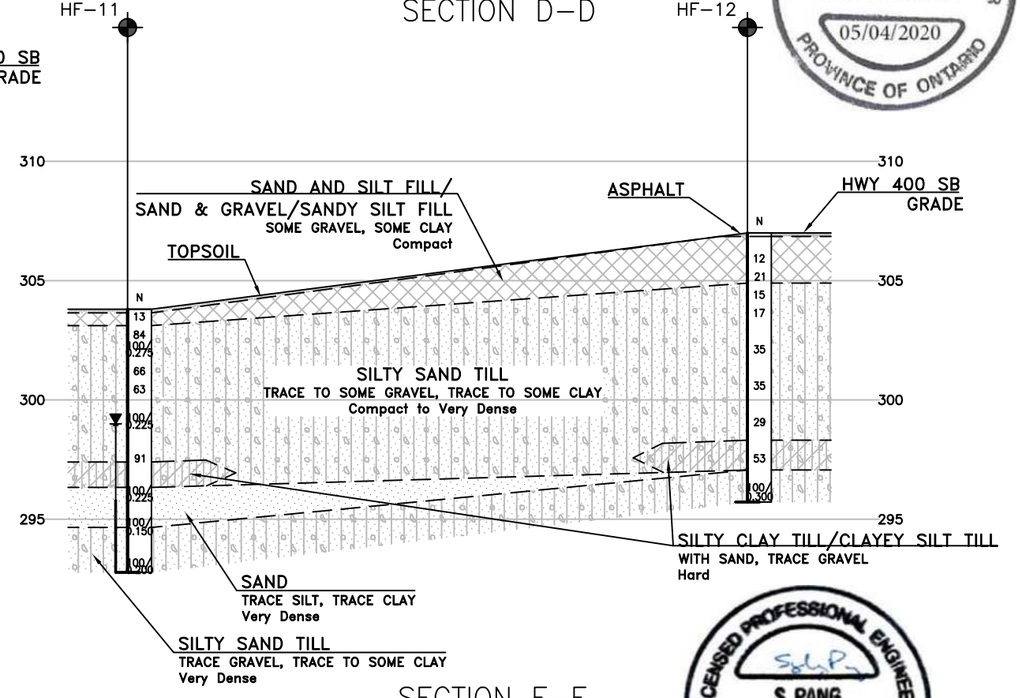
SECTION C-C



SECTION D-D

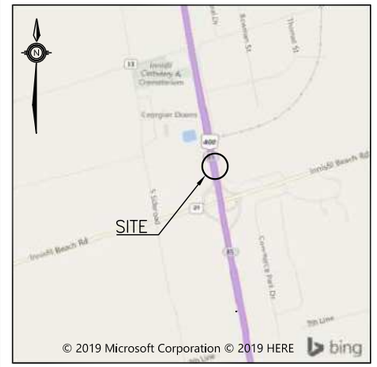


SECTION E-E



SECTION F-F

4 0 4 8m H 1:200
5 0 5 10m V 1:100



44.288 KEYPLAN -79.681

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LICENSED PROFESSIONAL ENGINEER
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35314509
05/04/2020
PROVINCE OF ONTARIO

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
HF-01	305.8	4 905 297.4	290 374.6
HF-02	309.1	4 905 349.3	290 382.5
HF-03	305.4	4 905 416.9	290 351.8
HF-04	304.9	4 905 447.0	290 343.3
HF-05	312.0	4 905 497.8	290 356.2
HF-06	312.4	4 905 630.3	290 329.6
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HF-08	304.9	4 905 718.2	290 286.2
HF-09	310.7	4 905 769.9	290 302.2
HF-10	304.5	4 905 807.4	290 271.9
HF-11	303.8	4 905 856.6	290 265.8
HF-12	307.0	4 905 905.4	290 277.7
HF-13	302.9	4 905 946.8	290 252.4
HF-14	302.0	4 905 999.0	290 245.4

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3) Coordinate system is MTM NAD 83 Zone 10.

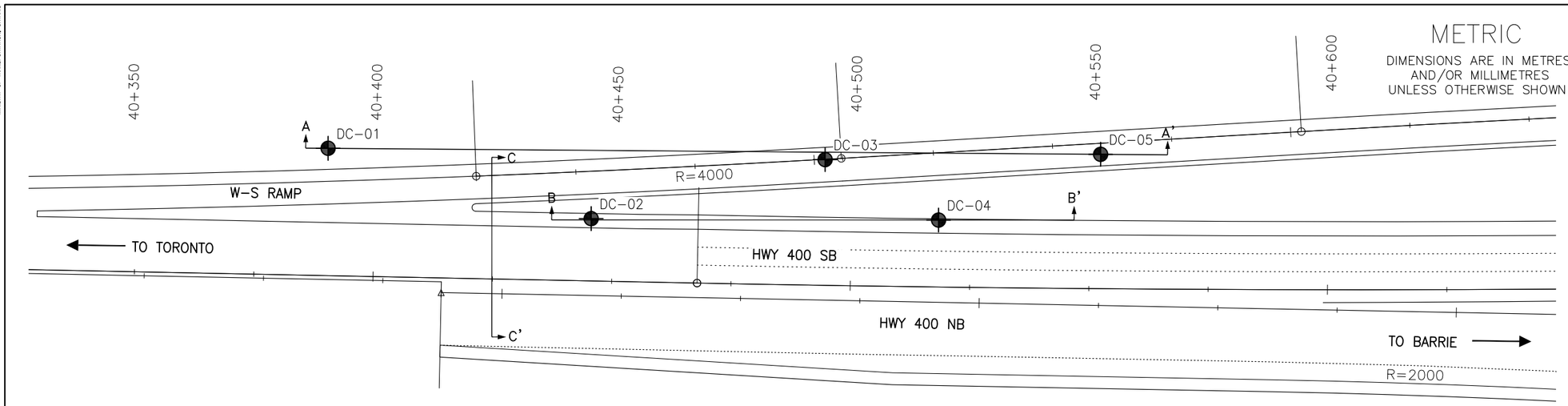
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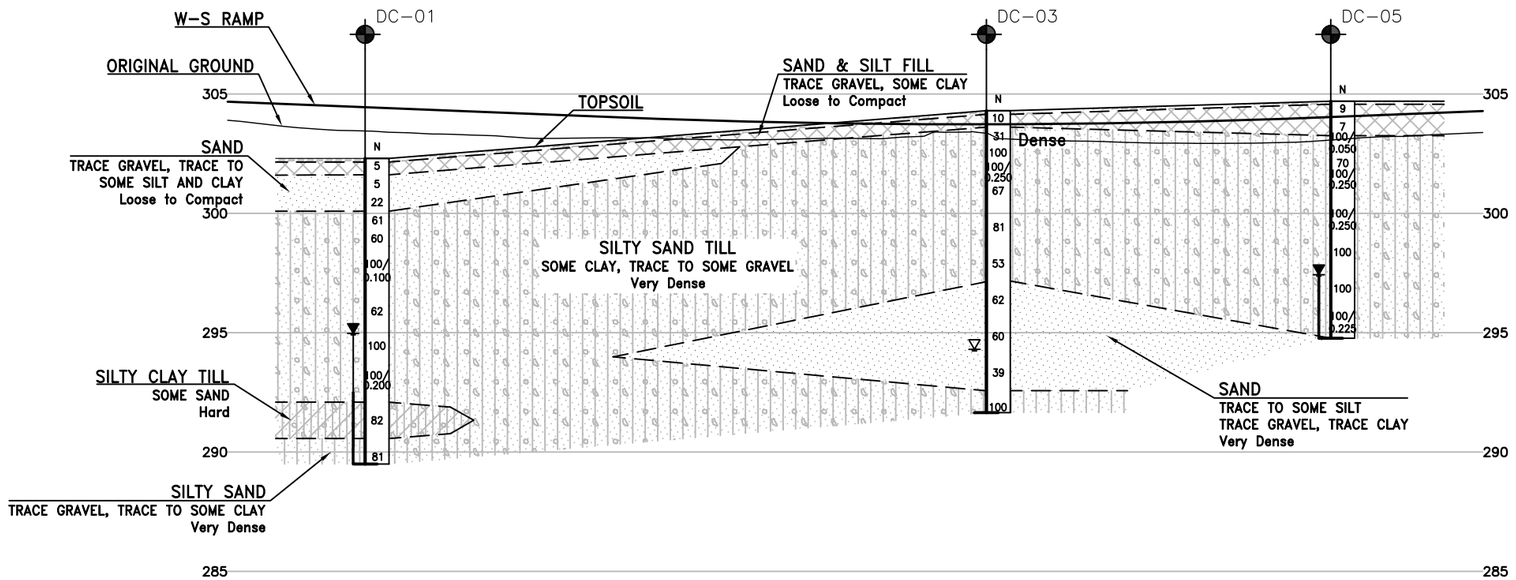
MINISTRY OF TRANSPORTATION, ONTARIO



PLAN

20 0 20 40m

SCALE 1:1000



PROFILE ALONG A–A'

20 0 20 40m H 1:1000

5 0 5 10m V 1:250

METRIC

DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN

CONT No

GWP No 2493-15-00

HIGHWAY 400
DEEP CUTS APPROX. STATIONS 40+350 TO 40+600
BOREHOLE LOCATIONS AND SOIL STRATA

SHEET

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LICENSED PROFESSIONAL ENGINEER
P. K. CHATTERJI
05/04/2020
PROVINCE OF ONTARIO

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
DC-01	302.3	4 904 060.6	290 615.1
DC-02	301.1	4 904 117.6	290 618.1
DC-03	301.9	4 904 163.0	290 595.9
DC-04	301.9	4 904 188.8	290 603.4
DC-05	304.7	4 904 219.2	290 582.9

-NOTES-

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3) Coordinate system is MTM NAD 83 Zone 10.

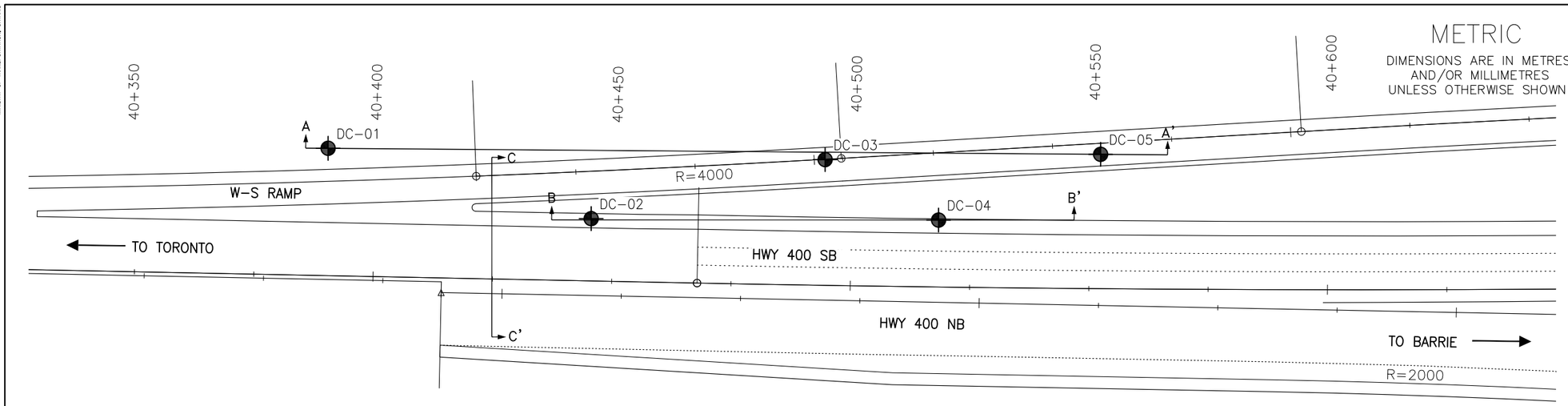
GEOCRES No. 31D-742

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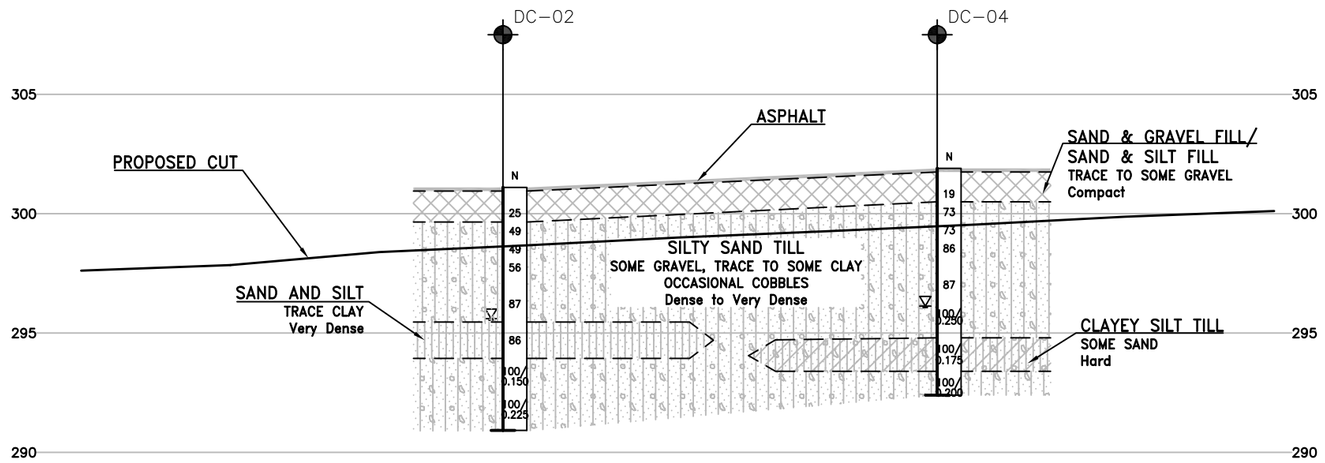
METRIC

DIMENSIONS ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE SHOWN

PLAN

20 0 20 40m

SCALE 1:1000



PROFILE ALONG B–B'

20 0 20 40m H 1:1000

5 0 5 10m V 1:250





CONT No
GWP No 2493-15-00

SHEET

HIGHWAY 400
DEEP CUTS APPROX. STATIONS
40+350 TO 40+600
BOREHOLE LOCATIONS AND SOIL STRATA

McINTOSH PERRY

THURBER ENGINEERING LTD.



44.288 KEYPLAN -79.681

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
DC-01	302.3	4 904 060.6	290 615.1
DC-02	301.1	4 904 117.6	290 618.1
DC-03	301.9	4 904 163.0	290 595.9
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DC-05	304.7	4 904 219.2	290 582.9

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GEOCRES No. 31D-742

REVISIONS		
DATE	BY	DESCRIPTION

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MINISTRY OF TRANSPORTATION, ONTARIO

METRIC

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AND/OR MILLIMETRES
UNLESS OTHERWISE SHOWN

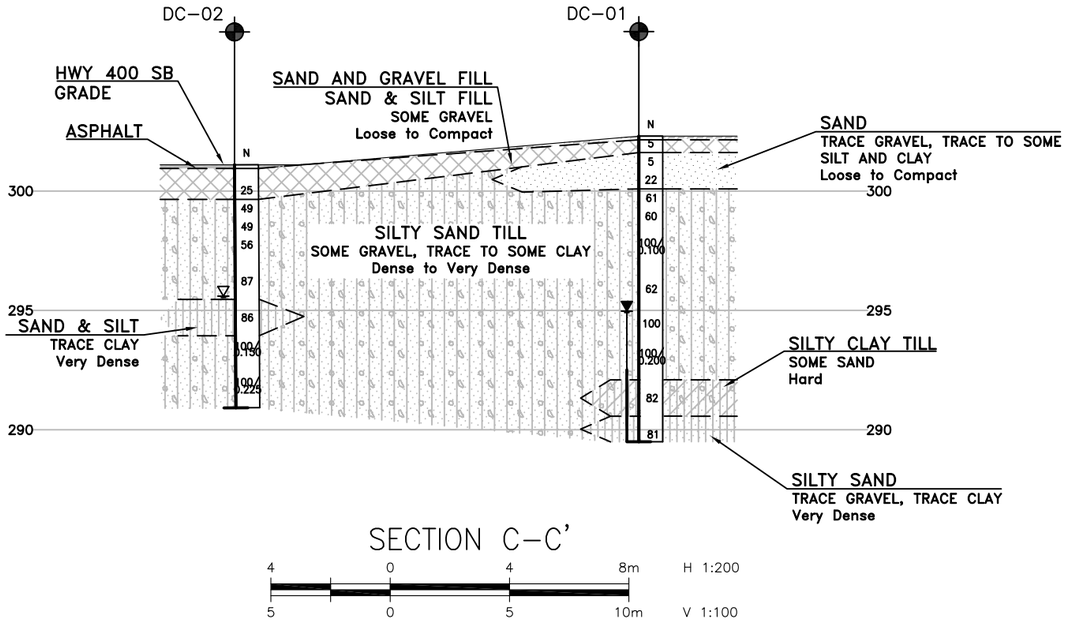
CONT No
GWP No 2493-15-00

HIGHWAY 400
DEEP CUTS
40+425
BOREHOLE LOCATIONS AND SOIL STRATA

SHEET

McINTOSH PERRY

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SECTION C-C'

4 0 4 8m H 1:200

5 0 5 10m V 1:100



44.288 KEYPLAN -79.681

LEGEND

⊕	Borehole (Current Investigation)
N	Blows /0.3m (Std Pen Test, 475J/blow)
CONE	Blows /0.3m (60° Cone, 475J/blow)
PH	Pressure, Hydraulic
▽	Water Level
▼	Water Level
	Piezometer
90%	Rock Quality Designation (RQD)
A/R	Auger Refusal

NO	ELEVATION	NORTHING	EASTING
DC-01	302.3	4 904 060.6	290 615.1
DC-02	301.1	4 904 117.6	290 618.1
DC-03	301.9	4 904 163.0	290 595.9
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DC-05	304.7	4 904 219.2	290 582.9

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GEOCRES No. 31D-742

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LICENSED PROFESSIONAL ENGINEER
P. K. CHATTERJI
05/04/2020
PROVINCE OF ONTARIO

REVISIONS		
DATE	BY	DESCRIPTION

DESIGN	RPR	CHK	RPR	CODE		LOAD	DATE MAY 2020
DRAWN	BH	CHK	SKP	SITE		STRUCT	DWG 6

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Appendix C

Geotechnical Investigation Report for the Proposed IH SPS 6

GEI Consultants

Consulting Engineers and Scientists

Geotechnical Investigation

Proposed Innisfil Heights Sewage Pumping Station #6

Innisfil, Ontario

Submitted to:
Ainley Group for InnServices Utilities Inc.

Submitted by:
GEI Consultants Ltd.
647 Welham Road, Unit 14
Barrie, Ontario, L4N 0B7
www.geiconsultants.com

July 2, 2024
Project No. 2305598

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1. Introduction

GEI Consultants (GEI) was retained by Ainley Group, on behalf of InnServices Utilities Inc., to complete a subsurface investigation and provide a geotechnical report in support of the proposed Innisfil Heights Sewage Pumping Station (SPS) #6, in the Town of Innisfil, Ontario. A Site location plan is provided in Figure 1,

InnServices Utilities Inc. is proposing to construct a new SPS at 7535 Tenth Sideroad in Innisfil, Ontario. The SPS is to be located in the southwest corner of the property (northeast corner of the Innisfil Beach Road and Tenth Sideroad intersection). The exact location and configuration of the facility has not been established at this time however, it is understood to comprise a dry well, a wet well, an electrical room and an outdoor generator. The wet/dry well may be about 6 to 8 m below existing grade. General evaluation of the site is required to aid with finalization of the design and provide parameters for detail design.

The purpose of this geotechnical investigation was to determine the subsurface conditions at the site and based on this information provide geotechnical engineering recommendations for the foundations and lateral earth pressures. Considerations for constructability such as soil excavation, compaction, on-site backfill suitability and temporary groundwater control are also provided.

It is noted that the recommendations provided in this report must be considered preliminary in nature due to the current uncertainty of the design for the project. As the design progresses further geotechnical review and input may be required which might necessitate the need for additional investigation and/or analysis.

2. Procedures and Methodology

It is noted that all elevations in this report are geodetic/metric and expressed in metres (m). All measurements in this report are also in metric and expressed in millimetres (mm), metres (m) or kilometres (km).

Prior to the commencement of drilling activities, the borehole locations were staked in the field by GEI. Ground surface elevations of the boreholes and horizontal co-ordinates (referencing NAD 83 geodetic datum) were surveyed by GEI with a Topcon FC – 5000 GPS Survey unit.

Underground utilities including natural gas, electrical, telephone, water, etc. were marked out by public utility locating companies prior to drilling.

The drilling for the project was carried out on December 14 and 15, 2023. Boreholes 1 to 4 were drilled to 12.6 m depth (Elev. 242.7 to 250.5) at the site. The elevations and coordinates are provided on the borehole logs in Appendix A. Borehole location are shown on Figure 2.

Drilling and sampling of the boreholes was completed using track mounted drilling equipment operated by a specialty drilling subcontractor retained and supervised by GEI. The boreholes were advanced to predetermined depths through the use of hollow stem augers and sampling was conducted using a 51 mm O.D. Split Spoon (SS) sampler. Standard Penetration Test (SPT) "N" Values (N values) were recorded for the sampled intervals as the number of blows required to drive an SS sampler 305 mm into the soil using a 63.5 kg drop hammer falling 750 mm, in accordance with ASTM D1586. Soil sampling was conducted at 0.75 m intervals for the upper 3.0 m and at 1.5 m intervals thereafter.

Monitoring wells were installed in all the boreholes by GEI to facilitate long-term groundwater monitoring, each consisting of 50 mm diameter PVC pipe with a 3.0 m long screen and protective casing.

The GEI field staff examined, and classified characteristics of the soils encountered in the boreholes, including the presence of fill materials, groundwater observations during and upon completion of the drilling, recorded observations of borehole advancement, and processed the recovered samples. All recovered soil samples were logged in the field, carefully packaged, and transported to the laboratory for more detailed examination and classification.

In the laboratory, the samples were classified as to their visual and textural characteristics. All samples were submitted for moisture content determination. Eight (8) representative samples of the soil were selected and submitted to our laboratory for grain size analysis. Five (5) of the samples were also submitted for Atterberg Limits tests. Lab testing results are provided in Appendix B.

3. Subsurface Conditions

3.1 General Overview

In general, the subsurface conditions at the site consist of surficial topsoil, fill, and clayey silt layers overlying approximately 1.5 to 4.6 m of sandy silt to sand and silt, underlain by a deposit of clayey silt to silt. The detailed soil profiles encountered in the boreholes are indicated on the attached borehole logs in Appendix A, and the geotechnical laboratory results are included in Appendix B. The borehole locations are shown in Figure 2.

It should be noted that the conditions indicated on the borehole logs are for specific locations only and can vary between and beyond the locations. It should be noted that the soil boundaries indicated on the borehole logs are inferred from non-continuous sampling and observations during drilling. These boundaries are intended to reflect approximate transition zones and should not be interpreted as exact planes of geological change.

In addition, the descriptions provided in the borehole logs are inferred from a variety of factors, including visual observations of the soil samples retrieved, laboratory testing, measurements prior to and after drilling, and the drilling process itself (speed of drilling, shaking/grinding of the augers, etc.). The passage of time also may result in changes in conditions interpreted to exist at locations where sampling was conducted.

3.2 Stratigraphy

3.2.1 Topsoil

Topsoil was encountered at the ground surface in all boreholes. The thickness of the topsoil ranged from 150 to 250 mm.

3.2.2 Fill

Fill consisting of sandy silt to clayey silt to sand containing trace organics was encountered underlying the topsoil layer in all boreholes. The fill varied from 0.6 to 1.3 m thick and extended to depths ranging from 0.8 to 1.5 m (Elev. 254.6 to 261.6). Moisture contents measured on samples of the fill ranged from 16 to 30%. SPT N values in the fill ranged from 4 to 6 blows per 0.3 m of penetration, indicating a firm/loose condition.

3.2.3 Clayey Silt

The fill in Boreholes 3 and 4 is underlain by clayey silt at a depth of 0.8 m below ground surface. The base of the clayey silt was encountered at depths of 1.5 and 2.3 m depth (Elev. 256.4 and 253.0). Moisture contents ranged from 10 to 22%. SPT N values ranged from 9 to 16 blows per 0.3 m of penetration, indicating a firm to very stiff condition.

3.2.4 Sandy Silt to Sand and Silt

Sandy silt to sand and silt was encountered underlying the fill layer in Boreholes 1 and 2, and below the clayey silt layer in Boreholes 3 and 4. The sandy silt to sand and silt contains trace to some clay and trace gravel, and trace organics and clayey silt interlayers were noted within this layer in Borehole 3. The base of this layer was encountered at depths ranging from 2.3 to 6.1 m below ground surface (Elev. 250.8 to 260.1). Moisture contents ranged from 9 to 25%. SPT N values were 11 to 32 blows per 0.3 m of penetration, indicating a compact to dense condition (typically compact). One (1) sample of the sand and silt material was submitted for grain size analysis and the results are provided in Figure B1 in Appendix B.

3.2.5 Clayey Silt to Silt

A deposit of grey clayey silt to silt, some clay, trace sand, was encountered underlying the sandy silt to sand and silt layer in all boreholes at depths between 2.3 and 6.1 m below ground surface (Elev. 250.8 and 260.1). All boreholes were terminated in this deposit at a depth of 12.6 m (Elev. 242.7 to 250.5). The clayey silt to silt was moist to very moist, with moisture contents ranging from 19 to 25%. SPT N values measured in the deposit ranged from 10 to 31 blows per 0.3 m of penetration, indicating a stiff to hard condition (typically very stiff).

Seven (7) samples of the clayey silt to silt material were submitted for grain size analysis and the results are provided in Figure B2 in Appendix B. Atterberg Limits test results on five (5) samples are provided on Figure B3 in Appendix B. The plastic limit ranged from 14.4 to 18.9%, the liquid limit ranged from 23.3 to 25.2%, and the corresponding plastic index ranged from 5.2 to 10.0%, indicating low plasticity soil (CL-ML to CL).

3.3 Groundwater

Unstabilized groundwater level measurements and cave measurements were taken upon the completion of drilling of each borehole as shown on the borehole logs in Appendix A. These measurements were taken to provide a rough estimate of the possible excavation and temporary groundwater control constructability considerations that may arise. Four (4) boreholes were outfitted with a monitoring well with 50 mm diameter PVC standpipe and 3.0 m long screen. Monitoring well configuration and groundwater observations are noted on the borehole logs in Appendix A. A summary of the groundwater level measurements is below.

Borehole	Depth of Cave / Elev.	Unstabilized Groundwater Level Depth / Elev.	Depth (m) / Elev. of Groundwater Table, January 5, 2023
1	Open (12.6 / 250.5)	No Water	1.2 / 261.8
2	Open (12.6 / 247.1)	No Water	0.7 / 259.1
3	Open (12.6 / 245.3)	No Water	0.1 / 257.8
4	Open (12.6 / 242.7)	6.1 / 249.2	0.7 / 254.6

The groundwater level measured in the monitoring wells was recorded at depths ranging from 0.1 to 1.2 m below the existing ground surface (Elev. 254.6 to 261.8).

The fill, sandy silt, sand and silt and silt are semi-permeable and will allow for some free flow of water when wet. Clayey silt is generally not permeable.

Groundwater levels are expected to show seasonal fluctuations and vary in response to prevailing climate conditions.

3.4 Soil Corrosivity and Sulphate Attack on Concrete

The following soil samples were collected from the site and submitted to CALA-accredited Caduceon Laboratories for testing to determine the potential for soil corrosivity and sulphate attack on concrete:

- BH3 / SA5
- BH1 / SA3

The results of the chemical testing are provided in Appendix D.

The American Water Works Association (AWWA) has developed a scoring system in their C-105 Standard to determine the potential for soil to corrode cast iron alloys. The scoring system assigns points based on several soil parameters, including resistivity, pH, redox potential, sulfides, and moisture content. A rank of 10 or more indicates a potential for

corrosion and suggests that corrosion protection measures should be considered. The results from the testing at this site is summarized below and the laboratory Certificate of Analysis is included as Appendix D.

Soil Parameter	AWWA Score	
	BH3 / SA5	BH1 / SA3
Resistivity (ohm·cm)	0	2
pH	0	0
Redox Potential (mV)	0	0
Sulfides (µg/g)	2	2
Moisture	1	1
TOTAL SCORE	3	5

Based on the AWWA scoring system, samples scored less than 10 points which indicates a low potential for the soil corrosivity to affect cast iron alloys and corrosion protection measures are therefore not recommended for the site.

It should be noted that this ranking system provides a general indication of soil corrosivity potential only. Other external factors may increase corrosivity potential, such as stray electrical currents or the application of de-icing salts in the winter that can leach into the ground.

The samples were also tested for water-soluble sulphate content and compared to *Table 3: Additional Requirements for Concrete Subjected to Sulphate Attack* as found in CSA A23.1 *Concrete Materials and Methods of Construction*. Table 3 is used to determine the cementing materials required in concrete based on degree of exposure to sulphate attack. The testing shows the samples have less than 0.1% water-soluble sulphate, and therefore there will have negligible exposure to sulphate attack, as such no additives are required.

4. Engineering Design Parameters & Analysis

InnServices Utilities Inc.is proposing to construct a new SPS at 7535 Tenth Sideroad in the Innisfil, Ontario. The SPS is to be located in the southwest corner of the property (northeast corner of the Innisfil Beach Road and Tenth Sideroad intersection). The exact location and configuration of the facility has not been established at this time however, it is understood to comprise a dry well, a wet well, an electrical room and an outdoor generator. The wet/dry well may be about 6 to 8 m below existing grade. General evaluation of the site is required to aid with finalization of the design and provide parameters for detail design.

It is noted that the recommendations provided in this report must be considered preliminary in nature due to the current uncertainty of the design for the project. As the design progresses further geotechnical review and input may be required which might necessitate the need for additional investigation and/or analysis.

4.1 Site Grading

Grading plans were not available for review at the time of this report. However, due to the presence of the high groundwater table it is recommended to keep the any ground floor slabs high. When grading is established, GEI should review the drawings for geotechnical requirements.

It is noted that up to 1.5 m of fill was encountered within the boreholes advanced at the site. Fill is not unsuitable for footing or floor slab support and must be removed down to competent native soil. The exposed native soil subgrade surface should be thoroughly compacted and then engineered fill placement can commence to the desired grade. Footings would be supported on native soil and/or the engineered fill following sub excavation to competent native soil. The floors slabs would be supported on engineered fill.

4.1.1 Engineered Fill

GEI defines “engineered fill” as material that will support foundations, and which is placed and compacted in a specified and controlled manner under full-time supervision of geotechnical engineering staff.

Engineered fill will be placed to raise grades, or replace poor/weak soil, the topsoil, vegetation, peat, or existing earth fill must be fully removed down to competent soil. The exposed subgrade soil must be proof-rolled and inspected by the geotechnical engineer to ensure all unsuitable material (e.g., organics, weak or soft soil, weathered / disturbed soil, deleterious materials, existing fill) is removed from the engineered fill footprint. Any unsuitable areas must be further sub-excavated and replaced with approved material and compacted to a targeted 98% Standard Proctor maximum dry density (SPmdd), in building areas and 95% SPmdd in servicing areas.

Once the subgrade is approved, engineered fill can be placed. Engineered fill must be placed under the full-time supervision of a geotechnical engineer as required in the Ontario Building Code. The engineered fill may consist of excavated on-site inorganic cohesionless soils provided they have been moisture conditioned to a moisture content within 2% of optimum moisture content and do not contain organics, topsoil or deleterious material. it is recommended that imported soil consist of Granular B (OPSS.MUNI 1010). Engineered fill must be placed in loose lifts of 200 mm or less and compacted as noted above.

Considering the exposed subgrade may be wet, the first lift of engineered fill shall consist of 400 mm of Granular B Type II (OPSS.MUNI 1010). This will help to bridge the weaker subgrade and improve the ability to achieve the compaction specifications for subsequent engineered fill lifts.

The engineered fill must extend a minimum of 1 m out from all sides of the foundations and extend at a 1 horizontal to 1 vertical slope (1H:1V) down to the exposed subgrade. A typical detail for engineered fill pad dimensioning is included in Appendix C.

4.2 Foundation Design

4.2.1 Building and Generator Pad

The topsoil and existing fill are not suitable for the support of building and generator pad foundations. The underlying undisturbed native soil encountered in the boreholes below the fill is considered suitable for the support of new foundations.

Foundations for new building and generator pad may be constructed as conventional shallow spread and strip footing foundations that extend down to bear on the competent undisturbed native soils. Footings founded on the undisturbed compact sandy silt to sand and silt and/or the stiff to very stiff clayey silt may be designed using a maximum geotechnical reaction at SLS of 100 kPa, for an estimated settlement of 25 mm or less. The maximum factored geotechnical resistance at ULS is 150 kPa. These geotechnical resistances are for a minimum 0.5 m wide footing and are for vertical, concentric loading. Where eccentric or inclined loads are applied, the resistance values used in design must be reduced.

4.2.2 Wet/Dry Wells

Currently it is understood that the wet/dry wells will extend about 6.0 to 8.0 m below the existing ground surface. Based on boreholes, the wells will be founded within the stiff to very stiff clayey silt to silt deposit. Proposed well foundations founded on undisturbed native stiff to very stiff clayey silt to silt at the depths noted above may be designed using a maximum geotechnical reaction at SLS of 200 kPa, for an estimated settlement of 25 mm or less. The maximum factored geotechnical resistance at ULS is 300 kPa.

4.2.3 Foundations on Engineered Fill

Footings supported on an engineered fill pad placed over the undisturbed compact sandy silt to sand and silt and/or the stiff to very stiff clayey silt may be designed using a geotechnical bearing resistance up to 150 kPa at SLS and 225 kPa at ULS. The engineered fill pad should be constructed in accordance with Section 4.1.1 and have a minimum thickness of 500 mm.

It is recommended that nominal reinforcing steel for stiffening of the foundation walls made on engineered fill be provided to help mitigate minor cracking due to minor differential settlement. The reinforcing steel in the poured concrete foundation walls may consist of 2-15M bars continuous at the top of the foundation wall, and 2-15M bars continuous at the bottom of the foundation walls. Typically, these bars are placed 100 to 200 mm from the top or bottom of the foundation wall, respectively. The reinforcing steel should extend a minimum of 3 m past any transition zones between engineered fill and native soil. A typical reinforcing steel detail for foundation walls placed on engineered fill is provided within Appendix C. The recommended nominal reinforcing steel should not be considered a structural design. The need for different or additional reinforcement should be reviewed by a structural engineer to ensure the original structural design intent of the structure is maintained.

4.2.4 General Considerations

Regardless of loading considerations, the minimum strip footing widths to be used shall be dictated as per the Ontario Building Code. Footings stepped from one level to another must be at a slope not exceeding 7 vertical to 10 horizontal.

Reference is made to Figure 26.27 in CFEM 4th edition for general underpinning requirements related to footings in close proximity to existing or proposed wet/dry well walls.

Foundations exposed to ambient air temperature throughout the year must be provided with a minimum of 1.5 m of earth cover for frost protection. Where earth cover is less than 1.5 m, additional equivalent insulation is required. A 25 mm thick polystyrene insulation board is equivalent to 300 mm of soil cover.

Prior to pouring concrete for the footings, the footing subgrade must be cleaned of deleterious materials, softened, disturbed, or caved materials, and any standing water. During the excavation and construction of the footings GEI should be retained to inspect the founding base to ensure the subgrade has been properly prepared and that the integrity of the founding soil has been maintained.

Soils tend to weather and deteriorate on exposure to the atmosphere or to surface water, therefore foundation bases that will remain open and exposed to the atmosphere for an extended period shall be protected by applying a skim coat of lean concrete immediately after inspection of the founding subgrade is completed. If construction is to proceed in freezing

conditions, temporary frost protection for the footing bases and concrete must be provided. Construction traffic should be prohibited from travelling over the exposed subgrade.

4.2.5 Seismic Site Classification

Section 4.1.8.4 of the Ontario Building Code provides values of the acceleration and velocity-based site coefficients (F_a and F_v) for various time periods, associated with specific Site Classes. These Site Classes are based on the energy-corrected Average Standard Penetration Resistance values and undrained shear strength within the upper 30 m of soil underlying the grade beams or foundations of the proposed structure. As the boreholes were advanced less than this depth at the site, the site classification recommendation provided below assumes that the soil conditions are similar below the drilled depth.

Underneath the proposed foundations for the facility, the subsoil will consist of primarily of very stiff clayey silt to silt. Based on this, the Site Classification for Seismic Site Response is "D" for this site.

4.3 Floor Slabs

As discussed above, due to the high groundwater table, the floor slab for the building and the generator pad can be supported on the engineered fill.

It is necessary that the floor slabs be provided with a capillary moisture barrier and drainage layer. This is made by placing the concrete slab on a minimum 200 mm layer of 19 mm clear stone (OPSS.MUNI 1004) compacted by vibration to a dense state. The upper 50 mm of clear stone can be replaced with 19 mm crusher run limestone for a working surface. The clear stone and subgrade must be separated by a geotextile such as Terrafix 270R (or approved equivalent) to prevent the migration of fines into the clear stone layer which could result in loss of support for the slab. Alternatively, OPSS Granular A can be utilized, compacted to 100% SPMDD, without the geotextile.

The modulus of subgrade reaction appropriate for design of a thickened slab on approved engineer fill soil is 25 MPa/m.

The slab for the generator pad must be insulated to prevent frost issues. As noted above, a 25 mm thick (1") styrofoam insulation board is equivalent to 300 mm of soil cover. The frost effects need to be fully mitigated for the frost penetration depth of 1.5 m, and 150 mm (5") of insulation is required. The insulation should be located under the entire slab as well as extended a minimum of 1.5 m beyond the outside edges of the slab. All insulation boards should be staggered, taped and set flush/tightly to one another. The bottom edge of the thickened edge slab and the insulation should be caulked to prevent moisture from infiltrating between the insulation and the foundation.

For the proposed building that will be slab-on-grade with no basement level (wet/dry well discussed below), perimeter and under-slab drainage for the building at the foundation level is not required, provided that the underside of the concrete slab is at least 200 mm above the prevailing grade of the site and the surrounding surfaces slope away from the building at a gradient of at least 2% to promote surface water run-off and to reduce groundwater infiltration adjacent to foundations. To minimize infiltration of surface water, the upper 150 mm of backfill should comprise relatively impervious/cohesive compacted soil material.

4.4 Lateral Earth Pressures and Hydrostatic Uplift Resistance

The walls of the wet and dry wells must be designed to resist the unbalanced lateral pressure due to the weight of the retained soil. The effect of hydrostatic pressure must also be included as it is likely impractical to have a drainage system below the groundwater table. In this regard, the lateral pressure, P, may be computed using the following equation:

$$\boldsymbol{P = K[\gamma(h - h_i) + \gamma' h_i + q] + \gamma_w h_i}$$

where, **P** = the horizontal pressure at depth, **h** (m)

K = the earth pressure coefficient (dimensionless)

$\mathbf{h_i}$ = depth below groundwater at depth h below ground surface (m)

h = depth below surface (m)

$\boldsymbol{\gamma}$ = bulk unit weight of soil = 20 kN/m^3

$\boldsymbol{\gamma'}$ = buoyant unit weight of soil, = $\boldsymbol{\gamma - \gamma_w}$ (kN/m^3)

$\boldsymbol{\gamma_w}$= unit weight of water, = 9.81 kN/m^3

q = surcharge loading (kPa)

In addition, there should be allowance for seismic events and appropriate factors of safety should be used in the design.

The groundwater level measured in the monitoring wells was recorded at depths ranging from 0.1 to 1.2 m below the existing ground surface (Elev. 254.6 to 261.8). The water level should be considered to be at the existing ground surface for design purposes.

The values for use in the design of the wet/dry well walls subjected to unbalanced lateral earth pressures at the site are as follows:

Soil Type	γ - Bulk Unit Weight (kN/m3)	φ - Friction Angle (degrees)	Earth Pressure Coefficient (dimensionless)		
			Ka - Active	Ko – At-Rest	Kp - Passive
Granular 'B' (OPSS 1010)	21	32	0.31	0.47	3.25

Soil Type	γ - Bulk Unit Weight (kN/m3)	φ - Friction Angle (degrees)	Earth Pressure Coefficient (dimensionless)		
			Ka - Active	Ko – At-Rest	Kp - Passive
Compacted Earth Fill	20	30	0.33	0.50	3.00

The calculation of the earth pressure coefficients is based on Rankine theory, which provides a conservative estimate as no friction between the soil and the structure is accounted for. The earth pressure coefficients provided above are only applicable for flat ground surfaces beyond the structure and will change for sloping ground surfaces.

The earth pressure coefficients referenced within the above table are a function of the friction angle of the adjacent soil, and both the degree and direction of movement of the structure subjected to unbalanced lateral earth pressures. For structures that are restrained at the top (such as basement walls), the at-rest earth pressure coefficient will apply. For structures that allow for 0.1 to 1% of movement away from the soil, the full active earth pressure coefficient will apply. For structures that allow for 1 to 10% of movement into the soil, the full passive earth pressure coefficient will apply. The percentage movement is based on the height of the structure.

Other types of structures such as shoring walls with multiple rows of tiebacks and soil nail walls are subject to different loading conditions and must be analyzed separately.

The wet and dry wells will be installed below the groundwater table and must be designed to withstand uplift pressure due to hydrostatic head at the base of the structure. For design purposes it is recommended that the groundwater level be assumed at 0.5 m below the ground surface. Resistance to uplift is provided by the weight of the structure plus the weight of any soil cover over the structure. Additional resistance can be achieved by extending (widening) the foundation base and considering the weight of the soil above the extended base. A thickened base/slab would also suffice. Bulk unit weight of soil, γ, is provided above. The unit weight of submerged soil, γ', is the bulk soil unit weight minus 9.81 kN/m^3 (the unit weight of water).

Alternatively, the structures could be anchored into the into the very stiff to hard clayey silt to silt deposit using double corrosion-protected anchors installed in grouted holes. A factored bond stress between the grout and soil of 25 kPa may be used for the computing the pullout resistance between the grout and the very stiff to hard clayey silt to silt deposit. The anchors should be spaced minimum 1.2 m to minimize group effects between the anchors. Design and installation of the anchors must be in accordance with OPSS.MUNI 942

5. Constructability Considerations

5.1 Excavations

Excavations for the proposed wells are anticipated to extend up to 8 m below existing grade and extend through topsoil, fill, clayey silt, silty sand to sand and silt, and into the clayey silt to silt deposit.

Excavations must be carried out in accordance with the Occupational Health and Safety Act, Ontario Regulation 213/91 (as amended), Construction Projects, Part III - Excavations, Section 222 through 242. Where workers must enter a trench or excavation the soil must be suitably sloped and/or braced in accordance with the OHSA.

These regulations designate four (4) broad classifications of soils to stipulate appropriate measures for trench safety. If more than one soil type is encountered in a trench, the soil type with the highest number will govern the trench/excavation sidewall geometry. Subject to adequate groundwater control, as required and discussed in the next section, excavation for the proposed building and service trenches shall be carried out with Type 3 Soil geometry, with sidewalls to be constructed no steeper than 1H:1V from the base of the excavation.

Excavation sidewalls will need to be continuously reviewed for evidence of instability and ground water seepage, particularly following periods of heavy rain or thawing. When required, remedial action must be taken to ensure the continued stability of excavation slopes and the safety of the workers.

5.2 Temporary Protection Systems

Considering the depth of excavation and space needed for an open excavation, and for added groundwater control as discussed in the next section, temporary protection systems may be considered to limit the size of the excavation.

The design and construction of the temporary protection systems is the responsibility of the contractor. The lateral pressure distribution acting on the protection/shoring system is a function of the construction sequence and the relative flexibility of the wall, and these factors should be taken into consideration when designing the shoring system. All protection systems should be designed by a Professional Engineer experienced in such designs, who will determine an appropriate support system.

The following table presents soil parameters that may be used for design of temporary protection systems with horizontal ground surface.

Soil Type	Effective Unit Weight γ' (kN/m3)	Active Lateral Earth Pressure Coefficient (Ka)	At-rest Lateral Earth Pressure Coefficient (Ko)	Passive Lateral Earth Pressure Coefficient (Kp)
Existing Fill	20	0.36	0.47	-
Firm to Very Stiff Clayey Silt	9 (*)	0.36	0.47	-
Compact to Dense Sandy Silt to Sand and Silt	10 (*)	0.35	0.48	-
Stiff to Hard Clayey Silt to Silt	11 (*)	0.35	0.48	2.85

(*) submerged unit weight

The temporary protection systems must be designed to resist any surcharge loads such as those imposed by the excavator and any construction equipment. The sheet piling would need to be driven to an adequate depth to resist unbalanced lateral loading.

Minimum support system requirements for steeper excavations are stipulated in Sections 235 through 238 and 241 of the OHSA and include provisions for timbering, shoring and moveable trench boxes. To reduce the potential for instability of the trench excavations, materials excavated from the service trenches and/or other fill materials or heavy equipment should not be placed near the crest of the trench excavations.

5.3 Temporary Construction Excavation Groundwater Control

The exact scenario where certain groundwater control techniques will work are directly correlated to how coarse/fine the native soils are in an excavation, and both the lateral and vertical extent of the wet cohesionless deposits encountered. If the groundwater table is not controlled during construction, the base of the excavation may become unstable.

Conventional sump pumping should suffice to control ground water seepage for excavations that extend to 2 to 3 m depth below existing grade.

Deeper excavation for the wet/dry wells will extend approximately 5.0 to 7.5 m below the groundwater level measured in the monitoring wells. However, the clayey silt to silt deposit is not anticipated to yield high seepage volumes and groundwater seepage is envisioned to be controlled by sump pumping from multiple pumps or sumps created with a corrugated steel pipe filled with gravel.

It is recommended to carry out the work during the dry time of the year when the ground water table is lowest, to mitigate groundwater control measures. Also reducing the size of the excavation that is open at any one time will aid in reducing groundwater control requirements.

Based on the above, a Permit-to-Take-Water (PTTW) is likely not required, however registry on the Environmental Activity and Sector Registry (EASR) system may be required for the

deep excavation and may be a prudent action to allow for areas of greater groundwater seepage with no work stoppage.

When design details are established, a hydrogeological investigation may be required to determine dewatering rates and a need for registration on the EASR system or a PTTW.

5.4 Compaction Specifications

SPmdd is the specification to indicate the degree to which soil or aggregate is compacted. To achieve the specified SPmdd as indicated in this report, all soils or aggregates must be placed in lift thicknesses no greater than 200 mm. If this is not the case, only the upper portion of the lift will be adequately compacted, and the lower portion of the lift has a high probability of not meeting compaction specifications. In addition, industry standard equipment used to determine the degree of compaction consists of nuclear densometers. These devices have an inherent limitation in that they cannot test beyond 300 mm in depth, and so the degree of compaction beyond this depth cannot be quantitatively determined.

Along with lift thickness, ensuring that the soil or aggregate is within 2% of its optimum moisture content ensures that the specified compaction can be reached. If the soil or aggregate is too dry/wet, it is either very difficult or impossible to reach the specified compaction. This is especially true for when higher compaction specifications such as 98% and 100% SPmdd are required.

Moisture conditioning may be required at either site prior to compaction. Moisture can be increased by adding water and mixing the soil prior to re-use, or by importing soil to the site that is at optimum and can be readily compacted. Moisture can be reduced by tilling or spreading out the soil to dry or blending it with drier material. In-situ moisture contents can change based on the season and local groundwater levels and can also change for stockpiled material due to precipitation. Zones of the fine-grained soil beneath the site have very high moisture contents and moisture conditioning may be difficult/impractical to accomplish.

In addition to the above compaction specifications, in any areas where compacted fill will be placed over the exposed native soil subgrade, any loose, soft, organic soil, wet or unstable areas should be sub-excavated, and backfilled with site inorganic soil or Granular ‘B’ (OPSS.MUNI 1010) compacted to a minimum of 95% SPmdd. This recommendation applies to site servicing and pavement subgrades. Where structures/buildings require upfilling beneath the structure the fill should be compacted to 100% SPmdd.

5.5 Quality Verification Services

On-site quality verification services are an integral part of the geotechnical design function. Quality verification services are used to confirm that construction is being conducted in general conformance with the requirements as outlined in the drawings, reports and specifications prepared for the proposed development.

GEI Consultants can provide all the on-site quality verification services outlined below:

- The subgrade for shallow foundations must be field reviewed by the geotechnical engineer per the OBC.
- Installation of retaining structures over 1.0 m high and related backfilling operations must be field reviewed on a continuous basis by the geotechnical engineer as required in the OBC.
- Part-time monitoring of the subgrade support capabilities, material quality, lift thickness, moisture content, degree of compaction, etc. is recommended for the following areas to ensure the recommendations within this report are followed and they perform adequately in the long-term;

    i. Slab-on-grades;
    ii. Bedding/backfilling of site servicing.

- Testing of the concrete (compressive strength, slump, air content, etc.) are recommended to ensure that the quality of the materials being brought to site meet the requirements of the project.

6. Limitations and Conclusions

6.1 Limitations

The recommendations and comments provided are necessarily on-going as new information of underground conditions becomes available. More specific information with respect to the conditions between samples, or the lateral and vertical extent of materials may become apparent during excavation operations. The interpretation of the borehole information must, therefore, be validated during excavation operations. Consequently, conditions not observed during this investigation may become apparent. Should this occur, GEI should be contacted to assess the situation and additional testing and reporting may be required.

GEI should be retained for a general review of the final design drawings and specifications to verify that this report has been properly interpreted and implemented. If not accorded the privilege of making this review, GEI will assume no responsibility for interpretation of the recommendations in the report.

The comments given in this report are intended only for the guidance of the design engineers. The number of boreholes required to determine the localized underground conditions between boreholes affecting construction costs, techniques, sequencing, equipment, scheduling, etc. could be greater than has been carried out for design purposes. Contractors bidding on or undertaking the works should, in this light, decide on their own investigations, as well as their own interpretations of the factual borehole results, so that they may draw their own conclusions as to how the subsurface conditions may affect them.

This report was authorized by, and prepared by GEI for, the account of Ainley Group (as provided in an authorizing email from Ainley Group). Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. GEI accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made, or actions based on this project.

6.2 Conclusion

It is recognized that municipal/regional governing bodies, in their capacity as the planning and building authority under Provincial statues, will make use of and rely upon this report, cognizant of the limitations thereof, both as are expressed and implied.

GEI trusts this report is complete within our terms of reference, and the information presented is sufficient for your present purposes. If you have any questions, or when we may be of further assistance, please do not hesitate to contact our office.

Yours Truly,

GEI Consultants

Prepared By:

Mohammed Razeen
Geotechnical EIT

Reviewed By:

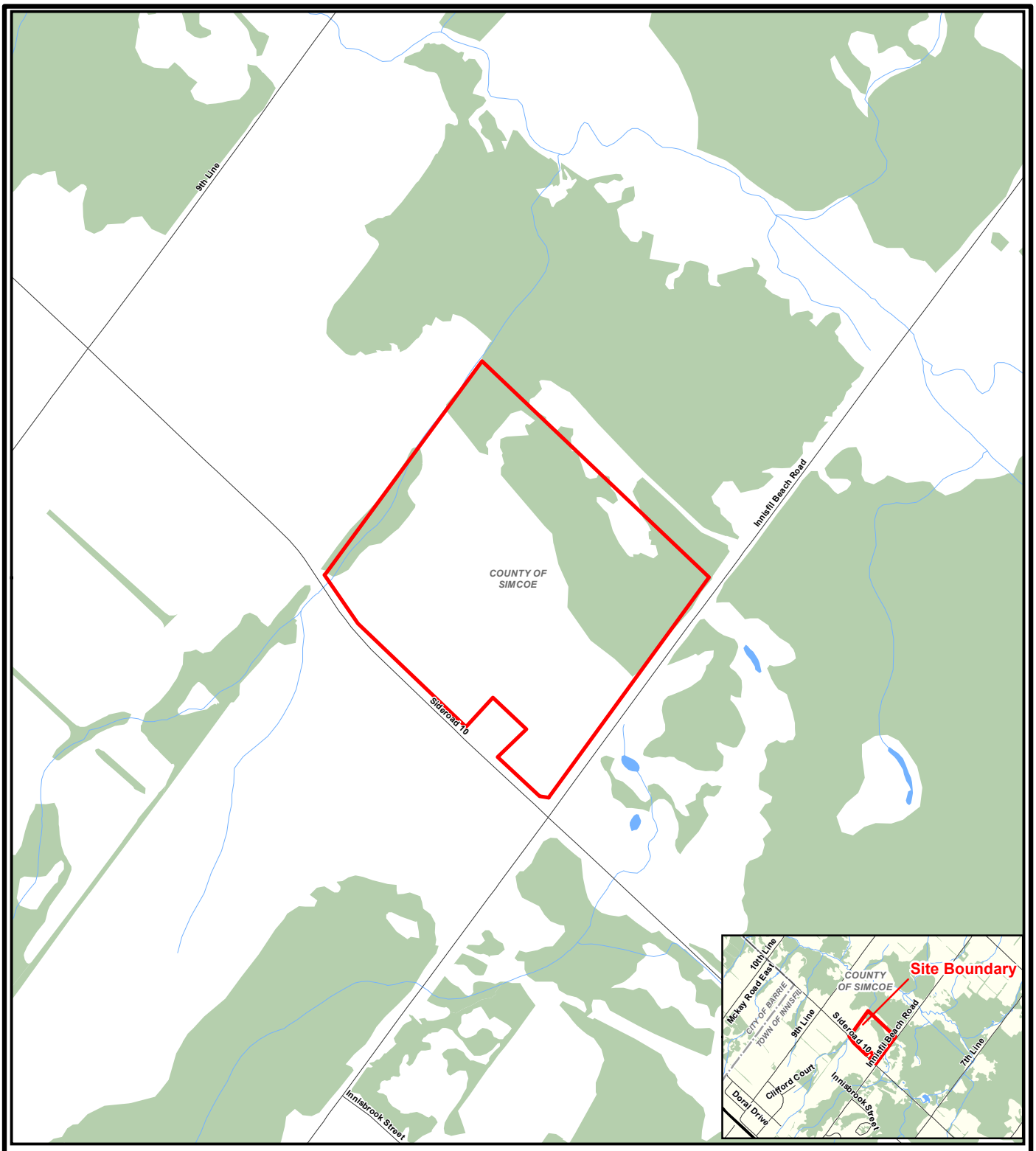


Geoff Lay, P.Eng.
Senior Geotechnical Engineer

Figures

Site Location Plan

Borehole Location Plan



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, 2024.

Legend

- Site Boundary
- Road
- Watercourse
- Waterbody
- Wooded Area

N

0 100 200 m

1:12,000

Proposed Innisfil Heights Sewage Pumping Station #6

Ainley Group

GEI Consultants

Project 2305598

SITE LOCATION PLAN

Feb 2024 Fig. 1



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, 2024.
3. Orthoimagery © First Base Solutions, 2024. Imagery taken in 2022

Legend

Site Boundary
Borehole/Monitoring Well
Road
Watercourse

N

0 50 100 m

1:5,000

Proposed Innisfil Heights Sewage Pumping Station #6

Ainley Group

GEI Consultants

Project 2305598

BOREHOLE LOCATION PLAN

Feb 2024 Fig. 2

Appendix A

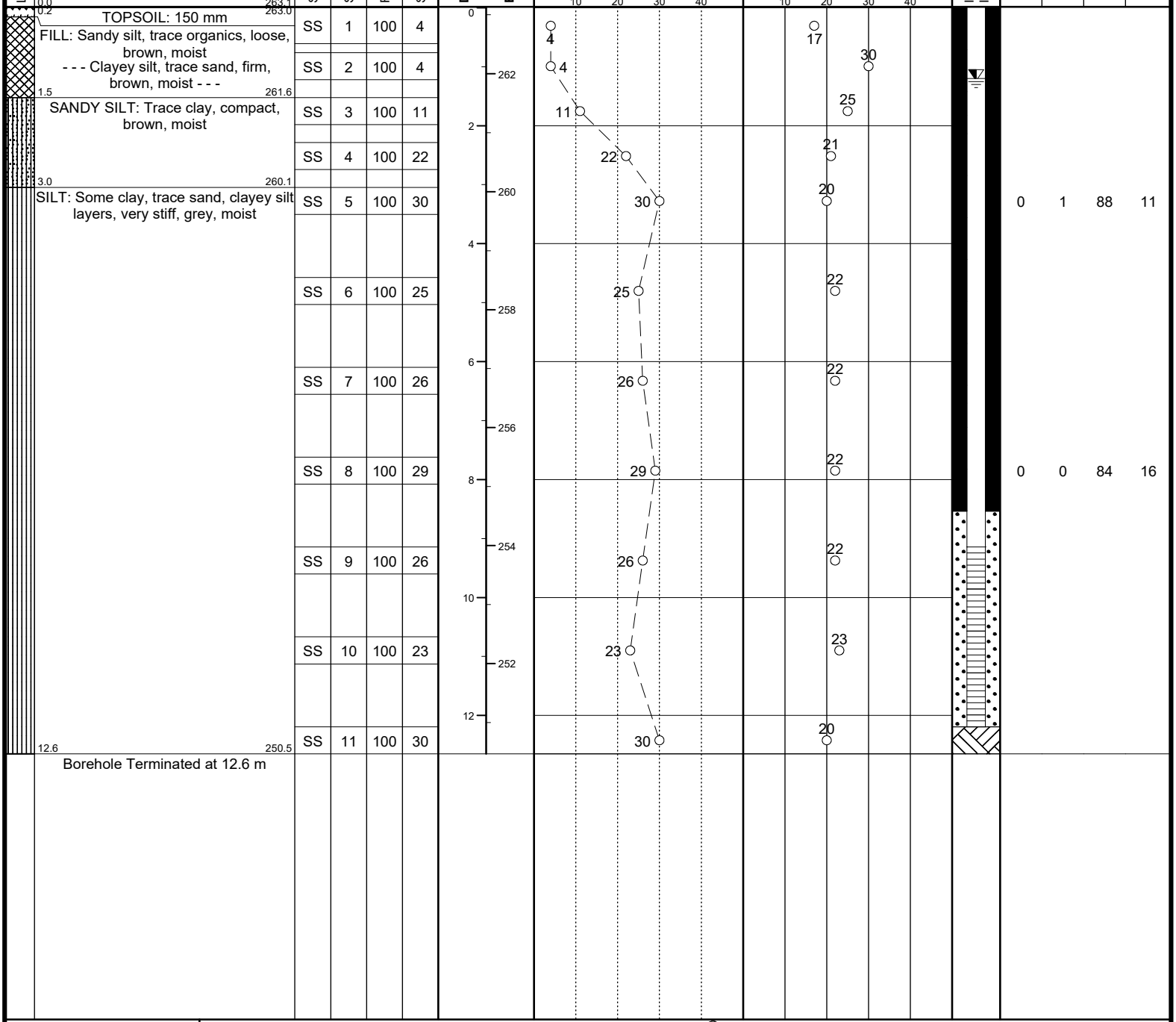
Borehole Logs

RECORD OF BOREHOLE No. 1

Project Number: **2305598**
Project Client: **Ainley Group**
Project Name: **Sewage Pumping Station #6**
Project Location: **Innisfil Heights, Innisfil, ON**
Drilling Location: **See Borehole Location Plan**
Local Benchmark:

Drilling Method: **Hollow Stem Augers** Drilling Machine: **Track Mount**
Logged By: **MH** Northing: **4905219.657** Date Started: **Dec 14/23**
Reviewed By: **GW** Easting: **607712.105** Date Completed: **Dec 14/23**

Depth	Description	Sample Type	Sample Number	Recovery (%)	SPT "N" Value	Elevation (m)	GR	SA	SI	CL
0.0						263.1				
0.2	TOPSOIL: 150 mm					263.0				
	FILL: Sandy silt, trace organics, loose, brown, moist	SS	1	100	4					
	- - - Clayey silt, trace sand, firm, brown, moist - - -	SS	2	100	4					
1.5						261.6				
	SANDY SILT: Trace clay, compact, brown, moist	SS	3	100	11					
		SS	4	100	22					
3.0						260.1				
	SILT: Some clay, trace sand, clayey silt layers, very stiff, grey, moist	SS	5	100	30		0	1	88	11
		SS	6	100	25					
		SS	7	100	26					
		SS	8	100	29		0	0	84	16
		SS	9	100	26					
		SS	10	100	23					
12.6		SS	11	100	30	250.5				
	Borehole Terminated at 12.6 m									



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Barrie, Ontario L4N 0B7
T : (705) 719-7994
www.geiconsultants.com

Groundwater depth encountered on completion of drilling: Dry
Cave depth after auger removal: Open
Groundwater depth observed on: Jan 5/2024 at depth of: 1.2 m.
Groundwater Elevation: 261.9 m

Borehole details presented do not constitute a thorough understanding of all potential conditions present and require interpretative assistance from a qualified geotechnical engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commissioned and the accompanying 'Explanation of Boring Log'.

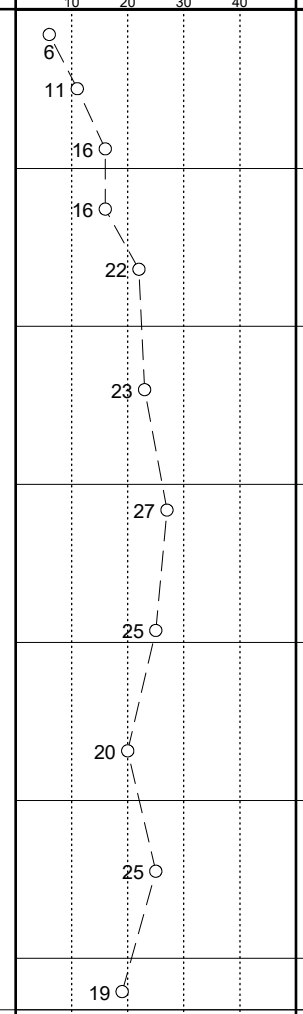
Scale: **1 :100**
Page: **1 of 1**

RECORD OF BOREHOLE No. 2

Project Number: **2305598**
Project Client: **Ainley Group**
Project Name: **Sewage Pumping Station #6**
Project Location: **Innisfil Heights, Innisfil, ON**
Drilling Location: **See Borehole Location Plan**
Local Benchmark:

Drilling Method: **Hollow Stem Augers** Drilling Machine: **Track Mount**
Logged By: **MH** Northing: **4905234.261** Date Started: **Dec 14/23**
Reviewed By: **GW** Easting: **607766.840** Date Completed: **Dec 14/23**

Depth	Description	Sample Type	Sample Number	Recovery (%)	SPT "N" Value	Elevation (m)
0.0						259.8
0.2	TOPSOIL: 250 mm					259.5
0.8	FILL: Sand, trace silt, trace gravel, trace organics, loose, brown, moist	SS	1	100	6	259.0
	SANDY SILT: Trace gravel, trace clay, compact, brown to grey, wet	SS	2	100	11	
		SS	3	100	16	
2.3						257.5
	CLAYEY SILT: Trace sand, very stiff, grey, very moist	SS	4	100	16	
		SS	5	100	22	
		SS	6	100	23	
		SS	7	100	27	
		SS	8	100	25	
		SS	9	100	20	
		SS	10	100	25	
12.6		SS	11	100	19	247.1
	Borehole Terminated at 12.6 m					



First Water Strike SS5

GR	SA	SI	CL
0	0	75	25
0	0	74	26

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Groundwater depth encountered on completion of drilling: Dry
Cave depth after auger removal: Open
Groundwater depth observed on: Jan 5/24 at depth of: 0.7 m.
Groundwater Elevation: 259.1 m

Borehole details presented do not constitute a thorough understanding of all potential conditions present and require interpretative assistance from a qualified geotechnical engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commissioned and the accompanying 'Explanation of Boring Log'.

Scale: **1 :100**

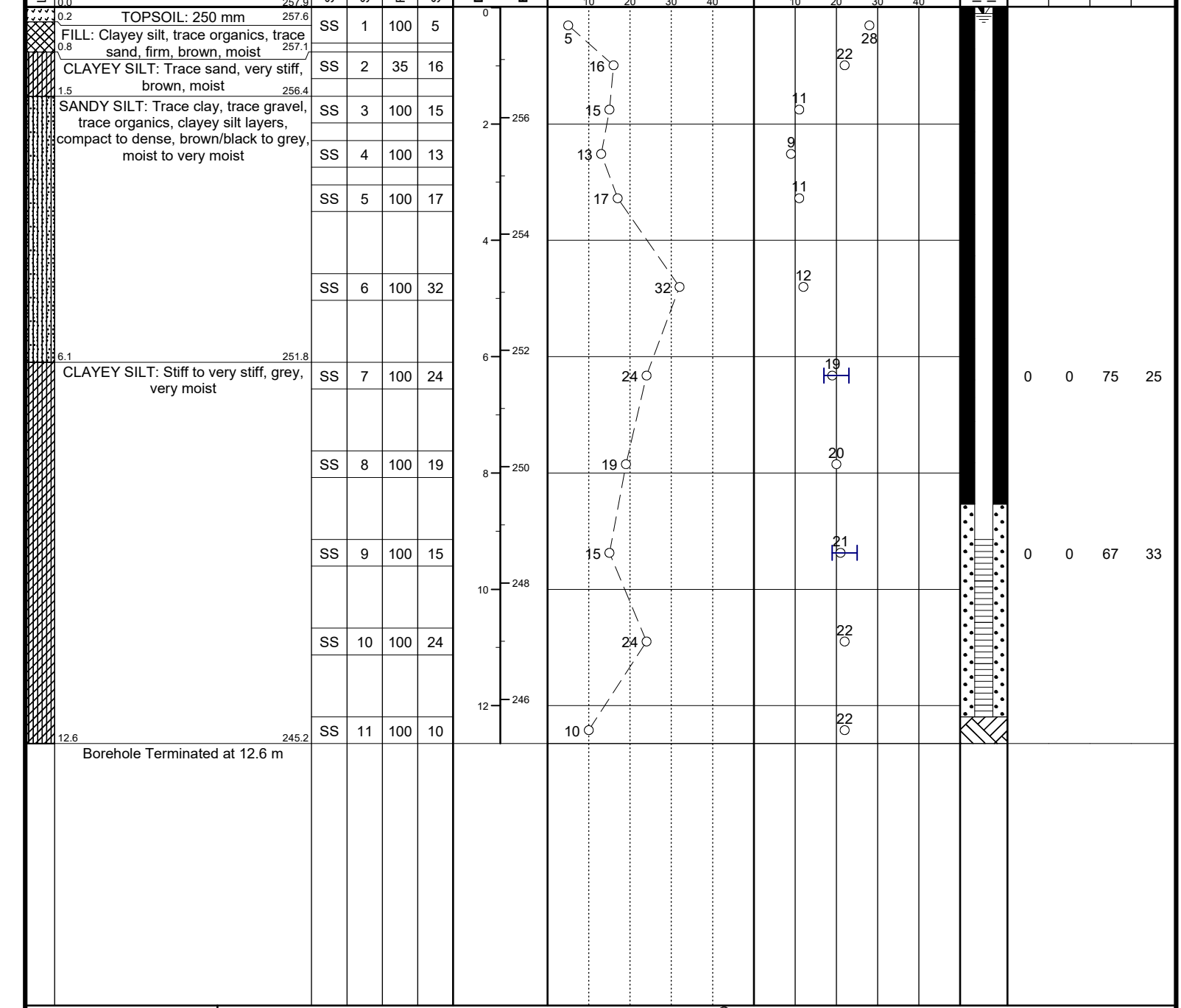
RECORD OF BOREHOLE No. 3

Project Number: **2305598**
Project Client: **Ainley Group**
Project Name: **Sewage Pumping Station #6**
Project Location: **Innisfil Heights, Innisfil, ON**
Drilling Location: **See Borehole Location Plan**
Local Benchmark:

Drilling Method: **Hollow Stem Augers** Drilling Machine: **Track Mount**
Logged By: **MH** Northing: **4905249.043** Date Started: **Dec 15/23**
Reviewed By: **GW** Easting: **607814.785** Date Completed: **Dec 15/23**

Depth (m)	Elevation (m)	Description	Sample Type	Sample Number	Recovery (%)	SPT "N" Value	GR	SA	SI	CL
0.0	257.9									
0.2	257.6	TOPSOIL: 250 mm	SS	1	100	5				
0.8	257.1	FILL: Clayey silt, trace organics, trace sand, firm, brown, moist								
			SS	2	35	16				
1.5	256.4	CLAYEY SILT: Trace sand, very stiff, brown, moist								
		SANDY SILT: Trace clay, trace gravel, trace organics, clayey silt layers, compact to dense, brown/black to grey, moist to very moist	SS	3	100	15				
			SS	4	100	13				
			SS	5	100	17				
			SS	6	100	32				
6.1	251.8									
		CLAYEY SILT: Stiff to very stiff, grey, very moist	SS	7	100	24	0	0	75	25
			SS	8	100	19				
			SS	9	100	15	0	0	67	33
			SS	10	100	24				
12.6	245.2		SS	11	100	10				
		Borehole Terminated at 12.6 m								

Shear Strength Testing (kPa): Other Test; Pocket Penetrometer; Field Vane (Intact); Field Vane (Remolded); 40 80 120 160
Penetration Testing: SPT DCPT; 10 20 30 40
Combustible Organic Vapour (ppm); Combustible Organic Vapour (%LEL); Total Organic Vapour (ppm); 100 200 300 400
Atterberg Limits: PL LL; Water Content (%); 10 20 30 40



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Groundwater depth encountered on completion of drilling: Dry
Cave depth after auger removal: Open
Groundwater depth observed on: Jan 5/24 at depth of: 0.1 m.
Groundwater Elevation: 257.8 m

Borehole details presented do not constitute a thorough understanding of all potential conditions present and require interpretative assistance from a qualified geotechnical engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commissioned and the accompanying 'Explanation of Boring Log'.

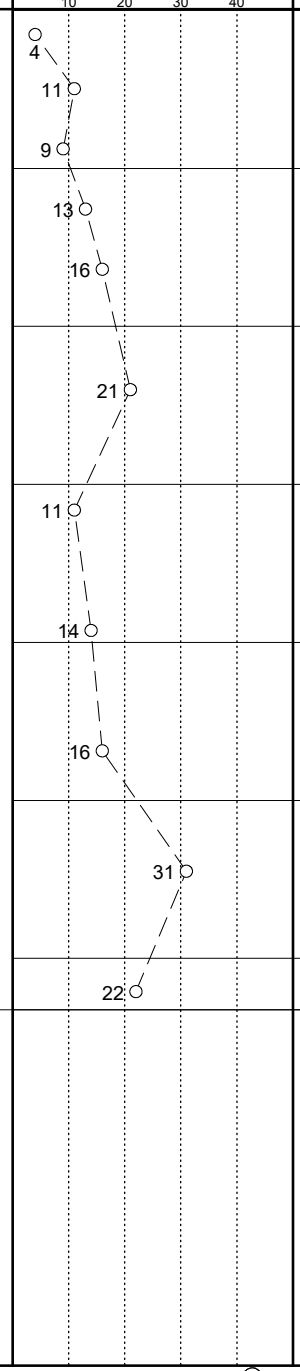
RECORD OF BOREHOLE No. 4

Project Number: **2305598**
Project Client: **Ainley Group**
Project Name: **Sewage Pumping Station #6**
Project Location: **Innisfil Heights, Innisfil, ON**
Drilling Location: **See Borehole Location Plan**
Local Benchmark:

Drilling Method: **Hollow Stem Augers** Drilling Machine: **Track Mount**
Logged By: **MH** Northing: **4905263.557** Date Started: **Dec 15/23**
Reviewed By: **GW** Easting: **607865.875** Date Completed: **Dec 15/23**

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Depth (m)	Elevation (m)	Description	Sample Type	Sample Number	Recovery (%)	SPT "N" Value
0.0	255.3					
0.2	255.1	TOPSOIL: 200 mm	SS	1	100	4
0.8	254.6	FILL: Clayey silt, trace organics, firm, brown, moist				
		CLAYEY SILT: Trace sand, trace gravel, trace organics, stiff, brown, moist	SS	2	100	11
			SS	3	100	9
2.3	253.0	SAND AND SILT: Some clay, trace gravel, compact, brown, moist to very moist	SS	4	100	13
			SS	5	100	16
4.6	250.8	CLAYEY SILT: Stiff to very stiff, grey, very moist	SS	6	100	21
			SS	7	100	11
			SS	8	100	14
			SS	9	100	16
		- - - Hard - - -	SS	10	100	31
12.6	242.7		SS	11	100	22
		Borehole Terminated at 12.6 m				



GR	SA	SI	CL
4	45	40	11
0	0	83	17

First Water Strike SS7

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Groundwater depth encountered on completion of drilling: Dry
Cave depth after auger removal: Open
Groundwater depth observed on: Jan 5/24 at depth of: 0.7 m.
Groundwater Elevation: 254.6 m

Borehole details presented do not constitute a thorough understanding of all potential conditions present and require interpretative assistance from a qualified geotechnical engineer. Also, borehole information should be read in conjunction with the geotechnical report for which it was commissioned and the accompanying 'Explanation of Boring Log'.

Scale: **1 :100**

Appendix B

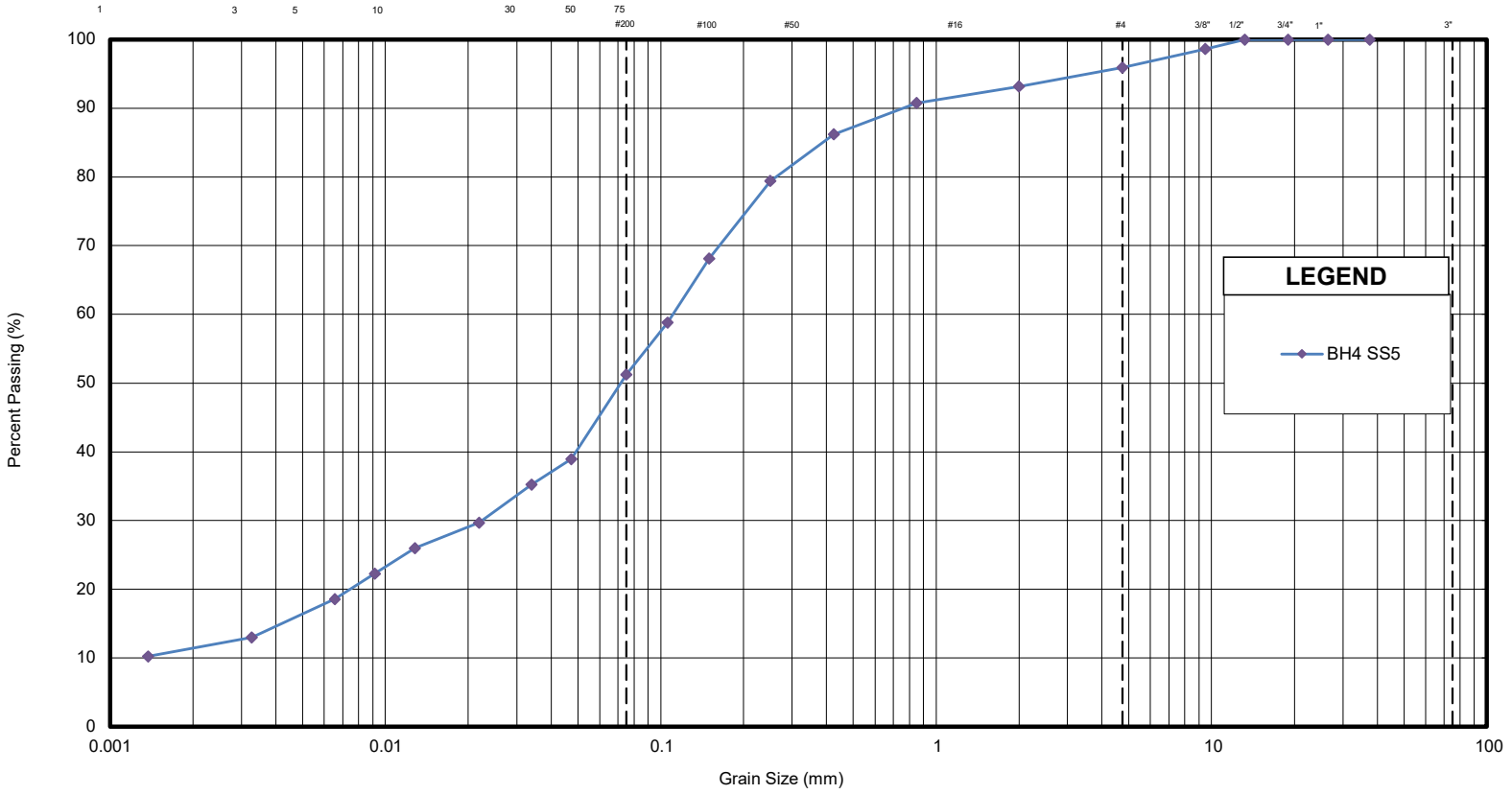
Geotechnical Laboratory Testing

UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse

GRAIN SIZE IN MICROMETERS

SIEVE DESIGNATION (IMPERIAL)



Sample	Description	Gr.	Sa.	Si.	Cl.	D_{10}	D_{30}	D_{60}	C_u	C_c
BH4 SS5	SAND AND SILT, Some Clay, Trace Gravel	4	45	40	11	-	0.022	0.111	-	-

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GRAIN SIZE DISTRIBUTION - Innisfil Pump Station No. 6

SAND AND SILT

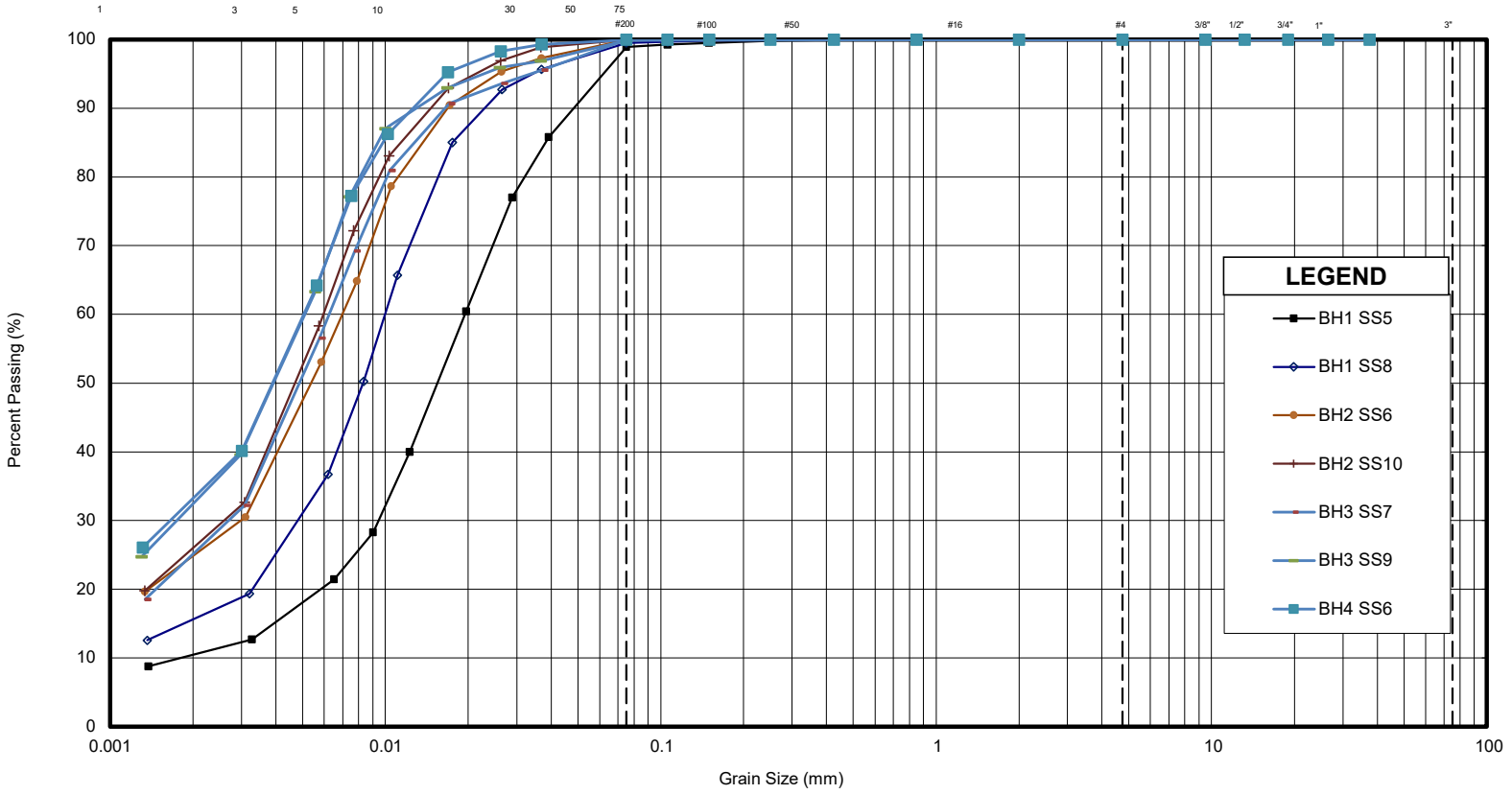
FIGURE No.	B1
REF. No.	2305598
DATE	February 2024

UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse

GRAIN SIZE IN MICROMETERS

SIEVE DESIGNATION (IMPERIAL)



Sample	Description	Gr.	Sa.	Si.	Cl.	D_{10}	D_{30}	D_{60}	C_u	C_c
BH1 SS5	SILT, Some Clay, Trace Sand	-	1	88	11	0.002	0.009	0.019	9.5	2.132
BH1 SS8	SILT, Some Clay, Trace Sand	-	-	84	16	-	0.005	0.010	-	-
BH2 SS6	CLAYEY SILT, Trace Sand	-	-	75	25	-	0.003	0.007	-	-
BH2 SS10	CLAYEY SILT, Trace Sand	-	-	74	26	-	0.003	0.006	-	-
BH3 SS7	CLAYEY SILT	-	-	75	25	-	0.003	0.006	-	-
BH3 SS9	CLAYEY SILT	-	-	67	33	-	0.002	0.005	-	-
BH4 SS6	CLAYEY SILT	-	-	83	17	-	0.005	0.043	-	-

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GRAIN SIZE DISTRIBUTION - Innisfil Pump Station No. 6

CLAYEY SILT TO SILT

FIGURE No.

REF. No. 2305598

DATE February 2024

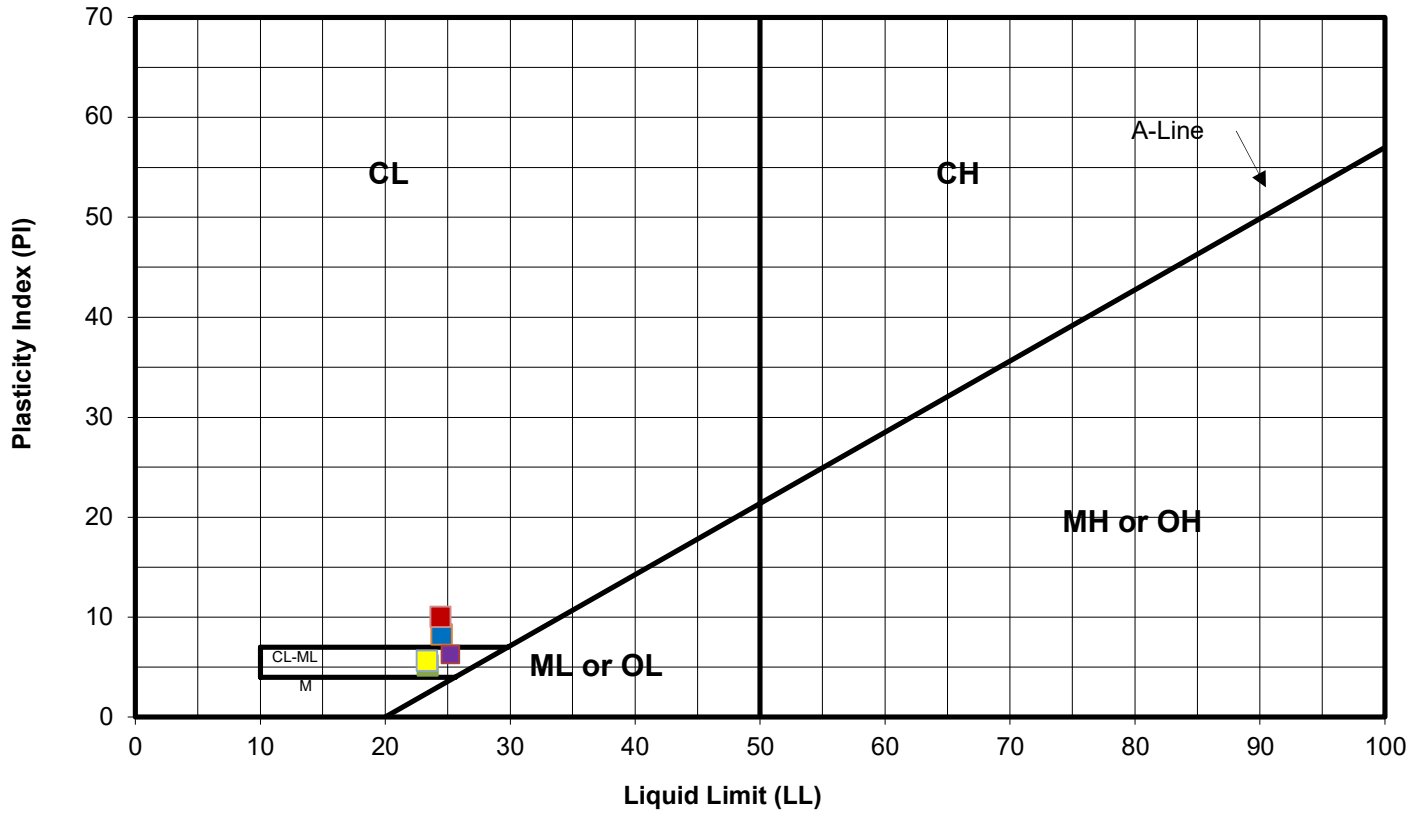
Atterberg Limits Report

Project Name: Innisfil Pump Station
Project No.: 2305598
Client: Ainley

Figure No.: B3
Date Tested: January 15, 2024
Date Sampled: Dec. 14&15, 2023

SAMPLE INFORMATION								
SAMPLE ID	BH2 SS6, 15-16.5'	LIQUID LIMIT (LL):	23.4	PLASTIC LIMIT (PL)	18.2	PLASTIC INDEX (PI)	5.2	
SAMPLE ID	BH2 SS10, 35-36'	LIQUID LIMIT (LL):	24.5	PLASTIC LIMIT (PL)	16.2	PLASTIC INDEX (PI)	8.3	
SAMPLE ID	BH3 SS7, 20-21.5'	LIQUID LIMIT (LL):	23.3	PLASTIC LIMIT (PL)	17.6	PLASTIC INDEX (PI)	5.7	
SAMPLE ID	BH3 SS9, 30-31.5'	LIQUID LIMIT (LL):	25.2	PLASTIC LIMIT (PL)	18.9	PLASTIC INDEX (PI)	6.3	
SAMPLE ID	BH4 SS6, 15-16.5'	LIQUID LIMIT (LL):	24.4	PLASTIC LIMIT (PL)	14.4	PLASTIC INDEX (PI)	10.0	

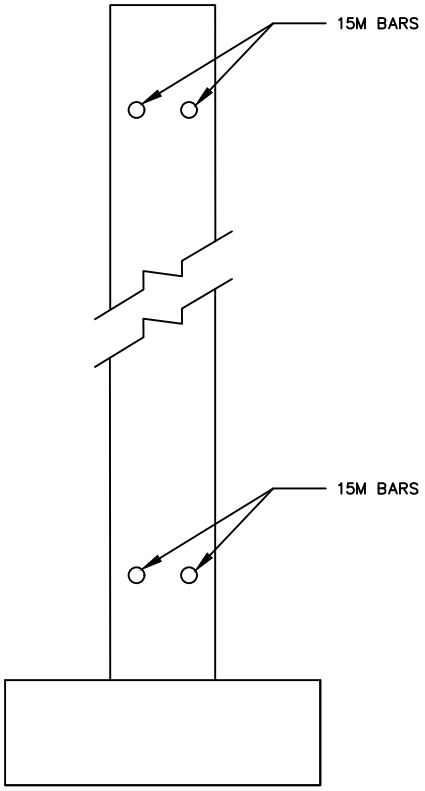
Plasticity Chart



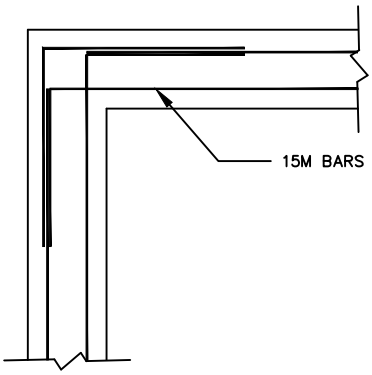
DISTRIBUTION:	Prepared By: D. Gorry	Checked By: GRL

Appendix C

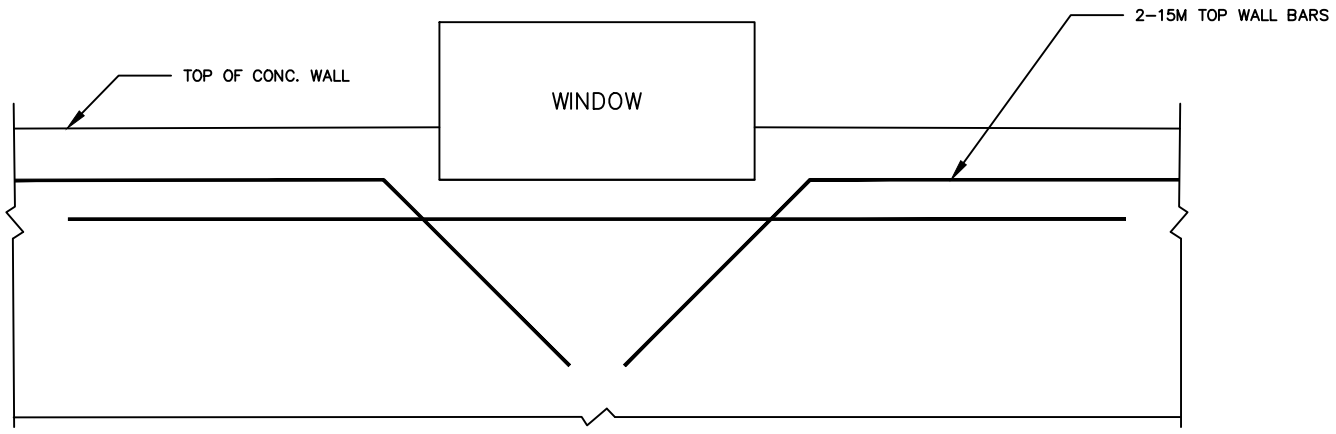
Typical Details



TYPICAL REINFORCED WALL



TYPICAL SPLICING AT CORNERS



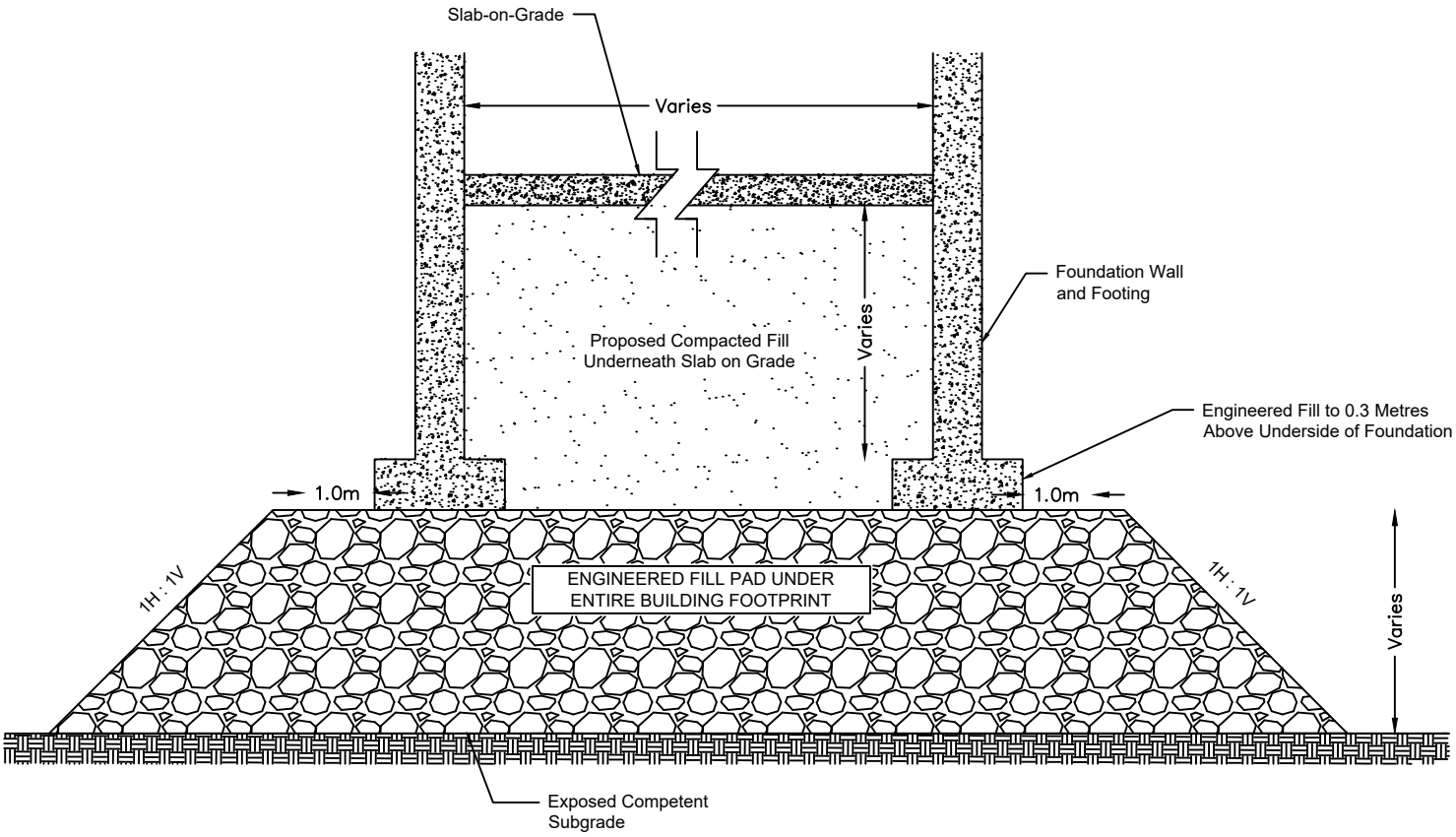
TYPICAL WINDOW REINFORCING

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FOUNDATION WALL REINFORCING ON ENGINEERED FILL TYPICAL DETAIL

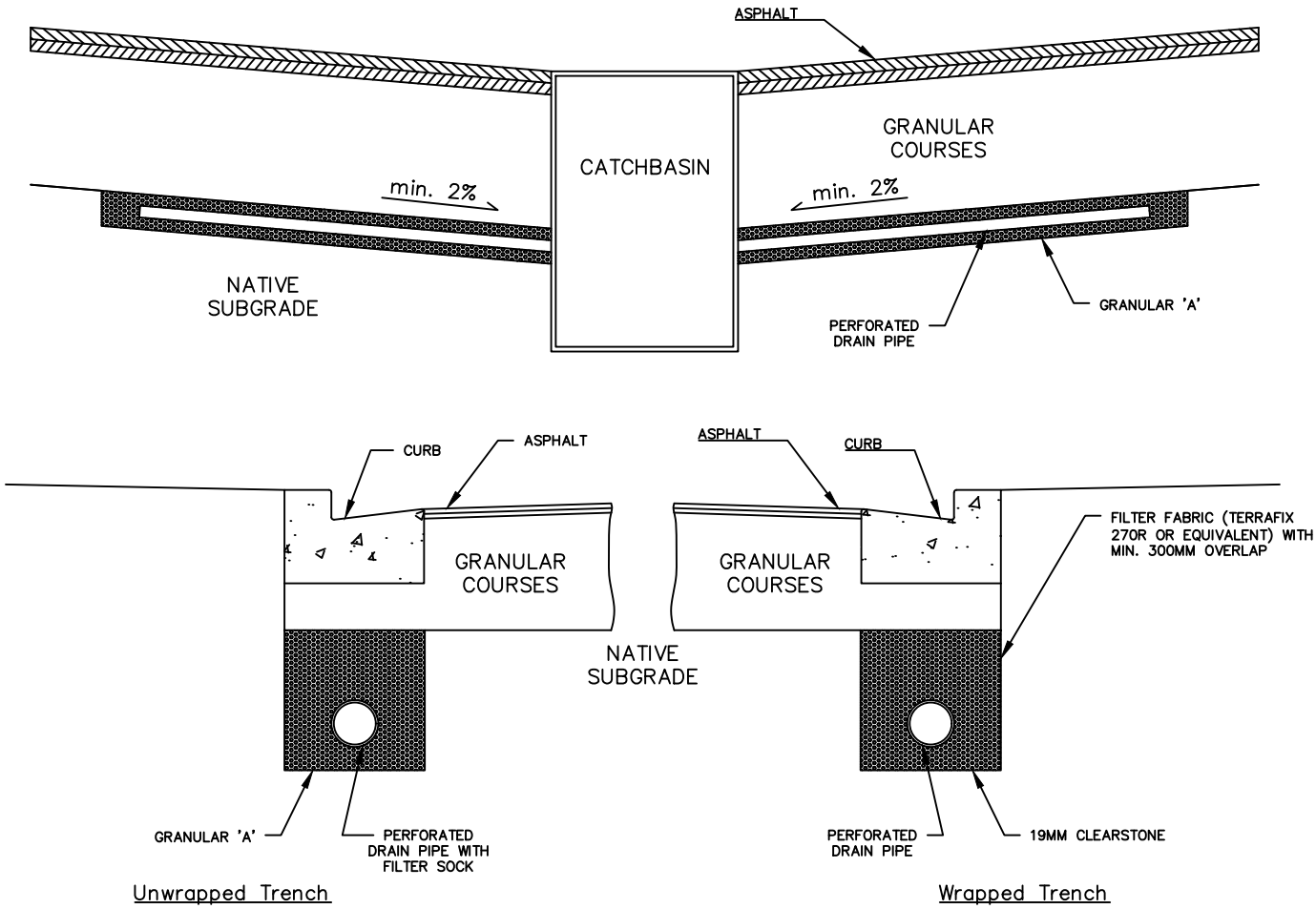
Notes:

1. Engineered Fill compacted to 98% Standard Proctor Maximum Dry Density (SPMDD) and inspected under the full time supervision of GEI.
2. Engineered fill must be placed in loose lifts of 200 mm or less and then compacted as noted above.
3. Interior non-structural compacted fill compacted to 98% SPMDD with recommended part-time inspection.

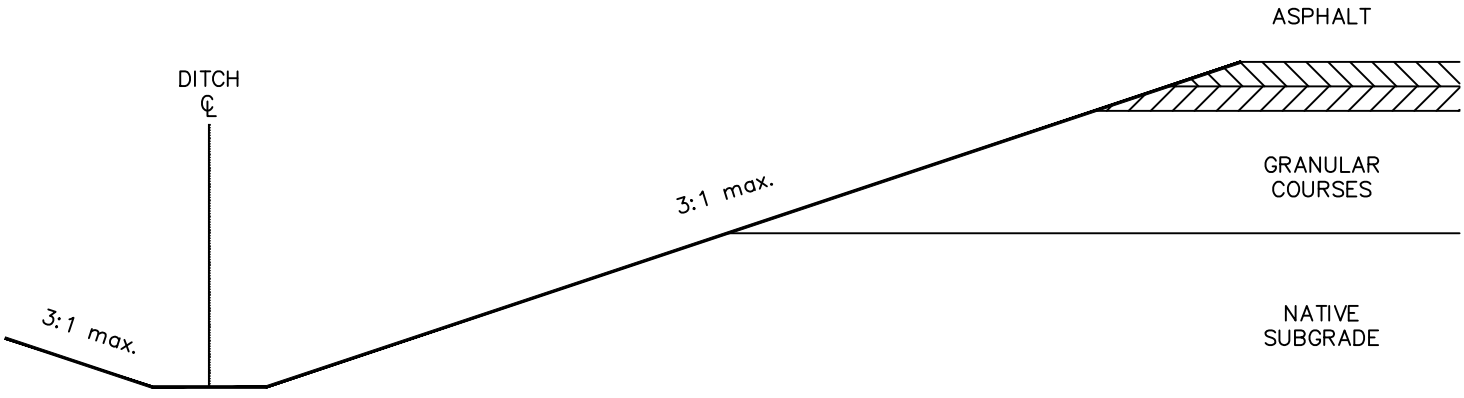


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ENGINEERED FILL PAD DIMENSIONING TYPICAL DETAIL



Urban Cross Sections



Rural Cross Section

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PAVEMENT DRAINAGE ALTERNATIVES TYPICAL DETAILS

Appendix D

Chemical Testing Results - Laboratory Certificates of Analysis

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured. Canadian owned.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: -

REPORT No: 24-002467 - Rev. 0

Report To:
GEI Consultants
647 Welham Rd, Unit 14
Barrie, ON L4N 0B7

CADUCEON Environmental Laboratories
112 Commerce Park Dr Unit L
Barrie, ON L4N 8W8

Attention: Geoffrey White

DATE RECEIVED: 2024-Jan-24
DATE REPORTED: 2024-Jan-30
SAMPLE MATRIX: Soil

CUSTOMER PROJECT: 2305598
P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Solid)	2	OTTAWA	PCURIEL	2024-Jan-30	A-IC-01	SM 4110B
Conductivity Meter (Solid)	2	OTTAWA	AWILSON	2024-Jan-30	A-COND-03	MECP E3530
pH Meter (Solid)	2	OTTAWA	AWILSON	2024-Jan-30	pH-03	MECP E3530
Redox Potential (Solid)	2	RICHMOND_HILL	JEVANS	2024-Jan-29	In House	SM 2580
Sulphide Solid (Subcontracted)	2	TESTMARK	CBURKE	2024-Jan-30		Subcontracted

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

			Client I.D.	BH3-SA5	BH1-SA3
			Sample I.D.	24-002467-1	24-002467-2
			Date Collected	2024-01-15	2024-01-15
Parameter	**Units**	**R.L.**		-	-
Conductivity @25°C	mS/cm	0.001		0.140	0.675
Resistivity (calculated)	Ohms*cm	-		7160	1480
pH @25°C	-	-		8.01	7.85
Redox Potential	mV	-		191	238
Chloride	µg/g	5		25	252
Sulphate	µg/g	10		46	22

Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Subcontracted Analyses

Parameter	Units	R.L.	Client I.D.	BH3-SA5	BH1-SA3
			Sample I.D.	24-002467-1	24-002467-2
			Date Collected	2024-01-15	2024-01-15
			-	-	-
Sulphide	µg/g	-		<0.3	<0.3

Michelle Dubien
Data Specialist

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

GENERAL SAMPLE SUBMISSION FORM

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured. Proudly Canadian

SAMPLES SUBMITTED TO:

Kingston	
Ottawa	
Richmond Hill	
Barrie	X
London	
Windsor	

TESTING REQUIREMENTS

	O'Reg 153/04		Table (1 - 9)		Record of Site
X	O'Reg 406/19	X	Table (1 - 9.1)		SPLP Table (1 - 9.1)
	RPI		ICC		Agricultural
	Coarse		Medium/Fine		O'Reg 558 TCLP
	MISA		PWQO		Landfill Monitoring
	Other:				

REPORT NUMBER (Lab Use)

24-002467

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [X] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Organization: GEI Consultants	Address: 647 Welham Road, Barrie	Invoicing Address (if different):
Contact: Geoff White		
Tel: / Fax:		
Email: gwhite@geiconsultants.com	Quote #: Q2186	Project Name/#: 2305598
Additional Info (email, cell, etc):	P.O. #:	Additional Info:

ANALYSES REQUESTED

Corrosivity | Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

*Must be arranged in advance

[ ]	Platinum*	200% Surcharge
[ ]	Gold*	100% Surcharge
[ ]	Silver	50% Surcharge
[ ]	Bronze	25% Surcharge
[X]	Standard	5-7 days
[ ]	Specific Date	

Lab No.	Sample Source and/or Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided	X	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered Y/N
1	BH3 - SA5		S	23-12-15	AM	X				1	
2	BH1 - SA3		S	"	"	X				1	
			S								
	1-2 : Jar → O										
	1-2 : Jar (POP) → RH	} split in Lab JP 25/1/24									
	1-2 : POP → TestmarK										

SAMPLE SUBMISSION INFORMATION

	Sampled by:	Submitted by:
Print:	S. Yazdanmehr	S. Yazdanmehr
Sign:		
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

Courier (Client account)		Invoice	
Courier (Caduceon account)			
Drop Off	X	# of Pieces	
Caduceon (Pick-up)			

REPORTING / INVOICING

Report by Fax	
Report by Email	X
Invoice by Email	X
Invoice by Mail	

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print):	Isha	Signature:	IP
Date Received (yy-mm-dd):	24-01-24	Time Received:	16:25
Laboratory Prepared Bottles:	[X] Yes	[ ] No	
Sample Temperature °C:	18.6	Labeled by:	IP

Comments: * Limited sample JP 25/1/24

TESTMARK Laboratories
Committed to Quality and Service

GENERAL CHAIN OF CUSTODY FORM

Please use our Drinking Water Chain of Custody Form for regulated drinking water samples

REPORT TO:		INVOICE TO: (if different from Report)		PROJECT INFORMATION:	
Client:	Caduceon Environmental Labs	Client:	Caduceon Environmental Labs	TM Quote #:	
Address:	112 Commerce Park Drive	Address:	285 Dalton Ave	Client P.O. #:	
	Barrie ON, L4N 8W8		Kingston ON, K7K 6Z1	Client Project #:	24-002465
Contact:	Christine Burke	Contact:	Maggie MacCormack		24-002467
Email:	cburke@caduceonlabs.com & tsexsmith@caduceonlabs.com	Email:	mmaccormack@caduceonlabs.com		
Phone:	289-475-5442 Fax: 866-562-1963	Phone:	613-544-2001 Fax: 613-544-2770		

REPORTING/INVOICING FORMAT
☐Fax ☑Email ☐Mail

QC DATA REPORTED
☐Yes ☑No

SAMPLE DISPOSAL
☐Hold ☑Dispose ☐Return

TURN AROUND TIME (TAT)*
☐1 Business Day ☐2 Business Days
☑3 Business Days ☐Standard

SPECIFIC DATE:
* Prior arrangements must be made for rush/weekend/holiday work

LABORATORY USE ONLY
WORK ORDER NUMBER:

SAMPLING DATE (mm-dd-yy)	SAMPLING TIME	MATRIX**	SAMPLE DESCRIPTION (This Will Appear On The Report)	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: Sulphide	FIELD pH (if applicable)	FIELD TEMP (if applicable)	METALS FIELD FILTERED? (Y/N?)	CONTAINERS RECEIVED	LAB: TEMP	LAB: BTL TYPE	LAB: LAB ID
1/15/2024	12:00	Soil	BH1-7 (2465-1)	1	X							
1/15/2024	12:00	Soil	BH2-3 (2465-2)	1	X							
1/15/2024	12:00	Soil	BH3-4 (2465-3)	1	X							
1/15/2024	12:00	Soil	BH3-SA5 (2467-1)	1	X							
1/15/2024	12:00	Soil	BH1-SA3 (2467-2)	1	X							

**Matrix: B=Biota, GW=Ground Water, O=Oil, P=Paint, S=Soil, SL=Sludge, SW=Surface Water, W=Water, WW=Wastewater, SD=Sediment

☐High Concentrations Expected

COMMENTS/FIELD NOTES:

REGULATION
☐O.Reg. 153: (1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐)
☐Industrial / Commercial ☐Residential / Parkland ☐Agricultural
☐Coarse Soil ☐Fine Soil ☐Surface ☐Subsurface
☐O.Reg. 558 ☐PWQO ☐MISA ☐CofA ☐MDMER ☐ODWS ☐None
Sewer Use: ☐Sanitary ☐Storm Municipality:
☐Other:

Sampled By: client	Date: 15-Jan-24	Time:	Relinquished to Testmark By (Signature): A.Mieczaniec	Date: 27-Aug-21	Time:
Received By: Isha Patel	Date: 24-Jan-24	Time:	Shipped By:	Shipping Reference:	
			Received at Testmark By:	Date:	Time:

Appendix D

Environmental Constraints Analysis of Natural Heritage Features

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

November 18, 2021 AEC21-242

Ainley Group
280 Pretty River Parkway
Collingwood ON
L9Y 4J5

Re: **Environmental Constraints Analysis of Natural Heritage Features**
Innisfil Heights Sewage Pumping Station 6
Town of Innisfil

Dear Ms. Smeh:

Azimuth Environmental Consulting, Inc. (Azimuth) was retained to provide an Environmental Constraints Analysis (ECA) of the potential natural heritage constraints which would require consideration in the evaluation of potential locations for the Innisfil Heights Sewage Pumping Station 6 (IH SPS6) as part of the Schedule B Municipal Class Environmental Assessment (MCEA). Potential locations for IH SPS6 are being explored as part of the MCEA within the identified study area as provided by Ainley Group (Ainley) and depicted in Figures 1-3. Preliminary constraints are presented in this ECA, as they relate to Key Natural Heritage Features (KNHFs), as defined by Provincial Planning Policy. KNHFs may include woodlands, wetlands, valleylands, Significant Wildlife Habitat (SWH), fish habitat, and habitat for Species at Risk (SAR) protected under Ontario's *Endangered Species Act*, 2007 (ESA).

The ECA includes a summary of recommendations to be considered for future stages of the project including recommendations for additional environmental field study and evaluation, depending upon the ultimate proposed location for IH SPS6.

Information provided herein will ultimately be included in an Environmental Impact Study (EIS) report once design details are known, and all stages of development are understood in order to adequately identify mitigation requirements for natural heritage protection, and permitting requirements from the regulatory agencies.

1.0 STUDY APPROACH

Prior to undertaking field studies, an initial classification of habitats was undertaken using recent air photo imagery for an area encompassing the study area and adjacent lands (*i.e.* lands within approximately 120 metres (m)). A field survey was completed by an Azimuth ecologist on October 1, 2021 and environmental features mapping (Figure 2; attached) illustrates information derived from a combination of desktop mapping resources and field conclusions. The high level field assessment for this ECA was restricted to a 'windshield' survey from within the road right-of-way (ROW). Detailed environmental investigations were not undertaken as part of the ECA. Vegetation units were generally classified using Ecological Land Classification for Southern Ontario (ELC) protocols and illustrated in Figure 2.

2.0 SUMMARY OF NATURAL HERITAGE CONDITIONS

2.1 Vegetation and Vegetation Communities

The study area includes several natural heritage components including woodlands and wetlands that are intermixed with agricultural, rural residential and commercial lands. A total of twelve vegetation communities were identified by Azimuth in 2021 (Figure 2c).

The Lover's Creek Provincially Significant Wetland (PSW) extends through the central portion of the study area (Figure 3c).

The ROW was typically composed of open 'field' habitat composed of opportunistic herbaceous/grass species.

Riparian/wetland vegetation typically exists in proximity to the mapped watercourses within the study area and within the ROW (Figure 2c).

Although not considered a KNHF, many of the rural properties are treed and include hedgerows that border the properties.

There were no Butternut (Threatened) observed during the October 1st survey.

2.2 Wildlife and Wildlife Habitat

The Ministry of Natural Resources and Forestry's (MNRF) NHIC database identifies records for one species listed as provincially Special Concern, Snapping Turtle. These records are likely associated with the wetland habitat found within the study area including the Lover's Creek PSW.

2.3 Watercourses and Fish Habitat

The study area includes numerous drainage features all associated with Lover's Creek within the Lover's Creek subwatershed. The main branch of Lover's Creek is located centrally in the Lover's Creek PSW, and several unnamed tributaries of Lover's Creek discharge to the PSW as shown on Figures 2c and 3c.

On the west side of the main branch, tributary drainage crosses Innisfil Beach Road (IBR) from north to south, then crosses the 10th Sideroad (approximately 200m south of the IBR intersection), before crossing IBR a second time northward, entering the PSW wetland and ditch network of the roadway. Ditch drainage discharges to the PSW as well as to the main Lover's Creek crossing. Ditches in the area of the PSW are generally inundated. Flow from the east side of the main Lover's Creek crossing similarly includes numerous unnamed tributary drainage features as shown on Figures 2c and 3c, with ditch conveyance carrying ground water flow from artesian well discharge along the south side of IBR.

There are numerous privately owned ponds in the study area that are both online and offline. Drainage features are considered permanently flowing for the most part, with exception of the east drainage from IBR north-westerly, which is considered an ephemeral feature flowing only following periods of elevated rain runoff and snow melt periods in the spring. That particular drainage course remains dry for the majority of the year based on anecdotal knowledge of the study area.

The fish community in Lover's Creek and tributaries is recognized as supporting coldwater habitat for Brook Trout (*Salvelinus fontinalis*), however the main branch at IBR generally hosts a warmwater assemblage of commonly found fish species (Lake Simcoe Region Conservation Authority (LSRCA), 2016). Table 1 denotes fish species that have been historically collected by the LSRCA, (LSRCA, 2016), MNRF and Azimuth in the Lover's Creek watershed, which includes both Brook Trout and Sculpin (*Cottus sp.*) in both the main stem of Lovers Creek and tributaries. Both of these species are indicators of coldwater and non-degraded sites requiring good water quality conditions (*i.e.*, high oxygen) with low levels of turbidity. Watercress (*Nasturtium sp.*) is an aquatic plant also commonly found along drainage routes associated with coldwater and areas of ground water upwelling. Occurrence typically coincides with areas of colder water temperatures and a good indicator of areas of sensitive fish habitat.

The Lover's Creek watershed includes municipal drains, regulated by the Ontario Ministry of Agriculture. Municipal drains in the study area are shown on Figure 3c, and includes the main Lover's Creek crossing, identified as the '8th Line Drain', (Town of Innisfil, 2016), and a tributary on the east side of the main branch which is identified as

the 8th Line Drain – Branch A (OMAFRA, 2017). Both are classified as Drain Class 'D' drains, (OMAFRA, 2017), characteristic of permanently flowing water, with sensitive fish species present that includes fall spawning fish species such as Brook Trout. The drain is recognized as a watercourse and requires site specific *Fisheries Act* review for works that have the potential to impact fish habitat, (DFO, 2017).

Table 1: Fish species historically documented to occur in Lovers Creek and tributaries.

Fish Species	Lovers Creek
Rainbow trout *(Oncorhynchus mykiss)* ^	
Brook trout *(Salvelinus fontinalis)*	
Rainbow smelt (Osmerus mordax) ^	
Northern pike (Esox lucius)	
Central mudminnow *(Umbra limi)*	
Common white sucker *(Catostomus co*	
Northern redbelly dace *(Phoxinus eos)*	
Finescale dace (Phoxinus neogaeus)	
Brassy minnow *(Hybognathus hankinson*	
Hornyhead chub *(Nocomis biguttatus)*	
River chub *(Nocomis micropogon)*	
Golden shiner *(Notemigonus crysoleucas*	
Emerald shiner *(Notropis atherinoides)*	
Common shiner *(Luxilus cornutus)*	
Blackchin shiner *(Notropis heterodon)*	
Blacknose shiner *(Notropis heterolepis)*	
Spottail shiner *(Notropis hudsonius)*	
Rosyface shiner *(Notropis rubellus)*	
Sand shiner *(Notropis stramineus)*	
Bluntnose minnow *(Pimephales notatus)*	
Fathead minnow *(Pimephales promelas)*	
Blacknose dace *(Rhinichthys atratulus)*	
Longnose dace *(Rhinichthys cataractae)*	
Creek chub *(Semotilus atromaculatus)*	
Pearl dace *(Margariseus margarita)*	
Stoneroller *(Campostoma anomalum)*	

Largemouth bass *(Micropterus salmoide*
Black crappie *(Pomoxis nigromaculatus)^*
Yellow perch *(Perca flavescens)*
Rainbow darter (*Etheostoma caeruleum)*
Iowa darter *(Etheostoma exile)*
Johnny darter *(Etheostoma nigrum)*
Logperch *(Percina caprodes)*

There are no known aquatic SAR known to occur within the Lovers Creek watershed (LSRCA, 2007; DFO, 2019).

The PSW and numerous drainage networks are within lands regulated by the LSRCA as shown on Figure 3c.

There are no records of aquatic SAR in this watershed. All drainage features, including ditch networks hydraulically connected to tributaries and creek crossings are protected under the Federal *Fisheries Act.*

3.0 SUMMARY OF CONSTRAINTS AND OPPORTUNITIES

Azimuth has identified several KNHF within the study area based on a review of site conditions. Preliminary Environmental Constraints mapping for the study area is presented in Figure 3c.

3.1 Wetlands

Wetland habitat has been identified within the study area. The majority of this wetland habitat is associated with the Lover's Creek PSW (Figure 3c).

3.2 Woodlands

Woodland habitat has been identified within the study area (Figure 3c). These woodlands are largely contiguous with adjacent woodland/wetland areas and therefore, may be considered to be significant as per local, regional and provincial planning policies.

3.3 Watercourses

Drainage in the study area includes tributaries of Lover's Creek, all managed as coldwater systems that function as direct fish habitat with potential for Brook Trout. The main branch at IBR is considered warmer and impacted to some degree as evident by poor water quality conditions (LSRCA, 2016).

3.4 Significant Wildlife Habitat

Detailed studies are required to confirm the presence/absence of SWH. Typically, SWH functions are associated with other KNHF such as woodlands and wetlands but would require further assessment to confirm.

3.5 Species at Risk

The following list only considers species that have a moderate or high possibility of occurring within the study area:

- American Ginseng (Endangered)
  - Potential habitat for this species occurs within the Sugar Maple Deciduous Forest (FODM5-1; Figure 2c);
- Blanding's Turtle (Threatened)
  - Potential habitat for Blanding's Turtle within Lover's Creek PSW;
- Bobolink (Threatened)
  - Potential nesting habitat for Bobolink occurs within the agricultural lands of the study area;
- Butternut (Endangered)
  - While no Butternut were identified during 2021 field surveys, potential habitat for this species occurs within the forest and treed swamp communities in addition to individual trees on rural properties or within hedgerows;
- Eastern Meadowlark (Threatened)
  - Potential habitat for Eastern Meadowlark occurs within the agricultural lands of the study area;
- Least Bittern (Threatened)
  - Potential habitat for Least Bittern occurs within Lover's Creek PSW; and
- Endangered Bats (Little Brown Myotis, Northern Myotis and Tri-colored Bat)
  - Forest and treed swamp (wetland) habitat provides potential habitat for Endangered bat species.

As illustrated on Figure 2c and 3c, a large proportion of the study area is composed of woodland, wetland (Lover's Creek PSW) or agricultural lands that may provide habitat for SAR, as discussed above.

4.0 CONSIDERATIONS AND RECOMMENDATIONS

4.1 Aquatic Considerations

Drainage areas (including inundated ditches hydraulically connected in the subwatershed), are protected under the Federal *Fisheries Act*. Any proposal to alter site

conditions inwater or within lands regulated by the LSRCA (Figure 3c) requires site specific fisheries evaluation of project activities to confirm potential impacts, mitigation requirements (including best management practices and use of Department of Fisheries and Oceans Canada's (DFO)'s Standards and Codes of Practice), and permitting requirements from LSRCA and DFO under both the 'Projects Near Water' and Municipal Drains permit process. Fisheries timing restrictions governed by MNRF will apply for all work around watercourses, restricting work from occurring during both the spring and fall in order to protect fish during sensitive spawning periods.

4.2 LSRCA Regulated Lands

Most of the study area is regulated by the LSRCA as per Ontario Regulation 179/06, therefore LSRCA consultation is required prior to site alteration in regulated lands.

4.3 Potential Additional Surveys

The need for additional in-season surveys will depend on the proposed location(s) of the IH SPS6. The following additional surveys may be recommended:

- Detailed summer vegetation (late June-August) inventories to further characterize the limits and extent of vegetation communities within the footprint of the IH SPS6. This survey will include a screening for SAR flora including a comprehensive search for Butternut trees.
- Complete breeding bird surveys in June to confirm the presence/absence of diurnal birds. The number of surveys required will depend on the habitat.
- Should construction of the IH SPS6 be proposed within the Lover's Creek PSW, two marsh breeding bird surveys may be required to confirm the presence/absence of Least Bittern (June).
- Should construction of the IH SPS6 be proposed within woodland habitat, a general survey screened for presence of "snag" trees with potential to provide refuge and maternity roosting habitat for bat species listed as Endangered under the ESA (Little Brown Myotis, Nothern Myotis, and Tri-colored Bat) may be required.
- Obtain up-to-date SAR information from Ministry of Environment, Conservation and Parks (MECP) to determine if any additional SAR need to be considered within the assessment and/or if any SAR have been confirmed within the study area.
- Determine from MECP if additional species specific surveys are recommended relating to potential SAR habitat. If not, confirm mitigation measures that should be implemented to avoid incidental impact to SAR (*i.e.* exclusion fencing, timing restrictions for tree clearing).

- Spring and possibly summer aquatic habitat assessment to confirm fish use and sensitivity, possible fish spawning survey to confirm potential for Brook Trout spawning habitat.

Subsequent to the completion of the recommended studies, detailed mitigation measures would be outlined in an EIS.

5.0 CONCLUSIONS

Based on our initial assessment several KNHF have been identified within the study area including:

- Wetland (Lover's Creek PSW);
- Woodland;
- Watercourses (fish habitat, classified as coldwater sensitive);
- Potential SAR and/or SAR habitat; and
- Potential SWH.

Based on the identified features and functions, it is recommended that siting of the IH SPS6 occur outside/away from of the identified KNHF including the PSW, woodland, watercourses and LSRCA regulated lands, to mitigate potential impacts to the identified KNHF, fish and aquatic resources and potential SAR habitat in the study area.

As highlighted in Section 4.3, additional studies will likely be required once the proposed location for the IH SPS6 is known. The need for specific studies can be recommended once this information is available and should be confirmed in consultation with LSRCA.

Should you have any additional questions or concerns, or wish to discuss further please do not hesitate to contact the undersigned.

Yours truly,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Lisa Moran, B.Sc.Env.
Terrestrial Ecologist

Sara Murphy, B.Sc.
Senior Aquatic Ecologist/Partner

Attach: Figure 1, Figure 2c, Figure 3c

6.0 REFERENCES

Endangered Species Act, Ontario. (2007). An Act to protect species at risk and to make related changes to other Acts. Bill 184 Chapter 6, Statutes of Ontario 2007.

Fisheries and Oceans Canada, 2017. Guidance for Maintaining and Repairing Municipal Drains in Ontario.

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Ministry of Environment, Conservation and Parks (MECP) 2021. Species at Risk https://www.ontario.ca/page/species-risk. Site accessed October 2021.

Ministry of Natural Resources and Forestry (MNRF). 2021. Online Make a Map Tool. Website. Available Online: https://www.ontario.ca/page/make-naturalheritage-area-map Accessed October 2021

Ontario Ministry of Agriculture, Food and Rural Affairs, 2017. AgMaps Geographic Information Portal, https://www.lioapplications.lrc.gov.on.ca/AgMaps/Index.html?viewer=AgMaps.AgMaps&locale=en-CA

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606000.000 609000.000 612000.000 615000.000

4908000.000

4905000.000

STROUD SEWAGE PUMPING STATION

20 SIDEROAD SEWAGE PUMPING STATION

INNISFIL HEIGHTS SEWAGE PUMPING STATION #1

INNISFIL HEIGHTS SEWAGE PUMPING STATION #6

INNISFIL HEIGHTS SEWAGE PUMPING STATION #2

LOCKHART ROAD
VETERANS DRIVE
SALEM ROAD
HIGHWAY 400 NORTH
10TH LINE
9TH LINE
MCKAY STREET EAST
MCKAY ROAD WEST
10 SIDEROAD
YONGE STREET
20 SIDEROAD
INNISFIL BEACH ROAD
OLD ORAL DRIVE
BOWMAN STREET
THOMAS STREET
CLIFFORD COURT
INDUSTRIAL PARK ROAD
HIGHWAY 400 SOUTH
WINISBROOK STREET
COMMERCE PARK DRIVE
FOREST VALLEY DRIVE
7TH LINE
6TH LINE
5TH LINE
5 SIDEROAD
BELLE AIRE BEACH ROAD

0 750 1500
HORIZONTAL SCALE 1: 30000

606000.000 609000.000 612000.000 615000.000

Plotted by: ALIU on October 6, 2021 at 5:14pm
File: O:\21 Projects\21-242 Gore EA_5 Pumping Stations – Innisfil\04.0 – Drafting\21-242 Pumping Station Locations.dwg Layout: Pumping Station Locations Plotscale: 1

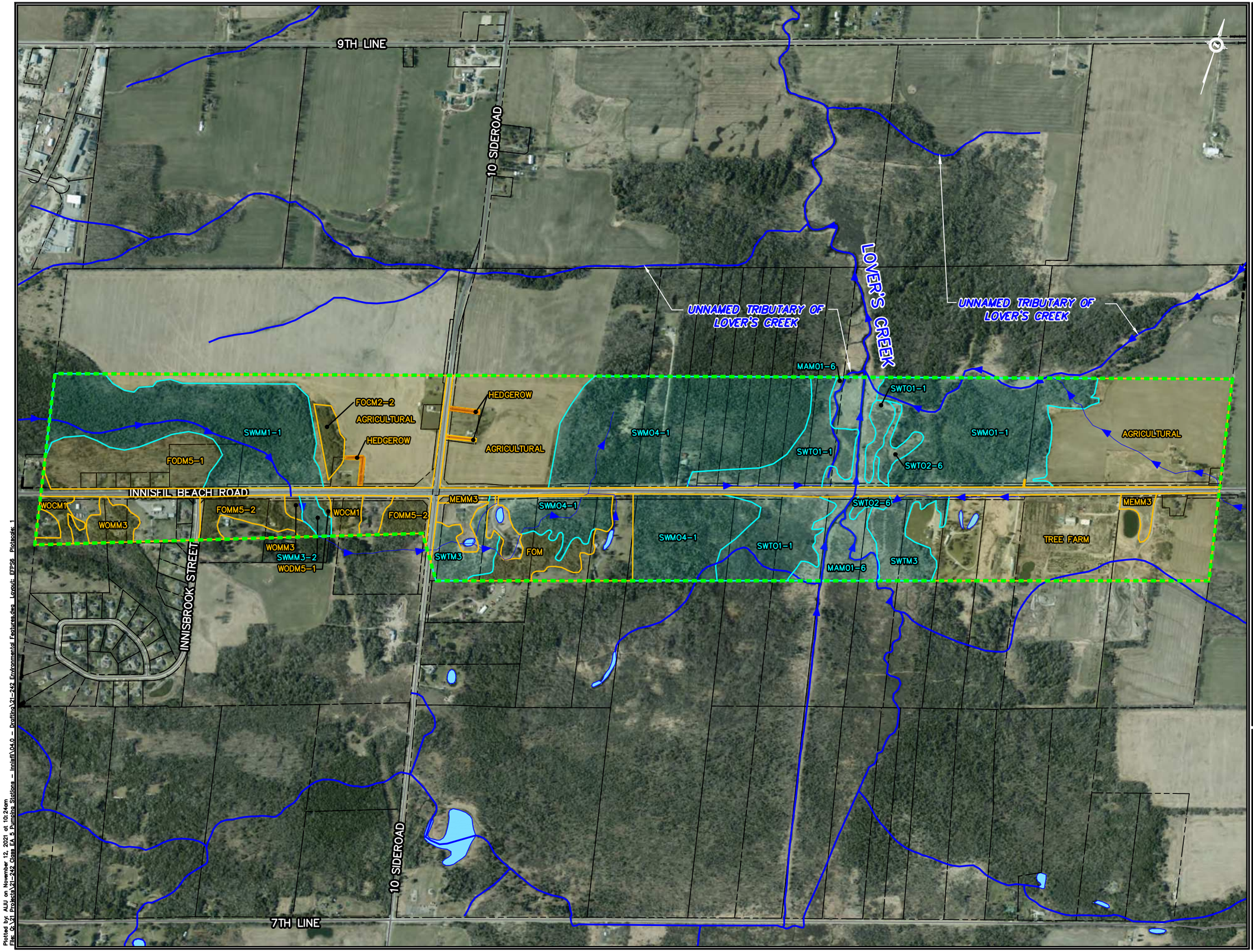
AZIMUTH ENVIRONMENTAL CONSULTING, INC.
Environmental Assessments & Approvals

LEGEND:

INNSERVICES UTILITIES INC.
FIVE SEWAGE PUMPING STATIONS
INNISFIL, ON

PUMPING STATION LOCATIONS

DATE ISSUED:	*SEPTEMBER 2021*	Figure No. 1
CREATED BY:	*A.L.*	
PROJECT NO.:	*21-242*	
REFERENCE:	*SIMCOE COUNTY*	



LEGEND:

- STUDY AREA
- WATERCOURSE (ONTARIO MNR, 2020)
- HEDGEROW

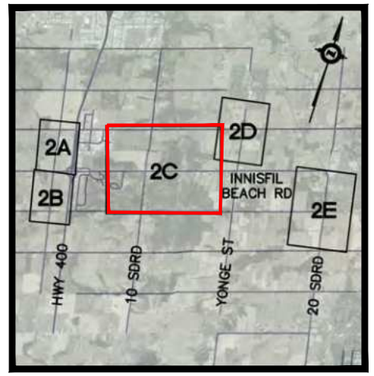
ELC VEGETATION COMMUNITIES:

UPLAND COMMUNITIES

FOCM2-2	DRY-FRESH WHITE CEDAR CONIFEROUS FOREST TYPE
FODM5-1	DRY-FRESH SUGAR MAPLE DECIDUOUS FOREST TYPE
FOM	MIXED FOREST
FOMM5-2	DRY-FRESH POPLAR MIXED FOREST TYPE
WOMM3	DRY-FRESH MIXED WOODLAND ECOSITE
WODM5-1	FRESH-MOIST POPLAR DECIDUOUS WOODLAND TYPE
WOCM1	DRY-FRESH CONIFEROUS WOODLAND ECOSITE
MEMM3	DRY-FRESH MIXED MEADOW ECOSITE

WETLAND COMMUNITIES:

SWMM3-2	POPLAR-CONIFER MINERAL MIXED SWAMP TYPE
SWMO4-1	BALSAM FIR-HARDWOOD ORGANIC MIXED SWAMP
SWMO1-1	WHITE CEDAR-HARDWOOD ORGANIC MIXED SWAMP
SWTM1-1	SPECKLED ALDER MINERAL DECIDUOUS THICKET SWAMP TYPE
SWTM3	WILLOW MINERAL DECIDUOUS THICKET SWAMP ECOSITE
MAM01-6	SEDGE GRAMINOID ORGANIC MEADOW MARSH



KEY MAP

0 275 550

HORIZONTAL SCALE 1:11000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
Environmental Assessments & Approvals

ENVIRONMENTAL FEATURES
INNISFIL HEIGHTS PUMPING STATION #6

INNSERVICES UTILITIES INC.
FIVE SEWAGE PUMPING STATIONS

DATE ISSUED:	*NOVEMBER 2021*	Figure No.
CREATED BY:	*A.L.*	2C
PROJECT NO.:	*21-242*	
REFERENCE:	*SIMCOE COUNTY*	

Plotted by: ALU on November 12, 2021 at 10:24am
File: G:\21 Projects\21-242 Class EA 5 Pumping Stations - Innisfil\104.0 - Drafting\21-242 Environmental Features.dwg Layout: EFPS6 Plotscale: 1

9TH LINE

10 SIDEROAD

UNNAMED TRIBUTARY OF LOVER'S CREEK

LOVER'S CREEK

UNNAMED TRIBUTARY OF LOVER'S CREEK

INNISFIL BEACH ROAD

INNISBROOK STREET

10 SIDEROAD

7TH LINE

LEGEND:

- STUDY AREA
- WATERCOURSE (ONTARIO MNR, 2020)
- MUNICIPAL DRAIN CLASS 'D' (ONTARIO MNR, 2021)
- LOVER'S CREEK PROVINCIALLY SIGNIFICANT WETLAND (ONTARIO MNR, 2020)
- REGULATORY LIMIT (LSRCA, 2021)
- SIGNIFICANT WOODLAND



KEY MAP

0 275 550

HORIZONTAL SCALE 1:11000

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
Environmental Assessments & Approvals

PRELIMINARY ENVIRONMENTAL CONSTRAINTS
INNISFIL HEIGHTS PUMPING STATION #6

INNSERVICES UTILITIES INC.
FIVE SEWAGE PUMPING STATIONS

DATE ISSUED:	*NOVEMBER 2021*	Figure No. 3C
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PROJECT NO.:	*21-242*	
REFERENCE:	*SIMCOE COUNTY*	

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Appendix E

Scoped Environmental Impact Study Report

AZIMUTH

- Environmental Approvals
- Fisheries & Aquatic Ecology
- Terrestrial & Wetland Ecology
- Environmental Engineering
- Hydrogeology & Contaminant Hydrogeology
- Arborist Services
- Environmental Site Assessment
- Species at Risk
- Project Management
- Environmental Impact Assessment
- Water and Wastewater Engineering
- Environmental Site Inspection / Construction Monitoring



Scoped Environmental Impact Study

7535 10 Sideroad

Town of Innisfil

InnServices Utilities Inc.

Prepared for the Ainley Group

AEC Project No. 21-242 January 2025

AZIMUTH ENVIRONMENTAL CONSULTING, INC.

Environmental Assessments & Approvals

January 10, 2025 AEC 21-242

Ainley Group
280 Pretty River Parkway
Collingwood ON
L9Y 4J5

Attention: Wendy Smeh, C.E.T., PMP, Project Manager

Re: **Scoped Environmental Impact Study, InnServices Sewage Pumping Station 6, 7535 10 Sideroad, Town of Innisfil**

Dear Wendy Smeh,

Azimuth Environmental Consulting, Inc. (Azimuth) is pleased to provide a Scoped Environmental Impact Study (EIS) for the Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) building in the Town of Innisfil. The EIS represents a continuation of study from the Environmental Constraints Analysis (ECA) completed for the Schedule B Municipal Class Environmental Assessment (Class EA) in 2021.

Should you have any questions or require additional information please do not hesitate to contact the undersigned.

Regards,
AZIMUTH ENVIRONMENTAL CONSULTING, INC.

L. Moran

Lisa Moran, B.Sc.Env.
Senior Ecologist

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1.0 INTRODUCTION

Azimuth Environmental Consulting, Inc. (Azimuth) was retained by the Ainley Group to undertake a Scoped Environmental Impact Study (EIS) for the Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) located at 7535 10 Sideroad in the Town of Innisfil (the "Town"), County of Simcoe (the "County"). A map illustrating the location of the proposed IH SPS 6 building in its regional context is shown on Figure 1. It is our understanding that the Town and Lake Simcoe Region Conservation Authority (LSRCA) have requested an EIS be undertaken due to presence of Significant Woodland, Provincially Significant Wetland and a watercourse within the study area.

As background, InnServices Utilities Inc. (InnServices) completed a Master Servicing Plan (MSP) update in 2018 which identified short and long-term strategies for water and wastewater servicing to accommodate the Town of Innisfil and its anticipated growth. The MSP recommended the construction of four (4) new SPS. Each proposed SPS requires a Schedule B Municipal Class Environmental Assessment (MCEA) prior to construction. InnServices has retained the Ainley Group to complete the Schedule B Class EA. This EIS will form a component of the EA in accordance with the Municipal Class Environmental Assessment Document (2000).

Azimuth completed an Environmental Constraints Analysis (ECA) for a larger study area (in which the IH SPS 6 was being considered) in October 2021 to identify candidate Key Natural Heritage Features (KNHFs) present that should be avoided when considering potential locations for the IH SPS 6. This EIS represents a continuation of the ECA, to assess the potential impacts associated with IH SPS 6 on KNHFs at its proposed location as presented in Figure 1. The EIS includes a review of background information, in combination with results of a detailed field program completed in 2022/2023 to confirm natural heritage features and functions. This EIS also examines potential for Species at Risk (SAR) protected under Ontario's *Endangered Species Act,* 2007 (*ESA*), and potential for negative impacts to natural heritage features with recommendations for avoidance and mitigation where required.

For the purposes of this EIS, the study area comprises the proposed footprint of the IH SPS 6 and adjacent lands (within approximately 120m) as depicted on Figures 1-2. The EIS does not assess any external connections beyond the footprint of the IH SPS 6. Natural features in the overall planning area beyond the defined study area limits are discussed where applicable throughout the report.

2.0 PLANNING AND POLICY CONTEXT

2.1 County of Simcoe

Section 4.7 of the County of Simcoe's Official Plan (OP) provides direction to lower-tier municipalities with respect to Infrastructure: Sewage and Water.

For those lands within the Lake Simcoe Protection Plan – Watershed Boundary, as shown on Schedule 5.1 Land Use Designations, section 3.13 of this Plan also applies. The study area is within the Lake Simcoe watershed.

Policies related to the Lake Simcoe Protection Plan are discussed in Section 2.3 below.

The County of Simcoe Official Plan identifies adjacent lands to the east and south of Innisfil Beach Road as part of the County Greenlands System. Provincially Significant Wetland has been identified within adjacent lands in addition to a watercourse south of Innisfil Beach Road (Appendix A). There are no Areas of Natural and Scientific Interest (ANSI) within the study area (Appendix A).

2.2 Town of Innisfil

The footprint of the IH SPS 6 is within an area designated as Agricultural Area as per Schedule B Land Use. Key Natural Heritage Features & Key Hydrologic Features have been mapped within the study area (Appendix A).

As outlined within Section 23.1.15 of the OP infrastructure (including infrastructure required for sewage) shall be permitted in all land use designations except for lands designated Key Natural Heritage Features and Key Hydrological Features in the Greenbelt Plan Area. The study area is not located within the Greenbelt Plan Area.

As per Section 23.1.17 of the OP, infrastructure may be permitted in a Natural Environmental Area Designation where subject to an approved provincial and/or federal environmental assessment.

As per Appendix 9 and 10 of the Town's OP (Natural Areas), Provincially Significant Wetlands, Significant Woodlands and Streams have been identified within the study area on adjacent lands (Appendix A). There are no ANSIs identified within the study area (Appendix A).

2.3 Lake Simcoe Protection Plan

The study area is not located within a Settlement Area and is within the Lake Simcoe Watershed. Therefore, applicable provision of the Lake Simcoe Protection Plan (LSPP) are relevant to the proposed works. Relevant Natural Heritage policies of the LSPP are highlighted below, although other policies may be applicable, specific to sewage infrastructure.

Key Natural Heritage Features of the LSPP include wetlands, significant woodlands, significant valleylands and natural areas abutting Lake Simcoe. Key hydrologic features are wetlands, permanent and intermittent streams and lakes other than Lake Simcoe (Section 6.21 and 6.22).

As per Section 6.23-DP, development or site alteration is not permitted within a key natural heritage feature, a key hydrologic feature and within a related vegetation protection zone, except in relation to (g) infrastructure, but only if the need for the project has been demonstrated through an Environmental Assessment or other similar environmental approval and there is no reasonable alternative.

2.4 Lake Simcoe Region Conservation Authority

The study area is located within the jurisdiction of the LSRCA. The study area includes lands subject to O. Reg. 41/24 – "Prohibited Activities, Exemptions and Permit" by the LSRCA (Appendix B). Under Regulation 41/24, the LSRCA may require that approvals be obtained for any proposed development or site alteration within areas regulated under the Conservation Authority's jurisdiction.

2.5 Endangered Species Act, 2007

Ontario's *ESA* provides regulatory protection to Endangered and Threatened species prohibiting harassment, harm and/or killing of individuals and destruction of their habitats. Habitat is broadly characterized within the ESA as the area prescribed by a regulation as the habitat of the species or an area on which the species depends, directly or indirectly, to carry on its life processes including reproduction, rearing of young, hibernation, migration or feeding.

The various schedules of the *ESA* included under *O. Reg. 230/08* identify SAR in Ontario. These include species listed as Extirpated, Endangered, Threatened and Special Concern. As noted above, only species listed as Endangered and Threatened receive protection from harm and destruction to habitat on which they depend.

2.6 Federal *Fisheries Act*

The *Fisheries Act* includes protections for fish and fish habitat in the form of standards, codes of practice, and guidelines for projects near water. The *Fisheries Act* provides protection against the "death of fish, other than by fishing", (Section 34.4(1)) and the "harmful alteration, disruption or destruction of fish habitat", (Section 35(1)), otherwise known as HADD. In cases where impacts to fish and fish habitat cannot be avoided, and the project does not fall within waterbodies where Fisheries and Oceans Canada (DFO) review is not required, proponents are asked to submit a request for review to their Fish and Fish Habitat Protection Program regional office to determine approval requirements. All projects are encouraged to avoid causing the death of fish and a HADD of fish habitat, using measures to protect fish and fish habitat that include standards and codes of practice for common works, undertakings and activities.

3.0 STUDY APPROACH

3.1 Field Program Summary

Azimuth attended the property in 2021-2023 to carry out an assessment of the natural features within the study area. Field surveys were completed by Azimuth ecologists on the following dates:

- October 1, 2021 – site characterization for preparation of a Preliminary Environmental Constraints Memorandum (Azimuth, 2021)
- July 28, 2022 – Vegetation assessment of the property (Jordan Wrobel, Azimuth Terrestrial Ecologist)
- June 20 and 28, 2023 – Completion of dawn breeding bird surveys (Lisa Moran, Azimuth Terrestrial Ecologist)

Prior to undertaking the field study an initial classification of habitats was undertaken using recent air photo imagery for an area encompassing the study area in conjunction with a review of available background mapping.

Vegetation boundaries were checked in the field and delineated as illustrated in Figure 2. Vegetation community types were classified using the Ecological Land Classification for Southern Ontario: First Approximation (ELC; Lee *et al*., 1998; updated 2008).

A SAR screening was undertaken for the scope of this assignment that compares the habitat requirements of species with potential to occur in the overall planning area with habitat types that occur on the property. The screening was based on air photo interpretation combined with onsite evaluation of habitats within the study area.

3.1.1 Breeding Bird Surveys

Two dawn breeding bird surveys were conducted within the study area on June 20 and 28, 2023 guided by point count methodology presented in Appendix D of the OBBA Guide for Participants (2001). All surveys were conducted no earlier than one half hour before sunrise and were completed prior to 10:00a.m. Surveys were completed under suitable weather conditions (*i.e.* no precipitation and light winds (Beaufort wind scale ≤3)), with an observation period of 10 minutes carried out at the point count station shown on Figure 2.

3.2 Background Information

A review of background documents provided information on site characteristics, habitat, wildlife, fisheries, rare species and communities, and general cultural/historic aspects of the study area. This included a review of the following:

- MNR's Natural Heritage Information Centre (NHIC; MNR, 2024a);
    - Make-A-Map: Natural Heritage Areas application;
- Atlas of the Breeding Birds of Ontario (OBBA; Cadman *et al*., 2007);
- Ontario Reptile and Amphibian Atlas (2020);
- MECP's Species at Risk Ontario list (2024);
- Atlas of the Mammals of Ontario (Dobbyn, 1994).
- LSRCA regulation limit mapping (2024);
- Aerial photographs available for the study area (Google Earth, VuMap);
- County of Simcoe interactive mapping (2024);
- County of Simcoe Official Plan (2020);
- Town of Innisfil Official Plan (2018);
- MNR Fish ON-Line and Geohub interactive Aquatic Resource Area (ARA) mapping (MNR, 2024b, MNR, 2024c);
- DFO Aquatic SAR interactive mapping (2024);
- Ministry of Agriculture, Food and Rural Affairs (OMAFRA) municipal drain mapping (2024); and,
- Barrie Creeks, Lovers Creek and Hewitt's Creek Subwatershed Plan (LSRCA, 2012).

4.0 EXISTING CONDITIONS

The study area includes active agricultural lands with opportunistic meadow species associated with the road right-of-way. The proposed IH SPS 6 is located on the property with access from Innisfil Beach Road. To the east and south (south of Innisfil Beach Road) is the Lover's Creek Provincially Significant Wetland in addition to woodland habitats. A tributary of Lover's Creek is located to the south of Innisfil Beach Road.

4.1 Vegetation and Vegetation Communities

A field survey was undertaken to evaluate vegetation community types including representative plant species compositions on July 28, 2022. The site visit was undertaken by a qualified Terrestrial Ecologist with knowledge of rare, Threatened, and Endangered plant species with potential to occur in the area.

There are no elements of occurrence (EO_ID) within the study area for provincially Endangered or Threatened, or provincially rare vegetation species according to the MNR NHIC database. A detailed survey was undertaken to identify Butternut (*Juglans cinerea*) and Black Ash (*Fraxinus nigra*) trees; however, none were observed along the north side of Innisfil Beach Road in proximity to the IH SPS 6 footprint or within the open/meadow right of way. Potential exists for Black Ash to occur within the wetland that occurs within the study area, however, these areas are to the south of Innisfil Beach Road and/or >30m from the IH SPS 6 footprint.

No plant species considered Endangered or Threatened were identified during the site investigation. Further, no provincially rare species were observed during the field program. None of the vegetation communities or species documented are of federal or provincial conservation concern (MNR, 2024).

Vegetation communities within the study area were determined in accordance with the ELC system and illustrated on Figure 2. Vegetation communities identified within the study area are associated with the adjacent lands only and include:

- SWM04-1: Balsam Fir – Hardwood Organic Mixed Swamp
- SWTM3: Willow Mineral Deciduous Thicket Swamp
- MEMM3: Dry-Fresh Mixed Meadow Ecosite

The footprint of the proposed IH SPS 6 is within active agricultural lands (*i.e.* row crops). The land that abuts the active agricultural lands, associated with the road right-of-way, is composed of disturbed meadow habitat and includes species such as Wild Carrot (*Daucus carota*), Tufted Vetch (*Vicia cracca*), goldenrods (*Solidago canadensis* and *Solidago gigantea*) and Field Sowthistle (*Sonchus arvensis*). Cattail (*Typha sp*.) were noted within the ditch and several sapling Black Walnut (*Juglans nigra*) are found along the fence line.

4.2 Wildlife and Wildlife Habitat

Direct and indirect observations of wildlife (*i.e.* tracks, scat, fur) are collected as a matter of course during Azimuth's site investigations. White-tailed Deer was observed during Azimuth's field investigations.

4.2.1 Breeding Bird Surveys

A total of 11 bird species were recorded during dawn breeding bird surveys, all of which are typical of open field/agricultural land (Table 1).

4.3 Species at Risk

A screening for SAR occurred within the planning area based on potentially suitable habitat features identified during the site investigation (Table 2). The SAR assessment fully considers SAR with potential to occur within the overall planning area. Based on this assessment in combination with vegetation communities and other environmental features observed during the site investigation, the following species are considered below in this report:

- **Threatened and Endangered:** Black Ash, Little Brown Myotis, Northern Myotis, Tri-colored Bat
- **Special Concern:** Eastern Wood-pewee, Snapping Turtle, Wood Thrush

4.4 Wetlands

Wetlands within the study area have been identified as part of the Lover's Creek Provincially Significant Wetland (Appendix A and B). The wetlands identified within the study area appear to be consistent with provincial mapping.

4.5 Woodlands

Woodlands within the study area have been identified as Significant Woodland as per the Town of Innisfil's Official Plan (Appendix A). The woodland within the study area appears to be consistent with the Town's Significant Woodland mapping.

4.6 Valleylands

There are no valleyland features within the study area according standards presented in the NHRM, principally due to the lack of permanent or intermittent watercourses that constitute a defining component of a valleyland feature. No portion of the study area fulfills the well-defined valley morphology and landform prominence required to be considered Candidate Significant Valleyland.

4.7 Candidate Significant Wildlife Habitat

An assessment of the potential for Significant Wildlife Habitat (SWH) within study area was conducted using the criteria outlined within the Significant Wildlife Habitat Technical Guide (OMNR, 2000) and the accompanying the Ecoregion 6E Criteria Schedules (MNRF, 2015). The following Candidate SWH types were determined to be present, or have potential to be present within the study area based on the results of the field program:

- Bat Maternity Colonies
- Turtle Wintering Areas
- Woodland Raptor Nesting Habitat
- Turtle Nesting Areas
- Amphibian Breeding Habitat (Woodland)
- Woodland Area-sensitive Bird Breeding Habitat
- Terrestrial Crayfish
- Special Concern and Rare Wildlife Species (Eastern Wood-pewee, Snapping Turtle, Wood Thrush)

4.8 Areas of Natural and Scientific Interest

There are no Areas of Natural and Scientific Interest located within the study area according to municipal or provincial mapping resources (Appendix A and B).

4.9 Watercourses and Fish Habitat

The study area contains an unnamed tributary of Lover's Creek as shown on Figure 2. This Tributary crosses the 10th Line approximately 200m south of Innisfil Beach Road flowing from west to east, then crosses from IBR from south to north approximately 280m east of the proposed pumping station in the Provincially Significant Wetland.

The fish community in Lover's Creek and tributaries is recognized as supporting coldwater habitat for Brook Trout (*Salvelinus fontinalis*), however the main branch at Innisfil Beach Road generally hosts a warmwater assemblage of commonly found fish species (LSRCA, 2012). The Tributary within the study area provides direct fish habitat for a coldwater fish community. Background information from the MNR Ontario Geohub database, Aquatic Resource Area (ARA) line segment data indicates occurrence of the following species: Blacknose Dace, Bluntnose Minnow, Brook Stickleback, Brook Trout, Central Mudminnow, Common Shiner, Creek Chub, Fathead Minnow, Longnose Dace, Mottled Sculpin, Northern Pearl Dace, Northern Redbelly Dace, Pumpkinseed and White Sucker (MNR, 2024c). Brook Trout and Mottled Sculpin Both are

indicators of coldwater and non-degraded sites requiring good water quality conditions (*i.e.*, high oxygen) with low levels of turbidity.

There are no known aquatic SAR known to occur within the Lovers Creek watershed (LSRCA, 2007; DFO, 2024).

The PSW and watercourse are within lands regulated by the LSRCA as per LSRCA mapping found in Appendix B.

5.0 KEY NATURAL HERITAGE FEATURES SUMMARY

The results of Azimuth's site investigation combined with review of background information indicate the potential for the following candidate KNHFs within the study area:

- Habitat of Endangered and Threatened Species
    - Black Ash
    - Little Brown Myotis, Northern Myotis and Tri-colored Bat
- Provincially Significant Wetlands
- Significant Woodlands
- Candidate Significant Wildlife Habitat
    - Bat Maternity Colonies
    - Turtle Wintering Areas
    - Woodland Raptor Nesting Habitat
    - Turtle Nesting Areas
    - Amphibian Breeding Habitat (Woodland)
    - Woodland Area-sensitive Bird Breeding Habitat
    - Terrestrial Crayfish
    - Special Concern and Rare Wildlife Species (Eastern Wood-pewee, Snapping Turtle, Wood Thrush)
- Fish Habitat
    - direct fish habitat in the unnamed Tributary of Lover's Creek

6.0 PROPOSED WORKS

The build-out of the servicing area for Innisfil Heights IH SPS 6 is defined as the complete development of the proposed lands to meet the short- and long-term needs of the Innisfil Heights economic area. IH SPS 6 will collect wastewater flows from seven sources: IH SPS 1, IH SPS 2 (including flows from IH SPS 4), IH SPS 3, IH SPS 5, an existing industrial/commercial area, an existing residential area, and future industrial land. IH SPS 3 and IH SPS 5 are potential future

stations that may be constructed but are outside the scope of the Schedule B Class EA and EIS report.

IH SPS 6 will service an existing industrial/commercial area of 228.4 hectares, a residential area of 77.9 hectares with 321 residences, and 25.2 hectares of future industrial development. It will also receive flows from IH SPS 1, IH SPS 2 (with flow from IH SPS 4), IH SPS 3, and IH SPS 5. Based on the Town of Innisfil's design criteria, the proposed IH SPS 6 will handle a total average daily flow of 41.4 L/s and a total peak wet weather flow of 84.0 L/s.

7.0 IMPACT ASSESSMENT

This impact assessment is prepared with regards to the construction footprint of the proposed IH SPS 6, as described above and illustrated in Figure 2.

7.1 Habitat of Endangered and Threatened Species

Impacts with regards to the *ESA* and Habitat of Threatened or Endangered species are covered under Section 9 and 10 of the *ESA*. Section 9 deals directly with killing, harming, or harassing living members of a species while Section 10 covers destruction or damage to habitat of Threatened or Endangered species. The following Threatened or Endangered species have the potential to occur within the limits of the study area:

- Black Ash
- Little Brown Myotis, Northern Myotis, Tri-colored Bat (Endangered)

7.1.1 Black Ash

As per O. Reg. 6/24, the *ESA* affords protection to healthy Black Ash individuals with a diameter at breast height of 8cm or more. Furthermore, the area within 30m of a protected Black Ash tree is considered habitat and therefore is also protected according to Ontario's *ESA*. There were no Black Ash documented within 30m of the proposed footprint of IH SPS 6. There will be no impacts to any potential Black Ash that could occur within the Provincially Significant Wetland that is located >30m from the footprint of the IH SPS 6. As such, there will be no potential contraventions of Section 9 or 10 of the *ESA*.

7.1.2 Little Brown Myotis, Northern Myotis and Tri-colored Bat

The proposed works will not result in the direct removal or alteration of the woodland habitat, including areas identified as Significant Woodland, and as such, there will be no direct impacts to potential SAR bat habitat. The proposed works are approximately 100m from the woodland edge to the east and Innisfil Beach Road is an intervening land use to the woodland areas to the

south. These setbacks to the identified woodland areas will ensure no indirect impacts occur to SAR bats and the woodland communities they depend upon.

Any individual trees that may require removal are too small to be considered potentially suitable habitat for SAR bats as they are saplings (*i.e.* Diameter Breast Height < 10cm), and were not observed to provide potential access features (*e.g.* cracks, splits) for bats. As such, no potential contraventions of Section 9 or 10 of the *ESA* are expected to result from the proposed works with regard for SAR bats.

7.2 Significant Woodland

The proposed works will not result in the direct removal or alteration of the woodland habitat, including areas identified as Significant Woodland, and as such, there will be no direct impacts to Significant Woodland. The proposed works are approximately 100m from the woodland edge to the east and Innisfil Beach Road is an intervening land use to the woodland areas to the south. These setbacks to the identified woodland areas will ensure no indirect impacts associated with the IH SPS 6.

7.3 Provincially Significant Wetland

The proposed works will not result in the direct removal or alteration of the Provincially Significant Wetland, there will be no direct impacts to the wetland habitat. The proposed works are approximately 100m from the wetland edge to the east and Innisfil Beach Road is an intervening land use to the wetland areas to the south. These setbacks to the identified Provincially Significant Wetland will ensure no indirect impacts associated with the IH SPS 6.

7.4 Candidate Significant Wildlife Habitat

All of the Candidate Significant Wildlife Habitat features/functions would be associated with the Significant Woodland and Provincially Significant Wetland. Please refer to impact assessment in Sections 7.2 and 7.3 above, as conclusions for these features similarly apply to potential SWH therein. There is no expectation that there will be any impact to these potential SWH functions as a result of the IH SPS 6.

7.5 Fish Habitat

The sanitary pump station is proposed on the north side of Innisfil Beach Road as depicted on Figure 2. There will be no direct impact to the watercourse located within the study area to the south of Innisfil Beach Road nor is there any disturbance proposed in proximity to the watercourse/fish habitat. Standard mitigation is recommended to isolate the work area with sediment and erosion controls to prevent offsite mobilization of sediments to prevent entry

into adjacent features, and ultimately, fish habitat. Project review under the *Fisheries Act* will not be required for the project.

8.0 MITIGATION

8.1 Species at Risk

It should be noted that the absence of a protected species within the study area does not indicate that they will never occur within the area. Given the dynamic character of the natural environment, there is a constant variation in habitat use. Care should be taken in the interpretation of presence of species of concern including those listed under the ESA. Changes to policy, or the natural environment, could result in shifts, removal, or addition of new areas to the list of areas currently considered SAR habitat. This report is intended as a point in time assessment of the potential to impact SAR; not to provide long term "clearance" for SAR. While there is no expectation that the assessment should change significantly, it is the responsibility of the proponent to ensure that they are not in contravention of the ESA at the time that site works are undertaken. A review of the assessment provided in this report by a qualified person should be sufficient to provide appropriate advice at the time of the onset of future site works.

8.2 Migratory Birds

Activities involving the removal of vegetation should be restricted from occurring during the breeding season. Migratory birds, nests, and eggs are protected by the *Migratory Birds Convention Act*, 1994 (MBCA) and the *Fish and Wildlife Conservation Act,* 1997 (FWCA). Environment Canada outlines dates when activities in any region have potential to impact nests at the Environment Canada Website. In Zones C1 and C2 vegetation clearing should be avoided between **April 1 through August 31** of any given year. If work requires that vegetation clearing is required between these dates screening by an ecologist with knowledge of bird species present in the area could be undertaken to ensure that the vegetation has been confirmed to be free of nests prior to clearing.

8.3 Sediment and Erosion Controls

As indicated above, diligent application of sediment and erosion controls (ESCs) is required for all construction activities to minimize the extent of accidental or unavoidable impacts to adjacent vegetation communities, wildlife habitat and fish habitat. Prior to the commencement of site works, silt fencing should be applied along the length of directly adjacent natural or naturalized features, and routine inspection/maintenance of the silt fencing should occur throughout construction. It is recommended that ESCs be maintained until vegetation is re-established post-construction.

Materials storage on the property (*i.e*. soil stockpiles) should be located over 30m from natural features where feasible. Material storage areas should be contained with ESCs to avoid potential indirect impacts to natural features onsite.

8.4 Operations

All maintenance activities (including refueling) required during future construction should be conducted at least 30m away from natural features to prevent accidental spillage of deleterious substances that may harm natural environments.

Snow fencing or equivalent should be installed at the limit of the work area to prevent the accidental intrusion of machinery operations into adjacent undisturbed natural areas.

The contractor is recommended to have a Contaminant and Spill Management Plan in place prior to initiation of works. This should include keeping an emergency spill kit on site at all times. In the event of a spill, the contractor must report it immediately to the provincial Spills Action Centre (SAC).

9.0 CONCLUSIONS

Based upon our analysis, it is concluded that the environmental conditions are not limiting to the construction of the IH SPS 6 through incorporation of the environmental protection measures described in Section 8 of this report.

At this time, our findings are summarized as follows:

- The proposed infrastructure works are consistent with the applicable natural heritage policies of the *ESA*, County of Simcoe Official Plan, Town of Innisfil Official Plan, and the Lake Simcoe Protection Plan.

- A permit from the LSRCA under O. Reg. 41/24 may be required prior to worksite disturbance.

- The proposed works are not expected to negatively impact the ecological functions of Significant Woodlands, Provincially Significant Wetlands, Candidate Significant Wildlife Habitat outlined in Section 5 if the appropriate mitigation measures outlined in Section 8 are followed.

- No ephemeral, intermittent or permanent drainage features, open water units, fish or fish habitat are expected to be negatively impacted as a result of the proposed works if

the appropriate mitigation measures described in Section 8 are followed during and post construction.

10.0 REFERENCES

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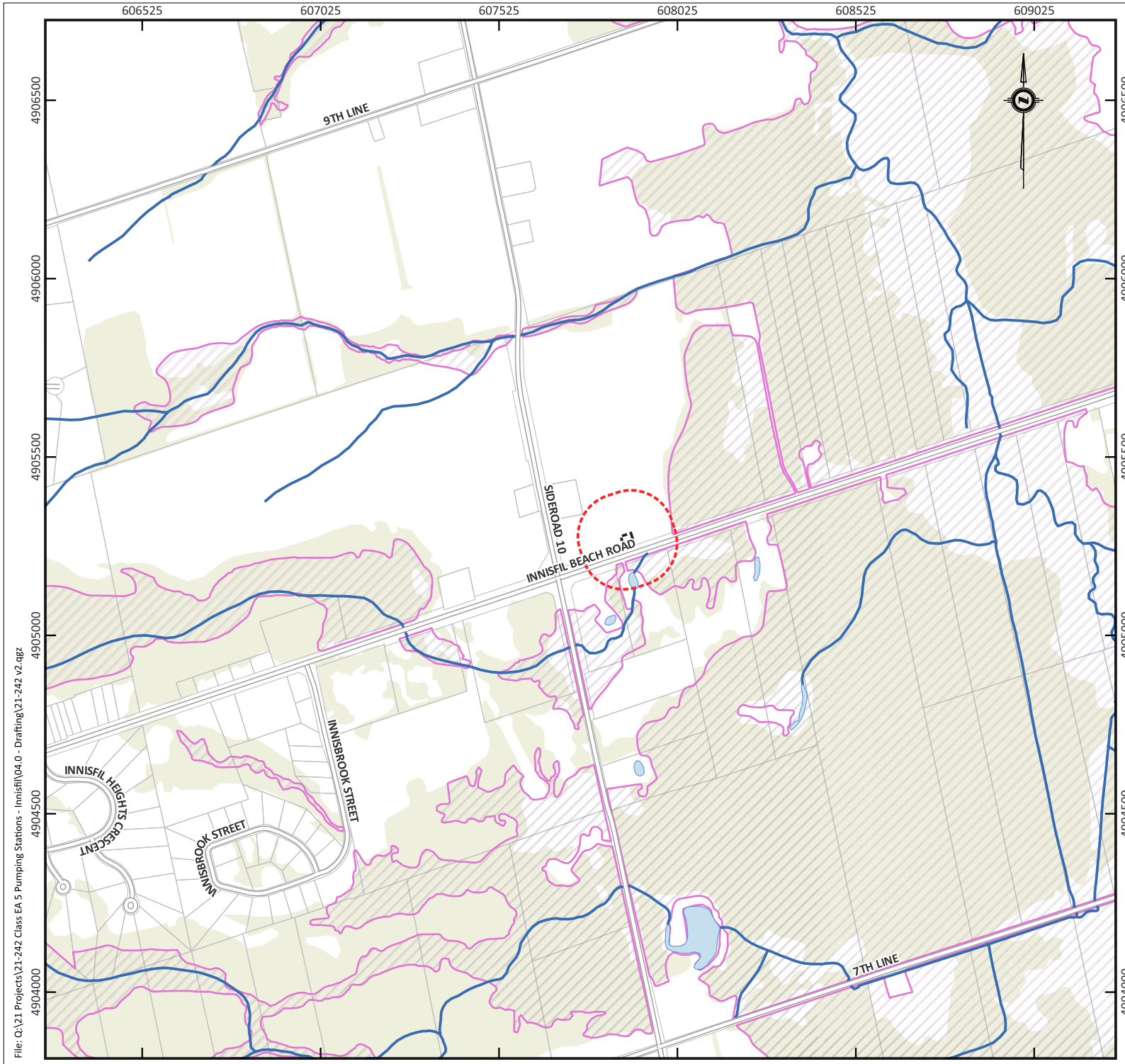
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LEGEND

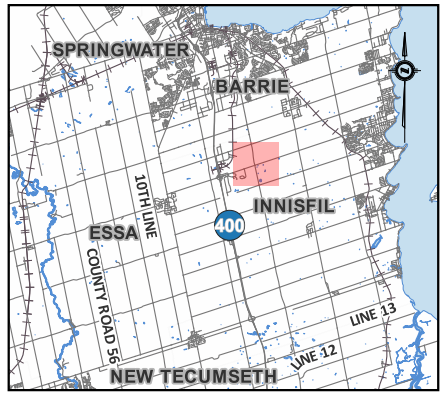
- Approximate Location of Inn Services Sewage Pumping Station #6
- 120m Radius Study Area (IH SPS 6)
- Waterbody
- Mapped Watercourse
- Provincially Significant Wetland
- Wooded Area
- Road

NOTES

1. Watercourse, Waterbody, Wetland, Woodland and ANSI layers are derived from MNRF GIS data, retrieved December 2022.
2. The metric grid displayed on the map corresponds to NAD83 / UTM zone 17N (EPSG:26917).

REGIONAL MAP

SCALE 1:500000



0 0.25 0.5 0.75

KILOMETERS

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

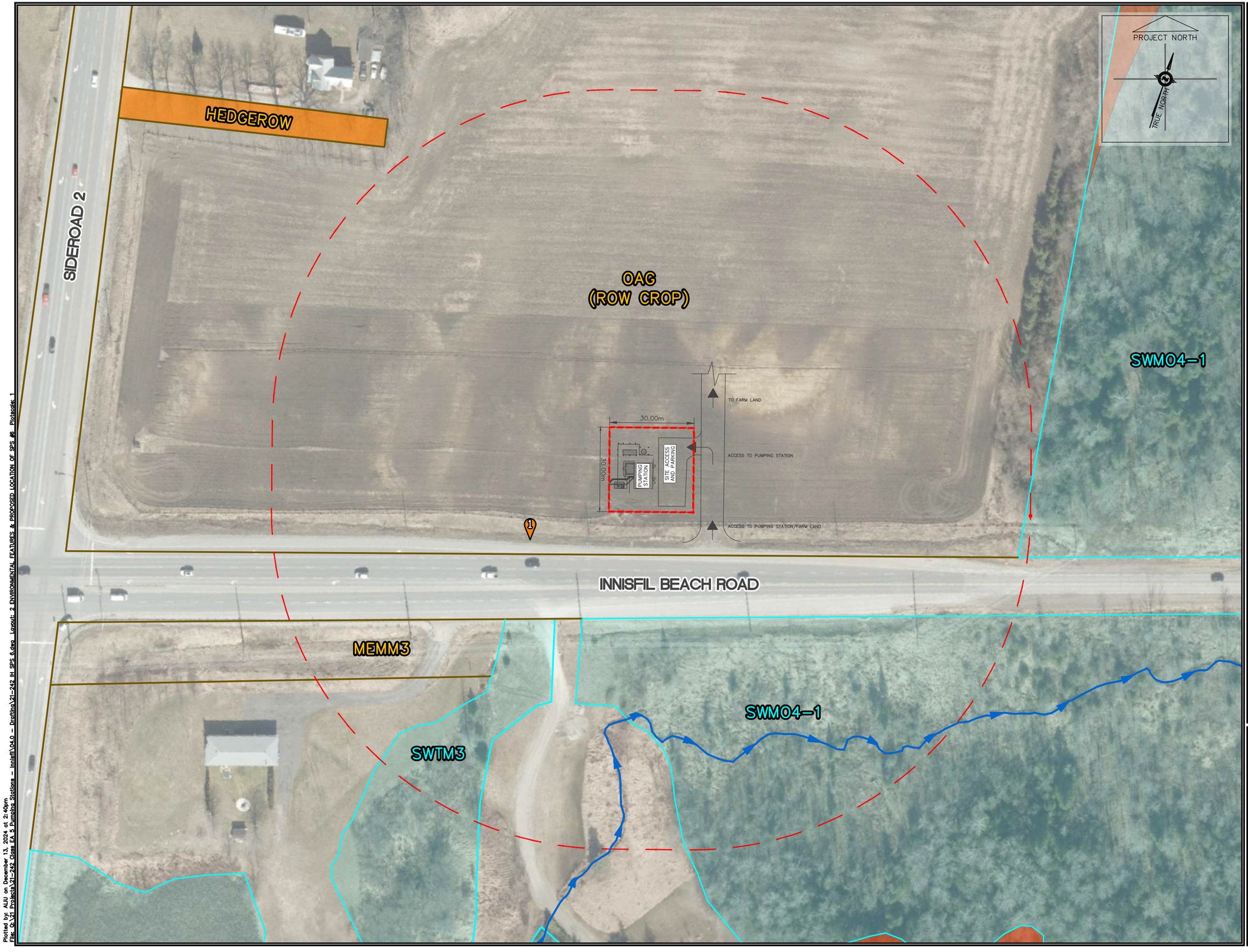
SITE LOCATION

INN SERVICES PUMPING STATION #6
INNISFIL, ON

DATE ISSUED:	DECEMBER 2024
CREATED BY:	A.L.
PROJECT NO.:	21-242
BASE MAP:	MNRF

Figure No. 1

File: Q:\21 Projects\21-242 Class EA 5 Pumping Stations - Innisfil\04.0 - Drafting\21-242 v2.qgz



LEGEND:

- PROPOSED LOCATION OF SPS #2
- 120m RADIUS STUDY AREA
- DRAINAGE FEATURE

ELC UPLAND COMMUNITIES:

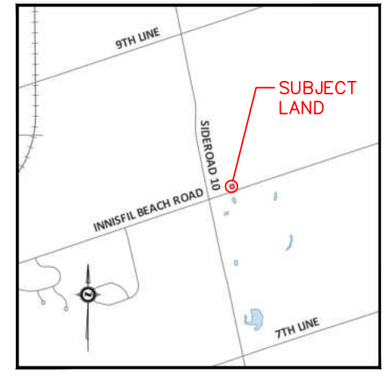
OAG	OPEN AGRICULTURE
MEMM3	DRY–FRESH MIXED MEADOW

ELC WETLAND COMMUNITIES:

SWM04–1	BALSAM FIR–HARDWOOD ORGANIC MIXED SWAMP
SWTM3	WILLOW MINERAL DECIDUOUS THICKET SWAMP

- DAWN BREEDING BIRD SURVEY STATION

LOCATION PLAN



0 31.25 62.5

HORIZONTAL SCALE 1:1250

AZIMUTH ENVIRONMENTAL CONSULTING, INC.
ENVIRONMENTAL ASSESSMENTS & APPROVALS

ENVIRONMENTAL FEATURES & PROPOSED LOCATION OF SPS #6

INN SERVICES PUMPING STATION #6
INNISFIL, ON

DATE ISSUED:	*DECEMBER 2024*	Figure No. 2
CREATED BY:	*A.L.*	
PROJECT NO.:	*21-242*	
REFERENCE:	*SIMCOE COUNTY*	

Plotted by: ALU on December 13, 2024 at 2:40pm
File: G:\21 Projects\21-242 Cons EA 5 Pumping Stations – Innisfil\04.0 – Drafting\21-242 IH SPS 6.dwg Layout: 2 ENVIRONMENTAL FEATURES & PROPOSED LOCATION OF SPS #6 Plotscale: 1

Table 1: Breeding Bird Summary, EIS Sewage Pumping Station 6, Town of Innisfil

			Location[1,2]			Conservation Rankings[3]				
FAMILY	**SCIENTIFIC NAME**	**COMMON NAME**	**1**		**Adjacent Lands**	**GRANK**	**SRANK**	**ESA**	**SARA**	**TRACK**
			Visit 1	*Visit 2*						
Fringillidae	*Spinus tristis*	American Goldfinch		FO		G5	S5			N
Icteridae	*Agelaius phoeniceus*	Red-winged Blackbird		H	S	G5	S5			N
Sturnidae	*Sturnus vulgaris*	European Starling		H		G5	SNA			N
Corvidae	*Corvus brachyrhynchos*	American Crow		S		G5	S5			N
Icteridae	*Quiscalus quiscula*	Common Grackle		FO		G5	S5			N
Paridae	*Poecile atricapillus*	Black-capped Chickadee			S	G5	S5			N
Cardinalidae	*Passerina cyanea*	Indigo Bunting			S	G5	S5B			N
Turdidae	*Turdus migratorius*	American Robin		S		G5	S5			N
Passerellidae	*Melospiza melodia*	Song Sparrow	S	S		G5	S5			N
Charadriidae	*Charadrius vociferus*	Killdeer	FO			G5	S4B			N
Passerellidae	*Spizella passerina*	Chipping Sparrow	S			G5	S5B,S3N			N

[1] Visit 1: June 20, 2023, Observer: L.Moran, Temperature 14°C, Cloud Cover 5% , Wind: B1, Precipitation: Nil, Search Time 06:49 to 06:59; Visit 2: June 28, 2023, Observer: L.Moran, Temperature 14°C, Cloud Cover 100% , Wind: B3, Precipitation: Nil, Search Time 08:44 to 08:54

[2] Breeding Bird Evidence Codes: X - Species observed, C - Call heard, FO - Flyover (Species presence); H - Species observed in its breeding season in suitable nesting habitat, S - Singing male (Possible Breeding); P - Pair observed , T - Territorial behaviour, A - Agitated behaviour or anxiety calls of adult, V - Visiting a probably nest site, N - Nest building or excavation of nest hole (Probable Breeding); DD - Distraction display or injury feigning, NU - Used Nest or egg shells, FY - Recently fledged young, AE - Adult leaving or entering nest sites, FS - Adult carrying fecal sac, CF - Adult carrying food for young, NE - Nest containing eggs, NY - Nest with young seen or heard (Confirmed Breeding).

[3] Conservation Rankings: From Ontario Ministry of Natural Resources, Natural Heritage Information Centre (https://www.ontario.ca/page/natural-heritage-information-centre)

Common Name	Species Name	ESA	SARA	Key Habitats Used By Species[1]	Assessment
Bank Swallow	*Riparia riparia*	THR	THR	Nests in burrows excavated in natural and human-made settings with vertical sand and silt faces. Commonly found in sand or gravel pits, road cuts, lakeshore bluffs, and along riverbanks (COSEWIC, 2013a). ESA Protection: Species and general habitat protection	No potentially suitable habitat for the species within the study area. Not documented during Azimuth's dawn breeding bird surveys.
Barn Swallow	*Hirundo rustica*	SC	THR	Ledges and walls of man-made structures such as buildings, barns, boathouses, garages, culverts and bridges. (COSEWIC, 2011a). ESA Protection: Species and general habitat protection	No structures are present within the study area that could provide suitable nesting habitat for the species. Not documented during Azimuth's dawn breeding bird surveys.
Black Ash	*Fraxinus nigra*	END	No Status	Facultative wetland tree species frequently found in floodplain forests, swamps, seepage areas, shoreline margins and fens. Occupied sites are generally seasonally-flooded (COSEWIC, 2018a). ESA Protection: Species and general habitat protection	No Black Ash observed during Azimuth's field investigations.
Bobolink	*Dolichonyx oryzivorus*	THR	THR	Nests primarily in forage crops (*e.g.* hayfields and pastures) dominated by a variety of species such as clover, Timothy, Kentucky Bluegrass, tall grass, and broadleaved plants. abandoned fields dominated by tall grasses. Does not generally occupy fields of row crops or short-grass prairie. Sensitive to habitat size and has lower reproductive success in small habitat fragments (COSEWIC, 2010). ESA Protection: Species and general habitat protection	No potentiallly suitable habitat within the study area (i.e. row crop). No Bobolink were observed during Azimuth's dawn breeding bird surveys.
Butternut	*Juglans cinerea*	END	END	Commonly found in riparian habitats, but is also found in rich, moist, well-drained loams, and well-drained gravels. Butternut is intolerant of shade (COSEWIC, 2017). ESA Protection: Species and general habitat protection	No Butternut observed during Azimuth's field investigations.
Chimney Swift	*Chaetura pelagica*	THR	THR	Nests primarily in chimneys though some populations (*i.e* . in rural northern areas) may nest in cavity trees (COSEWIC, 2018b). Recent changes in chimney design may be a significant factor in recent declines in numbers (Cadman *et al* ., 2007). ESA Protection: Species and general habitat protection	No potentially suitable habitat for the species within the study area. Not documented during Azimuth's dawn breeding bird surveys.
Common Nighthawk	*Chordeiles minor*	SC	THR	Open habitats including sand dunes, beaches recently logged/burned over areas, forest clearings, short grass prairies, pastures, open forests, bogs, marshes, lakeshores, gravel roads, mine tailings, quarries, and other open relatively clear areas (COSEWIC, 2018c). ESA Protection: N/A	No potentiallly suitable habitat for the species within the study area.
Eastern Meadowlark	*Sturnella magna*	THR	THR	Most common in grassland, pastures, savannahs, as well as anthropogenic grassland habitats, including hayfields, weedy meadows, young orchards, golf courses, restored surface mines, *etc* . (COSEWIC, 2011). ESA Protection: Species and general habitat protection	No potentiallly suitable habitat within the study area (i.e. row crop). No Eastern Meadowlark were observed during Azimuth's dawn breeding bird surveys.
Eastern Wood-pewee	*Contopus virens*	SC	SC	Mostly in mature and intermediate-age deciduous and mixed forests having an open understory. It is often associated with forests dominated by Sugar Maple and oak. Usually associated with forest clearings and edges within the vicinity of its nest (COSEWIC, 2012a). ESA Protection: N/A	Woodland within the study area (adjacent lands) has the potential to provide habtiat for Eastern Wood-pewee.
Grasshopper Sparrow *pratensis* subspecies	*Ammodramus savannarum pratensis*	SC	SC	Typically breeds in large human-created grasslands (≥5 ha), such as pastures and hayfields, and natural prairies, such as alvars, characterized by well-drained, often poor soil dominated by low, sparse perennial herbaceous vegetation (COSEWIC, 2013b). ESA Protection: N/A	No potentiallly suitable habitat within the study area (i.e. row crop). No Grasshopper Sparrow were observed during Azimuth's dawn breeding bird surveys.
Little Brown Myotis	*Myotis lucifugus*	END	END	Forests and regularly aging human structures as maternity roost sites. Regularly associated with attics of older buildings and barns for summer maternity roost colonies. Overwintering sites are characteristically mines or caves (MNRF, 2014) (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Woodland within the study area (adjacent lands) has the potential to provide habtiat for Little Brown Myotis.
Monarch	*Danaus plexippus*	SC	SC	Breeding habitat is confined to sites where milkweeds, the sole food of caterpillars, grow. Milkweeds grow in a variety of environments, including meadows in farmlands, along roadsides and in ditches, open wetlands, dry sandy areas, short and tall grass prairie, river banks, irrigation ditches, arid valleys, and south-facing hills (COSEWIC, 2016). ESA Protection: N/A	There was not an abundance of Common Milkweed documented within the roadside vegetation. No Monarch were observed during Azimuth's field investigations.
Northern Myotis	*Myotis septentrionalis*	END	END	Maternity roost sites are generally located within deciduous and mixed forests and focused in snags including loose bark and cavities of trees. Overwintering sites are characteristically mines or caves (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Woodland within the study area (adjacent lands) has the potential to provide habtiat for Northern Myotis.
Red-headed Woodpecker	*Melanerpes erythrocephalus*	END	END	Occurs in open deciduous forests, particularly those dominated by oak and beech, groves of dead trees, floodplain forests, orchards, cemeteries, savannas and savanna-like grasslands. (COSEWIC, 2018d). ESA Protection: Species and general habitat protection.	Woodland within the study area does not appear to provide the appropriate habtiat required for the species as mixed forest/swamp and thicket swamp community is not preferred by Red-headed Woodpecker. Species nor not documented during Azimuth's dawn breeding bird surveys.
Snapping Turtle	*Chelydra serpentina*	SC	SC	Habitat is characterized by slow-moving water with a soft mud bottom and dense aquatic vegetation. Often located in ponds, sloughs, shallow bays or river edges and slow streams, or areas combining several of these wetland habitats (COSEWIC, 2008). ESA Protection: N/A	In general, the Lover's Creek Swamp PSW has the potential to provide suitable habitat for Snapping Turtle.
Tri-colored Bat	*Perimyotis subflavus*	END	END	Maternity roost sites include forests and modified landscapes (barns or human-made structures). Overwintering sites include mines and caves (COSEWIC, 2013c). ESA Protection: Species and general habitat protection	Woodland within the study area (adjacent lands) has the potential to provide habtiat for Tri-colored Bat.
Wood Thrush	*Hylocichla mustelina*	SC	THR	Found in moist, deciduous hardwood or mixed stands, often previously disturbed, with a dense deciduous undergrowth and with tall trees for singing perches (COSEWIC, 2012b). ESA Protection: N/A	Woodland within the study area (adjacent lands) has the potential to provide habtiat for Wood Thrush.

[1] Habitat as outlined within the MNR's Species at Risk in Ontario website files (https://www.ontario.ca/environment-and-energy/species-risk-ontario-list), or Species Specific COSEWIC Reports referenced in this document.
Species at Risk in Ontario List (June 13, 2017)

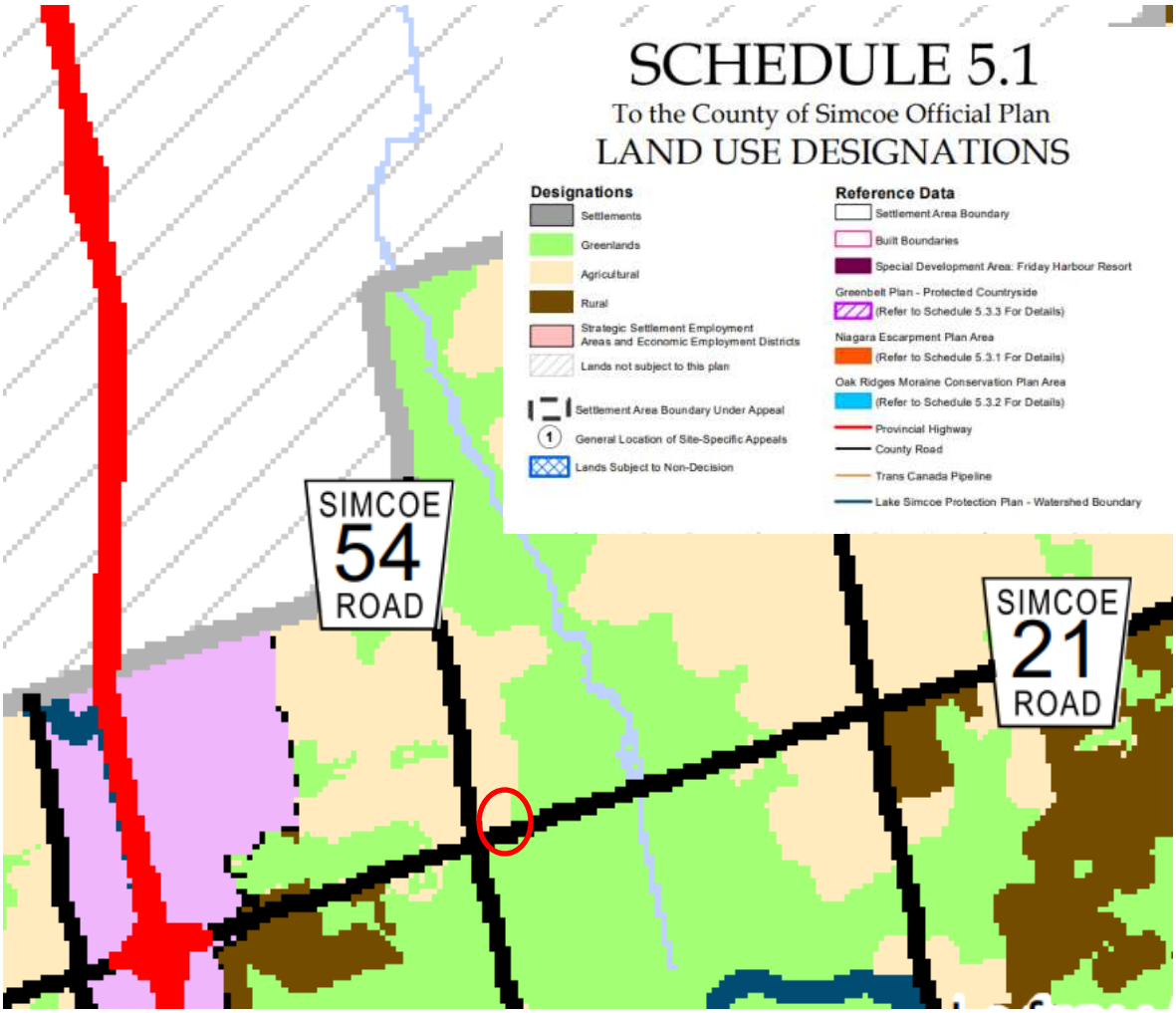
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COSEWIC. 2010. COSEWIC assessment and update status report on the Bobolink *Dolichonyx oryzivorus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 42 pp
COSEWIC. 2011a. COSEWIC assessment and update status report on the Barn Swallow *Hirundo rustica* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 37 pp
COSEWIC. 2011. COSEWIC assessment and update status report on the Eastern Meadowlark *Sturnella magna* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 40 pp
COSEWIC. 2012a. COSEWIC assessment and status report on the Eastern Wood-pewee *Contopus virens* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. x + 39 pp
COSEWIC. 2012b. COSEWIC assessment and status report on the Wood Thrush *Hylocichla mustelina* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 46 pp
COSEWIC. 2013a. COSEWIC assessment and update status report on the Bank Swallow *Riparia riparia* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 48 pp
COSEWIC. 2013b. COSEWIC assessment and status report on the Grasshopper Sparrow pratensis subspecies *Ammodramus savannarum pratensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 36
COSEWIC. 2013c. COSEWIC assessment and update status report on the Little Brown Myotis *Myotis lucifugus* , Northern Myotis *Myotis septentrionalis* and Tri-colored Bat *Perimyotis subfalvus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xxiv + 93 pp.
COSEWIC. 2016. COSEWIC assessment and status report on the Monarch *Danaus plexippus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 59 pp
COSEWIC. 2017. COSEWIC assessment and status report on the Butternut *Juglans cinerea* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xiii + 74 pp
COSEWIC. 2018a. COSEWIC assessment and status report on the Black Ash *Fraxinus nigra* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 95 pp
COSEWIC. 2018b. COSEWIC assessment and status report on the Chimney Swift *Chaetura pelagic* a in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 49 pp
COSEWIC. 2018c. COSEWIC assessment and status report on the Common Nighthawk *Chordeiles minor* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xi + 50 pp
COSEWIC. 2018d. COSEWIC assessment and status report on the Red-headed Woodpecker *Melanerpes erythrocephalu* s in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xii + 60 pp
Ministry of the Environment, Conservation and Parks (MECP). 2024. Species at Risk in Ontario (https://www.ontario.ca/page/species-risk-ontario)

APPENDICES

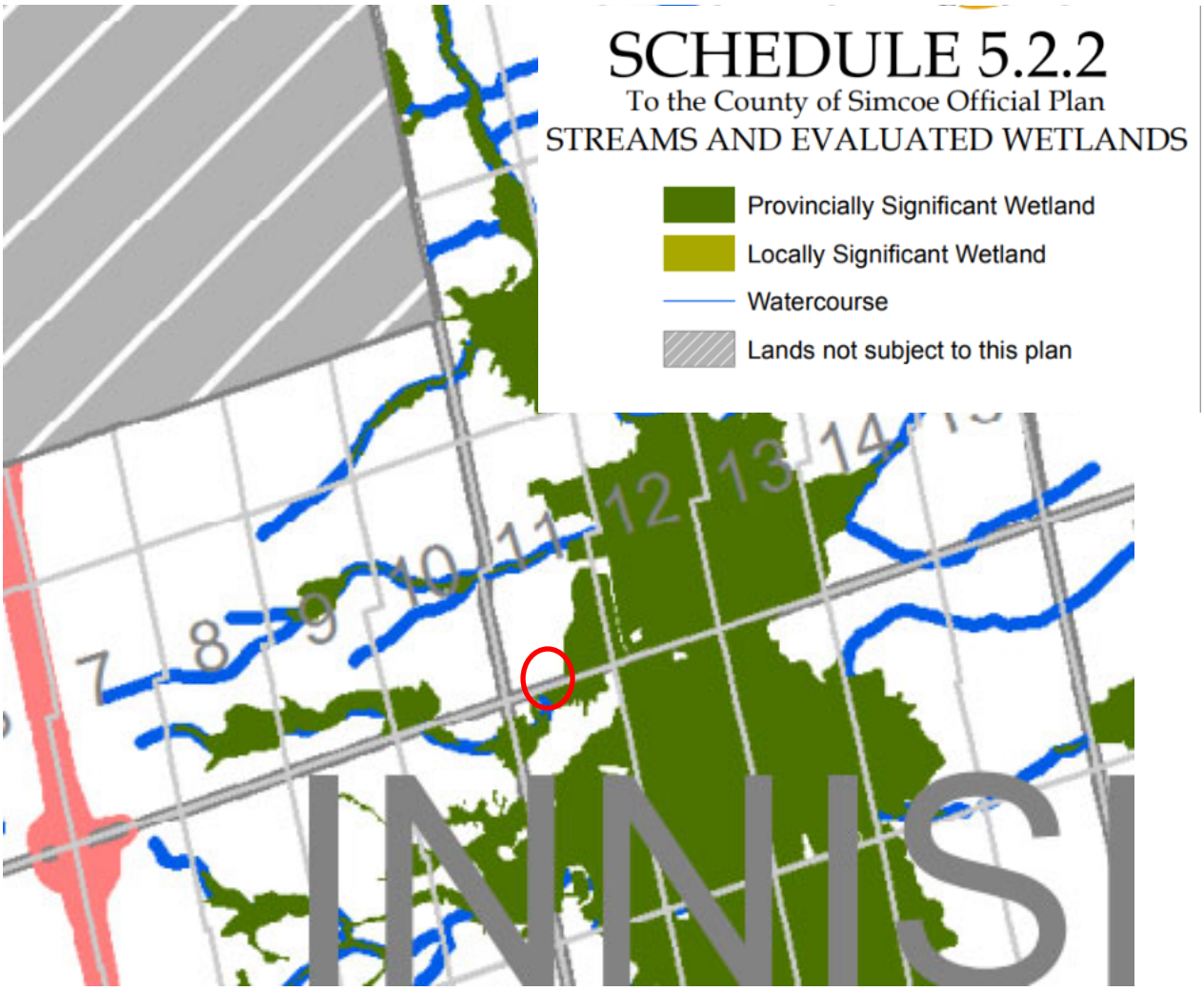
Appendix A: Natural Heritage Policy Information
Appendix B: Background Information

APPENDIX A

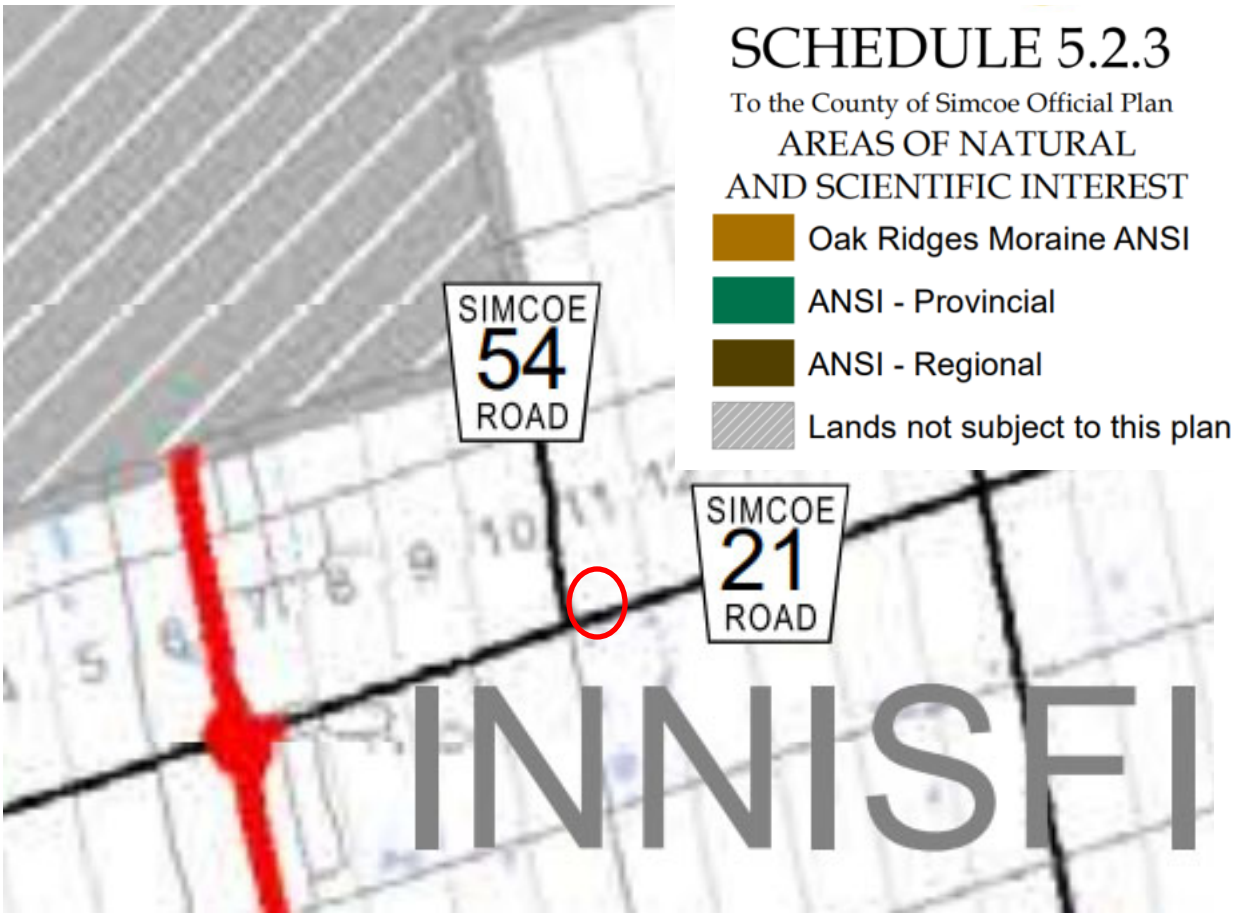
Natural Heritage Policy Information



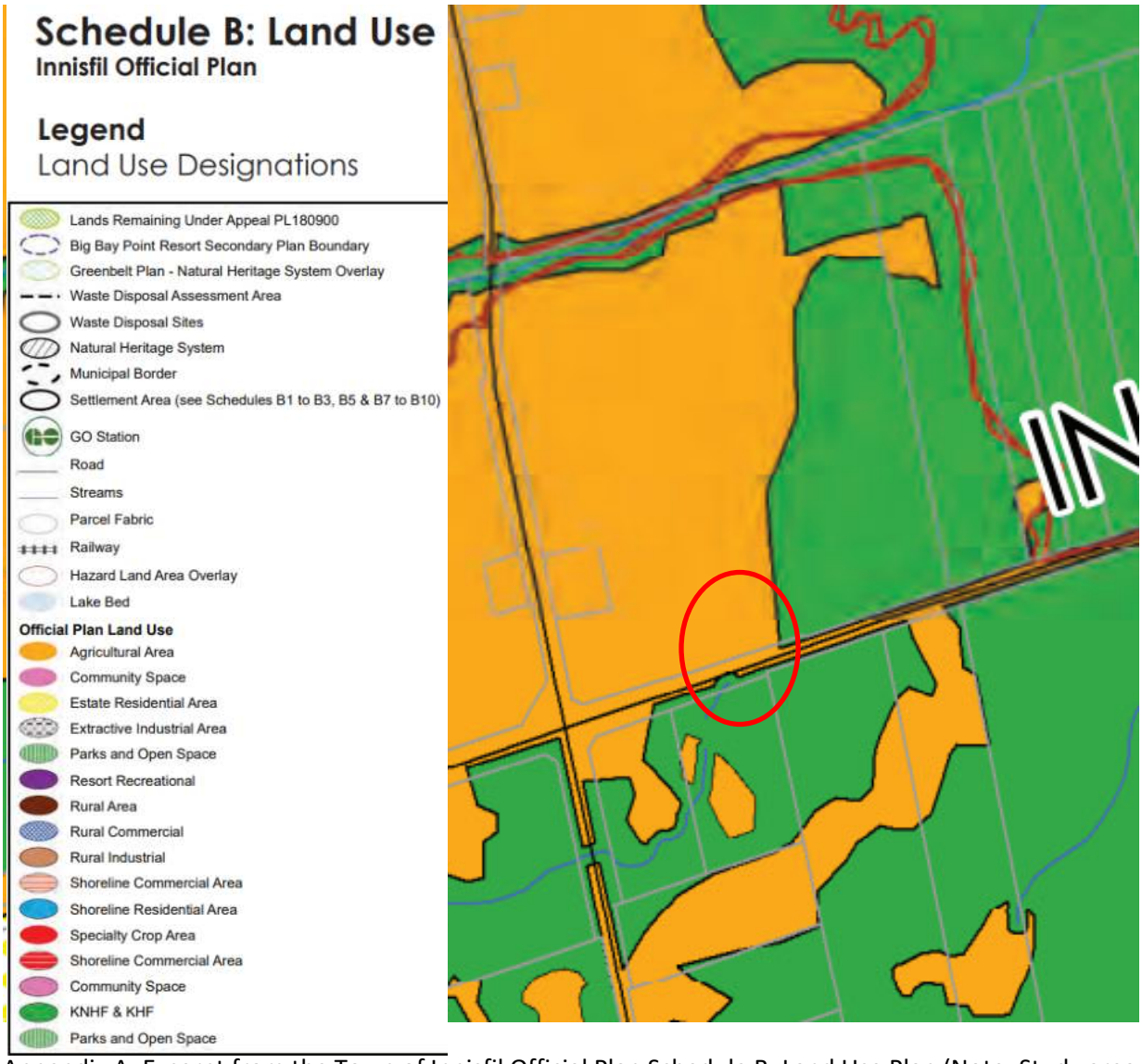
Appendix A: Excerpt from the County of Simcoe Official Plan Schedule 5.1: Land Use Designations (Note: Study area contained within red circle drawn on map)



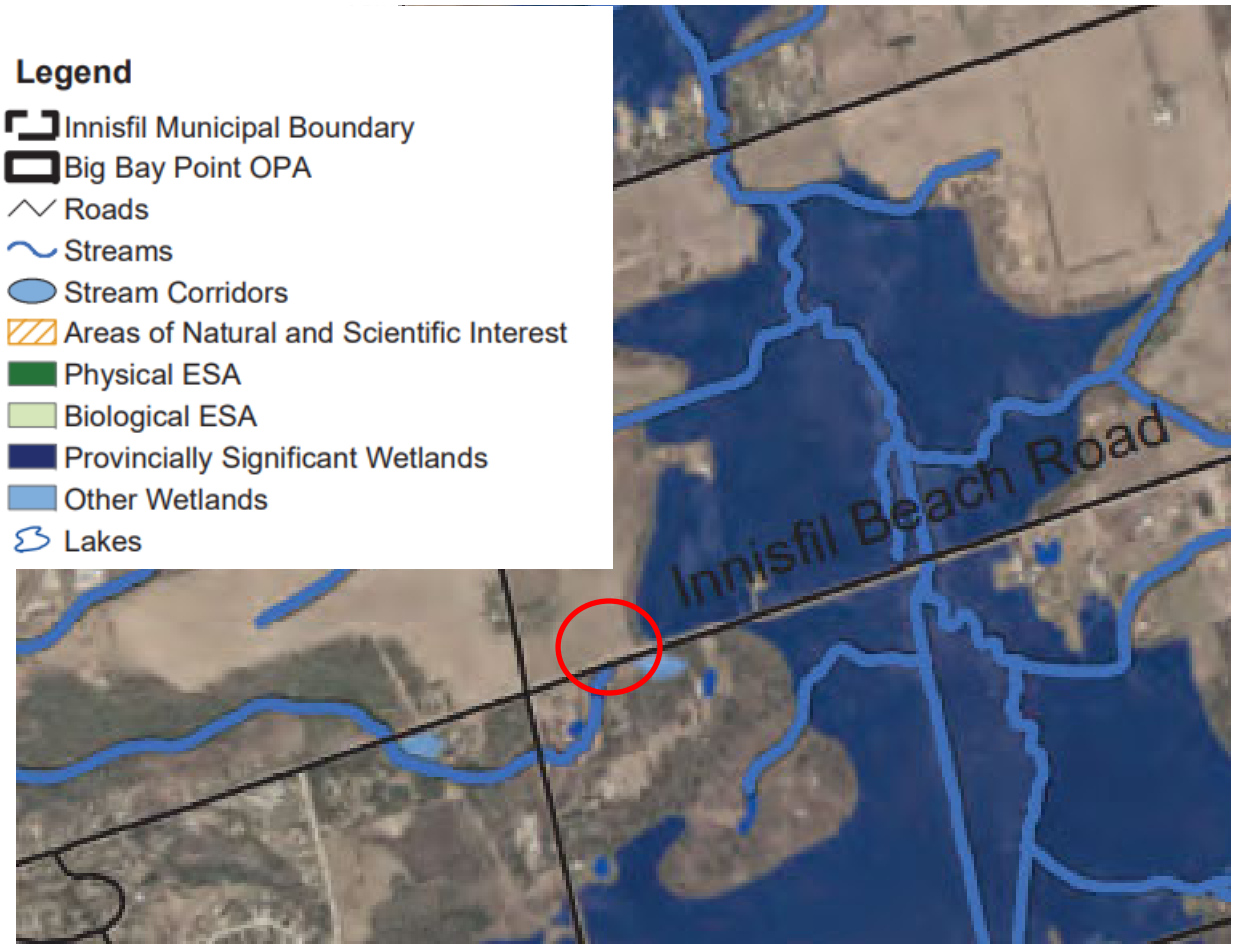
Appendix A: Excerpt from the County of Simcoe Official Plan Schedule 5.2.2: Streams and Evaluated Wetlands (Note: Study area contained within red circle drawn on map)



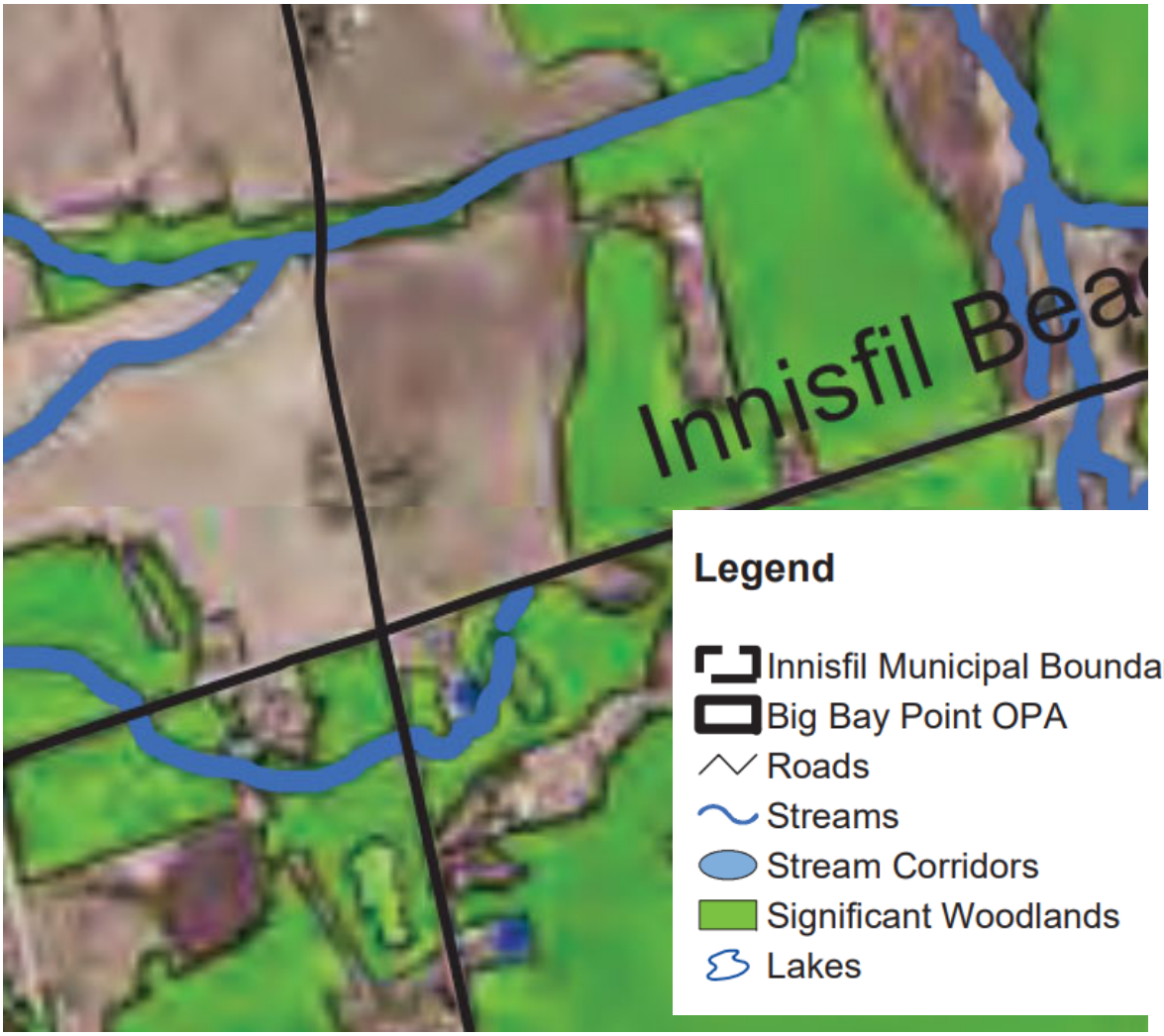
Appendix A: Excerpt from the County of Simcoe Official Plan Schedule 5.2.3: Areas of Natural and Scientific Interest (Note: Study area contained within red circle drawn on map)



Appendix A: Excerpt from the Town of Innisfil Official Plan Schedule B: Land Use Plan (Note: Study area contained within the red circle drawn on map)



Appendix A: Excerpt from the Town of Innisfil Official Plan Appendix 9: Natural Areas (Note: Study area contained within red circle drawn on map)



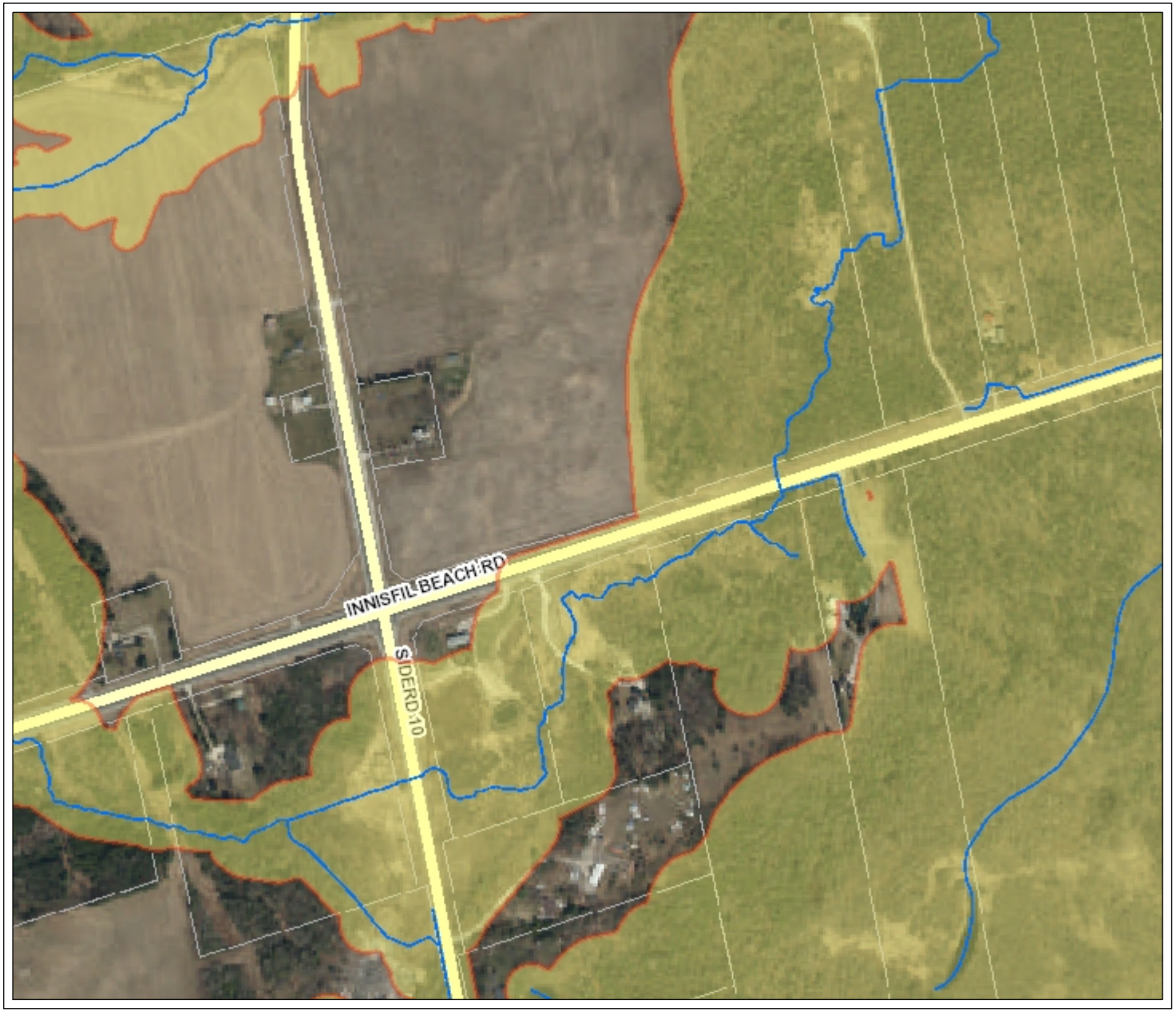
Appendix A: Excerpt from the Town of Innisfil Official Plan Appendix 10: Natural Areas (Note: Study area contained within red circle drawn on map)

APPENDIX B

Background Information

Lake Simcoe Region conservation authority

Innisfil Heights Sewage Pumping Station 6



Features

- LSRCA Watershed Boundary
- Watercourse
- Regulation Limit
- Address Labels
- Road Labels
- Assessment Parcel
- Roads
  - Hwy 400 Series
  - Highway, Arterials
  - Local Road
- Railway

Printed On:
12/11/2024

WGS_1984_Web_Mercator_Auxiliary_Sphere

Mapped By:

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Scale 1: 7,041

Meters

358 0 179 358

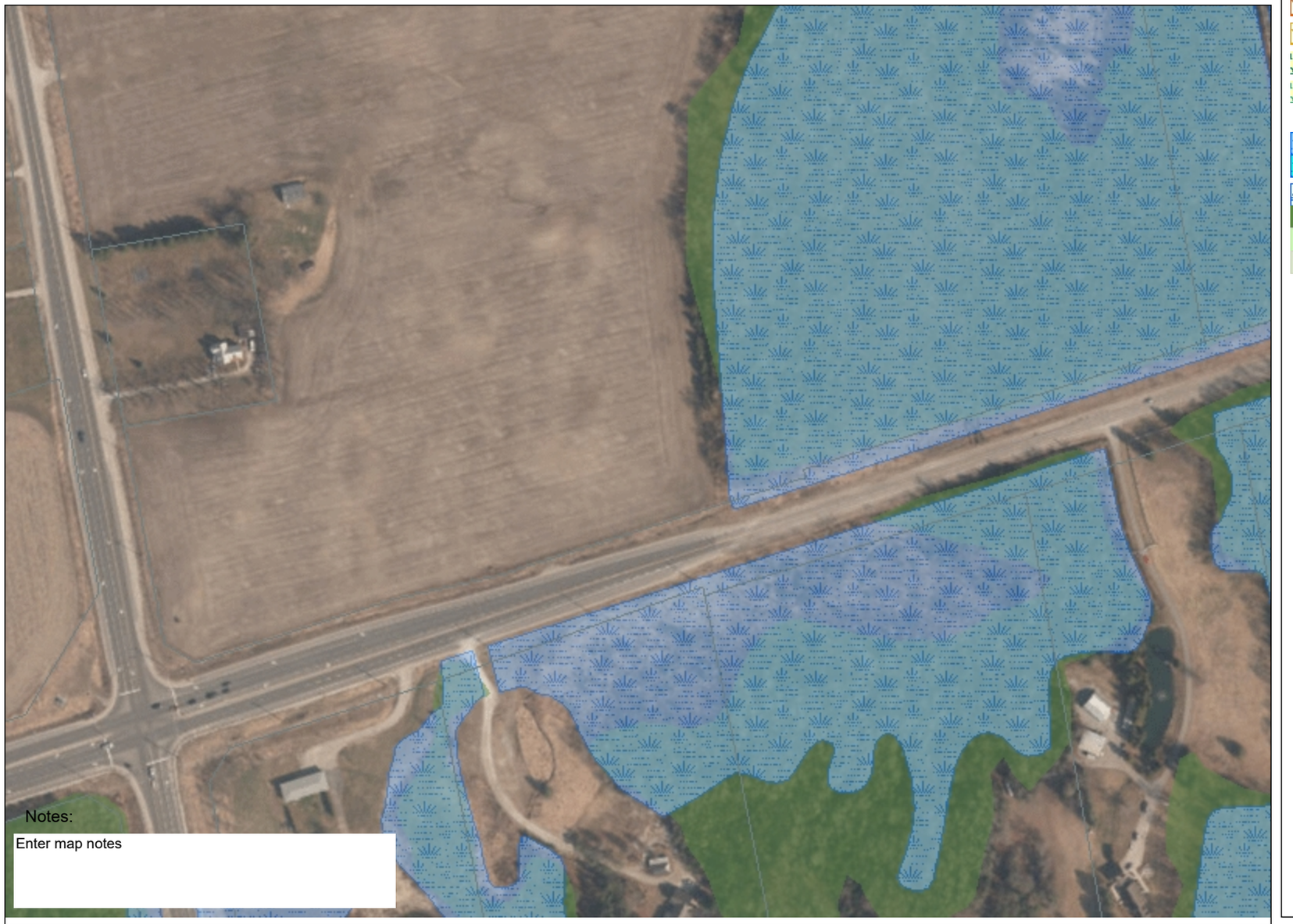
Ontario

Ministry of Natural Resources

Make-a-Map: Natural Heritage Areas

Innisfil Heights Sewage Pumping Station 6

Map created:12/11/2024



Notes:

Enter map notes

Legend

- Assessment Parcel
- ANSI
- Earth Science Provincially Significant/sciences de la terre d'importance provinciale
- Earth Science Regionally Significant/sciences de la terre d'importance régionale
- Life Science Provincially Significant/sciences de la vie d'importance provinciale
- Life Science Regionally Significant/sciences de la vie d'importance régionale
- Evaluated Wetland
- Provincially Significant/considérée d'importance provinciale
- Non-Provincially Significant/non considérée d'importance provinciale
- Unevaluated Wetland
- Woodland
- Conservation Reserve
- Provincial Park

0.2 0 0.08 0.2 Kilometres

Absence of a feature in the map does not mean they do not exist in this area.



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Appendix F

Stage 1 Archaeological Assessment Report

Stage 1 Archaeological Assessment Innisfil Heights Sewage Pumping Station 6 (Lot 9-14, Concessions 7 and 8, Former Township of Innisfil, County of Simcoe) Town of Innisfil, Simcoe County

Original Report

Prepared for:

Ainley Group

280 Pretty River Parkway

Collingwood, Ontario, L9Y 4J5

Archaeological Licence: P383 (Williams)

PIF P383-0305-2021

Archaeological Services Inc. File: 21EA-087

February 9, 2022



Executive Summary

Archaeological Services Inc. was contracted by Ainley Group, on behalf of the Town of Innisfil, to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of Innisfil Heights Sewage Pumping Station #6 Municipal Class Environmental Assessment project. The Environmental Assessment is part of the Innisfil Master Servicing Plan update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. The Master Servicing Plan identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development. Sewage Pumping Station #6 is one of the proposed sewage pumping stations identified along this sewer route.

The Stage 1 background study determined that there are five previously registered archaeological sites located within one kilometre of the Study Area, three of which are located within 50 metres (MHSTCI, 2021). The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment.

In light of these results, the following recommendations are made:

1 Parts of the Study Area exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit and pedestrian survey at five metre intervals. Stage 2 is required prior to any proposed construction activities on these lands;

2 The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees, or being previously assessed. These lands do not require further archaeological assessment; and,

3 Should the proposed work extend beyond the current Study Area, further archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



Project Personnel

- **Senior Project Manager**: Lisa Merritt, MSc. (P094) Partner, Director, Environmental Assessment Division
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- **Report Reviewer**: Lisa Merritt

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1.0 Project Context

Archaeological Services Inc. (ASI) was contracted by Ainley Group, on behalf of the Town of Innisfil, to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of Innisfil Heights Sewage Pumping Station #6 Municipal Class Environmental Assessment project. The Environmental Assessment is part of the Innisfil Master Servicing Plan update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. The Master Servicing Plan identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development. Sewage Pumping Station #6 is one of the proposed sewage pumping stations identified along this sewer route. The Stage 1 Study Area includes Innisfil Beach Road from approximately 480 metres west of Innisbrook Street to 625 metres west of Yonge Street (Figure 1).

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (Ontario Heritage Act, R.S.O. c. O.18, 1990, as amended in 2019) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI 2011).

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act, RSO* (Environmental Assessment Act, R.S.O., 1990 as amended 2020) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (Municipal Class Environmental Assessment, 2000, as amended 2015).

The *County of Simcoe Archaeological Management Plan* (ASI, 2019) was also consulted.

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment and property inspection was granted by Ainley Group on September 2, 2021.

1.1.1 Treaties and Traditional Territories

The Nottawasaga Purchase (Treaty 18)

The Study Area is within the Nottawasaga Purchase (Treaty 18), a provisional agreement sometimes called the Lake Simcoe-Nottawasaga Treaty, signed on October 17, 1818, by representatives of the Government of Upper Canada and the Anishinaabe (Ministry of Indigenous Affairs, 2020; Williams Treaties First Nations, 2021). Treaty 18 encompassed 1,592,000 acres of land between the District of London in the west, Lake Huron in the north, the west limit of the Penetanguishene Purchase (1815) in the east, and the west shore of Lake Simcoe, Cook's Bay, and the Holland River in the northwest. In exchange for the land, the Crown agreed to pay an annual sum of £1200 in goods at the "Montreal price" (Crown-Indigenous Relations and Northern Affairs, 2016; Ministry of Indigenous Affairs, 2020). The Nottawasaga Purchase territory includes the present-day communities of Wasaga, Bradford, and Collingwood.

1.2 Historical Context

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (B.P.) (Ferris, 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 B.P., the environment had progressively warmed (Edwards & Fritz, 1988) and populations now occupied less extensive territories (Ellis & Deller, 1990).

Between approximately 10,000-5,500 B.P., the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling

trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 B.P.; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 B.P. and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Brown, 1995, p. 13; Ellis et al., 1990, 2009).

Between 3,000-2,500 B.P., populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 B.P. and exchange and interaction networks broaden at this time (Spence et al., 1990, pp. 136, 138) and by approximately 2,000 B.P., evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al., 1990, pp. 155, 164). By 1,500 B.P. there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2,300 B.P. - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch & Williamson, 2013, pp. 13–15). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers, 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 B.P., lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (C.E.), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990, p. 317). By 1300-1450 C.E., this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al., 1990, p. 343). The sixteenth century saw the coalescence of these small villages into larger

communities (Birch et al., 2021). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By 1600 C.E., the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonquian allies such as the Nippissing and Odawa) led to the dispersal of the Huron-Wendat. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. By the 1690s however, the Anishinaabeg were the only communities with a permanent presence in southern Ontario. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there was no interruption to Anishinaabeg control and use of southern Ontario.

1.2.2 Post-Contact Settlement

Historically, the Study Area is located in the Township of Innisfil, County of Simcoe in parts of Lots 9 to 14, Concessions 7 and 8.

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the Ontario Heritage Act or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed

lands within 100 metres of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).

Township of Innisfil

The Township of Innisfil was surveyed in 1820 and the first settlement began that year. The township was named after the poetical name for Ireland, Innisfail, by its early settlers. Growth was slow during the first ten years of the township and the first sawmill was not erected until the 1830s and in 1835 a grist mill was constructed. Early settlement focused around Kempenfeldt Bay and the southwestern area of the township was not settled until after 1840. By 1843, the first school was constructed and the following year the Innisfil Methodist Congregation built the first church. The first census of the township recorded a population of only 762 inhabitants, by 1850, the township had a population of 1,807.

Following the connection of the Northern Railway in 1853, the township became an important shipping hub for the lumber industry of central Ontario (Mika & Mika, 1981). With the arrival of the railway a number of communities developed and prospered, Allandale, Lefroy, and Craigvale all boasted stations. On the western border of the township, Thorton was a stop for the Hamilton and Northwestern Railway. Early post office communities included Bramley, Cherry Creek, Fennell, Holly, Innisfil, Killyleagh, Beaumont, Painswick, and Stroud. Today, Innisfil attracts large numbers of tourists and cottagers in the summertime who travel from Toronto via Highway 400 and Highway 11, the northern extension of Yonge Street. This extension travels the length of the township and was built in the late seventeenth century by Colonel John Graves Simcoe from York (Toronto) to Lake Simcoe (Mika & Mika, 1981).

1.2.3 Map Review

The 1871 *Map of the County of Simcoe* (Hogg, 1871), the 1881 *Illustrated Historical Atlas of the County of Simcoe* (Belden, 1881) and the 1928 topographic map of Barrie (Department of National Defence, 1928) were examined to determine the presence of historical features within the Study Area during the nineteenth and twentieth century (Figures 2-5).

The Study Area is shown to be within a rural agricultural context in the nineteenth century. No structures are indicated on the mapping. Present-day 10 Sideroad is illustrated as a road allowance on the mapping and intersects with Innisfil Beach Road in its current location. A small watercourse is shown following a north-south alignment on the east side of 10 Sideroad, terminating just south of its crossing with Innisfil Beach Road.

The further settlement of the area is depicted in mapping from 1881 (Figure 3). Some structures are illustrated within the Study Area, suggesting the establishment of farmsteads within the area. The watercourse indicated in 1871 is shown following a slightly altered course, with additional tributaries illustrated. A rural agricultural context has been maintained. In addition to nineteenth-century mapping, historical topographic maps from the twentieth century were examined. The mapping suggests the road did not continue across the centre of the Study Area through the wetland areas and main branch of the watercourse. It is suggested that the road ends just within the eastern limit of the Study Area and at the intersection of Sideroad 10 in the west.

In the twentieth century the Study Area is illustrated to show slow but steady growth. Topographic mapping from 1928 illustrates additional structures located sporadically along the roadways within the Study Area and surrounding land indicative of rural and agricultural land use (Figure 4). The topographic lines of the mapping show that the Study Area features a low lying wetland in the centre, where the watercourse is located. Treed marshland is illustrated to surround the watercourse that crosses Innisfil Beach Road in several locations. The road is indicated as being constructed through the wetland by this time, with structures carrying the road over the Lover's Creek and its tributary to the west.

By the end of the twentieth century the Study Area has remained primarily unchanged, though an increased development of the surrounding area is indicated. Topographic mapping from 1986 (Figure 6) indicates a slight increase in the number of structures located within the Study Area, particularly near the west boundary. This development in the west portion corresponds with a residential subdivision, labelled "Innisfil Heights," that is constructed on the south side of Innisfil Beach Road just west of the Study Area boundary. Little development continues to be shown in the centre of the Study Area where the marshland and watercourse is located. The map shows Lover's Creek had been channelized into a straight alignment through the Study Area by this time.

1.2.4 Aerial and Orthoimagery Review

Historical aerial imagery from 1954 (Hunting Survey Corporation Limited, 1954) indicates that the primary land use of the Study Area was agricultural and a large section continues to be wooded wetlands (Figure 6). Farmsteads are visible north and south of Regional Road 21. In the northwest corner of the Study Area there is a large woodlot and on the eastern portion of the Study Area the Innisfil watershed and the north-south tributary are clearly visible.

A review of available Google satellite imagery from 2004 to 2021 shows:

- In 2010, residential construction on the property on the southeast corner of Sideroad 10 and Innisfil Beach Road has resulted in deep and extensive disturbance (Image 21).
- In 2013 and 2014, intersection road improvements at Sideroad 10 and Innisfil Beach Road are visible (Image 22).

Section 7.2 of this report displays images of the land disturbances listed above.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological

research: the site record forms for registered sites available online from the MHSTCI through "Ontario's Past Portal"; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

The Study Area consists of a portion of Innisfil Beach Road located between Highway 400 and Yonge Street and includes the roadway's intersection with 10 Sideroad. The Study Area can generally be described as a rural context, with areas of agricultural land use. Innisfil Beach Road is an east-west running roadway that features one lane of traffic in each direction with gravel shoulders and wood or metal guard rails lining both side throughout most of the Study Area. In the west portion of the Study Area, Innisfil Beach Road features steep embankments in some areas as a result of the undulating topography and the location of former watercourses. The properties in this area are typically residential land use on the south side of the roadway and agricultural land use on the north side. There are several woodlots. A hydro transmission corridor is located just east of Innisfil Heights subdivision.

Approaching 10 Sideroad, Innisfil Beach Road widens to accommodate two lanes of traffic in each direction, with added turning lanes. The shoulders are paved in this area with a narrow gravel strip and ditches on both sides of the roadway. The north side of Innisfil Beach Road west of its intersection with 10 Sideroad features a retaining wall that is approximately two metres in height comprised of large masonry blocks. The intersection of Innisfil Beach Road and 10 Sideroad is controlled with traffic lights.

10 Sideroad is a north-south running roadway that features one lane of traffic in each direction, gravel shoulders and shallow ditches. North of its intersection with Innisfil Beach Road the properties on 10 Sideroad generally have an agricultural land use. The properties south of the intersection are rural residential, with large, forested areas.

East of its intersection with 10 Sideroad, Innisfil Beach Road maintains a rural context with some agricultural land use. The roadway returns to carrying one lane of traffic in each direction just beyond the intersection. This area to the east sits

in a slight valley in the topography that ascends in the east end of the Study Area boundary. Within this valley the land contains wetlands and is forested. Property parcels in this area are typically narrow with minimal road frontage. Beyond the wetlands the roadway follows the slight elevation in the topography and an agricultural land use resumes.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow & Warner, 1990, p. Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include elevated topography (eskers, drumlins, large knolls, and plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures,

offerings, rock paintings or carvings. Resource areas, including; food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Study Area is situated within the Peterborough Drumlin Field physiographic region of southern Ontario (Chapman & Putnam, 1984). The Peterborough Drumlin Field extends from Simcoe County east to Hastings County and is generally characterized by rolling till plains overlying limestone bedrock and contains over 3,000 drumlins (Chapman & Putnam, 1984). The drumlins are composed of highly calcareous till but there are local differences in composition. The till plains of the regions were formed during the retreat of the Lake Ontario ice lobe of the Laurentide glacier. Till is produced from the advance of continental glacial ice in which soil and rock is carried forward by the ice, mixed and milled, producing a heterogeneous soil (Chapman & Putnam, 1984). The rolling topography of the Study Area is representative of the drumlin and till formations of this physiographic region. The agricultural history of the area can be connected to the till plains formed through glacial movement.

The surficial geology (Figure 7) of the western portion of the Study Area consists of small patches of foreshore basinal deposits, stone poor, carbonate derived silty to sandy till, alluvial deposits, massive well laminate and organic deposits. The eastern portion of the Study Area consists of larger patches of organic deposits, foreshore basinal deposits and stone poor, carbonate derived silty to sandy till.

Drainage is illustrated in Figure 8. The soil types in the western portion of the Study Area consist of Bondhead, a light grey, calcareous, loam and sandy loam till with good drainage and Alliston, a sandy loam, grey calcareous outwash sand with imperfect drainage. Bondhead is from the Podzolic group and Allison is from the podzol group.

One of the soil types in the eastern portion of the Study Area consist of Muck, a well decomposed organic material over one foot deep which is underlain by rock, sand, silt or clay. It has very poor drainage. The others are Simcoe and Dundonald from the grey-brown podzolic group. Simcoe soil is a calcareous lacustrine varved silt loam and clay with imperfect drainage. Dundonald is a sandy loam with good drainage.

All the lands within the Lake Simcoe watershed ultimately drain into Lake Simcoe, via one of the tributary rivers. The Barrie Creeks, Lovers Creek, and Hewitt's Creek subwatersheds are three of the 18 subwatersheds that make up the Lake Simcoe watershed. All three drain into Kempenfelt Bay, a western arm of Lake Simcoe, which is approximately 37.8 kilometres squared in size, or about 5.5 percent of Lake Simcoe. Lover's Creek is within the Study Area (Image 15). The Lovers Creek subwatershed is 59.9 kilometres squared in area and comprises 2.3 percent of the Lake Simcoe watershed. Lovers Creek is the only named stream within the Lovers Creek subwatershed. It begins in the southern part of the subwatershed, where the headwater portions are channelized, and flows north towards Lake Simcoe. The majority of the subwatershed is within the Town of Innisfil (Lake Simcoe Region Conservation Authority, 2012).

1.3.3 Previously Registered Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D) maintained by the MHSTCI. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 kilometres east to west, and approximately 18.5 kilometres north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block *BbGv.*

According to the O.A.S.D, five previously registered archaeological sites are located within one kilometre of the Study Area, three of which are located within 50 metres. None of sites within 50 metres have further cultural heritage value or interest (MHSTCI, 2021). A summary of the sites is provided below in Table 1.

Table 1: Registered Sites within One Kilometre of the Study Area

Borden number	Site Name	Temporal/ Cultural Affiliation	Site type	Researcher
BbGv-16	Poltree	Late Woodland	Camp	Warrick, 1985
BbGv-17	Hunter	Late Woodland	Camp	Warrick, 1985
BbGv-18	Blubeetle	Late Woodland	Camp	Warrick, 1985
BbGv-34	-	Pre-Contact	Findspot, scatter	ASI 1999, 2000
BbGv-35	-	Pre-Contact	Findspot	ASI 1999, 2000
BbGv-36	-	Pre-Contact	Findspot	ASI 1999

1.3.4 Previous Archaeological Assessments

According to the background research, two previous reports detail fieldwork within 50 metres of the Study Area (see Figure 10: areas highlighted in red):

- ASI (1999) *An Archaeological Assessment of Draft Plan of Innisfil Estate Subdivision N 1 /2 Lot 9, Concession 7, Township of Innisfil, Simcoe County, Ontario [1999-007-164]*

  In 1997 ASI surveyed a former historic homestead which had been relocated from the property. Test pit survey identified artifacts dating to the late 1800s (BbGv-36) and a fieldstone structure, as well as modern disturbances. BbGv-36 was not recommended for further work. In 1999 fieldwork continued with test pit and pedestrian survey at five metre

intervals. Two findspots were identified: BbGv-34 nondiagnostic lithic flakes and BbGv-35 a single flake of Fossil Hill chert. Stage 3 was recommended at both sites to determine the extent of the lithic scatter.

- ASI (2000) *A Stage 3 Archaeological Resource Assessment of Sites BbGv-34 and BbGv-35 North Half of Lot 9, Concession 7, Innisfil Township, County of Simcoe, Ontario [2000-016-095]*

  Stage 3 consisted of a re-examination of the site locations, including a controlled surface collection. No additional material was encountered at BbGv-35. Six flakes were identified at BbGv-34. Seven one-metre test units were excavated. No intact cultural deposits or features were noted, and an additional 29 lithic artifacts were recovered. Both sites were cleared of further archaeological concern.

2.0 Field Methods

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Blake Williams (P383) of ASI, on November 15th, 2021, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a systematic visual inspection from public right-of-ways only and did not include excavation or collection of archaeological resources. Fieldwork was conducted when weather conditions were deemed clear with good visibility (partly cloudy with seasonal temperatures), per S & G Section 1.2., Standard 2. Field observations are compiled onto the existing conditions of the Study Area in Section 8.0 (Figures 10 and 11) and associated photographic plates are presented in Section 7.0 (Images 1-22).

3.0 Analysis and Conclusions

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. Results of the analysis of the Study Area property inspection and background research are presented in Section 3.1.

3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (See Table 1);
- Water sources: primary, secondary, or past water source (Innisfil Heights wetland, Lover's Creek);
- Early historic transportation routes (Regional Road 21, 10 Sideroad);
- Proximity to early settlements (Innisfil); and
- Well-drained soils (Bondhead, Dundonald)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no properties within the Study Area are Listed or Designated under the Ontario Heritage Act.

The *County of Simcoe Archaeological Management Plan* (ASI, 2019) was also consulted (Figure 7). The majority of the Study Area is identified as having archaeological potential except for the low and wet sections. Low and wet sections were determined by creating a 250 metres buffer distance from rivers and streams, lakes and ponds, wetlands and former river courses (alluvial soils) (ASI, 2019).

These criteria are indicative of potential for the identification of archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

According to the S & G Section 2.1.1, pedestrian survey is required in actively or recently cultivated fields (Images 8, 9, 17, 20); Figures 10-11: areas highlighted in orange).

Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or rocky pasture, and narrow linear corridors up to 10 metres wide (Images 6, 14; Figures 10-11: areas highlighted in green).

Part of the Study Area has been previously assessed and does not require further archaeological assessments (Figure 10: area highlighted in red).

A part of the Study Area is located within low lying wet areas determined by the property inspection and reference to the *County of Simcoe Archaeological Management Plan* (ASI, 2019), twentieth-century topographic mapping analysed in Section 1.2.3, and modern ESRI topographic mapping (ESRI 2021). According to the S & G Section 2.1 these areas do not retain potential (Images 11, 12, 14; Figures 10-11: areas highlighted in blue). These areas do not require further survey. In addition, map review indicates that the course of Lover Creek has been channelized into a straight alignment through the Study Area (Section 1.2.3).

A combination of property inspection and assessment of topographic mapping (ESRI 2021) determined that some of lands within the Study Area are sloped in excess of 20 degrees, and according to the S & G Section 2.1 do not retain

potential (Images 1, 2, 3, 5 ; Figure 10: areas highlighted in pink). These areas do not require further survey.

The remainder of the Study Area has been subjected to deep and extensive soil disturbance events caused by the construction of gravel roads, elevated paved roads and the installation of buried infrastructure components. According to the S & G Section 1.3.2 these areas do not retain archaeological potential (Images 6, 7, 10, 13, 16, 18, 19); Figures 10-11: areas highlighted in yellow) and do not require further survey.

3.2 Conclusions

The Stage 1 background study determined that there are five previously registered archaeological sites located within one kilometre of the Study Area, three of which are located within 50 metres and do not have further cultural heritage value or interest. The report determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment.

4.0 Recommendations

In light of these results, the following recommendations are made:

1 Parts of the Study Area exhibit archaeological potential. These lands require Stage 2 archaeological assessment by test pit and pedestrian survey at five metre intervals. Stage 2 is required prior to any proposed construction activities on these lands;

2 The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance, low and wet conditions, slopes in excess of 20 degrees, or being previously assessed. These lands do not require further archaeological assessment; and,

3 Should the proposed work extend beyond the current Study Area, further archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Heritage, Sport, Tourism and Culture Industries should be immediately notified.

The above recommendations are subject to Ministry approval and it is an offence to alter any archaeological site without Ministry of Heritage, Sport, Tourism and Culture Industries concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of MHSTCI approval has been received.

5.0 Legislation Compliance Advice

ASI advises compliance with the following legislation:

- This report is submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 2005, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation, and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the Ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.

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

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

- The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the

Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.

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7.0 Images

7.1 Field Photography



Image 1: Gravel laneway south of Innisfil Beach Road; sloped and disturbed, no potential.



Image 2: North of Innisfil Beach Road; sloped forested area and disturbed road bed, no potential.



Image 3: South of Innisfil Beach Road; area beyond slope requires Stage 2 test pit survey.



Image 4: South of Innisfil Beach Road; foreground shows natural gas pipeline and hydro pole, disturbed no potential. Lands beyond disturbed area have potential, require Stage 2.



Image 5: North of Innisfil Beach Road; sloped; no potential.



Image 6: North of Innisfil Beach Road; Stage 2 test pitting required beyond disturbed road bed.



Image 7: South of Innisfil Beach Road; disturbed road bed; no potential.



Image 8: North of Innisfil Beach Road; agricultural field, requires Stage 2 pedestrian survey.



Image 9: North of Innisfil Beach Road; agricultural field, requires Stage 2 pedestrian survey, beyond disturbed road right of way.



Image 10: South of Innisfil Beach Road; disturbed, no potential.



Image 11: East of side Road 10; low and wet marsh, no potential.



Image 12: East of Side Road 10; low and wet marsh, no potential.



Image 13: South of Innisfil Beach Road; disturbed, no potential.



Image 14: North of Innisfil Beach Road; low and wet, no potential. Upland areas beyond marsh have potential, require Stage 2 survey.



Image 15: Lover's Creek; low and wet beyond channelized creek, no potential.



Image 16: Spring Tree Farm Corporation. Test pit survey required beyond disturbed parking area, access road and outbuildings.



Image 17: North of Innisfil Beach Road; agricultural field, requires Stage 2 pedestrian survey.



Image 18: South of Innisfil Beach Road; area to right of drive has been graded and filled, disturbed, no potential. Treed and scrub lands to left require Stage 2 survey.



Image 19: South of Innisfil Beach Road; lawns around the disturbed parking lot require Stage 2 test pit survey.



Image 20: South of Innisfil Beach Road; agricultural field requires Stage 2 pedestrian survey.

7.2 Historical Imagery



Image 21: 2010 Google Earth orthoimagery of the property on the southeast corner of Sideroad 10 and Innisfil Beach. Note topsoil stripping and grading associated with residential construction disturbance.

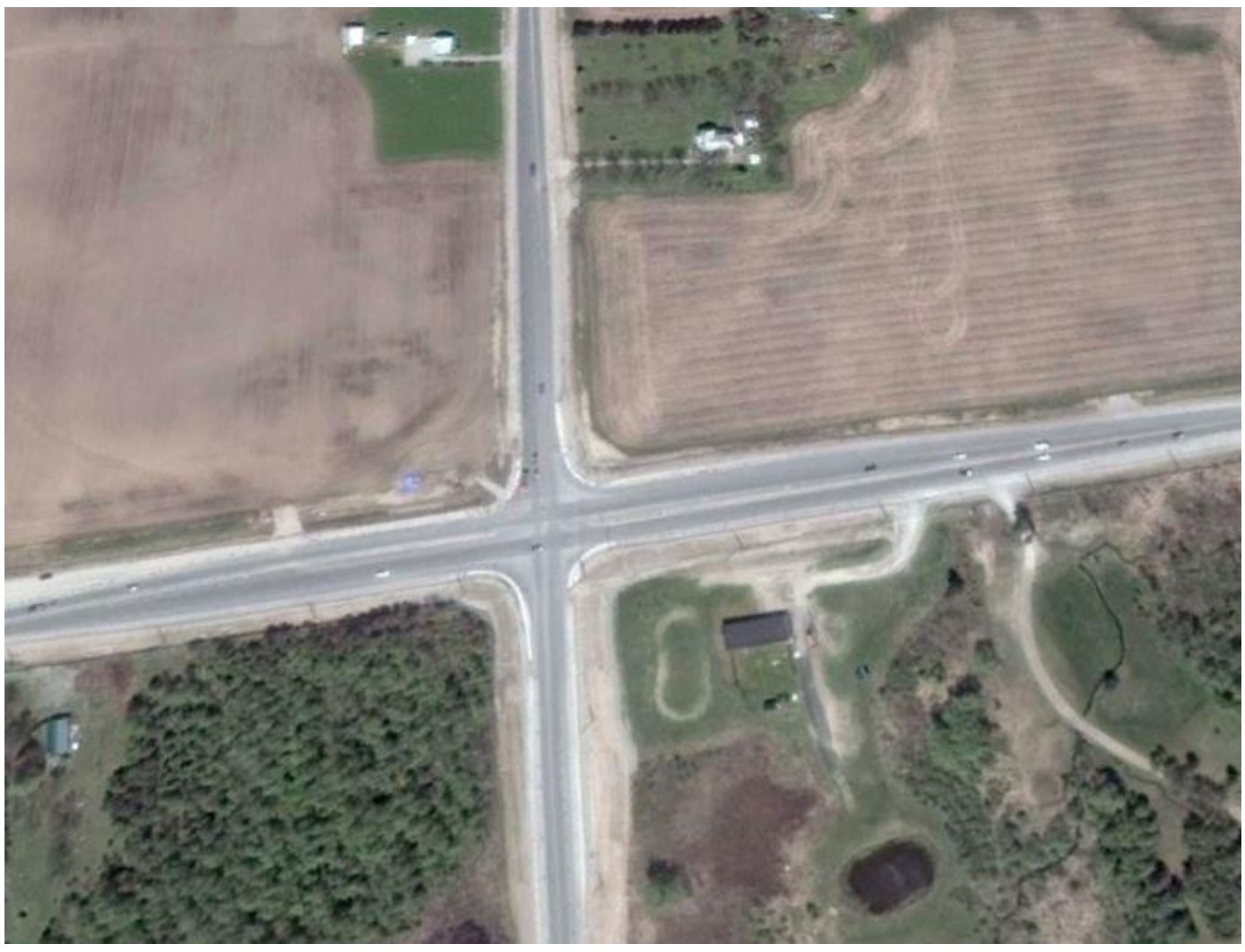


Image 22: Google Earth orthoimagery of intersection road improvements at Sideroad 10 and Innisfil Beach road in 2014.

8.0 Maps

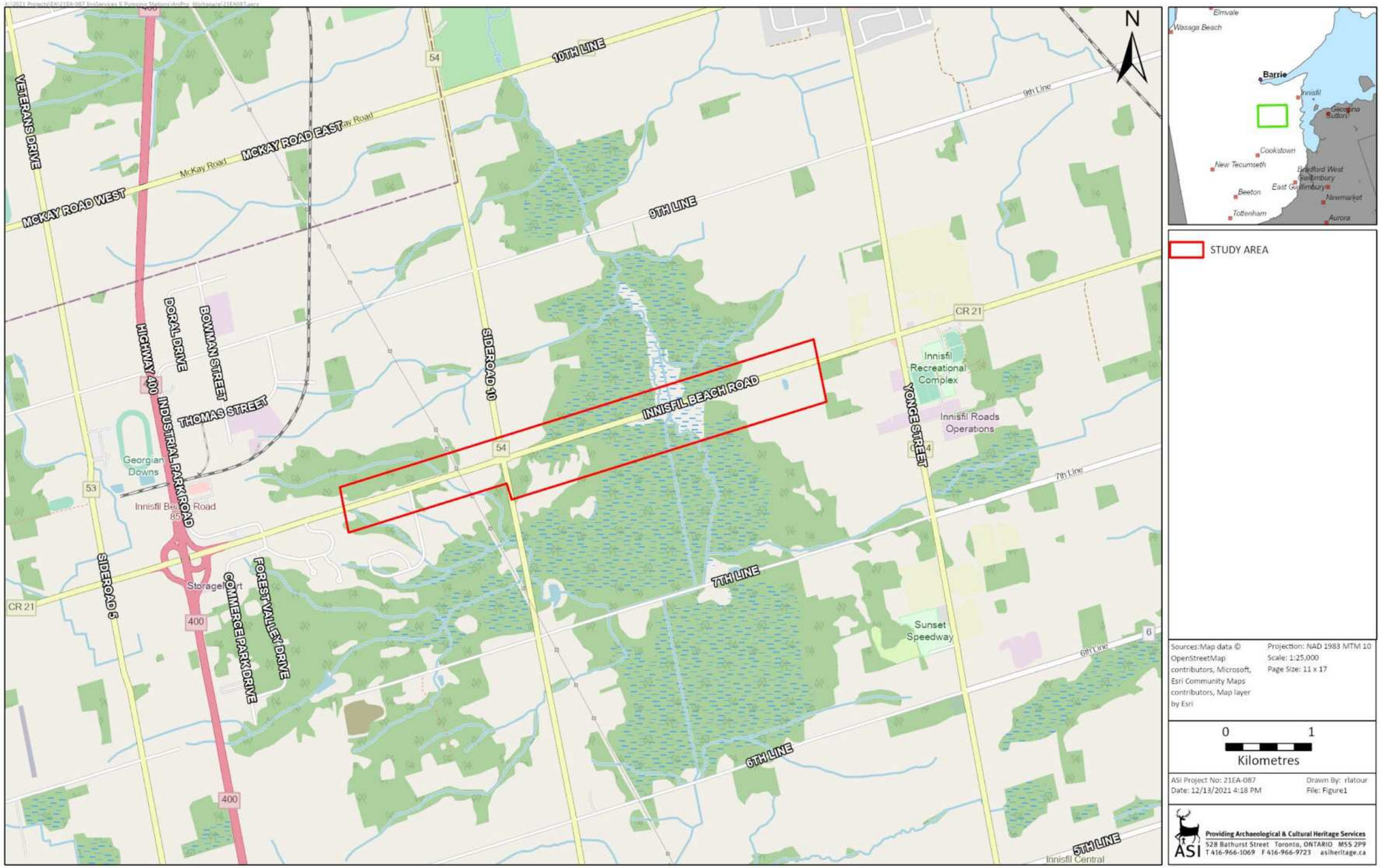


Figure 1: Innisfil Heights Sewage Pumping Station #6 Study Area

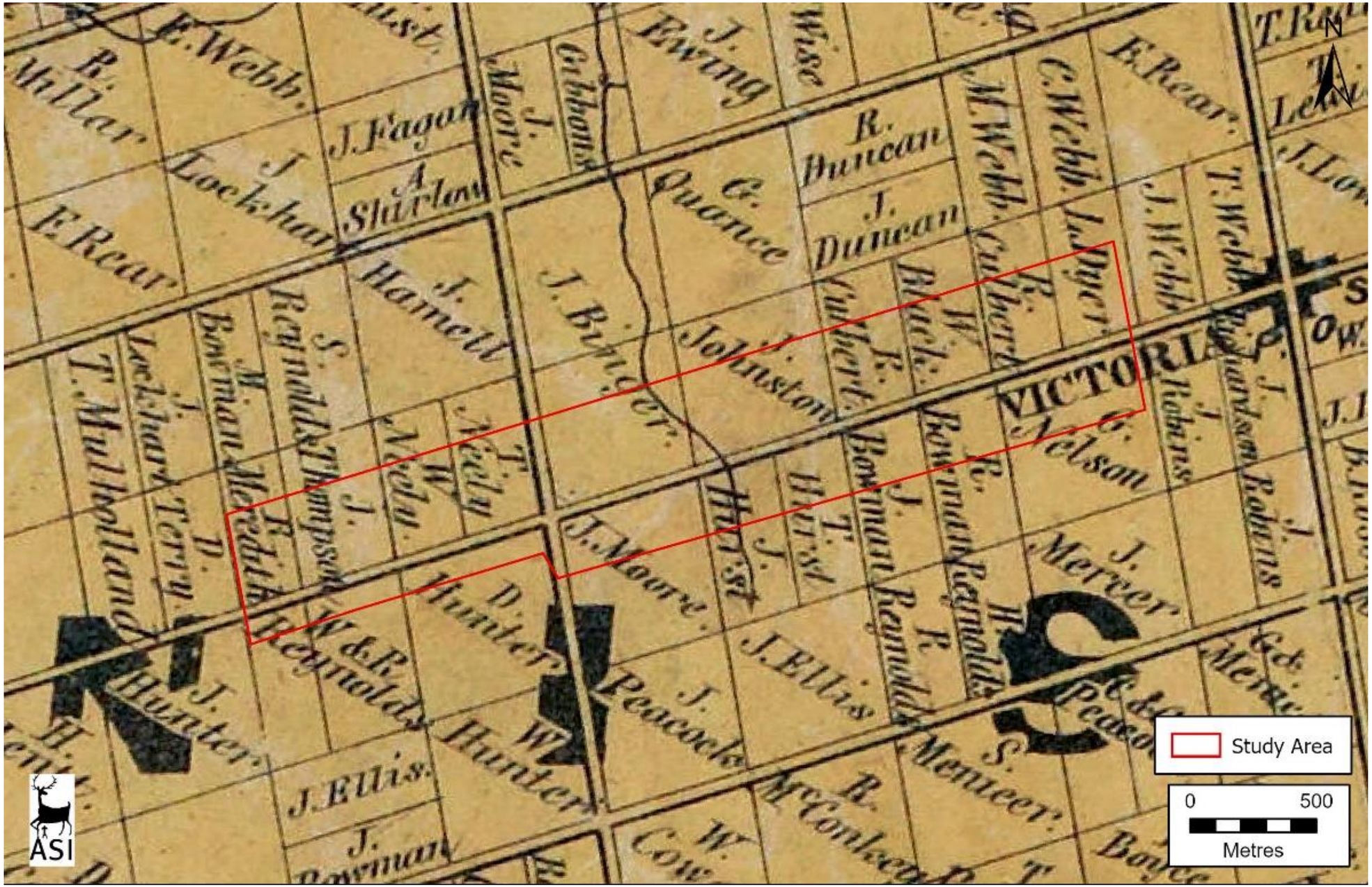


Figure 2: The Study Area overlaid on the 1871 Hoggs Map of the County of Simcoe (Base Map:(Hogg, 1871).

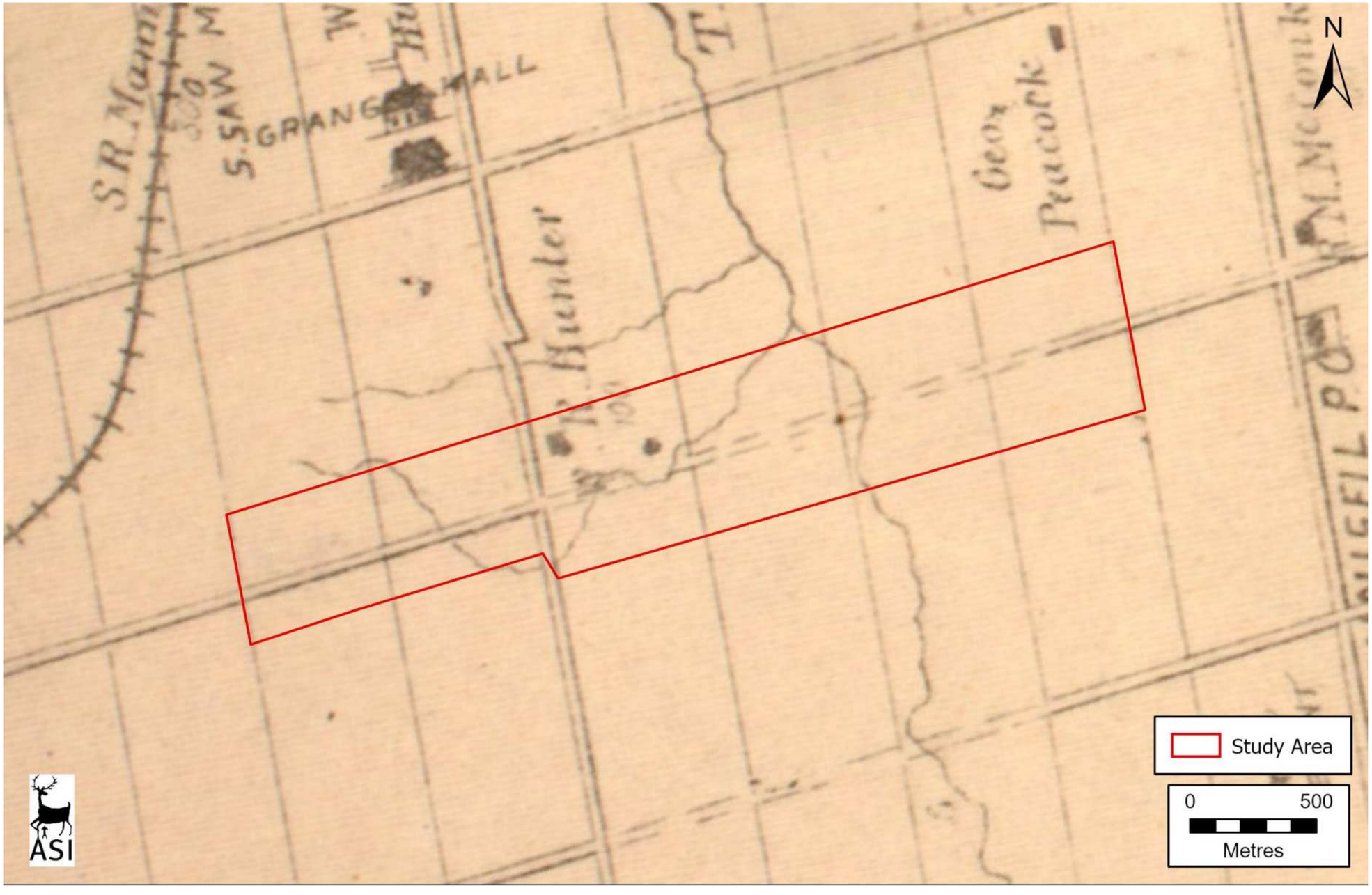


Figure 3: The Study Area overlaid on the 1881 Historical Atlas of the County of Simcoe (Base Map: (Belden, 1881).

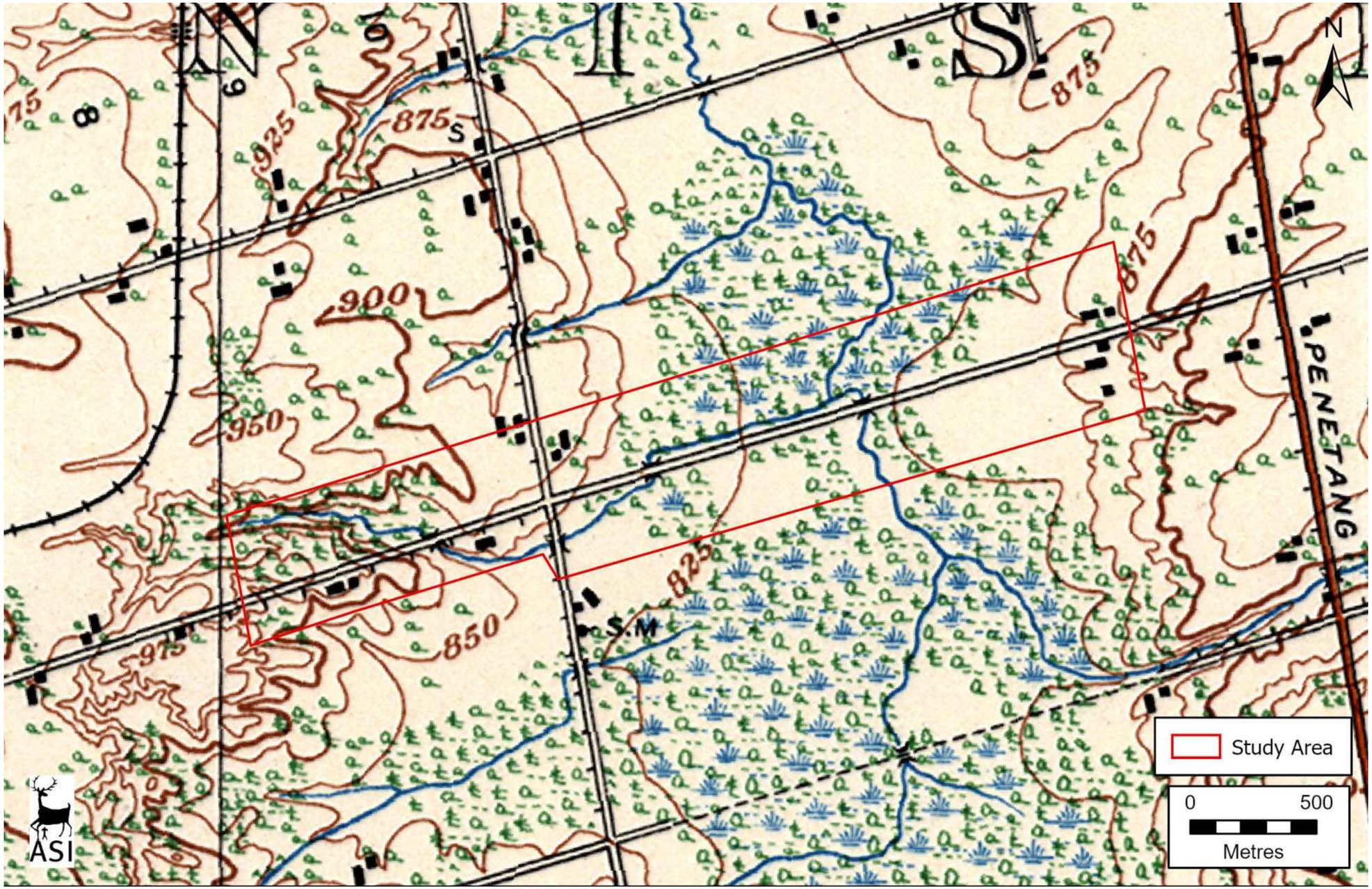


Figure 4: The Study Area overlaid on the 1928 topographic map of Barrie (Base Map: (Department of National Defence, 1928).

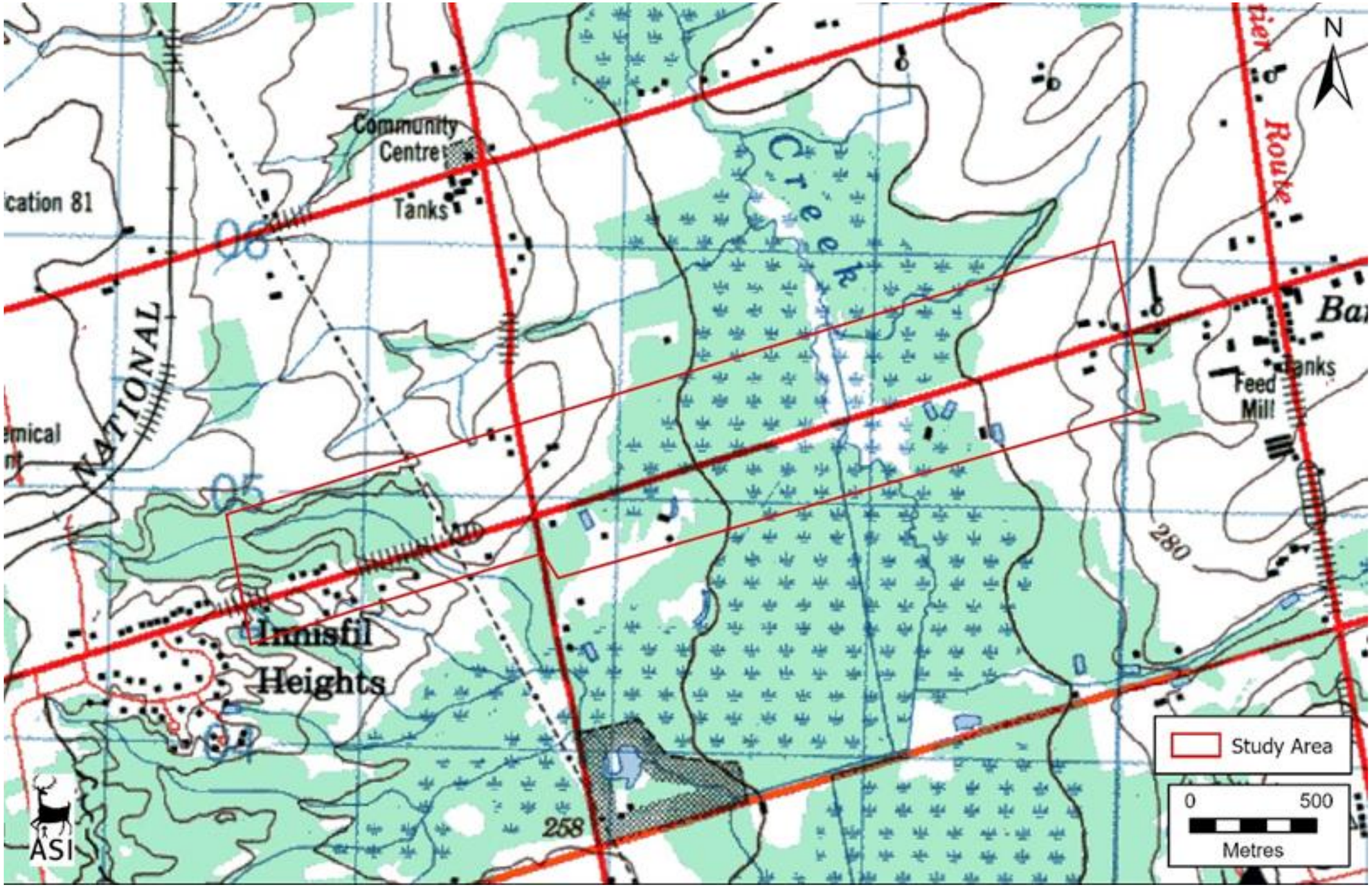


Figure 5: The Study Area overlaid on the 1986 topographic map of Barrie (Base Map: (Department of Energy, Mines and Resources, 1986).



Figure 6: The Study Area overlaid on the 1954 aerial photograph of Innisfil (Base Map: (Hunting Survey Corporation Limited, 1954).

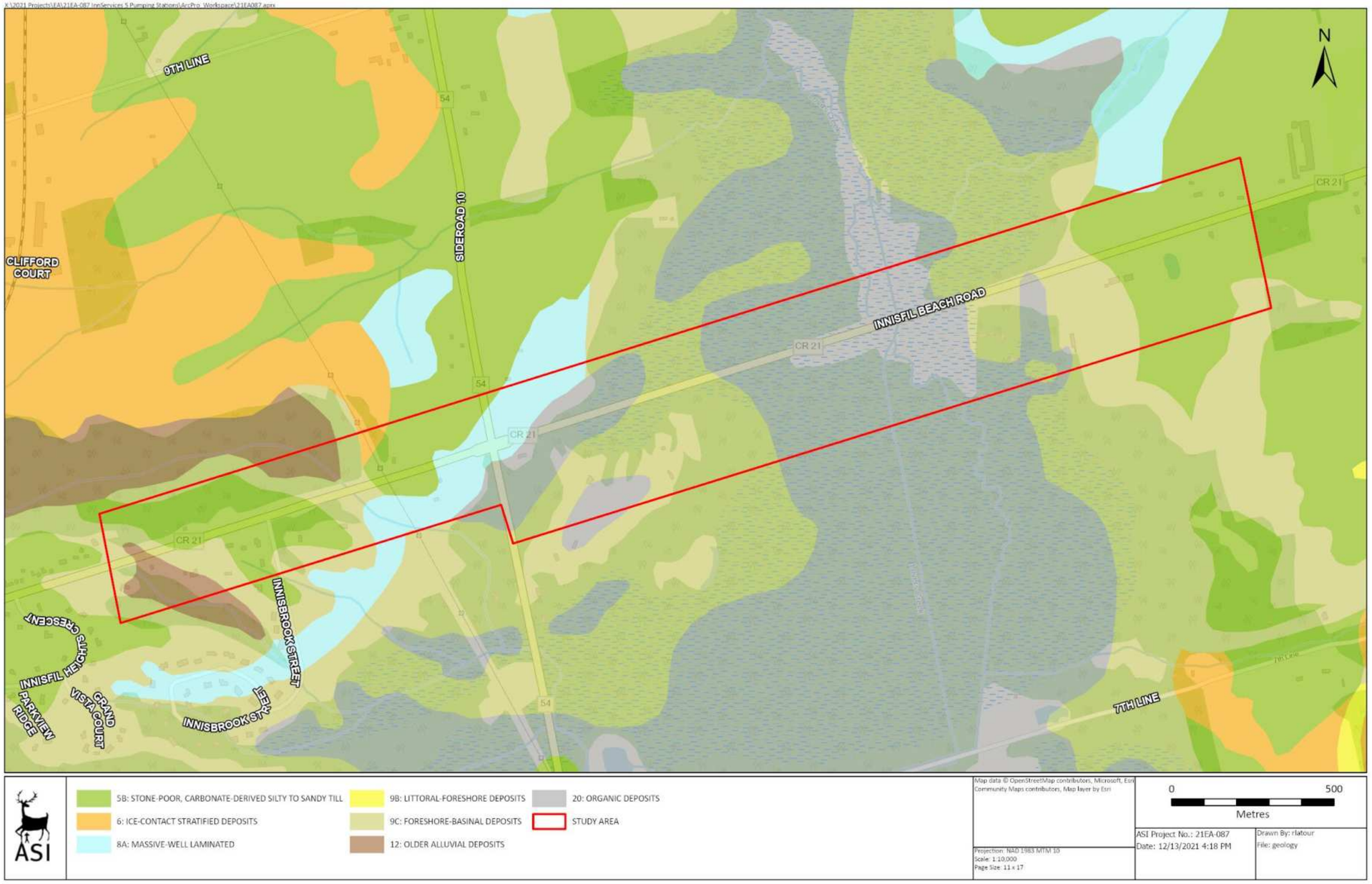


Figure 7: Study Area – Surficial Geology

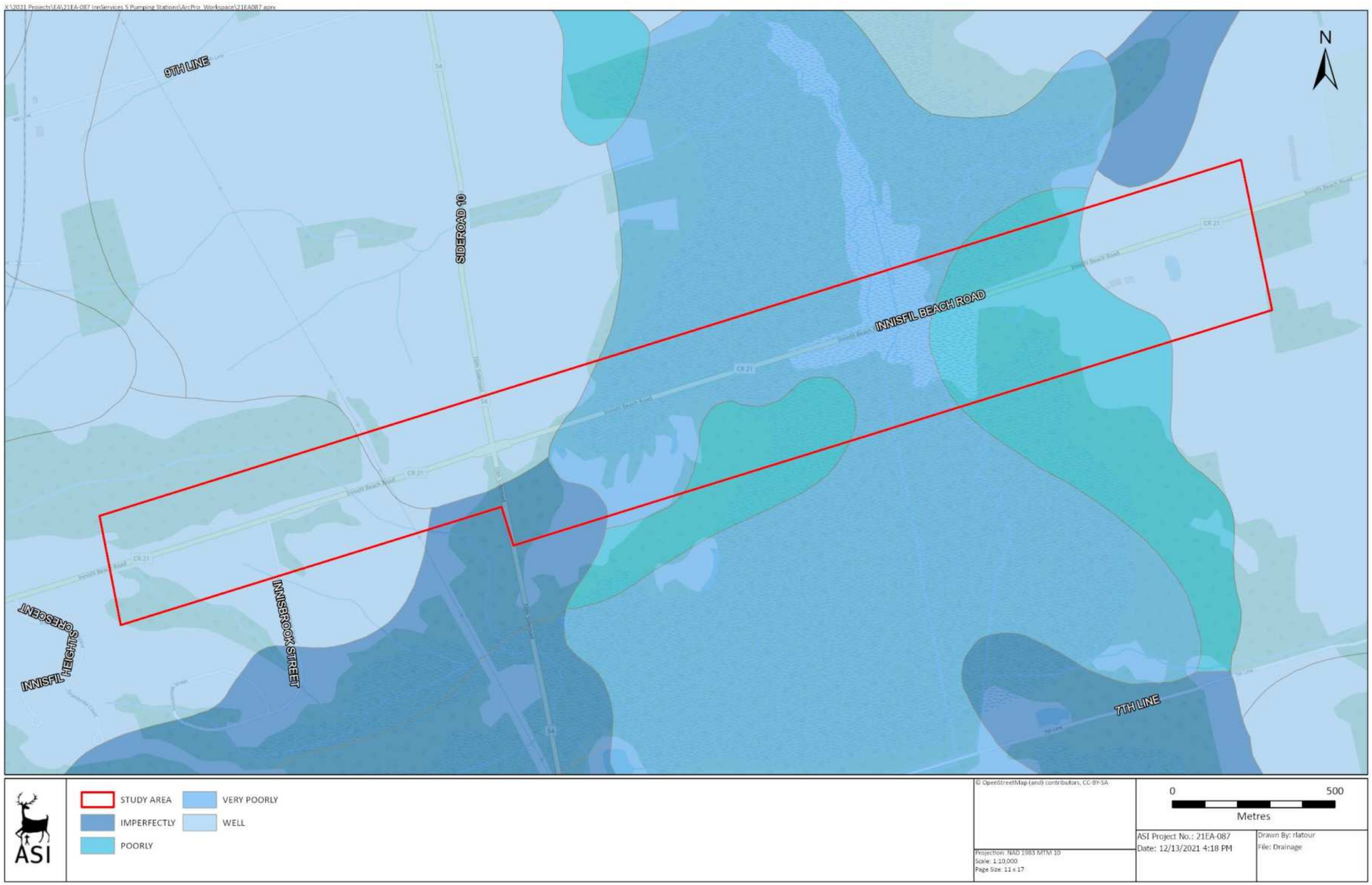


Figure 8: Study Area - Soil Drainage



Figure 9: Archaeological Potential Modeling from the County of Simcoe Archaeological Management Plan (ASI, 2019).

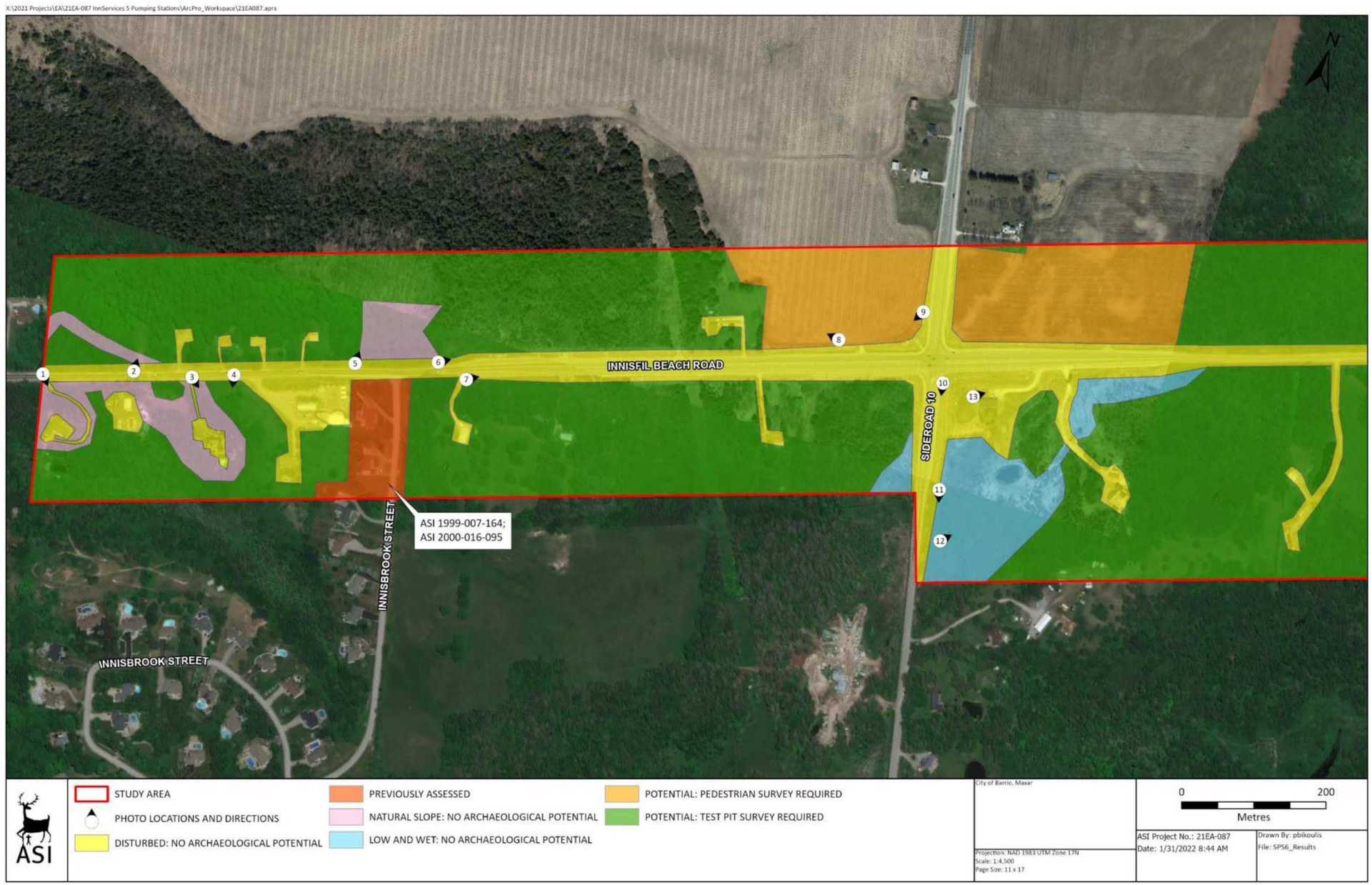


Figure 10: Stage 1 Results for Innisfil Heights Sewage Pumping Station #6 – Sheet 1

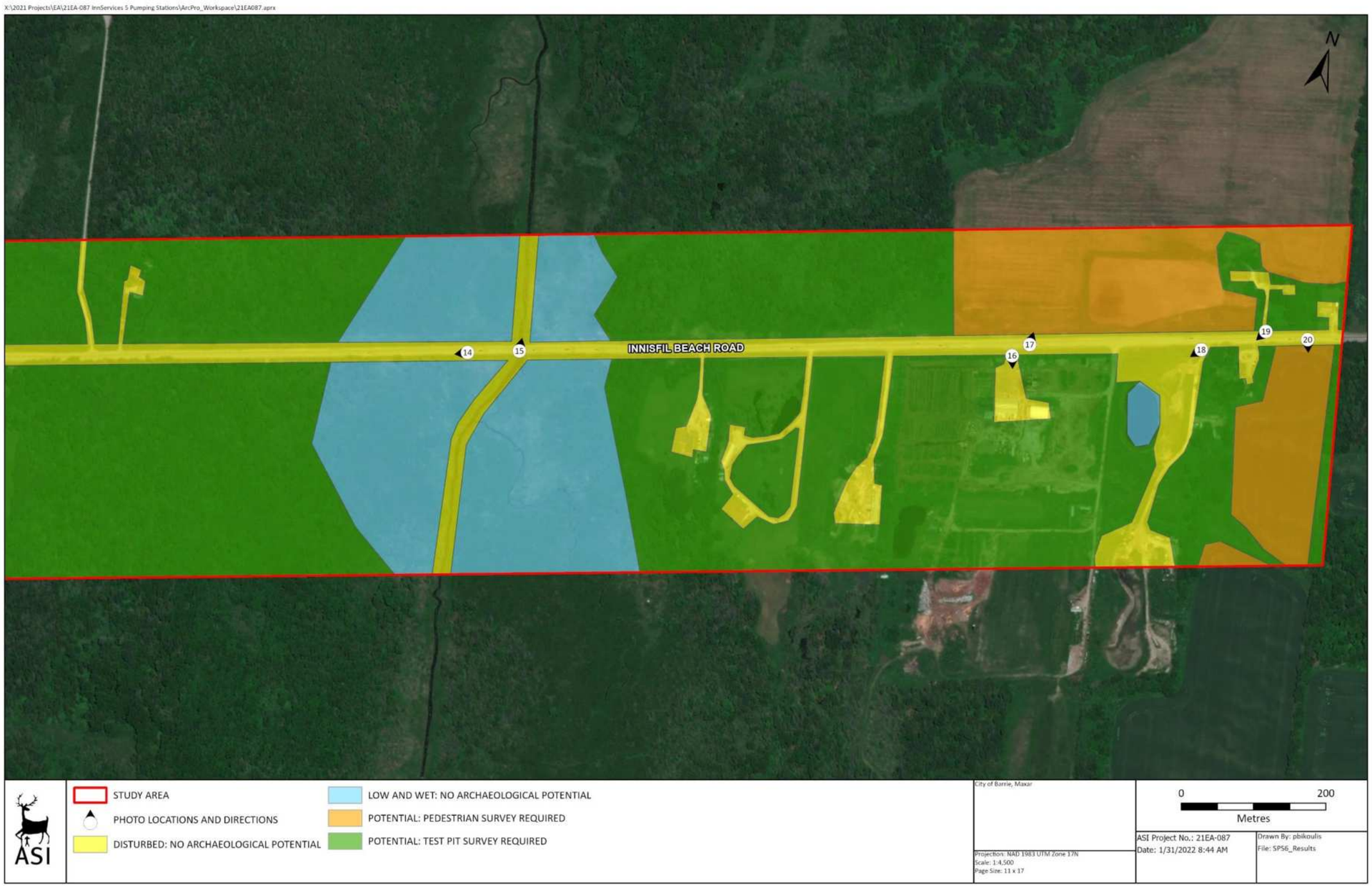


Figure 11: Stage 1 Results for Innisfil Heights Sewage Pumping Station #6 – Sheet 2

Appendix G

Stage 2 Archaeological Assessment Report

Stage 2 Archaeological Assessment Innisfil Heights Sewage Pumping Station 6 (Part of Lot 11, Concession 8 Geographical Township of Innisfil, County of Simcoe) Town of Innisfil, Simcoe County

Original Report

Prepared for:

Ainley Group
280 Pretty River Parkway
Collingwood, Ontario, L9Y 4J5

Archaeological Licence: P094 (Merritt)

PIF P094-0416-2024

Archaeological Services Inc. File: 24EA-075

25 September 24



Executive Summary

Archaeological Services Inc. (ASI) was contracted by Ainley Group, on behalf of InnServices Utilities Inc., to conduct a Stage 2 Archaeological Assessment as part of the Innisfil Heights Sewage Pumping Station 6 project. This project is part of the Innisfil Master Servicing Plan update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, as area designated as a Strategic Settlement Employment Area. The Master Servicing Plan identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road. Sewage Pumping Station 6 is one of the proposed pumping stations identified along the sewer route. The proposed location is located in an agricultural field north of Innisfil Road, east of Sideroad 10.

A Stage 1 assessment for the Sewage Pumping Station 6 project was previously completed by ASI in 2022. Background research and a property inspection determined that the Study Area retained archaeological potential and Stage 2 pedestrian survey at five metre intervals was recommended.

Stage 2 pedestrian survey at five metre intervals was conducted on September 6, 2024, in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

No archaeological resources were encountered during the Stage 2 survey, and no further archaeological assessment is recommended.

Project Personnel

- **Principal & Project Director**: Lisa Merritt, MSc (P094) Partner, Director, Environmental Assessment Division
- **Project Manager**: Sarah Jagelewski, BA Hons (R405), Lead Archaeologist, Manager, Environmental Assessment Division
- **Division Coordinator**: Katrina Thach, BA Hons (R1225), Associate Archaeologist, Assistant Manager, Environmental Assessment Division
- **Project Administrator**: Justine Tenzer, BA Hons, Archaeologist, Project Administrator, Environmental Assessment Division
- **Field Director**: Megan Edwards, BA Hons (R1343), Archaeologist, Field Director, Environmental Assessment Division
- **Field Archaeologists**: Radu El Fakih Calina; James Mellon; Will Reimer
- **Report Preparation**: Laura Burke, BA Hons (R1113), Associate Archaeologist, Technical Writer and Researcher, Environmental Assessment Division
- **Graphics**: Peter Bikoulis, PhD, Archaeologist, GIS Technician, Operation Division; Jonas Fernandez, MSc (R281), Lead Archaeologist, Manager - Geomatics, Operations Division; Carolyn Nettleton, BA, Archaeologist, GIS Technician, Operation Division
- **Report Review:** Sarah Jagelewski; Jessica Lytle, MSc (P1066), Lead Archaeologist, Technical Writer and Fieldwork Coordinator;

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1.0 Project Context

Archaeological Services Inc. (ASI) was contracted by Ainley Group, on behalf of InnServices Utilities Inc., to conduct a Stage 2 Archaeological Assessment as part of the Innisfil Heights Sewage Pumping Station 6 project. This project is part of the Innisfil Master Servicing Plan update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, as area designated as a Strategic Settlement Employment Area. The Master Servicing Plan identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road. Sewage Pumping Station 6 is one of the proposed pumping stations identified along the sewer route. The proposed location is located in an agricultural field north of Innisfil Road, east of Sideroad 10.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2024) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), currently administered by the Ministry of Citizenship and Multiculturalism (MCM), formerly the Ministry of Tourism and Culture (MTC 2011).

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act, RSO* (Environmental Assessment Act, R.S.O. c. E.18, 1990 as amended 2024) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the *Municipal Class Environmental Assessment* process (Municipal Engineers Association, 2023).

In addition, this Stage 2 assessment has been commissioned to satisfy the recommendations of the previous Stage 1 assessment (ASI, 2022; P383-0305-2021) which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area.

Ainley Group have been actively engaging with Indigenous communities who have expressed an interest in the archaeological work within the Study Area for

this project on behalf of the InnServices Utilities Inc. No archaeological monitors were present during the Stage 2 survey.

Authorization to access and carry out all activities necessary for the completion of this Stage 2 assessment was granted by Ainley Group on July 9, 2024.

1.1.1 Treaties and Traditional Territories

The Study Area is within the Nottawasaga Purchase (Treaty 18), a provisional agreement sometimes called the Lake Simcoe-Nottawasaga Treaty, signed on October 17, 1818, by representatives of the Government of Upper Canada and the Anishinaabe (Ministry of Indigenous Affairs, 2020). Treaty 18 encompassed 1,592,000 acres of land between the District of London in the west, Lake Huron in the north, the west limit of the Penetanguishene Purchase (1815) in the east, and the west shore of Lake Simcoe, Cook's Bay, and the Holland River in the northwest. In exchange for the land, the Crown agreed to pay an annual sum of £1200 in goods at the "Montreal price" Ministry of Indigenous Affairs, 2020). The Nottawasaga Purchase territory includes the present-day communities of Wasaga, Bradford, and Collingwood.

1.2 Historical Context

A comprehensive review of the precontact Indigenous and Euro-Canadian occupations of the Innisfil region is presented in the Stage 1 report (ASI, 2022: p. 8 to 13). To summarize, background research indicates that the general vicinity of the Study Area has been attractive to human settlement for thousands of years, primarily by Indigenous people and more recently by Euro-Canadian settlers. Historically, the Study Area is within Lot 11, Concession 8 in the Geographical Township of Innisfil, County of Simcoe, Ontario.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of

information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MCM through *Ontario's Past Portal*; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

The Study Area is located within an active agricultural field north of Innisfil Road, east of 10 Sideroad. 10 Sideroad is a north-south running roadway that features one lane of traffic in each direction, gravel shoulders and shallow ditches. North of its intersection with Innisfil Beach Road the properties on 10 Sideroad generally have an agricultural land use. The properties south of the intersection are rural residential, with large, forested areas. East of its intersection with 10 Sideroad, Innisfil Beach Road maintains a rural context with some agricultural land use.

The Stage 2 survey for the Sewage Pumping Station 6 project was conducted on September 6, 2024, under the field direction of Megan Edwards (R1343).

1.3.2 Geography

A comprehensive summary of the geology and physiography of the Innisfil region is presented in the Stage 1 report (ASI, 2022; p. 15 to 17). To summarize, the Study Area is situated within the drumlinized till plains of the Peterborough Drumlin Field physiographic region of southern Ontario (Chapman & Putnam, 1984). The Peterborough Drumlin Field extends from Simcoe County east to Hastings County and is generally characterized by rolling till plains overlying limestone bedrock and contains over 3,000 drumlins (Chapman & Putnam, 1984). The drumlins are composed of highly calcareous till but there are local differences in composition. The till plains of the regions were formed during the retreat of the Lake Ontario ice lobe of the Laurentide glacier. Till is produced from the advance of continental glacial ice in which soil and rock is carried forward by the ice, mixed and milled, producing a heterogeneous soil (Chapman & Putnam, 1984). The rolling topography of the Study Area is representative of the drumlin and till formations of this physiographic region. The agricultural history of the area can be connected to the till plains formed through glacial movement.

The surficial geology of the Study Area consists of organic deposits of peat, muck and marl. There are two soil types within the Study Area, Bondhead, a sandy loam with good drainage and Muck, decomposed organic material with poor drainage (Soil Research Institute, 1959).

Lover's Creek is located east of the Study Area. The Lover's Creek subwatershed is 59.9 square kilometres and comprises 2.3 percent of the larger Lake Simcoe watershed. The majority of the subwatershed is within the Town of Innisfil (Lake Simcoe Region Conservation Authority, 2012).

1.3.3 Previously Registered Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database maintained by the MCM. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 kilometres east to west, and approximately 18.5 kilometres north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block *BbGv.*

According to the Ontario Archaeological Sites Database, there are no previously registered archaeological sites located within one kilometre of the Study Area (MCM, 2024). A summary of the sites is provided below.

1.3.4 Previous Archaeological Assessments

ASI reviewed previous archaeological assessments that detail fieldwork within 50 metres of the Study Area. Only those specific archaeological assessments of direct relevance to the present undertaking have been included here.

Reports within the Study Area

(ASI, 2022) Stage 1 Archaeological Assessment, Innisfil Heights Sewage Pumping Station 6, (Lot 9-14, Concessions 7 and 8, Former Township of Innisfil, County of Simcoe), Town of Innisfil, Simcoe County. P383-0305-2021. ASI file 21EA-087

ASI conducted a Stage 1 assessment as part of the Innisfil Heights Sewage Pumping Station 6 Municipal Class Environmental Assessment project, which contains the current Study Area. The project area was determined to exhibit archaeological potential, and Stage 2 pedestrian survey at five metre intervals was recommended.

2.0 Field Methods

The Stage 2 Study Area is located entirely within an agricultural field located north of Innisfil Road and east of 10 Sideroad (Figure 1). It measures approximately 30 metres by 30 metres in size and covers an area of 0.09 hectares.

The Stage 2 property survey was conducted under the field direction of Megan Edwards (R1343) on September 6, 2024, in accordance with the *Ontario Heritage Act* and the S & G, Section 2. During the field assessments, weather and lighting conditions permitted good visibility and were in accordance with the S & G, Section 2.1, Standard 3. During the time of survey, conditions were seasonal with partly sunny skies and temperatures of 18 degrees Celsius. Photographs of all field conditions were taken (Image 1 and Image 2), and the location and direction of each photograph is mapped in Figure 2.

The Stage 2 Study Area includes 0.09 hectares of actively farmed agricultural lands with clay-loam soils. Prior to the initiation of survey, all agricultural lands within the Study Area were ploughed, disked, and allowed to weather over several rainfalls. The field preparation methods used meet the requirements of S & G Section 2.1.1, Standards 1-5 for pedestrian survey. All standards were met; ploughing was deep enough to provide total topsoil exposure, but not deeper than previous ploughing and weathering was excellent resulting in surface visibility greater than 80 percent (Image 1 and Image 2). These lands were then

subject to pedestrian survey at five metre intervals following S & G Section 2.1.1, Standards 6-9.

Fieldwork was conducted using a Samsung Galaxy S4 tablet running Esri Collector software equipped with a sub-metre Trimble Catalyst Global Navigation Satellite System in conjunction with project mapping provided by the Town of Innisfil to ensure the assessment remained within the Study Area limits.

A summary of the Stage 2 assessment results for the Sewage Pumping Station 6 Project can be found in Table 1 below.

Table 1: Stage 2 Survey Results Summary

Survey Method	Area	Description	Images
Pedestrian survey; five metre intervals	0.09 hectares (100 percent)	Agricultural field	Image 1 Image 2

3.0 Record of Finds

No archaeological resources were encountered during the course of the Stage 2 Archaeological Assessment for the Sewage Pumping Station 6 project.

3.1 Inventory of Documentary and Material Record

The documentation related to this archaeological assessment will be curated by ASI until such a time that arrangements for their ultimate transfer to His Majesty the King in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the MCM, and any other legitimate interest groups.

Table 2 provides an inventory and location of the documentary and material record for the project in accordance with the S & G, Sections 6.7 and 7.8.2.3.

Table 2: Inventory of Documentary and Material Record

Material	Location	Comments
Digital field notes, field maps, GPS logs, etc.	Archaeological Services Inc., 528 Bathurst Street, Toronto, Ontario, M5S 2P9	Stored in ASI project folder 24EA-075, GPS and digital information stored on ASI network servers
Digital field photography	Same as above	Files stored on ASI network servers
Digital research, analysis, and reporting materials	Same as above	Files stored on ASI network servers

4.0 Analysis and Conclusions

ASI was contracted by Ainley Group, on behalf of the InnServices Utilities Inc. to conduct a Stage 2 Archaeological Assessment as part of the Innisfil Heights Sewage Pumping Station 6 project (Figure 1). This project involves the development of a new sewage pumping station located in an agricultural field north of Innisfil Road, east of 10 Sideroad.

A Stage 1 assessment for the Sewage Pumping Station 6 project was previously completed by ASI in 2022. Background research and a property inspection determined that the Study Area retained archaeological potential and Stage 2 pedestrian survey at five metre intervals was recommended.

The Stage 2 pedestrian survey was conducted on September 6, 2024, in accordance with the *Ontario Heritage Act* and the S & G. No archaeological resources were encountered during the Stage 2 survey, and no further archaeological assessment is recommended.

5.0 Recommendations

In light of these results, the following recommendations are made:

1. The Sewage Pumping Station 6 Study Area does not require further archaeological assessment; and

2. Should the proposed work extend beyond the current Study Area, or should changes to the project design or temporary workspace requirements result in the inclusion of previously un-surveyed lands, these lands should be subject to a further archaeological assessment.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Archaeology Programs Unit of the MCM should be immediately notified.

The above recommendations are subject to Ministry approval, and it is an offence to alter any archaeological site without MCM concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of MCM approval has been received.

6.0 Legislation Compliance Advice

ASI advises compliance with the following legislation:

- This report is submitted to the Ministry of Citizenship and Multiculturalism as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 2005, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation, and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the

project area of a development proposal have been addressed to the satisfaction of the Ministry of Citizenship and Multiculturalism, a letter will be issued by the Ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.

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

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

- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.

7.0 Bibliography and Sources

ASI, (Archaeological Services Inc.). (2022). Stage 1 Archaeological Assessment, Innisfil Heights Sewage Pumping Station 6, (Lot 9-14, Concessions 7 and 8, Former Township of Innisfil, County of Simcoe), Town of Innisfil, Simcoe County. P383-0305-2021. Report on File with the Ministry of Citizenship and Multiculturalism.

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8.0 Images



Image 1: Pedestrian survey at five metre intervals



Image 2: Representative photo of soil conditions

9.0 Maps

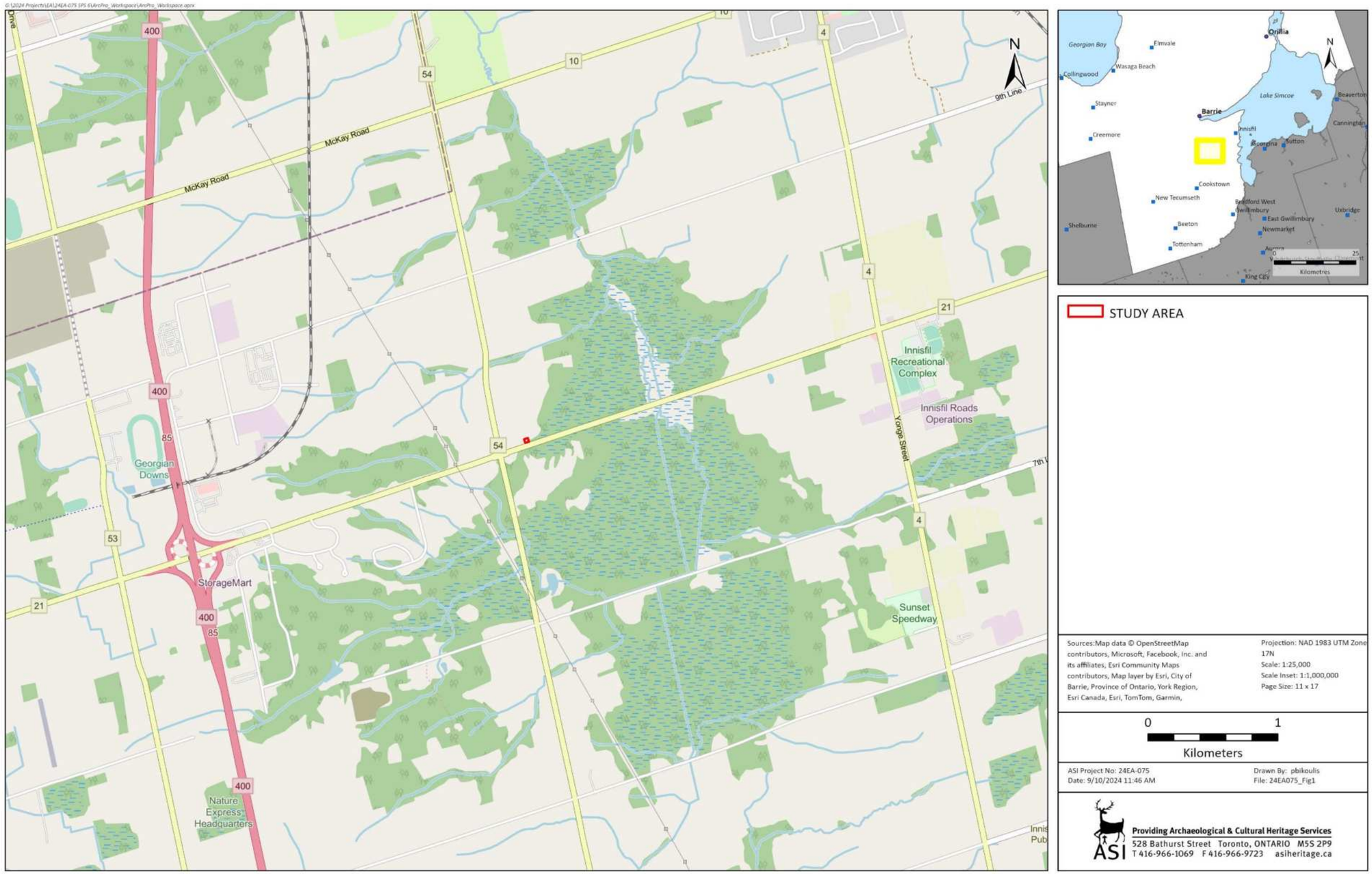


Figure 1: Location of the Study Area



Figure 2: Stage 2 Archaeological Assessment Results for Sewage Pumping Station 6

Appendix H

Cultural Heritage Report: Existing Condition

Cultural Heritage Report:
Existing Conditions and Preliminary Impact Assessment

Innisfil Heights Sewage Pumping Station 6
Municipal Class Environmental Assessment

Town of Innisfil
Simcoe County, Ontario

Final Report

Prepared for:

Ainley Group
280 Pretty River Parkway
Collingwood, ON L9Y 4J5
T 705-445-3451

Archaeological Services Inc. File: 21CH-080

September 2021 (Revised September 2022 and April 2025)



Executive Summary

Archaeological Services Inc. was contracted by Ainley Group, on behalf of the Town of Innisfil, to conduct a Cultural Heritage Report as part of the Innisfil Heights Sewage Pumping Station 6 Municipal Class Environmental Assessment (I.H. S.P.S 6). The Environmental Assessment is part of the Innisfil Master Servicing Plan (M.S.P.) update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. The M.S.P. identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development. I.H. S.P.S. 6 is one of the proposed sewage pumping stations identified along this sewer route. The project study area consists of several properties located on the north and south sides of Innisfil Beach Road, between 10 Sideroad and Yonge Street.

The purpose of this report is to present an inventory of known and potential built heritage resources (B.H.R.s) and cultural heritage landscapes (C.H.L.s), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures. The Existing Conditions portion of this assessment was prepared in September 2021 and updated in September 2022 and April 2025 when the preferred site location was available.

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with an Indigenous history spanning millennia and rural Euro-Canadian land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are no previously identified features of cultural heritage value within the Innisfil Heights Sewage Pumping Station 6 study area. A total of four potential C.H.L.s and two potential B.H.R.s were identified during the fieldwork. No direct or indirect adverse impacts are anticipated for any of these B.H.R.s or C.H.L.s in the proposed undertaking.

ASI

Based on the results of the assessment, the following recommendations have been developed:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified built heritage resources and cultural heritage landscapes. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.

2. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.

3. This Cultural Heritage Report should be submitted by the proponent to the Town of Innisfil and the Ministry of Citizenship and Multiculturalism for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the Town of Innisfil for their records.

Report Accessibility Features

This report has been formatted to meet the Information and Communications Standards under the *Accessibility for Ontarians with Disabilities Act*, 2005 (A.O.D.A.). Features of this report which enhance accessibility include: headings, font size and colour, alternative text provided for images, and the use of periods within acronyms. Given this is a technical report, there may be instances where additional accommodation is required in order for readers to access the report's information. If additional accommodation is required, please contact Annie Veilleux, Manager of the Cultural Heritage Division at Archaeological Services Inc., by email at aveilleux@asiheritage.ca or by phone 416-966-1069 ext. 255.

Project Personnel

- **Senior Project Manager**: Lindsay Graves, M.A., C.A.H.P., Senior Cultural Heritage Specialist, Senior Project Manager - Cultural Heritage Division
- **Project Coordinator:** Katrina Thach, B.A. (Hon), Associate Archaeologist, Project Coordinator - Environmental Assessment Division
- **Project Manager**: John Sleath, M.A., Cultural Heritage Specialist, Project Manager - Cultural Heritage Division
- **Field Review**: Meredith Stewart, M.A., M.S.c., C.A.H.P. Intern, Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division
- **Report Production**: Leora Bebko, M.M.St., Cultural Heritage Technician, Technical Writer and Researcher – Cultural Heritage Division
- John Sleath
- **Graphics Production**: Adam Burwell, M.S.c., Archaeologist, Geomatics Specialist - Operations Division and Jonas Fernandez, M.S.c., Lead Archaeologist, Manager of Geomatics- Operations Division
- **Report Reviewer(s)**: Lindsay Graves and John Sleath

Qualified Persons Involved in the Project

Lindsay Graves, M.A., C.A.H.P.
Senior Cultural Heritage Specialist, Senior Project Manager - Cultural Heritage Division

The Senior Project Manager for this Cultural Heritage Report is **Lindsay Graves** (M.A., Heritage Conservation), Senior Cultural Heritage Specialist and the Environmental Assessment Coordinator for the Cultural Heritage Division. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Lindsay is academically trained in the fields of heritage conservation, cultural anthropology, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the assessment, evaluation, and protection of above ground cultural heritage resources. Lindsay has extensive experience undertaking archival research, heritage survey work, heritage evaluation and heritage impact assessment. She has also contributed to cultural heritage landscape studies and heritage conservation plans, led heritage commemoration and interpretive programs, and worked collaboratively with multidisciplinary teams to sensitively plan interventions at historic sites/places. In addition, she is a leader in the completion of heritage studies required to fulfill Class Environmental Assessment processes and has served as Project Manager for over 100 heritage assessments during her time at A.S.I. Lindsay is a member of the Canadian Association of Heritage Professionals.

John Sleath, M.A.
Cultural Heritage Specialist, Project Manager - Cultural Heritage Division

The Project Manager for this Cultural Heritage Report is **John Sleath** (MA), who is a Cultural Heritage Specialist and Project Manager within the Cultural Heritage Division with ASI. He was responsible for the day-to-day management activities, including scoping of research activities and site surveys and drafting of study

findings and recommendations. John has worked in a variety of contexts within the field of cultural heritage resource management for the past 14 years, as an archaeologist and as a cultural heritage professional. In 2015 John began working in the Cultural Heritage Division researching and preparing a multitude of cultural heritage assessment reports and for which he was responsible for a variety of tasks including: completing archival research, investigating built heritage and cultural heritage landscapes, report preparation, historical map regression, and municipal consultation. Since 2018 John has been a project manager responsible for a variety of tasks required for successful project completion. This work has allowed John to engage with stakeholders from the public and private sector, as well as representatives from local municipal planning departments, museums, and Indigenous nations. John has conducted hundreds of heritage assessments across Ontario, with a focus on transit and rail corridor infrastructure including bridges and culverts.

Leora Bebko, M.M.St.
Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division

One of the Cultural Heritage Technicians for this project is **Leora Bebko** (M.M.St.), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division. She was responsible for preparing and contributing research and technical reporting. In Leora's career as a cultural heritage and museum professional she has worked extensively in public programming and education within built heritage spaces. Leora is particularly interested in the ways in which our heritage landscapes can be used to facilitate public engagement and interest in our region's diverse histories. While completing her Master of Museum Studies she was able to combine her interest in heritage architecture and museums by focusing on the historic house museum and the accessibility challenges they face. As a thesis project, Leora co-curated the award-winning exhibit *Lost & Found: Rediscovering Fragments of Old Toronto* on the grounds of Campbell House Museum. Since completing her degree she has worked as a historical interpreter in a variety of heritage spaces, learning a range of traditional trades and has spent considerable time researching heritage foodways and baking

in historic kitchens. In 2022, she joined ASI's Cultural Heritage team as a Cultural Heritage Technician.

Glossary

Built Heritage Resource (B.H.R.)
Definition: "…a building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. built heritage resources are located on property that may be designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial, federal and/or international registers" (Ministry of Municipal Affairs and Housing, 2024, p. 41).

Cultural Heritage Landscape (C.H.L.)
Definition: "…a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*, or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms" (Ministry of Municipal Affairs and Housing, 2024, p. 42).

Cultural Heritage Resource
Definition: Includes above-ground resources such as built heritage resources and cultural heritage landscapes, and built or natural features below-ground including archaeological resources (Ministry of Municipal Affairs and Housing, 2024).

Known Cultural Heritage Resource
Definition: A known cultural heritage resource is a property that has recognized cultural heritage value or interest. This can include a property listed on a Municipal Heritage Register, designated under Part IV or V of the *Ontario Heritage Act*, or protected by a heritage agreement, covenant or easement, protected by the *Heritage Railway Stations Protection Act or the Heritage Lighthouse*

Protection Act, identified as a Federal Heritage Building, or located within a U.N.E.S.C.O. World Heritage Site (Ministry of Citizenship and Multiculturalism, 2022).

Impact
Definition: Includes negative and positive, direct and indirect effects to an identified cultural heritage resource. Direct impacts include destruction of any, or part of any, significant heritage attributes or features and/or unsympathetic or incompatible alterations to an identified resource. Indirect impacts include, but are not limited to, creation of shadows, isolation of heritage attributes, direct or indirect obstruction of significant views, change in land use, land disturbances (Ministry of Citizenship and Multiculturalism, 2006c). Indirect impacts also include potential vibration impacts (See Section 2.7 for complete definition and discussion of potential impacts).

Mitigation
Definition: Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the cultural heritage landscape and/or built heritage resource if to be demolished or relocated (Ministry of Citizenship and Multiculturalism, 2006a).

Potential Cultural Heritage Resource
Definition: A potential cultural heritage resource is a property that has the potential for cultural heritage value or interest. This can include properties/project area that contain a parcel of land that is the subject of a commemorative or interpretive plaque, is adjacent to a known burial site and/or cemetery, is in a Canadian Heritage River Watershed, or contains buildings or structures that are 40 or more years old (Ministry of Citizenship and Multiculturalism, 2022).

Significant
Definition: With regard to cultural heritage and archaeology resources, significant

means “resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the *Ontario Heritage Act.* While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation” (Ministry of Municipal Affairs and Housing, 2024, p. 51).

Vibration Zone of Influence

Definition: Area within a 50 metre buffer of construction-related activities in which there is potential to affect an identified cultural heritage resource. A 50 metre buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature (Carman et al., 2012; Crispino & D’Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates the additional threat from collisions with heavy machinery or subsidence (Randl, 2001).

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1.0 Introduction

Archaeological Services Inc. was contracted by Ainley Group, on behalf of the Town of Innisfil, to conduct a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment as part of the Innisfil Heights Sewage Pumping Station 6 (I.H. S.P.S 6) Municipal Class Environmental Assessment. The purpose of this report is to describe the existing conditions of the study area and present an inventory of known and potential built heritage resources (B.H.R.s) and cultural heritage landscapes (C.H.L.s), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

1.1 Project Overview

The I.H. S.W.S. 6 Municipal Class Environmental Assessment is part of the Innisfil Master Servicing Plan (M.S.P.) Update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. The M.S.P. identified a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development. I.H.S.P.S. 6 has been selected as the site of a proposed sewage pumping station along this sewer route. The project study area consists of several properties located on the north and south sides of Innisfil Beach Road, between 10 Sideroad and Yonge Street.

1.2 Description of Study Area

This Cultural Heritage Report will focus on the I.H.S.P.S. 6 project study area centered on Innisfil Beach Road between 10 Sideroad and Yonge Street (Figure 1). This project study area has been defined as inclusive of those lands that may contain B.H.R.s or C.H.L.s that may be subject to direct or indirect impacts as a result of the proposed undertaking. Properties within the study area are located in the Town of Innisfil.



Figure 1: Location of the study area (Base Map: ©OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA))

2.0 Methodology

The following sections provide a summary of regulatory requirements and municipal and regional heritage policies that guide this cultural heritage assessment. In addition, an overview of the process undertaken to identify known and potential built heritage resources and cultural heritage landscapes is provided, along with a description of how the preliminary impact assessment will be undertaken.

2.1 Master Servicing Plan Context

The Innisfil Heights Sewage Pumping Station 6 (I.H. S.P.S 6) Municipal Class Environmental Assessment (M.C.E.A.) is part of the Innisfil Master Servicing Plan (M.S.P.) Update which identifies various alternatives to provide servicing to the Innisfil Heights economic district, an area designated as a Strategic Settlement Employment Area. The M.S.P. identified a sanitary collection system connected to

the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development.

M.S.P.s are long range plans which integrate infrastructure requirements for existing and future land use with Environmental Assessment planning principles. The plans examine the existing infrastructure systems to develop a framework for planning for subsequent projects and developments.

An M.C.E.A. is a process through which municipalities investigate projects related to infrastructure, including transportation, water, wastewater, and stormwater. M.C.E.A.s generally have five phases: Phase 1, Problem or Opportunity Statement; Phase 2, Alternative Solutions; Phase 3, Alternative Design Concepts for Preferred Solution; Phase 4, Environmental Study Report (E.S.R.); and Phase 5, Implementation (B.M. Ross & Associates Limited, 2018).

2.2 Regulatory Requirements

The *Ontario Heritage Act* (O.H.A.) (Ontario Heritage Act, R.S.O. c. O.18, 1990 [as Amended in 2021], 1990) is the primary piece of legislation that determines policies, priorities and programs for the conservation of Ontario's heritage. There are many other provincial acts, regulations and policies governing land use planning and resource development that support heritage conservation, including:

- The *Planning Act* (Planning Act, R.S.O. 1990, c. P.13, 1990), which states that "conservation of features of significant architectural, cultural, historical, archaeological or scientific interest" (cultural heritage resources) is a "matter of provincial interest". The *Provincial Policy Statement* (Ministry of Municipal Affairs and Housing, 2024), issued under the *Planning Act*, links heritage conservation to long-term economic prosperity and requires municipalities and the Crown to conserve significant cultural heritage resources.

- The *Environmental Assessment Act* (Ministry of the Environment, 1990), which defines "environment" to include cultural conditions that influence the life of humans or a community. Cultural heritage resources, which includes archaeological resources, built heritage resources and cultural heritage landscapes, are important components of those cultural conditions.

The Ministry of Citizenship and Multiculturalism (herein after "The Ministry" or M.C.M.) is charged under Section 2.0 of the O.H.A. with the responsibility to determine policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario. The *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010) (hereinafter "*Standards and Guidelines*") apply to properties the Government of Ontario owns or controls that have "cultural heritage value or interest" (C.H.V.I.). The *Standards and Guidelines* provide a series of guidelines that apply to provincial heritage properties in the areas of identification and evaluation; protection; maintenance; use; and disposal. For the purpose of this report, the *Standards and Guidelines* provide points of reference to aid in determining potential heritage significance in identification of built heritage resources and cultural heritage landscapes. While not directly applicable for use in properties not under provincial ownership, the *Standards and Guidelines* are regarded as best practice for guiding heritage assessments and ensure that additional identification and mitigation measures are considered.

Similarly, the *Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006b) provides a guide to evaluate heritage properties. To conserve a built heritage resource or cultural heritage landscape, the *Ontario Heritage Tool Kit* states that a municipality or approval authority may require a heritage impact assessment and/or a conservation plan to guide the approval, modification, or denial of a proposed development.

2.3 Municipal/Regional Heritage Policies

The study area is located within the Town of Innisfil, in Simcoe County. Policies relating to cultural heritage resources were reviewed from the following sources:

- *"Our Place" Innisfil Official Plan*
- *Official Plan of the County of Simcoe*

2.4 Identification of Built Heritage Resources and Cultural Heritage Landscapes

This Cultural Heritage Report follows guidelines presented in the *Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006b) and *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (Ministry of Citizenship and Multiculturalism, 2022). The objective of this report is to present an inventory of known and potential built heritage resources and cultural heritage landscapes, and to provide a preliminary understanding of known and potential built heritage resources and cultural heritage landscapes located within areas anticipated to be directly or indirectly impacted by the proposed project.

In the course of the cultural heritage assessment process, all potentially affected built heritage resources and cultural heritage landscapes are subject to identification and inventory. Generally, when conducting an identification of built heritage resources and cultural heritage landscapes within a study area, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of built heritage resources and cultural heritage landscapes in a geographic area: background research and desktop data collection; field review; and identification.

Background historical research, which includes consultation of primary and secondary source research and historical mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This

stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth- and twentieth-century settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as having cultural heritage value. Typically, resources identified during these stages of the research process are reflective of particular architectural styles or construction methods, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

A field review is then undertaken to confirm the location and condition of previously identified built heritage resources and cultural heritage landscapes. The field review is also used to identify potential built heritage resources and cultural heritage landscapes that have not been previously identified on federal, provincial, or municipal databases or through other appropriate agency data sources.

During the cultural heritage assessment process, a property is identified as a potential built heritage resources or cultural heritage landscape based on research, the Ministry screening tool, and professional expertise and best practice. In addition, use of a 40-year-old benchmark is a guiding principle when conducting a preliminary identification of built heritage resources and cultural heritage landscapes. While identification of a resource that is 40 years old or older does not confer outright heritage significance, this benchmark provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from having cultural heritage value or interest.

2.5 Background Information Review

To make an identification of previously identified known or potential built heritage resources and cultural heritage landscapes within the study area, the following sections present the resources were consulted as part of this Cultural Heritage Report.

2.5.1 Review of Existing Heritage Inventories

A number of resources were consulted in order to identify previously identified built heritage resources and cultural heritage landscapes within the study area. These resources, reviewed on 13 and 15 September 2021, include:

- The Town of Innisfil's Municipal Heritage Register (Town of Innisfil, n.d.);
- Historical maps (including historical atlases, topographic maps, and aerial photography);
- The *Ontario Heritage Act Register* (Ontario Heritage Trust, n.d.b);
- The *Places of Worship Inventory* (Ontario Heritage Trust, n.d.c);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);
- The Ontario Heritage Trust's *An Inventory of Provincial Plaques Across Ontario*: a PDF of Ontario Heritage Trust Plaques and their locations (Ontario Heritage Trust, 2023);
- Inventory of known cemeteries/burial sites in the Ontario Genealogical Society's online databases (Ontario Genealogical Society, n.d.);
- Canada's Historic Places website: available online, the searchable register provides information on historic places recognized for their heritage value at the local, provincial, territorial, and national levels (Parks Canada, n.d.a);
- Directory of Federal Heritage Designations: a searchable on-line database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses (Parks Canada, n.d.b);
- Canadian Heritage River System: a national river conservation program that promotes, protects and enhances the best examples of Canada's river

heritage (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.); and,

- United Nations Educational, Scientific and Cultural Organization (U.N.E.S.C.O.) World Heritage Sites (U.N.E.S.C.O. World Heritage Centre, n.d.).

2.5.2 Review of Previous Heritage Reporting

Additional cultural heritage studies were sought for review, however, no previous studies within the study area were identified.

2.5.3 Community Information Gathering

The following individuals, groups, and/or organizations were contacted to gather information on known and potential B.H.R.s and C.H.L.s, active and inactive cemeteries, and areas of identified Indigenous interest within the study area:

- Gaelen Pierce, Planner/Placemaker, Town of Innisfil (email communication 21 September 2021 and 22 March 2022). A response confirmed that there are no listed or designated properties within the I.H.S.P.S. 6 study area.
- The Ministry (email communication 21 and 28 September 2021). Email correspondence confirmed that there are no properties designated by the Minister and there are no known Provincial Heritage Properties within or adjacent to the study area.
- The Ontario Heritage Trust (email communications 21 September and 30 November 2021). A response confirmed that there are no previously identified heritage resources or O.H.T. heritage easements within the study area.

2.6 Community Engagement

Indigenous Nations Engagement for this project is being completed by Ainley Group to Indigenous Nations that have an interest in this study area.

No feedback has been received by Ainley Group regarding the Cultural Heritage Report for this project at the time of report submission (April 2025). Any feedback received will be considered and incorporated into the final report.

2.7 Preliminary Impact Assessment Methodology

To assess the potential impacts of the undertaking, identified built heritage resources and cultural heritage landscapes are considered against a range of possible negative impacts, based on the *Ontario Heritage Tool Kit InfoSheet #5: Heritage Impact Assessments and Conservation Plans* (Ministry of Citizenship and Multiculturalism, 2006c). These include:

Direct impacts:

- Destruction of any, or part of any, significant heritage attributes or features; and
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance.

Indirect impacts:

- Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;
- A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces; and
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource.

Indirect impacts from construction-related vibration have the potential to negatively affect built heritage resources and cultural heritage landscapes depending on the type of construction methods and machinery selected for the project and proximity and composition of the identified resources. Potential vibration impacts are defined as having potential to affect an identified built heritage resources and cultural heritage landscapes where work is taking place within 50 metre of features on the property. A 50 metre buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the M.H.S.T.C.I. (Carman et al., 2012; Crispino & D'Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates any additional or potential threat from collisions with heavy machinery or subsidence (Randl, 2001).

Several additional factors are also considered when evaluating potential impacts on identified built heritage resources and cultural heritage landscapes. These are outlined in a document set out by the Ministry of Culture and Communications (now Ministry of Citizenship and Multiculturalism) and the Ministry of the Environment entitled *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992) and include:

- Magnitude: the amount of physical alteration or destruction which can be expected;
- Severity: the irreversibility or reversibility of an impact;
- Duration: the length of time an adverse impact persists;
- Frequency: the number of times an impact can be expected;
- Range: the spatial distribution, widespread or site specific, of an adverse impact; and
- Diversity: the number of different kinds of activities to affect a heritage resource.

The proposed undertaking should endeavor to avoid adversely affecting known and potential built heritage resources and cultural heritage landscapes and interventions should be managed in such a way that identified significant cultural

heritage resources are conserved. When the nature of the undertaking is such that adverse impacts are unavoidable, it may be necessary to implement alternative approaches or mitigation strategies that alleviate the negative effects on identified built heritage resources and cultural heritage landscapes. Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the built heritage resource or cultural heritage landscape if to be demolished or relocated.

Various works associated with infrastructure improvements have the potential to affect built heritage resources and cultural heritage landscapes in a variety of ways, and as such, appropriate mitigation measures for the undertaking need to be considered.

3.0 Summary of Historical Development Within the Study Area

This section provides a brief summary of historical research. A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of physiography, Indigenous land use, and Euro-Canadian settlement.

3.1 Physiography

The study area is situated within the Peterborough Drumlin Field physiographic region of southern Ontario (Chapman & Putnam, 1984). The Peterborough Drumlin Field extends from Simcoe County east to Hastings County and is generally characterized by rolling till plains overlying limestone bedrock and contains over 3,000 drumlins ((Chapman & Putnam, 1984)). The drumlins are composed of highly calcareous till but there are local differences in composition. The till plains of the regions were formed during the retreat of the Lake Ontario ice lobe of the Laurentide glacier. Till is produced from the advance of continental

glacial ice in which soil and rock is carried forward by the ice, mixed and milled, producing a heterogeneous soil (Chapman & Putnam, 1984). The rolling topography of the study area is representative of the drumlin and till formations of this physiographic region. The agricultural history of the area can be connected to the till plains formed through glacial movement.

3.2 Indigenous Land Use and Settlement

Current archaeological evidence indicates humans were present in southern Ontario approximately 13,000 years before present (BP) (Ferris, 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards & Fritz, 1988) and populations now occupied less extensive territories (C. J. Ellis & Deller, 1990).

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest archaeological evidence for cemeteries dates to approximately 4,500-3,000 BP and is interpreted by archaeologists to be indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Brown, 1995, p. 13; C. J. Ellis et al., 1990, 2009).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 BP and exchange and interaction networks

broaden at this time (Spence et al., 1990, pp. 136, 138) and by approximately 2,000 BP, evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al., 1990, pp. 155, 164). By 1,500 BP there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2,300 BP - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch & Williamson, 2013, pp. 13–15). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers, 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 BP, lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (CE), larger settlement sites focused on horticulture begin to dominate the archaeological record. Seasonal dispersal of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990, p. 317). By 1300-1450 CE, archaeological research focusing on these horticultural societies note that this episodic community dispersal was no longer practised and these populations now occupied sites throughout the year (Dodd et al., 1990, p. 343). By the mid-sixteenth century these small villages had coalesced into larger communities thought to house several thousand people (Birch et al., 2021). Through this process, the socio-political organization of these First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed. Other First Nation communities continued to practice residential mobility and to harvest available resources across landscapes they returned to seasonally/annually.

By 1600 CE, the Confederation of Nations were encountered by the first European explorers and missionaries in Simcoe County. By the 1640s, devastating epidemics

and the traditional enmity between the Haudenosaunee[1] and the Attawandaron and the Huron-Wendat (and their Algonquian allies such as the Nippissing and Odawa) led to their dispersal from southern Ontario. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century.

The study area is within the Nottawasaga Purchase, or Treaty No. 18, signed 1818 by representatives of the Crown and Anishinaabe peoples. This treaty, also known as the Lake Simcoe-Nottawasaga Treaty, included lands in modern-day Innisfil, Wasaga, Bradford, and Collingwood (Ministry of Indigenous Affairs, 2019).

3.3 Historical Euro-Canadian Township Survey and Settlement

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006). Early European settlements occupied similar locations as Indigenous settlements as

[1] The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian–speaking nations - the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.

they were generally accessible by trail or water routes and would have been in locations with good soil and suitable topography to ensure adequate drainage.

Throughout the period of initial European settlement, Indigenous groups continued to inhabit Southern Ontario, and continued to fish, gather, and hunt within their traditional and treaty territories, albeit often with legal and informal restrictions imposed by colonial authorities and settlers. In many cases, Indigenous peoples acted as guides and teachers, passing on their traditional knowledge to Euro-Canadian settlers, allowing them to sustain themselves in their new homes. Indigenous peoples entered into economic arrangements and partnerships, and often inter-married with settlers. However, pervasive and systemic oppression and marginalization of Indigenous peoples also characterized Euro-Canadian colonization, with thousands being displaced from their lands, denied access to traditional and treaty hunting, fishing, and collecting grounds, and forced to assimilate with Euro-Canadian culture through mandatory attendance at Day and Residential Schools (Ray, 2005; Rogers & Smith, 1994).

Historically, the study area is located in the Township of Innisfil, County of Simcoe in part of Lots 9-14, Concessions 7 and 8.

3.3.1 County of Simcoe

The area within what is now Simcoe County was first inhabited by the Indigenous Huron-Wendat. European goods reached the area before 1600 and missionaries and Jesuits arrived soon after. In 1798, the County of Simcoe was formed as part of the “Home District.” The boundaries of the county were refined in 1821. Almost 20 years later, in 1843, the area was declared a separate district and attained county status in 1850, with Barrie as the county seat. At this time Simcoe County included portions of Grey and Dufferin Counties, and Muskoka and Parry Sound Districts. In 1881, the borders of Simcoe County were again redefined and the present townships of Tiny, Tay, Matchedash, Flos, Medonte, Orillia, Nottawasaga, Sunnidale, Vespra, Oro, Tosorontio, Essa, Innisfil, Adjala, Tecumseth, and West Gwillimbury were contained within. As of the late twentieth

century, Simcoe County had two cities, seven towns, and eight villages (Mika & Mika, 1983).

3.3.2 Township of Innisfil

The Township of Innisfil was surveyed in 1820 and the first settlement began that year. The township was named after the poetical name for Ireland, Innis Fáil, by its early settlers. Growth was slow during the first ten years of the township and the first sawmill was not erected until the 1830s and in 1835 a grist mill was constructed. Early settlement focused around Kempenfelt Bay and the southwestern area of the township was not settled until after 1840. By 1843, the first school was constructed and the following year the Innisfil Methodist Congregation built the first church. The first census of the township recorded a population of only 762 inhabitants. By 1850, the township had a population of 1,807.

Following the connection of the Northern Railway in 1853, the township became an important shipping hub for the lumber industry of central Ontario(Mika & Mika, 1981). With the arrival of the railway a number of communities developed and prospered; Allandale, Lefroy, and Craigvale all boasted stations. On the western border of the township, Thornton was a stop for the Hamilton and Northwestern Railway. Today, Innisfil attracts large numbers of tourists and cottagers in the summertime who travel from Toronto via Highway 400 (Mika & Mika, 1981).

3.4 Review of Historical Mapping

The 1871 *Map of the County of Simcoe* (Hogg, 1871) and the 1881 *Illustrated Historical Atlas of the County of Simcoe* (Belden, 1881) were examined to determine the presence of historical features within the study area during the nineteenth century (Figure 2 and Figure 3). Historically, the study area is located on Lots 9-14, Concessions 7 and 8 in the Township of Innisfil, County of Simcoe.

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases. For instance, they were often financed by subscription limiting the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases. The use of historical map sources to reconstruct or predict the location of former features within the modern landscape generally begins by using common reference points between the various sources. The historical maps are geo-referenced to provide the most accurate determination of the location of any property on a modern map. The results of this exercise can often be imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including differences of scale and resolution, and distortions introduced by reproduction of the sources.

The study area is shown to be within a rural agricultural context in the nineteenth century. Mapping from 1871 illustrates that the properties along present-day Innisfil Beach Road were large plots of land (Figure 2). Some land division has occurred with lots halved longitudinally, and landowners are listed within each property. No structures are indicated on the mapping. Present-day 10 Sideroad is illustrated on the mapping and intersects with Innisfil Beach Road in its current location. A small watercourse is shown following a north-south alignment on the east side of 10 Sideroad, terminating just south of its crossing with Innisfil Beach Road. Surrounding the study area the land shows a similar rural context. A small crossroads settlement is labelled “Victoria” beyond the east boundary of the study area.

The further settlement of the area is depicted in mapping from 1881 (Figure 3). Some structures are illustrated within the study area, suggesting the establishment of farmsteads within the area. The watercourse indicated in 1871 is shown following a slightly altered course, with additional branches illustrated. Outside of the study area to the northwest, the introduction of a rail line, the Hamilton and Northwestern Railway, indicates settlement in the area and increased development opportunities. North of the study area a sawmill and hall are indicated on the map. Additionally, the Innisfil post office is illustrated east of

the study area. The presences of these buildings points to the civic and economic development in the area. A rural agricultural context has been maintained.

In addition to nineteenth-century mapping, historical topographic mapping and aerial photographs from the twentieth century were examined. This report presents maps and aerial photographs from 1928, 1954, and 1986 (Figure 4 to Figure 6). These do not represent the full range of maps consulted for the purpose of this study but were judged to cover the full range of land uses that occurred in the area during this period.

In the twentieth century the study area is illustrated to show slow but steady growth. Topographic mapping from 1928 illustrates additional structures located sporadically along the roadways within the study area and surrounding land indicative of rural and agricultural land use (Figure 4). The topographic lines of the mapping show that the study area features a valley in the centre, where the watercourse is located. Treed marshland is illustrated to surround the watercourse that crosses Innisfil Beach Road in several locations. The rail line running beyond the northwest corner of the study area is labeled “Canadian National Railway” indicating a change in ownership of the line. An additional rail line, also owned by the Canadian National Railway, is illustrated east of the study area.

Aerial photography from 1954 indicates a continued rural agricultural land use within the study area (Figure 5). Several farmsteads are visible in the approximate location of the structures illustrated in 1928, with crop fields surrounding. The watercourse located east of 10 Sideroad is visible winding through the area and crossing under Innisfil Beach Road with vegetation and forested lands surrounding it. The properties north of Innisfil Beach Road in the western-most end of the study area are also shown to be heavily forested. The land surrounding the study area also displays a continued rural context with agricultural land use. Crop fields are visible and the wooded marshland surrounding the watercourse continues north and south of the study area. The rail lines persist. No areas of significant urban or dense development are visible.

By the end of the twentieth century the study area has remained primarily unchanged, though an increased development of the surrounding area is indicated. Topographic mapping from 1986 indicates a slight increase in the number of structures located within the study area, particularly near the west boundary. This development in the west portion corresponds with a residential subdivision, labelled “Innisfil Heights,” that is constructed on the south side of Innisfil Beach Road just west of the study area boundary. Little development continues to be shown in the centre of the study area where the marshland and watercourse is located. The intersection of Innisfil Beach Road and Yonge Street, located east of the study area, shows increased development and density of buildings, though this growth does not appear to extend into the study area. A feed mill and tanks are indicated to operate near this intersection, indicating the continued agricultural land use of the area. The rail lines located east and west of the study area persist.

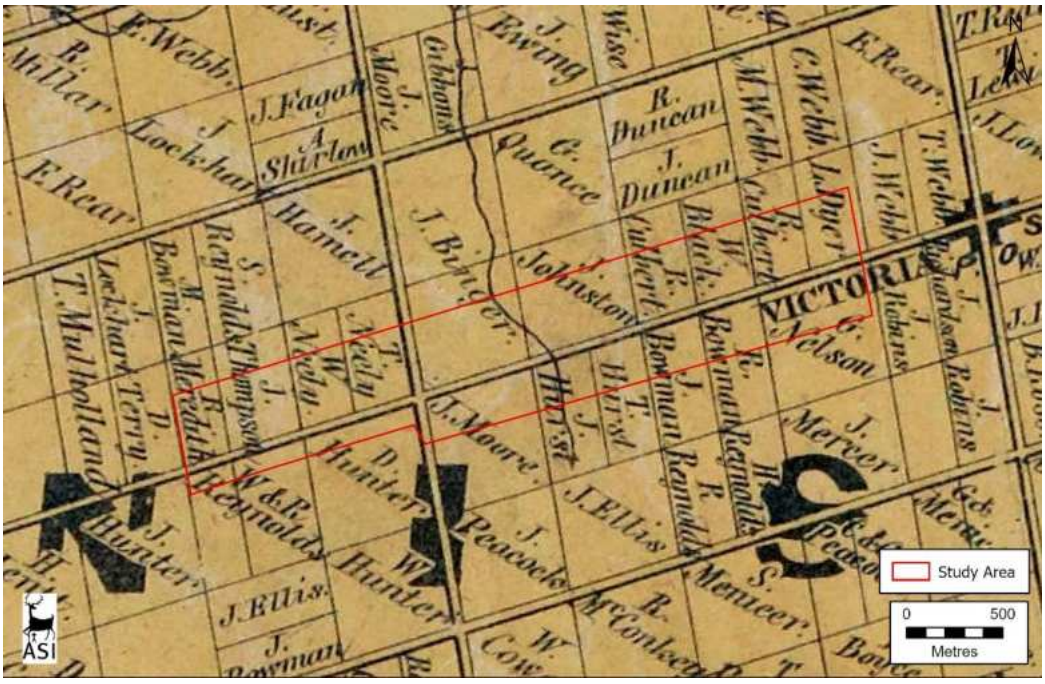


Figure 2: The study area overlaid on the 1871 *Hoggs Map of the County of Simcoe* (Base Map:(Hogg, 1871)).



Figure 3: The study area overlaid on the 1881 Historical Atlas of the County of Simcoe (Base Map: (Belden, 1881)).

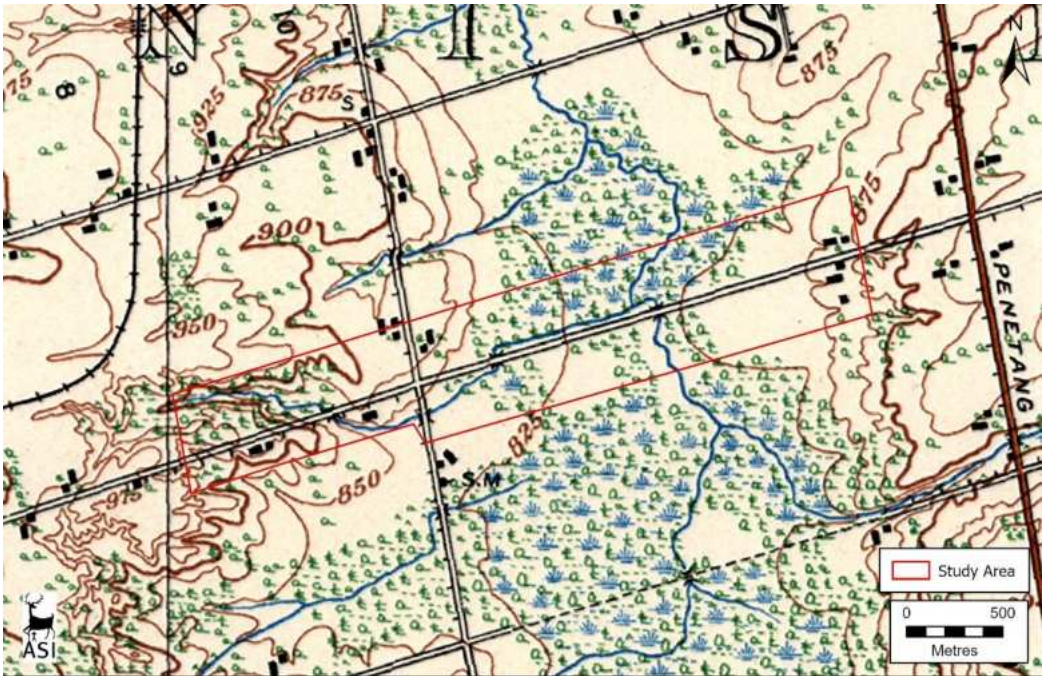


Figure 4: The study area overlaid on the 1928 topographic map of Barrie (Base Map: (Department of National Defence, 1928).



Figure 5: The study area overlaid on the 1954 aerial photograph of Innisfil (Base Map: (Hunting Survey Corporation Limited, 1954)).

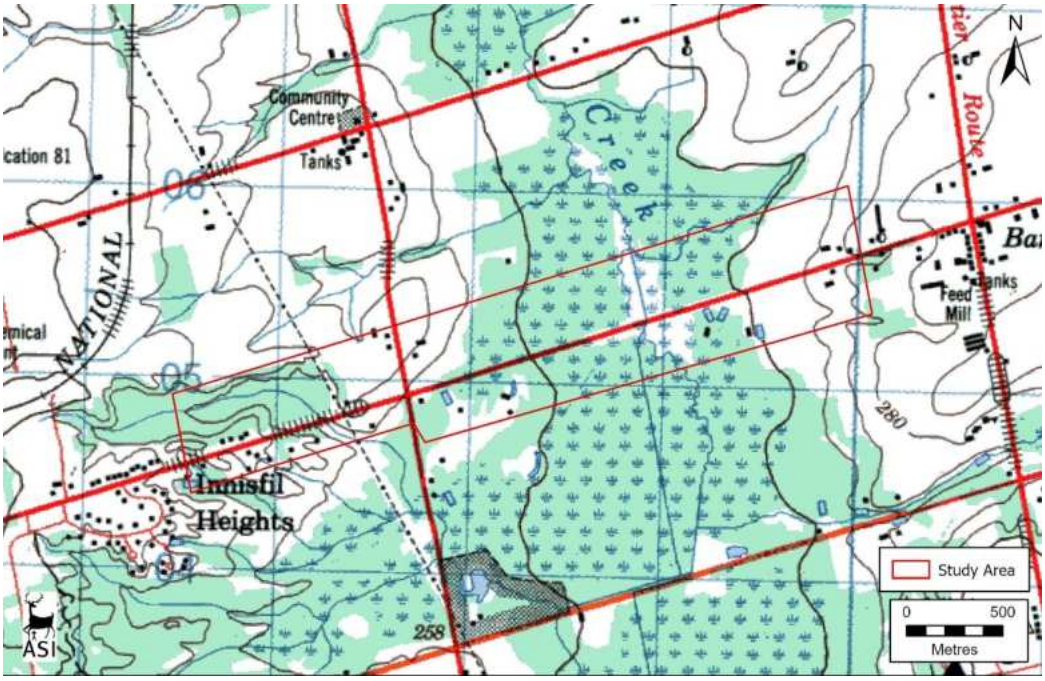


Figure 6: The study area overlaid on the 1986 topographic map of Barrie (Base Map: (Department of Energy, Mines and Resources, 1986)).

4.0 Existing Conditions

A field review of the study area was undertaken by Meredith Stewart of Archaeological Services Inc., on 21 September 2021 to document the existing conditions of the study area from existing rights-of-way. The existing conditions of the study area are described below and captured in Plate 1 to Plate 6.

4.1 Description of Field Review

The study area consists of a portion of Innisfil Beach Road located between Highway 400 and Yonge Street, and includes the roadway's intersection with 10 Sideroad. The study area can generally be described as a rural context, with areas of agricultural land use. Innisfil Beach Road is an east-west running roadway that features one lane of traffic in each direction with gravel shoulders and wood or metal guard rails lining both side throughout most of the study area. In the west portion of the study area, Innisfil Beach Road features steep embankments in some areas as a result of the undulating topography and the location of former watercourses (Plate 1). The properties in this area are typically residential land use on the south side of the roadway and agricultural land use on the north side. There are several woodlots and areas of forestation as well.

Approaching 10 Sideroad, Innisfil Beach Road widens to accommodate two lanes of traffic in each direction, with added turning lanes. The shoulders are paved in this area with a narrow gravel strip and ditches on both sides of the roadway. The north side of Innisfil Beach Road west of its intersection with 10 Sideroad features a retaining wall that is approximately two metres in height comprised of large masonry blocks (Plate 2). The intersection of Innisfil Beach Road and 10 Sideroad is controlled with traffic lights.

10 Sideroad is a north-south running roadway that features one lane of traffic in each direction, gravel shoulders and shallow ditches (Plate 3). North of its intersection with Innisfil Beach Road the properties on 10 Sideroad generally have

an agricultural land use. The properties south of the intersection are rural residential, with large areas of forestation.

East of its intersection with 10 Sideroad, Innisfil Beach Road maintains a rural context with some agricultural land use (Plate 4). The roadway returns to carrying one lane of traffic in each direction just beyond the intersection. This area to the east sits in a slight valley in the topography that ascends in the east end of the study area boundary. Within this valley the land contains wetlands and is forested (Plate 5). Property parcels in this area are typically narrow with minimal road frontage. Beyond the wetlands the roadway follows the slight elevation in the topography and an agricultural land use resumes (Plate 6).



Plate 1: Innisfil Beach Road, looking east from the west limit of the study area. Note the undulating topography with steep, wooded ditches lining the roadway.



Plate 2: Innisfil Beach Road, looking west from west side of the roadway's intersection with 10 Sideroad. Note the retaining wall at right.



Plate 3: Looking south from 10 Sideroad towards the intersection of the roadway with Innisfil Beach Road.



Plate 4: Innisfil Beach Road, looking east from the roadway's intersection with 10 Sideroad. The agricultural context in this area is visible.



Plate 5: Innisfil Beach Road, looking west from an area of flat wetlands within the study area.



Plate 6: Agricultural context of Innisfil Beach Road, looking west near the east limit of the study area.

4.2 Identification of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes

Based on the results of the background research and field review, two potential built heritage resources (B.H.R.s) and four potential cultural heritage landscapes (C.H.L.s) were identified within the study area. A detailed inventory of potential B.H.R.s and C.H.L.s within the study area is presented below in Table 1. See Figure 7– Figure 8 for mapping showing the location of identified B.H.R.s and C.H.L.s.

Table 1: Inventory of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes within the Study Area

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential Cultural Heritage Value or Interest	Photographs/ Digital Image
C.H.L. 1	Farmstead	2993 Innisfil Beach Road	Potential C.H.L. – Identified during field review/desktop research	The C.H.L. contains a farmstead/rural property: The farmstead property (Plate 7) is located on the southwest corner of Innisfil Beach Road and Sideroad 10. Potential attributes include a residence with side gable roof, outbuildings, a long, treed driveway and surrounding woodlot. The 1928 topographic map illustrates a structure in this general location (Figure 4). The 1871 Hogg's Map indicates that the property owner was D. Hunter at this time (Figure 2).	 Plate 7: Looking south towards farmstead with outbuilding visible from the right-of-way (ASI 2021).

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential Cultural Heritage Value or Interest	Photographs/ Digital Image
C.H.L. 2	Farmstead	7505 10 Sideroad	Potential C.H.L. – Identified during field review/desktop research	The C.H.L. contains a former farmstead property: The property (Plate 8) is located on east side of Sideroad 10, north of Innisfil Beach Road. The parcel has been severed from the surrounding agricultural land. Potential attributes include a one-and-a-half storey polychrome brick farmhouse and a long, treed driveway and mature tree windbreaks. The 1881 map of Simcoe County illustrates a structure in this general location with R. Hunter indicated as the landowner (Figure 3).	 Plate 8: Looking east towards farmstead with farmhouse visible from the right-of-way (ASI 2021).
C.H.L. 3	Farmstead	7524 10 Sideroad	Potential C.H.L. – Identified during field review/desktop research	The C.H.L. contains a farmstead property: The farmstead property (Plate 9) is located on the northwest corner of Innisfil Beach Road and Sideroad 10. Potential attributes include a one-storey residence with hipped roof, barn, and surrounding agricultural lands. The 1928 topographic map illustrates a farmstead in this general location (Figure 4). The 1871 Hogg's Map indicates that the property owner was T. Neeley (Figure 2).	 Plate 9: Looking west towards farmstead with residence and barn visible from the right-of-way (ASI 2021).

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential Cultural Heritage Value or Interest	Photographs/ Digital Image
C.H.L. 4	Farmstead	2402 Innisfil Beach Road	Potential C.H.L. – Identified during field review/desktop research	The C.H.L. contains a farmstead property: The farmstead property (Plate 10) is located on the north side of Innisfil Beach Road. Potential attributes include a one-and-a-half storey red brick farmhouse, outbuildings including barn, a long, treed drive and surrounding woodlot and agricultural lands. The 1928 topographic map of Barrie illustrates a farmstead in this general location (Figure 4). The 1871 Hogg's Map indicates that the property owners were R. Culbert and J. Dyer (Figure 2). Mapping from 1881 illustrates the Culbert and Dyer properties merged and the property owner was Geo. [George] Peacock (Figure 3).	 Plate 10: Looking north towards the farmstead from the right-of-way (ASI 2021).
B.H.R. 1	Residential	7514 Innisfil Beach Road	Potential B.H.R. – Identified during field review/desktop research	The B.H.R. is located within a residential property: The residential property (Plate 11) is located on the west side of 10 Sideroad. Potential attributes of the residence include the rectangular footprint, one-and-a-half storey height, and side gable roof. The 1928 topographic map illustrates a structure in this general location (Figure 4). The 1871 Hogg's Map indicates that the property owner was T. Neely (Figure 2).	 Plate 11: Looking west towards the residence from the right-of-way (ASI 2021).

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential Cultural Heritage Value or Interest	Photographs/ Digital Image
B.H.R. 2	Institutional (former residential/ agricultural)	2403 Innisfil Beach Road	Potential B.H.R.– Identified during field review/desktop research	The B.H.R. is located within a former residential/agricultural property: The residential property (Plate 12) is located on the south side of Innisfil Beach Road. The property has been severed from the surrounding agricultural lands. The former residential property is currently operating as the Quiet Waters Montessori Academy. Potential attributes of the residence include the L-shaped footprint, two-and-a-half storey height, red brick exterior and complex roof configuration of hipped and gable rooflines, original window openings and side bay configuration. The 1928 topographic map illustrates a farmstead in this general location (Figure 4). The 1871 Hogg's Map indicates that the property owner was G. Nelson (Figure 2).	 Plate 12: Looking southwest towards the Quiet Waters Montessori Academy from the right-of-way (ASI 2021).



Figure 7: Location of identified built heritage resources (B.H.R.) and cultural heritage landscapes (C.H.L.) in the west half of the study area.



Figure 8: Location of identified built heritage resources (B.H.R.) and cultural heritage landscapes (C.H.L.) in the east half of the study area.

5.0 Preliminary Impact Assessment

The following sections provide more detailed information regarding the proposed project undertaking and analysis of the potential impacts on identified built heritage resources (B.H.R.s) and cultural heritage landscapes (C.H.L.s).

5.1 Description of Proposed Undertaking

The proposed undertaking for the Innisfil Heights Sewage Pumping Station 6 Municipal Class Environmental Assessment (I.H. S.P.S 6) study area consists of the construction of a sewage pumping station as part of the Innisfil Master Servicing (M.S.P.) Plan update. The preferred site location is in an active agricultural field north of Innisfil Beach Road approximately 200 metres east of 10 Sideroad. The footprint of the proposed site is anticipated to be 30 metres by 30 metres, will feature the pump infrastructure and a small parking area, and will be accessed from Innisfil Beach Road. Mapping depicting the preferred I.H.S.P.S. 6 site location footprint is provided in Figure 9 and Figure 10.

5.2 Analysis of Potential Impacts

Table 2 outlines the potential impacts on all identified B.H.R.s and C.H.L.s within the study area.

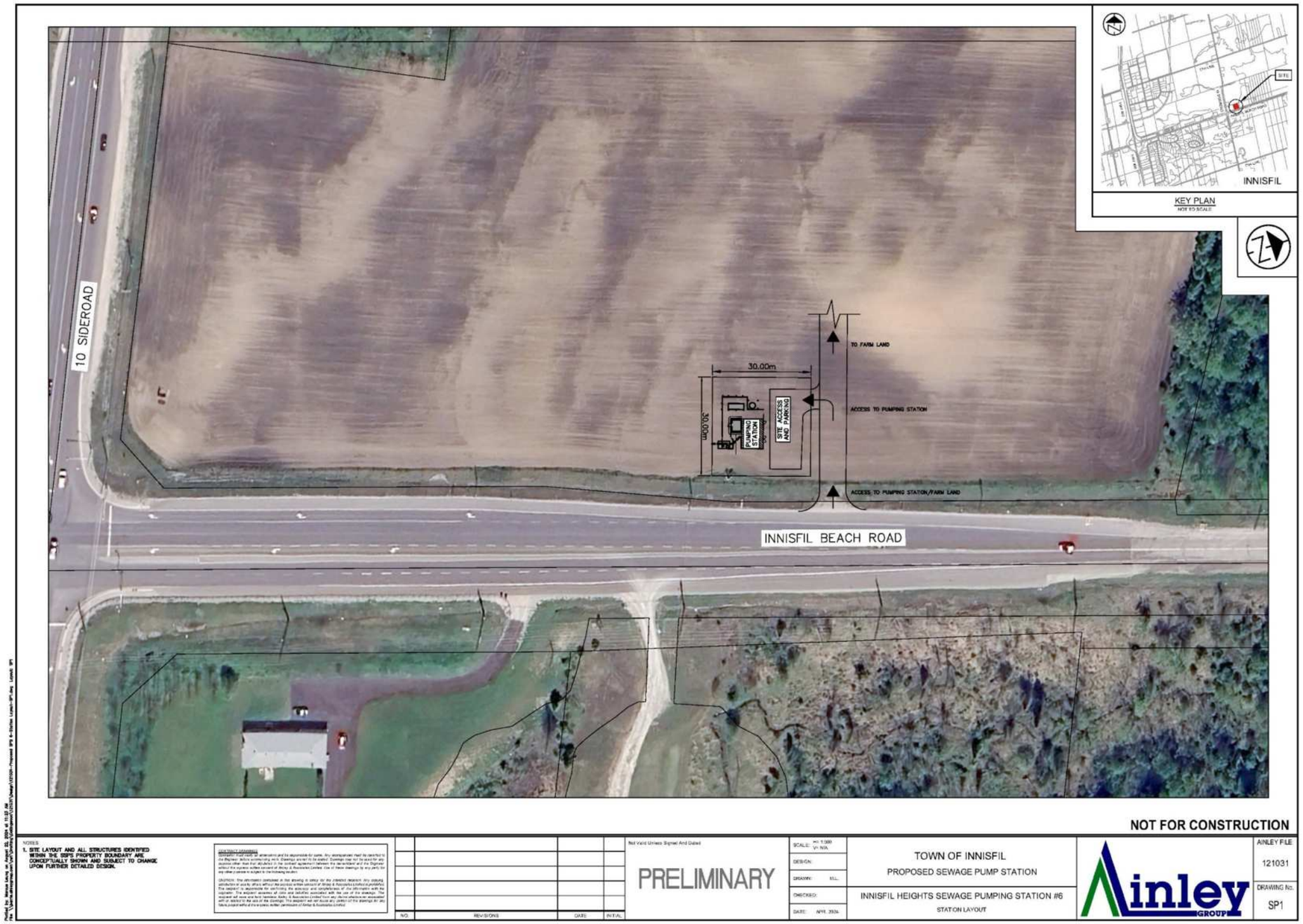


Figure 9: Preferred I.H.S.P.S. 6 Location (provided by Ainley Group March 2025)

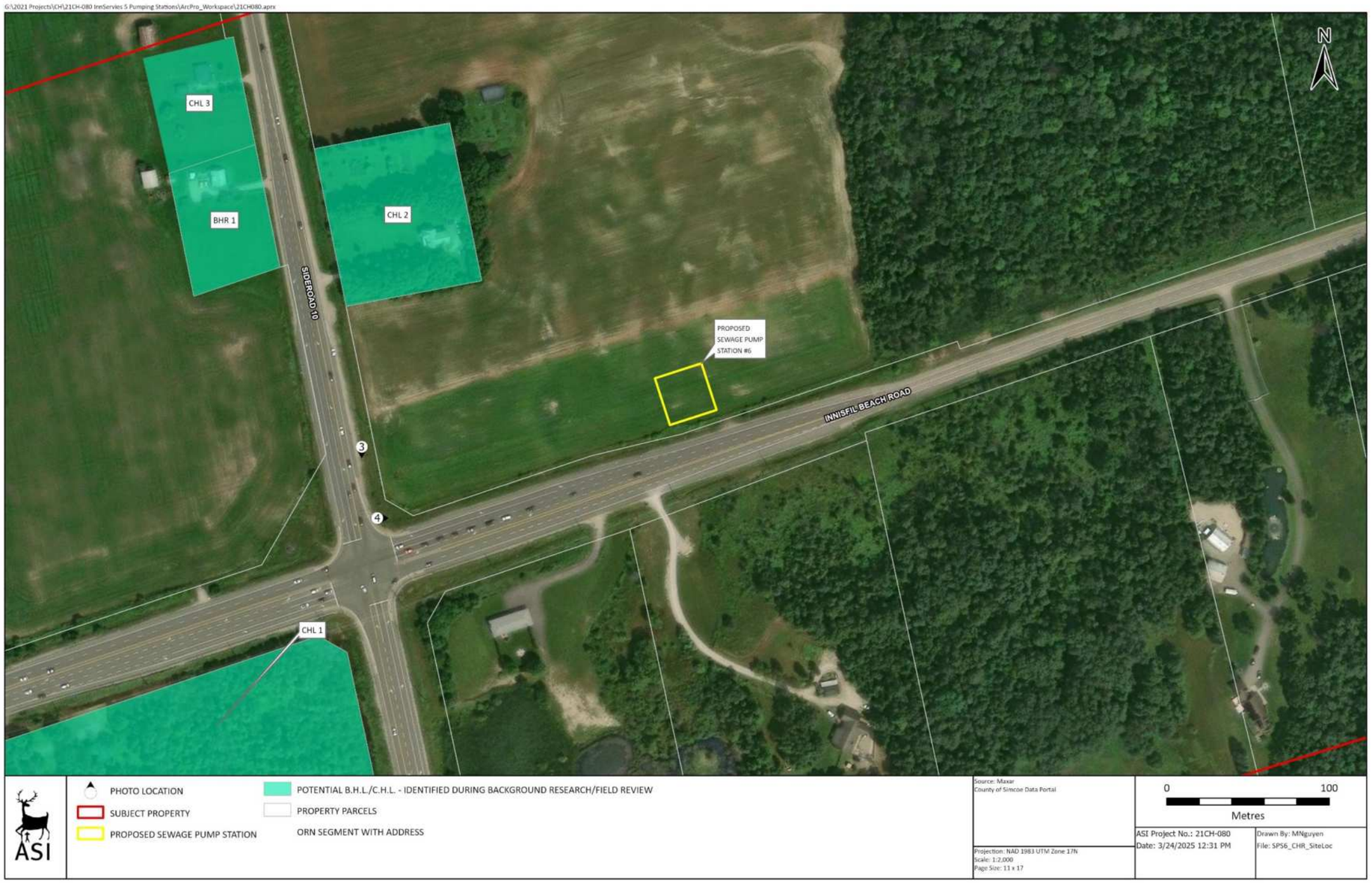


Figure 10: Preferred I.H.S.P.S. 6 Location relative to identified B.H.R.s and C.H.L.s

Table 2: Preliminary Impact Assessment and Recommended Mitigation Measures

Feature I.D.	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
C.H.L. 1	2993 Innisfil Beach Road	It is understood that the proposed work will be limited to the north side of Innisfil Beach Road, east of 10 Sideroad. As C.H.L. 1 is located on the southwest corner of this intersection, no direct adverse impacts to this property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.
C.H.L. 2	7505 10 Sideroad	It is understood that the proposed work will be limited to the north side of Innisfil Beach Road, approximately 200 metres east of 10 Sideroad. C.H.L. 2 is located on the east side of 10 Sideroad, however, it is approximately 125 metres northwest of the proposed site footprint. No direct adverse impacts to this property are anticipated. As C.H.L. 2 is surrounded by mature trees, no significant adverse visual impacts to the property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.
C.H.L. 3	7524 10 Sideroad	It is understood that the proposed work will be limited to the northwest corner of Innisfil Beach Road and 10 Sideroad. As C.H.L. 3 is located outside of this area, no direct adverse impacts to this property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.

Feature I.D.	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
C.H.L. 4	2402 Innisfil Beach Road	It is understood that the proposed work will be limited to the northwest corner of Innisfil Beach Road and 10 Sideroad. As C.H.L. 4 is located outside of this area, no direct adverse impacts to this property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.
B.H.R. 1	7514 Innisfil Beach Road	It is understood that the proposed work will be limited to the northwest corner of Innisfil Beach Road and 10 Sideroad. As B.H.R. 1 is located outside of this area, no direct adverse impacts to this property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.
B.H.R. 2	2403 Innisfil Beach Road	It is understood that the proposed work will be limited to the northwest corner of Innisfil Beach Road and 10 Sideroad. As B.H.R. 2 is located outside of this area, no direct adverse impacts to this property are anticipated. As the subject property does not lie within a 50 metres radius of the proposed work, no vibration-related impacts or any other indirect adverse impacts are anticipated.	No further work required.

No direct or indirect adverse impacts are anticipated for any identified B.H.R. or C.H.L. as a result of the proposed construction of I.H. S.P.S. 6.

6.0 Results and Mitigation Recommendations

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with an Indigenous history spanning millennia and a Euro-Canadian rural land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are no previously identified features of cultural heritage value within the Innisfil Heights Sewage Pumping Station 6 study area. A total of four potential cultural heritage landscapes (C.H.L.s) and potential two built heritage resources (B.H.R.s) were identified during the fieldwork.

6.1 Key Findings

- A total of two potential B.H.R.s and four potential C.H.L.s were identified within the study area.
- All six identified potential B.H.R.s and C.H.L.s were identified during background research/field review (B.H.R. 1 and 2, C.H.L. 1 to 4).
- Identified cultural heritage resources are historically, architecturally, and contextually associated with land use patterns in the Town of Innisfil and more specifically representative of the early agricultural settlement on Innisfil Beach Road and 10 Sideroad.
- The proposed undertaking is not anticipated to have any direct or indirect adverse impacts on the six identified B.H.R.s and C.H.L.s.

6.2 Recommendations

Based on the results of the assessment, the following recommendations have been developed:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified built heritage resources and cultural heritage landscapes. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.

2. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.

3. This Cultural Heritage Report should be submitted by the proponent to the Town of Innisfil and the Ministry of Citizenship and Multiculturalism for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the Town of Innisfil for their records.

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Appendix I

Notice of Study Commencement

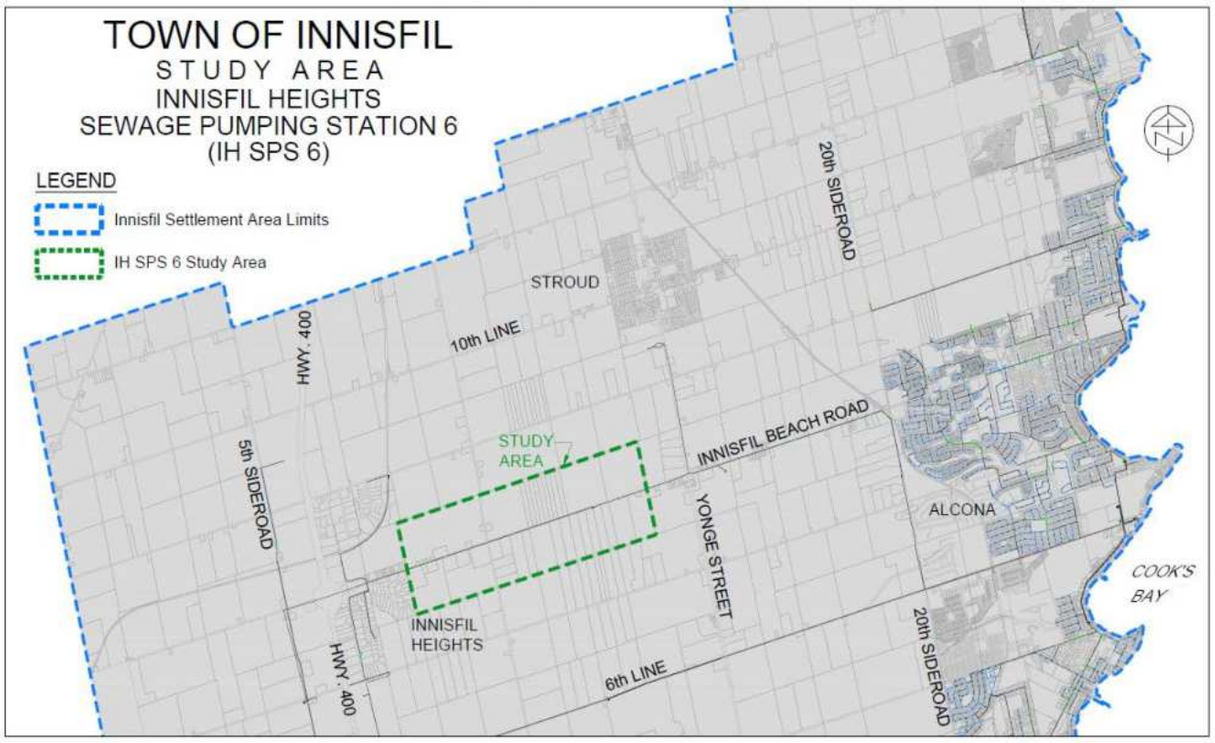
NOTICE OF STUDY COMMENCEMENT

Class Environmental Assessment – Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)

The Study

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district. Each proposed SPS will require a Schedule B Municipal Class Environmental Assessments (MCEA) prior to its construction. This Notice of Commencement is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located in the Innisfil Heights area of the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic area (SPS1 and SPS2) and direct it to the Lakeshore Wastewater Treatment Plant.

The Innisfil Heights Sewage Pumping Station 6 study area is proposed to be located on Innisfil Beach Road as illustrated on the accompanying map.



The Process

InnServices has retained Ainley Group to complete and document a Schedule B Class EA in accordance with the Municipal Class Environmental Assessment Document, October 2000, as amended in 2015.

How to Get Involved

Public consultation is a key component of the Class EA process. Additional information will be made available once alternatives have been identified and evaluated. Advance notice will be provided to allow all interested parties an opportunity to comment. For further information regarding the project, please contact either of the following members of the study team:

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON
L9S 0J3
jdegroote@innservices.co

Preya Balgobin, P.Eng.
Senior Project Manager
Ainley Group
280 Pretty River Parkway
Collingwood, ON L9Y 4J5
Tel. (705) 445-3451
balgobin@ainleygroup.com

Any input received during this process will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This notice was issued on September 16, 2021.

Appendix J

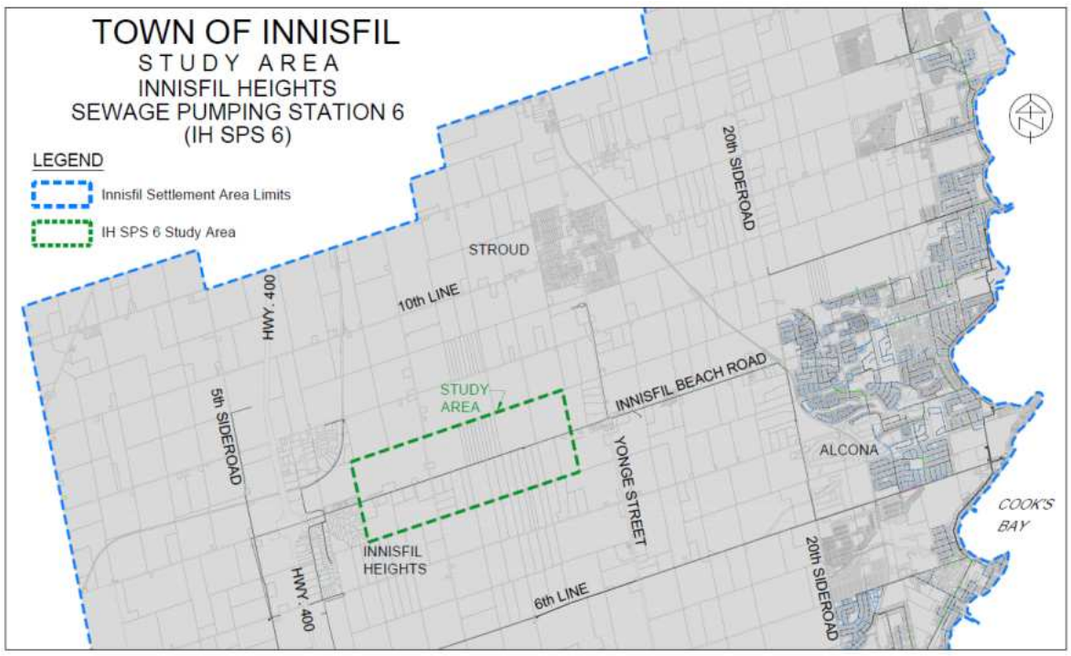
Notice of Public Information Centre

NOTICE OF PUBLIC INFORMATION CENTRE No. 1

Class Environmental Assessment – Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)

The Study

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The sewage pumping station will receive flows from the Innisfil Heights economic area (SPS1 and SPS2) and direct it to the Lakeshore Wastewater Treatment Plant. This Notice of PIC is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.



Public Information Centre

A virtual pre-recorded Public Information Centre (PIC) presentation will be available to view as of Thursday, April 21st, 2022 at 3:00 pm and will be posted on the InnServices project website located at https://innservices.co/infrastructure-upgrades/environmental-assessments/innisfil-heights-sewage-pumping-station-6

The PIC presentation will remain available on the site beyond April 21st and will also be available on the Town of Innisfil Facebook page and YouTube channel.

The purpose of the PIC will be to provide information on the project and to allow interested parties an opportunity to review alternative solutions and to provide feedback.

Comments Invited

Public input is encouraged throughout this process and will be given consideration during the planning and design of this project. Comments on the information presented will be received until Thursday May 5th, 2022 and may also be submitted in advance. To submit comments or obtain additional information please contact either of the study team members listed below.

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
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jdegroote@innservices.co

Preya Balgobin, P.Eng.
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Collingwood, ON L9Y 4J5
Tel. (705) 445-3451
balgobin@ainleygroup.com

Any input received during this process will be maintained on file for use during the project and may be included in project documentation. Information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. With the exception of personal information, all comments will become part of the public record.

This notice was first issued on March 31st, 2022.

Appendix K

Public Information Centre Presentation Material

Public Information Centre

WELCOME

Innisfil Heights SPS 6

New Sewage Pumping Station on Innisfil Beach Road

innservices

Schedule B Class Environmental Assessment

Ainley GROUP CONSULTING ENGINEERS PLANNERS

Date: April 21, 2022

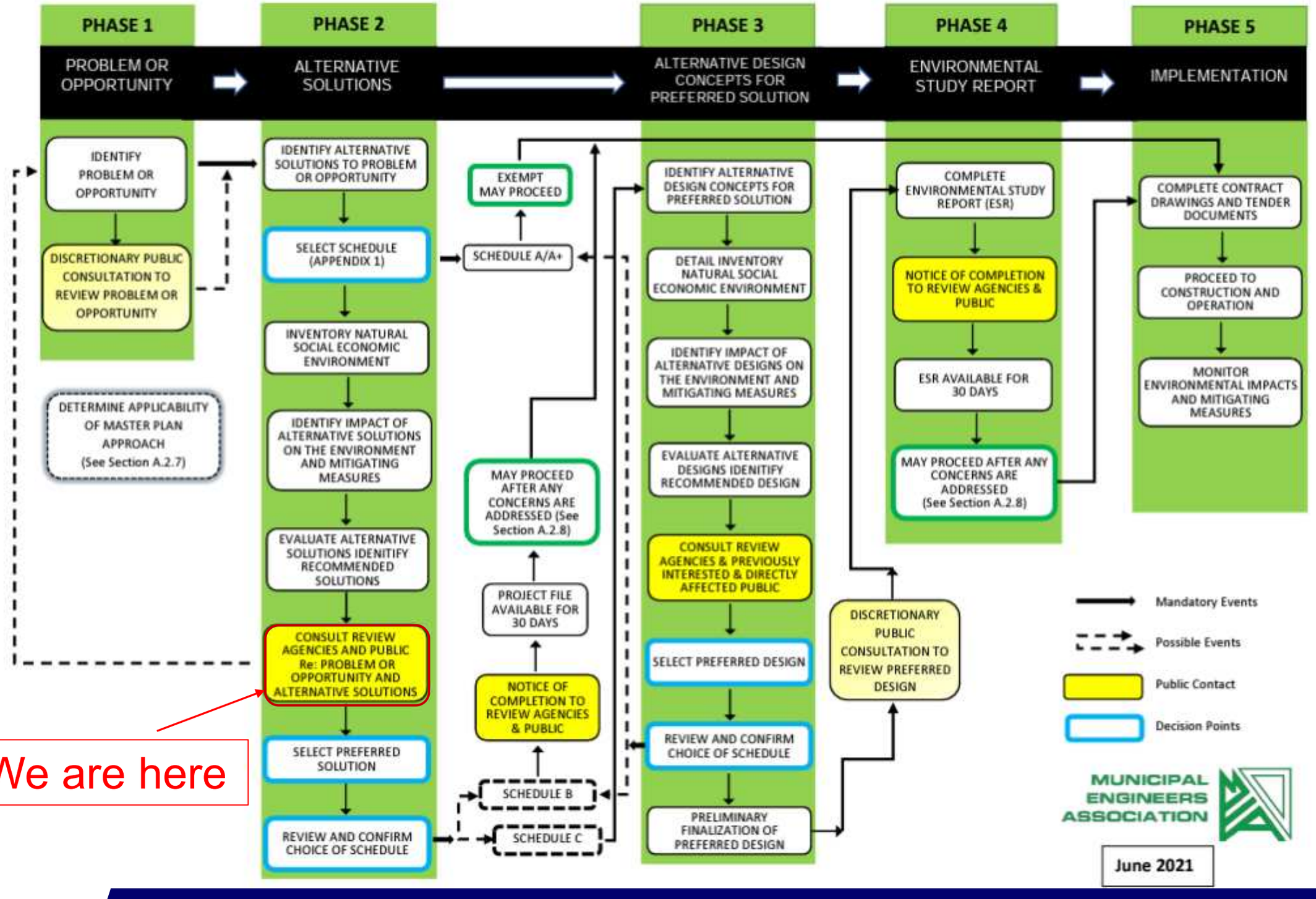
Purpose of Today's Public Information Centre

- To provide residents, rightsholders and other stakeholders with information related to a new sewage pumping station that will be located on Innisfil Beach Road servicing the Innisfil Heights economic district
- To outline the Municipal Class Environmental Assessment (Class EA) Process
- To present the study area, purpose and objectives
- To present the problem/opportunity statement for the project along with the long and short list of alternative solutions
- To make a preliminary identification of a recommended solution for public and agency comment
- Receive feedback on the evaluation process and recommended solution
- To outline the project's next steps and proposed schedule

Background of the Class EA Process

- A municipality is required to conduct a Municipal Class Environmental Assessment before this type of infrastructure improvement project can proceed to construction. A Municipal Class Environmental Assessment follows an approved planning process designed to protect the environment and to ensure compliance with the Environmental Assessment Act.
- The purpose of the Environmental Assessment Act (EA Act) is to provide for "…the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment." The term "environment" is broadly defined and includes the built, natural, socio-economic and cultural environments.
- The process requires the evaluation of potential solutions and design concepts so as to select a suitable approach that will address the problem/opportunity, but also keep impacts to a minimum.
- Based on the scope of this project, the new Innisfil Heights Sewage Pumping Station 6 is being planned as a Schedule 'B' Municipal Class EA Project, which will complete Phases 1 to 2 of the EA process.

Municipal Class Environmental Assessment Process



We are here

Study Purpose & Objectives

Purpose

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified wastewater servicing strategies to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018).

This EA is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic area and direct it to the Lakeshore Wastewater Treatment Plant.

Objectives

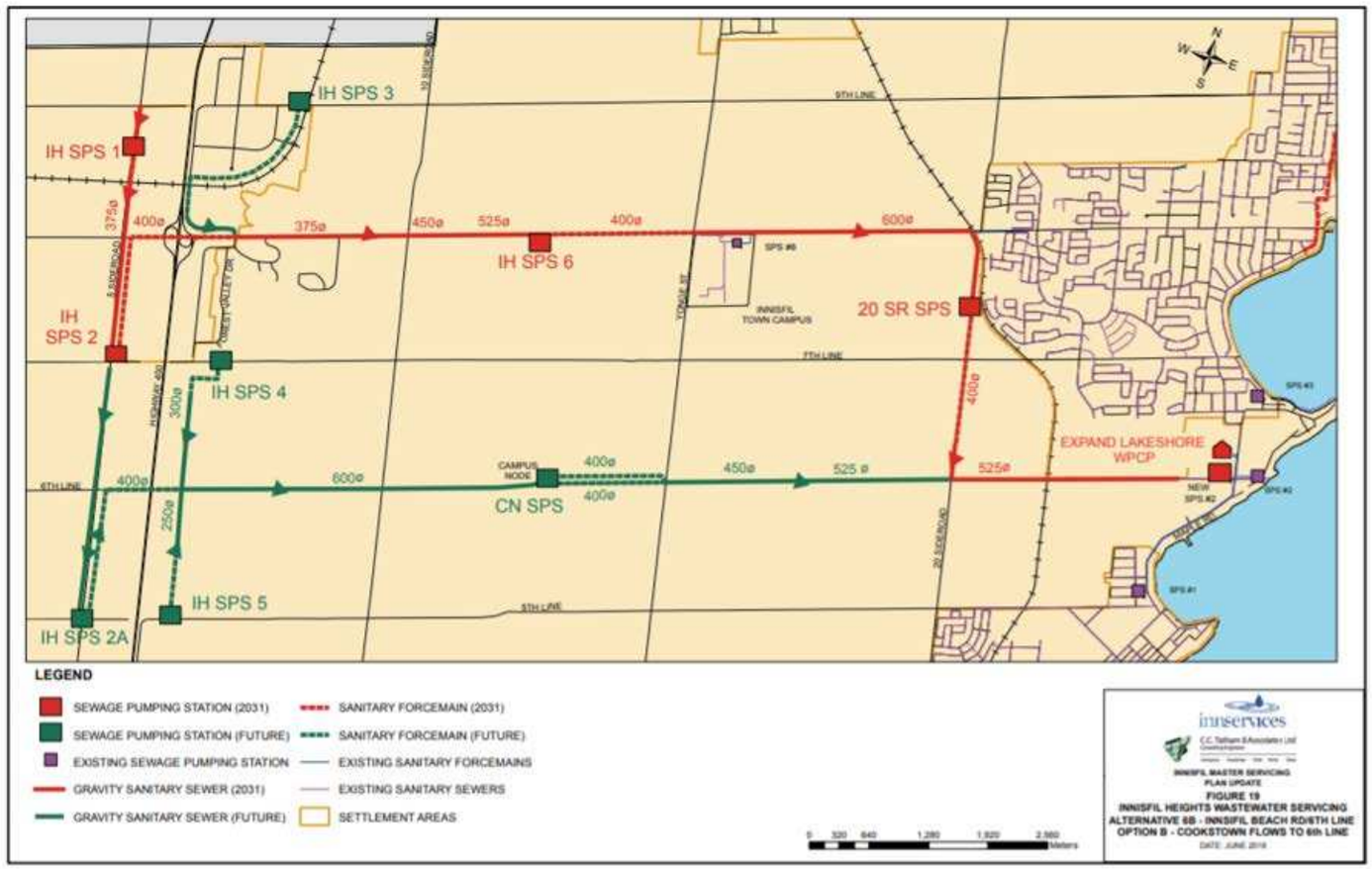
1. **Satisfy the Schedule B Municipal Class Environmental Assessment Process**
2. **Provide infrastructure capacity and flexibility to meet future capacity demands identified in InnServices Master Servicing Plan Update (MSP), 2018**
3. **Minimize environmental impacts, and other impacts including natural and socio-economic**

Study Background

As part of the MSP various alternatives were examined in order to provide servicing to the first phase of the Innisfil Heights economic district expansion, an area designated as a Strategic Settlement Employment Area. In order to promote, facilitate and maximize the planned expansion of this area, the MSP identified that a municipal sanitary sewage collection system is required. The MSP identified "Alternative 6, Option B' as the preferred option.

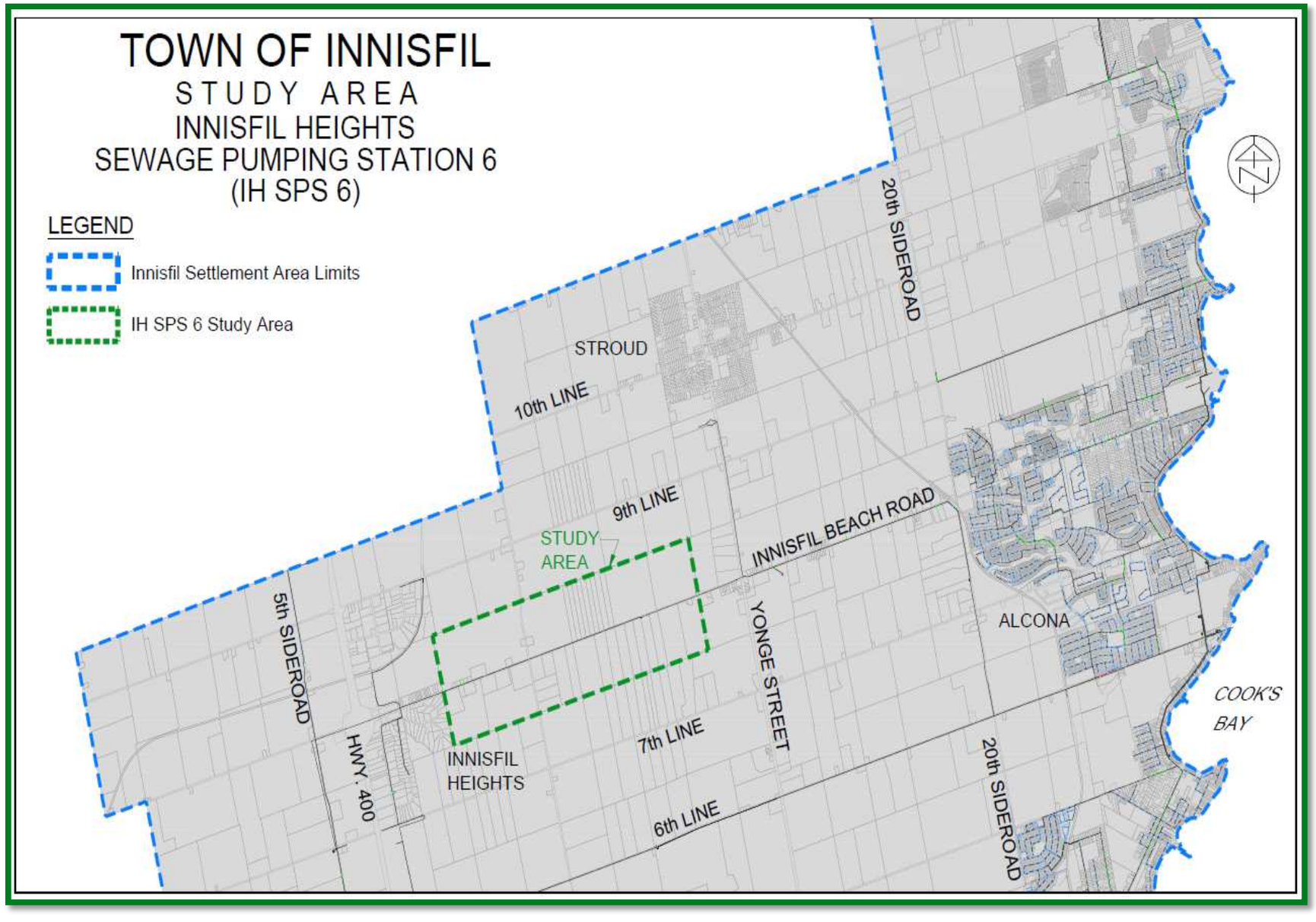
Alternative 6 establishes a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development up to year 2031.

As part of this alternative several sewage pumping stations were identified along the sewer route including the new IH SPS 6.



Study Area

The Study Area is defined as the overall area on Innisfil Beach Road on which a new sewage pumping station can be located to best service the Strategic Settlement Employment Area.



Problem / Opportunity Statement

"Identify and develop a preferred solution (location) for new sewage pumping station 6 on Innisfil Beach Road to meet future capacity requirements in the Strategic Settlement Employment Area.

Existing Environmental Conditions

Various studies have been completed to determine existing environmental conditions as well as to identify any potential impacts the alternative solutions pose to the environment within the Study Area.

Natural Environment

- Portions of the study area are within lands regulated by the Lake Simcoe Region Conservation Authority (LSRCA).
- Based on subconsultant initial assessment, several Key Natural Heritage Features (KNHF), as defined by Provincial Planning Policy, have been identified within the study area including:
  - Wetland (Lover's Creek Provincially Significant Wetland (PSW);
  - Woodland;
  - Watercourses (fish habitat, classified as coldwater sensitive);
  - Potential Species at Risk (SAR)and/or SAR habitat; and
  - Potential Significant Wildlife Habitat (SWH).
- Based on the identified features and functions, it is recommended that siting of the IH SPS 6 occur outside/away from of the identified KNHF including the PSW, woodland, watercourses and LSRCA regulated lands, to mitigate potential impacts to the identified KNHF, fish and aquatic resources and potential SAR habitat in the study area.

Cultural Environment

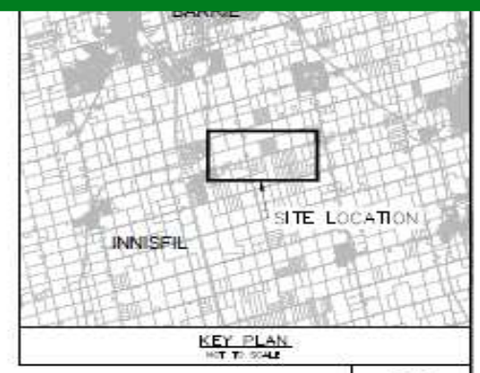
- A Stage 1 Archaeological Assessment determined that there are five previously registered archaeological sites located within one kilometer of the Study Area, three of which are located within 50 metres (MHSTCI, 2021). The property inspection determined that parts of the Study Area exhibit archaeological potential and will require Stage 2 assessment.
- Based on the results of the Cultural Heritage Report background research and field review, two potential built heritage resources (B.H.R.s) and four potential cultural heritage landscapes (C.H.L.s) were identified within the study area.

Social Environment

- Land Use within the study area is designated as Agricultural Area and KNHF &KHF under the Town of Innisfil Official Plan
- There are numerous residences along Innisfil Beach Road within the study area.

Preliminary Alternatives







NOTES:

Not Valid Unless Signed And Dated

PRELIMINARY

TOWN OF INNISFIL
POTENTIAL IH SPS 6 LOCATIONS

OVERALL PLAN

CONTRACT No.

DWG. No. PRJ—NO—DR

Preliminary Screening Criteria

As part of Phase 2 of the Class EA process, several alternatives have been developed to address the problem/opportunity statement. A Preliminary Screening was conducted to eliminate alternatives that would not meet the basic criteria below.

A “Do-Nothing” alternative has been considered throughout the evaluation and reviewed as a benchmark to gauge the potential impacts of the other alternatives being considered.

Screening Criteria No. 1	Screening Criteria No. 2	Screening Criteria No. 3
• Does the alternative meet the problem/opportunity statement?	• Does the alternative meet the minimum technical requirements?	• Can the alternative be implemented without facing significant impacts that mitigation measures could not address?

Initial Screening of Preliminary Alternative

Alternative	Discussion on Ability of Alternative to Meet Preliminary Screening Criteria	Carried Forward for Further Evaluation
Alternative 1A	Preliminary analysis indicates that it will be possible to construct the SPS at this site while meeting the minimum technical requirements and without potential significant impacts that may be unmitigable.	✓
Alternative 2A	The site is located within the KSHF Woodland adjacent to the Lover's Creek complex in an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 3A	Preliminary analysis indicates that it will be possible to construct the SPS at this site while meeting the minimum technical requirements and without facing major constraints.	✓
Alternative 4A	The site is located within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) an within an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 5A	The site is located within the KSHF Wetland (Lover's Creek Provincially Significant Wetland) an within an LSRCA regulated area, all specified areas for the siting of the SPS to avoid.	✗
Alternative 6A	This alternative does not meet the minimum technical requirements because the excessive depth of a wet well required to provide gravity drainage to the site.	✗

Alternatives 1A and 3A along with "Do Nothing" will be carried forward for further evaluation


Lover's Creek Swamp (IN4)
10 Sideroad
54
Lover's Creek Swamp (IN
Lover's Creek Swamp (IN4)
21
Lover's Creek Swamp (IN4)
Lover's Creek Swamp (IN4)
Lover's Creek Swamp (IN4)
Lover's Creek Swamp (IN4)
Lover's Creek Swamp (IN4)
21
Site Alternative 1A
7524 Tenth Sideroad
Site Alternative Limit
Approximate Footprint of SPS Site

Innisfil Heights Wastewater Servicing – New Sewage Pumping Station 6



Evaluation

- Each of the alternatives were evaluated based on their potential impact to the study area environment (physical, natural, cultural, and socio-economic).
- The evaluation is presented in a table or matrix to provide a simplified, visual comparison.
- A scoring system was created where a score of 1-2 represents the most preferred option, as it will address the key concerns, but create the least amount of environmental impact. A score of 5 is indicative of a least preferred option as it has a higher potential to impact the environment.

Level of Impact	
No Impact	1
Minimal Impact	2
Moderate Impact	3
Significant Impact	4
Most Significant Impact	5

Evaluation of Alternatives

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
TECHNICAL ENVIRONMENT (the DO NOTHING option does not address the technical environment)			
Suitability of Elevation and Topography	3	3	Under both Alternatives the location of sites pose a technical disadvantage due to topography. Preliminary layout indicates that there is adequate space for station footprint within each Alternative site.
Geotechnical Suitability	2	4	Preliminary review of area under Alternative 1A shows soils are likely sandy silt to sandy glacial till which is considered favourable soil type for the SPS construction. Investigation of area of Alternative 3A shows Soils likely to be glaciolacustrine clays and silts to the west and organics to the east portion of the property. Organics are not suitable for the support of foundations.
Hydrogeological Suitability	3	4	Hydrogeological conditions to be confirmed. Preliminary review indicates water levels at Site 1A may be deeper than water levels at 3A.
Hydraulics	2	2	Under both Alternatives careful consideration to the hydraulics would be required during design and transient analysis of the forcemain would be required to ensure proper placement of air/vacuum release valves.
Utilities	3	1	Under both site locations overhead hydro is located on opposite side of road, which lends to an easier construction. However, other utilities are located on the southeast corner of the lot close to Site 1A including an existing transformer, telecommunications junction box and a gas line. This may require additional coordination and permits.
NATURAL ENVIRONMENT			
Proximity to Key Natural Heritage Feature or Regulated Area	1	3	Alternative 3A site is within a regulated area under the LSRCA and is within 100m of the Lover's Creek Provincially Significant Wetland. Alternative 1A is just outside of the LSRCA regulated area. The Do Nothing option would have no impact on natural heritage features.
Terrestrial Vegetation/Wildlife (Including SAR)	1	1	Both alternatives avoid major impacts to vegetation and wildlife. The preferred alternative will be studied further to consider site specific impacts. Do Nothing avoids impact to terrestrial vegetation and wildlife.
Groundwater	1	3	Under Alternative 3A there is more potential for groundwater impacts and dewatering to be required during construction. The Do Nothing option would not have an impact on groundwater.

Evaluation of Alternatives (Continued)

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
CULTURAL AND SOCIAL ENVIRONMENT			
Archaeological Resources	3	3	Both site alternatives exhibit archaeological resource potential and further investigation is required to confirm and to develop suitable mitigation measures. The Do Nothing option would not have an impact on archaeological resources.
Cultural Heritage Resources	1	1	Both site alternatives have been confirmed as having no potential for Cultural Heritage impacts. The sites are more than 50m from all heritage properties. The Do Nothing option would not have an impact on cultural heritage resources.
Aesthetics (noise, odour, visibility)	2	2	Both alternatives are nearby to one nearby residential home. Both alternatives are situated on agricultural land, minimizing proximity to the public. The Do Nothing option would not have an aesthetic impact.
Impacts to Property Owners	4	4	Both Alternatives will impact private property owners, as land acquisition is required. Temporary impacts are anticipated during construction and may impact traffic along Innisfil Beach Road. Mitigation measures can be implemented to minimize disturbances. The Do Nothing option would not have an impact on property owners.
Climate Change/Air Quality	3	3	Both alternatives are similar in air quality and climate change impacts. The Do Nothing option would mean that the Strategic Settlement Employment Area would not be serviced by a wastewater system.
Impacts to Adjacent Business/Commercial Properties	3	3	Both alternatives will have some impact on agricultural land use. Land will need to be acquired from farm lands. The Do Nothing option would have a significant impact on business and commercial properties because they would no be developable.
ECONOMIC ENVIRONMENT (the Do Nothing option would have significant economic impacts for future growth)			
Operating and Maintenance Costs	3	2	Alternative 1A will have higher long term operating costs since it requires the longest pumping distance.
Capital Costs	3	3	The capital costs for the SPS will be similar under each alternative site location.
Land Acquisition Costs	3	3	Both site locations will require private property acquisition.
TOTAL SCORE			
	41	45	

Preliminary Recommended Solution

Given the results of the preliminary evaluation, it is recommended that **Alternative 1A,** located at 7524 Tenth Sideroad be selected as the Recommended Solution.



Next Steps and Proposed Schedule

Receive Comments	Review comments, incorporate feedback from the PIC	Select the Preferred Alternative and Finalize Project File Report	Issue Notice of Study Completion and provide Project File Report for final 30-day public review and comment period	Address and incorporate comments. If no Notice of Proposed Order is received from the MECP; proceed to preliminary design
Thursday May 12th, 2022			Summer 2022	Fall 2022

Your Comments are Important to Us

Comments may be emailed to the study team by email or regular mail. Public input is encouraged throughout this process and will be given consideration during the planning and design of this project.

Mrs. Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON
L9S 0J3
Email: jdegroote@innservices.co

Ms. Preya Balgobin, P.Eng.
Project Manager
Ainley Group
195 County Ct Blvd #300,
Brampton, ON
L6W 4P7
Email: preya.balgobin@ainleygroup.com

The deadline for comments is Thursday May 12th, 2022

Appendix L

Notice of Completion

NOTICE OF COMPLETION

Municipal Class Environmental Assessment – Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)

Background

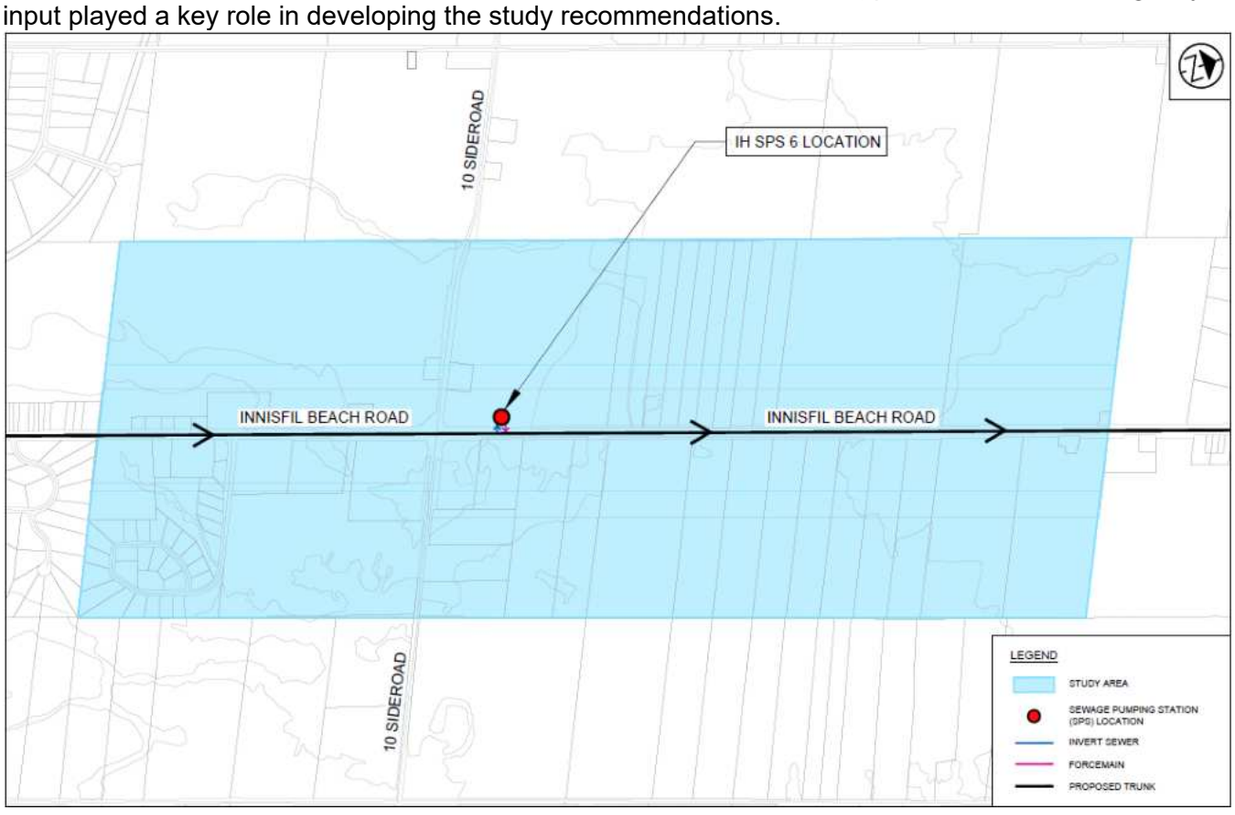
InnServices Utilities Inc. has completed a Schedule B Municipal Class Environmental Assessment (Class EA) study to determine the preferred location to construct a new sewage pumping station to service the Innisfil Heights economic district. This study builds upon the 2018 Innisfil Master Servicing Plan Update to provide wastewater servicing in short- and long- term strategies to accommodate the population and employment growth.

Process

This Class EA followed the planning and design process for Schedule 'B' projects as described in the Municipal Class Environmental Assessment Document (amended 2024), published by the Municipal Engineers Association (MCEA).

Recommendation

The recommendation from this Class EA is to construct a new sewage pumping station at 7535 10th Sideroad. This station will connect to the proposed trunk sewer on Innisfil Beach Road and direct wastewater flow to the Lakeshore Wastewater Treatment Plant. As such, public and technical agency input played a key role in developing the study recommendations.



The study process, recommendations, and mitigation measures are documented within the Project File Report. A copy of this report is being placed on the public record for a 30-day review period. Subject to comments received as a result of this Notice and the receipt of necessary approvals, InnServices intends to proceed with preliminary design as documented in the Project File Report. The Project File Report can be viewed on the InnServices project website located at: https://innservices.co/infrastructure-upgrades/environmental-assessments/innisfil-heights-sewage-pumping-station-6.

Feedback

Consultation is vital to the success of a Class EA Study and InnServices wants to ensure that anyone interested has the opportunity to be involved and provide input. Interested persons may provide written comments or questions to our project team by **March 24th, 2025**. All comments and concerns should be sent directly to either one of the following contacts.

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON
L9S 0J3
jdegroote@innservices.co

Preya Balgobin, P.Eng.
Senior Project Manager
Ainley Group
280 Pretty River Parkway
Collingwood, ON L9Y 4J5
Tel. (705) 445-3451
balgobin@ainleygroup.com

In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (that is, requiring and individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (that is, requires further studies), only on the grounds that the requested order may prevent, mitigate, or remedy adverse impacts on constitutionally protected inherent and treaty rights of a First Nation or Indigenous community.

Requests on other grounds will not be considered. Requests should include the requester's contact information and full name.

Requests should specify what kind of order is being requested (request for additional conditions or a request for an additional/comprehensive EA) on the grounds specified previously, and any information in support of the statements in the request.

The request should be sent in writing or by email to both of the following contacts:

Minister of the Environment, Conservation and Parks
Ministry of the Environment, Conservation and Parks
77 Bay Street, 5th Floor
Toronto, ON, M7A 2J3
minister.mecp@ontario.ca

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, ON, M4V 1P5
EABDirector@ontario.ca

Requests should be also sent to the project contacts listed above by mail or by email.

Please visit the ministry's website for more information on requests for orders under section 16 of the *Environmental Assessment Act* at:
https://www.ontario.ca/page/class-environmental-assessments-section-16-order

All personal information included in your request - such as name, address, telephone number, and property location - is collected, under the authority of section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As this information is collected for the purpose of a public record, the protection of personal information provided in the *Freedom of Information and Protection of Privacy Act* (FIPPA) does not apply (s.37). Personal information you submit may become part of a public record that is available to the general public unless you request that your personal information remain confidential.

This notice was issued on February 21st, 2025.

Appendix M

Consultation Records

List of Content

1. Consultation Records with MECP

2. Consultation Records with First Nations
    a. Chippewas of Georgina Island First Nation
    b. Chippewas of Rama First Nation
    c. Beausoleil First Nation
    d. Curve Lake First Nation
    e. Mississaugas of Scugog Island First Nation
    f. Hiawatha First Nation
    g. Alderville First Nation
    h. Huron-Wendat Nation
    i. Métis Nation of Ontario (MNO)
    j. Saugeen Ojibway Nation (as the consultation contact for Saugeen First Nation and Chippewas of Nawash Unceded First Nation)
    k. Haudenosaunee Development Institute

3. Consultation Records with Agencies

4. Consultation Records with Property Owners

Consultation Records with MECP

From:	Jody Marks
To:	eanotification.cregion@ontario.ca
Cc:	Preya Balgobin; Wendy Smeh
Subject:	Town of Innisfil, MEA Class EA, Innisfil Heights Sewage Pumping Station 6
Date:	Thursday, September 16, 2021 2:42:00 PM
Attachments:	Town of Innisfil, MEA Class EA, Innisfil Heights Sewage Pumping Station 6 - Project Information Form.xlsx 121031 Notice of Study Commencement.pdf image001.png

Hello,

Please find attached the Project Information Form and Notice of Commencement for the above noted project.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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From:	Liu, Chunmei (MECP)
To:	Jody Marks
Cc:	Potter, Katy (MECP)
Subject:	RE: Town of Innisfil (InnServices) Municipal Class EA - Indigenous Consultation
Date:	Friday, October 1, 2021 2:27:47 PM
Attachments:	image001.png A Proponent"s Introduction to the Delegated Aspects of Consultation with.pdf

---

Thank you for your email, Jody.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

The following Williams Treaties Communities with a copy to the Williams Treaties Coordinator Karry Sandy McKenzie:
- Chippewas of Georgina Island First Nation
- Chippewas of Rama First Nation (Mnjikaning)
- Beausoleil First Nation
- Curve Lake First Nation
- Mississaugas of Scugog Island First Nation
- Hiawatha First Nation
- Alderville First Nation

- Huron-Wendat Nation, if there is potential for the project to impact archeological resources [please refer to wording previously discussed to ensure that it does not seem like only HWN is interested in archeological impacts]

- Métis Nation of Ontario- Lands and Resources Dept with a copy to Region 7 Councillor David Dusome

-Saugeen First Nation and the Chippewas of Nawash Unceded First Nation (these communities work together on consultation issues and are known collectively as the Saugeen Ojibway Nation. They have requested notices be sent to the Saugeen Ojibway Nation Environment Office with a copy to the Chief and Council of Saugeen First Nation and Chippewas of Nawash Unceded First Nation).

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process". Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information, including the MECP's expectations for EA report documentation related to consultation with communities.

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation with Indigenous communities or other stakeholders has reached an impasse
- A Part II Order request is expected on the basis of impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Should you or any members of your project team have any questions regarding the material above, please contact me for further discussion.

Thank you,

Chunmei Liu | Regional EA and Planning Coordinator
Environmental Assessment Branch, **Ontario Ministry of the Environment, Conservation and Parks**
Chunmei.Liu@ontario.ca | Website: http://www.ene.gov.on.ca/
We want to hear from you. How was my service? You can provide feedback at 1-888-745-8888 or ontario.ca/inspectionfeedback
Nous attendons vos commentaires. Qu'avez-vous pensé de mon service? Vous pouvez nous faire part de vos commentaires au 1-888-745-8888 ou à ontario.ca/retroactioninspection

---

From: Jody Marks <marks@ainleygroup.com>
Sent: September-30-21 10:01 AM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Subject: Re: Town of Innisfil (InnServices) Municipal Class EA - Indigenous Consultation

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

Hi Chunmei,

A further follow up regarding my inquiry at the end of August. We have published the Notice of Commencement and would like to share the notice with the Indigenous communities as soon as we can. If you could please let me know when we could expect a response from your senior advisor I would appreciate it.

Thank you for your time.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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From: Jody Marks
Sent: Thursday, September 16, 2021 10:59 AM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Subject: RE: Town of Innisfil (InnServices) Municipal Class EA - Indigenous Consultation

Hi Chunmei,

I wanted to follow up with you on my inquiry below. Please let us know which Indigenous communities should be included in our consultation plan. The Notice of Commencement has been published today in the local newspaper.

Thank you!

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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From: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Sent: Wednesday, August 18, 2021 10:28 AM
To: Jody Marks <marks@ainleygroup.com>
Cc: Wendy Smeh <smeh@ainleygroup.com>; Preya Balgobin <balgobin@ainleygroup.com>; Potter, Katy (MECP) <Katy.Potter@ontario.ca>
Subject: RE: Town of Innisfil (InnServices) Municipal Class EA - Indigenous Consultation

Thank you for your email, Jody. I'll ask our senior advisor to review your list and let you know when comments received. Have a great day!

From: Jody Marks <marks@ainleygroup.com>
Sent: August-17-21 4:52 PM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Cc: Wendy Smeh <smeh@ainleygroup.com>; Preya Balgobin <balgobin@ainleygroup.com>
Subject: Town of Innisfil (InnServices) Municipal Class EA - Indigenous Consultation

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

Hello Chunmei,

I hope you have been keeping well. Our project team is starting a new project with InnServices (Town of Innisfil) which involves the completion of five Schedule B Municipal Class EAs for five separate Sewage Pumping Stations in the Innisfil Heights, Stroud and Alcona areas of the Town of Innisfil. The projects were identified in the 2018 Innisfil Master Servicing Plan (MSP) Update, with the exception of Stroud.

We are working to draft the Notice of Commencement and would like confirmation on which Indigenous Communities we should include as part of our consolation plan. Currently, we have included the Indigenous communities that were listed as part of the MSP (see below), please let us know of any changes to this list.

Chiefs of Ontario
Chippewas of Georgina Island
Williams Treaties First Nations
Chippewas of Mnjikaing First Nation (Rama)
Ogemawahj Tribal Council
Huron-Wendat Nation
Union of Ontario Indians
Métis Nation of Ontario
Beausoleil First Nation
Moon River Métis Council
Georgian Bay Métis Council

Thank you.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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recipient is responsible for confirming the accuracy and completeness of the information with the originator. Please advise the sender if you believe this message has been received by you in error.

A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

DEFINITIONS

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. PURPOSE

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;

- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;

- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant information;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

From:	EA Notices to CRegion (MECP)
To:	Jody Marks; Preya Balgobin; Wendy Smeh
Cc:	Potter, Katy (MECP); Hood, Cindy (MECP)
Subject:	RE: Town of Innisfil, MEA Class EA, Innisfil Heights Sewage Pumping Station 6
Date:	December 20, 2021 5:30:44 PM
Attachments:	image001.png 2021-12-20-MECP Comments for Innisfil Heights SPS 6.pdf Supporting Attachment - Species at Risk Proponents Guide to Preliminary Screening (Draft May 2019).pdf

Please find the attached letter as the ministry's general comments for this project. if you have any questions, please feel free to contact me directly.

Thank you,

Chunmei Liu | Regional EA and Planning Coordinator
Environmental Assessment Branch, **Ontario Ministry of the Environment, Conservation and Parks**
Chunmei.Liu@ontario.ca | Website: http://www.ene.gov.on.ca/

If you have any accommodation needs or require communication supports or alternate formats, please let me know.
Si vous avez des besoins en matière d'adaptation, ou si vous nécessitez des aides à la communication ou des médias substituts, veuillez me le faire savoir.

From: Jody Marks <marks@ainleygroup.com>
Sent: September-16-21 2:43 PM
To: EA Notices to CRegion (MECP) <eanotification.cregion@ontario.ca>
Cc: Preya Balgobin <balgobin@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>
Subject: Town of Innisfil, MEA Class EA, Innisfil Heights Sewage Pumping Station 6

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

Hello,

Please find attached the Project Information Form and Notice of Commencement for the above noted project.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Ministry of the Environment, Conservation and Parks

Environmental Assessment Branch

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Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations environnementales

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Téléc. : 416 314-8452

Ontario

December 20, 2021 File No.: EA 01-06-03

BY EMAIL ONLY
Jenna DeGroote, C.E.T. Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street Innisfil, ON L9S 0J3
jdegroote@innservices.co

Re: **Innisfil Heights Sewage Pumping Station 6**
Town of Innisfil
Municipal Class EA, Schedule B
Response to Notice of Commencement

Dear Jenna DeGroote,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Town of Innisfil (proponent) has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please address all areas of interest in the EA documentation at an appropriate level for the EA study. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule. **Further information is provided at the end of the Areas of Interest document relating to recent changes to the *Environmental Assessment Act* through Bill 197, Covid-19 Economic Recovery Act 2020.**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project**, the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown`s preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- The following Williams Treaties Communities with a copy to the Williams Treaties Coordinator Karry Sandy McKenzie:
    - Chippewas of Georgina Island First Nation
    - Chippewas of Rama First Nation (Mnjikaning)
    - Beausoleil First Nation
    - Curve Lake First Nation
    - Mississaugas of Scugog Island First Nation
    - Hiawatha First Nation
    - Alderville First Nation
- Huron-Wendat Nation, if there is potential for the project to impact archeological resources
- Métis Nation of Ontario- Lands and Resources Dept with a copy to Region 7 Councillor David Dusome
- Saugeen First Nation and the Chippewas of Nawash Unceded First Nation (these communities work together on consultation issues and are known collectively as the Saugeen Ojibway Nation. They have requested notices be sent to the Saugeen Ojibway Nation Environment Office with a copy to the Chief and Council of Saugeen First Nation and Chippewas of Nawash Unceded First Nation).

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process". Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments.

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information, including the MECP's expectations for Class EA documentation related to consultation with communities.

The proponent must contact the Director of Environmental Assessment Branch (EABDirector@ontario.ca) under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation with Indigenous communities or other stakeholders has reached an impasse
- A Section 16 Order request is expected on the basis of impacts to Aboriginal or treaty rights

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play, and should additional steps and activities be required.

Should you or any members of your project team have any questions regarding the material above, please contact me at chunmei.liu@ontario.ca.

Yours truly,

Chunmei Liu
Regional Environmental Planner – Central Region

cc Katy Potter, Supervisor, Environmental Assessment Services, MECP
Cindy Hood, Manager, Barrie District Office, MECP
Preya Balgobin, Senior Project Manager, Ainley Group

Attach: Areas of Interest
A Proponent's Introduction to the Delegation of Procedural Aspects of Consultation with Aboriginal Communities
Draft Guide to Preliminary Screening for Species at Risk

AREAS OF INTEREST (v. August 2021)

It is suggested that you check off each section after you have considered / addressed it.

☐ **Planning and Policy**

- Projects located in MECP Central Region are subject to **A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020).** Parts of the study area may also be subject to the Oak Ridges Moraine Conservation Plan (2017), Niagara Escarpment Plan (2017), Greenbelt Plan (2017) or Lake Simcoe Protection Plan (2014). Applicable plans and the applicable policies should be identified in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.

- Additionally, if the project is located within the boundaries of the Lake Simcoe Protection Plan, we also strongly recommend that the project team review the information and resources available on the province's website related to protecting Lake Simcoe found here: https://www.ontario.ca/page/protecting-lake-simcoe, including the Lake Simcoe phosphorus reduction strategy.

- The **Provincial Policy Statement (2020)** contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

- In addition to the provincial planning and policy level, the report should also discuss the planning context at the municipal and federal levels, as appropriate.

☐ **Source Water Protection**

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been 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 have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore 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. Policies may prohibit certain activities, or they

may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

    - The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.

    - If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to 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.

- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.

- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: http://www.applications.ene.gov.on.ca/swp/en/index.php. Note that various layers (including WHPAs, WHPA-Q1 and WHPA-Q2, IPZs, HVAs, SGRAs, EBAs, ICAs) can be turned on through the “Map Legend” bar on the left. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.

- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario’s website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional “local” threat activities, as approved by the MECP.

- **Climate Change**

The document "Considering Climate Change in the Environmental Assessment Process" (Guide) is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the

MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. Proponents should review this Guide in detail.

- **The MECP expects proponents of Class EA projects to:**

    1. Consider during the assessment of alternative solutions and alternative designs, the following:
        a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
        b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
    2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "Community Emissions Reduction Planning: A Guide for Municipalities" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

- **Air Quality, Dust and Noise**

- If there are sensitive receptors in the surrounding area of this project, a quantitative air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**

- If a quantitative Air Quality Impact Assessment is not required for the project, the MECP expects that the report contain a qualitative assessment which includes:

    - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
    - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
    - A discussion of local air quality impacts that could arise from this project during both construction and operation; and
    - A discussion of potential mitigation measures.

- As a common practice, "air quality" should be used an evaluation criterion for all road projects.

- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.

- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to *Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities* report prepared for Environment Canada. March 2005.

- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.

- Natural heritage and hydrologic features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
  - Key Natural Heritage Features: Habitat of endangered species and threatened species, fish habitat, wetlands, areas of natural and scientific interest (ANSIs), significant valleylands, significant woodlands; significant wildlife habitat (including habitat of special concern species); sand barrens, savannahs, and tallgrass prairies; and alvars.
  - Key Hydrologic Features: Permanent streams, intermittent streams, inland lakes and their littoral zones, seepage areas and springs, and wetlands.
  - Other natural heritage features and areas such as: vegetation communities, rare species of flora or fauna, Environmentally Sensitive Areas, Environmentally Sensitive Policy Areas, federal and provincial parks and conservation reserves, Greenland systems etc.

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. Information, standards, guidelines, reference materials and technical resources to assist you are found at https://www.ontario.ca/page/species-risk.

- The Client's Guide to Preliminary Screening for Species at Risk (Draft May 2019) has been attached to the covering email for your reference and use. Please review this document for next steps.

- For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.

- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry's Stormwater Management Planning and Design Manual (2003) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:

- Strategies to address potential water quantity and erosion impacts related to stormwater draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained
- Watershed information, drainage conditions, and other relevant background information
- Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
- Information on maintenance and monitoring commitments.

- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.

- Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.

- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.

- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.

- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the Water Taking User Guide for EASR for more information.

- Consultation with the railroad authorities is necessary wherever there is a plan to use construction dewatering in the vicinity of railroad lines or where the zone of influence of the construction dewatering potentially intercepts railroad lines.

Excess Materials Management

- In December 2019, MECP released a new regulation under the Environmental Protection Act, titled "On-Site and Excess Soil Management" (O. Reg. 406/19) to support improved management of excess construction soil. This regulation is a key step to support proper management of excess soils, ensuring valuable resources don't go to waste and to provide clear rules on managing and reusing excess soil. New risk-based standards referenced by this regulation help to facilitate local beneficial reuse which in turn will reduce greenhouse gas emissions from soil transportation, while ensuring strong protection of human health and the environment. The new regulation is being phased in over time, with the first phase in effect on January 1, 2021. For more information, please visit https://www.ontario.ca/page/handling-excess-soil.

- The report should reference that activities involving the management of excess soil should be completed in accordance with O. Reg. 406/19 and the MECP's current guidance document titled "Management of Excess Soil – A Guide for Best Management Practices" (2014).

- All waste generated during construction must be disposed of in accordance with ministry requirements

Contaminated Sites

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites. We recommend referring to the MECP's D-4 guideline for land use considerations near landfills and dumps.
    - Resources available may include regional/local municipal official plans and data; provincial data on large landfill sites and small landfill sites; Environmental Compliance Approval information for waste disposal sites on Access Environment.

- Other known contaminated sites (local, provincial, federal) in the study area should also be identified in the report (Note – information on federal contaminated sites is found on the Government of Canada's website).

- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with *Part XV.1 of the Environmental Protection Act* (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

Servicing, Utilities and Facilities

- The report should identify any above or underground utilities in the study area such as transmission lines, telephone/internet, oil/gas etc. The owners should be consulted to discuss impacts to this infrastructure, including potential spills.

- The report should identify any servicing infrastructure in the study area such as wastewater, water, stormwater that may potentially be impacted by the project.

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with MECP's Environmental Permissions Branch to determine whether a new or amended ECA will be required for any proposed infrastructure.

- We recommend referring to the ministry's environmental land use planning guides and proposed land use compatibility guidelines to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.

- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.

- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA.

Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The report should also include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments (as directed by the Class EA to include full documentation).

- Please include the full stakeholder distribution/consultation list in the documentation.

Class EA Process

- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. **The Master Plan should clearly indicate the selected approach for conducting the plan**, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Section 16 Order Requests under *the Environmental Assessment Act*, although the plan itself would not be. **Please include a description of the approach being undertaken (use Appendix 4 as a reference).**

- If this project is a Master Plan: Any identified projects should also include information on the MCEA schedule associated with the project.

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.

- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment (including planning, natural, social, cultural, economic, technical). The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments, cultural heritage assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.

- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, MTO permits and approvals under the *Impact Assessment Act*, 2019.

- Ministry guidelines and other information related to the issues above are available at http://www.ontario.ca/environment-and-energy/environment-and-energy. We encourage you to review all the available guides and to reference any relevant information in the report.

Amendments to the EAA through the Covid-19 Economic Recovery Act, 2020

Once the EA Report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the proponent. The Notice of Completion must be sent to the appropriate MECP Regional Office email address (for projects in MECP Central Region, the email is eanotification.cregion@ontario.ca).

The public has the ability to request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director (of the Environmental Assessment Branch) will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent. Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Therefore, the proponent cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion. Further, the proponent may not proceed after this time if:

- a Section 16 Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, or
- the Director has issued a Notice of Proposed order regarding the project.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Section 16 Order requests on those matters should be addressed in writing to:

Minister
Ministry of the Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor

Toronto ON, M4V 1P5
EABDirector@ontario.ca

The s.16 order request information has officially been updated on the Ontario Class EA Website: https://www.ontario.ca/page/class-environmental-assessments-section-16-order
This should help provide greater clarity on the s.16 order request processes and scope.

A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

DEFINITIONS

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. PURPOSE

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigates any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Client's Guide to Preliminary Screening for Species at Risk

Ministry of the Environment, Conservation and Parks

Species at Risk Branch, Permissions and Compliance

DRAFT - May 2019

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1.0 Purpose, Scope, Background and Context

1.1 Purpose of this Guide

This guide has been created to:

- help clients better understand their obligation to gather information and complete a preliminary screening for species at risk before contacting the ministry,
- outline guidance and advice clients can expect to receive from the ministry at the preliminary screening stage,
- help clients understand how they can gather information about species at risk by accessing publicly available information housed by the Government of Ontario, and
- provide a list of other potential sources of species at risk information that exist outside the Government of Ontario.

It remains the client's responsibility to:

- carry out a preliminary screening for their projects,
- obtain best available information from all applicable information sources,
- conduct any necessary field studies or inventories to identify and confirm the presence or absence of species at risk or their habitat,
- consider any potential impacts to species at risk that a proposed activity might cause, and
- comply with the *Endangered Species Act* (ESA).

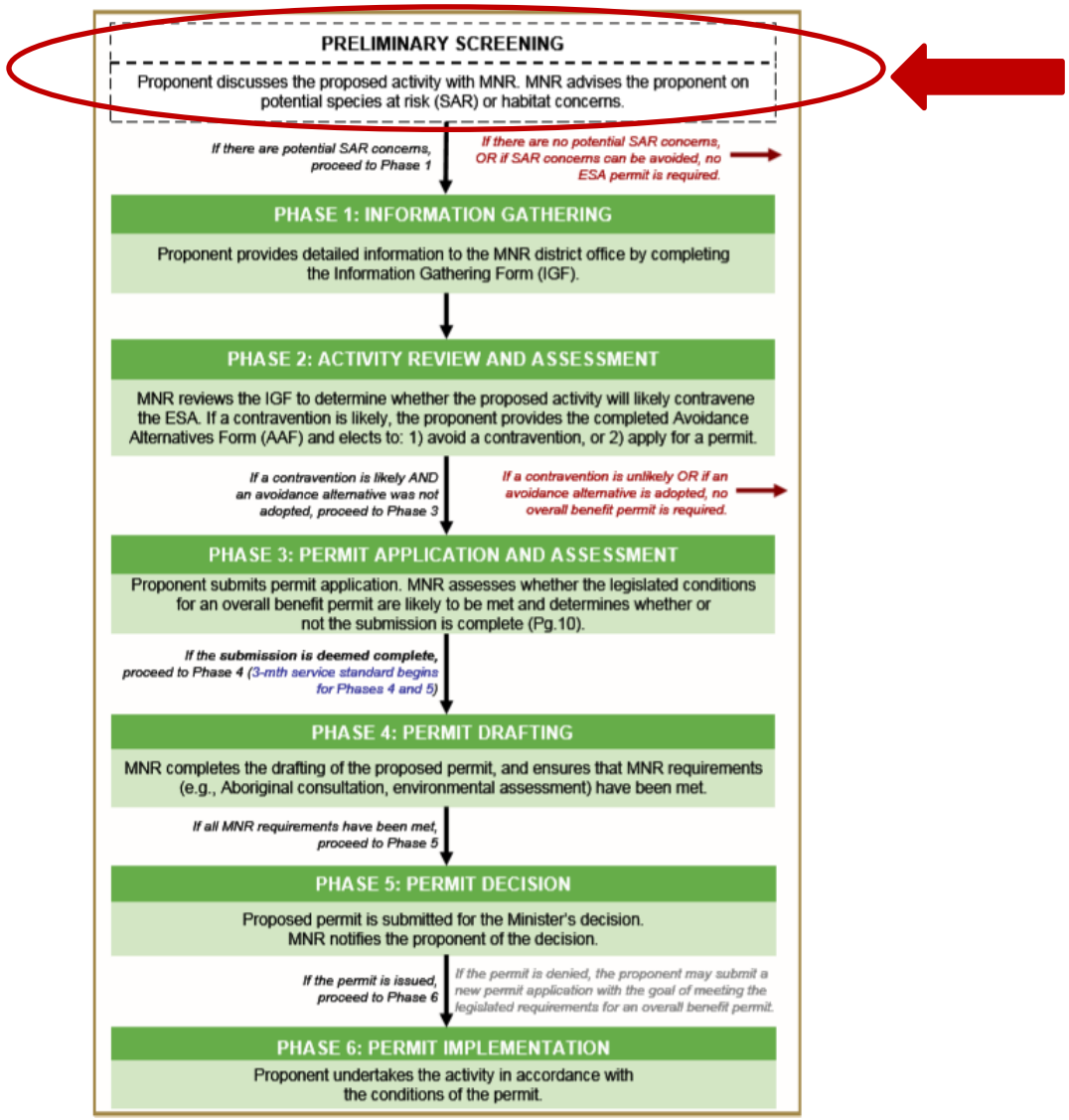
To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide, at a minimum, prior to contacting Government of Ontario ministry offices for further information or advice.

1.2 Scope

This guide is a resource for clients seeking to understand if their activity is likely to impact species at risk or if they are likely to trigger the need for an authorization under the ESA. It is not intended to circumvent any detailed site surveys that may be necessary to document species at risk or their habitat nor to circumvent the need to assess the impacts of a proposed activity on species at risk or their habitat. This guide is not an exhaustive list of available information sources for any given area as the availability of information on species at risk and their habitat varies across the province. This guide is intended to support projects and activities carried out on Crown and private land, by private landowners, businesses, other provincial ministries and agencies, or municipal government.

1.3 Background and Context

To receive advice on their proposed activity, clients must first determine whether any species at risk or their habitat exist or are likely to exist at or near their proposed activity, and whether their proposed activity is likely to contravene the ESA. Once this step is complete, clients may contact the ministry at SAROntario@ontario.ca to discuss the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. At this stage, the ministry can provide advice and guidance to the client about potential species at risk or habitat concerns, measures that the client is considering to avoid adverse effects on species at risk or their habitat and whether additional field surveys are advisable. This is referred to as the "Preliminary Screening" stage. For more information on additional phases in the diagram below, please refer to the *Endangered Species Act Submission Standards for Activity Review and 17(2)(c) Overall Benefit Permits* policy available online at https://www.ontario.ca/page/species-risk-overall-benefit-permits



2.0 Roles and Responsibilities

To provide the most efficient service, clients should initiate species at risk screenings and seek information from all applicable information sources identified in this guide prior to contacting Government of Ontario ministry offices for further information or advice.

Step 1: Client seeks information regarding species at risk or their habitat that exist, or are likely to exist, at or near their proposed activity by referring to all applicable information sources identified in this guide.

Step 2: Client reviews and consider guidance on whether their proposed activity is likely to contravene the ESA (see section 3.4 of this guide for guidance on what to consider).

Step 3: Client gathers information identified in the checklist in section 4 of this guide.

Step 4: Client contacts the ministry at SAROntario@ontario.ca to discuss their preliminary screening. Ministry staff will ask the client questions about the main purpose, general methods, timing and location of their proposed activity as well as information obtained about species at risk and their habitat at, or near, the site. Ministry staff will also ask the client for their interpretation of the impacts of their activity on species at risk or their habitat as well as measures the client has considered to avoid any adverse impacts.

Step 5: Ministry staff will provide advice on next steps.

Option A: Ministry staff may advise the client they can proceed with their activity without an authorization under the ESA where the ministry is confident that:

- no protected species at risk or habitats are likely to be present at or near the proposed location of the activity; or
- protected species at risk or habitats are known to be present but the activity is not likely to contravene the ESA; or
- through the adoption of avoidance measures, the modified activity is not likely to contravene the ESA.

Option B: Ministry staff may advise the client to proceed to Phase 1 of the overall benefit permitting process (i.e. Information Gathering in the previous diagram), where:

- there is uncertainty as to whether any protected species at risk or habitats are present at or near the proposed location of the activity; or
- the potential impacts of the proposed activity are uncertain; or
- ministry staff anticipate the proposed activity is likely to contravene the ESA.

3.0 Information Sources

Land Information Ontario (LIO) and the Natural Heritage Information Centre (NHIC) maintain and provide information about species at risk, as well as related information about fisheries, wildlife, 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.

The information available from LIO or NHIC and the sources listed in this guide should not be considered as a substitute for site visits and appropriate field surveys. Generally, this information can be regarded as a starting point from which to conduct further field surveys, if needed. While this data represents best available current information, it is important to note that a lack of information for a site does not mean that species at risk or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in more remote parts of the province. The absence of species at risk location data at or near your site does not necessarily mean no species at risk are present at that location. On-site assessments can better verify site conditions, identify and confirm presence of species at risk and/or their habitats.

Information on the location (i.e. observations and occurrences) of species at risk is considered sensitive and therefore publicly available only on a 1km square grid as opposed to as a detailed point on a map. This generalized information can help you understand which species at risk are in the general vicinity of your proposed activity and can help inform field level studies you may want to undertake to confirm the presence, or absence of species at risk at or near your site.

Should you require specific and detailed information pertaining to species at risk observations and occurrences at or near your site on a finer geographic scale; you will be required to demonstrate your need to access this information, to complete data sensitivity training and to obtain a Sensitive Data Use License from the NHIC. Information on how to obtain a license can be found online at https://www.ontario.ca/page/get-natural-heritage-information.

Many organizations (e.g. other Ontario ministries, municipalities, conservation authorities) have ongoing licensing to access this data so be sure to check if your organization has this access and consult this data as part of your preliminary screening if your organization already has a license.

3.1 Make a Map: Natural Heritage Areas

The Make a Natural Heritage Area Map (available online at http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US provides public access to natural heritage information, including species at risk, without the user needing to have Geographic Information System (GIS) capability. It allows users to view and identify generalized species at risk information, 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.

Users are advised that sensitive information has been removed from the natural areas dataset and the occurrences of species at risk has been generalized to a 1-kilometre grid to mitigate the risks to the species (e.g. illegal harvest, habitat disturbance, poaching).

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

- Generalized Species at risk occurrence data (based on a 1-km square grid),
- 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 (LIO) at https://www.ontario.ca/page/land-information-ontario.

3.2 Land Information Ontario (LIO)

Most natural heritage data is publicly available. This data is managed in a large provincial corporate database called the LIO Warehouse and can be accessed online through the LIO Metadata Management Tool at 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.

While most data are publicly available, some data may be considered highly sensitive (i.e. nursery areas for fish, species at risk observations) and as such, access to some data maybe restricted.

3.3 Additional Species at Risk Information Sources

- The Breeding Bird Atlas can be accessed online at http://www.birdsontario.org/atlas/index.jsp?lang=en
- eBird can be accessed online at https://ebird.org/home
- iNaturalist can be accessed online at https://www.inaturalist.org/
- The Ontario Reptile and Amphibian Atlas can be accessed online at https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas
- Your local Conservation Authority. Information to help you find your local Conservation Authority can be accessed online at https://conservationontario.ca/conservation-authorities/find-a-conservation-authority/

  Local naturalist groups or other similar community-based organizations
- Local Indigenous communities
- Local land trusts or other similar Environmental Non-Government Organizations
- Field level studies to identify if species at risk, or their habitat, are likely present or absent at or near the site.
- When an activity is proposed within one of the continuous caribou ranges, please be sure to consider the caribou Range Management Policy. This policy includes figures and maps of the continuous caribou range, can be found online at https://www.ontario.ca/page/range-management-policy-support-woodland-caribou-conservation-and-recovery

3.4 Information Sources to Support Impact Assessments

- Guidance to help you understand if your activity is likely to adversely impact species at risk or their habitat can be found online at https://www.ontario.ca/page/policy-guidance-harm-and-harass-under-endangered-species-act and https://www.ontario.ca/page/categorizing-and-protecting-habitat-under-endangered-species-act
- A list of species at risk in Ontario is available online at https://www.ontario.ca/page/species-risk-ontario. On this webpage, you can find out more about each species, including where is lives, what threatens it and any specific habitat protections that apply to it by clicking on the photo of the species.

4.0 Check-List

Please feel free to use the check list below to help you confirm you have explored all applicable information sources and to support your discussion with Ministry staff at the preliminary screening stage.

- ✓ Land Information Ontario (LIO)
- ✓ Natural Heritage Information Centre (NHIC)
- ✓ The Breeding Bird Atlas
- ✓ eBird
- ✓ iNaturalist
- ✓ Ontario Reptile and Amphibian Atlas
- ✓ List Conservation Authorities you contacted:_____

  _____
- ✓ List local naturalist groups you contacted:_____

  _____
- ✓ List local Indigenous communities you contacted:_____

  _____
- ✓ List any other local land trusts or Environmental Non-Government Organizations you contacted:_____

  _____
- ✓ List and field studies that were conducted to identify species at risk, or their habitat, likely to be present or absent at or near the site: _____

  _____
- ✓ List what you think the likely impacts of your activity are on species at risk and their habitat (e.g. damage or destruction of habitat, killing, harming or harassing species at risk):_____

  _____

Consultation Records with First Nations

Chippewas of Georgina Island First Nation

From:	Jody Marks
To:	donna.bigcanoe@georginaisland.com
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	FW: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 12:08:00 PM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Chippewas of Georgina Island First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:38 AM
To: donna.bigcanoe@georginaisland.com
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Donna Big Canoe,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Chippewas of Rama First Nation

From:	Jody Marks
To:	tedw@ramafirstnation.ca
Cc:	k.a.sandy-mckenzie@rogers.com; shardayj@ramafirstnation.ca
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:55:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Chippewas of Rama First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:39 AM
To: tedw@ramafirstnation.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co; Sharday James
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Ted Williams,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Beth Wang

From: Beth Wang
Sent: November 8, 2024 4:55 PM
To: tedw@ramafirstnation.ca
Cc: k.a.sandy-mckenzie@rogers.com; Jenna DeGroote; Wendy Smeh; Preya Balgobin
Subject: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment Report
Attachments: 24EA-075 Stage 2 AA Report.pdf

Dear Chief Ted Williams,

InnServices Utilities Inc. has retained Ainley Group to conduct a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options for constructing the proposed Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to serve the Innisfil Heights economic district.

As recommended in the Stage 1 Archaeological Assessment report, a Stage 2 Archaeological Assessment is required at the preferred location, 7535 Tenth Sideroad, Innisfil.

Attached is the IH SPS 6 Stage 2 Archaeological Assessment report. Please let us know if you have any comments or questions.

Regards,

Beth Wang, EIT
Engineering Intern
Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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Beausoleil First Nation

From:	Jody Marks
To:	council@chimnissing.ca
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:53:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Beausoleil First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Jody Marks

From: Lance Copegog <lcopegog@chimnissing.ca>
Sent: Tuesday, October 5, 2021 11:56 AM
To: Jody Marks
Subject: Re: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement

Good morning Jody:

Please update your contact list to include Susan Copegog, Consultation. She can be contacted via email at consultations@chimnissing.ca.

Thank you,

Lance Copegog

Executive Assistant to Chief and Council

Beausoleil First Nation

Telephone: 705-247-2215

11 O'Gemaa Miikan, Christian Island, ON L9M 0A9

On Tue, Oct 5, 2021 at 11:53 AM Jody Marks <marks@ainleygroup.com> wrote:

> Hello,
>
> Please refer to the attached Class Environmental Assessment consultation documents.
>
> Thank you.
>
> Regards,
>
> Jody Marks
>
> Environmental Planner



www.ainleygroup.com

Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:37 AM
To: consultations@chimnissing.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Susan Copegog,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
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Curve Lake First Nation

From:	Jody Marks
To:	EmilyW@curvelake.ca
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:54:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Curve Lake First Nation.pdf image003.png

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Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

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Beth Wang

From: Preya Balgobin
Sent: November 5, 2021 6:43 PM
To: KaitlinH@curvelake.ca
Cc: jdegroote@innservices.co; JulieK@curvelake.ca; Wendy Smeh; Jody Marks
Subject: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response
Attachments: 121031-2021-11-05-Curve Lake Response-issued.pdf

Hello Kaitlin,

Thank you for providing Curve Lake First Nation's feedback on the Class EA for the Innisfil Heights Sewage Pumping Station 6. Please find attached, our responses to the comments and questions.

The study team is open to the formation of a Joint Consultation Committee, if Curve Lake First Nation considers the nature of our project to be appropriate for joint consultant. Please advise and we will reach out to you to discuss.

Should there be additional questions or comments please feel free to contact us.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

Ainley

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Kaitlin Hill <KaitlinH@curvelake.ca>
Sent: October 21, 2021 1:36 PM
To: Jenna DeGroote <jdegroote@innservices.co>
Cc: Julie Kapyrka <JulieK@curvelake.ca>
Subject: Innisfil Heights Sewage Pumping Station 6

[EXTERNAL]

Good afternoon Jenna,

Please find attached a letter from Curve Lake First Nation in regard to the proposed Innisfil Heights Sewage Pumping Station.

We look forward to learning more about your project.

Miigwech,
Kaitlin H.

Kaitlin Hill
Lands and Resources Consultation Liaison
Curve Lake First Nation
Government Services Building
22 Winookeeda Street, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext 222 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: KaitlinH@curvelake.ca

Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

Phone: 705.657.8045
Fax: 705.657.8708
www.curvelakefirstnation.ca

October 15, 2021
VIA E-MAIL

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON L9S 0J3
jdegroote@innservices.co

RE: Innisfil Heights Sewage Pumping Station 6.

Dear Jenna DeBroote,

I would like to acknowledge receipt of correspondence, which was received on September 20th , 2021, regarding the above noted project. As you may be aware, the area in which your project is proposed is situated within the Traditional Territory of Curve Lake First Nation. Our First Nation's Territory is incorporated within the Williams Treaties Territory and was the subject of a claim under Canada's Specific Claims Policy, which has now been settled. All 7 First Nations within the Williams Treaties have had their harvesting rights legally re-affirmed and recognized through this settlement.

Curve Lake First Nation is requiring a File Fee for this project in the amount of $250.00 as outlined in our *Consultation and Accommodation Standards*. This Fee includes project updates as well as review of standard material and project overviews. Depending on the amount of documents to be reviewed by the Consultation Department, additional fees may apply. **Please make this payment to Curve Lake First Nation Consultation Department and please indicate the project name or number on the cheque.**

If you do not have a copy of *Curve Lake First Nation's Consultation and Accommodation Standards* they are available at https://www.curvelakefirstnation.ca/services-departments/lands-rights-resources/ consultation/. Hard copies are available upon request.

Based on the information that you have provided us with respect to the Proposed Innisfil Heights Sewage Pumping Station 6 project, Curve Lake First Nation may require a Special Consultation Framework for this project. Information on this Framework can be found on page 9 of our *Consultation and Accommodation Standards* document.

In order to assist us in providing you with timely input, it would be appreciated if you could provide a summary statement indicating how the project will address the following areas that are of concern to our First Nation within our Traditional and Treaty Territory: possible environmental impact to our drinking water; endangerment to fish and wild game; impact on Aboriginal heritage and cultural values; and to endangered species; lands; savannas etc.

Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

Phone: 705.657.8045
Fax: 705.657.8708
www.curvelakefirstnation.ca

After the information is reviewed it is expected that you or a representative will be in contact to make arrangements to discuss this matter in more detail and possibly set up a date and time to meet with Curve Lake First Nation in person (or virtually).

Although we have not conducted exhaustive research nor have we the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the *Cemeteries Act* to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately.

Furthermore, Curve Lake First Nation also has available, trained Cultural Heritage Liaisons who are able to actively participate in the archaeological assessment process as a member of a field crew, the cost of which will be borne by the proponent. **Curve Lake First Nation expects engagement at Stage 1 of an archaeological assessment** so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Cultural Heritage Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys to full excavation.

Although we may not always have representation at all stakeholder meetings, as rights holders', it is our wish to be kept apprised throughout all phases of this project. Please note that this letter does not constitute consultation, but it does represent the initial engagement process.

Should you have further questions or if you wish to hire a Liaison for a project, please contact Julie Kapyrka or Kaitlin Hill, Lands and Resources Consultation Liaisons, at 705-657-8045 or via email at JulieK@Curvelake.ca and KaitlinH@Curvelake.ca .

Yours sincerely,

Chief Emily Whetung
Curve Lake First Nation

AINLEY & ASSOCIATES LIMITED
195 County Court Blvd., Suite 300, Brampton, ON L6W 4P7
Tel: (905) 452-5172 • www.ainleygroup.com

VIA EMAIL

November 5, 2021 File No. 121031

Curve Lake First Nation
Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

Attn: Chief Emily Whetung

Re: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Response to Comments Received

Dear Chief Emily Whetung,

On behalf of the InnServices Inc., we are responding to your letter dated October 15, 2021 regarding the above-mentioned Class EA for the construction of a Sewage Pumping Station (SPS) in the Town of Innisfil. We wish to thank you and your team for responding in a timely manner to the Notice of Commencement. We have reprinted your comments below, numbered them for ease of reference and provided our responses in *italics* following each comment.

Please note that we will be completing five Sewage Pumping Station Class EA's over the next several months including IH SPS 1, IH SPS 2, IH SPS 6, Stroud and 20th Sideroad SPS. The proponent (InnServices) and our team would like to discuss the consultation framework and how to best consult with Curve Lake First Nation as we move forward with the project.

1. "Curve Lake First Nation is requiring a File Fee for this project in the amount of $250.00 as outlined in our *Consultation and Accommodation Standards*. This Fee includes project updates as well as review of standard material and project overviews. Depending on the amount of documents to be reviewed by the Consultation Department, additional fees may apply."

Response: InnServices acknowledges the consultation process and is prepared to continue to work with Curve Lake First Nation to complete the reviews. Payment has been arranged on a project-by-project basis between InnServices and Curve Lake First Nation.

2. "In order to assist us in providing you with timely input, it would be appreciated if you could provide a summary statement indicating how the project will address the following areas that are of concern to our First Nation within our Traditional and Treaty Territory: possible environmental impact to our drinking water; endangerment to fish and wild game; impact on Aboriginal heritage and cultural values; and to endangered species; lands; savannas etc. After the information is reviewed it is expected that you or a representative will be in contact to make arrangements to discuss this matter in more detail and possibly set up a date and time to meet with Curve Lake First Nation in person (or virtually)."

Response: The concerns cited will be evaluated as part of the Class EA process. For the proposed location(s) of the SPS, this Class EA includes for an Natural Heritage study (environmental impact assessment), an archeological assessment, and a cultural heritage study. A Public Information Centre (PIC) will be hosted (exact date to be determined) to present the findings of these studies, an evaluation of potential impacts, and to solicit input from all stakeholders. A formal Notice of PIC will be provided directly to Curve Lake First Nation and a copy of the presentation material will also be provided. The Curve Lake First Nation's Consultation and Accommodation Standards document describes the possibility of developing a Joint Consultation Committee. If you consider the nature of our projects to be appropriate for joint consultant, please advise and we can discuss further.

From Page 9 of the Consultation and Accommodation Standards document re: Special Consultation Framework:

"33. The special consultation framework shall require the parties to enter into a Consultation Agreement, which shall be negotiated and mutually agreed upon by the parties and which shall set out in detail the consultation process to be undertaken with respect to matters under review. 34. The special consultation framework may require the development of a Joint Consultation Committee, composed of representatives from Curve Lake First Nation and the proponent. If required, the joint consultation committee shall meet on a regular basis to make recommendations about the process and means to accommodate Curve Lake First Nation's interests, including but not limited to the negotiation of any Memoranda of Understanding, Impact Benefit or other agreements in relation to the matters in issue."

3. "Although we have not conducted exhaustive research nor have we the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay."

Response: The project will be adhering to the responsibilities under the Cemeteries Act and the appropriate notifications will occur, including those to Curve Lake First Nation. This Class EA includes a Stage 1 Archaeological Assessment and a Cultural Heritage assessment. The draft Stage 1 report will be provided to Curve Lake First Nation so that it can be reviewed and inclusion of Indigenous Knowledge provided. If the results of the Stage 1 archeological assessment recommend a Stage 2 assessment be completed, we will coordinate this work with Curve Lake First Nation, including attendance during field work.

4. "Furthermore, Curve Lake First Nation also has available, trained Cultural Heritage Liaisons who are able to actively participate in the archaeological assessment process as a member of a field crew, the cost of which will be borne by the proponent. **Curve Lake First Nation expects engagement at Stage 1 of an archaeological assessment** so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Cultural Heritage Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys to full excavation."

Response: We acknowledge your feedback and will be in touch with you during all stages of archaeological assessments for this Class EA. Please also refer to our response to the previous comment.

We wish to thank you for your input into this Class EA planning process and want to assure you that we will endeavour to provide all of the information you require to complete your review. If you have additional questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED



Preya Balgobin, P.Eng.
Project Manager

cc: Jenna DeGroote - InnServices (By Email)
Kaitlin Hill – Curve Lake First Nation (By Email)
Julie Kapyrka – Curve Lake First Nation (By Email)

Beth Wang

From: Julie Kapyrka <JulieK@curvelake.ca>
Sent: November 6, 2021 1:19 PM
To: Preya Balgobin; Kaitlin Hill
Cc: jdegroote@innservices.co; Wendy Smeh; Jody Marks
Subject: RE: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Aaniin Preya,

Thank you for your e-mail. I suggest that we schedule a meeting to discuss the project in more detail – so that can better assess how to approach engagement and consultation.

We are currently booking into January 2022. We are available the morning of January 12th at 10am if that works for your team?

In the meantime, we would be interested in receiving any natural heritage studies or environmental studies to date. Please be advised that we prefer to have the opportunity to be directly participating in any environmental fieldwork of studies that may be taking place on our treaty territories. We have particular concern for cultural keystone species that have significant value to our community, as well as protecting our harvesting rights and having access to practice those activities.

Miigwech.

All the best,

Dr. Julie Kapyrka
Lands & Resources Consultation Liaison
Curve Lake First Nation Government Services Building
22 Winookeeda Road, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext. 239 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: JulieK@curvelake.ca

From: Preya Balgobin <balgobin@ainleygroup.com>
Sent: November 5, 2021 6:43 PM
To: Kaitlin Hill <KaitlinH@curvelake.ca>
Cc: jdegroote@innservices.co; Julie Kapyrka <JulieK@curvelake.ca>; Wendy Smeh <smeh@ainleygroup.com>; Jody Marks <marks@ainleygroup.com>
Subject: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Hello Kaitlin,

Thank you for providing Curve Lake First Nation's feedback on the Class EA for the Innisfil Heights Sewage Pumping Station 6. Please find attached, our responses to the comments and questions.

The study team is open to the formation of a Joint Consultation Committee, if Curve Lake First Nation considers the nature of our project to be appropriate for joint consultant. Please advise and we will reach out to you to discuss.

Should there be additional questions or comments please feel free to contact us.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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Sent: October 21, 2021 1:36 PM
To: Jenna DeGroote <jdegroote@innservices.co>
Cc: Julie Kapyrka <JulieK@curvelake.ca>
Subject: Innisfil Heights Sewage Pumping Station 6

[EXTERNAL]

Good afternoon Jenna,

Please find attached a letter from Curve Lake First Nation in regard to the proposed Innisfil Heights Sewage Pumping Station.

We look forward to learning more about your project.

Miigwech,
Kaitlin H.

Kaitlin Hill
Lands and Resources Consultation Liaison
Curve Lake First Nation
Government Services Building
22 Winookeeda Street, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext 222 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: KaitlinH@curvelake.ca

Beth Wang

From: Tiffany Taylor <t.taylor@indigenousaware.com>
Sent: May 13, 2022 1:26 PM
To: Teresa Harrigan; Wendy Smeh; Jody Marks
Subject: CLFN - Consultation and Accommodations Standards
Attachments: CLFN-Consultation-and-Accommodation-Standards-2016.pdf

Great meeting with you this afternoon!

As promised, see attached CLFN Consultation and Accommodations Standards.

Have a great weekend!

Tiffany D. Taylor (she/her/kwe)
Indigenous Aware Coordinator
CIPS, Cambium Indigenous Professional Services

Email: t.taylor@indigenousaware.com
Phone: 705-400-6722 | Mobile: 705-917-1321

1109 Mississauga Street
Curve Lake First Nation, Ontario K0L 1R0
www.indigenousaware.com

Our Spirit is What Sets Us Apart
Nijichaagominaanig gaa-onji-bakewinidiyaang

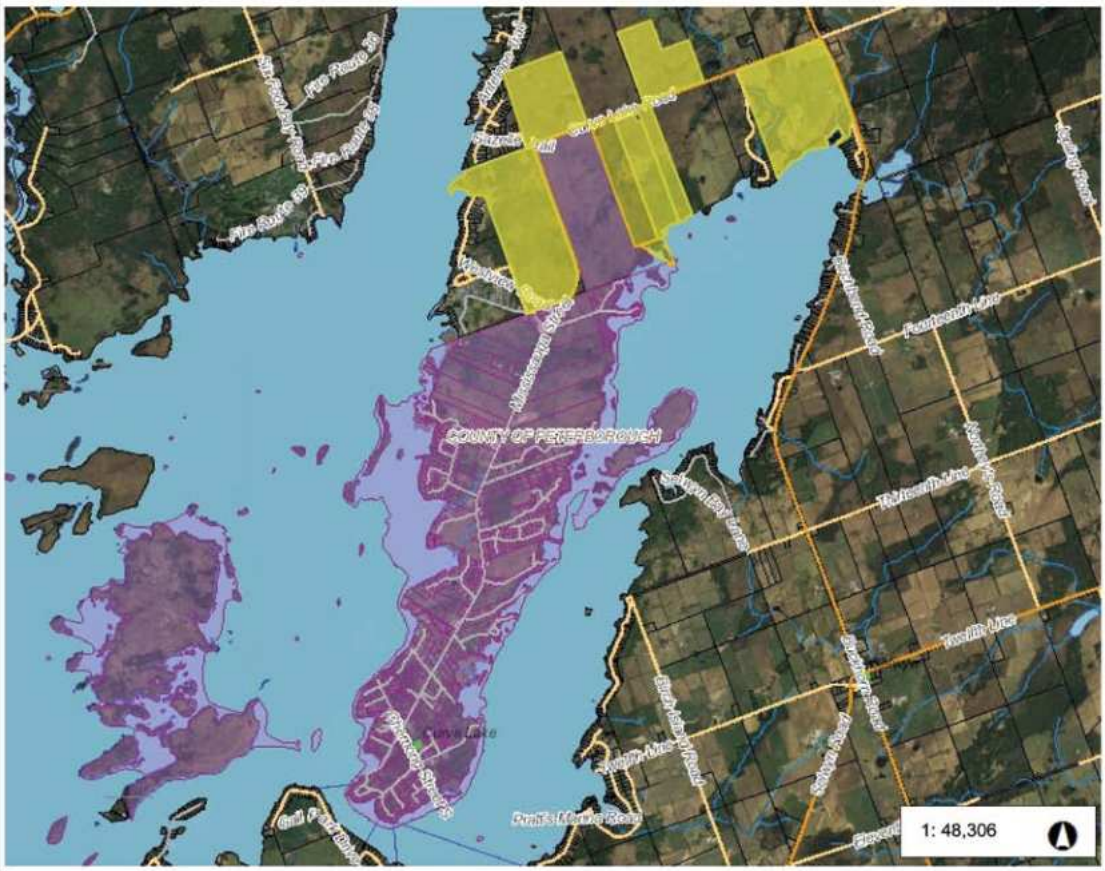
CURVE LAKE
FIRST NATION

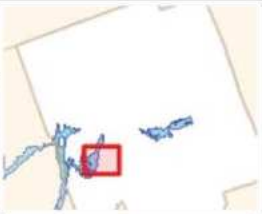
Consultation and Accommodation Standards



County of Peterborough

Curve Lake First Nation





Legend

Roads < 50,000
- PRIV ; Private; PRIV
- City Arterial
- City Collector and Local
- City Owned Unclassified
- Provincial
- County
- Township
- Water Access Only

Outside Roads < 50,000
- Major Roads
- Local Roads

Settlement Area (Pt)
- Named Place
- Official Plan Approved

First Nations

Parcel Fabric

Parcel First Nations - Canada

Rivers
- Intermittent
- Permanent

Lakes- Large Scale

Municipal Boundary - Upper Ti
- <all other values>
- COUNTY OF PETERBOROUGH

Image
- Red: Band_1
- Green: Band_2

Notes

Purple area = Reserve Lands
Yellow area = Curve Lake First Nation owned Fee Simple properties

2,454.0 0 1,226.99 2,454.0 Meters

NAD83_CSRS98_UTM_zone_17N

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Preamble:

Whereas Curve Lake First Nation asserts Aboriginal and Treaty rights over lands and resources within our Traditional Territory;

Whereas section 35 of the Constitution Act, 1982 recognizes and affirms the existing Aboriginal and Treaty right of the Aboriginal peoples of Canada;

Whereas the Supreme Court of Canada has established that Aboriginal peoples asserting Aboriginal and Treaty rights must be consulted and accommodated prior to occurrence of any decisions, conduct or activities that may have an impact on the rights and interests of Aboriginal peoples;

Whereas Curve Lake First Nation is willing to engage in consultations, expects to be consulted, and if appropriate, to be accommodated with respect to any and all decisions, conduct and activities that have the potential to have an adverse effect on Aboriginal and Treaty rights respecting lands and resources within the Curve Lake First Nation Traditional Territory;

Whereas any parties seeking to carry on activities within the Curve Lake First Nation Traditional Territory should only do so in accordance with this Standard and with the free, prior and informed consent of the Curve Lake First Nation.

Name and Adaptation of these Standards:

1. This Standard shall be known as the Curve Lake First Nation Consultation and Accommodation Standards.

2. This Standard was adopted by the Curve Lake First Nation Chief and Council on May 27th, 2013, and is in force and effect immediately.

Aboriginal and Treaty Rights:

3. Nothing in this Standard or any actions, activities, decisions or authorizations hereunder shall abrogate or derogate from the Aboriginal and Treaty rights of Curve Lake First Nation; and any actions, activities, decisions or authorizations are without prejudice to any claim or claims asserted by Curve Lake First Nation to Aboriginal and Treaty rights.

4. Nothing in this Standard, including Curve Lake First Nation engaging in consultations and accommodations with any proponent, absolves the Crown of any obligation to consult with Curve Lake First Nation and to accommodate the rights and interests of Curve Lake First Nation, in accordance with the Constitution Act, 1982.

Guiding Principles for Meaningful Consultation:

5. **Curve Lake First Nation's Traditional Territory:** Curve Lake First Nation shares the Mississauga Williams Treaties Clauses 1 and 2 lands, Treaty 20 lands, Treaty 27¼ lands and the Crawford Purchase lands. See "Shared Traditional Territories of the Mississauga Signatories to the 1923 Williams Treaties" Map.

6. **Honour of the Crown:** The Crown, in all its dealings with Curve Lake First Nation, must uphold the honour of the Crown, and undertake consultations honestly, transparently and in good faith.

7. **Reconciliation:** The principle of reconciliation shall govern and guide any and all consultations and accommodations undertaken pursuant to these Standards.

8. **Reasonableness:** The consultation process must reflect reasonable and genuine efforts made by all parties with clear, efficient and reasonable timelines established.

9. **Good Faith:** Curve Lake First Nation and all proponents engaging in consultations shall do so in good faith. Such efforts require the disclosure of relevant factors and information, no predetermined outcome or oblique motive from all parties involved.

10. **Mutual respect:** Consultation must be based on mutual respect for all participants, taking into account different interests, perspectives, cultures, understandings and concerns.

11. **Accommodation:** In fulfilling its obligation to consult under the law, the Crown shall inform, listen-to and faithfully reflect and accommodate the concerns and views of Curve Lake First Nation with respect to any impact within the Curve Lake Traditional Territory.

12. **Sharing in Impact Benefits:** It shall be an over-riding principle that Curve Lake First Nation is entitled to share in the benefits from any impact within the Curve Lake Traditional Territory.

13. **Environmental Protection and Sustainable Development:** A paramount consideration with respect to any impact is the extent to which it will harm the environment and the sustainability of the development.

14. **Protection of Traditional Heritage:** Curve Lake First Nation shall be notified of and take part in the process of traditional re-burial or traditional ceremonies with archaeological findings including but not limited to human remains and artifacts that may have historical significance to our First Nation to protect our traditional heritage and culture.

15. **Protection of Future Generations:** First Nation peoples are caretakers of Mother Earth and realize and respect Her gifts of water, air, land and food. Everything that is taken and used with the understanding that we take only what we need and we protect Her gifts as to ensure future generations, both native and non-native, will not be put in peril. They shall always have clean water to drink, fresh air to breathe, natural lands with its medicines and trees, and shall always have good food to eat including, but not limited to, wild game, fish and plant life. This should never be an exception.

Initiation of the Notice & Consultation Process:

16. The requirement to give notice and consult under this Standard includes any action, undertaking, activity, conduct, decision or project, existing or proposed, which has the potential to adversely affect the rights and interests of Curve Lake First Nation and its Traditional Territory.

17. More specifically, Crown conduct, actions or decisions within Curve Lake Traditional Territory that shall trigger the requirement of notice and consultation under this Standard include, but are not limited to:

    17.1. Crown sponsored or approved mapping or exploration activities;

    17.2. Permitting or in any way authorizing resource exploration, extraction or development activities by third parties or the issuing of licenses, permits or approvals;

    17.3. Disposing of or adding to any structures, roads, bridges or any infrastructure that has the potential for environmental impact , including impacts to the water, forests, and wildlife;

    17.4. All forestry management and energy development activities;

    17.5. Disposing of any rights to lands or interests in lands and resources, including issuances of letters patent or grants of fee simple;

    17.6. Disposing of any rights to lands, including any and all leases, licenses, permits or approvals;

    17.7. Any environmental activities where there is concern for the land, water including but not limited to water sheds and water tables, air, animals and people situated within Curve Lake First Nation Traditional Territory.

    17.8. Any activities that may disturb or have a direct effect upon the traditional food sources and harvesting rights of Curve Lake First Nation Traditional Territory including but not limited to wild rice beds, fish, and wild game.

17.9. Any activities that may disturb or have a direct effect upon traditional medicines used and/or collected by Curve Lake First Nation and its members on Traditional Territory.

17.10. Undertaking any proposed activity with the potential to disturb or alter known or unknown archaeological / historical resources or heritage sites or sites of spiritual or cultural significance to Curve Lake First Nation; and

17.11. Undertaking any land use planning or management actions or decisions, including adjusting municipal boundaries.

18. Any impact by any public or private sector party will initiate consultations and it is incumbent on all proponents to notify Curve Lake First Nation when it is aware or ought to be aware of any such impacts.

19. The following procedures set out in this Standard are to be followed for all consultations except where, by prior agreement between Curve Lake First Nation and the lead proponent, the procedures may be modified to address specific circumstances.



Sunset Over Fox Island

Giving Notice:

The proponent shall communicate its request to consult by issuing a written Notice of Request to Consult to both the Curve Lake First Nation's Lands Resource Consultation Workers and the Curve Lake First Nation Chief in a timely manner and in clear, concise and understandable language.

21. The Notice of Request to Consult shall be provided at an early stage of planning and as early as possible, prior to undertaking any activity which affects may the rights or interests of Curve Lake First Nation within or adjacent to the Curve Lake First Nation Traditional Territory.

22. The Notice of Request to Consult will contain relevant information and material facts in sufficient form and detail to assist Curve Lake First Nation to understand the matter in order to prepare a meaningful response. The Notice should contain, at a minimum but not limited to, the following:

    22.1. The nature and scope of the proposed activity;

    22.2. The timing of the proposed activity;

    22.3. The location of the proposed activity;

    22.4. How the proposed activity may affect the Curve Lake First Nation and its Traditional Territory;

    22.5. A profile of the proponent(s);

    22.6. A description of the proposed consultation process, including intended activities, timelines, expectations and limitations, if any;

    22.7. What documents, including applications, studies, assessments, policies are available to be reviewed which are pertinent to the proposed activity;

    22.8. What collateral or related processes or approvals are currently underway that affect that activity;

    22.9. Documentation of any deadlines or filing dates relating to the activity or the process; and

    22.10. Any pertinent names, addresses, and telephone numbers for contacting the relevant decision makers and those assisting the project.

23. The geographic area of interest and proposed activities shall be mapped and submitted with the Notice of Request to Consult.

24. As soon as practical, Curve Lake First Nation will confirm receipt of the Notice of Request to Consult and will provide contact information for the appropriate Curve Lake First Nation representative to whom the proponent shall henceforth direct all communications.

25. If a proponent fails to provide a Notice of Request to Consult to Curve Lake First Nation, and this failure is discovered, the First Nation reserves the right to give the proponent written notification of the failure and set a time within which the proponent shall comply with Sections [18-23] of this Standard. No action or inaction on the part of Curve Lake First Nation in regard to a proponent's failure to deliver a Notice of Request to Consult shall be deemed to be a waiver of the First Nation's right to be consulted. The requirement to provide notice is and remains the obligation of the Crown or proponents.

Assessment by Curve Lake First Nation:

26. Curve Lake shall be provided with a reasonable period of time to consider any requests to consult and the issues raised, having regard to, among other things:

    26.1. The nature and complexity of the matter to be decided;

    26.2. Curve Lake First Nation's need to fully, properly and meaningfully consult and engage with its members;

    26.3. Curve Lake First Nation's need to protect future generations by anticipating any potential effects at least seven generations into the future;

    26.4. Curve Lake First Nation's need to protect the Aboriginal and Treaty rights of its First Nation including but not limited to harvesting, hunting, fishing, and cultural and spiritual activities;

    26.5. Curve Lake First Nation's need to undertake research or other specialized studies or assessments;

    26.6. Curve Lake First Nation's need to obtain specialized, expert, professional, legal or technical advice; and

    26.7. Deliberations by Chief and Council following community consultations and engagement.

27. Based on the information contained in the Notice of Request to Consult, any subsequent communication, exchange of information and/or any other relevant considerations, Curve Lake First Nation shall make a determination as to whether to:

    27.1. Decline the request to consult, with or without terms or conditions;

    27.2. Assign the proposal to the regular consultation process described below; or,

    27.3. Assign the proposal to the special consultation framework described below.

    Curve Lake First Nation shall communicate its determination in writing to the proponent. At all times Curve Lake First Nation shall endeavor to provide a timely response to any Notice of Request to Consult, as appropriate in the circumstances. However, at no time shall a failure by Curve Lake First Nation to respond or to respond within a timeline requested by the proponent be deemed as declining the request. It is the minimal expectation that the proponent will follow up on any request after a reasonable period and, if necessary, Curve Lake First Nation may request further time to review the relevant notices.

The fact of proper and adequate consultation shall be determined by Curve Lake First Nation, in its sole discretion. Where a matter has been assigned to the regular consultation process or the special consultation framework, no communication nor information exchange shall be deemed to be considered consultation until such time as Curve Lake First Nation has accepted and acknowledged consultation or, in the case of the special consultation framework, a Consultation Agreement has been reached and is adhered to by the parties. No other action or inaction by Curve Lake First Nation shall be deemed to be a waiver of its right to be consulted where appropriate and necessary in accordance with treaty, statute, the Constitution Act, 1982, or at common law.

Regular Consultation Framework (Level 1 – Little to no Impact):

28. A regular consultation framework will be given to applications deemed by Curve Lake First Nation, in its sole discretion, to be routine in nature and where the potential impacts or the nature of the rights infringed fall on the low end of the consultation spectrum.

29. Any further requests or information required will be detailed in writing by Curve Lake First Nation to the proponent. Additionally, Curve Lake First Nation will set out in writing its expectations in order to be consulted meaningfully in relation to the project in issue, again at the sole discretion of the First Nation.

30. Curve Lake First Nation reserves its right to re-assign a proposal from a regular consultation framework to a special consultation framework, by written notice to the proponent.



Special Consultation Framework (Level 2 or 3 – Significant Impact):

31. The special consultation framework is a custom designed process suited for complex applications and where there are potentials for significant impacts from the proposed activities. The special consultation framework shall apply to the following activities, including but not limited to: any proposed development to Crown and Federal lands; archaeological remains or physical remains; forest management plans; mining development and/or applications; hydroelectric proposals; government land use planning process; any development that affects our environment, natural resources or watersheds.

32. Acceptance in the special consultation framework itself shall NOT be considered consultation. This framework is only a guide to the minimal expectations of Curve Lake First Nation for the administration of a meaningful consultation process, and each such process shall be agreed upon in detail amongst the parties.

33. The special consultation framework shall require the parties to enter into a Consultation Agreement, which shall be negotiated and mutually agreed upon by the parties and which shall set out in detail the consultation process to be undertaken with respect to matters under review.

34. The special consultation framework may require the development of a Joint Consultation Committee, composed of representatives from Curve Lake First Nation and the proponent. If required, the joint consultation committee shall meet on a regular basis to make recommendations about the process and means to accommodate Curve Lake First Nation's interests, including but not limited to the negotiation of any Memoranda of Understanding, Impact Benefit or other agreements in relation to the matters in issue.

Costs:

35. The full cost of entering into meaningful consultation with Curve Lake First Nation shall be borne by the Crown and/or the proponent, including but not limited through the provision of technical and financial resources to Curve Lake First Nation. Curve Lake First Nation expects that it will not have to bear any costs of the consultation process, (see Appendix 1).

36. All parties must work to foster and enhance efficiency and reduce costs where agreed upon, without detracting from the process and the ability of the parties to obtain independent professional and technical advice and impact assessments.

Confidentiality:

37. Curve Lake First Nation records, data and traditional knowledge gathered or recorded is the sole property of the First Nation. Any proponent requiring review of such information shall be required to enter into a confidentiality agreement prior to reviewing any documentation.

38. All information collected by Curve Lake First Nation may, at its sole discretion, be shared with the proponent, subject to entering into a confidentiality agreement and to lawyer-client privilege.

Accommodation:

39. Any consultations under these Standards shall be undertaken in good faith. It is expected that the proponent will be open to changing the original plan, proposal, activity or decision based on the concerns or views expressed during the consultation phase. Any decisions as to whether accommodation is necessary shall be decided collaboratively by the proponent and Curve Lake First Nation, in the spirit of cooperation.

40. If, based on the consultations, a decision is made to allow the impact to proceed; the accommodation of Curve Lake First Nation's interests shall be achieved through the negotiation of a mutually beneficial agreement or series of agreements as between the affected parties, which agreement or agreements shall contain provision for future impact monitoring and which shall be binding on any related entities, successors or assigns of the proponent.

41. The proponent shall bear all costs of the negotiation and agreement process.

Dispute Resolution:

42. Any dispute as between the parties in the negotiation of a Consultation Agreement shall be referred to alternative dispute resolution as follows:

    42.1. The matter shall be put forth to a designated representative of Curve Lake First Nation and a senior representative of the proponent for a negotiated resolution.

    42.2. If the Curve Lake First Nation representative and senior representative of the proponent are unable to reach a negotiated resolution within an agreed upon or otherwise reasonable time, the matter shall be referred to mediation. The mediator shall be an individual jointly agreed upon by both parties. The mediator shall attempt to reach a mediated resolution within 60 days of the date of conduct of the mediation.

    42.3. If the parties are unable to agree to a mediator or if they are unable to reach a resolution as a result of mediation, then, the matter shall be referred to arbitration. The arbitration body shall be composed of one person, if the parties are able to agree to one person; if not, then, each party shall name one arbitrator and the two shall name a third impartial arbitrator. The arbitrators shall make a decision on the dispute within 90 days of the date of conduct of the mediation.

    42.4. In the event of an issue arising that requires either mediation or arbitration, it is expected that the Crown will be a party to and shall actively participate in the process. Where the Crown, either federally, provincially or both as appropriate, fails or refuses to participate, it will be up to Curve Lake First Nation or the proponent jointly or severally to determine whether to proceed with alternative dispute resolution or to refer the matters to the appropriate court for an order requiring Crown participation.

43. The proponent shall bear all costs of dispute resolution.

Implementation, Monitoring and Follow-up:

44. The proponent must keep regular contact with and inform Curve Lake First Nation of any changes or updates during the implementation and throughout completion of any activities agreed upon.

45. If at any time the proponent determines that the circumstances have changed or may have additional or unknown effects upon Curve Lake First Nation's Traditional Territory, work must cease, until Curve Lake First Nation has been notified and has had adequate time to consider any updates taken into consideration that may affect or change the current agreement.

46. The proponent must update and supply information openly to Curve Lake First Nation proactively and/or at the request of Curve Lake First Nation's Chief and Council.

47. Curve Lake First Nation retains the right to monitor and follow-up with any proponent and their activities throughout the process until completion. If there are any unforeseen direct or indirect impacts after completion, Curve Lake First Nation retains the right to further consultation.

48. Based on any additional, unforeseen circumstances, Curve Lake First Nation retains the right to re-assign a regular consultation framework into a special consultation framework through written notice to the proponent.



Ice Fishing

Power to Make Regulations:

49. Curve Lake First Nation's Chief and Council may make regulations for carrying out and giving effect to the purpose and provisions within this document.

50. Curve Lake First Nation's Chief and Council retain the right to add to or change the provisions in this Standard as needed and without infringement on consultations that have already been agreed upon.

Primacy of this Standard:

51. This Standard shall apply to all situations giving rise to the requirement to provide notice to or consult with Curve Lake First Nation, including situations involving any other First Nation parties in a consultation or request for consultation, notwithstanding the existence of any other consultation Standards or protocols that may apply to such consultations or communication.

52. This Standard shall apply unless and except it is expressly waived, in writing, by Curve Lake First Nation at its sole discretion.

Transitional Provisions:

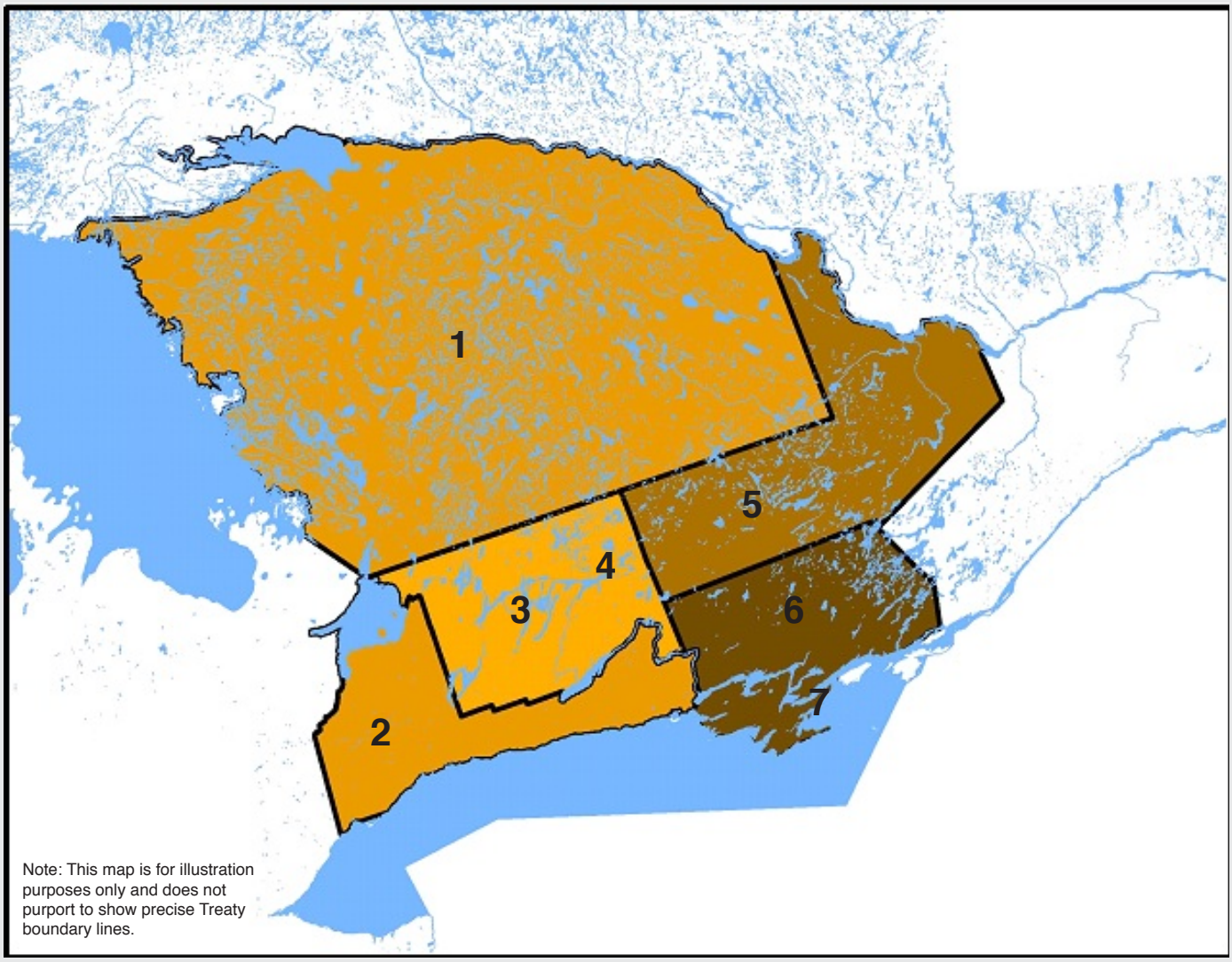
53. This Standards only apply to proponents who have not already entered into any agreements with Curve Lake First Nation relation to consultations and impacts on Curve Lake First Nation Traditional Territory.

54. Proponents who have already entered into such agreements with Curve Lake First Nation, including but not limited to a memorandum of Agreement and /or a Consultation Agreement, are exempt from the application of this Standard with respect to the terms and conditions prescribed by the said agreement.

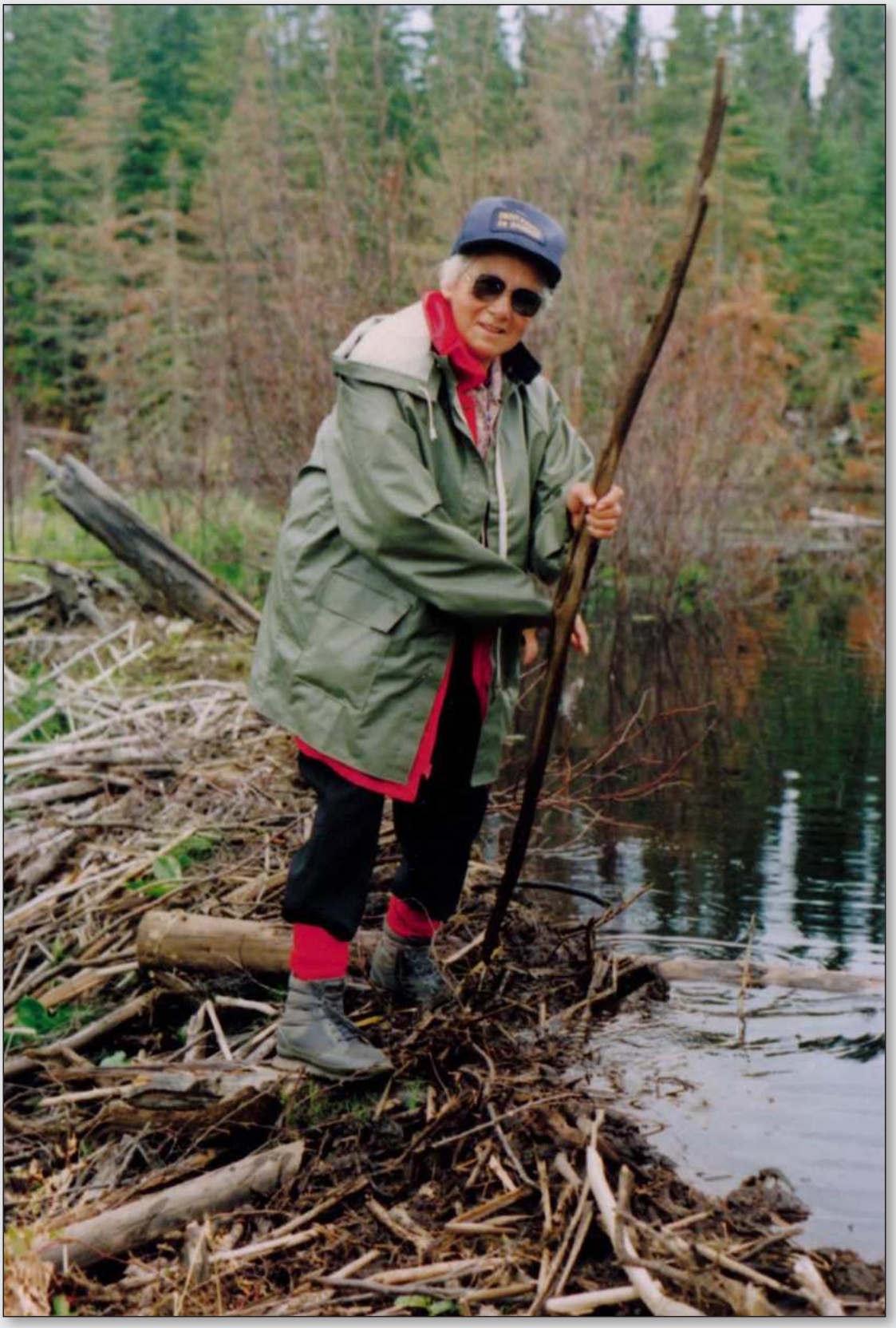


Paddling through Wild Rice Bed

Shared Traditional Territories of the Mississauga Signatories to the 1923 Williams Treaties



1	1923 Williams Treaty, Clause #1
2	1923 Williams Treaty, Clause #2
3	1818 Rice Lake, Treaty #20
4	1856 Islands, Treaty #78
5	1819/1822 Rideau Purchase, Treaty # 27 and 27¼
6	1819/1822 Crawford Purchases
7	1856 Islands, Treaty #77



Appendix 1:

Curve Lake First Nation Consultation Fee Chart

Level 1 Projects – *Low Potential for Impacts to First Nation and Treaty rights as deemed by Curve Lake First Nation*

Service	Fee
Notice of Project	NO CHARGE
Project Updates	NO CHARGE
Review of Project Information	NO CHARGE
Curve Lake First Nation Staff, Chief, Council or Elder Site Visit, per vehicle	$.55/km + Honourariums

Level 2 or 3 Projects - *Potential or Definite Impacts to First Nation and Treaty Rights as Deemed by Curve Lake First Nation*

Service	Fee
File Fee for Project	$250.00
Project Updates	Included in File Fee
Review of Standard Material and Project Overviews	Included in File Fee
Review of Large Materials; Reports and Detailed Application	Based on Project
Meeting with Staff - 2 staff; meeting room; up to 2 hours	NO CHARGE
Meeting with Chief, Council, staff, Elder meeting room; up to 2 hours	$50.00 + Honourariums
1/2 Day Meeting with Chief, Council, staff, Elder meeting room	$100.00 + Honourariums
Full Day Meeting with Chief, Council, staff, Elder meeting room	$200.00 + Honourariums
Meeting with First Nation citizenship, staff, hall rental, advertising	$500.00 + Honourariums
Curve Lake First Nation Staff, Council or Elder Site Visit, one vehicle	$0.55/km + Honourariums

Councillor and Elder representation will be as requested by the proponent or as directed by Curve Lake First Nation Chief and Council, where deemed appropriate.

Snacks, beverages and meals can be arranged by Curve Lake First Nation at an additional cost.

Honourarium for Chief, Council, Elders:

Type of Honourarium	Fee
Chief Honourarium	$400.00
Councillor Honourarium	$200.00 per Councillor
Elder Honourarium	$200.00 per Elder

Advertising:

Type of Advertising	Fee
Curve Lake Newsletter – Printed and Online	$100.00 per ad

Curve Lake First Nation will work to foster and enhance efficiency and reduce costs where agreed upon, without detracting from the process.

This Standard will be reviewed from time to time and the above fees may change without notice, at the discretion of Curve Lake First Nation Chief and Council

Appendix 2: Resources

Communications/Media:

To include project information on Curve Lake First Nation communications or media, please contact Curve Lake First Nation's Communications Officer. Fees will apply, see Appendix 1 - Advertising.

Phone: 705-657-8045
Fax: 705-657-8708

Michi Saagiig (Mississauga) Working Group

The four Michi Saagiig (Mississauga) First Nations of the Williams Treaties, Alderville, Curve Lake, Hiawatha and Scugog Island have started a joint working group.

This group meets regularly to discuss overlapping consultation concerns and report back to their respected First Nations. To set up a meeting with the Michi Saagiig Working Group, contact one of the Consultation Coordinators where listed below.

Contact Information for Michi Saagiig (Mississauga) Consultation Coordinators

First Nation	Phone Number	Mailing Address
Alderville First Nation	(905) 352-2662	P.O. Box 46 11696 2nd Line Rd Alderville, ON K0K 2X0
Curve Lake First Nation	(705) 657-8045	22 Winookeeda Rd. Curve Lake, ON K0L 1R0
Hiawatha First Nation	(705) 295-7771	123 Paudash Street Hiawatha, ON K9J 0E6
Mississauga of Scugog Island First Nation	(905) 985-3337	22521 Island Rd, Port Perry, ON L9L 1B6

Contact Information for Williams Treaty Claims Coordinator

Karry Sandy-McKenzie, Williams Treaties Claims Coordinator
Email: k.a.sandy-mckenzie@rogers.com
Mailing Address: 8 Creswick Court,
Barrie, ON L4M 2J7

Williams Treaties First Nations Government Office Contact List:

- Alderville First Nation Office – 905-352-2011
- Beausoleil First Nation Office – 705-247-2051
- Curve Lake First Nation Office – 705-657-8045
- Georgina Island First Nation Office – 705-437-1337
- Hiawatha First Nation Office – 705-295-4421
- Rama First Nation Office – 705-325-3611
- Scugog First Nation Office – 905-985-3337

Helpful Websites:

Curve Lake First Nation	www.curvelakefirstnation.ca
Curve Lake Cultural Centre	www.curvelakeculturalcentre.ca
Williams Treaties First Nations	www.williamstreatiesfirstnations.ca
Alderville First Nation	www.aldervillefirstnation.ca
Hiawatha First Nation	www.hiawathafirstnation.com
Mississauga of Scugog Island First Nation	www.scugogfirstnation.com
Petroglyphs Provincial Park	www.ontarioparks.com/park/petroglyphs
Union of Ontario Indians - UOI	www.anishinabek.ca

History of the Michi Saagiig (Mississauga)

Curve Lake First Nation people are the Michi Saagiig of the great Anishnaabeg (uhnish-nahbe) Nation. The name Anishnaabeg is derived from an-ish-aw, meaning “without cause” or “spontaneous”, and the word in-au-a-we-se, meaning “human-body”. This translates to mean “spontaneous man”. The Anishnaabeg did not have a written alphabet, we did have a set of picture symbols or pictographs which were used to educate through stories. Traditional teachings have taught us that before contact we shared the land with the Odawa and Huron Nations. We are the traditional people of the North shore of Lake Ontario and its tributaries; this has been Michi Saagiig territory since time immemorial.

When Europeans first arrived, their primary concern was survival in an environment much different then what they were used to. With the help of Michi Saagiig and other First Nations peoples, they were able to find food sources, learn of medicines, navigate waterways and travel dense woodlands. In the beginning, First Nations and European settlers enjoyed a peaceful co-existence. However, increasing populations of British and French newcomers began to over populate the Michi Saagiig territory.

In the mid 1600’s, due to the fur trade and competition between the British and French over control of land, there came a time that our people had to temporarily leave our traditional territory, and travel further inland to avoid disease and conflict. It was during this time the Jesuits came in contact to our people, at the mouth of the Mississauga River at the North shore of Lake Huron. They assumed this was our traditional territory and they referred to our people as the Michi Saagiig, however we were only there temporarily. Our people returned back to the Southern Ontario traditional territory around 1680.

After the American Revolution, the British began signing treaties on a Nation to Nation basis to allow for settlement in Ontario. Over the course of the next century the Michi Saagiig Nation would participate in eighteen treaties from 1781 to 1923 to allow the growing number of European settlers establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move to into small family groups around our present day First Nation.

In 1829, the Crown worked with the New England Company, a missionary group, to encourage farming and education for the First Nations people. A peninsula along Mud Lake was chosen by the crown and New England Company to establish what is now known as Curve Lake First Nation.

The surrounding area was abundant in wild rice, various fish, birds, animals and plants for harvesting; there was everything our people needed to survive. The Mud Lake settlement officially became a reserve in 1889, there were approximately 200 members who lived in Mud Lake Reserve #35 in the late 1800’s.

The community officially changed its name to Curve Lake First Nation #35 in 1964.

Current Day Curve Lake First Nation

Presently, Curve Lake First Nation's registered membership has grown to over 2200 with approximately 800 living on reserve and the remaining living off reserve.

There are over 500 households on the reserve lands, just over 300 of those are citizens of Curve Lake First Nation and the other 200+ are homes that are being leased by non-Curve Lake citizens.

Curve Lake First Nation is located approximately 25km northeast of Peterborough, Ontario. The First Nation Territory consists of a mainland peninsula and a large island (Fox Island) on Buckhorn and Chemong Lakes. Curve Lake First Nation also co-owns smaller islands located throughout the Trent Severn Waterway System. The total reserve lands of the First Nation is approximately 900 hectares.

Over the years, with a push for integration of First Nations people into western society, some of our spiritual traditions were almost lost. Luckily, some families continued to practice ceremonies and the traditional way of life, and there has been a big movement to revitalize the spiritual traditions and language within our community. Today, hunting, fishing, wild rice and gathering are still an integral part of who we are as a people and we continue to deeply value our culture, language and traditions.



Government

Curve Lake First Nation begun the development of a custom election code in early 2013. The Selection Code for Curve Lake First Nation, was adopted through a community approval vote on Saturday September 12th, 2015.

The current federal government has, in recent years, made many modifications/adjustments to laws that affect First Nation people. Although a few may be positive to our community, many have significant impacts to the way we live our lives. Our election process is now our very own, we are no longer under the section 74 of the Indian Act. Our election process was developed and approved by our community.

Elections are now held every 3 years and allow for all on and off reserve citizens to vote either in person or through a mail in voting process. Each election Curve Lake First Nation elects a Chief and eight Councilors.

The Curve Lake First Nation government operates under a number of Council appointed committees. Committees are formed with Council portfolios and volunteer community members. The Chief is an ex-officio to all committees. Current committees include: Education, Recreation, Public Works, Housing, Rights, Resources and Consultation, Kinoomaage-waapkong – Petroglyphs Park Joint Committee, Economic Development, Health & Family Services, Finance, Nation Building, Gaming Revenue, Pow Wow, Youth Committee, and Health & Safety.

Curve Lake First Nation is politically affiliated with the Anishinabek Nation: Union of Ontario Indians (UOI).

The current government structure encompasses a large full time staff of 100 employees, in addition to other part time staff and contract staff.

In 1954, Curve Lake First Nation made history when Elsie Knott was elected as the first female Chief in Canada.

Administration Organizational Chart – Curve Lake First Nation

Community

- Chief & Council
    - Committees
        - General Manager
            - Lands Resource Consultation Liaisons (2)

Economic Development & Employment

Economic Development Department has, in past years, developed strategic work plans for the future. Through these processes, the Economic Development Department has the following vision:

"Our Vision for the Mississauga's of Curve Lake First Nation is self-sufficiency for the individuals and for the community; with a land base, an economy and infrastructure to meet the needs of our community."

The Economic Development Committee and Department are guided by a mission statement *"to provide for the creation of a prosperous community"* while adhering to the values that *"all community economic development will be socially, culturally and environmentally appropriate to Curve Lake First Nation."*

In its simplest form, Community Economic Development (CED) can be described as action taken locally by a community to provide economic opportunities and improve social conditions in a sustainable way, particularly for those who are most disadvantaged. CED is a participatory process by which communities initiate and generate their own solutions to economic problems leading to positive concrete changes in communities by:

- Creating employment
- Stabilizing local economies
- Reducing poverty
- Contributing to the health of the natural environment
- Building on local resources and capacities
- Increasing community control

The activities of the Department of Economic Development can be separated into two distinct categories: activities for the individual entrepreneur and private sector and First Nation based economic development initiatives. In this, the Department is supported by Chief and Council, the Economic Development Committee and an Economic Development Coordinator.

CONTACT:

Economic Development Coordinator
Curve Lake First Nation
Phone: 705-657-8045
Fax: 705-657-8708

Employment

The Employment Program is operated within the Economic Development Department within the First Nation. Programs and services are designed to access funds and operate programs that will provide capacity building and creates employment opportunities within the community.

PROGRAMS AND SERVICE WITHIN THE EMPLOYMENT DEPARTMENT

Summer Work Experience Program

The program offers employment opportunities to the Curve Lake First Nation Youth over the summer months which allows the next generation to gain work experience and develop or enhance essential employability skills.

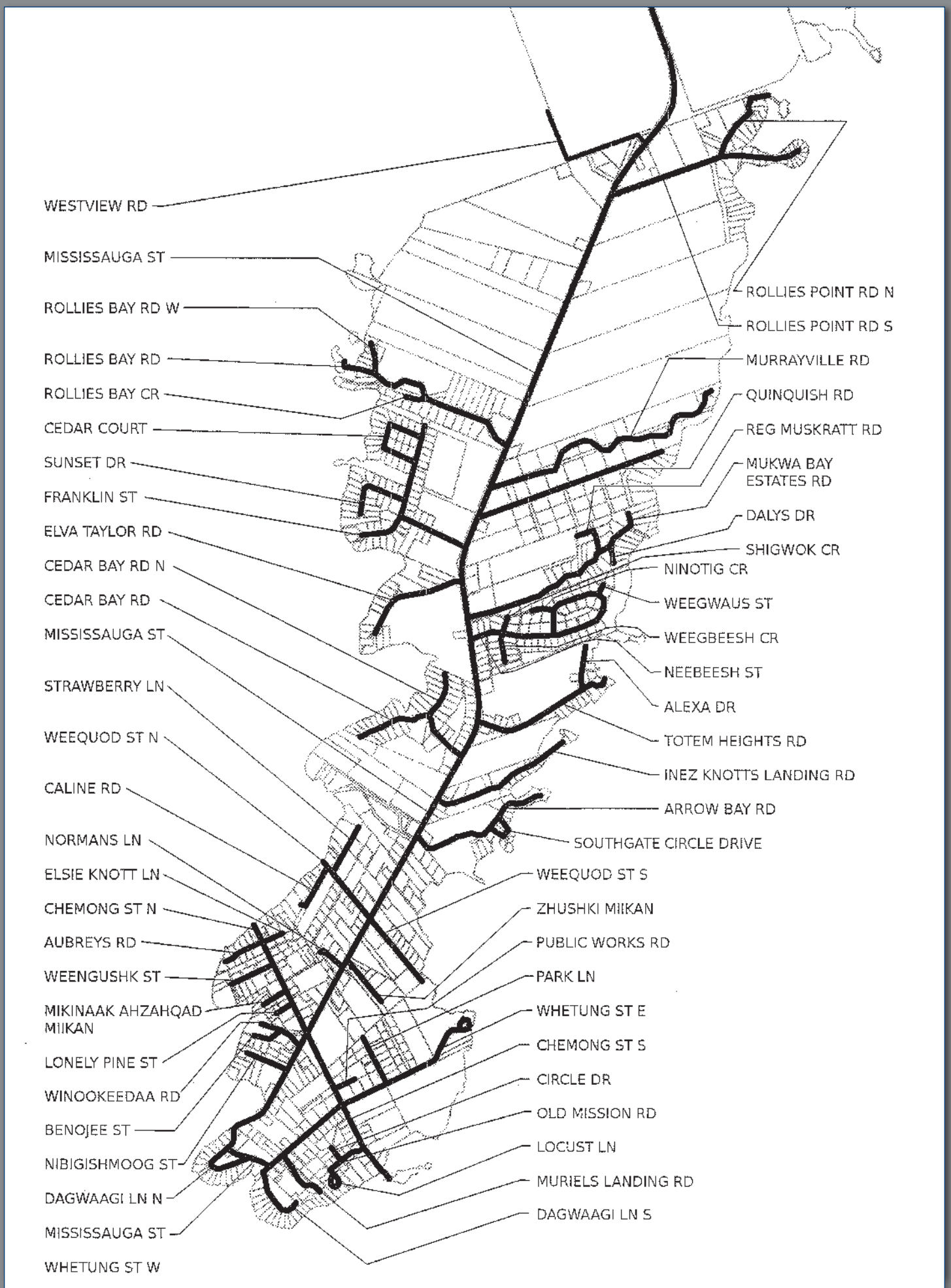
Employment Resource Centre - Nda'nokiitaage'ogamig

The Employment Resource Centre is located within the Small Business Centre in Curve Lake First Nation. Clients and community members are welcome to come in and browse our job boards, develop or update a resume, search for jobs on-line, and request assistance with applying for Kagita Mikam funded programs.

Address:
Nda'nokiitaage'ogamig
(Employment Resource Centre)
Curve Lake First Nation
1024 Mississauga Street
Curve Lake First Nation, Ontario K0L 1R0
Phone: 705-657-9455
Fax: 705-657-9173

CONTACT:
Employment Officer
Nda'nokiitaage'ogamig
Curve Lake First Nation
Phone: 705-657-9455
Fax: 705-657-9173


BY FREDDY TAYLOR
2013


WESTVIEW RD
MISSISSAUGA ST
ROLLIES BAY RD W
ROLLIES BAY RD
ROLLIES BAY CR
CEDAR COURT
SUNSET DR
FRANKLIN ST
ELVA TAYLOR RD
CEDAR BAY RD N
CEDAR BAY RD
MISSISSAUGA ST
STRAWBERRY LN
WEEQUOD ST N
CALINE RD
NORMANS LN
ELSIE KNOTT LN
CHEMONG ST N
AUBREYS RD
WEENGUSHK ST
MIKINAAK AHZAHQAD MIIKAN
LONELY PINE ST
WINOOKEEDAA RD
BENOJEE ST
NIBIGISHMOOG ST
DAGWAAGI LN N
MISSISSAUGA ST
WHETUNG ST W
ROLLIES POINT RD N
ROLLIES POINT RD S
MURRAYVILLE RD
QUINQUISH RD
REG MUSKRATT RD
MUKWA BAY ESTATES RD
DALYS DR
SHIGWOK CR
NINOTIG CR
WEEGWAUS ST
WEEGBEESH CR
NEEBEESH ST
ALEXA DR
TOTEM HEIGHTS RD
INEZ KNOTTS LANDING RD
ARROW BAY RD
SOUTHGATE CIRCLE DRIVE
WEEQUOD ST S
ZHUSHKI MIIKAN
PUBLIC WORKS RD
PARK LN
WHETUNG ST E
CHEMONG ST S
CIRCLE DR
OLD MISSION RD
LOCUST LN
MURIELS LANDING RD
DAGWAAGI LN S



CURVE LAKE FIRST NATION
Government Services Building
22 Winookeeda Street, Curve Lake, ON K0L 1R0
P: 705.657.8045 • F: 705.657.8708
W: www.curvelakefirstnation.ca

Beth Wang

From: Preya Balgobin
Sent: March 31, 2022 11:32 AM
To: Francis M. Chua
Cc: Jody Marks; Jenna DeGroote; Julie Kapyrka; Kaitlin Hill; k.a.sandy-mckenzie@rogers.com; Kayla Wright; Gary Pritchard; Wendy Smeh
Subject: 121031-InnServices SPS Class EAs: IH SPS 6 Notice of PIC
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Hi Francis,

We're gearing up to do the Public Information Centre (PIC) for proposed sewage pumping station Innisfil Heights SPS 6 (IH SPS6) and are sending Curve Lake the attached Notice of PIC to advise that the PIC date is April 21, 2022.

Traditionally, a PIC is an in-person presentation to the public and any other interested stakeholders (agencies, first nations, developers, etc.) at a local school gym, community centre, etc. The purpose of a PIC is to provide information (by doing a presentation or putting up boards) about the Class EA (purpose, background, progress, recommendations, etc.) and receive feedback from those present. Due to Covid limitations, PICs have moved to a virtual platform.

The link to the webpage with the PIC presentation is in the attached notice.

For easy access, we will also email a copy of the presentation boards directly to Curve Lake when they are posted on the website.

Please let me know if you have any questions about this notice or the upcoming PIC.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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Beth Wang

From: Wendy Smeh
Sent: April 25, 2022 2:41 PM
To: Francis M. Chua
Cc: Jody Marks; Jenna DeGroote; Julie Kapyrka; Kaitlin Hill; k.a.sandy-mckenzie@rogers.com; Kayla Wright; Gary Pritchard; Preya Balgobin
Subject: 121031-InnServices SPS Class EAs: IH SPS 6 PIC Presentation
Attachments: PIC 1 - Display Boards - April 21.pdf

Hi Francis,

Further to our email below, InnServices' virtual Public Information Centre (PIC) for proposed sewage pumping station, Innisfil Heights SPS 6 (IH SPS6), was posted online as of April 21, 2022. The presentation is available on the InnServices site and the Town Facebook and Youtube pages. The link to the virtual presentation is Innisfil Heights Sewage Pumping Station 6 | InnServices. A pdf copy of the presentation slides are also attached for reference.

Please let us know if you have any questions about the information presented.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP 60 YEARS

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: wendy.smeh@ainleygroup.com**

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: Preya Balgobin <preya.balgobin@ainleygroup.com>
Sent: Thursday, March 31, 2022 11:32 AM
To: Francis M. Chua <francis@francischua.com>
Cc: Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>; Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; k.a.sandy-mckenzie@rogers.com; Kayla Wright <kayla@francischua.com>; Gary Pritchard <gpritchard@4directionsconservation.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: 121031-InnServices SPS Class EAs: IH SPS 6 Notice of PIC

Hi Francis,

We're gearing up to do the Public Information Centre (PIC) for proposed sewage pumping station Innisfil Heights SPS 6 (IH SPS6) and are sending Curve Lake the attached Notice of PIC to advise that the PIC date is April 21, 2022.

Traditionally, a PIC is an in-person presentation to the public and any other interested stakeholders (agencies, first nations, developers, etc.) at a local school gym, community centre, etc. The purpose of a PIC is to provide information (by doing a presentation or putting up boards) about the Class EA (purpose, background, progress, recommendations, etc.) and receive feedback from those present. Due to Covid limitations, PICs have moved to a virtual platform.

The link to the webpage with the PIC presentation is in the attached notice.

For easy access, we will also email a copy of the presentation boards directly to Curve Lake when they are posted on the website.

Please let me know if you have any questions about this notice or the upcoming PIC.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

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Beth Wang

From: Julie Kapyrka <JulieK@curvelake.ca>
Sent: January 6, 2022 2:22 PM
To: Wendy Smeh; Preya Balgobin; Kaitlin Hill
Cc: jdegroote@innservices.co; Jody Marks; Francis M. Chua; Gary Pritchard
Subject: RE: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Aaniin Wendy,

Thank you for your e-mail. Looking forward to meeting with you as well.
Yes, please send any archaeological reports as well.

Miigwech,

Dr. Julie Kapyrka
Lands & Resources Consultation Liaison
Curve Lake First Nation Government Services Building
22 Winookeeda Road, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext. 239 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: JulieK@curvelake.ca

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: January 6, 2022 11:48 AM
To: Julie Kapyrka <JulieK@curvelake.ca>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Kaitlin Hill <KaitlinH@curvelake.ca>
Cc: jdegroote@innservices.co; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Hi Julie,

We look forward to meeting with you next week regarding the InnServices Five Sewage Pumping Stations EA.

Further to your email below, we have attached the environmental studies for three of the five sewage pumping station EA's. We will provide the remaining once they are finalized.

Do you require the archeological studies as well?

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135

Cell: (705) 443-9334

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: wendy.smeh@ainleygroup.com**

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From: Julie Kapyrka <JulieK@curvelake.ca>
Sent: Saturday, November 6, 2021 1:19 PM
To: Preya Balgobin <balgobin@ainleygroup.com>; Kaitlin Hill <KaitlinH@curvelake.ca>
Cc: jdegroote@innservices.co; Wendy Smeh <smeh@ainleygroup.com>; Jody Marks <marks@ainleygroup.com>
Subject: RE: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Aaniin Preya,

Thank you for your e-mail. I suggest that we schedule a meeting to discuss the project in more detail – so that can better assess how to approach engagement and consultation.

We are currently booking into January 2022. We are available the morning of January 12th at 10am if that works for your team?

In the meantime, we would be interested in receiving any natural heritage studies or environmental studies to date. Please be advised that we prefer to have the opportunity to be directly participating in any environmental fieldwork of studies that may be taking place on our treaty territories. We have particular concern for cultural keystone species that have significant value to our community, as well as protecting our harvesting rights and having access to practice those activities.

Miigwech.

All the best,

Dr. Julie Kapyrka
Lands & Resources Consultation Liaison
Curve Lake First Nation Government Services Building
22 Winookeeda Road, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext. 239 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: JulieK@curvelake.ca

From: Preya Balgobin <balgobin@ainleygroup.com>
Sent: November 5, 2021 6:43 PM

To: Kaitlin Hill <KaitlinH@curvelake.ca>
Cc: jdegroote@innservices.co; Julie Kapyrka <JulieK@curvelake.ca>; Wendy Smeh <smeh@ainleygroup.com>; Jody Marks <marks@ainleygroup.com>
Subject: 121031-Innisfil Heights: Sewage Pumping Station 6-Curve Lake-Response

Hello Kaitlin,

Thank you for providing Curve Lake First Nation's feedback on the Class EA for the Innisfil Heights Sewage Pumping Station 6. Please find attached, our responses to the comments and questions.

The study team is open to the formation of a Joint Consultation Committee, if Curve Lake First Nation considers the nature of our project to be appropriate for joint consultant. Please advise and we will reach out to you to discuss.

Should there be additional questions or comments please feel free to contact us.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager
Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Kaitlin Hill <KaitlinH@curvelake.ca>
Sent: October 21, 2021 1:36 PM
To: Jenna DeGroote <jdegroote@innservices.co>
Cc: Julie Kapyrka <JulieK@curvelake.ca>
Subject: Innisfil Heights Sewage Pumping Station 6

[EXTERNAL]

Good afternoon Jenna,

Please find attached a letter from Curve Lake First Nation in regard to the proposed Innisfil Heights Sewage Pumping Station.

We look forward to learning more about your project.

Miigwech,
Kaitlin H.

Kaitlin Hill
Lands and Resources Consultation Liaison
Curve Lake First Nation
Government Services Building
22 Winookeeda Street, Curve Lake, ON K0L 1R0
P: 705.657.8045 ext 222 F: 705.657.8708
W: www.curvelakefirstnation.ca
E: KaitlinH@curvelake.ca

CONSULTING
ENGINEERS
PLANNERS

MEETING MINUTES

195 County Court Boulevard, 3rd Floor
Brampton, ON L6W 3W8
Tel: (905) 595-6862
E-mail: brampton@ainleygroup.com

INNSERVICES UTILITIES INC.
MCEA & PRELIMINARY DESIGN FOR FIVE SEWAGE PUMPING STATIONS
CURVE LAKE FIRST NATIONS RIGHT'S HOLDER MEETING

PROJECT:	InnServices Utilities Inc. P-21-CWW286 287DN 252DN 288DN 292DN Engineering Services for Municipal Class Environmental Assessment and Preliminary Design for Five (5) Sewage Pumping Stations Ainley Job No. 121031
DATE:	January 12th, 2022
TIME:	1:00 pm to 2:00pm
LOCATION	Teams Meeting
PRESENT:	Jenna DeGroote, InnServices Wendy Smeh, Ainley Group Jody Marks, Ainley Group Julie Kapyrka, Curve Lake First Nation Kaitlin Hill, Curve Lake First Nation Kayla Wright, Curve Lake First Nation Francis M. Chua, Curve Lake First Nation Gary Pritchard, 4 Directions Conservation
DISTRIBUTION:	ALL PRESENT Simon Glass, Ainley Group Jatin Singh, Ainley Group Preya Balgobin, Ainley Group

1. Introductions

InnServices, Ainley Group and Curve Lake First Nations introduced their teams, as outlined above under 'Present'.

The purpose of the meeting is to discuss the special consultation framework which will set out the consultation process to be undertaken to better assess how to approach engagement and consultation.

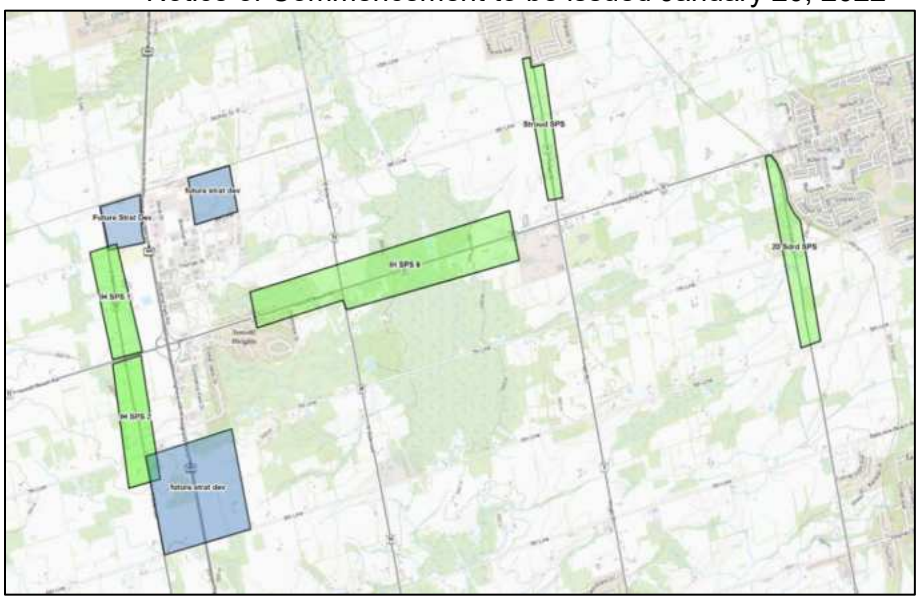
It is noted that Curve Lake First Nations is a rights holder, an important distinction from stakeholder, that should be reflected in the language of the project.

2. Project Overview

A general overview of InnServices Pumping Stations EA project was provided. InnServices and its consultant Ainley are working on one overall project of five sewage pumping station EAs, however, the EA's and preliminary design for each pumping station are being completed separately to ensure that rightsholders and stakeholders have the opportunity to review and comment on the individual projects.

- The EA's are being completed as Schedule 'B' MCEA's to identify the preferred options for the following five (5) sewage pumping stations (SPS) in order of priority. The project areas are shown on the map below:

    1. Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)
        - Notice of Commencement Issued September 16, 2021
    2. Stroud Sewage Pumping Station (Stroud SPS)
        - Notice of Commencement Issued November 25, 2021
    3. 20th Sideroad Sewage Pumping Station (20 SR SPS)
        - Notice of Commencement Issued November 11, 2021
    4. Innisfil Heights Sewage Pumping Station 1 (IH SPS 1)
        - Notice of Commencement Issued December 23, 2021
    5. Innisfil Heights Sewage Pumping Station 2 (IH SPS 2)
        - Notice of Commencement to be issued January 20, 2022



Map of Study Areas

This project is for the Schedule B EA and preliminary design of five sewage pumping stations (only and not including the wastewater mains) in the study areas shown above and described within the Town of Innisfil. It was explained that the projects are detailed in Innisfil's 2018 Master Servicing Plan (MSP) Update. The SPS's will be a part of a new sewage collection system for the Innisfil Heights economic district along Highway 400, and for the community of Stroud and will service new developments. Ainley will provide Curve Lake FN with a summary of the overall preferred servicing alternative that is outlined in the MSP.

Action by Ainley

It was discussed that the sewage collection system ultimately flows to the Lakeshore WWTP. The WWTP is currently being upgraded to meet future flows. Both the work being completed on the WWTP, and the design of the sewage collection system, are being completed as separate projects with different teams.

It was explained that InnServices and the Town of Innisfil are two separate companies. InnServices is the Town of Innisfil's water & wastewater utility company. InnServices owns the water and wastewater infrastructure and works on projects of this nature. The Town completes the development reviews and works with developers.

It is expected that the Environmental Assessments and preliminary design for the five sewage pumping stations will be completed late in 2022. Detailed design is expected to be completed by 2023, with construction starting in 2024. It is expected that the SPS's would be operational by 2024/2025.

3. Overview of Special Consultation Framework

The Curve Lake FN Team in this meeting are the members of the team that will be working as a part of the Joint Consultation Committee for this SPS project from the EA planning stage through to construction. Curve Lake FN needs to be consulted early on for projects within its treaty territory, for this and any future projects, within the traditional territory lands. A holistic approach to reviewing projects is preferred by Curve Lake FN for a better understanding of why the individual projects are proposed and what will ultimately be accomplished. 4 Directions Conservation completes the technical reviews for projects that affect traditional territory land.

Curve Lake FN advised that they should be included, with as much advanced notice as possible, in field studies and the preparation of reports, to be able to meaningfully participate in the project by incorporating Curve Lake FN specific knowledge and information into the design and deliverables of the project from a Right's based perspective. Curve Lake FN will review draft reports and provide feedback and recommendations regarding mitigation that can be taken with respect to impacts to rights and also to include indigenous knowledge into the project. Reports should be sent to Kaitlyn and Julie with the entire team copied.

To create special consultation framework, a budget will need to be put together for each step of the framework template. Ainley will provide a schedule of the work including task items so that the budget and steps can be discussed further and determine what needs to be completed next to plot out the process.

Action by Ainley/Curve Lake

InnServices previously paid the $250 file fee for the IH SPS 6 project. InnServices will pay for the file fees for the other SPS's as well.

Action by InnServices

4. Background Studies

- Geotechnical Investigations – GEI Consultants
  - Draft geotechnical constraints reports have been completed.
- Topographic and Technical Study – Ainley Group
  - Ainley is working to complete.
- Natural Heritage Assessment – Azimuth Environmental Consulting Inc.
  - Azimuth has completed Environmental Constraint reports for IH SPS 6, Stroud and the 20th Sideroad SPS.

- Stage 1 Archeological Study - Archaeological Services Inc.
  - ASI has completed a preliminary evaluation of the archaeological site potential of each of the project areas. We have not received any preliminary reports to date.

- Cultural and Built Heritage Study - Archaeological Services Inc.
  - ASI continues to coordinate with the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) regarding the project. They have completed a draft Existing Conditions, Cultural Heritage Road for IH SPS 6.

Ainley will reach out to ASI and Azimuth to relay the information discussed in this meeting with respect to advising Curve Lake FN prior to site investigations and coordination for reports with as much advanced notice as possible. It is protocol to reach out to Curve Lake during Stage 1 studies so that the oral history of Curve Lake First Nations can be included in the preliminary reports.

Action by Ainley

Curve Lake also requested the engineering details of the project. Ainley will provide the details as they become available, as well as provide the background information from the MSP, as outlined above to provide a better understanding of the wastewater system.

Action by Ainley

5. Other Business

A follow-up meeting was set for May 4th, 2022 at 10:00am. This will allow time for Curve Lake FN to complete a review of the project area and the study reports.

6. Adjournment
2:00pm

Any errors and/or omissions from these Minutes should be reported to the undersigned as soon as possible.

Minutes prepared by:

Wendy Smeh, C.E.T., PMP
Ainley & Associates Limited

\\ag-barrie\ns1\Engineering\Collingwood\121031\3. Meetings\121031-Innisfil 5 SPS EA-Curve Lake Meeting Minutes.docx

Beth Wang

From: Wendy Smeh
Sent: January 25, 2022 9:36 AM
To: Julie Kapyrka; Kaitlin Hill; Jenna DeGroote; Gary Pritchard; Francis M. Chua
Cc: Preya Balgobin; Jody Marks
Subject: Re: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes
Attachments: Wastewater MSP Summary Memo.pdf

Good Morning,

Further to the rights holder meeting of January 12, 2022, please find attached a summary of the wastewater collection solution identified in InnServices Master Servicing Plan for the Innisfil Heights and Stroud communities.

If you have any questions or would like to discuss further, please feel free to contact me.

Wendy Smeh, C.E.T., PMP
Project Manager

280 Pretty River Parkway
Collingwood, ON L9Y 4J5
wendy.smeh@ainleygroup.com
Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

_____
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_____

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: January 21, 2022 11:21 AM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Jenna DeGroote <jdegroote@innservices.co>; Jody Marks <jody.marks@ainleygroup.com>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>
Cc: Simon Glass <simon.glass@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Jatin Singh <jatin.singh@ainleygroup.com>
Subject: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Hello Everyone,
Attached please find the meeting minutes for consultation regarding InnServices Five Sewage Pumping Station's EA and preliminary design project.
Regards,
Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
WWW.AINLEYGROUP.COM
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Beth Wang

From: Wendy Smeh
Sent: February 28, 2022 1:12 PM
To: Julie Kapyrka; Kaitlin Hill; Gary Pritchard; Francis M. Chua; k.a.sandy-mckenzie@rogers.com
Cc: Preya Balgobin; Jody Marks; Jenna DeGroote
Subject: RE: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes
Attachments: InnServices SPS EA 121031_ProjectSchedule-Feb 25, 2022.pdf

Good Afternoon,

At the Rightsholder's meeting of January 12, 2022, we discussed that to create special consultation framework, a budget will need to be put together for each step of the framework template. Ainley would provide a schedule of work including task items so that the budget and next steps could be further defined.

Attached is the project schedule and task for the InnServices Five Sewage Pumping Station EA's. A follow up email will provide a link to the draft archeological, cultural heritage, environmental constraint and geotechnical reports that have been completed to-date.

As discussed at the meeting, we have updated our sub-consultants to advise them of consultation framework and to advise to provide as much notice as possible of future field work.

Please let us know if you have any quesitons, or would like to discuss the information herein further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley 60 YEARS GROUP

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

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From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: Tuesday, January 25, 2022 9:36 AM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Jenna DeGroote <jdegroote@innservices.co>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>
Subject: Re: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Good Morning,

Further to the rights holder meeting of January 12, 2022, please find attached a summary of the wastewater collection solution identified in InnServices Master Servicing Plan for the Innisfil Heights and Stroud communities.

If you have any questions or would like to discuss further, please feel free to contact me.

Wendy Smeh, C.E.T., PMP
Project Manager

280 Pretty River Parkway
Collingwood, ON L9Y 4J5
wendy.smeh@ainleygroup.com
Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

_____
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_____

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: January 21, 2022 11:21 AM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Jenna DeGroote <jdegroote@innservices.co>; Jody Marks <jody.marks@ainleygroup.com>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>
Cc: Simon Glass <simon.glass@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Jatin Singh <jatin.singh@ainleygroup.com>
Subject: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Hello Everyone,

Attached please find the meeting minutes for consultation regarding InnServices Five Sewage Pumping Station's EA and preliminary design project.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: wendy.smeh@ainleygroup.com**

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Beth Wang

From: Francis M. Chua <francis@francischua.com>
Sent: March 7, 2022 9:48 PM
To: Wendy Smeh; Julie Kapyrka; Kaitlin Hill; Gary Pritchard; k.a.sandy-mckenzie@rogers.com
Cc: Preya Balgobin; Jody Marks; Jenna DeGroote; Kayla Wright
Subject: Re: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Wendy.

This is to confirm we received your Feb 28 email with the project schedule attached to it. We also received the link to the shared folder - kindly keep the link active for awhile longer as we sort out file sharing and reviews within our team here.

We have not yet had a chance to review the schedule nor the documents themselves. We have a few other consultation files that are currently occupying us right now.

I can connect with you this Wednesday afternoon or Friday afternoon if that works for you, to keep our conversations active.

Thanks for following up Wendy.

~ Francis

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: Monday, March 7, 2022 9:20 PM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>; k.a.sandy-mckenzie@rogers.com <k.a.sandy-mckenzie@rogers.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: RE: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Good Morning,
We are following up with our email of February 28th to ensure that received the second email with links to the study reports. Have you had time to review the schedule and task items provided in the schedule? Let us know if you have any questions or would like to discuss further.
Also, we were considering holding a PIC for the first SPS EA (IH SPS 6) in early April. We want confirm whether you would like to provide review information prior to the PIC, or if we can proceed. Please let us know.
Regards,
Wendy Smeh, C.E.T., PMP
Project Manager

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From: Wendy Smeh
Sent: Monday, February 28, 2022 1:12 PM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>; k.a.sandy-mckenzie@rogers.com
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: RE: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Good Afternoon,

At the Rightsholder's meeting of January 12, 2022, we discussed that to create special consultation framework, a budget will need to be put together for each step of the framework template. Ainley would provide a schedule of work including task items so that the budget and next steps could be further defined.

Attached is the project schedule and task for the InnServices Five Sewage Pumping Station EA's. A follow up email will provide a link to the draft archeological, cultural heritage, environmental constraint and geotechnical reports that have been completed to-date.

As discussed at the meeting, we have updated our sub-consultants to advise them of consultation framework and to advise to provide as much notice as possible of future field work.

Please let us know if you have any quesitons, or would like to discuss the information herein further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager



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Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>
Subject: Re: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Good Morning,

Further to the rights holder meeting of January 12, 2022, please find attached a summary of the wastewater collection solution identified in InnServices Master Servicing Plan for the Innisfil Heights and Stroud communities.

If you have any questions or would like to discuss further, please feel free to contact me.

Wendy Smeh, C.E.T., PMP
Project Manager

280 Pretty River Parkway
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wendy.smeh@ainleygroup.com
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Cc: Simon Glass <simon.glass@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Jatin Singh <jatin.singh@ainleygroup.com>
Subject: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Hello Everyone,

Attached please find the meeting minutes for consultation regarding InnServices Five Sewage Pumping Station's EA and preliminary design project.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
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Beth Wang

From: Wendy Smeh
Sent: May 6, 2022 12:56 PM
To: Julie Kapyrka; Kaitlin Hill; Gary Pritchard; Francis M. Chua; k.a.sandy-mckenzie@rogers.com; Kayla Wright
Cc: Preya Balgobin; Jody Marks; Jenna DeGroote
Subject: RE: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes
Attachments: SubConsulant Report Submissions - May 5, 2022.pdf; 121031-Innisfil 5 SPS EA-Curve Lake Meeting Minutes May 4 2022.pdf

Hello All,

Attached please find the Rightsholder meeting minutes of May 5, 2022 for the InnServices Five SPS EA project. Also attached is an updated list of background study report submissions including the date of submission to Curve Lake. A link with the remaining reports is as follows: https://ainleygroup-my.sharepoint.com/:f:/p/wendy_smeh/EnTWxNSSLeBFqC04w81wT9YBAoDo7f-b8yRun-Jg0vxhhA?e=dbnYP1

We also want to confirm who will be reviewing the CH and Stage 1 assessment? Are both done by Curve Lake? We would like to confirm that comments can be provided for the IH SPS 6 reports by May 13th? Let us know.

Please advise if you have any comments or questions.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP 60 YEARS

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Cell: (705) 443-9334

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Ainley GROUP CONSULTING ENGINEERS PLANNERS

MEETING MINUTES

195 County Court Boulevard, 3rd Floor
Brampton, ON L6W 3W8
Tel: (905) 595-6862
E-mail: brampton@ainleygroup.com

INNSERVICES UTILITIES INC.
MCEA & PRELIMINARY DESIGN FOR FIVE SEWAGE PUMPING STATIONS
CURVE LAKE FIRST NATIONS RIGHT'S HOLDER MEETING

PROJECT:	InnServices Utilities Inc. P-21-CWW286 287DN 252DN 288DN 292DN Engineering Services for Municipal Class Environmental Assessment and Preliminary Design for Five (5) Sewage Pumping Stations Ainley Job No. 121031
DATE:	May 4th, 2022
TIME:	1:00 pm to 1:40pm
LOCATION	Teams Meeting
PRESENT:	Julie Kapyrka, Curve Lake First Nation Kayla Wright, Curve Lake First Nation Francis M. Chua, Curve Lake First Nation Jenna DeGroote, InnServices Preya Balgobin, Ainley Group Wendy Smeh, Ainley Group Jody Marks, Ainley Group
DISTRIBUTION:	ALL PRESENT Gary Pritchard, 4 Directions Conservation Kaitlin Hill, Curve Lake First Nation

1. Special Consultation Framework

Curve Lake provided InnServices with a draft of the special consultation framework agreement. InnServices is currently finalizing it and it is with their legal team for review. Curve Lake's external legal council has reviewed the document and is satisfied with the content of the agreement from a legal standpoint. InnServices noted that their review is taking time because this is new for them. They will provide comments shortly.

Action by InnServices

From a budgetary standpoint, InnServices asked Curve Lake to provide a breakdown of the tasks and associated fees. Curve Lake will send this to InnServices. They indicated that generally the fees cover costs to attend meetings, costs for internal work, and communications with their Rights and Resources committee, as well as Chief Council, if necessary. The bulk of the cost is for the technical reviews and site visits. These items are typically included in what would be considered the first phase. If mitigations and follow-ups are required, there may be additional fees. Feedback and recommendations would be regarding impacts to rights, mitigation measures that can be taken, and also including indigenous knowledge into the project. This would be discussed following the first phase reviews. Curve Lake doesn't typically go beyond the set of parameters outlined in the agreement, and only when discussed first.

Action by Curve Lake

2. Status of Curve Lake Review

Additional background studies reports have been completed since the last submission. Ainley will provide to Curve Lake and provide a list of the reports submitted.

Action by Ainley

4 Directions Conservation has reviewed the background reports that have been provided to date. This includes the documents that were in the first transfer link. Gary from 4 Directions Conservation will provide a summary of his review by the end of next week (May 13th). Curve Lake will send InnServices/Ainley the review May 13th or May 14th. Francis noted that to-date the review fees from 4Direction Conservation total approximately $6000.00. The main comment about the reports is that the area was reviewed by driving rather than a walk through. Ainley noted that due to the size of the study area, a general desktop review of the entire area was completed. Once the preferred alternative is confirmed additional studies or information may be needed. The purpose of the studies at this point is to narrow down the site locations options to a suitable location. Curve Lake indicated that perhaps this can be clarified following the review.

Action by Curve Lake/ 4 Directions

It was noted that 4 Directions Conservation is planning a site visit at the end of May if all goes as planned. Ainley will coordinate with 4 Directions to help them focus their efforts on areas identified as possible SPS sites.

Action by Ainley/ 4 Directions

Curve Lake noted that the cultural heritage reports and archeological reports are reviewed internally. They have received the reports for SPS 6 and Stroud. The remaining reports will be provided.

3. Project Overview

Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)

All of the field studies and subsequent reports are complete. A virtual PIC went public on April 21st, 2022. The public review period is open until May 12th, 2022.

Following the end of the public comment period. Comments received will be considered and incorporated into the PFR. The preferred alternative will then be selected and the project file report will be finalized.

Ainley will provide Curve Lake with the preferred alternative solution once confirmed after the comment deadline closes May 12th. Curve Lake can then focus their comments/mitigation on the specific location.

Action by Ainley

At this point the cultural heritage report will be updated with the preliminary impact assessment of the preferred alternative. As well, additional studies may be required from a natural heritage perspective once the proposed location for the IH SPS6 is known. The need for specific studies will be recommended by Azimuth and confirmed in consultation with LSRCA.

The Notice of Study Completion will then be issued and the project file report will be provided for public comment. This comment period is a 30-day period. Any final comments will be considered and the project will be finalized, and proceed to preliminary design by Fall 2022.

Additional studies will be completed as a part of preliminary design including additional geotechnical and borehole investigations, and a Stage 2 Archeological Assessment (pedestrian survey at 5m internals).

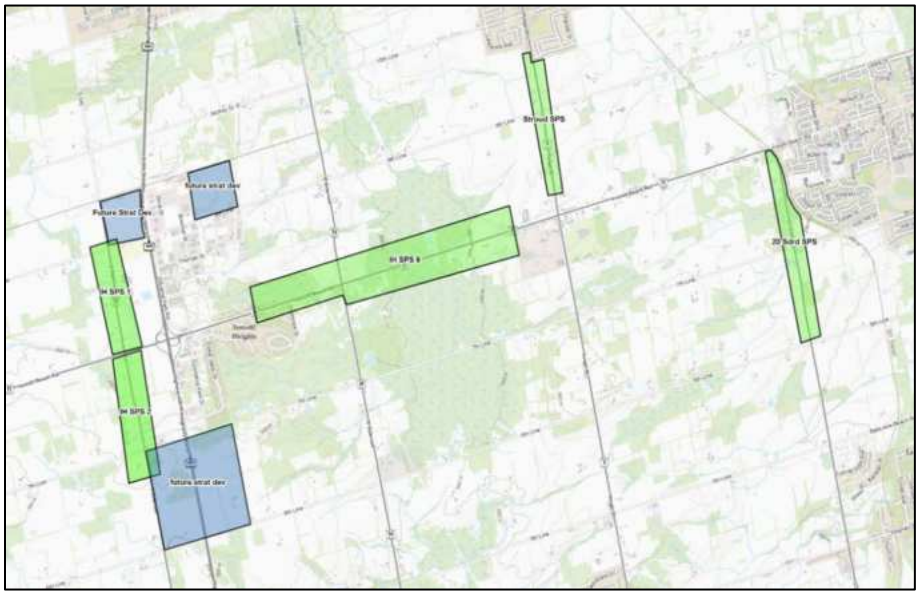
Curve Lake asked that they be advised as soon as possible in advance of any field surveys. Ainley will send Curve Lake the planned dates to coordinate with once some dates are scheduled. This has already been discussed with Azimuth and ASI.

Action by Ainley

Stroud Sewage Pumping Station (Stroud SPS)
The Stroud EA is on a short 'hold' until further planning information can be obtained from the town.

20th Sideroad Sewage Pumping Station (20 SR SPS)
It is expected that the PIC for the 20th Sideroad SPS will take place in early June. The timeline of the EA is about a month behind that of IH SPS 6.

Innisfil Heights Sewage Pumping Station 1 (IH SPS 1) & 2 (IH SPS 2)
The EA timeline for IH SPS 1 is a month behind that of the 20th Sideroad SPS. IH SPS 2 will then be a month behind IH SPS 1.



Map of Study Areas

4. Other Business

A follow-up meeting was initially set for June 6th, 2022 at 10:00am.

5. Adjournment

1:40pm

Any errors and/or omissions from these Minutes should be reported to the undersigned as soon as possible.

Minutes prepared by:

Wendy Smeh, C.E.T., PMP
Ainley & Associates Limited

\\ag-barrie\ns1\Engineering\Collingwood\121031\3. Meetings\Curve Lake Meeting 2\121031-Innisfil 5 SPS EA-Curve Lake Meeting Minutes May 4, 2022.docx

SUBCONSULTANT	SPS LOCATION	REPORT	DATE DRAFT REC'D	Date Submitted to Curve Lake
ASI	IH SPS 6	Cultural Heritage Report	2021-09-30	2022-02-28
ASI	STROUD	Cultural Heritage Report	2022-01-25	2022-02-28
ASI	20th SDRD	Cultural Heritage Report	2022-01-31	2022-02-28
ASI	IH SPS 1	Cultural Heritage Report	2022-04-01	2022-05-05
ASI	IH SPS 2	Cultural Heritage Report	2022-04-29	2022-05-05
ASI	IH SPS 6	Stage 1 Archeological Report	2022-02-09	2022-02-28
ASI	STROUD	Stage 1 Archeological Report	2022-02-09	2022-02-28
ASI	20th SDRD	Stage 1 Archeological Report	2022-03-23	2022-05-05
ASI	IH SPS 1	Stage 1 Archeological Report	2022-03-29	2022-05-05
ASI	IH SPS 2	Stage 1 Archeological Report	2022-03-29	2022-05-05
AZIMUTH	IH SPS 6	Environmental Constraints	2021-10-15	2022-02-28
AZIMUTH	STROUD	Environmental Constraints	2021-11-02	2022-02-28
AZIMUTH	20th SDRD	Environmental Constraints	2021-11-22	2022-02-28
AZIMUTH	IH SPS 1	Environmental Constraints	2022-03-24	2022-05-05
AZIMUTH	IH SPS 2	Environmental Constraints		
GEI	IH SPS 6	Geotechnical Desktop Report	2021-12-03	2022-02-28
GEI	STROUD	Geotechnical Desktop Report	2022-01-19	2022-02-28
GEI	20th SDRD	Geotechnical Desktop Report	2022-01-19	2022-02-28
GEI	IH SPS 1	Geotechnical Desktop Report	2022-01-19	2022-02-28
GEI	IH SPS 2	Geotechnical Desktop Report	2022-01-19	2022-02-28

Beth Wang

From: Wendy Smeh
Sent: May 27, 2022 3:31 PM
To: Francis M. Chua; Kayla Wright; Julie Kapyrka; Kaitlin Hill; Gary Pritchard; Julie Kapyrka
Cc: Preya Balgobin; Jody Marks; Jenna DeGroote
Subject: RE: Initial Review: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes
Attachments: Curve Lake FN Review 2022-05-27.pdf

Hi Francis,

Attached please find our response to the environmental constraints review.

Please don't hesitate to contact us with any questions or for further discussion.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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From: Francis M. Chua <francis@francischua.com>
Sent: May 11, 2022 5:15 PM
To: Kayla Wright <kayla@francischua.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Gary Pritchard <gpritchard@4directionsconservation.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: Initial Review: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Hello Wendy.

I'm submitting this on behalf of CLFN. This follows along with Kayla's email yesterday.

Thanks.

~ Francis

From: Kayla Wright <kayla@francischua.com>
Sent: Tuesday, May 10, 2022 3:42 PM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>; Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: RE: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes

Hi Wendy,

Please see attached Schedule D Budget estimate to give us an idea of dollar values. We just placed our typical next to our budgeted values for this project, which encompasses the 5 stations. We would only bill for actuals as the work is done.

Let us know if you have any questions or concerns.

Unfortunately, at this time given some unexpected circumstances, we will not be able to complete the CH and Stage 1AAs for the May 13th deadline but we hope Gary's review of the Environmental files will provide some guidance on the project overall that could be used. We will have that over to you by the end of the week.

Many thanks,

Kayla

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: Friday, May 6, 2022 12:56 PM
To: Julie Kapyrka <JulieK@curvelake.ca>; Kaitlin Hill <KaitlinH@curvelake.ca>; Gary Pritchard <gpritchard@4directionsconservation.com>; Francis M. Chua <francis@francischua.com>; k.a.sandy-mckenzie@rogers.com; Kayla Wright <kayla@francischua.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
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We also want to confirm who will be reviewing the CH and Stage 1 assessment? Are both done by Curve Lake? We would like to confirm that comments can be provided for the IH SPS 6 reports by May 13th? Let us know.

Please advise if you have any comments or questions.

Regards,

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Project Manager

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Government Services Building
22 Winookeedaa Road
Curve Lake, Ontario K0L1R0

Phone: 705.657.8045
Fax: 705.657.8708
www.curvelakefirstnation.ca

May 11, 2022

Ms. Jenna DeGroote
Capital Project Manager
InnServices Utilities
7251 Yonge Street
Innisfil, Ontario L9S 0J3
Delivered by Email

CC: InnServices & Ainley Group Teams

Dear Ms. DeGroote,

RE: CLFN's Review of Town of Innisfil – Innisfil Heights Sewage Pumping Station EAs – Environmental Constraints Analysis of Natural Heritage Features

On behalf of our Consultation Department at Curve Lake First Nation (CLFN), we are writing to provide the document reviews for the Environmental Constraints Analysis of Natural Heritage Features:

- *Environmental Constraints Analysis of Natural Heritage Features Innisfil Heights Sewage Pumping Station 6 Town of Innisfil. November 2, 2021. 12 pages.*
- *Environmental Constraints Analysis of Natural Heritage Features Innisfil Heights Sewage Pumping Station 6 Town of Innisfil. November 18, 2021. 12 pages.*
- *Environmental Constraints Analysis of Natural Heritage Features 20th Sideroad Sewage Pumping Station Town of Innisfil. November 22, 2021. 11 pages.*

Our Consultation Department has emphasized that environmental protection and sustainability is an integral component of the future of the Curve Lake First Nation. Working with Curve Lake to develop project concept, design, planning, assessment, potential and actual impacts, monitoring, etc. are necessary steps in our process. All plans and activities must be viewed through the lens of environmental protection and sustainability. These requirements ensure that Curve Lake First Nation's interests and rights are being protected within our territory; that we are able to protect the ability to exercise our rights as a people – physically, culturally, and spiritually; that we are able to foster sovereignty, cultural identity, and sustainable succession. This is central to all relationships being progressed with various regulators and proponents.

Curve Lake First Nation is the steward and caretaker of the lands and waters within our territory in perpetuity, as we have been for thousands of years, and we have an obligation to continue to steadfastly maintain this responsibility to ensure their health and integrity for generations to come. Protection, conservation, and sustainable collaborative management are priorities for Curve Lake First Nation.

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Curve Lake's vision statement must be central to development in the territory: "Upon the foundation of community values and vision that promotes and preserves our relationship with mother earth, which has defined and will continue to define our identity and culture as Anishnaabe People, the Consultation Department will build and secure the framework for our First Nation lands by putting into place ways and laws that will provide both the protection and the freedom for each person, their family, and the whole community to fulfill their potential. Each way and law will be given the consideration to its importance for our next seven generations."

Our Consultation Department has accepted the review and recommendations provided by Gary Pritchard, Principal, Indigenous Conservation Ecologist, 4 Directions of Conservation Consulting Services for the review of the Environmental Constraints Analysis of Natural Heritage Features. Please refer to Appendix A for details on the review of the documents including recommendations.

We thank you, your team, InnServices and Ainley Group for working with us to understand and incorporate our comments on this Project. We thank you for working with us to create an agreement together and setting aside capacity funding, this will assist in our ability to conduct these reviews and other activities associated with the project.

We do this work to uphold our responsibilities to care for the earth and waters, for our people, our nation, and for all our relations. Our foundational belief is balance; our values and principles are built upon the respect, care, and nurturing of all life as part of an interconnected whole and necessary for the balance and harmony required for Mino-Bimaadiziwin now and for future generations.

Sincerely,

Francis Chua

Francis Chua on behalf of Curve Lake First Nation Consultation Department
Support to Curve Lake First Nation Consultation Department

cc:
Chief Emily Whetung, Curve Lake First Nation
Katie Young-Haddlesey, Chief Operating Officer, CLFN
Dr. Julie Kapyrka, Lands & Resources Consultation Liaison, CLFN
Kaitlin Hill, Lands & Resources Consultation Liaison, CLFN

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Appendix A: Details on the review for the Environmental Constraints Analysis of Natural Heritage Features

May 11th, 2022

Attn: **Julie Kapyrka** and **Kaitlin Hill**
Consultation Department
Curve Lake First Nation
22 Winookeeda Road,
Curve Lake ON K0L1R0
P: (705) 657-8045

CC: **Francis Chua**

RE: Town of Innisfil ~ Innisfil Heights Sewage Pumping Station, Environmental Report-Indigenous Input and Review

Dear Dr. Kapyrka and Ms. Hill

4 Directions is pleased to present to you, our review of the document provided by Azimuth Environmental Consulting, Inc. (Azimuth) to Curve Lake First Nation (CLFN) on behalf of InnServices as part of their regulatory consultation obligations and permitting process for the Innisfil Heights Sewage Pumping Station.

The report received is entitled:

!" #$%&'($)*$+,-./($0+',&$+0.1$,-20&0.(3.4,+5',-.6*'&+,7*.8*,+5'*0.9$$&03&-.6*&7:+0.;*<,7*.=5)>&$7.
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;+,+&($.?.@(<$.(3.9$$&03&-".4(%*)A*'.!E&.BDB!".!B.>,7*0"..

F" #$%&'($)*$+,-./($0+',&$+0.1$,-20&0.(3.4,+5',-.6*'&+,7*.8*,+5'*0.BD+:.;&G*'(,G.;*<,7*.=5)>&$7.
;+,+&($.@(<$.(3.9$$&03&-".4(%*)A*'.BB&.BDB!".!!.>,7*0".

After reviewing the Environmental Constraints Analysis (ECA) documents shared from Azimuth, 4 Directions is of the opinion that the environmental reporting is not complete to provincial standards nor to CLFN standards. The high-level field assessment consisting of 'windshield' surveys to collect and assess critical information regarding the natural features in the study area is not conducive to evaluate the impacts to the Inherent and Treaty Rights of CLFN and other signatories of the Treaty.

The ECA documents are missing critical surveys to account for species located in and around the study areas.

Missing surveys include but are not limited to:

- Amphibian Surveys
- Fish and Fish Habitat Surveys
- Baseline Water Quality
- Benthic Invertebrate Community Surveys
- Breeding Bird surveys
- Bat Species and Critical Habitat surveys
- Butternut Tree Assessments
- Sub-watershed health
- Cultural Keystone Species
- Rights of Species Granted Protection Under the WTFN Settlement of 2018

30 Moir Cres, Barrie ON L4N8B6
(p): (705) 220-1952
(e): gpritchard@4directionsconservation.com

- Harvest Rights and Ecological Longevity to the WTFN Communities.

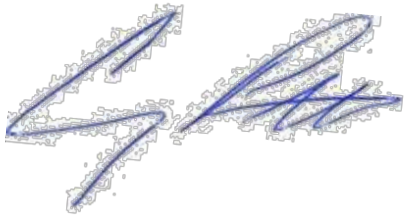
These surveys are necessary to understand not only species at risk but evaluate the risk of this project to the provincial acknowledge harvest rights of the Williams Treaty First Nations.

It is recommended that a four-season site visit approach be undertaken to ensure species of cultural interest be explain, heard, and protected if this work is to proceed ahead.

4 Directions is in agreeance with Azimuth that detailed studies (not 'windshield' surveys) are needed to critically assess the environmental constraints for the study areas. This must be done in conjunction with CLFN to ensure the protection of Indigenous Rights and to have good faith in the process moving forward. Following this, InnServices and CLFN can discuss creating an adequate environmental monitoring plan to ensure culture longevity.

I trust that this review and summary of the environmental documents will help you and the proponent work collaboratively together through the next steps and the regulatory review process. If you have any questions, please do not hesitate to contact us.

Miigwetch,



Gary Pritchard, BSc., EP., CERP.

Principal, Indigenous Conservation Ecologist
4 Directions of Conservation Consulting Services.
(e): gpritchard@4directionsconservation.com
(p): (705) 220.1952

Ainley & Associates Limited
280 Pretty River Parkway, Collingwood, ON, L9Y 4J5
Tel: (705) 445-3451 ▪ Fax: (705) 445-0968
E-mail collingwood@ainleygroup.com

Friday, May 27, 2022 File No. 121031

Francis Chua,
Curve Lake First Nation
22 Winookeedaa Road
Curve Lake, ON K0L 1R0

Re: **CLFN's Review of Town of Innisfil – Innsfil Heights Sewage Pumping Station EAs – Environmental Constraints Analysis of Natural Heritage Features Response**

Dear Mr. Chua,

In response your letter and 4 Directions of Conservation Consulting Services' review of the environmental constraints report for IH SPS 6 and 20th Sideroad SPS, we offer some additional information that may assist 4 Directions to better understand the project and EA process. We use Innisfil Heights sewage pumping station 6 for reference, as it is the first EA to be completed as per the project schedule.

The EA is for the sewage pumping station only (it does not include the collection system). The Study Area looks at the entire area that may be considered for the location of the SPS. The footprint of the SPS site, once confirmed, is relatively small. The plan below shows a conceptual footprint of the SPS site (blue rectangle) on the property that has been recommended as the preferred site alternative as outlined in the PIC.



The background studies were initiated upon the start of the EA process to review the entirety of the study area to determine a low impact location to situate the sewage pumping station. All environmental impacts (social, cultural, ecological, economic) are considered during the EA process, and the goal is to mitigate environmental impacts as much as possible. The Environmental Constraints report allowed us to look at a very large area and consider locations with lesser environmental impacts.

Once the EA process determined a recommended alternative, we provided the alternative to Azimuth (following the end date of the PIC comment period which was May 12, 2022) who advised that the area appears to have minimal environmental constraints. They recommended the following field studies for inclusion within an environmental impact study:

- One vegetation survey including a search for Butternut (summer 2022); and
- Two dawn breeding bird surveys with potential for 3rd depending on outcome of initial surveys (June 2022).

Azimuth will be providing a proposal and cost estimate for the work. When a timeline for the surveys is being considered, we will contact Curve Lake to include you as a part of the field review.

Perhaps it would be best to hold off on the environmental constraints review of the remaining SPS until we can provide more specific information for 4 Directions to review. The remaining reports will be similar to the two reports that 4 Directions has already reviewed.

Additionally, at the last meeting you noted that 4 Directions review of these reports was approximately $6000.00. Based on the cost for the review of the reports, it would be helpful to see a breakdown of costs to be applied to future reviews. It would appear that the review costs are $2000.00 per report based on the total cost of $6000.00. However, the reports that have been reviewed to date are only two reports. We sent the draft and final version of IH SPS 6 and one version of the 20th Sideroad report. The draft and final version for IH SPS 6 are the same. A review cost of $2000.00 seems very high considering the reports are only twelve pages in length and the final comment was that they are not detailed enough. We would like to discuss the opportunity to negotiate the cost associated with the review.

Should you have any further questions or to set up a time to discuss further, please contact the undersigned or Jenna DeGroote, Capital Project Manager, InnServices Utility Inc. via email at jdegroote@innservices.co.

Yours truly,

AINLEY & ASSOCIATES LIMITED



Wendy Smeh, C.E.T., PMP
Project Manager
705-445-3451 ext 135
wendysmeh@ainleygroup.com

cc: Chief Emily Whetung, Curve Lake First Nation
Dr. Julie Kapyrka, Lands & Resources Consultation Liaison, CLFN
Kaitlin Hill, Lands & Resources Consultation Liaison, CLFN
Jenna DeGroote, InnServices, Capital Project Manager
Preya Balgobin, P.Eng., Ainley Group
Jody Marks, Ainley Group

Beth Wang

From: Wendy Smeh
Sent: June 30, 2022 11:04 AM
To: Preya Balgobin; Jody Marks; Kaitlin Hill; Francis M. Chua; Kayla Wright; Jenna DeGroote; Julie Kapyrka; Gary Pritchard
Subject: RE: InnServices Sewage Pumping Station EA's Consultation Rightsholder Progress Meeting
Attachments: InnServices - 5 SPS EA - Curve Lake Meeting Minutes June 2 2022.pdf

Good Morning All,

Attached please find the minutes of the Rightsholder meeting of June 2, 2022.

If you find any errors or omissions, please do not hesitate to let us know.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

WWW.AINLEYGROUP.COM

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-----Original Appointment-----
From: Wendy Smeh
Sent: May 4, 2022 2:26 PM
To: Wendy Smeh; Preya Balgobin; Jody Marks; Kaitlin Hill; Francis M. Chua; Kayla Wright; Jenna DeGroote; Julie Kapyrka; Gary Pritchard
Subject: InnServices Sewage Pumping Station EA's Consultation Rightsholder Progress Meeting
When: June 2, 2022 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Learn More | Meeting options

MEETING MINUTES

195 County Court Boulevard, 3rd Floor
Brampton, ON L6W 3W8
Tel: (905) 595-6862
E-mail: brampton@ainleygroup.com

INNSERVICES UTILITIES INC.
MCEA & PRELIMINARY DESIGN FOR FIVE SEWAGE PUMPING STATIONS
CURVE LAKE FIRST NATIONS RIGHT'S HOLDER MEETING

PROJECT:	InnServices Utilities Inc. P-21-CWW286 287DN 252DN 288DN 292DN Engineering Services for Municipal Class Environmental Assessment and Preliminary Design for Five (5) Sewage Pumping Stations Ainley Job No. 121031
DATE:	June 2nd, 2022
TIME:	2:00 pm to 3:00pm
LOCATION	Teams Meeting
PRESENT:	Francis M. Chua, Curve Lake First Nation Kayla Wright, Curve Lake First Nation Jenna DeGroote, InnServices Preya Balgobin, Ainley Group Wendy Smeh, Ainley Group Gary Pritchard, 4 Directions Conservation
DISTRIBUTION:	ALL PRESENT Julie Kapyrka, Curve Lake First Nation Jody Marks, Ainley Group Kaitlin Hill, Curve Lake First Nation

1. Status of Curve Lake Review

Curve Lake confirmed that the environmental constraint reports have been reviewed. Ainley noted that there is still one report (for sewage pumping station 2) that has not yet been submitted by Azimuth. Ainley will provide when available.

Action by Ainley

Once the dates of additional field studies are being discussed, Ainley will provide Curve Lake with the opportunity to join the field review. If Curve Lake cannot attend the site visit, field notes and observations should be provided in advance of the report so that Curve Lake has something to compare the report to. When corresponding about the field studies the dates, times and topic, as well as the address of the specific

property should be identified. The review will provide additional knowledge from the perspective of indigenous rights.

Action by Ainley

The archeological and built heritage reports are in queue for review but have not yet been reviewed due to internal staffing issues. Ainley noted that the review of the reports for Innisfil Heights sewage pumping station 6 is the highest priority because it is the first EA in the sequence of the project schedule. The virtual Public Information Centre for the EA was made public on April 21st, 2022. Following that, the public comment period was until May 12th, providing the public and stakeholders with the opportunity to comment on the preliminary recommendation. The project file report will be finalized and additional studies undertaken prior to the issuance of the notice of study completion. There will be another opportunity to comment following the notice of study completion. Ainley asked when Curve Lake would have the opportunity to comment on the IH SPS 6 reports. Curve Lake was not certain.

Action by Curve Lake/ 4 Directions

It was noted that Ainley is now working on the 20th Sideroad SPS EA. The PIC will be made public on June 20th at which time a site will be recommended. InnServices inquired about whether Curve Lake would feel comfortable with a recommendation being made before they can review the reports. Curve Lake indicated that they would be okay with the PIC taking place.

It was discussed that the PIC and resulting 'recommended alternative' show the public what has been looked at, what alternative provides the least impact, and allows the public, rightsholders and stakeholders to provide input. It is not a final decision.

Ainley provided an overview of the PIC boards for IH SPS 6 to Curve Lake to describe the selected sites and why the decision was made to choose the recommended site solution. Ainley offered to go through all future PIC material directly with Curve Lake, via a virtual meeting/presentation in order to facilitate consultation with Curve Lake. The suggestion was accepted. A date will be selected to review IH SPS and 20th Sideroad information.

Action by Ainley/ Curve Lake

It was discussed that a land acknowledgement is a meaningful way to begin every meeting. The next meeting will begin with a land acknowledgement.

2. Adjournment

3:00pm

Any errors and/or omissions from these Minutes should be reported to the undersigned as soon as possible.

Minutes prepared by:

Wendy Smeh, C.E.T., PMP
Ainley & Associates Limited

C:\Users\wsmeh\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\T5SI6766\121031-Innisfil 5 SPS EA-Curve Lake Meeting Minutes June 2022-ppb.docx

Beth Wang

From: Francis M. Chua <francis@francischua.com>
Sent: June 30, 2022 4:01 PM
To: Jenna DeGroote; Wendy Smeh; Cieslak, Kathleen
Cc: Kayla Wright
Subject: CLFN Land Acknowledgement
Attachments: curve_lake_first_nation_land_acknowledgement_2018_copy.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi! Thanks for meeting. Here is the standard CLFN land acknowledgement. It comes across better when it is personalized. Talk about what reconciliation means to you and where you are in your journey. Talk about all of this with humility and an open posture.

Sharing in a meal helps build relationships. Gift giving is another important cultural gesture (we can cross that bridge in the future).

This is where I ended up getting tobacco. Impart your good energies, your good thoughts, your hopes for the relationship as you create the tie, as you hold the tie in your left hand, and as you offer it with thanks.

https://motherearthtobacco.com/

Happy long weekend!

~ Francis
P.S. One measure of a good meeting is when they say...see you later...see you next time...till next time in their language. Let's see if that happens here. Best wishes to you all and thank you for everything you do.

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CURVE LAKE FIRST NATION
LAND ACKNOWLEDGEMENT

Curve Lake First Nation is pleased to provide an appropriate and approved land acknowledgement for use in various organizations, agencies, and educational institutions. Please enjoy the use of the following land acknowledgement:

(Insert the name of your organization in the blanks).

"We respectfully acknowledge that _____ is located on the Treaty 20 Michi Saagiig territory and in the traditional territory of the Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include: Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

_____ respectfully acknowledges that the Williams Treaties First Nations are the stewards and caretakers of these lands and waters in perpetuity, and that they continue to maintain this responsibility to ensure their health and integrity for generations to come."

Yours sincerely,

Chief Phyllis Williams
Curve Lake First Nation

Beth Wang

From: Wendy Smeh
Sent: July 4, 2022 2:30 PM
To: info@4directionsconservation.com; Gary Pritchard; Kayla Wright; Francis M. Chua
Cc: Jenna DeGroote; Preya Balgobin; Jody Marks
Subject: RE: InnServices SPS EA Site Visit

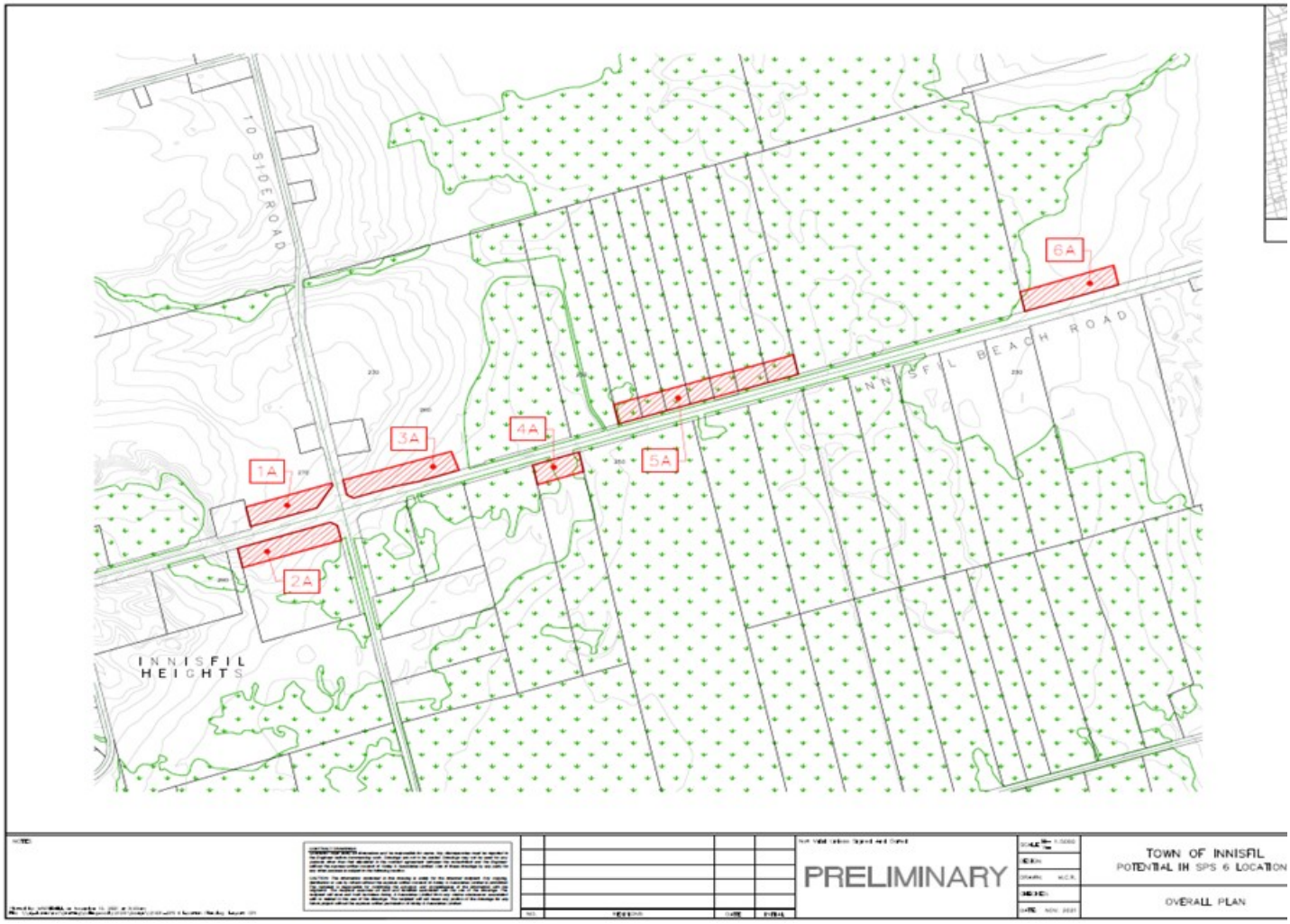
Hi All,

Thank you for meeting with us tomorrow to visit the possible sites for new sewage pumping stations that are a part of the InnServices Five Sewage Pumping Station (SPS) EA's project. We will meet you at the intersection of the 20th Sideroad and 7th Line at 1:00pm as per the meeting invitation.

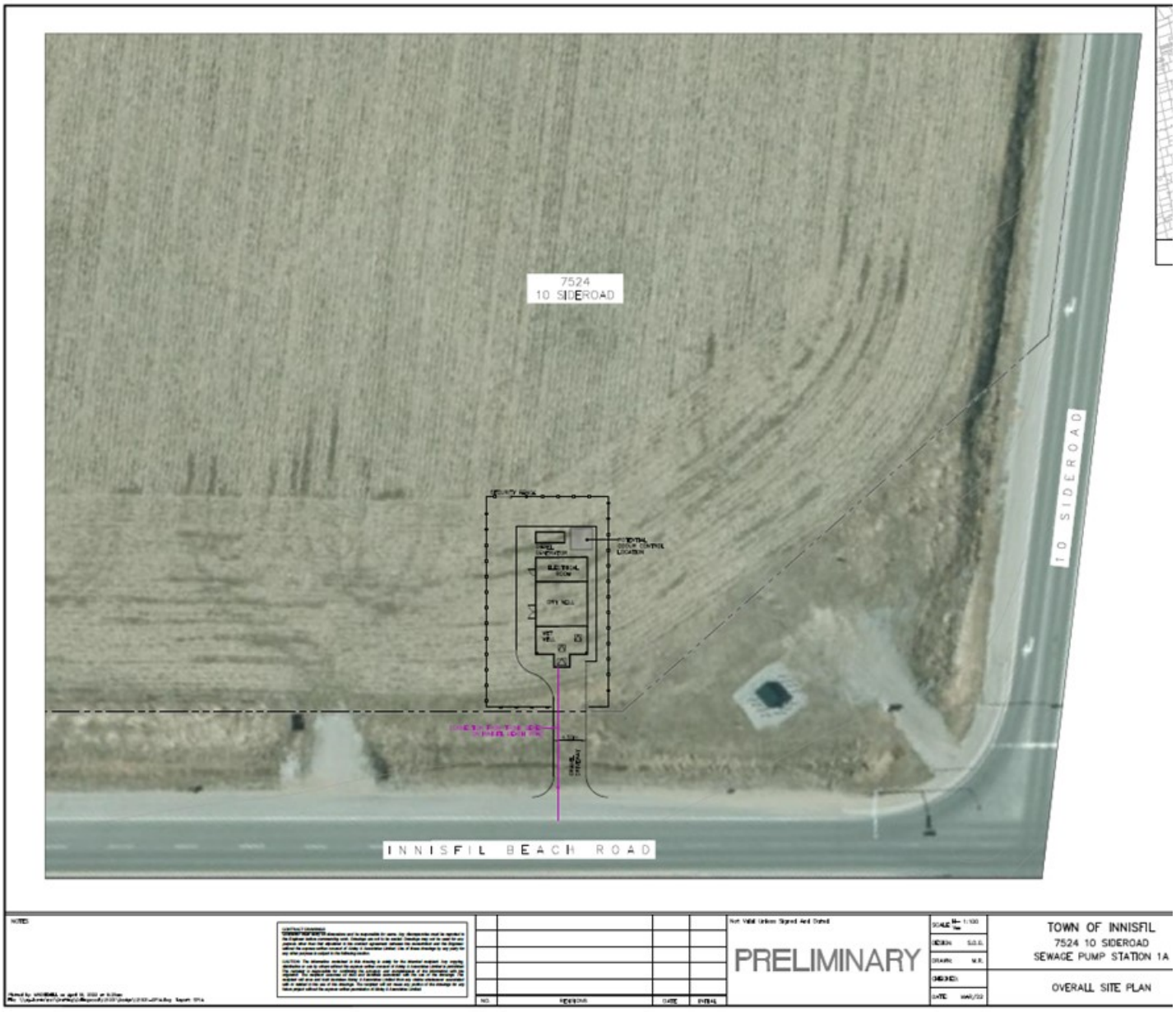
It is anticipated that the sites for Innisfil Heights SPS 6, 20th Sideroad SPS and IH SPS 1 and 2 may be reviewed depending on the time available. We have included site plans showing the locations of properties that were considered in each of the reviews, as well as a brief summary of the sites. We will print a copy of each of the plans to bring to site.

As well, for reference, we have included the typical footprint of a SPS site on the preferred site for SPS 6 (Site 1A) below.

Innisfil Heights Sewage Pumping Station 6 on Innisfil Beach Road
The Master Servicing Plan identifies a SPS on Innisfil Beach Road to servicing the Economic District of Innisfil Heights. The preliminary preference is Site 1A for technical and environmental reasons as outlined on the PIC display boards of April 21, 2022.

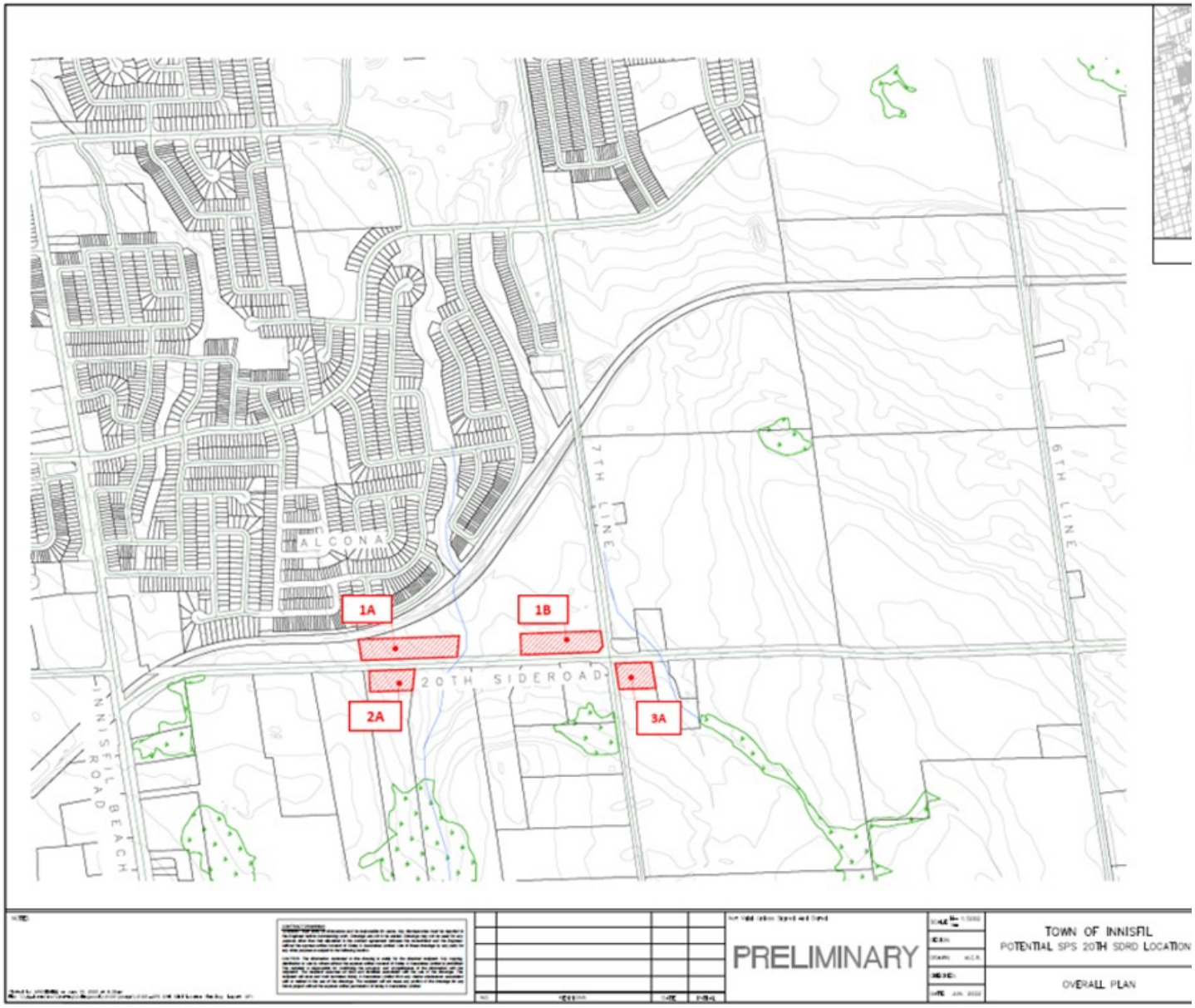


The conceptual drawing below shows an approximate footprint of a SPS site on Site 1A.

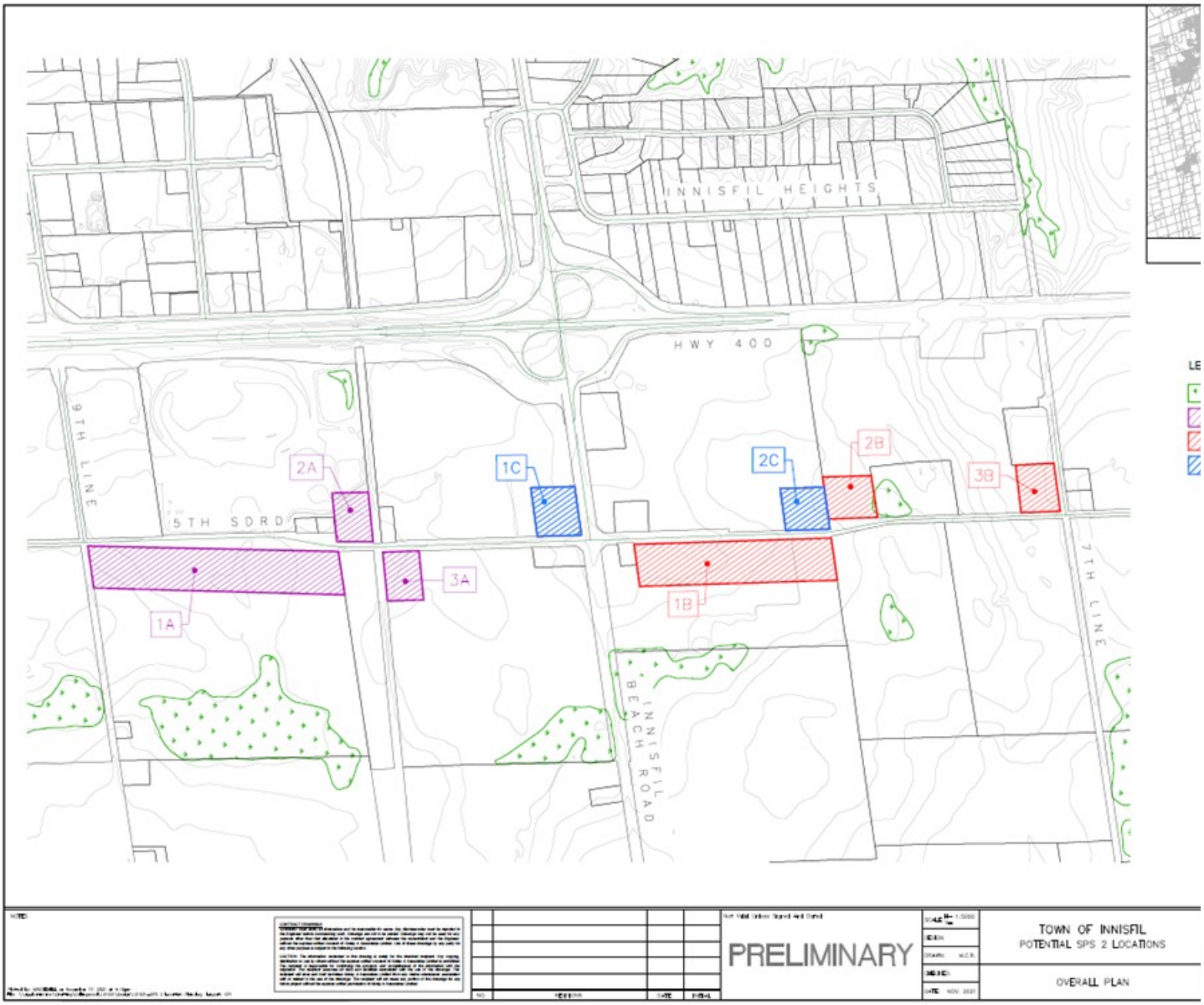


20th Sideroad Sewage Pumping Station Sites

Based on a review of the background reports, Site 1B was presented as the preliminary preferred alternative at the PIC dated June 21, 2022.



Below are the preliminary site alternatives for SPS 1 and SPS 2. The site alternatives are still under review.



Let us know if you have any questions.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP

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Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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September 29, 2022

Ms. Jenna DeGroote
Capital Project Manager
InnServices Utilities
7251 Yonge Street
Innisfil, Ontario L9S 0J3
Delivered by Email

CC: InnServices & Ainley Group Teams

Dear Ms. DeGroote,

RE: CLFN's Technical Field Memorandum for Town of Innisfil – Innisfil 5 Sewage Pumping Station EAs

On behalf of our Consultation Department at Curve Lake First Nation (CLFN), we are writing to provide the Technical Field Memorandum for the Innisfil 5 Sewage Pumping Stations.

Our Consultation Department has emphasized that environmental protection and sustainability is an integral component of the future of the Curve Lake First Nation. Working with Curve Lake to develop project concept, design, planning, assessment, potential and actual impacts, monitoring, etc. are necessary steps in our process. All plans and activities must be viewed through the lens of environmental protection and sustainability. These requirements ensure that Curve Lake First Nation's interests and rights are being protected within our territory; that we are able to protect the ability to exercise our rights as a people – physically, culturally, and spiritually; that we are able to foster sovereignty, cultural identity, and sustainable succession. This is central to all relationships being progressed with various regulators and proponents.

Curve Lake First Nation is the steward and caretaker of the lands and waters within our territory in perpetuity, as we have been for thousands of years, and we have an obligation to continue to steadfastly maintain this responsibility to ensure their health and integrity for generations to come. Protection, conservation, and sustainable collaborative management are priorities for Curve Lake First Nation.

Curve Lake's vision statement must be central to development in the territory: "Upon the foundation of community values and vision that promotes and preserves our relationship with mother earth, which has defined and will continue to define our identity and culture as Anishnaabe People, the Consultation Department will build and secure the framework for our First Nation lands by putting into place ways and laws that will provide both the protection and the freedom for each person, their family, and the whole community to fulfill their potential. Each way and law will be given the consideration to its importance for our next seven generations."

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Our Consultation Department has accepted the review and recommendations provided by Gary Pritchard, CEO & Indigenous Conservation Ecologist, 4 Directions of Conservation Consulting Services for the Technical Field Memorandum. Please refer to Appendix A for details on the memorandum including recommendations.

We thank you, your team, InnServices and Ainley Group for working with us to understand and incorporate our comments on this Project. We thank you for working with us to create an agreement together and setting aside capacity funding, this will assist in our ability to conduct these reviews and other activities associated with the project.

We do this work to uphold our responsibilities to care for the earth and waters, for our people, our nation, and for all our relations. Our foundational belief is balance; our values and principles are built upon the respect, care, and nurturing of all life as part of an interconnected whole and necessary for the balance and harmony required for Mino-Bimaadiziwin now and for future generations.

Sincerely,

On behalf of The Curve Lake First Nation Consultation Department

Gary Pritchard
Representing Curve Lake First Nation
CEO & Indigenous Conservation Ecologist
4 Directions of Conservation Consulting Services

Francis Chua
Support to CLFN Consultation Department

cc:

- Chief Keith Knott, Curve Lake First Nation
- Curve Lake First Nation Chief and Council
- Katie Young-Haddlesey, Chief Operating Officer, CLFN
- Dr. Julie Kapyrka, Lands & Resources Consultation Liaison, CLFN
- Kaitlin Hill, Lands & Resources Consultation Liaison, CLFN

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Appendix A: Technical Field Memorandum

Technical Field Memorandum

Ecological Features of Site ~ Innisfil Heights SPS

Date: September 29th, 2022 **Project No.:** 22-187

Project Name: Innisfil Heights Sewage Pumping Station

Client Name: InnServices - Town of Innisfil

Submitted To: Curve Lake First Nation Consultation Department

Submitted By: Hannah Tosello, Aquatic Biologist

Dear Julie and Katie,

Here are some generalist notes from 4 Directions site visit on July 5th, 2022, about the land base and ecology around the proposed sewage pumping station and its alternative sites.

Ecoregions and Vegetation Communities

The footprint of the project is within Ecoregion 6E, the Lake Simcoe-Rideau Ecoregion. This ecoregion is the second most densely populated ecoregion in Ontario. However, there are 27 types of natural heritage areas located in this ecoregion. Within this Ecoregion the underlying bedrock is Paleozoic dolomite and limestone, and the surface is gently undulating to rolling terrain. The mineral substrates in this ecoregion also have a high capability to buffer acidic atmospheric deposition before reaching surface water.

Most of the ecoregion (57%) exists as cropland and pasture and abandoned fields. Deciduous, coniferous, and mixed forest cover make up 30.1% respectively. Water only makes up 4% of this ecoregion.

This ecoregion is bounded by Lake Huron, Georgian Bay, Lake Ontario, the St. Lawrence River, and the Ottawa River. Located within the Great Lakes Watershed, this ecoregion is generally well drained.

Major Trees and Shrub Species

Within this ecoregion, vegetation is relatively diverse. The 30.1% of forest cover is comprised of hardwood forests dominated by sugar maple, American beech, white ash, eastern hemlock, and numerous other species are found. Lowlands, including rich floodplain forests, contain green ash, silver maple, red maple, eastern white cedar, yellow birch, balsam fir, and black ash.

Within and surrounding the sites visited, tree species consisted of Manitoba maple, red maple, sugar maple, eastern cedar, and white pine.

The typical shrub layer during the site visit consisted of staghorn sumac, buckthorn, dogwood, and hawthorn.

Understory mainly consisted of goldenrods, burdock, garlic mustard, asters, mullein, wild parsnip, wild grape, white clover, stinging nettle, vetches, sedges, fern species.

It should be noted that all hardwood forests have cultural significance and are granted protections through the treaty making process. This includes the hardwood forest stands comprising of Sugar Maple (*Acer saccharum*), American Beech (*Fagus grandifolia*), White Ash (*Fraxinus americana*), Eastern Hemlock (*Tsuga Canadensis*), Green Ash (*Fraxinus pennsylvanica*), Red Maple (*Acer rubrum*), Eastern White Cedar (*Thuja occidentalis*), Yellow Birch (*Betula alleghaniensis*), Balsam Fir (*Abies balsamea*), and Black Ash (*Fraxinus nigra*).

However, this cannot be considered as a plant inventory of the site, since these are just generalist observations made in the field day.

Species Richness

Within this ecoregion, species are quite diverse. Within the ecoregion mammals include white-tailed deer, Northern raccoon, striped skunk, and woodchuck.

Wetland habitats are used by many species of water birds and shorebirds, including wood duck, great blue heron, and Wilson's snipe.

Open upland habitats are used by species such as field sparrow, grasshopper sparrow, and eastern meadowlark. Upland forests support populations of species such as hairy woodpecker, wood thrush, scarlet tanager, and rose-breasted grosbeak.

Reptiles and amphibians found in this ecosystem include American bullfrog, northern leopard frog, spring peeper, red-spotted newt, snapping turtle, eastern gartersnake, and common watersnake.

Characteristic fish species in the ecoregion include the white sucker, smallmouth bass, walleye, northern pike, yellow perch, rainbow darter, emerald shiner, and pearl dace.

From talking to local community members and data base searches there appears to be the following with potential within the footprint of the project:

- Species of mammals include those most common among this ecoregion
- 333 species of bird in Simcoe County
- 12 species of reptiles and amphibians including green frog, and American bullfrog (Cultural Keystone Species)
- And 26 fish species including possible Brook trout (Cultural Keystone Species)

Observed Species on Site

During the site visit, 4 Directions staff observed directly or observed evidence of species within the site visit properties. These species include:

Turkey Vulture	Northern cardinal
American Crow	American robin
Blue Jay	Red-winged black bird
Song sparrow	

Concerns from Field Visit

4 Directions visited all the sites for each proposed alternative for this project. We have therefore broken up our concerns between all the alternatives from 1-3. The concerns are as follows:

Alternative 1

1. The Lawson drain traverses the site where the Nottawasaga Valley Conservation Authority watershed property is. 4 Directions is concerned about potential impacts to this watercourse and the fish species within it. The Michi Saagiig have inherent and treaty rights to fish the waters of their territories. The Lawson drain is a part of the Simcoe watershed and the watercourses commonly used by the Michi Saagiig. Any negative impact to any of the watercourses in the territory is seen as an infringement upon the Michi Saagiig rights to the waters.

Alternative 2A

1. The southern edge of the property is bordered by a wetland community. Under the Williams Treaty, all wetlands within the territory are afforded rights and protections. This wetland on the south edge of the site must be afforded a 120 m buffer from the proposed development site. This is to protect the wetland, the species within it and the Michi Saagiig rights. Any impact to this wetland is an infringement upon the Michi Saagiig Treaty rights.

Alternative 2B

1. At the south border of the site there is a watercourse that crosses the site. 4 Directions is concerned about potential impacts to this watercourse and the fish species within it. The Michi Saagiig have inherent and treaty rights to fish the waters of their territories. These watercourses are commonly used by the Michi Saagiig and drain into Lake Simcoe. Any negative impact to any of the watercourses in the territory is seen as an infringement upon the Michi Saagiig rights to fish their waters.

Alternative 2C

Alternative 2C is the preliminary proposed solution for this project.

1. The tributary of Lovers creek runs on the North end of this proposed site. Since the tributary provides potential habitat for aquatic species, 4 Directions is concerned about potential impacts to this watercourse and the fish species within it. Lovers creek is known to support coldwater habitat for Brook trout (Cultural Keystone Species). The Michi Saagiig have inherent and treaty rights to fish the waters of their territories. Any negative impact to any of the watercourses in the territory is seen as an infringement upon the Michi Saagiig rights to fish their waters.

    a. 4 Directions would suggest completing fish surveys for this tributary to determine fish community and thermal regime. The survey results should be shared with CLFN to determine Cultural Keystone Species and create mitigation measures and monitoring plans if necessary.

2. 4 Directions is concerned with possible grassland bird SAR that might be found within 120 m of the proposed site since the site and surrounding are agricultural fields. We would therefore suggest that bird surveys take place to identify any species within the area. If these have been done, 4 Directions suggests sharing this information with CLFN to assess for any Cultural Keystone Species. We would also suggest that any of the bird SAR that are not identified through surveys be granted protection regardless of rationale of occurrence.

3. 4 Directions is also concerned about potential frog habitat along the tributary of Lovers creek in the North end of the site. American bullfrog and green frog are Cultural Keystone Species that are inherently important to the Michi Saagiig. It is important to know if these species are in this habitat to ensure they are protected and therefore the Michi Saagiig rights are also protected.

    a. Amphibian surveys should be conducted to determine the frog species in the area. The survey results should be shared with CLFN to determine Cultural Keystone Species and create mitigation measures and monitoring plans if necessary.

Alternative 2D

1. 4 Directions is concerned with potential impacts to aquatic species populations within the tributaries of Lovers creek that traverse this site. These watercourses are commonly used by the Michi Saagiig as they are a part of the Simcoe watershed. Any negative impact to these watercourses and the aquatic species within them would be a direct infringement upon the Michi Saagiig Treaty rights to fish their own waters.

Alternative 3

1. Similarly, 4 Directions is concerned with potential impacts to aquatic species populations within the tributaries of Lovers creek that traverse this proposed site. To reiterate, these watercourses commonly used by the Michi Saagiig, both historically and currently, are of high importance. Any negative impact to these watercourses and the aquatic species within them would be a direct infringement upon the Michi Saagiig Treaty rights.

Closing

Lake Simcoe and its surrounding tributaries have been and continue to be critical to the Michi Saagiig. Any disruption to the waters and the aquatic life that inhabits it would be an infringement on the Treaty Rights of the Michi Saagig.

Based on the site visit findings, an Environmental Monitoring Plan must be developed that suits the needs of CLFN to ensure cultural longevity during and post construction of this project.

We hope this report answers any of the questions you may have regarding the sites ecological features and impacts to Indigenous Rights. If you have any questions or concerns, please contact us.

4 Directions of Conservation Consulting Services

Miigwetch,



Hannah Tosello, BSc., MEnvSc.
Aquatic Biologist



Gary Pritchard, BSc., EP., CERP.
Principal, Indigenous Conservation Ecologist

Beth Wang

From: Wendy Smeh
Sent: October 3, 2022 9:48 AM
To: Francis M. Chua
Cc: Preya Balgobin; Jenna DeGroote; Beth Wang; Kayla Wright; Gary Pritchard; Kaitlin Hill
Subject: InnServices Sewage Pumping Station EAs - Curve Lake First Nations Consultation Meeting Minutes - Revisions
Attachments: 121031-Innisfil 5 SPS EA-Curve Lake Meeting Minutes Sept 2022.pdf; 20th Sdrd PIC Display Boards.pdf; IH SPS 2 - PIC Display Boards w Update.pdf; IH SPS 6 PIC - Display Boards.pdf

Hello All,

Attached please find the Rightsholder meeting minutes of September 23, 2022 for the InnServices Five SPS EA project. Also attached are the PIC display boards for IH SPS 6, IH SPS 2 and the 20th Sideroad SPS.

Please advise if you have any comments or questions.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334

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MEETING MINUTES

INNSERVICES UTILITIES INC.
MCEA & PRELIMINARY DESIGN FOR FIVE SEWAGE PUMPING STATIONS
CURVE LAKE FIRST NATIONS RIGHT'S HOLDER MEETING

PROJECT:	InnServices Utilities Inc. P-21-CWW286 287DN 252DN 288DN 292DN Engineering Services for Municipal Class Environmental Assessment and Preliminary Design for Five (5) Sewage Pumping Stations Ainley Job No. 121031
DATE:	September 23rd, 2022
TIME:	10:30am to 12:00pm
LOCATION	Teams Meeting
PRESENT:	Francis M. Chua, Curve Lake First Nation Kayla Wright, Curve Lake First Nation Jenna DeGroote, InnServices Preya Balgobin, Ainley Group Wendy Smeh, Ainley Group Gary Pritchard, 4 Directions Conservation
	ALL PRESENT
DISTRIBUTION:	Beth Wang, Ainley Group Kaitlin Hill, Curve Lake First Nation

1. Meeting Purpose

The purpose of the meeting was to present the Public Information Centre display boards to Curve Lake (CL) to provide opportunities to comment and ask questions.

In a previous rightsholder meeting, it was discussed that the PIC and resulting 'recommended alternative' show the public what has been looked at, what alternative provides the least impact, and allows the public, rightsholders and stakeholders to provide input. It is not a final decision.

Ainley went over each set of the PIC display boards for the Innisfil Heights Sewage Pumping Station (IH SPS) 6, IH SPS 2 and 20th Sideroad SPS EA's.

2. IH SPS 6 PIC Display Boards

- Ainley presented the PIC slides. During Slide one, CL requested that "rights holders" be included when listing of groups such as 'stakeholders' and 'the public' to be consulted with through the Class EA process.

Action by Ainley

- CL inquired if the SPS construction is a stand-alone project or if it is dependent of other projects. InnServices advised that expansion of the wastewater treatment plant (WWTP) would need to be completed before the new SPSs could be put into service. InnServices added that the Class EA for the WWTP expansion was updated recently and the project is starting into the construction phase.
- CL asked about the possibility of future developments occurring and being connected to this system and how those impacts are assessed since only currently proposed development areas are being discussed at the moment. Ainley noted that if developments beyond those currently being covered by this Class EA are proposed in the future, a separate Class EA would be needed to cover those new developments at that time. As well, the Official Plan looks at future areas of growth and settlement boundaries have to be updated via the OP to consider development.
- CL noted that in the evaluation matrix there is no criteria specifically for First Nations impacts apart from the archeological impacts, which was only one aspect and not exclusive to First Nations considerations. CL added that this item is beyond the scope of this Class EA but a comment for all Class EAs. Four Directions noted that the Minister is in the process of updating the Class EA to capture this aspect of First Nation consultation.

3. 20th Side Road

- There was a discussion about construction near wetlands. Four Directions noted that every wetland is covered by the Williams Treaty and that a 120 meter buffer/setback is required for new development from any wetland. All wetland, regardless of its evaluated significance is considered important by First Nations group. If wetland is to be impacted, the affected First Nations would receive compensation if approved.

4. SPS 2

- Ainley delivered this PIC to CL, as well as two additional slides which describe comments and considerations proposed by Pearson Engineering Ltd. after the PIC was publicly posted. Pearson represents the property owner/developer. Pearson provided reasoning as to why 'Site Alternative 2D', within their future development area would be a more suitable location than the preliminary recommended alternative proposed in the PIC. Site Alternative 2D is the location of a proposed stormwater management pond.
- CL asked if there would be a requirement for all buildings to be connected to the wastewater system after the SPSs are in service. InnServices indicated that there is not a regulatory requirement. The wastewater system, however, is being designed as a part of the site plan by Pearson.

Ainley will send a copy of the presentation slides to Curve Lake.

Action by Ainley

Any errors and/or omissions from these Minutes should be reported to the undersigned as soon as possible.

Minutes prepared by:

Wendy Smeh, C.E.T., PMP
Ainley & Associates Limited

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Beth Wang

From: Beth Wang
Sent: April 6, 2023 5:08 PM
To: Francis M. Chua
Cc: 'Jenna DeGroote'; Wendy Smeh; Preya Balgobin
Subject: Innisfil SPS EA-CLFN Site Visit Response Letter and Comparison Summary (20th SR SPS and SPS 6)
Attachments: Curve Lake Site Visit Response Letter.pdf; Innisfil Heights Class EA-Comparison for 20th SR SPS and IH SPS 6.pdf

Hi Francis,

Hope all is well!

Please find attached, the draft site visit response letter and a memo of comparison for the two selected locations for the 20th SR SPS and SPS 6 for your comment, prior to us sending it to CLFN to confirm their feedback and position.

If you have any suggestions for improvements or other thoughts about the letter, we welcome them.

Thank you and have a nice weekend.

Regards,

Beth Wang, EIT
Engineering Intern

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 221
Cell: (289) 541-8086

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Memorandum

Date: April 4, 2023

Reference: Innisfil Heights Wastewater Servicing Class EA
Ainley File No. 121031

As part of a Schedule B Municipal Class EA for five new sewage pumping stations (SPS) in the Town of Innisfil, InnServices and Ainley group have been in consultation with the Curve Lake First Nation (CLFN) to ensure that the locations selected for each SPS will incorporate and address the concerns and requirements of the CLFN. The CLFN have requested comparisons of the top two preferred alternative locations for 20th Side Road (20th SR) SPS and Innisfil Heights (IH) SPS#6. The Class EA project team conducted a site visit with CLFN early this year and had discussions during the site visit; however, there is no written confirmation of CLFN's feedback on the site selections. This memorandum outlines the details of the top two preferred alternatives and the criteria used to evaluate and compare locations, as presented in the Public Information Centres for the two SPSs.

20th SR SPS

Table 1 – Description of Alternative 2 and Alternative 4 for 20th SR SPS

The table below shows the location of the two alternatives being considered for the 20th SR SPS and the major considerations for both.

Alternative 2 – 1460 7th Line (South), Innisfil, CON7S PT LOT 21	Alternative 4 - (Roll No. 4316010021179000000, 7th Line, Innisfil, CON 6 N PT LOT 20; RP 51R8889 PT PART 1)
	

Alternative 2 – 1460 7th Line (South), Innisfil, CON7S PT LOT 21	Alternative 4 - (Roll No. 4316010021179000000, 7th Line, Innisfil, CON 6 N PT LOT 20; RP 51R8889 PT PART 1)
• Located on the South side of the North tributary of Bank's Creek on the East side of 20th Sideroad; • Designated as an agricultural site; • The site area is not within Lake Simcoe Region Conservation Authority (LSRCA) regulated area.	• Located on the North side of the South tributary of Bank's Creek on the West side of 20th Sideroad; • Designated as an agricultural site; • Portions of the site along 20th sideroad are within LSRCA regulated lands.

Alternatives were evaluated based on their potential impact to the study area environment and the evaluation results are presented in a table or matrix to provide a simplified visual comparison.

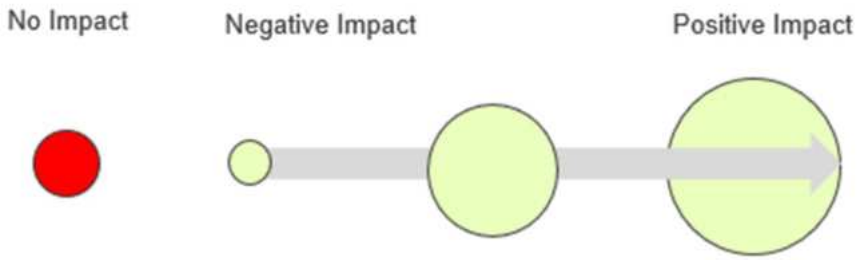


Table 2 – Evaluation Details of Alternative 2 and Alternative 4 for 20th SR SPS

EVALUATION CRITERIA	ALT 2	ALT 4	DESCRIPTION OF EFFECTS
PHYSICAL ENVIRONMENT			
Suitability of Elevation and Topography	○	○	Alternative 2 and 4 pose a technical advantage due to the shorter pumping distance.
Geotechnical Suitability	○	○	Alternatives 2 and 4 with sands, silts and glacial till are considered more favorable for the SPS construction.
Hydrogeological Suitability	○	○	Hydrogeological conditions to be confirmed. Alternatives 2 and 4 are considered more favorable for the SPS construction.
Hydraulics	○	○	Alternatives 2 and 4 will have higher head requirements and bigger pumps but have the better hydraulics with no need for air release.
Impacts to Utilities	○	○	Overhead hydro is located on the west side of the road making construction access more difficult.
NATURAL ENVIRONMENT			
Proximity to Key Natural Heritage Features	○	○	Alternatives 2 and 4 would have the least impact because they are outside of KNHF's.
Terrestrial Vegetation/Wildlife (Including SAR)	○	○	Potential for SAR habitat within the agricultural fields and the woodland habitat. The preferred alternative will be studied further to consider site specific impacts.
Surface Water and Fisheries	○	○	All alternatives are within 250m of the Bank's Creek but not within 50m. Alternative 4 is mostly within the regulated area of LSRCA which means they are within the riparian flood plain of the watercourse.

EVALUATION CRITERIA	ALT 2	ALT 4	DESCRIPTION OF EFFECTS
Groundwater	○	○	Alternatives 2 and 4 are within an area classified as a 'Highly Vulnerable Aquifer'.
Climate Change /Air Quality	○	○	All alternatives are similar in air quality and climate change impacts.
CULTURAL AND SOCIAL ENVIRONMENT			
Archeological	○	○	The site alternatives exhibit archaeological resource potential and further investigation is required to confirm and to develop suitable mitigation measures.
Cultural Heritage Resources	○	·	Site alternatives 2 has been confirmed as having no potential for Cultural Heritage impacts. Site 4 is near two significant sites.
Aesthetics (noise, odour, visibility)	·	·	Alternatives 2 and 4 are nearer to more residential homes. Both alternatives are situated on agricultural land, minimizing proximity to the public.
Addresses Future Capacity Requirements	○	○	All alternatives allow future growth.
Impacts to Property Owners	·	·	All Alternatives will impact private property owners, as land acquisition is required. Temporary impacts are anticipated during construction and may impact traffic.
Impacts to Business/Commercial Properties	·	·	Alternatives 2 and 4 will have some impact on agricultural land use. Land will need to be acquired from farm lands.
ECNOMIC ENVIRONMENT			
Operating and Maintenance Costs	○	○	Alternatives 2 and 4 will have higher head requirements and bigger pumps but have the better hydraulics, no need for air release.

EVALUATION CRITERIA	ALT 2	ALT 4	DESCRIPTION OF EFFECTS
Capital Costs	○	○	The capital costs for the SPS's will be similar under each alternative site location. Alternatives 2 and 4 will have higher head requirements and bigger pumps but have the better hydraulics, no need for air release.
Land Acquisition Costs	○	○	All site locations will require private property acquisition.
Total Score			
	○	○	

Comments:

- Based on the evaluation table above, alternative 2, located at 1460 7th Line (South), is recommended during the PIC#1 stage. After the site visit to 20th SR's proposed sites, CLFN had no comments on the recommended site;
- The property owner agrees to have the proposed SPS on their land;
- A written confirmation from CLFN regarding the selected site is necessary to proceed further.

IH SPS 6

Table 3 – Description of Alternative 1A and Alternative 3A for IH SPS 6

The table below shows the location of the two alternatives being considered for the IH SPS6 and the major considerations for both.

Alternative 1A – 7524 Tenth Sideroad	Alternative 3A – 7535 Tenth Sideroad
	
• Located on the North side of Innisfil Beach Road, West of 10 Sideroad; • The land is privately owned and is currently used for agriculture; • The site area is outside of the environmental protection lands.	• Located on the North side of Innisfil Beach Road, East of 10 Sideroad; • The land is privately owned and is currently used for agriculture; • The site area is outside of the environmental protection lands.

A scoring system was created as summarized in the following table.

Table 4 – Scoring System for IH SPS 6

Level of Impact	
No Impact	1
Minimal Impact	2
Moderate Impact	3

Level of Impact	
Significant Impact	4
Most Significant Impact	5

Table 5 – Evaluation Details of Alternative 1A and 3A for IH SPS 6

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
TECHNICAL ENVIRONMENT (the DO NOTHING option does not address the technical environment)			
Suitability of Elevation and Topography	3	3	Under both Alternatives the location of sites poses a technical disadvantage due to topography. Preliminary layout indicates that there is adequate space for station footprint within each Alternative site.
Geotechnical Suitability	2	4	Preliminary review of area under Alternative 1A shows soils are likely sandy silt to sandy glacial till which is considered favourable soil type for the SPS construction. Investigation of area of Alternative 3A shows Soils likely to be glaciolacustrine clays and silts to the west and organics to the east portion of the property. Organics are not suitable for the support of foundations.
Hydrogeological Suitability	3	4	Hydrogeological conditions to be confirmed. Preliminary review indicates water levels at Site 1A may be deeper than water levels at 3A.
Hydraulics	2	2	Under both Alternatives careful consideration to the hydraulics would be required during design and transient analysis of the forcemain would be required to ensure proper placement of air/vacuum release valves.
Utilities	3	1	Under both site locations overhead hydro is located on opposite side of road, which lends to an easier construction. However, other utilities are located on the southeast corner of the lot close to Site 1A including an existing transformer, telecommunications junction box and a gas line. This may require additional coordination and permits.
NATURAL ENVIRONMENT			
Proximity to Key Natural Heritage Feature or Regulated Area	1	3	Alternative 3A site is within a regulated area under the LSRCA and is within 100m of the Lover's Creek Provincially Significant Wetland. Alternative 1A is just outside of the LSRCA regulated area. The Do Nothing option would have no impact on natural heritage features.

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
Terrestrial Vegetation/Wildlife (Including SAR)	1	1	Both alternatives avoid major impacts to vegetation and wildlife. The preferred alternative will be studied further to consider site specific impacts. Do Nothing avoids impact to terrestrial vegetation and wildlife.
Surface Water and Fisheries	-	-	-
Groundwater	1	3	Under Alternative 3A there is more potential for dewatering to be required during construction. The Do Nothing option would not have an impact on groundwater.
CULTURAL AND SOCIAL ENVIRONMENT			
Archaeological Resources	3	3	Both site alternatives exhibit archaeological resource potential and further investigation is required to confirm and to develop suitable mitigation measures. The Do Nothing option would not have an impact on archaeological resources.
Cultural Heritage Resources	1	1	Both site alternatives have been confirmed as having no potential for Cultural Heritage impacts. The sites are more than 50m from all heritage properties. The Do Nothing option would not have an impact on cultural heritage resources.
Aesthetics (noise, odour, visibility)	2	2	Both alternatives are nearby to one nearby residential home. Both alternatives are situated on agricultural land, minimizing proximity to the public. The Do Nothing option would not have an aesthetic impact.
Impacts to Property Owners	4	4	Both Alternatives will impact private property owners, as land acquisition is required. Temporary impacts are anticipated during construction and may impact traffic along Innisfil Beach Road. Mitigation measures can be implemented to minimize disturbances. The Do Nothing option would not have an impact on property owners.

EVALUATION CRITERIA	ALT 1A	ALT 3A	DESCRIPTION OF IMPACTS
Climate Change/Air Quality	3	3	Both alternatives are similar in air quality and climate change impacts. The Do Nothing option would mean that the Strategic Settlement Employment Area would not be serviced by a wastewater system.
Impacts to Adjacent Business/Commercial Properties	3	3	Both alternatives will have some impact on agricultural land use. Land will need to be acquired from farm lands. The Do Nothing option would have a significant impact on business and commercial properties because they would not be developable.
ECONOMIC ENVIRONMENT (the Do Nothing option would have significant economic impacts for future growth)			
Operating and Maintenance Costs	3	2	Alternative 1A will have higher long term operating costs since it requires the longest pumping distance.
Capital Costs	3	3	The capital costs for the SPS will be similar under each alternative site location.
Land Acquisition Costs	3	3	Both site locations will require private property acquisition.
TOTAL SCORE			
	41	45	

Comments:

- Based on the evaluation table above, alternative 1A, located at 7254 Tenth Sideroad, is recommended during the PIC#1 stage. However, the property owner of the land does not agree to have the SPS on their land;
- Therefore, alternative 3A is now being considered as the proposed construction site for IH SPS #6;
- A written confirmation from CLFN regarding the recommended site is necessary to proceed further.

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Meeting Minutes

Project:	InnServices Utilities Inc. P-21-CWW286 287DN 252DN 288DN 292DN Engineering Services for Municipal Class Environmental Assessment and Preliminary Design for Five (5) Sewage Pumping Stations Ainley Project No. 121031		
Date:	September 12, 2023		
Time:	10:00 AM to 11:30 AM		
Location:	Online Team Meeting		
Present:	Francis M. Chua	-	4 Directions of Conservation, (supporting Curve Lake First Nation)
	Kayla Wright	-	4 Directions of Conservation
	Jenna DeGroote	-	InnServices Utilities Inc.
	Wendy Smeh	-	Ainley & Associates Limited (AAL)
	Preya Balgobin	-	Ainley & Associates Limited
	Beth Wang	-	Ainley & Associates Limited
Distribution:	All Present		
	Paige Williams	-	Curve Lake First Nation
	Delaney Jacobs	-	Curve Lake First Nation
	Chief Knott	-	Curve Lake First Nation

1 Introduction

The purpose of this meeting is to review each pumping station site and to discuss any concerns or comments that Curve Lake First Nation (CLFN) may have with respect to any of natural heritage site investigations, reports submitted to date or to determine if any further action is required to obtain acceptance from Curve Lake.

2 20th SR SPS

It was discussed that InnServices has not yet received confirmation that CLFN is satisfied with the recommended site for sewage pumping station sites. Representatives from CLFN visited the top two alternative sites for 20th SR SPS on July 5th, 2022 with Ainley and InnServices. They also reviewed the top two site recommendations for IH SPS 2 and IH SPS 6 on the same day. Following the site visit, no comments were received regarding this property at 1460 7th Line. However, they did provide comments concerning the recommended site location for IH SPS 2 on 5th Sideroad.

CLFN was provided a site comparison memo, comparing the top two alternatives, and submitted to InnServices on April 4th, 2023. The site is in an agricultural field along the frontage of 20th Sideroad. In a review of this document, Curve Lake noted that the site should adhere to the 60-meter buffer requirement from any watercourse. In cases where maintaining the 60-meter buffer is not feasible due to specific reasons, a reasonable explanation should be provided to CLFN. Acceptance from Francis is expected upon receiving the meeting minutes. The EA team has been actively sharing information and engaging in consultation, and no additional concerns have been raised thus far.

Action by: EA Team and Curve Lake

CLFN indicated that site monitoring will be necessary both during construction and post-construction to assess the impact on the environment and protected species. During the construction phase, the contractor will conduct monitoring and develop their construction plan in accordance with recommendations. The purpose of the future monitoring plan is to consider what pre-construction and post-construction monitoring would look like with respect to impacts on the environment. The current agreement between InnServices and CLFN is primarily centered around the EA. After the EA phase, as the project progresses to the detailed design and tender for construction, a monitoring plan will be developed and carried forward in the project.

Action by: InnServices

Curve Lake outlined that they prefer to see a four seasons approach to natural heritage studies which consider the environment over different seasons and through more than one year.

Ainley noted that a breeding bird survey is planned, and once the draft report is prepared, it will be shared with CLFN for their review and comment. There may be additional mitigation measures required by CLFN based on their requirements.

Action by: Ainley

Francis proposed the idea of creating a checklist to ensure that CLFN is well-informed about the project and has been given the opportunity to participate in relevant discussions and decisions. Curve Lake does not have a formal checklist but noted that they look for the following considerations in their review of a site:

- Site should have a 120m buffer from a wetland
- Site should be at least 60m from a watercourse
- A four seasons approach to site studies should be undertaken
- Invite/engage Curve Lake throughout the project and invite CLFN to attend NHS site visits
- Studies over consecutive years should be considered
- CLFN should be sent draft and final NHS reports

Action by: EA Team

InnServices noted that it would be difficult to consider a multi-year approach. CL noted that while it is not uncommon that this requirement isn't met, it is noted when the effort is put in.

For each SPS, when the draft report is prepared and addresses concerns, especially regarding the 60-meter buffer for watercourses and the 120-meter buffer for wetlands, the measurement methodologies to best meet those buffer requirements will be explained. Additionally, CLFN will be contacted via email to solicit any comments they may have regarding these reports and the buffer measurements.

Action by: EA Team

3 IH SPS#6

If efforts are being made to comply with the 60-meter buffer requirement, it's possible that the site may need to be adjusted slightly towards the western side of the property, where a buffer Lover's Creek is available.

Action by: Ainley

The same procedure as the 20th SR SPS mention in Section 1 should be followed, ensuring that enough information is shared with CLFN. Additionally, in future detail design, both pre- and post-construction monitoring should be incorporated into the detailed design or tender for construction stages.

Currently, Azimuth has completed a desktop study of the site.

Action by: Ainley

It was discussed that it is too early to develop a mitigation and protection plan for construction. InnServices indicated that construction may not commence until 2025. Therefore, the planning and implementation of mitigation and protection measures will be initiated closer to the construction start date.

4 Stroud SPS

The preferred alternative site is located in an agricultural area, with no proximity to wetlands or watercourses. Several ongoing studies are currently in progress, but EA team has not yet received any reports. The natural heritage report will be completed this year and provided to Curve Lake. For each SPS, Ainley will coordinate with Azimuth to provide dates that surveys were completed and note who was in attendance to share with Curve Lake.

Action by: Ainley

5 IH SPS#1

The preferred alternative site is situated either in a parking lot or on agricultural land, both of which are expected to have minimal environmental impacts.

6 IH SPS#2

The preferred site location is still under discussion. Recently, the EA team held a meeting with the developer, which resulted in a slight shift from the originally proposed location. The alternative 2D site includes a regulated watercourse and a ditch within the property boundaries. No regulated wetland is present in the area. It's crucial to note that if the 60-meter or 120-meter buffer zones cannot be maintained, there should be considerations for accommodations or compensations. Furthermore, mitigation and protection measures need to be put in place to safeguard bats and other species in the adjacent forest or wetland areas, even if they are not directly within the project's footprint.

Action by: EA Team

Both Species at Risk (SAR) and non-SAR species should undergo evaluation and receive protection measures. Non-SAR species should be evaluated at the same level as SAR species. The inclusion of a fish plan and an amphibian survey is still uncertain at this point, and further decisions will need to be made regarding these aspects.

Action by: EA Team

It's important to emphasize that the evaluation of fish communities, amphibian communities, and bird communities is important regardless of the chosen alternative.

It was noted that the developer completed a detailed investigation of the site. Previously, Ainley inquired if the report satisfied Curve Lake's interest in the site. Curve Lake noted they would prefer the studies to consider the checklist noted above. There is only one natural heritage report available for the site, and natural heritage studies are not scheduled for each year since the project's start.

A letter was sent to 4 Directions in June, requesting requirements on further studies, but no response has been received yet. There are existing data gaps for this property, and it's essential to plan fieldwork to bridge these gaps. Francis mentioned that CLFN needs to participate in this fieldwork, expected in the fall of 2023 and continuing into 2024. The EA team will submit a draft report for review to ensure that these assessments consider any cultural-milestone species. Additionally, Azimuth will notify the team about any birds observed in the field and provide this information to CLFN for their input and comments.

Action by: EA Team

Provide CLFN with information on SPSs which are approaching closure in the EA process. Ainley will follow up with Azimuth on their timeline.

Action by: EA Team

Cambium has completed the detailed assessment and has submitted a report to Francis. Ainley will distribute additional studies once they are completed.

Action by: EA Team

7 Next Steps

As discussed.

Any errors and/or omissions from these minutes should be reported to the undersigned as soon as possible.

Minutes prepared by:

Beth Wang
EIT

\\ag-barrie\ns1\Engineering\Collingwood\121031\3. Meetings\Curve Lake Meeting 6 - Sep 12\121031-Innisfil 5 SPS EA CLFN Meeting - Minutes - Issued.docx

Beth Wang

From: Francis Chua <fchua@4directionsconservation.com>
Sent: March 5, 2024 11:47 AM
To: Beth Wang; paigew@curvelake.ca; delaneyj@curvelake.ca; Consultation Lead
Cc: keithk@curvelake.ca; Relationships and Engagement; Jenna DeGroote; Wendy Smeh; Preya Balgobin
Subject: RE: InnServices Sewage Pumping Station EAs - Consultation Meeting Minutes

Some people who received this message don't often get email from fchua@4directionsconservation.com. Learn why this is important

Good morning Beth.

I hope all is well with you too. I would like to confirm that the actions identified in these minutes accurately capture what was discussed at the meeting. As long as these actions are completed/acted upon/in progress/followed-up on then the project can proceed with its next steps.

I understand that the project will reach out again to Curve Lake Consultation Department when the time comes for the detailed design phase. On behalf of Curve Lake First Nation, I would like to say that Curve Lake looks forward to that time.

Thanks to you and your team, to Jenna at InnServices for this phase of the consultation process. Take care and keep focused on meaningful consultation going forward. Thanks.

~ Francis

From: Beth Wang <beth.wang@ainleygroup.com>
Sent: Tuesday, November 7, 2023 4:03 PM
To: paigew@curvelake.ca; delaneyj@curvelake.ca
Cc: keithk@curvelake.ca; Francis Chua <fchua@4directionsconservation.com>; Relationships and Engagement <relationships@4directionsconservation.com>; Jenna DeGroote <jdegroote@innservices.co>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: InnServices Sewage Pumping Station EAs - Consultation Meeting Minutes

Good afternoon,

Hope all is well!

Attached is the meeting minutes for the meeting held on September 12th, 2023, with Francis Chua and Kayla Wright. The purpose of the meeting was to review each pumping station site and to address any concerns or comments that 4 Directions of Conservation may have regarding natural heritage site investigations, reports submitted to date, or to ascertain if any additional actions are necessary to obtain acceptance from Curve Lake First Nations.

If you have any questions or concerns, please don't hesitate to reach out to us.

Regards,

Beth Wang, EIT
Engineering Intern

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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Beth Wang

From: Beth Wang
Sent: August 30, 2024 1:10 PM
To: Paige Williams; Consultation Lead
Cc: Wendy Smeh; Preya Balgobin; Jenna DeGroote
Subject: Rescheduled Field Investigation: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment

Good afternoon Paige,

Hope all is well!

As Jenna from InnServices is currently on vacation, I wanted to let you know that the Stage 2 Archaeological Assessment field investigation has been rescheduled for Friday, September 6.

If you have any concerns, please let us know.

Regards,

Beth Wang, EIT
Engineering Intern
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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From: Jenna DeGroote <jdegroote@innservices.co>
Sent: August 20, 2024 4:21 PM
To: Paige Williams <PaigeW@curvelake.ca>; Consultation Lead <ConsultationLead@curvelake.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: Re: 121031- InnServices Pumping Station EA's - Stage 2 Archeological Assessment

Good afternoon Paige,

As a follow up to my email below, the Stage 2 Archaeological Assessment for IH SPS 6 has been scheduled for Thursday September 5th at 7535 10 Sideroad.

If this changes due to weather we will let you know.

Thank you

Jenna DeGroote, C.E.T.
Capital Project Manager



InnServices Utilities Inc.
705-791-9678
www.innservices.co

From: Jenna DeGroote <jdegroote_innservices.co@innservices.co>
Sent: Thursday, August 8, 2024 2:51 PM
To: Paige Williams <PaigeW@curvelake.ca>; Consultation Lead <ConsultationLead@curvelake.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>
Subject: RE: 121031- InnServices Pumping Station EA's - Stage 2 Archeological Assessment

Good afternoon Paige,

We are currently 2-3 weeks away from the Stage 2 Archaeological Assessment taking place for the Innisfil Heights SPS 6 EA.

InnServices is committed to fostering strong relationships with First Nation groups and are open to future meetings to assist in your review of our project.

Please note however that at this time, InnServices does not have an established First Nations consultation policy and will not be able to provide payment for fees including but not limited to capacity funding, review, site visits, and file fees.

Curve Lake First Nation is still welcome to attend the Stage 2 Archaeological Assessment on site. Alternatively, we can send the report from the Assessment once complete.

We will provide the date and time of the Stage 2 Assessment once it has been confirmed.

Thank you,

Jenna DeGroote, C.E.T.
Capital Project Manager



InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON L9S 0J3
(705) 431-6870 Ext. 252
www.innservices.co

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: Wednesday, June 5, 2024 3:44 PM

To: Relationships and Engagement <relationships@4directionsconservation.com>; Paige Williams <PaigeW@curvelake.ca>; Consultation Lead <ConsultationLead@curvelake.ca>
Cc: Beth Wang <beth.wang@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: 121031- InnServices Pumping Station EA's - Stage 2 Archeological Assessment

[EXTERNAL]

Good afternoon Paige,

We are currently working on an Environmental Assessment for the Stroud Sewage Pumping Station (SPS), which will be located at 7667 Yonge Street, as well as the Innisfil Heights SPS 6 EA located at 7535 10 Sideroad, Innisfil.

We previously provided the Stage 1 Archeological Assessment reports to Curve Lake. In response, it was noted that they would like a representative present for the Stage 2 field work.

We are presently coordinating with ASI, our archeological consultant, to complete the Stage 2 field work. For Stroud, ASI is waiting for drier conditions and have not confirmed a date/ timeline beyond 'pending dry fields'. We continue to follow up. The Stage 2 field work for IH SPS 6 will likely be scheduled within the next 2-3 weeks. The field is now dry enough and the tenant farmer has completed disk harrowing of the field.

We are presently coordinating with ASI to confirm timelines for both sites. We wanted to provide you with notice ahead of the work. Please let us know if there are dates that work best for you, pending field conditions, and we will try to make the timelines work between all parties as best possible.

If you have any questions or concerns, please let us know.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP

Tel: (705) 445-3460 Ext. 435
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

WWW.AINLEYGROUP.COM

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Beth Wang

From: Beth Wang
Sent: November 8, 2024 4:52 PM
To: Paige Williams
Cc: Consultation Lead; Jenna DeGroote; Wendy Smeh; Preya Balgobin
Subject: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment Report
Attachments: 24EA-075 Stage 2 AA Report.pdf

Good afternoon Paige,

InnServices Utilities Inc. has retained Ainley Group to conduct a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options for constructing the proposed Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to serve the Innisfil Heights economic district.

As recommended in the Stage 1 Archaeological Assessment report submitted on February 28, 2022, a Stage 2 Archaeological Assessment is required at the preferred location, 7535 Tenth Sideroad, Innisfil.

Attached is the IH SPS 6 Stage 2 Archaeological Assessment report. Please let us know if you have any comments or questions.

Regards,

Beth Wang, EIT
Engineering Intern
Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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Mississaugas of Scugog Island First Nation

From:	Jody Marks
To:	info@scugogfirstnation.com
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:52:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter Mississaugas of Scugog Island First Nation.pdf image003.png

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Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:36 AM
To: info@scugogfirstnation.com
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Kelly LaRocca,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Hiawatha First Nation

From:	Jody Marks
To:	chiefcarr@hiawathafn.ca
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:48:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Hiawatha First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:40 AM
To: chiefcarr@hiawathafn.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Laurie Carr,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Alderville First Nation

From:	Jody Marks
To:	dmowat@alderville.ca
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:48:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Alderville First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:34 AM
To: dmowat@alderville.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Dave Mowat,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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From:	Beth Wang
To:	Julie Kapyrka
Cc:	Taynar Simpson; Jenna DeGroote; Preya Balgobin; Wendy Smeh
Subject:	InnServices, Municipal Class EA IH SPS 2, IH SPS 6 and Stroud SPS - Response Letter
Date:	June 27, 2025 2:54:00 PM
Attachments:	image005.png image007.png image008.png Response Letter to Alderville FN.pdf

Good afternoon Dr. Kapyrka,

Please find attached the response letter regarding the requirement to file the “Notice of Request to Consult.”

Should you have any questions or require further clarification, please don’t hesitate to let us know.

Regards,

Beth Wang, EIT
Engineering Intern

Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: Julie Kapyrka <jkapyrka@alderville.ca>
Sent: June 19, 2025 9:11 AM
To: Jenna DeGroote <jdegroote@innservices.co>; Taynar Simpson <tsimpson@alderville.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 2 - Notice of Completion

Aaniin Jenna,

Thank you for your e-mail, however, this is not an appropriate Notice of Request to Consult – as laid out in our Consultation Protocol per the guidance in the correspondence letter from Chief Simpson. Please see pages 11-13 for the required information.

Please send us the appropriate requested information. We can then assess the depth and

breadth of consultation that may be required here.

Please be advised that the PPS 2024 requires early engagement with First Nations regarding planning matters. Please also note that the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) has been recognized in Canada and is now law through the United Nations Declaration Act (UNDA). InnServices would do well to uphold the law and work to create more positive relationships with First Nations treaty rights holders. The Williams Treaties First Nations through the 2018 Settlement have had their harvesting rights re-affirmed in ALL pre-confederation treaties made with the Crown. Communities have rights protected through treaty but also through Section 35 of the Canadian Constitution. Alderville First Nation has a responsibility to understand how projects undertaken by InnServices may impact our harvesting rights.

We encourage InnServices to respect Alderville First Nation's Consultation Protocol and provide to us the requested information.

Miigwech,

Dr. Julie Kapyrka
Consultation Manager

Alderville First Nation

Administration Office
11696 Second Line Rd.
Roseneath, ON K0K 2X0
Office: 905-352-2662
jkapyrka@alderville.ca

From: Jenna DeGroote <jdegroote@innservices.co>
Sent: June 18, 2025 4:02 PM
To: Julie Kapyrka <jkapyrka@alderville.ca>; Taynar Simpson <tsimpson@alderville.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>
Subject: Re: InnServices, Municipal Class EA IH SPS 2 - Notice of Completion

Good afternoon Dr. Kapyrka,

Please accept this email as a "Notice of Request to Consult" for the Innisfil Heights SPS 2 EA. Below is the link to the Project File Report which contains all of the Environmental Assessment information including the completed Stage 1 and 2 Archaeological study's, Environmental Impact Assessment and First Nations Consultation Records.

Please let me know if you have any questions.

Thank you.

InnServices New IH SPS 2 Project File Report - FINAL.pdf

Jenna DeGroote, C.E.T.
Capital Project Manager

InnServices Utilities Inc.
705-791-9678
www.innservices.co

From: Jenna DeGroote <jdegroote@innservices.co>
Sent: Thursday, May 29, 2025 12:01 PM
To: Julie Kapyrka <jkapyrka@alderville.ca>; Taynar Simpson <tsimpson@alderville.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>
Subject: Re: InnServices, Municipal Class EA IH SPS 2 - Notice of Completion

Good afternoon Dr. Kapyrka,

Thank you for your email.

InnServices is committed to fostering strong relationships with First Nation groups and are open to future meetings to assist in your review of our project.

Please note however that at this time, InnServices does not have an established First Nations consultation policy and will not be able to provide payment for fees including but not limited to capacity funding, review, site visits, and file fees.

The Archaeological studies for this EA have been completed. If you are interested we can send you the final reports?

Thank you.

Jenna DeGroote, C.E.T.
Capital Project Manager

InnServices Utilities Inc.
705-791-9678
www.innservices.co

From: Julie Kapyrka <jkapyrka@alderville.ca>
Sent: Wednesday, May 28, 2025 12:22 PM
To: Jenna DeGroote <jdegroote@innservices.co>
Cc: Taynar Simpson <tsimpson@alderville.ca>
Subject: InnServices, Municipal Class EA IH SPS 2 - Notice of Completion

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Aaniin Jenna,

Please see attached correspondence.

Miigwech,

Dr. Julie Kapyrka

Consultation Manager

Alderville First Nation

Administration Office

11696 Second Line Rd.

Roseneath, ON K0K 2X0

Office: 905-352-2662

jkapyrka@alderville.ca

ALDERVILLE FIRST NATION

11696 Second Line Road
Roseneath, Ontario K0K 2X0
Phone: (905) 352-2011
Fax: (905) 352-3242
www.alderville.ca

Chief: Taynar Simpson
Councillor: Dawn Marie Kelly
Councillor: Lisa McDonald
Councillor: Nora Sawyer
Councillor: Jason Marsden

VIA E-MAIL

March 10, 2025

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street, Innisfil, ON L9S 0J3
jdegroote@innservices.co

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Dear Jenna DeGroote,

RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion

I would like to acknowledge receipt of your correspondence, which was received February 23rd, 2025, regarding the above noted project.

As you may be aware, the area in which this project is proposed is situated within the Traditional Territory of Alderville First Nation. Our First Nation's Territory is incorporated within the Williams Treaties Territory and was the subject of a claim under Canada's Specific Claims Policy, which has now been settled. All 7 First Nations within the Williams Treaties have had their harvesting rights legally re-affirmed and recognized through this settlement (2018).

In addition to Aboriginal title, Alderville First Nation rights in its Reserve and Traditional Territory and/or Treaty Territory include rights to hunt, fish and trap, to harvest plants for food and medicine, to protect and honour burial sites and other significant sites, to sustain and strengthen its spiritual and cultural connection to the land, to protect the Environment that supports its survival, to govern itself, sustain itself and prosper including deriving revenues from its lands and resources, and to participate in all governance and operational decisions about how the land and resources will be managed, used and protected.

Alderville First Nation is requiring a File Fee for this project in the amount of $300.00. This Fee includes administration, an initial meeting, project updates as well as review of standard material and project overviews. Depending on the number of documents to be reviewed by the Consultation Department, additional fees may apply. **Please make this payment to Alderville First Nation and please indicate the project name or number on the cheque.** If you do not have a copy of Alderville First Nation's Consultation Protocol, it is available at: alderville.ca/wp-content/uploads/2017/02/AFNProtocol2.pdf. Please note that the mapping in this document needs updating to reflect the Williams Treaties First Nations Settlement Agreement 2018.

In order to assist us in providing you with timely input, please provide us with a Notice of Request to Consult containing relevant information and material facts in sufficient form and detail to assist Alderville First Nation to understand the matter in order to prepare a meaningful response. Guidance for giving notice can be found on pages 11-12 of our Consultation Protocol. Based on the information that you have provided us with respect to the notice of **InnServices, Municipal Class EA IH SPS 6 - Notice of Completion,** Alderville First Nation may require a mutual agreement to establish a special consultation process for this project. After the information is reviewed it is expected that you or a representative will be in contact to discuss this matter in more detail and possibly set up a date and time to meet with Alderville First Nation in person or virtually.

Although we have not conducted exhaustive research nor do we have the resources to do so, there may be the presence of burial or archaeological sites in your proposed project area. Please note, that we have particular concern for the remains of our ancestors. Should excavation unearth bones, remains, or other such evidence of a native burial site or any other archaeological findings, we must be notified without delay. In the case of a burial site, Council reminds you of your obligations under the *Cemeteries Act* to notify the nearest First Nation Government or other community of Aboriginal people which is willing to act as a representative and whose members have a close cultural affinity to the interred person. As I am sure you are aware, the regulations further state that the representative is needed before the remains and associated artifacts can be removed. Should such a find occur, we request that you contact our First Nation immediately.

Furthermore, Alderville First Nation also has available, trained Archaeological Liaisons who can actively participate in the archaeological assessment process as a member of a field crew, the cost of which shall be borne by the proponent. Alderville First Nation expects engagement at Stage 1 of an archaeological assessment, so that we may include Indigenous Knowledge of the land in the process. We insist that at least one of our Archaeological Liaisons be involved in any Stage 2-4 assessments, including test pitting, and/or pedestrian surveys, to full excavation.

Although we may not always have representation at all stakeholders' and rights holders' meetings, it is our wish to be kept apprised throughout all phases of this project.

Should you have further questions or if you wish to hire a Liaison for a project, please feel free to contact Julie Kapyrka, Consultation Manager, at 905-352-2662 or via email at jkapyrka@alderville.ca .

Yours sincerely,



Chief Taynar Simpson
Alderville First Nation

ALDERVILLE FIRST NATION
CONSULTATION PROTOCOL



APRIL 2015

Alderville First Nation Consultation Protocol

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Preamble

Alderville First Nation (AFN), as a part of the Anishinabeg, have a long history in this region of Ontario, dating back centuries through the Anishinabeg migrations to the Great Lakes to the subsequent occupation of Southern Ontario at the beginning of the 18th century. Since *The Great Peace of Montreal* in 1701 to the present, AFN and its ancestors have been a party to events in Southern Ontario that have helped make the province what it is. With the ratification of the 1763 Royal Proclamation at Niagara in 1764, to the early treaties of the 1780s along the Lake Ontario frontier, and the Williams Treaties of 1923, AFN has evolved along with this history and today proudly resides on the territory it has known consistently as home for over 7 generations.

AFN members are the caretakers of our Traditional Territory as described herein, and possess Aboriginal and Treaty rights over lands and resources within our Traditional Territory.

Whereas AFN has asserted these rights against the Crown in a claim, which has not yet been settled or otherwise determined;

Whereas section 35 of the Constitution Act, 1982 recognizes and affirms the existing Aboriginal and Treaty rights of the Aboriginal Peoples of Canada, and Canada is a signatory and adherent to the United Nations' Declaration on the Rights of Indigenous Peoples;

Whereas the Supreme Court of Canada has established that Aboriginal Peoples asserting Aboriginal and Treaty rights must be consulted prior to the occurrence of any decisions, conduct or activities that may have an impact on the rights and interests of Aboriginal Peoples;

Whereas AFN is willing to engage in consultations, expects to be consulted, and if appropriate, to be accommodated with respect to any and all decisions, conduct and activities that have the potential to have an adverse effect on our Aboriginal and Treaty rights respecting lands and resources within the AFN Traditional Territory;

Whereas the Crown and private sector parties seeking to carry on activities within AFN Traditional Territory may only do so in accordance with this Protocol and with the free, prior and informed consent of AFN;

Whereas the Crown and/or private sector parties are expected to respect AFN's obligation to honour and abide by our traditions and practices, and to respect the AFN community, the AFN Traditional Territory and future generations;
The following constitutes the Protocol for AFN expected to be followed in letter and spirit for all negotiation, consultation and accommodation of AFN for any proposed

activity that may affect AFN's rights, title and interests in our Reserve lands and Traditional Territory.

1. Purpose and Application

This Protocol sets out AFN's rules, under its laws and its understanding of respectful application of Canadian law, for the process and principles for consultation and accommodation between AFN, the Crown and Proponents, about any Activity that is proposed to occur in AFN's Traditional Territory and/or Treaty Territory or that might cause an Impact to the Environment or Health therein or AFN Rights. AFN expects the Crown and Proponents to respect and abide by this Protocol in all such interactions with AFN.

2. Definitions

a. **Accommodation** includes measures to be effected in an effort to minimize the impact on AFN and/or to allow AFN to participate in decision making with respect to any Impact within the AFN Traditional Territory; balancing the needs and values of the AFN community.

b. **Activity** means any Crown Activity or Proponent Activity.

c. **Canada** means the federal government or the federal Crown, Her Majesty the Queen in Right of Canada.

d. **Consultation** is a process engaged in between AFN, a Proponent and/or the Crown, in good faith, designed to determine the Impact of proposed Activities on AFN's Traditional Territory, and any corresponding Accommodation arrangements if applicable. Depending on the circumstances, Consultation does not begin until there is an actual written or in limited cases verbal agreement that discussions between the parties constitute consultation pursuant to the meaning of that term as defined by the Supreme Court of Canada.

e. **Crown** means either or both Canada and Ontario, and any component part of each.

f. **Crown Activity** means:

   i. New legislation, regulations, policies, programs and plans that provide authority to or are implemented or to be implemented by the Crown;

   ii. Changes to legislation, regulations, policies, programs and plans that provide authority to or are implemented or to be implemented by the Crown;

iii. Issuance, varying, approval, suspension or cancellation of permits, licenses, authorizations, renewals or anything similar, by the Crown;

iv. Any unfunded mandate or obligation sought to be imposed by the Crown upon AFN without provision of corresponding adequate resources, financial or otherwise;

v. Any failure to act by the Crown where the Crown is obligated to take action to protect or give effect to AFN's Aboriginal or Treaty rights; and,

vi. Anything else authorized or undertaken by the Crown.

g. **Crown Designate** means any person or body appointed by the Crown to be the lead contact on behalf of the Crown for consultation and accommodation with AFN in respect of any Activity.

h. **Day** means a business day and excludes weekends and statutory holidays.

i. **Environment** means the components of the Earth, and includes:

i. land, surface and subsurface water, and air, including all layers of the atmosphere;

ii. all organic and inorganic organisms including flora and fauna and humans;

iii. the physical, social, economic, cultural, spiritual and aesthetic conditions and factors that affect the physical or socio-psychological health of AFN or any of its members;

iv. physical and cultural heritage, including but not limited to any structure, site or thing that is of historical, archaeological, paleontological or architectural significance; and

v. any part or combination of those things referred to in paragraph (i) to (iv), and the interrelationships between two or more of them.

j. **Health** means the physical, spiritual or socio-psychological health of AFN or any of its members.

k. **Impact** means any adverse effect that any Activity may have on the Environment within or around AFN's Traditional Territory and/or Treaty Territory or any adverse effect on the Health of any AFN member or on the Aboriginal or Treaty rights of AFN or any of its members, including any cumulative impacts arising from combination of Activity or long-term, ongoing, intermittent or repetitive Activity.

l. **Information** means, to the extent permitted to be disclosed in accordance with applicable law:

   i. Location (including if possible a map of the site of and area of impact of the Activity if applicable), timing, and thorough description of the Activity;

   ii. a written description of the proposed Activity, if applicable;

   iii. known or potential Impacts as a result of the Activity;

   iv. the name and contact information for the Crown Designate;

   v. the name and contact information of the Proponent, if applicable;

   vi. all information and documents provided by the Proponent to the Crown in respect of the Proponent Activity, if applicable; and

   vii. any other information that the Crown and/or Proponent should consider relevant at the sole discretion of AFN.

m. **Land** means and includes surface, subsurface, minerals, aggregates and all natural resources without limitation.

n. **Notification** means the initial written notice sent to the AFN Contact by the Crown and/or Proponent, which shall contain meaningful Information in the possession of the Crown and/or Proponent as described below.

o. **Ontario** means the provincial government or Crown or Queen in Right of Ontario ("Ontario").

p. **Proponent** means the party (which could include the Crown, a corporation, partnership, sole proprietorship, association, organization, person or the like) that proposes to undertake or is undertaking the Proponent Activity, but excludes any business in which AFN has a majority interest or a business in which AFN has majority control or a majority financial interest.

q. **Proponent Activity** means any activity pursuant or incidental to anything authorized or ordered by the Crown, or that the Crown is contemplating authorizing or ordering, and does not include any activity of AFN or a member of AFN or a business in which members of AFN have majority control or a majority financial interest which activity AFN has authorized.

r. **Protocol** means the Alderville First Nation Consultation Protocol.

s. **Reserve** means Alderville Indian Reserve, Reserve No. 37 and 37A.

t. **Traditional / Treaty Territory** means the territory shown in Appendices "A", "B", and "C".

u. **Alderville First Nation ("AFN")** means the Aboriginal Peoples within the meaning of section 35 of the Constitution Act, 1982, which is a First Nation, and a Band pursuant to the Indian Act.

v. **AFN Contact** means the person appointed by AFN to whom Notification is sent and who is mandated to ensure that, where applicable, AFN Representative(s) is/are appointed in respect of the particular Activity referred to in the Notification.

w. **AFN Representative(s)** means the person(s) appointed and authorized by AFN to participate on behalf of AFN in the consultation process in regard to a proposed Activity.

x. **AFN Rights** means any of AFN or its members' Aboriginal or Treaty rights or the ability to exercise such rights.

y. **AFN Sustainability** means the ability of AFN to survive and thrive including through a healthy Environment, through good Health of AFN and its members, and through respect for and honouring of AFN Rights and traditions.

z. **Williams Treaties Signatories** means Chippewas of Rama First Nation, Christian Island First Nation, and Georgina Island First Nation and the Mississaugas of AFN, Curve Lake First Nation, Hiawatha First Nation and Scugog First Nation.

3. Legal Status

a. No AFN Right may be abrogated nor derogated from through operation of this Protocol other than by proper legal authority of AFN.

b. Nothing in this Protocol may be construed to limit any Consultation or Accommodation obligations owed to AFN by the Crown or any Proponent.

c. Notwithstanding anything in this Protocol, AFN retains the right to challenge, by way of judicial review or any other legal or other process, any Activity.

d. AFN reserves the right to change, expand or alter any individual step or process in the course of any particular Consultation engaged in with the Crown and/or a Proponent(s).

4. Context and General Principles to Guide Consultation and Accommodation

a. AFN has been home to the Mississauga Anishinabeg of the Ojibway Nation since the mid 1830's. Before that time our people lived in their traditional lands around the Bay of Quinte and elsewhere within our Traditional Territory.

b. In addition to Aboriginal title, AFN rights in its Reserve and Traditional Territory and/ or Treaty Territory include rights to hunt, fish and trap, to harvest plants for food and medicine, to protect and honour burial sites and other sacred and culturally significant sites, to sustain and strengthen its spiritual and cultural connection to the land, to protect the Environment that supports its survival, to govern itself, sustain itself and prosper including deriving revenues from its lands and resources, and to participate in all governance and operational decisions about how the land and resources will be managed, used and protected.

c. AFN laws require AFN to preserve and even enhance a mutually respectful relationship with the Environment, to co-exist with Mother Earth and protect this relationship. AFN under its laws has the responsibility to care for its Traditional Territory and/ or Treaty Territory for future generations, to preserve and protect wildlife, lands, waters, air and resources. AFN relies on the health of the Environment in its Traditional Territory and/ or Treaty Territory for its survival. The health of the lands and waters is essential to the continued existence of AFN as a people and it and its members' Health, its culture, laws, livelihood, and economy.

d. AFN is recognized as a respected and principled steward of the Environment. AFN's input and perspective in any consultation and accommodation process will likely include the use of traditional ecological and cultural knowledge alongside knowledge from western scientific and technical sources.

e. All decisions about any Activity that might cause an Impact shall be weighed carefully in regard to AFN Sustainability and recoverability of the Environment. AFN has suffered significant adverse effects from development, use and pollution of its Traditional Territory and/or Treaty Territory and from taking and using of parts of its Traditional Territory and/or Treaty Territory including Lands over which it asserts Aboriginal title.

f. AFN may decide that consideration of cumulative Impacts must be included in any consultation process. Cumulative Impacts include not only those of the Activity combined with other existing projects or Activities or residual impacts from past activities, but with other planned Activities.

g. It may be necessary for the Crown and/or Proponent to fund cumulative impacts analyses, AFN land use and occupancy studies, participation in environmental and Traditional Knowledge assessment processes and other relevant studies to enable informed decision-making about any Activity.

h. AFN expects to play a meaningful role in any Environmental Assessment ("EA") or related process, including, if AFN requests, to have a role in establishing the scope and terms of reference for such EAs and to appoint a member to any EA panel review, and to review and comment on environmental impacts statements, and any screening, study or like reports, but EAs and any role that AFN might take in regard to these do not of themselves satisfy the Crown's or any relevant Proponent's duty to consult with and accommodate AFN.

i. AFN recognizes the need to identify and develop new and appropriate ways through which aboriginal and non-aboriginal parties may create sustainable development opportunities from the resources found within AFN's Traditional Territory and/ or Treaty Territory. AFN's understanding of what is "sustainable" is formed by AFN's traditional knowledge and laws. AFN's laws require AFN to assess an Activity by anticipating its potential effects at least seven generations into the future.

j. Consultation processes and Accommodation agreements must be designed and implemented with flexibility to reflect the nature and importance of the AFN Right or Health or elements or conditions of the Environment that could be affected by the Activity, and the seriousness of the possible Impact. AFN and only AFN will decide in certain circumstances that it does not require consultation and/or accommodation in respect of an Activity, and it may determine the level of Consultation and Accommodation it considers necessary.

k. It takes time to make sound decisions that consider all relevant matters, and to build and maintain good relations, and sufficient time must be provided for Consultation with and Accommodation of AFN by the Crown and Proponents.

l. All parties to the Consultation process are expected to treat each other with respect and act in good faith, in an honest, transparent and open manner.

m. AFN must be consulted by the Crown and if applicable Proponents from the earliest stages of any contemplated Activity, so that strategic and long-term planning is facilitated, AFN's input must be taken into account in the consideration of relevant alternatives to such Activity (including the alternative of no activity), and in the design of such Activity. This will be a significant benefit to the planning exercise, and greatly reduce the potential for conflict at later stages.

n. The Crown and if applicable Proponents must always consult with AFN with the intent, and where required by AFN by taking all feasible steps, to accommodate AFN by substantially addressing all of AFN's legitimate concerns about the Activity.

o. The Crown may delegate aspects of Consultation and Accommodation to the Proponent so long as the Crown maintains an oversight role over the entire process, unless AFN requests otherwise.

p. Accommodation may generally include, but not limited to:

    i Prevention and remediation of Impacts (and where AFN requires as below, by not proceeding with the Activity);

    ii mitigation of Impacts;

    iii provision for capacity building and other benefits from the Activity;

    iv provision of compensation for Impacts and related benefits from the Activity;

    v measures to increase AFN's comfort with or trust in the Activity, including community monitoring, community liaison or oversight committees, a role on Proponent's board or other decision-making roles, etc.

q. The Crown is expected to fund, and/or ensure funding is provided by any relevant Proponent for all the reasonable costs of AFN to participate in a meaningful and informed way in any Consultation process. These costs may be estimated in a workplan and budget provided by AFN.

r. AFN generally expects Proponents to address Accommodation by entering into an agreement or where necessary multiple agreements with respect to Activities that may result in any Impacts. The Crown is expected to work with AFN when requested to ensure that Proponents meet these expectations.

s. AFN reserves the right to stop any contemplated Crown or Proponent Activity that would likely have a significant non-compensable Impact.

t. The Crown must not dispose of or grant to any third party any interest in land that is part of AFN's Traditional or Treaty Territories without AFN's prior free and informed consent.

5. Trigger for Consultations

a. The duty to consult with AFN is triggered when the Crown contemplates or becomes aware of any Activity.

b. In addition, AFN expects where possible to engage in Consultation and negotiations for accommodation at the strategic-planning level, including in respect of the following but not limited to:

   i co-management of resources (eg: fisheries, wildlife protection plans, and the like)

   ii protection and management of watersheds and ecosystems

   iii land use planning for broader areas in the Traditional Territory

c. Unless AFN decides otherwise, if any Activity has begun or is underway before Consultation with AFN has commenced or completed, where the duty to consult is triggered, the Crown and where applicable the Proponent must undertake Consultation with AFN forthwith. AFN expects the Crown to suspend such Activity immediately until such time that, in the process of Consultation, AFN is satisfied in its sole discretion that the Activity may recommence.

6. Giving Notice

a. The proponent shall communicate its request to consult by issuing a written Notice of Request to Consult by email and letter to the AFN Lands & Resources Department, in a timely manner and in clear, concise and understandable language.

b. The Notice of Request to Consult shall be provided at an early stage of planning, and as early as possible, prior to undertaking any Activity which affects the rights or interests of AFN in its Traditional Territory.

c. The Notice of Request to Consult will contain relevant information and material facts in sufficient form and detail to assist AFN to understand the matter in order to prepare a meaningful response. The Notice should contain, at a minimum but not limited to, the following:

   i. The nature and scope of the proposed Activity;

   ii. The timing of the proposed Activity;

   iii. The location of the proposed Activity;

   iv. How the proposed Activity may affect AFN and its Traditional Territory;

   v. Who will be undertaking the Activity;

   vi. A description of the proposed consultation process, including intended activities, timelines, expectations and limitations, if any;

   vii. What documents, including applications, studies, assessments, policies are available to be reviewed which are pertinent to the proposed Activity;

   viii. What collateral or related processes or approvals are currently underway that affect that Activity, including all processes or applications to government or regulatory bodies, authorities or tribunals;

   ix. Documentation of any deadlines or filing dates relating to the Activity or the process; and

   x. Any pertinent names, addresses, and telephone numbers for contacting the relevant decision makers and those assisting with the Activity.

d. The geographic area of interest and proposed activities shall be mapped and submitted with the Notice of Request to Consult.

e. As soon as practical, AFN will confirm receipt of the Notice of Request to Consult and will provide contact information for the appropriate AFN representative to whom the Proponent shall henceforth direct all communications.

f. If a Proponent fails to provide a Notice of Request to Consult to AFN, and this failure is discovered, AFN reserves the right to provide the Crown and/or the Proponent with written notification of the failure and set a time within which the proponent shall comply with this Protocol. No action or inaction on the part of AFN in regard to a Proponent's failure to deliver a Notice of Request to Consult shall be deemed to be a waiver of AFN's right to be consulted. The requirement to provide notice is and remains the obligation of the Crown and/or Proponents.

g. AFN will conduct an internal review of all Activity. This may include but is not restricted to external expertise, AFN Chief and Council, meetings with the community, meetings with the other Williams Treaties First Nations and elders, or the use of community focus groups. There may also be site visits as well as visits to the community by the Proponent.

37. AFN reserves the right to assess and levy an application fee on any Proponent who delivers a Notice of Request to Consult, depending upon and proportionate to the nature of the request or the Activity in question.

7. Consultation Process

a. Based on the information contained in the Notice of Request to Consult, any subsequent communication, exchange of information and/or any other relevant considerations, AFN shall make a determination as to whether to:

   i. Decline the request to consult, with or without terms or conditions;

   ii. Defer the request to consult, with or without terms or conditions;

   iii. Require a meeting with the intention of entering into a mutual agreement to establish a consultation process, which initial meeting shall not constitute consultation in and of itself unless mutually agreed among the parties.

   iv. Levy an application fee to be paid by the Proponent that is proportionate to the nature and scope of the request to consult and the proposed Activity.

b. At any initial meeting, the proponent shall, among other things:

   i. Share their Aboriginal Relationship Policy;

   ii. Share all project information;

   iii. Share all known potential impacts;

   iv. Explain how AFN may benefit from the Activity and how AFN, its members and its Traditional Territory may experience positive change; and

v. Propose a timetable, potential workplan for engaging in the consultation process and potential budget if possible at the time.

c. AFN shall communicate its determination in writing to the Proponent. At all times AFN shall endeavour to provide a timely response to any Notice of Request to Consult, as appropriate in the circumstances. However, at no time shall a failure by AFN to respond or to respond within a timeline requested by the Proponent be deemed as declining the request. It is the minimal expectation that the Proponent will follow up on any request after a reasonable period and, if necessary, AFN may request further time to review the relevant notices.

d. The fact of proper and adequate consultation shall be determined by AFN, in its sole discretion. Where an initial meeting has been requested, no communication nor information exchange shall be deemed to be considered consultation until such time as AFN has accepted and acknowledged consultation or a formal consultation agreement has been reached and is adhered to by the parties. No other action or inaction by AFN shall be deemed to be a waiver of its right to be consulted where appropriate and necessary in accordance with treaty rights, Aboriginal rights, statute, the Constitution Act, 1982 or at common law.

e. General principles applicable to the Consultation process:

i. The Crown and Proponent must disclose all relevant Information to AFN Representatives as it becomes available, throughout the Consultation process.

ii. AFN may determine whether it wishes to hold any aspect of Consultation process with the Crown, the Proponent or both, and expects such parties to respect such decisions if they are reasonable.

iii. Any party to Consultation processes may involve such experts, lawyers or support persons as are reasonably required.

iv. Generally, notes of and correspondence related to all Consultation processes are the responsibility of each respective party.

v. Parties to Consultation processes may enter into confidentiality agreements and may agree that all discussions and correspondence pertaining to such processes are confidential to the extent allowed by law.

vi If AFN requires Accommodation through negotiations with the Proponent, the Crown is expected to, when requested by AFN, assist AFN to ensure that the Proponent engages in such negotiations on reasonable terms and in good faith. AFN expects that the Crown shall not approve the relevant Activity unless and until an agreement with respect to Accommodation is reached between AFN and the Proponent.

vii. This Protocol and any Accommodation agreements reached in accordance with its terms are without prejudice to the asserted rights, including Aboriginal and Treaty rights asserted by AFN in any court proceeding or otherwise. No other action or inaction by AFN hereunder shall be deemed to be a waiver of AFN's right to be consulted where appropriate and necessary in accordance with its Treaty rights, Aboriginal rights, statute the Constitution Act, 1982 or at common law.

8. Costs

a. The full cost of entering into meaningful consultation with AFN shall be borne by the Crown and/or the Proponent, including but not limited to the provision of technical and financial resources to AFN. AFN expects that it will not have to bear any costs of the consultation process.

b. In order to defray its costs of reviewing a Notification and/or working with the Crown and/or a Proponent(s) to development a consultation process agreement, AFN reserves the right to levy an application fee depending upon and proportionate to the nature of the request or the Activity in question.

c. All parties must work to foster and enhance efficiency and reduce costs where agreed upon, without detracting from the process and the ability of the parties to obtain independent professional and technical advice and impact assessments.

9. Confidentiaity

a. AFN records, data and traditional knowledge gathered or recorded is the sole property of AFN. Any Proponent requiring review of such information shall be required to enter into a confidentiality agreement prior to reviewing any documentation.

b. All information collected by AFN may, at its sole discretion, be shared with the Proponent, subject to entering into a confidentiality agreement and to lawyer-client privilege if applicable.

10. Accomodation

a. Any Consultation under this Protocol shall be undertaken in good faith. It is expected that the Proponent will be open to changing the original Activity based on the concerns or views expressed during the Consultation phase. Any decisions as to whether Accommodation is necessary shall be decided collaboratively by the Proponent, the Crown and AFN, in the spirit of reconciliation.

b. If, based on the Consultation, a decision is made to allow the Activity to proceed, the Accommodation of AFN's interests shall be achieved through the negotiation of a mutually beneficial agreement or series of agreements as between the affected parties, which agreement or agreements shall contain provision for future impact monitoring and which shall be binding on any related entities, successors or assigns of the Proponent.

c. The Proponent shall bear all costs of the negotiation and agreement process.

d. Any Accommodation agreement shall, at a minimum, ensure that:

    i. AFN receives timely updates and follow-ups;

    ii. The Crown or Proponent provides regular progress reports and notice of any proposed changes to the Activity;

    iii. Provision is made to adjust for or re-open negotiations for any cumulative or indirect Impact that may arise in the course of carrying out or completion of the Activity;

    iv. AFN is provided with any updates to the Proponent's Aboriginal Relationship Policy.

11. Dispute Resolution

a. Any dispute as between the parties in the negotiation of a Consultation agreement shall be referred to alternative dispute resolution as follows:

    i. The matter shall be put forth to a designated representative of AFN and a senior representative of the Proponent for a negotiated resolution.

ii. If the AFN representative and senior representative of the Proponent are unable to reach a negotiated resolution within an agreed upon or otherwise reasonable time, the matter shall be referred to mediation. The mediator shall be an individual mutually agreed upon by the parties. The mediator shall attempt to reach a mediated resolution within 60 days of the date of conduct of the mediation or such other time period as may be agreed among the parties.

iii. If the parties are unable to agree to a mediator or if they are unable to reach a resolution as a result of mediation, then, the matter shall be referred to arbitration. The arbitration body shall be composed of one person, if the parties are able to agree to one person; if not, then, each party shall name one arbitrator and the two shall name a third impartial arbitrator. The arbitrator(s) shall make a decision on the dispute within 90 days of the date of conduct of the mediation or such other time period as may be agreed among the parties.

iv. In the event of an issue arising that requires either mediation or arbitration, it is expected that the Crown will be a party to and shall actively participate in the process. Where the Crown, either federally, provincially or both as appropriate, fails or refuses to participate, it will be up to AFN or the Proponent jointly or severally to determine whether to proceed with alternative dispute resolution or to refer the matter to the appropriate court for an order requiring Crown participation.

v. The Proponent shall bear all costs of dispute resolution.

12. Primacy of this Protocol

a. This Protocol shall apply to all situations giving rise to the requirement to provide notice to or consult with AFN, including situations involving any other First Nation parties in a consultation or request for consultation, notwithstanding the existence of any other consultation standards or protocols that may apply to such consultations or communication.

b. This Protocol shall apply unless and except it is expressly waived, in writing, by AFN in its sole discretion.

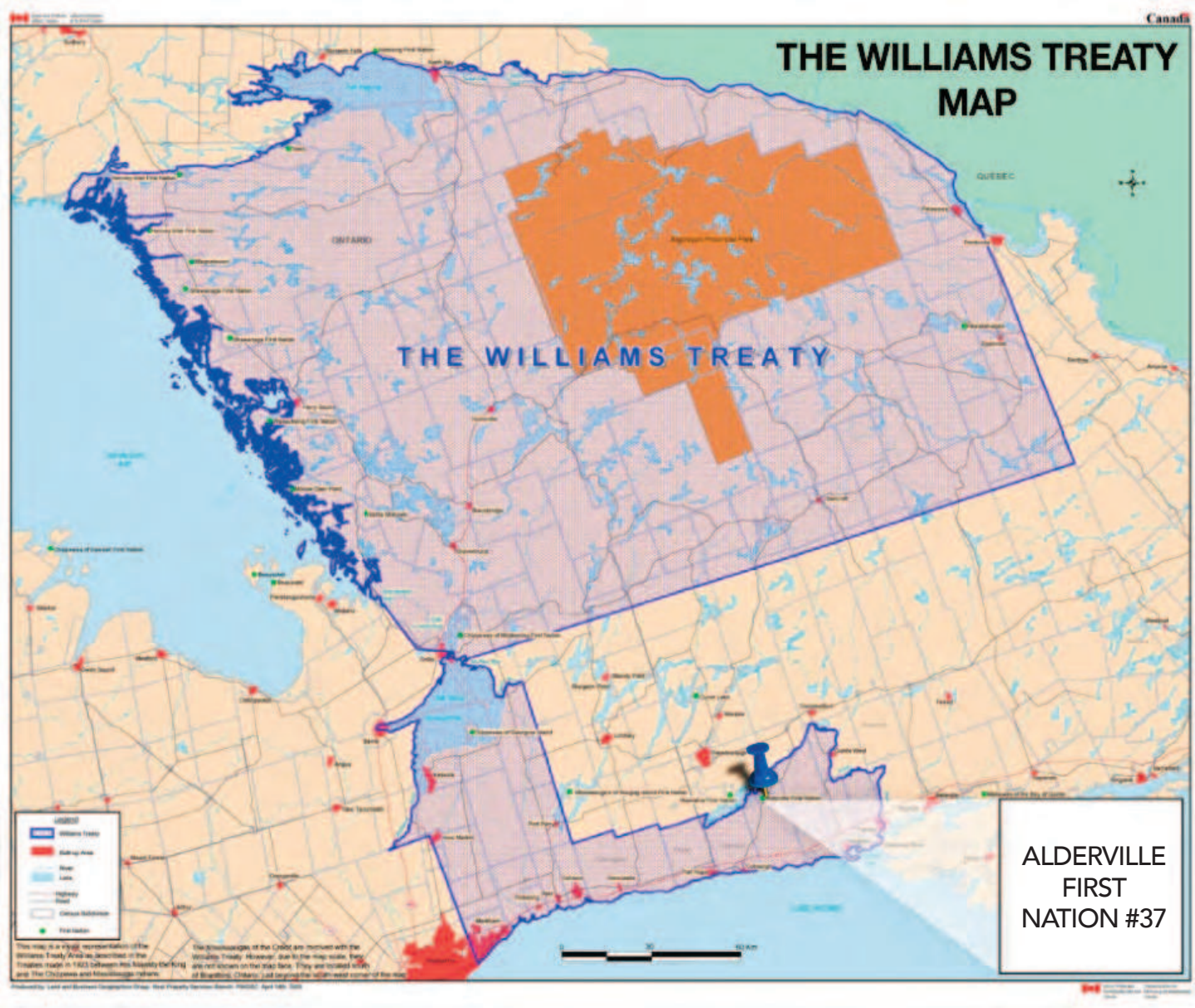
c. This Protocol applies to Proponents who have not already entered into any agreements with AFN in relation to Consultation or Activity affecting AFN Traditional Territory and any other lands added to the AFN.

d. Proponents who have already entered into agreements with AFN, including but not limited to a memorandum of agreement and/or a Consultation agreement, are exempt from the application of this Protocol with respect to the terms and conditions prescribed by said agreement unless otherwise mutually agreed.

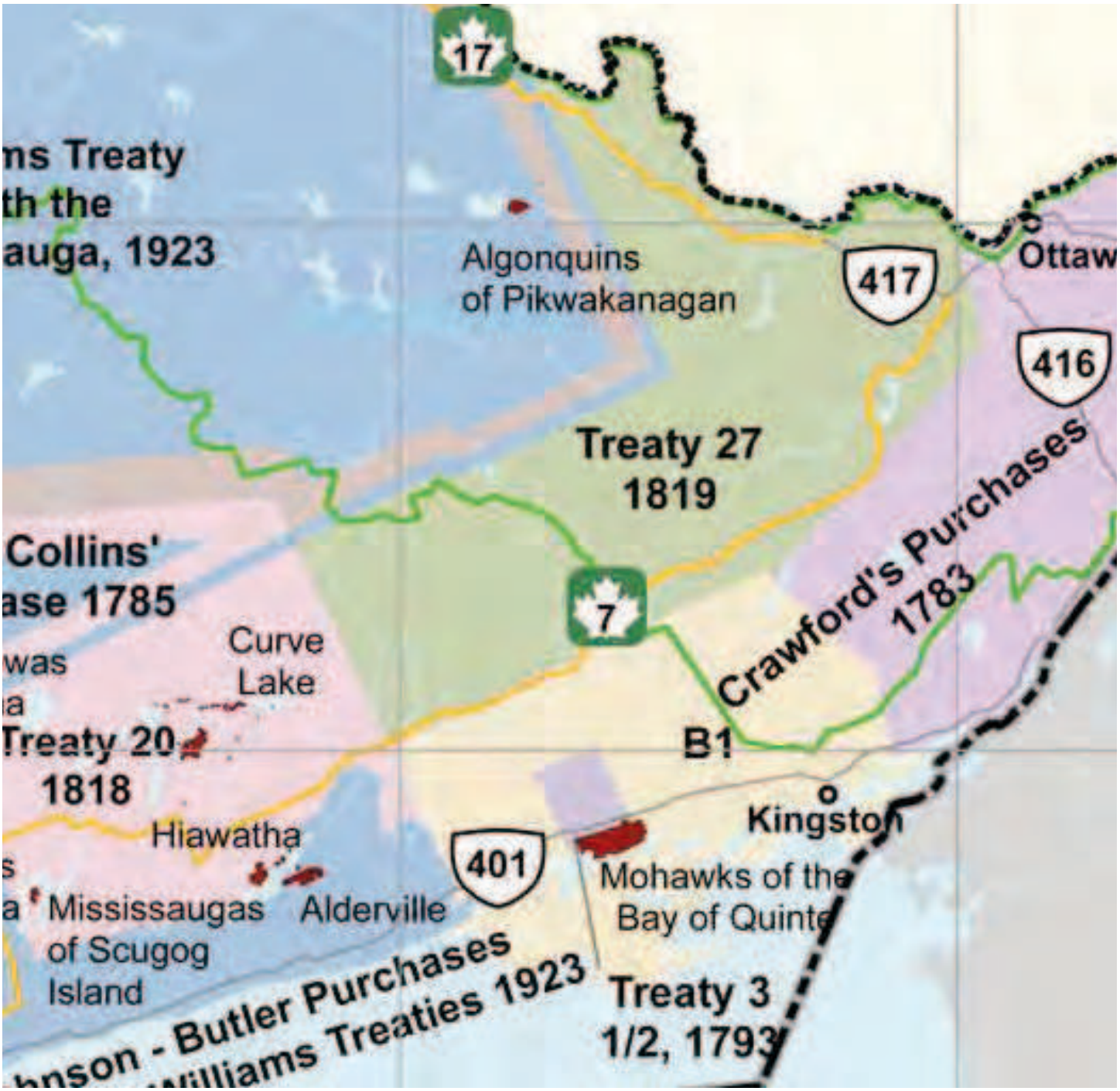
e. AFN reserves the right to amend this document from time to time as needed.

f. The duty to consult legislation also applies to AFN.

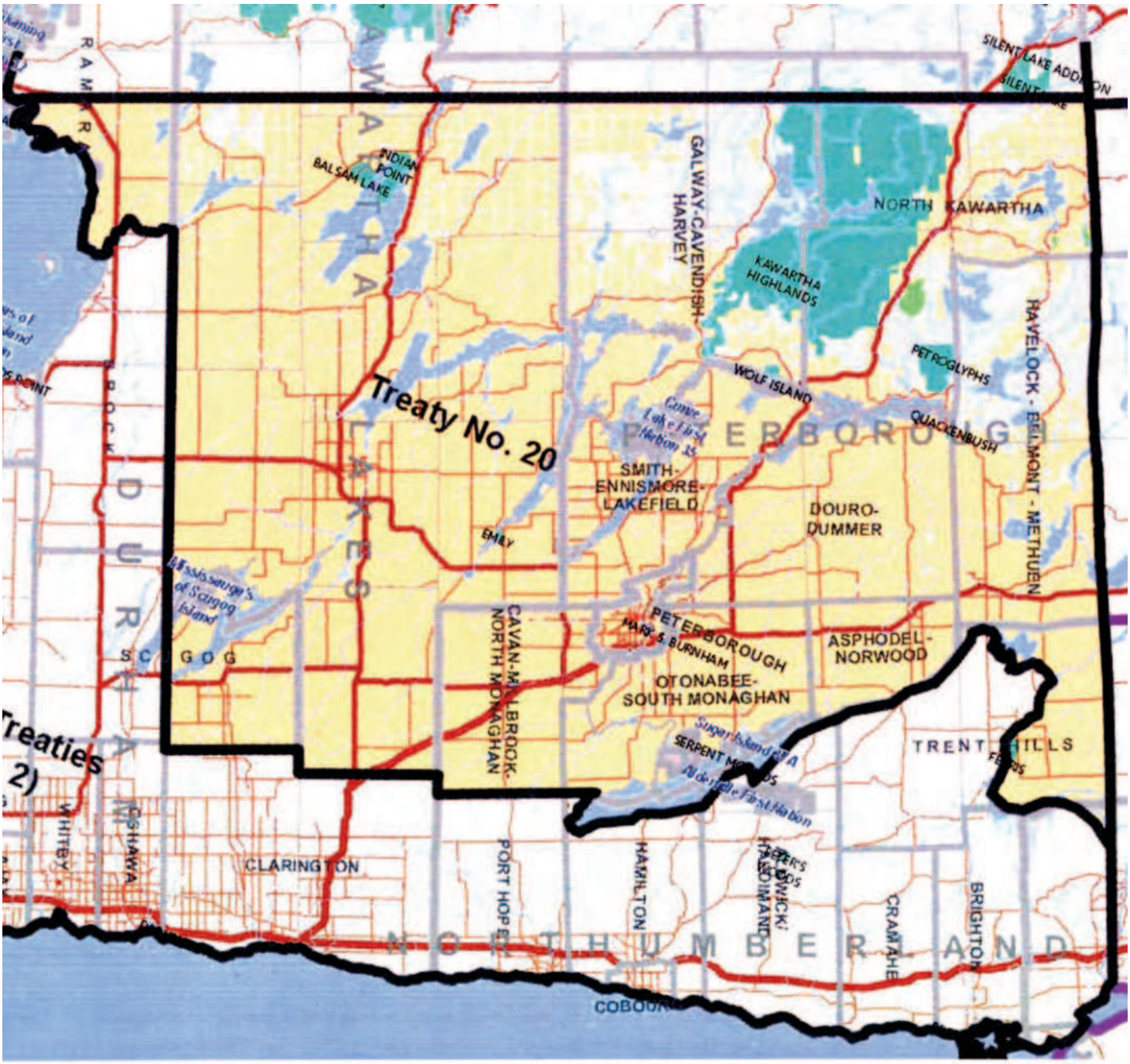
Appendix A - Map of The Williams Treaties Lands



Appendix B - Map of Treaty No. 27 Land



Appendix C - Map of Treaty No. 20 Land



Appendix D - Working Budget

Budget
This Budget will be utilized for consultation purposes only. This consultation protocol budget may be subject to change depending on the project. A completed budget will be approved by the AFN and the proponet.

Consultation Budget

Item Description	Expected Cost	
Administrative Expenses	Copying fees, postage, long distance fees, percentage overhead for AFN administration	
AFN Representative fees / Per Diems	Salary recovery, fee, or per diem for each AFN representative (itemize separately)	
AFN Representative Expenses	Travel and other expenses	
Consultation / Negotiation Meetings	Meeting rooms, refreshments, etc (list for each projected consultation meeting)	
Community Meetings Expenses	Copying and dissemination of material, meeting rooms, refreshments, elder or other honoraria (list for community meeting)	
Internal Technical Advisor/ Expert Fees	Describe which kinds of AFN technical advisors/experts required, their deliverables and their fees	
Internal Technical Advisor/ Expert Expenses	Travel and other expenses	
Outside Technical Advisor/ Expert Fees	Describe which kinds of outside experts or technical advisors required, their deliverables and their fees	

Item Description	Expected Cost	
Outside Technical Advisor/ Expert Expenses	Travel and other expenses	
Legal Fees	Describe type of work required and fees for consultation	
Legal Expenses	Travel and other expenses	

We, the Alderville First Nation Chief and Council, have adopted this Consultation Protocol as of April 10, 2015.

Chief: James Marsden

Councillor: Jody Holmes

Councillor: Angela Smoke

Councillor: Julie Bothwell

Councillor: Dave Mowat

Contact:
Alderville First Nation Administration Offices
11696 Second Line
Roseneath, ON
K0K 2X0
Mainline: (905)-352-2011
Fax: (905)-352-3242

Consultation Department
Mainline: (905)-352-2662

NOTES







AINLEY & ASSOCIATES LIMITED
280 Pretty River Pkwy, Collingwood, ON L9Y 4J5
Tel: (705) 445-3451 • www.ainleygroup.com

VIA EMAIL

June 26, 2025 File No. 121031

Alderville First Nation
11696 Second Line Rd.
Roseneath, ON K0K 2X0

Re: Response to Request Regarding Notice of Request to Consult – IH SPS 2, IH SPS 6, and Stroud SPS Class Environmental Assessments

Dear Dr. Kapyrka,

Thank you for your recent correspondence regarding the IH SPS 2, IH SPS 6, and Stroud SPS Class Environmental Assessment (EA) projects.

We would like to respectfully clarify that Alderville First Nation was provided notices at key milestones throughout each EA process, as outlined below:

- **IH SPS 2**: Notice of Study Commencement issued on **January 20, 2022**, and Notice of Public Information Centre (PIC) on **July 7, 2022**.
- **IH SPS 6**: Notice of Study Commencement issued on **October 5, 2021**, and Notice of PIC on **March 31, 2022**.
- **Stroud SPS**: Notice of Study Commencement issued on **November 25, 2021**, and Notice of PIC on **December 2, 2022**.

These notices were issued to inform Alderville First Nation and invite participation. However, no response or request for engagement was received during the course of the assessments.

We acknowledge receipt of Alderville First Nation's Consultation Protocol and fully respect its intent and guidance. That said, as the Class EA processes for all three projects have now concluded – and a **Notice of Completion** has been issued – we are not in a position to reinitiate a new consultation process for each individual project.

Nonetheless, we sincerely welcome Alderville First Nation to review the full **Project File Reports**, which include all supporting studies, technical assessments, and subconsultant reports completed as part of the EA process. Should there be any specific concerns or questions arising from this review, we remain open to further dialogue.

We appreciate your interest and look forward to continued communication and collaboration on future projects.

Yours truly,

AINLEY & ASSOCIATES LIMITED

Preya Balgobin, P.Eng.
Project Manager

\\barrie.ainleygroup.com\ns1\Engineering\Collingwood\121031\6. Class EA Files\Consultation\1. IH SPS 6\3. Notice of Completion\Response to Comments Rec'd\121031 - Response Letter to Alderville FN.docx

cc: Jenna DeGroote- InnServices (By Email)

From:	Jody Marks
To:	dmowat@alderville.ca
Cc:	Preya Balgobin; Wendy Smeh; jdegroote@innservices.co; k.a.sandy-mckenzie@rogers.com
Subject:	InnServices, Municipal Class EA IH SPS 2 - Notice of Study Commencement
Date:	January 20, 2022 4:07:00 PM
Attachments:	IH SPS 2 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Alderville First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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From:	Jody Marks
To:	dmowat@alderville.ca
Cc:	k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject:	InnServices, Innisfil Heights Sewage Pumping Stage 2 Class EA - Public Information Centre
Date:	July 7, 2022 3:25:00 PM
Attachments:	InnServices Inc. - IH SPS 2- Notice of Public Information Centre.pdf image002.jpg

Dear Chief Dave Mowat,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations to service the Innisfil Heights economic district. InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to be located on 5th Sideroad between Innisfil Beach Road and 7th Line in the Town of Innisfil.

As part of Phase 2 of the Class EA process, various alternatives have been developed for evaluation and presented as part of a virtual Public Information Centre. Please see the attached Notice of Public Information Centre for further details.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227
Cell: (416) 576-2233
Email: jody.marks@ainleygroup.com

WWW.AINLEYGROUP.COM

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From:	Jody Marks
To:	dmowat@alderville.ca
Cc:	k.a.sandy-mckenzie@rogers.com
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:48:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Alderville First Nation.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:34 AM
To: dmowat@alderville.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Chief Dave Mowat,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Jody Marks
Sent: November 25, 2021 2:53 PM
To: dmowat@alderville.ca
Cc: k.a.sandy-mckenzie@rogers.com; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: Stroud Sewage Pumping Station Class Environmental Assessment
Attachments: Stroud SPS - Notice of Study Commencement.pdf; Notice of Study Commencement-Cover Letter, Alderville First Nation.pdf

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Beth Wang
Sent: December 2, 2022 9:52 AM
To: dmowat@alderville.ca
Cc: k.a.sandy-mckenzie@rogers.com; Jenna DeGroote; Preya Balgobin; Wendy Smeh
Subject: InnServices, Stroud Sewage Pumping Station (Stroud SPS) Class EA - Notice of Public Information Centre
Attachments: InnServices Inc. - Stroud SPS - Notice of Public Information Certre.pdf

Dear Chief Dave Mowat,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations to service the Innisfil Heights economic district. InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station (Stroud SPS) to be located on Yonge Street between the South end of Stroud and Innisfil Beach Road in the Town of Innisfil.

As part of Phase 2 of the Class EA process, various alternatives have been developed for evaluation and presented as part of a virtual Public Information Centre. Please see the attached Notice of Public Information Centre for further details.

Regards,

Beth Wang, EIT
Engineering Intern

Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 221
Cell: (289) 541-8086

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Huron-Wendat Nation

From:	Jody Marks
To:	administration@cnhw.qc.ca
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:46:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, Huron Wendat Nation.pdf image003.png

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Preya Balgobin
Sent: November 10, 2021 2:46 PM
To: Dominic.Sainte-Marie@wendake.ca
Cc: jdegroote@innservices.co; Wendy Smeh; Jody Marks; Lori-Jeanne.Bolduc@wendake.ca
Subject: RE: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Attachments: 121031-2021-11-10-Huron Wendat Response-issued.pdf

Hello Mr. Sainte-Marie,

Please find our response to your questions in the attached letter. You can access the shapefiles from the County of Simcoe's web site. A link and instructions are provided in the letter.

Let us know if you have additional questions.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager
Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Sent: Friday, October 8, 2021 9:08 AM
To: Jody Marks <marks@ainleygroup.com>
Cc: Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>
Subject: RE: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement

Hi Jody,

Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will be necessary as part of this project?

Are there any shapefiles (.shp) available for this project?

Tiawenhk chia' önenh
Dominic Ste-Marie

ATTENTION: Please note that Maxime Picard has a new position at the Huron-Wendat Nation Council and is no longer in charge of Ontario consultations. Any new consultation from Ontario must be sent to Mario Gros-Louis (mario.groslouis@wendake.ca), Lori-Jeanne Bolduc (lori-jeanne.bolduc@wendake.ca) and Dominic Ste-Marie (dominic.ste-marie@wendake.ca).

For inquiries relating specifically to archaeology (fieldwork planning, monitoring, reports review, etc.), please contact Marie-Sophie Gendron (marie-sophie.gendron@wendake.ca), Isabelle Lechasseur (isabelle.lechasseur@wendake.ca) and Jean-François Richard (jean-francois.richard@wendake.ca).

De : Jody Marks <marks@ainleygroup.com>
Envoyé : 5 octobre 2021 11:47
À : Administration <Administration@wendake.ca>
Objet : InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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195 County Court Blvd., Suite 300, Brampton, ON L6W 4P7
Tel: (905) 452-5172 • www.ainleygroup.com

VIA EMAIL

November 10, 2021 File No. 121031

Huron-Wendat Nation
255 Place Chef Michel Laveau
Wendake, Quebec
G0A 4V0

Attn: Dominic Sainte-Marie

Re: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Response to Comments Received

Dear Mr. Sainte-Marie,

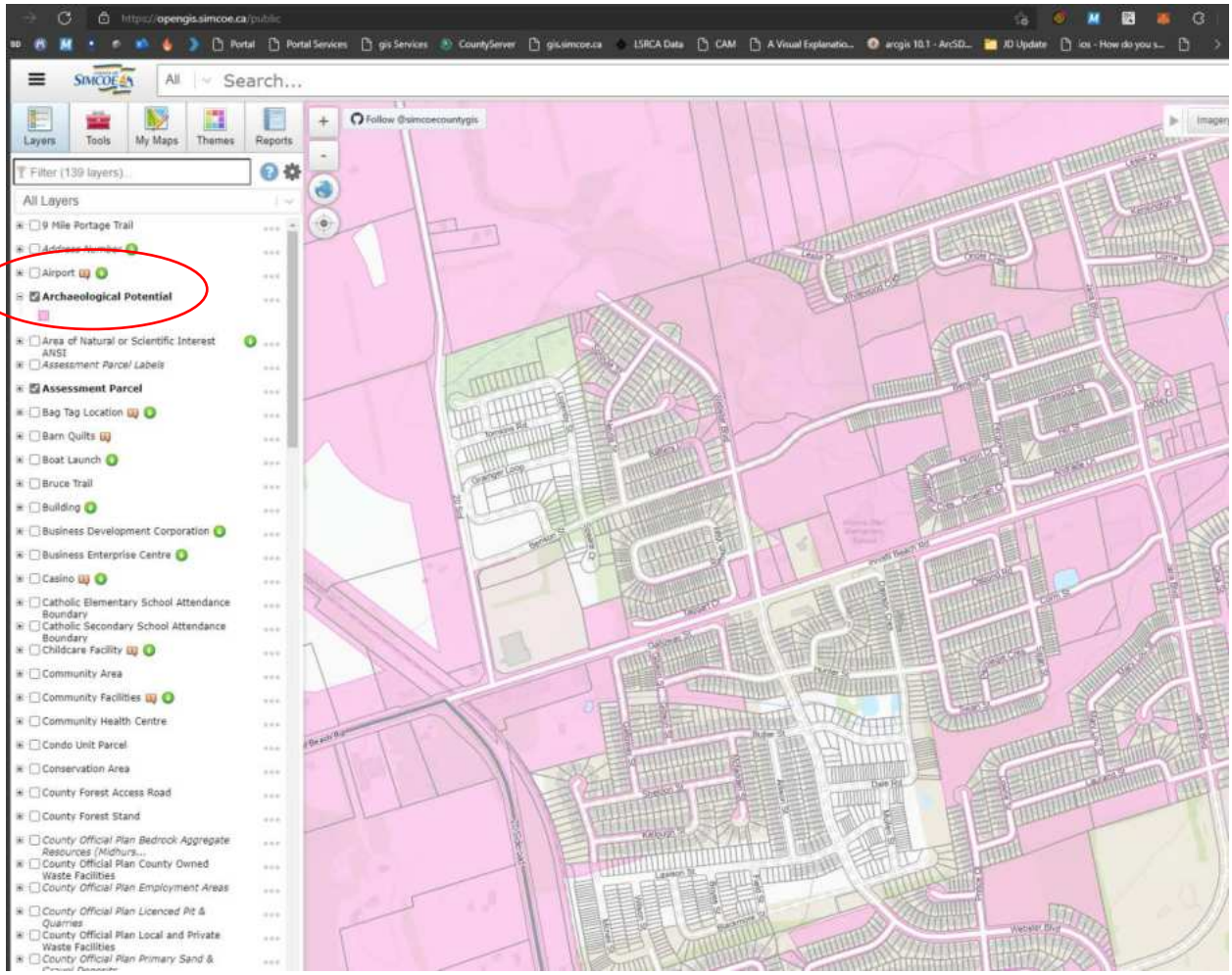
The Class Environmental Assessment (EA) for Innisfil Heights Sewage Pumping Station 6 (IH SPS6) will include a Stage 1 Archaeological Assessment and a Cultural Heritage assessment. We will provide you with a copy once completed.

If the Stage 1 Archaeological Assessment indicates that a Stage 2 assessment is necessary, the Stage 2 assessment will also be performed and its findings incorporated into the study. If any field work is required, you will be informed and there will be the opportunity for involvement.

The shapefiles for the project area can be reviewed by using the county's site and turning on the layers found in the public facing mapping, Interactive Map - County of Simcoe (GIS), as shown in the figure below. i.e., select the box for "Archeological Potential" from the list on the left side of the screen

Please note that we will be completing five SPS Class EA's over the next several months including IH SPS 1, IH SPS 2, IH SPS 6, Stroud and 20th Sideroad SPS. The shapefile is relevant to all of the Class EA's outlined herein.

If you have additional questions or require further assistance with this matter, please feel free to contact the undersigned.



Yours truly,

AINLEY & ASSOCIATES LIMITED

Preya Balgobin, P.Eng.
Project Manager

PB/wls/\\ag-barrie\ns1\Engineering\Collingwood\121031\6. Class EA Files\Consultation\1. IH SPS 6\1. Notice of Commencement\Responses to Comments Rec'd\121031-2021-11-02-Huron Wendat Response.docx

cc: Jenna DeGroote- InnServices (By Email)

Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:42 AM
To: administration@cnhw.qc.ca
Cc: Preya Balgobin; Wendy Smeh; jdegroote@innservices.co; Dominic.Sainte-Marie@wendake.ca
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Grand Chief Rémy Vincent,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Sent: June 16, 2022 4:04 PM
To: Wendy Smeh; Mario Gros Louis; Lori-Jeanne Bolduc
Cc: Jody Marks; Preya Balgobin; Jenna DeGroote; Marie-Sophie Gendron
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Ndio Wendy,

My colleague Marie-Sophie (cc'd) will be able to provide a quote and coordinate our participation to this project.

Tiawenhk chia' önenh
Dominic Ste-Marie

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Dominic Ste-Marie
Conseiller en gestion du territoire
255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
Téléphone : 418-843-3767
Courriel : dominic.ste-marie@wendake.ca

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ATTENTION: Please note that Maxime Picard has a new position at the Huron-Wendat Nation Council and is no longer in charge of Ontario consultations. Any new consultation from Ontario must be sent to Mario Gros-Louis (mario.groslouis@wendake.ca), Lori-Jeanne Bolduc (lori-jeanne.bolduc@wendake.ca) and Dominic Ste-Marie (dominic.ste-marie@wendake.ca).

For inquiries relating specifically to archaeology (fieldwork planning, monitoring, reports review, etc.), please contact Marie-Sophie Gendron (marie-sophie.gendron@wendake.ca), Isabelle Lechasseur (isabelle.lechasseur@wendake.ca) and Jean-François Richard (jean-francois.richard@wendake.ca).

De : Wendy Smeh <wendy.smeh@ainleygroup.com>
Envoyé : 13 juin 2022 11:11
À : Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca>; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>
Cc : Jody Marks <jody.marks@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Objet : RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Hi Dominic,

Yes, you would be able to send a on-site monitor during the Stage 2 archeological assessment. We will keep you advised about the timing.

Marie-Sophie, do you require further information about the locations that we are looking at? Please feel free to contact me to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

WWW.AINLEYGROUP.COM

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From: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Sent: June 8, 2022 4:16 PM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; jdegroote@innservices.co; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca >; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Ndio Wendy,

Is it possible for us to send a monitor on site for stage 2 archaeology? Is there funding available for the Huron-Wendat Nation to be involved?

My colleague Marie-Sophie (cc'd) will be able to provide a quote and coordinate our participation to this project.

Tiawenhk chia' önenh
Dominic Ste-Marie

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Dominic Ste-Marie
Conseiller en gestion du territoire
255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
Téléphone : 418-843-3767
Courriel : dominic.ste-marie@wendake.ca

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De : Wendy Smeh <wendy.smeh@ainleygroup.com>
Envoyé : 30 mai 2022 13:40
À : Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Cc : Preya Balgobin <preya.balgobin@ainleygroup.com>; jdegroote@innservices.co; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca>; Jody Marks <jody.marks@ainleygroup.com>
Objet : RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Hi Dominic,

A Stage 1 Archeological report and a Cultural Heritage report were completed as a part of the EA process and are attached.

The Stage 1 Archeological report shows that the recommended site alternative exhibits archeological resource potential and further investigation is required to confirm and develop mitigation measures. A Stage 2 archaeological assessment by pedestrian survey at five metre intervals has been recommended prior to any proposed construction activities.

The cultural heritage report confirms that there is no potential for cultural heritage impacts. The recommended site alternative is more than 50m from all heritage properties.

Please feel free to contact us if you have any questions or would like to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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From: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Sent: April 1, 2022 11:36 AM
To: Jody Marks <jody.marks@ainleygroup.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>; jdegroote@innservices.co; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Ndio' Jody,

Thank you for your email. Could you please let us know if any archaeological studies or fieldwork will be necessary as part of this project?

Tiawenhk chia' önenh
Dominic Ste-Marie

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Dominic Ste-Marie
Conseiller en gestion du territoire
255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
Téléphone : 418-843-3767
Courriel : dominic.ste-marie@wendake.ca

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De : Jody Marks <jody.marks@ainleygroup.com>
Envoyé : 31 mars 2022 10:42
À : Administration <Administration@wendake.ca>
Cc : Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>; jdegroote@innservices.co; Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Objet : InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Dear Grand Chief Rémy Vincent,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Beth Wang
Sent: August 30, 2024 1:05 PM
To: Marie-Sophie Gendron
Cc: Preya Balgobin; Dominique Lesage; Wendy Smeh; Jenna DeGroote
Subject: Rescheduled Field Investigation: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment

Good afternoon Marie-Sophie,

Hope all is well!

As Jenna from InnServices is currently on vacation, I wanted to let you know that the Stage 2 Archaeological Assessment field investigation has been rescheduled for Friday, September 6.

If you have any concerns, please let us know.

Regards,

Beth Wang, EIT
Engineering Intern
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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From: Jenna DeGroote <jdegroote@innservices.co>
Sent: August 20, 2024 4:06 PM
To: Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>
Cc: Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: Re: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

Good afternoon Marie-Sophie,

As a follow-up to my email below, the Stage 2 Archaeological Assessment has been scheduled for Thursday September 5th.

If this changes due to weather, we will contact you.

Thank you,

Jenna DeGroote, C.E.T.
Capital Project Manager



InnServices Utilities Inc.
705-791-9678
www.innservices.co

From: Jenna DeGroote <jdegroote_innservices.co@innservices.co>
Sent: Thursday, August 8, 2024 2:43 PM
To: Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>
Cc: Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

Good afternoon Marie-Sophie,

Thank you for sending your quote and for your interest in the Innisfil Heights SPS 6 Environmental Assessment.

InnServices is committed to fostering strong relationships with First Nation groups and are open to future meetings to assist in your review of our project.

Please note however that at this time, InnServices does not have an established First Nations consultation policy and will not be able to provide payment for fees including but not limited to capacity funding, review, and file fees.

The Huron-Wendat Nation is still welcome to attend the Stage 2 Archaeological Assessment on site. Alternatively, we can send the report from the Assessment once complete.

We are still about 2 to 3 weeks away from the Stage 2 Assessment taking place and will provide you with the exact date and time once confirmed.

Jenna DeGroote, C.E.T.
Capital Project Manager



InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON L9S 0J3
(705) 431-6870 Ext. 252
www.innservices.co

From: Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>
Sent: Tuesday, June 11, 2024 8:38 AM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Jenna DeGroote <jdegroote@innservices.co>; Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

You don't often get email from marie-sophie.gendron@wendake.ca. Learn why this is important

[EXTERNAL]

Kwe Wendy,

Please find attached a quote for the participation of the Huron-Wendat Nation on this project. My colleague Dominique (cc'd) is in charge of coordinating the presence of our field liaison. Once fieldwork details are available, please send them directly to her.

Tiawenhk,
Marie-Sophie

NATION HURONNE-WENDAT
BUREAU DU NIONWENTSÏO

Marie-Sophie Gendron
Analyste archéologue

255, place Chef Michel Laveau
Wendake (QC) G0A 4V0
T : 418 843-3767
@ : marie-sophie.gendron@wendake.ca

WENDAKE.CA

De : Wendy Smeh <wendy.smeh@ainleygroup.com>
Envoyé : 10 juin 2024 15:31
À : Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>
Cc : Jenna DeGroote <jdegroote@innservices.co>; Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>
Objet : RE: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

Hello Marie-Sophie,

The site work for pumping station 6 will take a maximum of one day to complete. The site is approximately 30m x 30m (proposed site plan attached).

Let us know if you have any questions and feel free to call me if you would like to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 435
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

My working hours may not be your working hours. Please do not feel obligated to respond to this e-mail outside of your normal working hours.

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_____

From: Marie-Sophie Gendron <Marie-Sophie.Gendron@wendake.ca>
Sent: June 6, 2024 12:57 PM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Jenna DeGroote <jdegroote@innservices.co>; Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Dominique Lesage <Dominique.Lesage@wendake.ca>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

Vous ne recevez pas souvent de courriers de la part de marie-sophie.gendron@wendake.ca. Découvrez pourquoi cela est important

Kwe Wendy,

I hope this email finds you doing well. Thank you for your email. Could you tell me the estimated duration of the project? It will help me to produce an accurate quote for our participation.

Tiawenhk inenh,
Marie-Sophie

NATION HURONNE-WENDAT
BUREAU DU NIONWENTSÏO

Marie-Sophie Gendron
Analyste archéologue

255, place Chef Michel Laveau
Wendake (QC) G0A 4V0
T : 418 843-3767
@ : marie-sophie.gendron@wendake.ca

WENDAKE.CA

De : Wendy Smeh <wendy.smeh@ainleygroup.com>
Envoyé : 5 juin 2024 16:01
À : Dominic Ste-Marie <Dominic.Ste-Marie@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca>; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>
Cc : Jenna DeGroote <jdegroote@innservices.co>; Beth Wang <beth.wang@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Objet : InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archeological Assessment

> You don't often get email from wendy.smeh@ainleygroup.com. Learn why this is important

Good afternoon Dominic,

Further to our correspondence below, we are currently working to finalize the Environmental Assessment for the Innisfil Heights SPS 6 EA located at 7535 10 Sideroad, Innisfil..

We previously provided the Stage 1 Archeological Assessment reports to you during this EA. In response, it was noted that you would like a representative present for the Stage 2 field work.

We are presently coordinating with ASI, our archeological consultant, to complete the Stage 2 field work. The Stage 2 field work for IH SPS 6 will likely be scheduled within the next 2-3 weeks. The field is now dry enough and the tenant farmer has completed disk harrowing of the field.

We wanted to provide you with notice ahead of the work and pending field conditions. We will try to make the timelines work between all parties as best possible.

If you have any questions or concerns, please let us know.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 435
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: June 13, 2022 11:11 AM
To: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>; Mario.GrosLouis@wendake.ca; Lori-Jeanne.Bolduc@wendake.ca
Cc: Jody Marks <jody.marks@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Jenna DeGroote

<jdegroote@innservices.co>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Hi Dominic,

Yes, you would be able to send a on-site monitor during the Stage 2 archeological assessment. We will keep you advised about the timing.

Marie-Sophie, do you require further information about the locations that we are looking at? Please feel free to contact me to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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From: Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Sent: June 8, 2022 4:16 PM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; jdegroote@innservices.co; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca >; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Ndio Wendy,
Is it possible for us to send a monitor on site for stage 2 archaeology? Is there funding available for the Huron-Wendat Nation to be involved?
My colleague Marie-Sophie (cc'd) will be able to provide a quote and coordinate our participation to this project.
Tiawenhk chia' önenh
Dominic Ste-Marie

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Dominic Ste-Marie
Conseiller en gestion du territoire
255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
Téléphone : 418-843-3767
Courriel : dominic.ste-marie@wendake.ca

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Envoyé : 30 mai 2022 13:40
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Sent: April 1, 2022 11:36 AM
To: Jody Marks <jody.marks@ainleygroup.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>; jdegroote@innservices.co; Lori-Jeanne Bolduc <Lori-Jeanne.Bolduc@wendake.ca>; Mario Gros Louis <Mario.GrosLouis@wendake.ca>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

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Tiawenhk chia' önenh
Dominic Ste-Marie

NATION HURONNE-WENDAT
Bureau du Nionwentsïo

Dominic Ste-Marie
Conseiller en gestion du territoire
255, Place Chef Michel-Laveau
Wendake (Qc) G0A 4V0
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Courriel : dominic.ste-marie@wendake.ca

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De : Jody Marks <jody.marks@ainleygroup.com>
Envoyé : 31 mars 2022 10:42
À : Administration <Administration@wendake.ca>
Cc : Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>; jdegroote@innservices.co; Dominic Ste-Marie <Dominic.Sainte-Marie@wendake.ca>
Objet : InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

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Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Beth Wang
Sent: November 8, 2024 4:47 PM
To: administration@cnhw.qc.ca
Cc: Dominic.Sainte-Marie@wendake.ca; Jenna DeGroote; Wendy Smeh; Preya Balgobin
Subject: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment Report
Attachments: 24EA-075 Stage 2 AA Report.pdf

Dear Grand Chief Rémy Vincent,

InnServices Utilities Inc. has retained Ainley Group to conduct a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options for constructing the proposed Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to serve the Innisfil Heights economic district.

As recommended in the Stage 1 Archaeological Assessment report submitted on May 30, 2022, a Stage 2 Archaeological Assessment is required at the preferred location, 7535 Tenth Sideroad, Innisfil.

Attached is the IH SPS 6 Stage 2 Archaeological Assessment report. Please let us know if you have any comments or questions.

Regards,

Beth Wang, EIT
Engineering Intern
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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Métis Nation of Ontario (MNO)

From:	Jody Marks
To:	consultations@metisnation.org; JustinH@metisnation.org
Cc:	DavidD@metisnation.org
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:45:00 AM
Attachments:	121031 Notice of Study Commencement.pdf Notice of Study Commencement-Cover Letter, MNO.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Consultations <Consultations@metisnation.org>
Sent: October 5, 2021 11:45 AM
To: Jody Marks
Subject: Automatic reply: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement

This is an automatically generated response from consultations@metisnation.org. Please do no reply to this e-mail address.

The MNO is adjusting standard work practices due to the Covid-19 outbreak and to better enable staff to work remotely. **Please note that the MNO's Lands, Resources and Consultations (LRC) Branch will no longer review hard copy consultation notices mailed to MNO offices.** The LRC Branch will review all electronic notices and process them in accordance with our standard operating procedures. All consultation notices must be sent electronically to consultations@metisnation.org.

The Métis Nation of Ontario's LRC Branch acknowledges your information notice. The MNO reserves the right to request additional information, meetings and consultations in respect of the project should the MNO deem it to be necessary.

For additional information pertaining to consulting with Ontario Métis please visit the MNO web site at: https://www.metisnation.org/programs-and-services/lands-resources-consultations/duty-to-consult/

Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:42 AM
To: consultations@metisnation.org
Cc: JustinH@metisnation.org; DavidD@metisnation.org; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Hello,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Saugeen Ojibway Nation

(as the consultation contact for Saugeen First Nation and Chippewas of Nawash Unceded First Nation)

From:	Jody Marks
To:	emily.martin@saugeenojibwaynation.ca
Cc:	sfn@saugeen.org; chief.veronica@nawash.ca
Subject:	InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date:	Tuesday, October 5, 2021 11:43:00 AM
Attachments:	Notice of Study Commencement-Cover Letter, Saugeen Ojibway Nation.pdf 121031 Notice of Study Commencement.pdf image003.png

---

Hello,

Please refer to the attached Class Environmental Assessment consultation documents.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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From: Emily Martin
To: Jody Marks
Cc: Juanita Meekins
Subject: Re: InnServices Utilities Inc. - Class Environmental Assessment IH SPS 6 - Notice of Study Commencement
Date: November 1, 2021 3:41:50 PM
Attachments: image003.png

Hi Jody, I am looking into this further, but my sense is this won't be a priority for our office and we won't be able to engage further.
Thanks,
Emily

On Tue, Oct 5, 2021 at 11:43 AM Jody Marks <marks@ainleygroup.com> wrote:

> Hello,
>
> Please refer to the attached Class Environmental Assessment consultation documents.
>
> Thank you.
>
> Regards,
>
> Jody Marks
>
> Environmental Planner
>
> www.ainleygroup.com
>
> Tel: (705) 726-3371 Ext. 227
>
> ---
>
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>
> ---

Beth Wang

From: Jody Marks
Sent: March 31, 2022 10:44 AM
To: emily.martin@saugeenojibwaynation.ca
Cc: juanita.meekins@saugeenojibwaynation.ca; sfn@saugeen.org; chief.veronica@nawash.ca; Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Attachments: IH SPS 6 - Notice of PIC - FINAL.pdf

Dear Emily Martin,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
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From: Emily Martin
To: Jody Marks
Subject: Re: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre
Date: April 11, 2022 9:52:13 AM
Attachments: image002.png

Aanii/Hello,

Thank you for reaching out to the Saugeen Ojibway Nation's Environment Office. The project you contacted us about is outside of SON Territory so we will not be participating in consultation.

For future reference, more information about the Saugeen Ojibway Nation's territory and consultation requirements can be found here:
https://www.saugeenojibwaynation.ca/resources

Kind regards,
Emily

Emily Martin (she/her)
Resources and Infrastructure Manager
manager.ri@saugeenojibwaynation.ca
T: (519) 379-0849

I am grateful to live, work, and benefit from the Territorial lands and waters of the Saugeen Ojibway Nation.



10129 Hwy 6 Georgian Bluffs, ON
N0H 2T0
saugeenojibwaynation.ca

Emily Martin (she/her)
Resources and Infrastructure Manager
manager.ri@saugeenojibwaynation.ca
T: (519) 379-0849

I am grateful to live, work, and benefit from the Territorial lands and waters of the Saugeen Ojibway Nation.



10129 Hwy 6 Georgian Bluffs, ON
N0H 2T0
saugeenojibwaynation.ca

On Thu, Mar 31, 2022 at 10:43 AM Jody Marks <jody.marks@ainleygroup.com> wrote:

> Dear Emily Martin,
>
> InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.
>
> Please refer to the Notice for detailed information on how to view the presentation material and the timeline for providing comments/questions.
>
> Thank you.
>
> Regards,
>
> Jody Marks
>
> Environmental Planner



Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

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Haudenosaunee Development Institute

Beth Wang

From: Sarah Jagelewski <sjagelewski@asiheritage.ca>
Sent: September 16, 2024 3:13 PM
To: Wendy Smeh; Beth Wang
Cc: Jason Barrett
Subject: RE: HDI Engagement - 3 Projects

Hi Wendy,

We did let HDI know that the fieldwork is complete. I assume at the very least they will want to review the report and provide comments. I am not sure what the fee is for this task.

We have engaged with HDI TO very recently for a project in Peel.

Sarah Jagelewski, BA (Hon) (She/Her)
Lead Archaeologist | Manager • Environmental Assessment Division

ASI • Providing Archaeological & Cultural Heritage Services
SJagelewski@asiheritage.ca • 416 966 1069 x 237 • Fax: 416 966 9723
528 Bathurst Street, Toronto, Ontario, M5S 2P9 • asiheritage.ca

---

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: September 16, 2024 2:57 PM
To: Sarah Jagelewski <sjagelewski@asiheritage.ca>; Beth Wang <beth.wang@ainleygroup.com>
Cc: Jason Barrett <jbarrett@asiheritage.ca>
Subject: RE: HDI Engagement - 3 Projects

Hi Sarah,

Thanks for advising. Now that the field work is done, what is required of this agreement? Have you engaged with them before? How will HDI be participating?

We will forward to InnServices for review and action.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP
Tel: (705) 445-3460 Ext. 435
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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From: Sarah Jagelewski <sjagelewski@asiheritage.ca>
Sent: September 16, 2024 9:14 AM
To: Beth Wang <beth.wang@ainleygroup.com>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Jason Barrett <jbarrett@asiheritage.ca>
Subject: FW: HDI Engagement - 3 Projects

Hi Beth,

We've been contacted by HDI TO who wish to be engaged in the Stage 2 survey. Their request came after the fieldwork was completed. See email below and monitoring agreement attached.

Thank you,
Sarah

Sarah Jagelewski, BA (Hon) (She/Her)
Lead Archaeologist | Manager • Environmental Assessment Division

ASI • Providing Archaeological & Cultural Heritage Services
SJagelewski@asiheritage.ca • 416 966 1069 x 237 • Fax: 416 966 9723
528 Bathurst Street, Toronto, Ontario, M5S 2P9 • asiheritage.ca

---

From: Lisa Merritt <lmerritt@asiheritage.ca>
Sent: September 11, 2024 9:52 AM
To: Sarah Jagelewski <sjagelewski@asiheritage.ca>; Eliza Brandy <ebrandy@asiheritage.ca>
Subject: FW: HDI Engagement - 3 Projects

Lisa Merritt, MSc
Partner | Director • Environmental Assessment Division

ASI • Providing Archaeological & Cultural Heritage Services
LMerritt@asiheritage.ca • 416 966 1069 x 233 • Fax: 416 966 9723
528 Bathurst Street, Toronto, Ontario, M5S 2P9 • asiheritage.ca

---

From: Emma Kameka <emma@hdito.com>
Sent: Tuesday, September 10, 2024 10:40 AM
To: Lisa Merritt <lmerritt@asiheritage.ca>; Lisa Merritt <lmerritt@yandataarchaeology.ca>
Cc: Rae Lumsdon <rae@hdito.com>; Aaron Detlor <aaron@detlorlaw.com>; Adam Zachariah <adam@hdito.com>; Todd Williams <toddwilliams@hdi.land>; Cristina McCoy <cristina@mccoyarchservices.com>; Brian Doolittle <ganowa@me.com>; Archaeology (MCM) <archaeology@ontario.ca>
Subject: HDI Engagement - 3 Projects

Good morning Ms. Merritt,

I hope this message finds you well.

I am reaching out on behalf of the Haudenosaunee Development Institute regarding 3 projects that you are listed as the archeologist for:

- SPS 6 (24EA-075), PIF ID: 127285
- Halton WM (24EA-053), PIF ID: 127250
- Winston Churchill Boulevard (24EA-148), PIF ID: 127223

HDI is within its rights to participate in all stages of these projects. Attached, you will find a standard monitoring agreement that we kindly request to be signed by the proponent prior to the commencement of the work. For your convenience I have included the three separate projects to cover in this email, however I would like to clarify that I will need separate monitor agreements signed by the project's respective proponents as well as the project information below for each individual project.

Could you please provide the following information at your earliest convenience for each project?

- Project Name:
- Project Address:
- Project Contact Details:
- Billing Contact:
- Billing Contact Details:
- Proponent Name:
- Proponent Contact Details:
- Any prior archeology reports & relevant documents

Best regards,
Emma Kameka
Business Manager of Monitoring and Archaeology
emma@hdito.com
Haudenosaunee Development Institute

Beth Wang

From: Beth Wang
Sent: November 8, 2024 5:11 PM
To: emma@hdito.com
Cc: Jenna DeGroote; Wendy Smeh; Preya Balgobin
Subject: InnServices, Municipal Class EA IH SPS 6 - Stage 2 Archaeological Assessment Report
Attachments: 24EA-075 Stage 2 AA Report.pdf

Good afternoon Emma,

InnServices Utilities Inc. has retained Ainley Group to conduct a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options for constructing the proposed Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to serve the Innisfil Heights economic district.

Our subconsultant, Archaeological & Cultural Heritage Services (ASI), has recently informed us that HDI has expressed interest in participating in the Stage 2 Archaeological Assessment at the preferred location, 7535 Tenth Sideroad, Innisfil. Fieldwork for this assessment was completed on Friday, September 6, 2024. For your review, we have attached the Stage 2 Archaeological Assessment report for IH SPS 6.

Please note that InnServices will not cover any costs related to the review of this document. We kindly ask that you inform us if you have any comments or concerns.

Regards,

Beth Wang, EIT
Engineering Intern
Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 321
Cell: (289) 541-8086

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Consultation Records with Agencies

From:	Jody Marks
Cc:	Preya Balgobin; Wendy Smeh; jdegroote@innservices.co
Bcc:	aadnc.infopubs.aandc@canada.ca; Peter.Dorton@ontario.ca; justin.white@ontario.ca; chunmei.liu@ontario.ca; cindy.hood@ontario.ca; brad.allen@ontario.ca; shawn.carey@ontario.ca; Ken.mott@ontario.ca; karla.barboza@ontario.ca; darryl.lyons@ontario.ca; andrew.theoharis@ontario.ca; tony.amalfa@ontario.ca; tcane@innisfil.ca; gshaparew@innisfil.ca; nbowman@innisfil.ca; ldollin@innisfil.ca; ddavidson@innisfil.ca; ccautillo@innisfill.ca; tpanak@innservices.co; rbadam@innservices.co; bpaudel@innservices.co; ceo@innservices.co; rscheunemann@barrie.ca; Sherry.Diemert@barrie.ca; rvatri@newtecumseth.ca; mramdeo@townofbwg.com; deborah.korolnek@simcoe.ca; jpegg@innisfil.ca; hspacek@scdsb.on.ca; kdpechkovsky@smcdsb.on.ca; Bill.Kemeny@smdhu.org; andrew.fletcher@southsimcoepolice.ca; r.baldwin@lsrca.on.ca; t.hogenbirk@lsrca.on.ca; angela.taylor@bell.ca; w.d.kloostra@hydroone.com; dannyp@innpower.ca; David.Smith@enbridge.com; utility.circulations@mstallstream.com; gmcpherson@rogers.com; darlene@lehmanplan.ca; skorpal@tnpi.ca; jason.ryan@gotransit.com; memadeley@innisfilchamber.com; kjacob@innisfil.ca; imccutcheon@grnland.com; acleaves@pearsoneng.com; bstanton@tathameng.com
Subject:	Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Date:	Thursday, September 16, 2021 2:31:00 PM
Attachments:	121031 Notice of Study Commencement.pdf image003.png

Dear Sir/and or Madam,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

Please refer to the attached copy of the Notice of Commencement for further details regarding the project. Further correspondence regarding this project will follow in the coming months.

Thank you.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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From:	Jody Marks
Bcc:	ccautillo@innisfil.ca; kdpechkovsky@smcdsb.on.ca; walter.kloostra@hydroone.com; bthomas@innisfil.ca; dan.l.thompson@ontario.ca; Aldo.Ingraldi@ontario.ca; t.hogenbirk@lsrca.on.ca; Rob.Elliott@simcoe.ca
Subject:	Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Date:	Thursday, September 16, 2021 5:10:00 PM
Attachments:	121031 Notice of Study Commencement.pdf image003.png

Dear Sir/and or Madam,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

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Thank you.

Regards,

Jody Marks
Environmental Planner

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Tel: (705) 726-3371 Ext. 227

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Jody Marks

From: Dorton, Peter (MTO) <Peter.Dorton@ontario.ca>
Sent: Thursday, September 16, 2021 3:13 PM
To: Jody Marks
Cc: Preya Balgobin; Wendy Smeh; jdegroote@innservices.co; Vandenberg, Robert (MTO); Grobel, Lukasz (MTO); Kandiah, Nanda (MTO); Francolini, William (MTO)
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Attachments: 121031 Notice of Study Commencement.pdf

Hi Jody.

The Innisfil Heights Sewage Pumping Station 6 Study Area is beyond MTO's permit control area.

MTO review and approvals are not required.

Peter Dorton
Senior Project Manager
Ministry of Transportation
Central Operations, Highway Corridor Management Section
159 Sir William Hearst Avenue, 7th Floor Toronto, ON M3M 0B7
Cell: (437) 833 - 9396
E-Mail: peter.dorton@ontario.ca
Web: www.mto.gov.on.ca/english/engineering/management/corridor

---

From: Jody Marks <marks@ainleygroup.com>
Sent: September 16, 2021 2:31 PM
Cc: Preya Balgobin <balgobin@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>; jdegroote@innservices.co
Subject: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

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Dear Sir/and or Madam,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

Please refer to the attached copy of the Notice of Commencement for further details regarding the project. Further correspondence regarding this project will follow in the coming months.

Thank you.

Regards,

Jody Marks
Environmental Planner

www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Jody Marks

From: Harvey, Joseph (MHSTCI) <Joseph.Harvey@ontario.ca>
Sent: Tuesday, October 12, 2021 12:05 PM
To: Preya Balgobin
Cc: Barboza, Karla (MHSTCI); Minkin, Dan (MHSTCI); jdegroote@innservices.com; Jody Marks
Subject: File 0015135: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Attachments: 2021-10-12_InnisfilHeightsSewage-MHSTCI-Ltr.pdf

Preya Balgobin,

Pleas find attached MHSTCI's initial advice on the above referenced undertaking. Contact Dan Minkin with any further questions or concerns.

Regards,

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Ministry of Heritage, Sport, Tourism and Culture Industries

Programs and Services Branch
400 University Ave, 5th Flr
Toronto, ON M7A 2R9
Tel: 416.786.7553

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

Direction des programmes et des services
400, av. University, 5e étage
Toronto, ON M7A 2R9
Tél: 416.786.7553

Ontario

October 12, 2021 EMAIL ONLY

Preya Balgobin, P.Eng.
Senior Project Manager
Ainley Group
280 Pretty River Parkway
Collingwood, ON L9Y 4J5
balgobin@ainleygroup.com

MHSTCI File	**:**	**0015135**
Proponent	**:**	**Inn Services Utilities Inc**
Subject	**:**	**Notice of Study Commencement – MCEA Schedule B**
Project	**:**	**Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)**
Location	**:**	**Town of Innisfil**

Dear Preya Balgobin:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Notice of Study Commencement for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage.

Under the EA process, the proponent is required to determine a project's potential impact on known (previously recognized) and potential cultural heritage resources.

Project Summary
This Notice of Commencement is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6). InnServices has retained Ainley Group to complete and document a Schedule B Class EA in accordance with the Municipal Class Environmental Assessment Document, October 2000, as amended in 2015.

Identifying Cultural Heritage Resources
While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation.

Archaeological Resources
This EA project may impact archaeological resources and should be screened using the MHSTCI *Criteria for Evaluating Archaeological Potential* to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at *archaeology@ontario.ca*. If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *Ontario Heritage Act (OHA)*, who is responsible for submitting the report directly to MHSTCI for review.

Built Heritage Resources and Cultural Heritage Landscapes
A Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment will be undertaken for the entire study area during the planning phase and will be summarized in the EA Report. This study will:

1. Describe the existing baseline cultural heritage conditions within the study area by identifying all known or potential built heritage resources and cultural heritage landscapes, including a historical summary of the study area. MHSTCI has developed screening criteria that may assist with this exercise: *Criteria for Evaluating for Potential Built Heritage Resources and Cultural Heritage Landscapes*.

2. Identify preliminary potential project-specific impacts on the known and potential built heritage resources and cultural heritage landscapes that have been identified. The report should include a description of the anticipated impact to each known or potential built heritage resource or cultural heritage landscape that has been identified.

3. Recommend measures to avoid or mitigate potential negative impacts to known or potential built heritage resources and cultural heritage landscapes. The proposed mitigation measures are to inform the next steps of project planning and design.

Given that this project covers a large study area, MHSTCI recommends that the Cultural Heritage Report is carried out so that step 1 described above is undertaken early in the planning process. Then, steps 2 and 3 can be undertaken once the preferred alternatives have been selected.

Cultural Heritage Reports will be undertaken by a qualified person who has expertise, recent experience, and knowledge relevant to the type of cultural heritage resources being considered and the nature of the activity being proposed.

Community input should be sought to identify locally recognized and potential cultural heritage resources. Sources include, but are not limited to, municipal heritage committees, historical societies and other local heritage organizations.

Cultural heritage resources are often of critical importance to Indigenous communities. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to them.

Environmental Assessment Reporting
All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification please contact Dan Minkin.

Sincerely,

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Copied to: Jenna DeGroote, Capital Project Manager, InnServices Utilities Inc.
Jody Marks, Environmental Planner, Ainley Group

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

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

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

Beth Wang

From: Info Pubs <infopubs@sac-isc.gc.ca>
Sent: December 3, 2021 1:37 PM
To: Jody Marks
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Your message has been redirected to the appropriate team

Regards,

Colin

Centre de contacts de demandes de renseignements du public / Direction générale de la gestion de l'information
Relations Couronne-Autochtones et Affaires du Nord Canada (RCAANC) et Services aux Autochtones Canada (SAC) / Gouvernement du Canada
aadnc.infopubs.aandc@canada.ca / Tél. : 1-800-567-9604 / ATS: 1-866-553-0554
Public Enquiries Contact Centre / Information Management Branch
Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) and Indigenous Services Canada (ISC) / Government of Canada
aadnc.infopubs.aandc@canada.ca / Tel. : 1-800-567-9604 / TTY: 1-866-553-0554

From: Jody Marks <marks@ainleygroup.com>
Sent: Thursday, September 16, 2021 2:31 PM
Cc: Preya Balgobin <balgobin@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>; jdegroote@innservices.co
Subject: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Dear Sir/and or Madam,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

Please refer to the attached copy of the Notice of Commencement for further details regarding the project. Further correspondence regarding this project will follow in the coming months.

Thank you.

Regards,

Jody Marks
Environmental Planner
Ainley 60 YEARS
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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Beth Wang

From: Preya Balgobin
Sent: November 1, 2021 6:06 PM
To: Ralph Scheunemann
Cc: Jody Marks; Wendy Smeh; Jenna DeGroote (jdegroote@innservices.co)
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment
Attachments: 121031-City of Barrie Response-Notice of Commencement-2nd Question-issued-1Nov2021.pdf

Hello Mr. Scheunemann,

Please find attached, our response to your follow-up question about the IH SPS 6.

Should you have additional questions, please feel free to contact us.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

Ainley
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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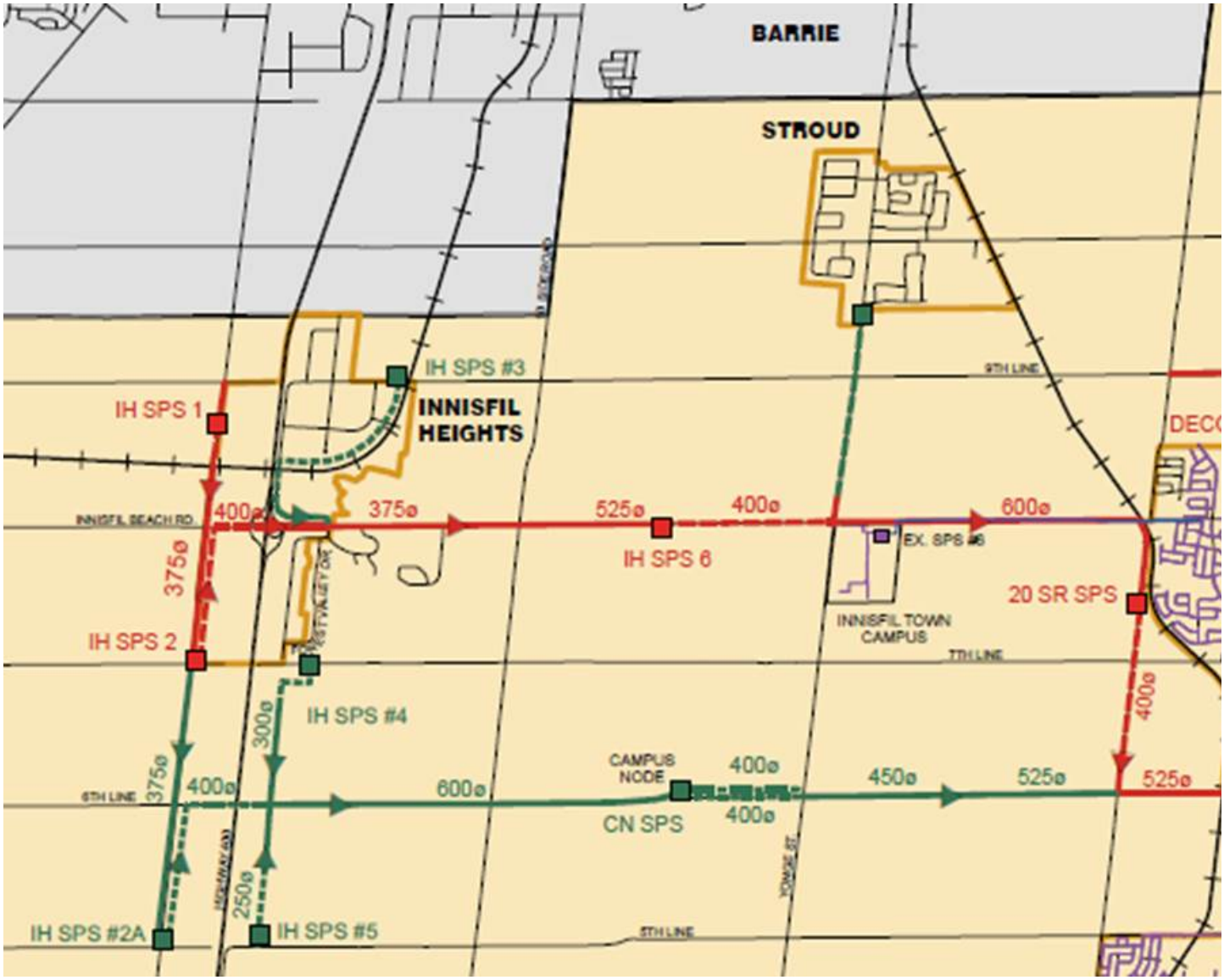
From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: October 6, 2021 8:05 AM
To: Preya Balgobin <balgobin@ainleygroup.com>
Cc: Jody Marks <marks@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>; Jenna DeGroote (jdegroote@innservices.co) <jdegroote@innservices.co>
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Thanks for the letter and clarification Preya.

Please note that an area greater than what is suggested in the Innisfil Master Servicing Plan (see catchment associated with IH SPS #3 in the figure below) could potentially be serviced by gravity from Barrie which could affect the ultimate sizing of the IH SPS 6.

I'm curious about one thing. If I understand the map below correctly, the 20 SR sewage pump station and New SPS#2 pump station are ultimately needed to service the IH SPS 6. What is the status of those pump station EA approvals? Is there an interim option that doesn't require the 20 SR SPS and the upgrades associated with the New SPS#2? I assume there potentially is otherwise the existing SPS #6 servicing the Innisfil Town Campus wouldn't work.

Have a good day.



From: Preya Balgobin <balgobin@ainleygroup.com>
Sent: Tuesday, October 5, 2021 6:05 PM
To: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Cc: Jody Marks <marks@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>; Jenna DeGroote (jdegroote@innservices.co) <jdegroote@innservices.co>
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Hello Mr. Scheunemann,

Thank you for your feedback on the Notice of Commencement. Please find our formal response in the attached letter.

Please feel free to reach out to us again if you have other questions or need clarifications on this response.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: Thursday, September 16, 2021 2:38 PM
To: Jody Marks <marks@ainleygroup.com>
Subject: RE: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Hi Jody, the map in the attached notice is out of date and include the Hewitt's and Salem Secondary Plan Areas which were annexed by Barrie in 2010. Also, I thought that Innisfil was interested in revisiting servicing from Barrie, will that be looked at in a separated study our does the Study Area in the attached map also need to be updated?

From: Jody Marks <marks@ainleygroup.com>
Sent: Thursday, September 16, 2021 2:31 PM
Cc: Preya Balgobin <balgobin@ainleygroup.com>; Wendy Smeh <smeh@ainleygroup.com>; jdegroote@innservices.co
Subject: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Dear Sir/and or Madam,

InnServices Utilities Inc. completed a Master Servicing Plan (MSP) update in 2018 which identified short- and long-term strategies for water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018). The MSP recommended construction of five new sewage pumping stations (SPS) to service the Innisfil Heights economic district.

Please refer to the attached copy of the Notice of Commencement for further details regarding the project. Further correspondence regarding this project will follow in the coming months.

Thank you.

Regards,

Jody Marks
Environmental Planner
www.ainleygroup.com
Tel: (705) 726-3371 Ext. 227

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AINLEY & ASSOCIATES LIMITED
195 County Court Blvd., Suite 300, Brampton, ON L6W 4P7
Tel: (905) 452-5172 • www.ainleygroup.com

VIA EMAIL

October 5, 2021 File No. 121031

City of Barrie
70 Collier Street, Box 400
Barrie, ON
L4M 4T5

Attn: Mr. Ralph Scheunemann
Sr. Infrastructure Planning Engineer

Re: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Dear Mr. Scheunemann,

Thank you for advising us regarding the mapping boundaries. We have revised the boundary and will ensure that the updated map is used moving forward.

This environmental assessment is for one of the sewage pumping stations outlined in the 2018 Master Servicing Plan's preferred solution for the Innisfil Heights economic area only. The preferred solution identifies Option 6B - Establish a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road' for the first phase of Development. InnServices will be working on a 2022 MSP update which will re-visit the servicing to Barrie Option for Stroud and Innisfil Heights.

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED

Preya Balgobin, P.Eng.
Project Manager

XXX/Document5

cc: Jenna DeGroote- InnServices (By Email)

AINLEY & ASSOCIATES LIMITED
195 County Court Blvd., Suite 300, Brampton, ON L6W 4P7
Tel: (905) 452-5172 • www.ainleygroup.com

VIA EMAIL

November 1, 2021 File No. 121031

City of Barrie
70 Collier Street, Box 400
Barrie, ON
L4M 4T5

Attn: Mr. Ralph Scheunemann
Sr. Infrastructure Planning Engineer

Re: Notice of Commencement – Innisfil Heights Sewage Pumping Station 6, Class Environmental Assessment

Dear Mr. Scheunemann,

Thank you for providing us with more information regarding the potential catchment area that could be serviced by gravity from the City of Barrie.

With respect to your questions;

- New SPS 2 - The Class EA for New SPS 2 is completed and the SPS is currently under construction with an approximate completion date of February 2022. Firm capacity for Phase 1 (current phase) of the new SPS 2 is 355 L/s. Phase 2 (future phase) will add additional firm capacity of 355 L/s to reach a planned capacity of 710 L/s.

- 20th Sideroad SPS - the Notice of Study Commencement for the 20th Sideroad SPS will be issued next week.

There are five SPS Class EA's that we will be completing over the next several months including IH SPS 1, IH SPS 2, IH SPS 6, Stroud and 20th Sideroad SPS. Existing SPS 6 at Innisfil Town Campus is already connected to the existing system, however, there is not an interim option for the Innsifil Heights or Stroud servicing areas.

If you have additional questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED



Preya Balgobin, P.Eng.
Project Manager

XXX/Document5

cc: Jenna DeGroote- InnServices (By Email)

Beth Wang

From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: March 31, 2022 12:00 PM
To: Preya Balgobin
Cc: Kelly Oakley; Wendy Smeh; Jody Marks; Jenna DeGroote (jdegroote@innservices.co)
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Understood. Thanks for the update.

From: Preya Balgobin <preya.balgobin@ainleygroup.com>
Sent: March 31, 2022 11:56 AM
To: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Cc: Kelly Oakley <Kelly.Oakley@barrie.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote (jdegroote@innservices.co) <jdegroote@innservices.co>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Hi Ralph,

If the updated MSP recommends servicing from Barrie, it would take the existing capacity of the system into consideration and include recommendations for increasing capacity if that is found to be necessary at that time.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: March 31, 2022 11:53 AM
To: Preya Balgobin <preya.balgobin@ainleygroup.com>
Cc: Kelly Oakley <Kelly.Oakley@barrie.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote (jdegroote@innservices.co) <jdegroote@innservices.co>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Thanks again Preya, sounds like your Class EA might be finished before the Master Servicing Plan is updated. What if the Master Servicing Plan recommends servicing from Barrie?

From: Preya Balgobin <preya.balgobin@ainleygroup.com>
Sent: March 31, 2022 11:50 AM

To: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Cc: Kelly Oakley <Kelly.Oakley@barrie.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>; Jenna DeGroote (jdegroote@innservices.co) <jdegroote@innservices.co>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Hi Ralph,

Servicing from Barrie is not part of this Class EA and will be looked at again in the next Master Servicing Plan update. Please refer to our previous response attached.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager
www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: March 31, 2022 11:43 AM
To: Preya Balgobin <preya.balgobin@ainleygroup.com>
Cc: Kelly Oakley <Kelly.Oakley@barrie.ca>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Hi Preya, thanks and understood. For some reason I thought you were further along than that. Is servicing from Barrie one of the alternatives being considered?

From: Preya Balgobin <preya.balgobin@ainleygroup.com>
Sent: March 31, 2022 11:40 AM
To: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Cc: Wendy Smeh <wendy.smeh@ainleygroup.com>; Jody Marks <jody.marks@ainleygroup.com>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre-Response to City of Barrie

Hi Ralph,

The Class EA is going to propose a few locations for consideration. Those options are currently being developed and will be presented at the PIC on April 21st. The final option will be selected after the PIC, based on feedback from all stakeholders (public, agencies, InnServices, first nations, etc.).

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Ralph Scheunemann <Ralph.Scheunemann@barrie.ca>
Sent: Thursday, March 31, 2022 10:51 AM
To: Jody Marks <jody.marks@ainleygroup.com>
Cc: Kelly Oakley <Kelly.Oakley@barrie.ca>
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Thanks Jody, where will the PS be located? Is there a document I can review?

From: Jody Marks <jody.marks@ainleygroup.com>
Sent: March 31, 2022 10:32 AM
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; jdegroote@innservices.co; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Hello,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM
****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Beth Wang

From: Brent Thomas <bthomas@innisfil.ca>
Sent: April 1, 2022 10:47 AM
To: Jody Marks
Cc: Preya Balgobin; Jenna DeGroote; Wendy Smeh
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

No initial concerns from Fire at this time Jody.

Brent Thomas
Fire Chief
Town of Innisfil/Town of Bradford West Gwillimbury
705-436-3710 ext. 4801 | 1-888-436-3710 (toll free)

This information is intended only for the person, persons, entity, or entities to which it is addressed; does not necessarily represent the views of the Town of Innisfil; may contain information that is privileged, confidential or exempt from disclosure under the Municipal Freedom of Information and Protection of Privacy Act. If the reader is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by return e-mail and delete the correspondence from your computer.

From: Jody Marks <jody.marks@ainleygroup.com>
Sent: March 31, 2022 10:32 AM
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

[EXTERNAL]

Hello,

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule B Municipal Class Environmental Assessment (Class EA) to evaluate options to construct a new sewage pumping station to service the Innisfil Heights economic district. The attached Notice of Public Information Centre is for the proposed new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6) to be located on Innisfil Beach Road in the Town of Innisfil.

Please refer to the Notice for detailed information on how to view presentation material and the timeline for providing comments/questions.

Thank you.

Regards,

Jody Marks
Environmental Planner

Tel: (705) 726-3371 Ext. 227

WWW.AINLEYGROUP.COM

****Please note that we are beginning to transition our primary email addresses to a new format. While my previous address will continue to work, we ask that you please update your address book with my new email address: jody.marks@ainleygroup.com****

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Beth Wang

From: Preya Balgobin
Sent: May 4, 2022 12:19 PM
To: Taylor Stevenson
Cc: jdegroote@innservices.com; Wendy Smeh; Jody Marks
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Hi Taylor,

Thank you for the feedback. We will take the information into consideration when evaluating the alternatives.

Regards,
Preya Balgobin, P.Eng.
Senior Project Manager

www.ainleygroup.com
Tel: (905) 452-5172 Ext. 209
Cell: (289) 541-8766

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From: Taylor Stevenson <T.Stevenson@lsrca.on.ca>
Sent: May 3, 2022 4:33 PM
To: jdegroote@innservices.com; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: FW: InnServices, Municipal Class EA IH SPS 6 - Notice of Public Information Centre

Good morning:

Thank you for circulating the LSRCA for the above noted EA phase.

Based on review of the presentation, I offer the following comments:

- Alternative 1A is located outside of the LSRCA regulated area, therefore a permit will not be required from our office for the construction of the new Innisfil Heights Sewage Pumping Station.
- Alternative 3A is regulated by the LSRCA for lands adjacent to a PSW, therefore a permit will be required from our office for the construction of the Innisfil Sewage Pumping Station.
- Both Alternative 1A and 3A are identified as ecological significant groundwater recharge areas under the Lake Simcoe Protection Plan (LSPP).

If there are any Planning Act applications required as part of the development, additional technical studies may be requested by LSRCA planning staff (e.g. stormwater management, water balance, phosphorous).

Taylor Stevenson, B.A., CAN-CISEC
Senior Environmental Regulations/Capital Projects Analyst

Lake Simcoe Region Conservation Authority
120 Bayview Parkway,
Newmarket, Ontario L3Y 3W3
Office: 905-895-1281, ext. 483| 1-800-465-0437
Cell: 905-955-1954
t.stevenson@LSRCA.on.ca | www.LSRCA.on.ca

Twitter: @LSRCA
Facebook: LakeSimcoeConservation

Please note: the LSRCA Board of Directors approved a change to our Fee Policy. The new fees took effect on January 4, 2022. Please click here to view the staff report and see page 34-40 for the new fee schedule.

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From: Jenna DeGroote
To: Wendy Smeh; Beth Wang
Subject: Fw: Hydro One Response: 20250311-NoticeOfCompletion-Innisfil Heights Sewage Pumping Station 6
Date: March 12, 2025 11:46:30 AM
Attachments: Outlook-tpcu05rr.png
20250311-NoticeOfCompletion-Innisfil Heights Sewage Pumping Station 6 .pdf

---

Hi Wendy and Beth,

Please see response from Hydro One for IH SPS 6.

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
705-791-9678
www.innservices.co

From: SUN Hongxia <Susan.SUN@HydroOne.com> on behalf of SECONDARY LAND USE Department <Department.SecondaryLandUse@hydroone.com>
Sent: March 11, 2025 2:02 PM
To: Jenna DeGroote <jdegroote@innservices.co>
Cc: SECONDARY LAND USE Department <Department.SecondaryLandUse@hydroone.com>
Subject: Hydro One Response: 20250311-NoticeOfCompletion-Innisfil Heights Sewage Pumping Station 6

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Please see the attached for Hydro One's Response.

Hydro One Networks Inc

SecondaryLandUse@HydroOne.com

Hydro One Networks Inc.

483 Bay Street
8th Floor South Tower
Toronto, Ontario M5G 2P5

HydroOne.com

March 11, 2025

Re: Innisfil Heights Sewage Pumping Station 6

Attention:
Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.

Thank you for sending us notification regarding Innisfil Heights Sewage Pumping Station 6. In our preliminary assessment, we confirm there are no existing Hydro One Transmission assets in the subject area. Please be advised that this is only a preliminary assessment based on current information.

If plans for the undertaking change or the study area expands beyond that shown, please contact Hydro One to assess impacts of existing or future planned electricity infrastructure.

Any future communications are sent to Secondarylanduse@hydroone.com.

Be advised that any changes to lot grading and/or drainage within proximity to Hydro One transmission corridor lands must be controlled and directed away from the transmission corridor.

Sent on behalf of,

Secondary Land Use
Asset Optimization
Strategy & Integrated Planning
Hydro One Networks Inc.

From: Minkin, Dan (MCM)
To: Jenna DeGroote; Beth Wang; Wendy Smeh; Preya Balgobin
Subject: RE: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion [MCM File 0015135]
Date: March 24, 2025 10:00:06 PM
Attachments: image002.png
image003.jpg
2025-03-24_InnisfilHeightsSPS6_MCMcomments.pdf

> You don't often get email from dan.minkin@ontario.ca. Learn why this is important

Good evening,
Please see our comments attached.

Dan Minkin
Heritage Planner | Heritage Operations Branch
Ministry of Citizenship and Multiculturalism | Ontario Public Service
416-786-7553 | dan.minkin@ontario.ca

Taking pride in strengthening Ontario, its places and its people

---

From: Beth Wang <beth.wang@ainleygroup.com>
Sent: Friday, February 21, 2025 1:45 PM
Cc: Jenna DeGroote <jdegroote@innservices.co>; Wendy Smeh <wendy.smeh@ainleygroup.com>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion

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

Good afternoon,

InnServices Utilities Inc. has retained Ainley Group to conduct a Schedule B Municipal Class Environmental Assessment (Class EA) for the Innisfil Heights Sewage Pumping Station 6 (IH SPS 6).

Please find attached important information regarding the **completion of the Class EA** and details on how to access the Project File Report.
Comments on this Class EA may be submitted by March 24th, 2025.

Should you have any questions or require further details, please do not hesitate to reach out.

Regards,

Beth Wang, EIT
Engineering Intern
Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ministry of Citizenship and Multiculturalism

Heritage Planning Unit
Heritage Operations Branch
Citizenship, Inclusion and Heritage Division
5th Flr, 400 University Ave
Toronto, ON M5G 1S7
Tel.: 416.786.7553

Ministère des Affaires civiques et du Multiculturalisme

Planification relative au patrimoine
Opérations relatives au patrimoine
Division des affaires civiques, de l'inclusion et du patrimoine
5e étage, 400, av. University
Toronto, ON M5G 1S7
Tél.: 416.786.7553

January 26, 2022 EMAIL ONLY

Jenna DeGroote, C.E.T.
Capital Project Manager
InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON L9S 0J3
jdegroote@innservices.co

MCM File	**:**	**0015135**
Proponent	**:**	**InnServices Utilities Inc.**
Subject	**:**	**Notice of Completion**
Project	**:**	**Municipal Class Environmental Assessment – Innisfil Heights Sewage Pumping Station 6 (IH SPS 6)**
Location	**:**	**Innisfil, Ontario**

Dear Jenna DeGroote:

Thank you for providing the Ministry of Citizenship and Multiculturalism (MCM) with the Notice of Completion for the above-referenced project.

MCM's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage. We have reviewed the Project File Report (PFR) dated February 2025, prepared by Ainley, and offer the following comments.

Project Summary
InnServices Utilities Inc. has completed a Schedule B Municipal Class Environmental Assessment (Class EA) study to determine the preferred location to construct a new sewage pumping station to service the Innisfil Heights economic district. This study builds upon the 2018 Innisfil Master Servicing Plan Update to provide wastewater servicing in short- and long- term strategies to accommodate the population and employment growth.

Comments
MCM finds that due diligence has been undertaken in preparing this [name of EA report} by:

- completing a Stage 1 and 2 Archaeological Assessment, which recommended no further assessment;
- undertaking a Cultural Heritage Report: Existing Conditions, which identified no potential impacts to built heritage resources or cultural heritage landscapes;
- providing appropriate recommendations to mitigate any negative impacts based on the recommendations of these technical studies.

Please note that the two Archaeological Assessment reports remain under technical review. Cultural heritage concerns should not be considered addressed, and ground-disturbing project

work not commence, until a letter has been received indicating that the Stage 2 Archaeological Assessment report recommending no further assessment has been entered into the Ontario Public Register of Archaeological Reports.

Thank you for consulting MCM on this project If you have any questions or require clarification, please do not hesitate to contact me.

Sincerely,

Dan Minkin
Heritage Planner
dan.minkin@Ontario.ca

Copied to: Paya Balgobin, Ainley Group

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

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

The *Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33* requires that any person discovering human remains must cease all activities immediately and notify the police or coroner. If the coroner does not suspect foul play in the disposition of the remains, in accordance with *Ontario Regulation 30/11* the coroner shall notify the Registrar, Ontario Ministry of Public and Business Service Delivery, which administers provisions of that Act related to burial sites. In situations where human remains are associated with archaeological resources, the Ministry of Citizenship and Multiculturalism should also be notified (at archaeology@ontario.ca) to ensure that the archaeological site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

From:	Liu, Chunmei (MECP)
To:	Beth Wang; Preya Balgobin; Wendy Smeh
Cc:	Mazzuca, Marco (MECP); EA Notices to CRegion (MECP)
Subject:	RE: FOLLOW-UP: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report
Date:	April 29, 2025 2:05:54 PM

Thank you for following up with us about the status of review for the project. However, we're unable to review the project file report for the above noted project due to capacity.

If your project team have any questions or need our support, please feel free to contact us for discussion.

Best regards,

Chunmei Liu (she/her) | Regional Environmental Planner
Environmental Assessments Branch, Ontario Ministry of the Environment, Conservation and Parks |7th Flr, 135 St Clair Ave W, Toronto, ON M4V 1P5 | Chunmei.Liu@ontario.ca

---

From: Beth Wang <beth.wang@ainleygroup.com>
Sent: Thursday, April 24, 2025 4:01 PM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Cc: Mazzuca, Marco (MECP) <Marco.Mazzuca@ontario.ca>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: FOLLOW-UP: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report
Importance: High

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

Good afternoon Chunmei,

Hope all is well!

We wanted to follow up regarding the Project File Report for Innisfil Heights Sewage Pumping Station #6, which was posted on InnServices' website on February 21, 2025.

Could you please advise if MECP has any comments? We would like to incorporate any feedback into the final report prior to its publication online.

Regards,

Beth Wang, EIT
Engineering Intern

Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

WWW.AINLEYGROUP.COM

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From: Beth Wang
Sent: April 17, 2025 3:49 PM
To: 'Liu, Chunmei (MECP)' <Chunmei.Liu@ontario.ca>
Cc: Mazzuca, Marco (MECP) <Marco.Mazzuca@ontario.ca>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: FOLLOW-UP: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report

Good afternoon Chunmei,

Hope all is well!

We are currently in the process of finalizing the Project File Report for Innisfil Heights Sewage Pumping Station #6, which was posted on InnServices' website on February 21st, 2025.

Could you please advise if MECP has any comments? We would like to incorporate any feedback into the final report prior to its publication online.

Regards,

Beth Wang, EIT
Engineering Intern

Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

WWW.AINLEYGROUP.COM

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From: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Sent: March 5, 2025 10:51 AM
To: Beth Wang <beth.wang@ainleygroup.com>
Cc: Mazzuca, Marco (MECP) <Marco.Mazzuca@ontario.ca>; Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: RE: FOLLOW-UP: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report

Good morning, Beth, hope everything goes well.

Thank you for your email. As a normal procedure, if the proponent has provided the link to access the report in the notice of completion, we could access the report through the link.

Best regards,
Chunmei

From: Beth Wang <beth.wang@ainleygroup.com>
Sent: Tuesday, March 4, 2025 11:37 AM
To: Liu, Chunmei (MECP) <Chunmei.Liu@ontario.ca>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: FOLLOW-UP: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report

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Good morning Chunmei,

Hope all is well!

I am following up regarding the Innisfil Heights Sewage Pumping Station #6 EA Project File Report, which was posted for public review on February 21, 2025.

Could you please confirm whether we need to send the report directly to MECP, or if you will be accessing it through the link provided in the notice?

Regards,

Beth Wang, EIT
Engineering Intern
Ainley GROUP
Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

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From: Beth Wang
Sent: February 25, 2025 3:41 PM
To: chunmei.liu@ontario.ca
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Wendy Smeh <wendy.smeh@ainleygroup.com>
Subject: InnServices, Municipal Class EA IH SPS 6 - Notice of Completion and Project File Report

Good morning Chunmei,

Hope all is well!

On February 21, 2025, the Notice of Completion for the Innisfil Heights Sewage Pumping Station #6 EA was posted and distributed to interested agencies and First Nation groups. On the same day, the draft Project File Report was made available online for public review and comments.

Could you please confirm whether we need to send the report directly to MECP, or if you will access it through the provided link in the notice?

Regards,

Beth Wang, EIT
Engineering Intern

Tel: (905) 452-5172, Ext. 321
Cell: (289) 541-8086
Email: beth.wang@ainleygroup.com

WWW.AINLEYGROUP.COM

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Consultation Records with Property Owners

AINLEY & ASSOCIATES LIMITED
280 Pretty River Pkwy, Collingwood, ON L9Y 4J5
Tel: (705) 445-3451 • www.ainleygroup.com

August 15, 2022 File No. 121031

Eisses Farm Ltd.
C/O Harry Eisses
2011 Innisfil Beach Road
Innisfil, ON L9S 4B4

Re: Innisfil Heights Sewage Pumping Station 6 Class Environmental Assessment

Dear Harry Eisses:

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to identify and develop a preferred solution (location) for new sewage pumping station 6 on Innisfil Beach Road to meet future capacity requirements in the Strategic Settlement Employment Area. One of the site locations under consideration is a portion land parcel on 7524 10th Sideroad. We would like to invite you to review the project information provided and discuss the project with you in more detail.

Background Information

InnServices Utilities Inc. completed the *Innisfil Master Servicing Plan Update* (MSP Update) in 2018 which identified short- and long-term strategies for both water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018) and Official Plan Amendment No. 1.

As part of the MSP Update various alternatives were examined in order to provide servicing to the first phase of the Innisfil Heights economic district expansion, an area designated as a Strategic Settlement Employment Area. In order to promote, facilitate and maximize the planned expansion of this area, the MSP Update identified that a municipal sanitary sewage collection system is required and the preferred solution to be 'Alternative 6B'. This Alternative establishes a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development up to year 2031. As part of this alternative several sewage pumping stations were identified along the sewer route, among them being the new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6).

Municipal Class EA Process

This Class EA focuses on the proposed new IH SPS 6 to be located on Innisfil Beach Road in the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic area and direct it to the Lakeshore Wastewater Treatment Plant (WWTP).

A Municipal Class Environmental is a planning process for municipalities to follow so as to complete infrastructure projects in an environmentally responsible manner and in accordance with the *Environmental Assessment Act* (*EA Act*). Based on the scope of the proposed improvements, a Schedule 'B' level of planning was determined to be required. A Schedule 'B' project requires completion of Phases 1 & 2 of the Class EA process.

The project is currently in Phase 2 of the Class EA process. As part of Phase 2, several alternatives (locations) were selected for the new sewage pumping station 6 on Innisfil Beach Road. The site locations consider the full length of the parcel frontage even though the footprint of the SPS will be minimal (approximately 15m x 15m). The entire frontage is considered to allow for flexibility in the placement of the SPS to incorporate input from property owner, elevation, and geotechnical considerations. One of the alternative site locations under consideration is a portion of land located on 7524 10th Sideroad.

The alternative site locations have been evaluated with respect to their impact on the environment. The completion of the evaluation considered a number of factors, which were separated into evaluation criteria:

- Physical/Technical Environment**:** Suitability of Elevation and Topography, Geotechnical Suitability, Hydrogeological Suitability, Hydraulics and Utilities
- Natural Environment: Proximity to Key Natural Heritage Feature or Regulated Area, Terrestrial Vegetation/Wildlife (Including SAR), Surface Water and Fisheries and Groundwater
- Cultural and Social Environment: Archaeological Resources, Cultural Heritage Resources, Aesthetics (Noise, Odour, Visibility), Impacts to Property Owners, Climate Change/Air Quality and Impacts to Adjacent Business/Commercial Properties
- Economic Environment: Operating and Maintenance Costs, Capital costs and Land Acquisition Costs

Please refer to the project information provided online at the following address for further details on the alternative site locations evaluated as part of Phase 2.

https://innservices.co/infrastructure-upgrades/environmental-assessments/innisfil-heights-sewage-pumping-station-6

As a result of the evaluation completed a preliminary preferred solution (location) has been identified as Alternative 1A – site location 7524 10th Sideroad. This alternative best addresses the need for a new sewage pumping station with limited potential to impact the environment. The site has sandy silt to sand glacial till soil types based off the preliminary review of area. Those two soil types are considered favourable types for the SPS construction. A draft site plan is enclosed to illustrate the approximate footprint of the sewage pumping station within the site location.

Next Steps

Consultation is an important component to the Class EA process, we would like to discuss the project in further detail with you. Please review the project information provided and if you would like to arrange a meeting with our project team we would be happy to schedule a meeting with you. We respectfully request that a response or acknowledgement of this letter be sent to the undersigned by **September 1, 2022**.

The next steps of the project would involve further study throughout the site location area which would include geotechnical investigations (boreholes) and archaeological surveys that involve pedestrian survey method. We can provide further details on the next steps as we discuss the project with you.

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

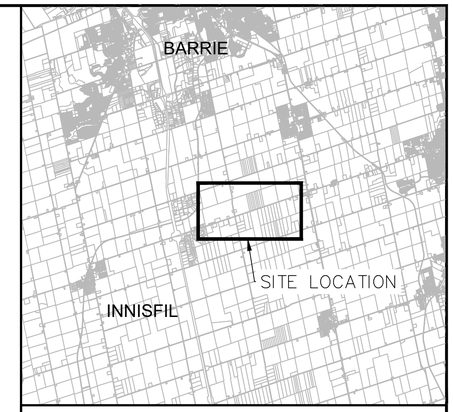
AINLEY & ASSOCIATES LIMITED



Preya Balgobin, P. Eng.
Senior Project Manager
905-452-5172 ext. 209
balgobin@ainleygroup.com

Enclosure: Draft Site Plan, Alternative 1A – site location 7524 10th Sideroad





KEY PLAN
NOT TO SCALE

NOTES

Plotted by: MROSEWELL on March 30, 2022 at 10:11am
File: \\gg-barrie\vol1\Drafting\Collingwood\121031\Design\121031-SP1A.dwg Layout: SP1A

CONTRACT DRAWINGS
Contractor must verify all dimensions and be responsible for same. Any discrepancies must be reported to the Engineer before commencing work. Drawings are not to be scaled. Drawings may not be used for any purpose other than that stipulated in the contract agreement between the owner/client and the Engineer without the express written consent of Ainley & Associates Limited. Use of these drawings by any party for any other purpose is subject to the following caution.

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NO.	REVISIONS	DATE	INITIAL

Not Valid Unless Signed And Dated

PRELIMINARY

SCALE: H= V=	1:100
DESIGN:	S.D.G.
DRAWN:	M.R.
CHECKED:	
DATE:	MAR/22

TOWN OF INNISFIL
7524 10 SIDEROAD
SEWAGE PUMP STATION 1A

OVERALL SITE PLAN

Ainley GROUP CONSULTING ENGINEERS PLANNERS

CONTRACT No.

DWG. No. 121031-SP1A

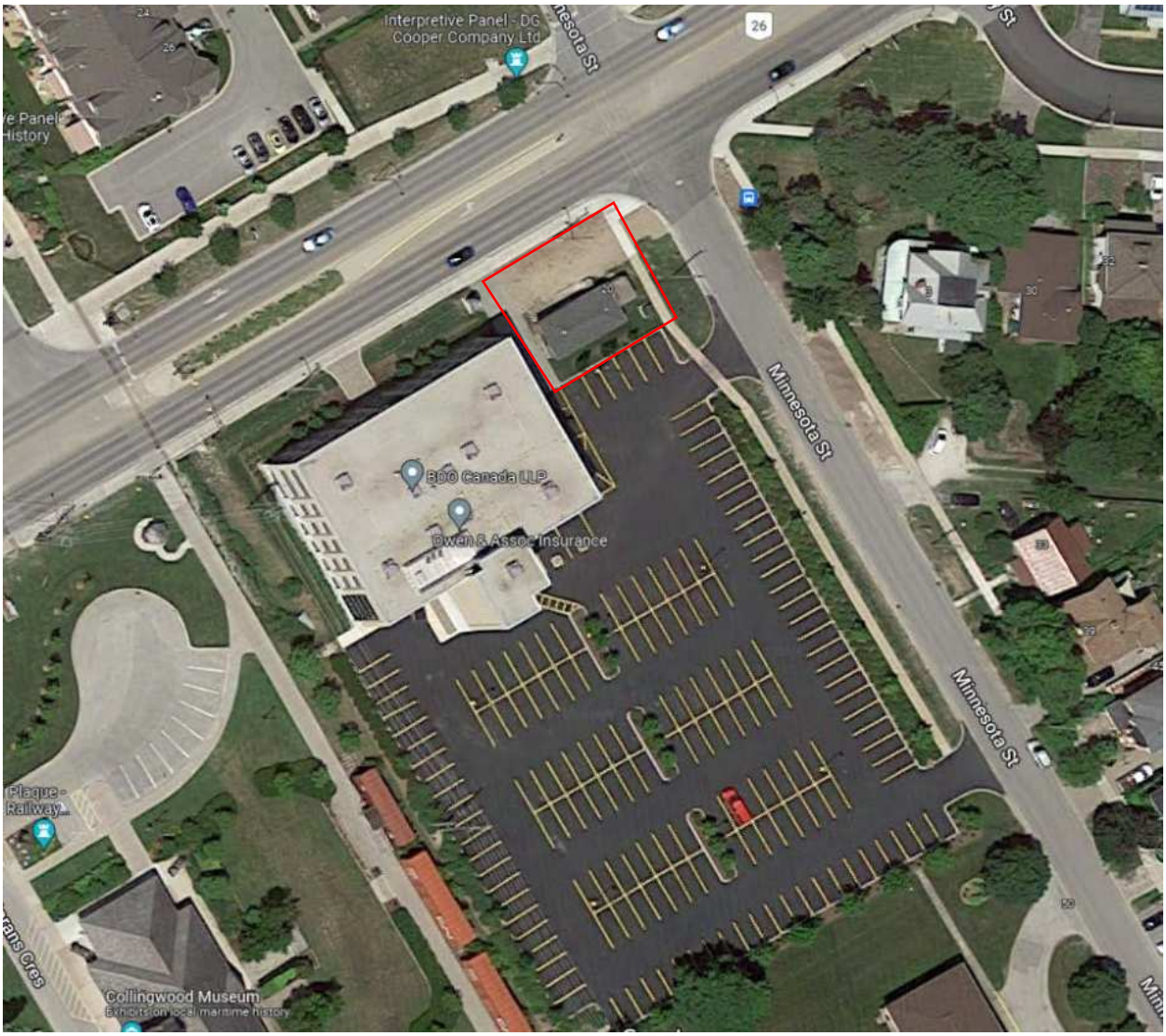
Sewage Pumping Station Examples

Collingwood, Ontario – Minnesota Street SPS



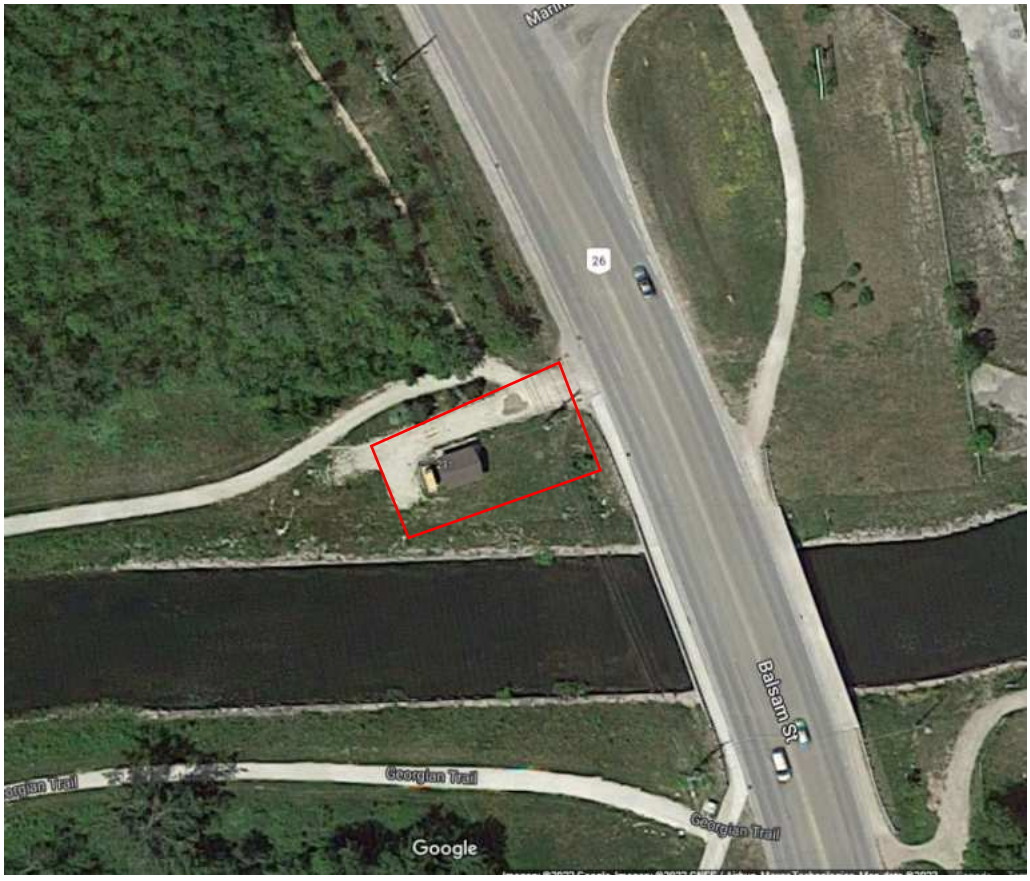


Site Plan of the Minnesota Street SPS



Collingwood, Ontario – Black Ash Creek SPS





Other Examples:

A simple post-war brick home aesthetic to fit into the surroundings of Meaford, Ontario (St. Vincent Booster Station).



An asymmetrical framed building with wood siding and whitewash features to fit in with the local beachfront properties in Wasaga Beach, Ontario (Wasaga Beach SPS#3)



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280 Pretty River Pkwy, Collingwood, ON L9Y 4J5
Tel: (705) 445-3451 • www.ainleygroup.com

Record of Conversation

Conversation:	Jenna DeGroote (InnServices), Jeff Wohlgemuth (Eisses Farm), Preya Balgobin and Wendy Smeh (Ainley Group)
Date:	November 18, 2022
Reference:	Innisfil Heights Sewage Pumping Station No. 6 Site Location 7524 10th Sideroad, Innisfil Ainley File No.121031

Ainley Group and InnServices met with Jeff Wohlgemuth, owner of 7524 10th Sideroad, to further discuss the site as the preferred option for siting sewage pumping station 6. Information about the Environmental Assessment process and the decision-making process was sent to Eisses Farm on August 15, 2022.

Following introductions, Jeff discussed that Eisses Farms is a family run business that relies heavily on the farm land that they own. The Eisses family has previously had land acquired from them for municipal infrastructure further east on Innisfil Beach Road.

Ainley outlined why the site is preferable for the location of the sewage pumping station and discussed benefits of the station to the property, such as future connection to the system. Mr. Wohlgemuth, made it clear that they see no benefit to allowing the SPS to be situated on their property. He noted that he had reviewed the PIC presentation and noted that the second preferred option (site 2) is the property across the road and that the scoring is very similar. The elevation of site 2 is 3m lower than site 1 and therefore is better from a technical perspective. The property owner noted that the other site was bought by a developer and therefore the SPS could be a benefit for them. Whereas, Eisses Farms runs a substantial farming operation on their land and have no interest in future development. Ainley will consider this in the evaluation under scoring related to property owner impacts and business impacts.

AINLEY & ASSOCIATES LIMITED
280 Pretty River Pkwy, Collingwood, ON L9Y 4J5
Tel: (705) 445-3451 • www.ainleygroup.com

March 3, 2023 File No. 121031

Asif Kerimov
477 Wilson Heights Blvd
North York, ON
M3H 2V4

Re: Innisfil Heights Sewage Pumping Station 6 Class Environmental Assessment

Dear Mr. Kerimov:

InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to identify and develop a preferred solution (location) for new sewage pumping station 6 on Innisfil Beach Road to meet future capacity requirements in the Strategic Settlement Employment Area. One of the site locations under consideration is a portion of the land parcel on 7535 10th Sideroad. We would like to invite you to review the project information provided and discuss the project with you in more detail.

Background Information

InnServices Utilities Inc. completed the *Innisfil Master Servicing Plan Update* (MSP Update) in 2018 which identified short- and long-term strategies for both water and wastewater servicing to accommodate the population and employment growth outlined in the Innisfil Official Plan (2018) and Official Plan Amendment No. 1.

As part of the MSP Update various alternatives were examined in order to provide servicing to the first phase of the Innisfil Heights economic district expansion, an area designated as a Strategic Settlement Employment Area. In order to promote, facilitate and maximize the planned expansion of this area, the MSP Update identified that a municipal sanitary sewage collection system is required and the preferred solution to be 'Alternative 6B'. This Alternative establishes a sanitary collection system connected to the Lakeshore wastewater system via Innisfil Beach Road for the first phase of development up to year 2031. As part of this alternative several sewage pumping stations were identified along the sewer route, among them being the new Innisfil Heights Sewage Pumping Station 6 (IH SPS 6).

Municipal Class EA Process

This Class EA focuses on the proposed new IH SPS 6 to be located on Innisfil Beach Road in the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic area and direct it to the Lakeshore Wastewater Treatment Plant (WWTP).

A Municipal Class Environmental Assessment is a planning process for municipalities to follow so as to complete infrastructure projects in an environmentally responsible manner and in accordance with the *Environmental Assessment Act* (*EA Act*). Based on the scope of the proposed improvements, a Schedule 'B' level of planning was determined to be required. A Schedule 'B' project requires completion of Phases 1 & 2 of the Class EA process.

The project is currently in Phase 2 of the Class EA process. As part of Phase 2, several alternatives (locations) were selected for the new sewage pumping station 6 on Innisfil Beach Road. The site locations consider the full length of the parcel frontage even though the footprint of the SPS will be minimal (approximately 15m x 15m). The entire frontage is considered to allow for flexibility in the placement of the SPS to incorporate input from property owner, elevation, and geotechnical considerations. One of the alternative site locations under consideration is a portion of land located on 7535 10th Sideroad.

The alternative site locations have been evaluated with respect to their impact on the environment. The completion of the evaluation considered a number of factors, which were separated into evaluation criteria:

- Physical/Technical Environment**:** Suitability of Elevation and Topography, Geotechnical Suitability, Hydrogeological Suitability, Hydraulics and Utilities
- Natural Environment: Proximity to Key Natural Heritage Feature or Regulated Area, Terrestrial Vegetation/Wildlife (Including SAR), Surface Water and Fisheries and Groundwater
- Cultural and Social Environment: Archaeological Resources, Cultural Heritage Resources, Aesthetics (Noise, Odour, Visibility), Impacts to Property Owners, Climate Change/Air Quality and Impacts to Adjacent Business/Commercial Properties
- Economic Environment: Operating and Maintenance Costs, Capital costs and Land Acquisition Costs

Please refer to the project information provided online at the following address for further details on the alternative site locations evaluated as part of Phase 2.

https://innservices.co/infrastructure-upgrades/environmental-assessments/innisfil-heights-sewage-pumping-station-6

As a result of the evaluation completed, as well as further stakeholder consultation, a preliminary preferred solution (location) has been identified as Alternative 1B – site location 7535 10th Sideroad. This alternative best addresses the need for a new sewage pumping station with limited potential to impact the environment. The draft site location plan below illustrates the approximate footprint of the sewage pumping station, shown in blue, within the site location. The site limit outlines the area to be reviewed further to determine the best location for the SPS footprint within the limits.



Next Steps

Consultation is an important component to the Class EA process; we would like to discuss the project in further detail with you. Please review the project information provided and if you would like to arrange a meeting with our project team, we would be happy to schedule a meeting with you. We respectfully request that a response or acknowledgement of this letter be sent to the undersigned by **April 1, 2023**.

The next steps of the project would involve further study throughout the site location area which would include geotechnical investigations (boreholes) and archaeological surveys that involve pedestrian survey method. We can provide further details on the next steps as we discuss the project with you.

If you have any questions or require further assistance with this matter, please feel free to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED

Preya Balgobin, P. Eng.
Senior Project Manager
905-452-5172 ext. 209
balgobin@ainleygroup.com

Beth Wang

From: Wendy Smeh
Sent: October 26, 2023 5:42 PM
To: Tom Suleymanov (tom@largeproperty.ca); Asifkerim
Cc: Preya Balgobin; Beth Wang; Jenna DeGroote
Subject: RE: InnServices - Innisfil Heights Sewage Pumping Station 6 Environmental Assessment - Preferred Site Alternative
Attachments: 2023-10-26-Kerimov 7535 10th Sideroad Permission to Enter.pdf

Hello Tom/Asif,

Further to our discussion, InnServices has considered your proposed changes to the permission to enter agreement with InnServices. Attached please note that the agreement now shows the period of work ending on May 1st, 2024 as discussed.

You indicated that you wanted to include the following clause to the agreement, "Acceptance of this agreement does not constitute as consenting to expropriation."

InnServices advised this clause is not necessary as the agreement is clear that it is only providing permission to InnServices to conduct certain works on the land and there is no obligation on the Owner to sell any part of the property.

If necessary the following clause can be considered:

"The entering into of this Agreement does not constitute consent by the Owner to sell the Property or part of the Property to InnServices."

Let us know how you wish to proceed, or if you would like to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

My working hours may not be your working hours. Please do not feel obligated to respond to this e-mail outside of your normal working hours.

_____
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_____

From: Wendy Smeh
Sent: September 26, 2023 11:34 AM
To: Asifkerim <asifkerim@yahoo.com>
Cc: Preya Balgobin <preya.balgobin@ainleygroup.com>; Beth Wang <beth.wang@ainleygroup.com>; Jenna DeGroote <jdegroote@innservices.co>
Subject: InnServices - Innisfil Heights Sewage Pumping Station 6 Environmental Assessment - Preferred Site Alternative

Good Morning Asif,

I hope all is well.

Since our last correspondence with you below, we have been working with InnServices to confirm requirements to complete preliminary studies on your property at 7535 10 Sideroad, Innisfil.

InnServices has since provided the attached Permission to Enter Agreement for your review and signature.

As discussed in our email below, the Permission to Enter agreement is for access to complete a borehole investigation, property survey, and a Stage 2 archeological studies on the site.

This will provide additional information to further consider the location of the proposed sewage pumping station to allow for future development to the west.

Let us know if you have any questions or comments. Please let us know if you would like to meet to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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_____

From: Wendy Smeh <wendy.smeh@ainleygroup.com>
Sent: Wednesday, July 19, 2023 10:18 AM
To: Asifkerim <asifkerim@yahoo.com>
Cc: Jenna DeGroote <jdegroote@innservices.co>
Subject: RE: InnServices Innisfil Heights Sewage Pumping Station Environmental Assessment - Preferred Site Alternative

[EXTERNAL]

Hi Asif,

I hope all is well.

Following our meeting with you regarding situating a proposed new pumping station on 7535 10 Sideroad, we want to let you know that we hope to provide you with additional information soon.

After our meeting, we meet with our geotechnical sub-consultant to provide more information about what is required from them to obtain information about sub surface conditions on site. This is still being confirmed, however, we should obtain the additional information shortly.

We will follow up by the end of the month to provide you with confirmation about property surveys and geotechnical investigations, as well as to confirm entry on to the property.

Feel free to contact me with any questions or to discuss further.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager

Ainley GROUP

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: Asifkerim <asifkerim@yahoo.com>
Sent: March 9, 2023 11:42 AM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Jenna DeGroote <jdegroote@innservices.co>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: Re: InnServices Innisfil Heights Sewage Pumping Station Environmental Assessment - Preferred Site Alternative

Hi Wendy. Sure let me know when is good. 6475357575 Asif

Sent from my iPhone

> On Mar 9, 2023, at 10:40 AM, Wendy Smeh <wendy.smeh@ainleygroup.com> wrote:
>
> Hello Asif,
>
> Thank you for following up with us.

Can we set up a time to discuss the project with you further? What is your availability next week? If you are familiar with Microsoft Teams, we can send you a meeting invitation to coordinate via. The Teams online meeting space.

Let us know if this works for you.

Regards,

Wendy Smeh, C.E.T., PMP
Project Manager
<image001.png>
Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

From: Asifkerim <asifkerim@yahoo.com>
Sent: March 6, 2023 8:44 PM
To: Wendy Smeh <wendy.smeh@ainleygroup.com>
Cc: Jenna DeGroote <jdegroote@innservices.co>; Preya Balgobin <preya.balgobin@ainleygroup.com>
Subject: Re: InnServices Innisfil Heights Sewage Pumping Station Environmental Assessment - Preferred Site Alternative

Hi Wendy. Thank you for information. Please advise if any information required from my side. Asif

Sent from my iPhone

> On Mar 3, 2023, at 2:37 PM, Wendy Smeh <wendy.smeh@ainleygroup.com> wrote:
>
> Good Afternoon Asif,
>
> InnServices Utilities Inc. has retained the services of Ainley Group to undertake a Schedule 'B' Municipal Class Environmental Assessment (Class EA) to identify and develop a preferred solution (location) for new sewage pumping station 6 on Innisfil Beach Road to meet future capacity requirements in the Strategic Settlement Employment Area.
>
> One of the site locations under consideration is a portion of the land parcel on 7535 10th Sideroad. We would like to invite you to review the project information provided in the attached letter. Once you have reviewed, please reach out and we will set up a time to discuss with you further.

Kind Regards,

Wendy Smeh, C.E.T., PMP
Project Manager
<image001.png>
Tel: (705) 445-3460 Ext. 135
Cell: (705) 443-9334
wendy.smeh@ainleygroup.com

WWW.AINLEYGROUP.COM

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Ainley Group is committed to providing accessible customer service. Please inform us if you require this information in an alternative format or require communication supports.

<IH SPS 6 7535 10th Sidroad Letter_March 3 2023-signed.pdf>