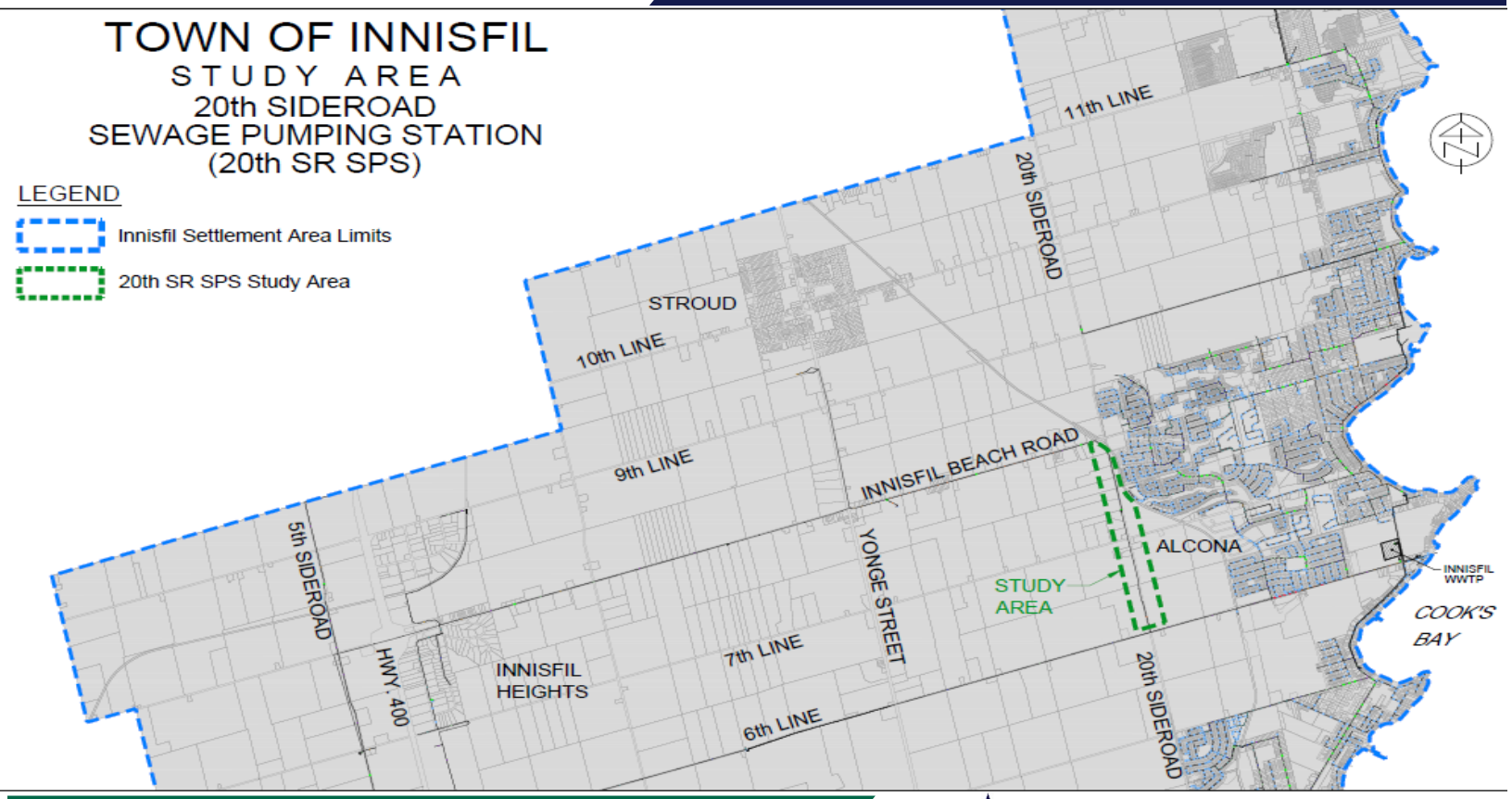
InnServices Utilities Inc.
20th Sideroad Sewage Pumping Station
Schedule 'B' Municipal Class Environmental Assessment

PROJECT FILE REPORT - DRAFT



PREPARED FOR:

InnServices Utilities Inc.

March 2026

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 20th Sideroad Sewage Pumping Station (20 SR SPS).

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 Master Servicing Plan, the 20 SR SPS and forcemain was suggested for implementation under the long-term timeline. The 'trigger' to begin planning earlier than the expected timeline was the submission of new development proposals in Innisfil that would require municipal sewers.

This Class EA focuses on the proposed new 20 SR SPS to be located on 20th Sideroad between Innisfil Beach Road and 6th Line in the Town of Innisfil. The sewage pumping station will receive flows from the Innisfil Heights economic district, as well as Town Campus, and direct it to the Lakeshore Water Pollution Control Plant (WPCP).

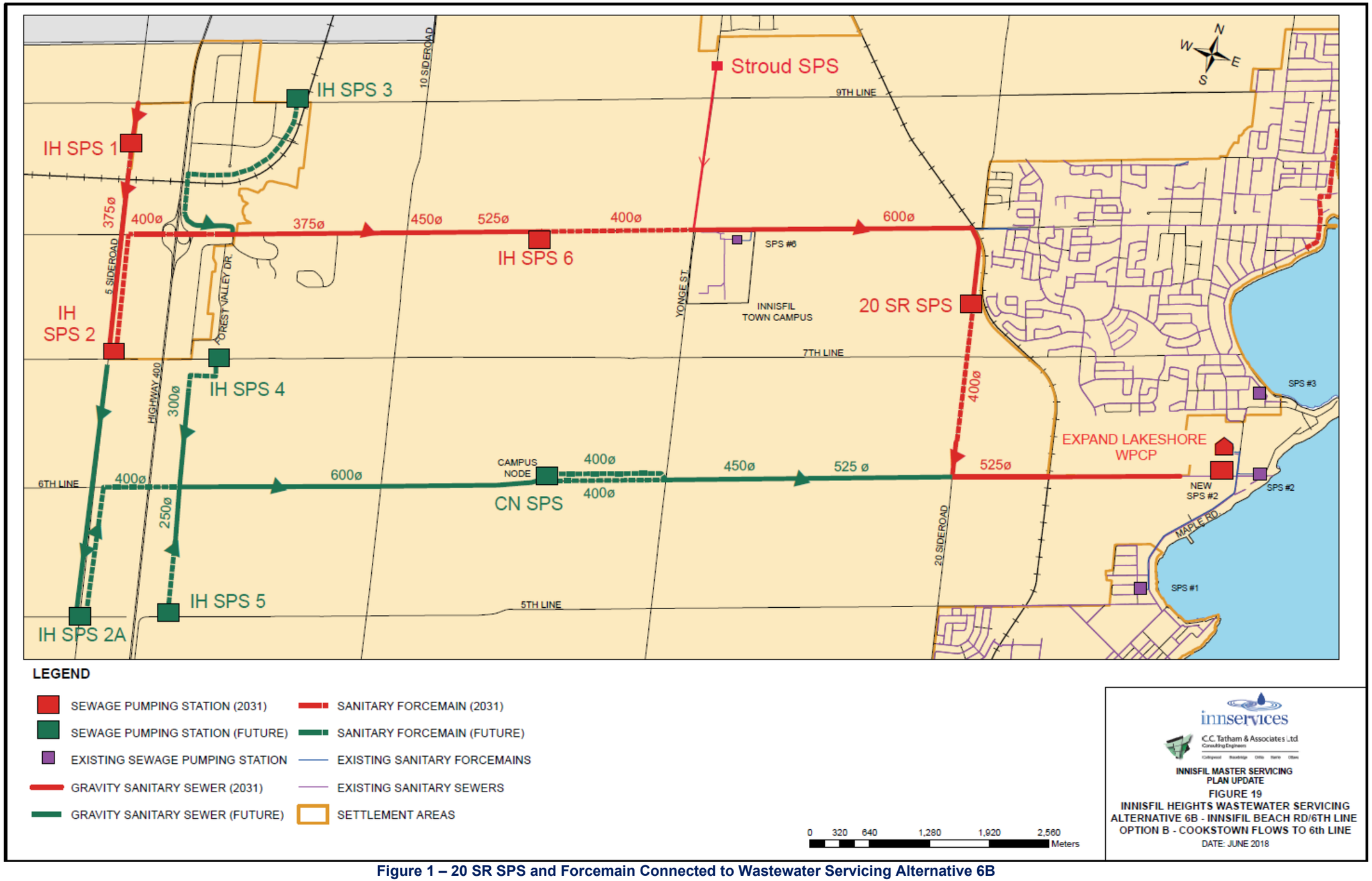

Figure 1 – 20 SR SPS and Forcemain Connected to Wastewater Servicing Alternative 6B

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.

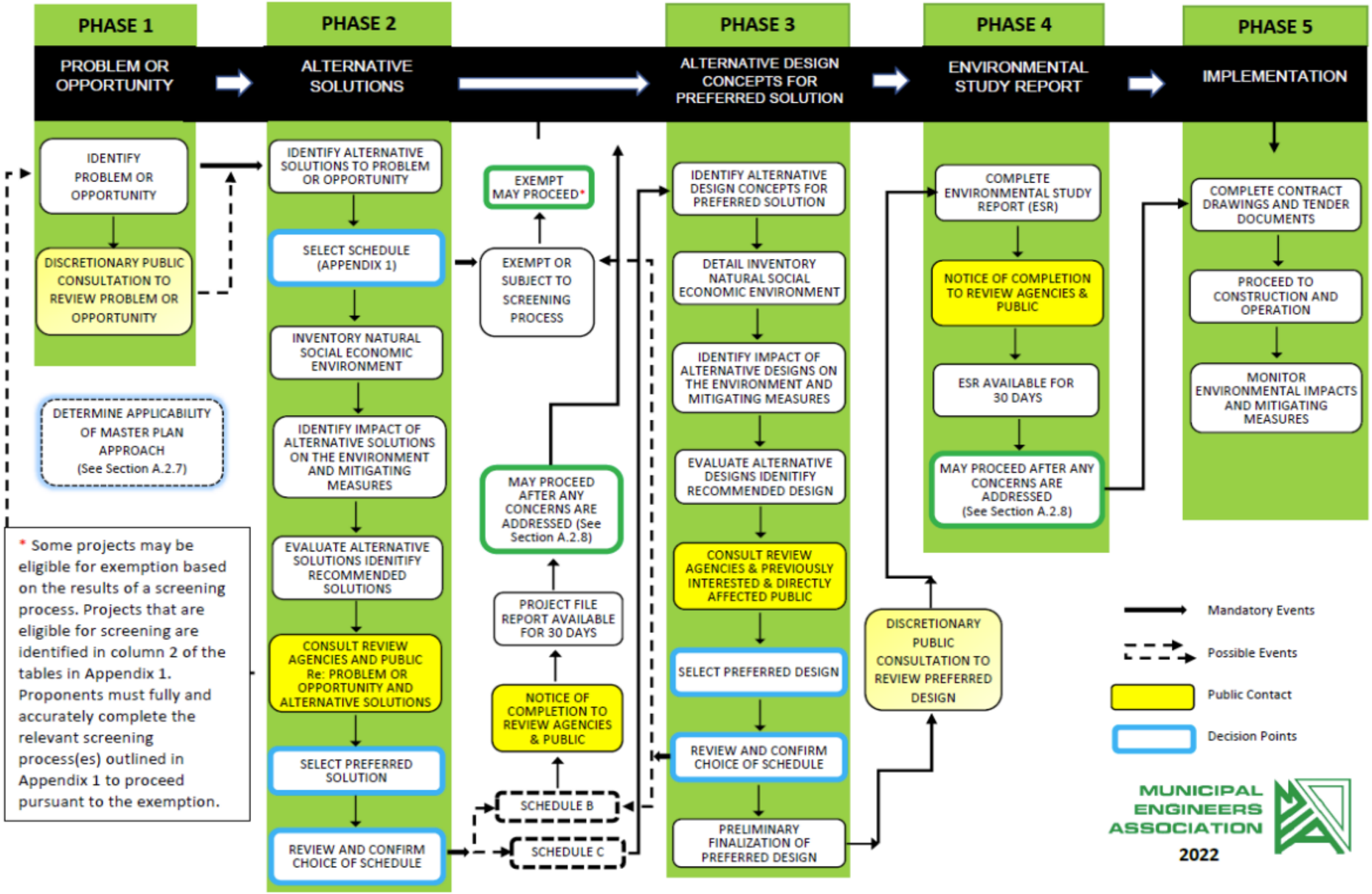

Figure 2 – Municipal Class Environmental Assessment Flow Chart

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 bounded by the east and west side of 20th Sideroad between Innisfil Beach Road and 6th Line, (Figure 3). and is defined as the overall area on 20th Sideroad on which a new sewage pumping station can be located to best service Town Campus and the Strategic Settlement Employment Area.

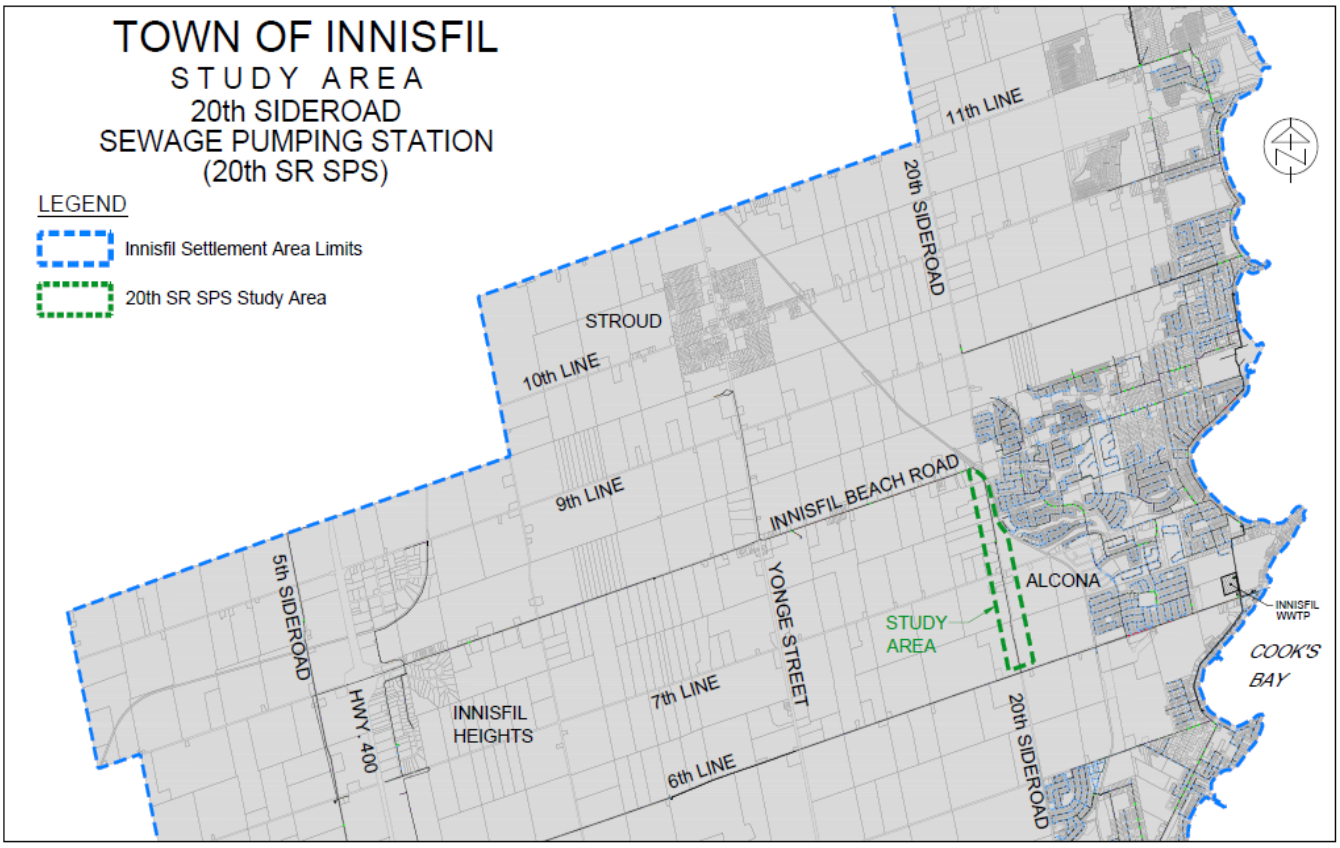

Figure 3 – 20 SR SPS Study Area

The existing land use within the study area is primarily a mix of rural uses, agricultural land and open green space lands (Figure 4).

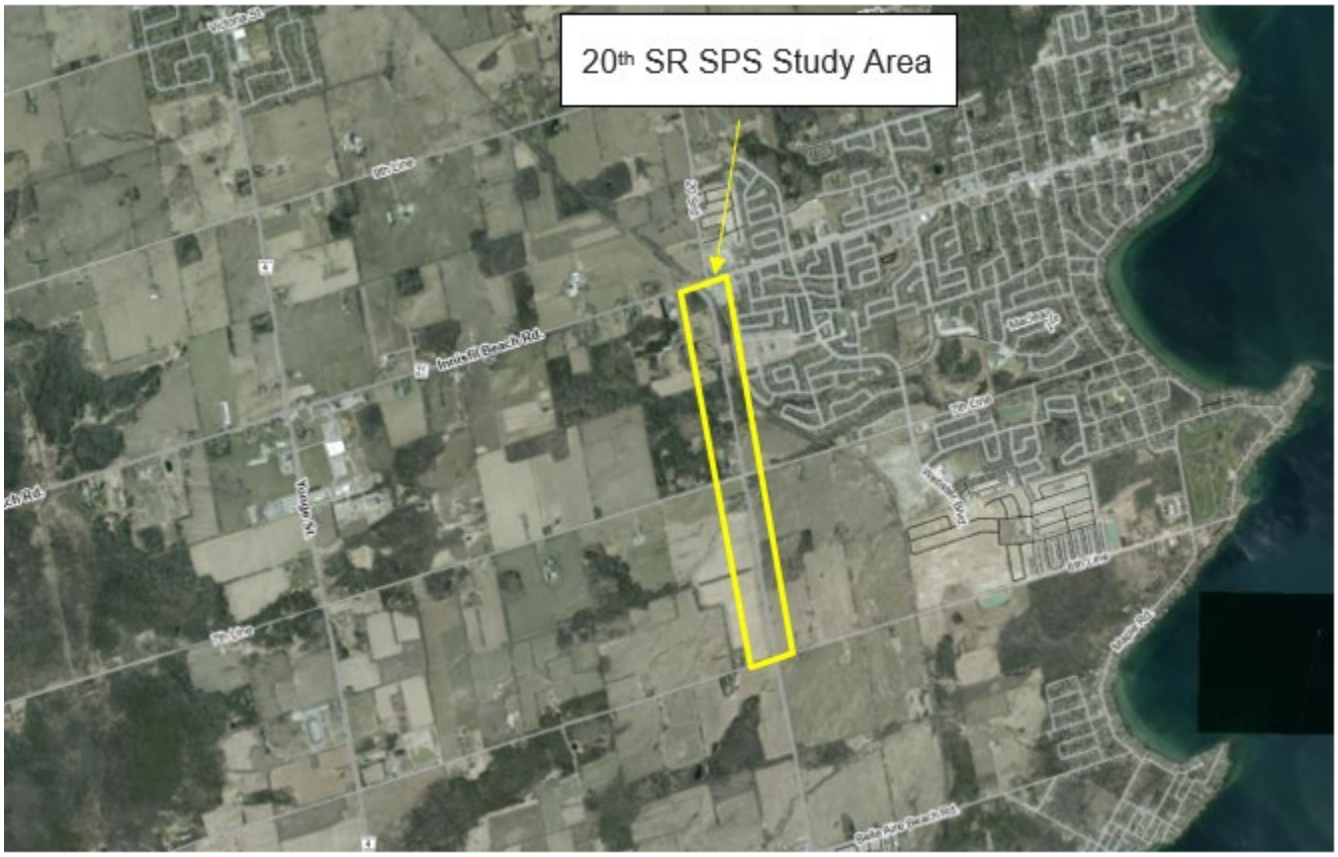

Figure 4 – Aerial Map of Study Area

(Source: County of Simcoe Mapping)

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 completed 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

20 SR SPS is designed to handle an Average Daily Flow (ADF) of 109.3 L/s, with a peak wet weather flow of 239.9 L/s, as detailed in Appendix A – 20 SR SPS Future Flows Technical Memorandum.

The station will receive wastewater flows from the Innisfil Heights economic areas, including flows from IH SPS 6 (which conveys flows from IH SPS 1, IH SPS 2, IH SPS 3, IH SPS 4, and IH SPS 5) and the Stroud SPS, as well as from the Innisfil Town Campus and the Royal Victoria Health Centre (RVH) Innisfil Campus. Wastewater will be conveyed through trunk sewer along Innisfil Beach Road and 20th Sideroad. 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 20 SR SPS.

Table 1 – Flow Projection Summary to 20 SR SPS

Identification	Designation	Area (Ha)	ADF Estimate (L/s)	Peak Wet Weather Flow Estimate (L/s)
Town Campus[1]	-	-	5.8	11.6
RVH Innisfil Campus[1]	-	-	27.6	55.1
IH SPS 6	-	-	41.4	84.0
Stroud SPS	-	-	22.0	64.1
Flow from the Property Land*	Residential	-	12.5	25.0
Total	**-**	**-**	**109.3**	**239.9**

[1]Flow from Town of Innisfil 2023 Master Servicing Plan
[2]Estimated flow provided by the property owner.

3.2.4 Geotechnical and Hydrogeological Conditions

GEI Consultants on behalf of Ainley Group completed geotechnical and hydrogeological reports discussing the background site conditions (Figure 5). A copy of the full report is included in Appendix B.

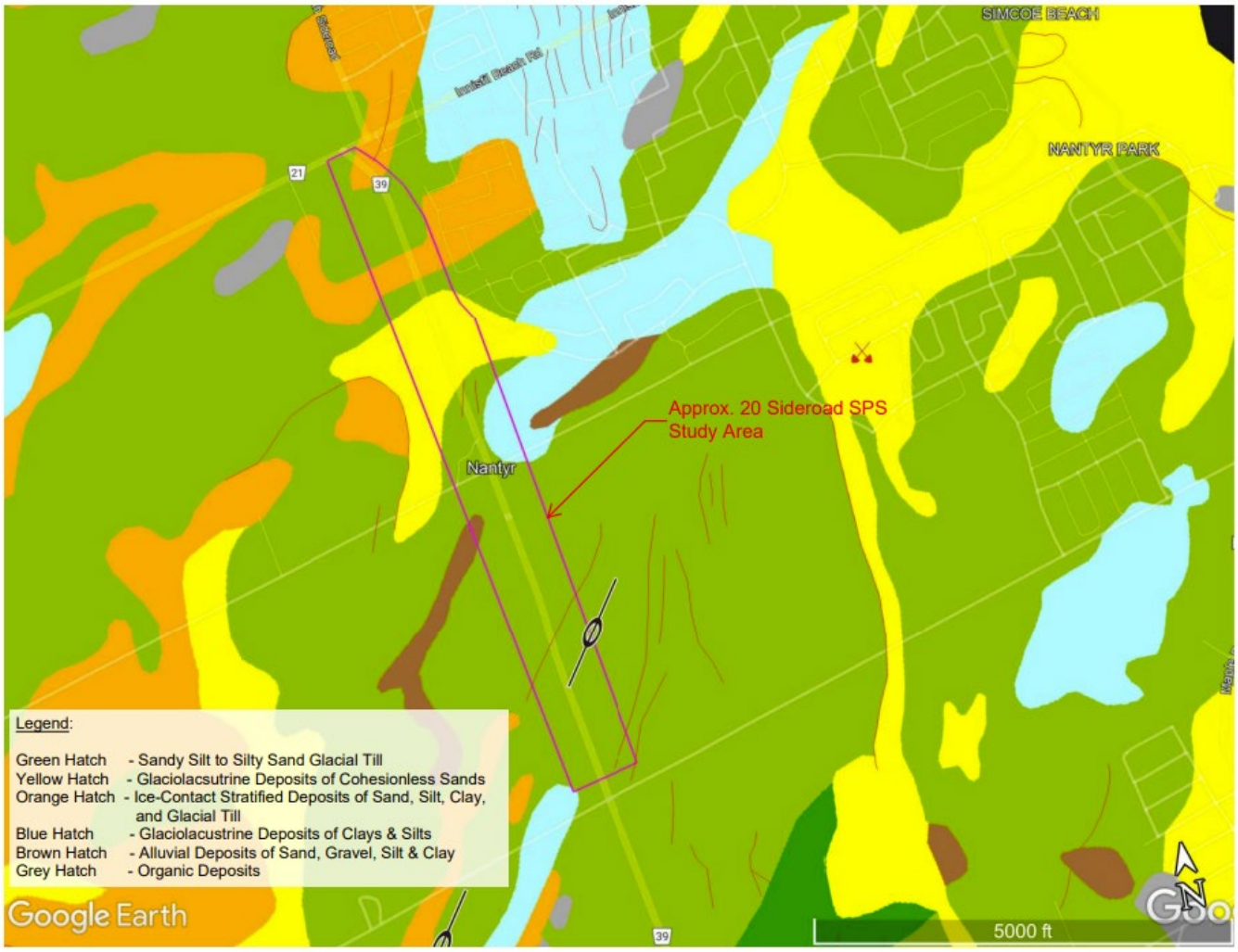

Figure 5 – Surficial Geology Mapping

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 typically well graded and laboratory testing the from the nearby MTO boreholes in Enclosure 5 shows this. 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.

If deposits of Glaciolacustrine clay are encountered, the considerations will be similar to the glacial till.

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.

Based on this preliminary review, approximately the southern 900 metres of the 20th Sideroad SPS study area (starting from 250 metres south of 7th Line) is considered the best location from geotechnical and hydrogeological engineering perspectives, as summarized below:

- There appears to be the highest probability for deeper glacial till deposits in this area based on the geology mapping and MECP well records. Sand deposits may still be encountered underlying / interbedded within the glacial till.
- The grades are closer to Elev. 268 metres, or about 15 metres higher than the grades along the streams through the middle of the site. The groundwater table may be deeper where grades are higher than the nearby streams.
- There are fewer nearby drinking water wells, surface water features, houses or other structures that could be impacted by dewatering activities.

- With the vacant surrounding lands, open cut excavations may be feasible instead of shoring which could potentially reduce design and construction costs.
- 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 middle of the study area (generally 250 metres north or south from the intersection of 20th Sideroad and 7th Line) is considered the second-best location from geotechnical and hydrogeological engineering perspectives, as summarized below:

- This area of the site has an elevation of 252 to 254 metres and appears to have a higher probability for deeper glacial till deposits. However, the close proximity to a significant groundwater recharge area and a highly vulnerable aquifer may require additional measures to be in place to reduce the risk of contamination.
- There is a wide variety of surficial geology being recorded in the area which could mean variable soil conditions at depth.
- There are nearby dwellings and a higher concentration of domestic drinking water wells screened around 9 to 10 metres below grade. Potentially more stringent dewatering and excavation support systems may be required.

Based on this preliminary review, the northern section of the study is considered the least preferred location from geotechnical and hydrogeological perspectives. There appears to be the highest potential for wet sands to exist at grade, the surrounding area is more densely developed and the railway runs along the eastern side of 20th Sideroad (more stringent dewatering and shoring considerations likely required to prevent excessive settlements).

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, wetlands and meadows that are intermixed with agricultural, rural residential and commercial lands. A total of thirteen vegetation communities were identified by Azimuth in 2021. Non-provincially significant unevaluated wetland exists within the study area and adjacent lands.

The road right of way (ROW) was typically composed of open ‘field’ habitat composed of opportunistic herbaceous/grass species. Riparian 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 (KNHF), many of the rural properties are treed and include hedgerows that border the properties.

There were no Butternut (Threatened) observed during Azimuth's 2021 field investigations although, we are aware that Butternut have been documented within the southernmost deciduous woodland community.

3.3.2 Species at Risk

The Ministry of Natural Resources and Forestry's (MNRF) NHIC database identifies records for five Species at Risk: Butternut (Endangered), Blanding's Turtle (Threatened), Eastern Meadowlark (Threatened), Snapping Turtle (Special Concern) and a Restricted Species.

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

- Blanding's Turtle (Threatened): Potential habitat for Blanding's Turtle within wetland habitat;
- 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. Butternuts are known to occur within the southernmost woodland on the east side of 20th Sideroad;
- Eastern Meadowlark (Threatened): Potential habitat for Eastern Meadowlark occurs within the agricultural lands of the study area;
- 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 two, mapped watercourses that convey flow from west to east, ultimately converging approximately 1.3 kilometer (km) east of the 20th Sideroad and continuing eastward in the 7th Line roadside ditch before discharging directly to Lake Simcoe in Nantyr Park. Background mapping from the Lake Simcoe Region Conservation Authority's (LSRCA) Innisfil Creeks Subwatershed Plan (2012) identifies both systems as headwater tributaries of Bank's Creek, with historic record of coldwater conditions suitable for coldwater adapted Brook Trout (Salvelinus fontinalis) (LSRCA, 2012). The subwatershed report notes that Banks Creek is thought to no longer have its population, however the system is classified as coldwater, and it remains unconfirmed if the population has persisted in some capacity (LSRCA, 2012).

Both watercourses in the study area are regulated by the LSRCA, and will require site specific Fisheries Act review for works that have the potential to impact fish habitat (DFO, 2017). There are no known aquatic SAR known to occur within the Lovers Creek watershed (LSRCA, 2007; DFO, 2019).

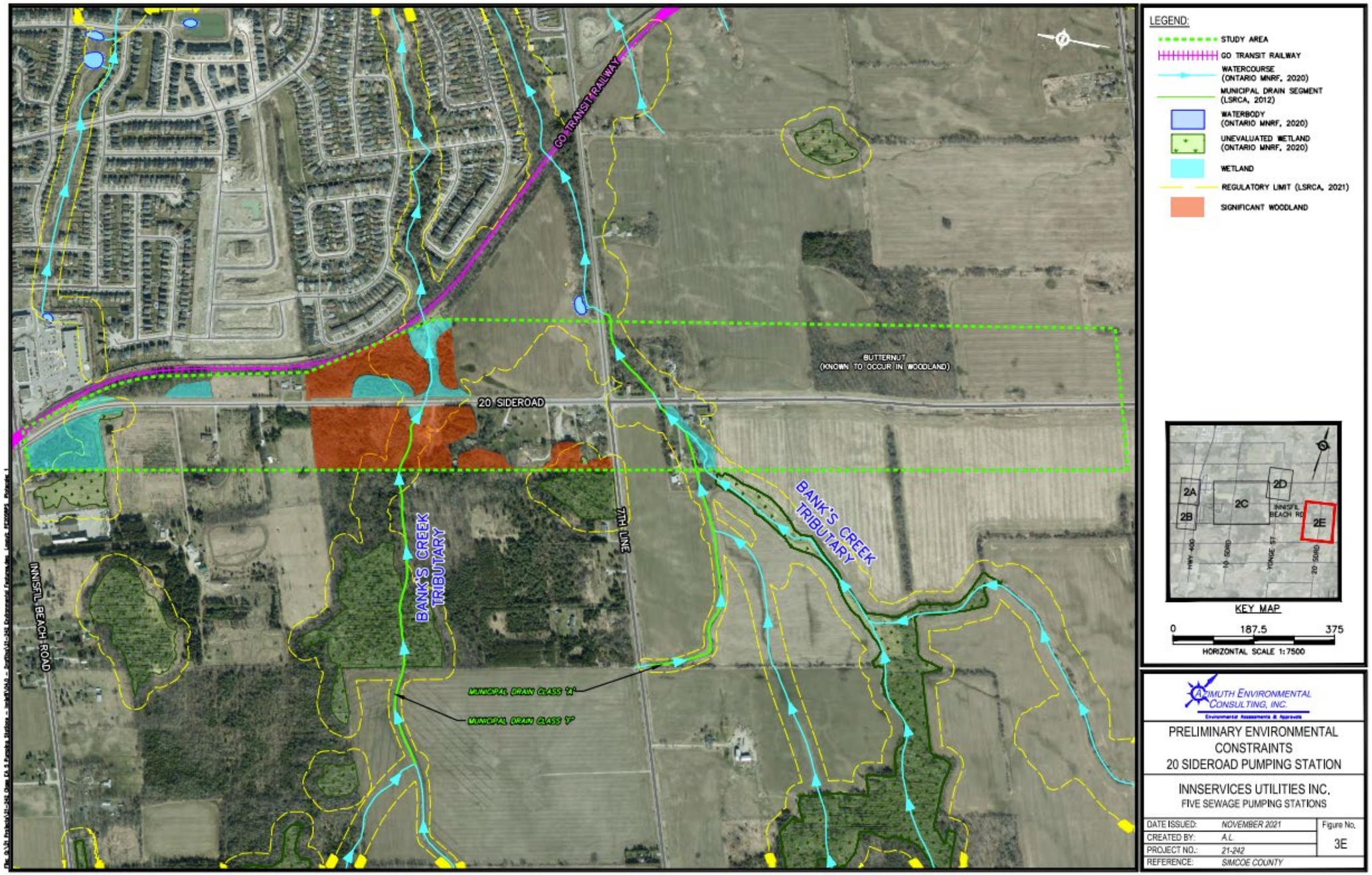

Figure 6 – Key Natural Heritage Features

3.4 Cultural Environment

Cultural heritage resources include archaeological resources, built heritage resources and cultural heritage landscapes.

3.4.1 Stage 1 Archaeological Study

A Stage 1 Archaeological Assessment was undertaken under Project Information Form (PIF) P383-0307-2021 in March 2022 by Archaeological Services Inc. (ASI) for the 20th Sideroad Sewage Pumping Station (Lot 20 and 21, Concession 6, Lot 20 and Lot 21, Concession 7, Former Township of Innisfil, County of Simcoe). A Stage 1 AA consists of a review of geographic, land use and historical information for the property and the relevant surrounding area, a property visit to inspect its current condition and contacting Ministry of Citizen and Multiculturalism (MCM) to find out whether, or not, there are any known archaeological sites on or near the property. Its purpose is to identify areas of archaeological potential and further archaeological assessment as necessary. A copy of the full report is included in Appendix F.

According to the OASD, nine previously registered archaeological sites are located within one (1) kilometre of the Study Area, none of which are located within 50 metres. 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 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 Stage 2 Archaeological Study

A Stage 2 Archaeological Assessment was undertaken under Project Information Form (PIF) P383-0502-2025 in November 2025 by Archaeological Services Inc. (ASI) for the 20th Sideroad Sewage Pumping Station (Part of Lot 21, Concession 7, Geographical Township of Innisfil, County of Simcoe). A Stage 2 AA consists of a survey by the licensed archaeologist to identify any archaeological resources on the property (or study area). The archaeologist will determine whether any archaeological resources found are of sufficient cultural heritage value or interest to require Stage 3 assessment. A copy of the full report is included in Appendix G.

Approximately 4% of the Project Area was identified as having low archaeological potential due to previous disturbance. The remaining 96% underwent pedestrian and test pit survey at one- and five-metre intervals. No archaeological resources were identified during the Stage 2 assessment, and no further archaeological investigation is recommended.

3.4.3 Cultural Heritage Resources

A Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment was undertaken in January 2022 (revised in February 2026) by ASI for the 20th Sideroad Sewage Pumping Station. The assessment for this report consisted of data collection background historic research, review of secondary source material and field review. A total of two previous identified features of cultural

heritage value within the 20 SR SPS study area. No additional potential cultural heritage landscapes were identified during the fieldwork.

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

Figure 7 – Location of Identified CHLs in 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 20th Sideroad Sewage Pumping Station is as follows:

> *"Identify and develop a preferred solution (location) for new 20th Sideroad sewage pumping station on 20th Sideroad to meet future capacity requirements of Town Campus and 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 Town Campus and the Strategic Settlement Employment Area to the Water Pollution Control Plant (WPCP) and facilitate development consistent with the Town of Innisfil Official Plan.	Four 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 20th Sideroad 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 1 – Site 1A

Site 1A is located on the north side of the north tributary of Bank's Creek on the east side of 20th Sideroad. The site is designated as a significant woodlot site.

Alternative 2 – Site 1B

Site 1B is located on the south side of the north tributary of Bank's creek on the east side of 20th Sideroad. The site is designated as an agricultural site. Portions of the property are within LSRCA regulated area; however, the site area is not within regulated lands.

Alternative 3 – Site 2A

Site 2A is located on the north side of the north tributary of Bank's Creek on the west side of 20th Sideroad. The site is designated as a significant woodlot site. The south portion of the site is within a conservation authority regulated area.

Alternative 4 – Site 3A

Site 3A is located on the north side of the south tributary of Bank's Creek on the west side of 20th Sideroad. The site is an agricultural site. Portions of the site along 20th Sideroad are within LSRCA regulated lands.

An overall plan showing each alternative is provided in Figure 8.

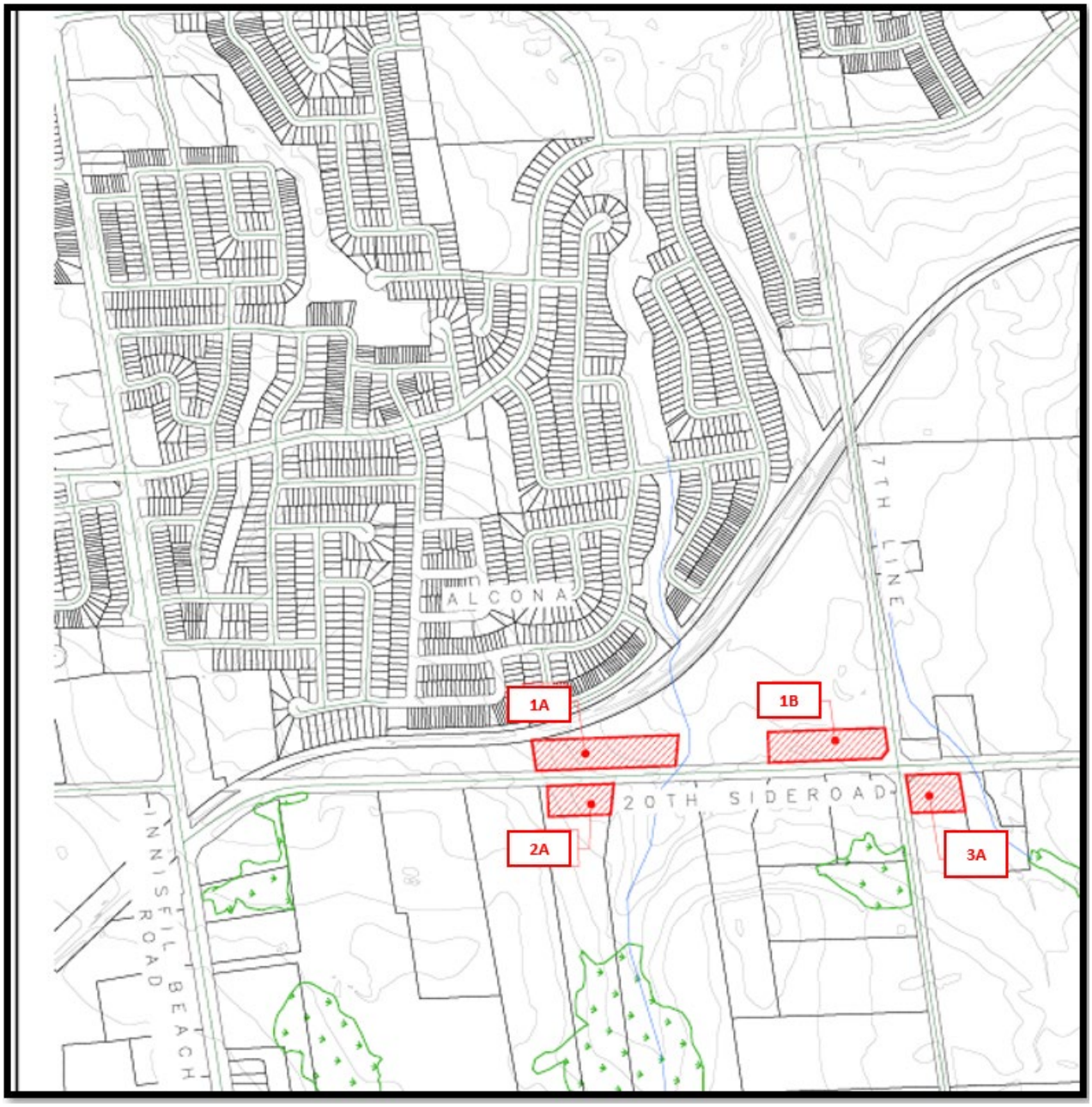

Figure 8 – Preliminary Alternatives

6. DETAILED EVALUATION OF ALTERNATIVE SOLUTIONS

6.1 Detailed Evaluation Matrix

Each of the alternatives underwent an evaluation based on their potential impact on the environment of the study area, including physical, natural, cultural, and socio-economic aspects. The results of this evaluation are presented in a table or matrix to present a simplified, visual comparison, as shown in Figure 9.

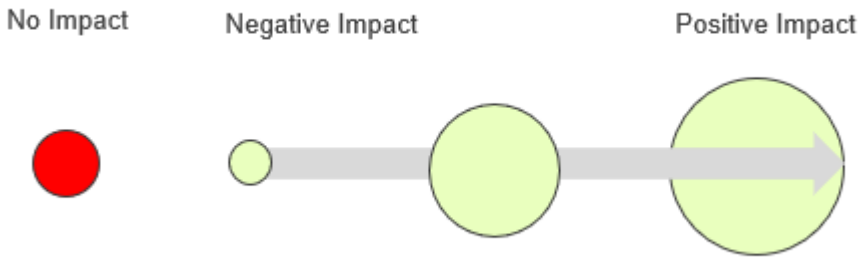

Figure 9 – Evaluation Matrix (Visual Comparison)

An increased number of larger circles indicates that an alternative has increasing positive impacts and fewer negative impacts.

6.2 Detailed Evaluation Criteria

Each alternative solutions were 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, Impacts to Utilities
- **Natural Environment:** Proximity to Key Natural Heritage Features, Terrestrial Vegetation/Wildlife (Including SAR), Surface Water and Fisheries, Groundwater, Climate Change/Air Quality
- **Cultural and Social Environment:** Archaeological Resources, Cultural Heritage Resources, Aesthetics (Noise, Odour, Visibility), Addresses Future Capacity Requirements, Impacts to Property Owners, Impacts to Adjacent Business/Commercial Properties
- **Economic Environment:** Operating and Maintenance Costs, Capital costs, Land Acquisition Costs

6.3 Evaluation Scoring

The evaluation scoring for each alternative is presented in a table to provide a simplified, visual comparison (Table 3). A full discussion on the evaluation of each criteria is found in section 6.4.

Table 3 – Evaluation Matrix for Four Alternatives

EVALUATION CRITERIA	ALT 1	ALT 2	ALT 3	ALT 4	DESCRIPTION OF EFFECTS
PHYSICAL ENVIRONMENT					
Suitability of Elevation and Topography	○	◯	▫	◯	Alternative 1 and 3 pose a slight technical disadvantage due to the longest pumping distance. Topography would require that a forcemain descend to maintain cover before rising. This would require additional air/vacuum release chambers. Preliminary layout indicates that there is adequate space for station footprint within each Alternative site.
Geotechnical Suitability	○	◯	○	◯	Preliminary review of Alternatives 1 and 3 show 'Glaciolacustrine Deposits of Cohesionless Sands' which will support construction. 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. Preliminary review of Alternatives 1 and 3 show a disadvantage due to likelihood of higher groundwater flow rates requiring more robust dewatering system. Alternatives 2 and 4 are considered more favorable for the SPS construction.
Hydraulics	○	○	○	○	Alternatives 1 and 3 have head advantage but will need an extra chamber and long-term maintenance challenges with air / vacuum releases. 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.
Groundwater	▫	○	▫	○	Alternative 1 and 3 are within areas of 'Significant Groundwater Recharge'. Alternatives 2 and 4 are within an area classified as a 'Highly Vulnerable Aquifer'. Alternatives 1 and 3 are more likely to need robust dewatering during construction.
Climate Change /Air Quality	○	○	○	○	All alternatives are similar in air quality and climate change impacts.

EVALUATION CRITERIA	ALT 1	ALT 2	ALT 3	ALT 4	DESCRIPTION OF EFFECTS
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. Alternatives 1 and 3 require a more invasive test pit survey.
Cultural Heritage Resources	◯	◯	◯	○	Site alternatives 1, 2 and 3 have 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 of the 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.
ECONOMIC ENVIRONMENT					
Operating and Maintenance Costs	◯	◯	◯	◯	Alternatives 1 and 3 have the head advantage but will need the extra chamber and long-term maintenance challenges with air vacuum releases. Alternatives 2 and 4 will have higher head requirements and bigger pumps but have the better hydraulics, no need for air release.
Capital Costs	◯	◯	◯	◯	The capital costs for the SPS's will be similar under each alternative site location. Alternatives 1 and 3 have the head advantage but will need the extra chamber and long term maintenance challenges with air vacuum releases. 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					
	3	1	4	2	

6.4 Evaluation Discussion

6.4.1 Technical/Physical Environment Evaluation

a) Suitability of Elevation and Topography

All alternatives share a similar topographic elevation. Alternative 1 and 3 present a slight technical disadvantage due to the longest pumping distance from the station to the proposed trunk sewer.

b) Geotechnical Suitability

It is anticipated that these soil types will offer similar advantages in terms of construction for all four alternatives. However, a preliminary desktop review of subsurface conditions indicates the presence of sands, silts, and glacial till for Alternatives 2 and 4, which are more favorable for SPS construction.

c) Hydrogeological Suitability

The preliminary review from a hydrogeological perspective indicates that the subsurface conditions appear relatively consistent with few constraints noted. However, construction dewatering in close proximity to the watercourse could lead to impacts and will need to be carefully assessed. Alternatives 1 and 3 have a higher groundwater flow rate, requiring a more robust dewatering system.

d) Hydraulics

Alternatives 1 and 3 have an advantage in headloss but will need an extra chamber and long-term maintenance for air/vacuum releases. Alternatives 2 and 4 offer better hydraulic performance with no need for air releasing, but they require overcoming higher headlosses and the use of larger pumps.

e) Impacts to Utilities

The presence of overhead hydro on the west side of 20th Sideroad makes construction access more challenging. Alternative 3, which is situated on the west side of 20th Sideroad, is particularly affected by this constraint, as it needs to bring hydro over Yonge Street.

6.4.2 Natural Environment Evaluation

a) Proximity to Key Natural Heritage Feature or Regulated Area

Alternatives 2 and 4 are situated outside of the Key Natural Heritage Feature or Regulated Area, resulting in the least impact.

b) Terrestrial Vegetation/Wildlife (Including SAR)

The potential for SAR habitat within the agricultural fields and the woodland habitat is noted. As of the current investigation, Alternative 2 and 4 have less impacts as the specific sites have less environmental features.

c) Surface Water and Fisheries

Alternative 4 is situated within the LSRCA regulated area, in closer proximity to the riparian floodplain of the watercourse. The other three alternatives are within 250 meters but not within 50 meters of Bank's Creek.

d) Ground Water

Alternative 2 and 4 are within an area classified as a 'Highly Vulnerable Aquifer'. Alternative 1 and 3 are within the areas of 'Significant Groundwater Recharge', which are more likely to need robust dewatering during construction.

f) Climate Change and Air Quality

All alternatives exhibit comparable effects on air quality and climate change since they are situated away from residential areas, thereby minimizing direct impacts on nearby residents.

6.4.3 Cultural and Social Environment Evaluation

a) Archaeological

Through the Stage 1 Archaeological Assessment it was determined that all four site alternatives show potential for archaeological resources, and additional investigation is necessary to confirm this and develop appropriate mitigation measures. Alternatives 1 and 3 require a more invasive test pit survey, resulting in a lower score.

b) Cultural Heritage

Alternatives 1, 2, and 3 have been confirmed to have no potential for Cultural Heritage impacts. However, site 4 is in proximity to two significant sites.

c) Aesthetics (Noise, Odour, Visibility)

Alternatives 2 and 4 are closer to more residential homes. Alternatives 1 and 3 are situated on agricultural land, minimizing proximity to the public.

d) Addresses Future Capacity Requirements

All four alternatives allow future growth to satisfy developmental requirement.

e) Impacts to Property Owners

All of the alternatives will impact private property owners, as land acquisition is required. Temporary impacts are anticipated during construction and may affect traffic.

f) Impacts to Adjacent Business or Commercial Properties

Alternatives 2 and 4 will have some impact on farming in the small portion of land that will be acquired.

6.4.4 Economic Environment

a) Operating and Maintenance Costs

In general, operation and maintenance costs tend to rise as the pumping distance increases, primarily because of the growing dynamic headlosses, which necessitate larger pump sizes. Furthermore, longer forcemains can lead to potential odour issues if the retention time is excessively long. However, dynamic headlosses can be mitigated through appropriate forcemain sizing, and retention time can be reduced through design alternatives such as the use of dual forcemains.

b) Capital Costs

The capital costs for the SPS's are expected to be similar under each alternative site location.

c) Land Acquisition Costs

All of these four sites will require private property acquisition to proceed with the project.

7. CONSULTATION

The 20th Sideroad Sewage Pumping Station 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 November 11, 2021 edition and a copy of the notice was also posted on the Town of Innisfil's website. 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 November 11, 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 20, 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 and Client's Guide to Preliminary Screening for Species at Risk 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. A summary of the comments and responses is also provided in Table 4.

The project team received a letter from Curve Lake First Nation in regard to the proposed new Sewage Pumping Station. The letter provided information on *Curve Lake First Nation's Consultation and Accommodation Standards.* Ongoing consultation with Curve Lake has occurred throughout the project process and is further described in Section 7.4.1.

7.2 Notice of Public Information Centre

A Notice of Public Information Centre was published on the Town of Innisfil's website and social media accounts in June 2022. The notice was published in the *Innisfil Journal* in the June 9 and 23, 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. Four (4) 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. The PIC was conducted in the form of a pre-recorded presentation, which was made accessible for review on the Town of Innisfil's website for interested parties.

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

7.3 Notice of Completion

The Notice of Completion will be posted on the Town of Innisfil's and InnServices' websites.

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
- Council of the Wendat Nation (formerly known as 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 November 11th, 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.

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 June 13th, 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.

The Council of the Wendat Nation expressed interest in any archaeological studies or fieldwork related to the project on July 7th, 2022. The Stage 1 Archaeological Assessment report was provided on May 5th, 2022.

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

The Stage 2 Archaeological Field Assessment was conducted on September 30th, 2025. Ainley sent notices to all interested FNs on July 24th, 2025. However, no participation requests were received.

On November 7th, 2025, the Stage 2 Archaeological Assessment report was provided to the Council of the Wendat Nation, Chippewas of Rama First Nation, and CLFN. On November 12th, 2025, the Council of the Wendat Nation advised that they would not be reviewing or providing comments on the report. On December 1st, 2025, the Chippewas of Rama First Nation confirmed that they had no major comments regarding the report.

On December 18th, 2025, the MECP confirmed that the Métis Nation of Ontario and the Saugeen Ojibway Nation may be removed from the distribution list. From the time Ainley received this confirmation, no further notices have been circulated to the Métis Nation of Ontario or the Saugeen Ojibway Nation.

7.4.1 Consultation with Curve Lake First Nation

Throughout this Class EA, engagement with Curve Lake First Nation (CLFN) has occurred. As previously described, multiple teleconference meetings were held with members of Curve Lake First Nation to discuss the project.

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, environmental constraints report and geotechnical desktop report were submitted to CLFN for review on February 28th, 2022. The stage 1 archeological report was submitted to CLFN for review on May 5th, 2022.

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

On May 11th, 2022, CLFN reviewed the Environmental Constraints Analysis report and commented that some critical surveys are missing for species located in and around the study areas, which do not meet provincial standards or CLFN standards. On May 13th, 2022, Cambium Indigenous Professional Services (CIPS) provided CLFN Consultation and Accommodations Standards on behalf of CLFN. Ainley provided a response letter on May 27th, 2022, noting that further vegetation surveys and dawn breeding bird surveys would be conducted in Summer 2022.

Ainley provided the PIC materials to CLFN for review on June 27th, 2022.

CLFN participated the site investigation for 20th SR SPS on July 5th, 2022.

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, it requires the development of an Environmental Monitoring Plan to ensure cultural integrity during and after the construction phase.

Ainley provided a site comparison summary letter to CLFN on April 6th, 2023.

Consultation meeting held on September 12th, 2023 – Ainley identified the preferred location to CLFN and verified that it is situated at a distance from wetlands or watercourses.

CLFN confirmed on November 24th, 2025, that they have no concerns regarding the Stage 2 Archaeological Assessment report.

7.5 Consultation with Property Owner/Consulting Group

The property located at 1460 7th Line, Innisfil, is owned by private owner. SCS Consulting Group, as the consulting firms for the property owner, are tasked with offering preliminary comments on the land, while KLM Planning Company serves as the engineering consulting firm for future development.

After the Public Information Centre (PIC), Ainley provided a letter on June 28th, 2023, explaining why the subject property was chosen as the preferred location. On November 10th, 2023, the project team had a meeting with the property owner, SCS Consulting Group, and KLM Planning Company to further discuss the ideal location of the SPS, concerns regarding land use, and additional studies required on the land.

On April 18th, 2024, another meeting was held to further discuss the potential location of the proposed 20 SR SPS and address any concerns to obtain the Permission to Enter Agreement. The location of the SPS is not determined during the meeting. A conceptual development plan was shared to the project team on May 8th, 2024.

Subsequently, Ainley issued a letter on July 19th, 2024, identifying the preferred SPS locations and example SPS designs that would be compatible with the surrounding aesthetic. A consultation meeting was held on August 20th, 2024, with the property owners to discuss these matters further.

7.6 Summary of Comments

A summary of all comments received during the EA period can be found in Table 4. The contact information for all public member comments has been removed.

Table 4 – Comment Summary Table

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
AGENCY COMMENTS			
Notice of Commencement – November 2021			
1.	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 on November 15, 2021**: "20th SR is beyond MTO permit control area. MTO review and approvals are not required."	No response required. Contact list has been updated.
2.	Taylor Stevenson Senior Environmental Regulations/Capital Projects Analyst Lake Simcoe Region Conservation Authority 120 Bayview Parkway, Newmarket, Ontario L3Y 3W3 t.stevenson@LSRCA.on.ca	**Comment received via email on November 22, 2021**: "Thank you for consulting the LSRCA on the Class Environmental Assessment for 20th Sideroad Sewage Pumping Stations. Based off the attached Notice of Study, the study area includes several areas that are regulated under Ontario Regulation 179/06 made pursuant to the *Conservation Authorities Act*. Any development within regulated areas will require a permit from our office. The study area is within the Innisfil Creek subwatershed and specifically includes 2 tributaries of Banks Creek and their associated floodplain and meanderbelt hazards, which are regulated by the LSRCA (maps attached). There are 3 unevaluated (non-PSW) wetlands that have been mapped by the Ministry of Natural Resources and Forestry within the study area (maps attached). I have also attached maps which show the Simcoe Greenland and woodlands between 6th Line and Innisfil Beach Road. The LSRCA provides the following suggestions to avoid or mitigate impacts associated with the proposed development within our areas of interest: • Wherever possible, the watercourses, floodplains, meanderbelt and wetlands be avoided. • Any significant woodlands be avoided or impact mitigated. • Existing drainage and conveyance be maintained and or improved with no changed to upstream or downstream flows. • Quantity and quality storm water management controls be implemented to avoid impacting erosion, floodplains or pollution. • Any fill placement in the floodplain be avoided or compensated for with an incremental cut. • Proper erosion and sediment control measures be undertaken to prevent sediment migration and impact to watercourses." A copy of the full letter can be found in Appendix M.	No response required at this time. LSRCA's suggestions will be carried into the next phase of the Class EA and included in the final Project File Report.
3.	Jack Mallon Heritage Planner Ministry of Heritage, Sport, Tourism and Culture Industries Jack.Mallon@ontario.ca	**Comment received via email December 13, 2021:** "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" The letter provided details on components of cultural heritage that must be considered as part of the Class EA. A copy of the full letter can be found in Appendix M.	**Response provided via email by Ainley on December 13, 2021:** "Thanks for the feedback. A Stage 1 archeological study and a cultural heritage study will be conducted as part of this Class EA. We will forward a copy of both those reports to you when they are available."

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
4.	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 communites 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 (PIC) – June 2022			
No comments were received during the Notice of PIC period.			
Notice of Completion – March 2026			
INDIGENOUS COMMUNITY COMMENTS			
Notice of Commencement – November 2021			
No comments were received during the Notice of Commencement period.			
Notice of Public Information Centre (PIC) – June 2022			
1.	Dominic Ste-Marie Land Management Advisor Huron-Wendat Nation Dominic.Sainte-Marie@wendake.ca	**Comment received via email on July 7, 2022**: "Please note that the Huron-Wendat Nation is interested in participating in all archaeological fieldwork for this project, as well as receiving copies of the draft reports for review and comments. Funding must be made available to insure our participation."	The Stage 1 AA report was submitted on May 5th, 2022.
2.	Emily Martin Resources and Infrastructure Manager manager.ri@saugeenojibwaynation.ca	**Comment received via email on August 3, 2022**: "this proposal has been passed to Riel who will be in touch with you if this requires consultation."	No response required.
Notice of Completion – March 2026			

NO.	RESPONDENT INFORMATION	COMMENTS RECEIVED	DRAFT RESPONSE / ACTION REQUIRED
PUBLIC COMMENTS			
Notice of Commencement – November 2021			
1.	Keith MacKinnon KLM PLANNING PARTNERS INC.	**Comment received via email on November 16, 2021**: "I represent the owner of the north east corner of the 7th Line and 20th Sideroad and would like to be kept informed of this EA process."	**Response provided via email by Ainley on November 16, 2021:** "Thank you for your interest in this Class EA. We will add you to the study's contacts database and send publicly released information and any notices to you directly by email." Contact list has been updated.
Notice of Public Information Centre (PIC) – June 2022			
1.	Sarah Kurtz Associate SCS Consulting Group Ltd.	**Comment received via email June 23, 2023:** "Good afternoon Jenna and Preya, we represent the owners of the property located at 1460 7th Line in Innisfil and are writing regarding the PIC materials for the proposed 20th Sideroad Sewage Pumping Station. We understand that 2 of the 4 potential sites being investigated for the SPS location are on the 1460 7th Line property (Sites 1A and 1B). We have reviewed the PIC materials and have several questions that we'd like to discuss with you. Please advise of several dates/times that you are available to (virtually) meet with us at your earliest convenience."	**Response provided by Ainley via email July 4, 2023:** "Thank you for reaching out to us regarding the 20th Sideroad sewage pumping station EA. We have availability this Thursday between 9:30 and 3:30pm and Friday between 11am and 3:30 to meet. Do you have availability between those times as well? If so, please advise and we will set up a time to discuss."
Notice of Completion – March 2026			

8. PREFERRED SOLUTION

8.1 Preferred Site Location

Following the completion of the Public Information Centre and a review of all comments received, the following alternative was selected as the final Preferred Solution:

Alternative 2 – Site 1B Location at 1460 7th Line, Innisfil

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

- Suitability of Elevation and Topography: The location features a shorter pumping distance and more favorable topography for SPS construction.
- Geotechnical Suitability: The soil profile, consisting of sands, silts, and glacial till, is considered favorable for SPS construction.
- Hydrogeological Suitability: The location is anticipated to have lower groundwater flow rates.
- Impacts to Utilities: Overhead hydro infrastructure is located on the opposite side of the road from the preferred site.
- Proximity to Key Natural Heritage Features: The location results in minimal impact, as it is situated outside identified Key Natural Heritage Features.

Figure 10 – Alternative 2 Location and Approximate SPS Footprint

The anticipated timing for next steps includes; property acquisitions and detailed design to be completed within the year 2026, with construction implemented in 2027.

8.2 Proposed SPS Location

Following the selection of the preferred location, a geotechnical investigation, environmental constraints analysis was conducted at 1460 7th Line to identify a suitable placement for the SPS. The final location also considers discussions with the property owner and traffic considerations, aligning with the preliminary development plan proposed by the property owner.

8.2.1 Geotechnical Investigation

GEI Consultants, on behalf of Ainley Group, has completed a geotechnical investigation at 1460 7th Line. This investigation assesses site conditions, including soil type, constructability considerations, and design considerations based on on-site soil sampling and monitoring well observations.

Subsurface conditions at the site generally consist of a thin topsoil layer (approximately 50 to 305 mm thick) underlain by a fill layer associated with historical farming activities, comprising moist sandy silt with some clay and organics in loose to compact condition. Beneath the fill, native soils vary across boreholes and include clayey silt extending to depths of approximately 7.6 to 9.1 m in Boreholes 1 and 2, and a sand and silt unit with some clay and trace gravel extending to about 5.5 m depth in Borehole 3, with these materials ranging from stiff to hard or compact to locally dense. Underlying these units, cohesive silty clay or silt and clay layers were encountered to depths of approximately 9.1 to 10.7 m, exhibiting very stiff consistency, followed locally by a discontinuous dense silt layer. At greater depths, a dense to very dense sand and gravel or gravelly sand unit was encountered in Boreholes 1 and 2, underlain by a basal sand layer present in all boreholes to the maximum depth of exploration (approximately 12.6 m), generally in compact condition.

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 1460 7th Line.

The analysis concludes that environmental conditions do not pose constraints to the construction of the 20 SR SPS. The proposed infrastructure is consistent with the applicable natural heritage policies of the ESA, the County of Simcoe Official Plan, the Town of Innisfil Official Plan, and the Lake Simcoe Protection Plan.

The works are not expected to negatively impact the ecological functions of wetland or Significant Woodland, and no potential threatened or endangered species are anticipated to be present.

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

8.2.3 Preliminary Site Layout

Figure 11 below illustrates the preliminary layout of the SPS.

Figure 11 – Preliminary Site Layout of 20 SR 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.
- 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 2026 dollars.
- Exclusions:
    - InnServices costs (approvals, SCADA, site investigations, etc.)

- Engineering Costs
- Impacts due to inflation and escalation
- Harmonized Sales Tax (HST)

The total estimated cost for the SPS is $17.5 million.

The SPS will connect to the trunk sewer along 20th Sideroad via a forcemain with an approximate length of 1,000m. The estimated cost for the forcemain, including general works, temporary works, removals, restoration, piping and valves, is $3.5 million.

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 Vegetation

- Vegetation clearing should occur outside of the breeding bird season (generally late April to late July) to prevent nest destruction to comply with the Migratory Birds Convention 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.
- Where feasible, trees proposed to be retained will be protected by tree protection fencing (TPF), which is to be placed at the dripline or in a location to minimize encroachment into the root zone and protect the trunk. Fencing provides protection from potential damage during construction activities such as the use of machinery near trees and branches, and stockpiling of materials over the root zone. ESC fencing can be combined with TPF.
- A tree compensation ratio of 2:1 is recommended, with planting and restoration efforts focused on rehabilitating natural areas disturbed during construction activities.

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 Specific Erosion and Sediment Control Measures

The LSRCA requires that the ESC measures by demonstrated on all relevant plans and/or drawings submitted. 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.

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 1 Archaeological Assessment report (PIF P383-0307-2021) and the Stage 2 Archaeological Assessment report (PIF P383-0502-2025), included as Appendices F and G, indicate 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.

- 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 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 and Procurement, which administers provision 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*.

- Construction activities and staging should be suitably planned and undertaken to avoid impacts to identified cultural heritage resources.

10.8 Built Heritage Resources and Cultural Heritage Landscapes

There is a low potential to impact potential cultural heritage landscapes identified in the Cultural Heritage Report (Appendix H). The following mitigation will assist in avoiding any direct or indirect impacts.

- Staging and construction activities should be suitably planned and undertaken to avoid unintended negative impacts to identified cultural heritage resources. 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.
- 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 cultural heritage resources.
- The Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment should be submitted 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 records.

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 the Township 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.
- 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.