Stroud Water Storage Facility and Booster Pumping Station Municipal Class Environmental Assessment

Project File Report

Final

Prepared for:
InnServices Utilities Inc.

RVA 257951

May 22, 2026

R.V. Anderson Associates Limited
2001 Sheppard Avenue East, Suite 300
Toronto ON M2J 4Z8 Canada
T 416 497 8600 **F** 855 833 4022
rvanderson.com

RVA 257951

May 22, 2026

InnServices Utilities Inc.
7251 Yonge Street
Innisfil, ON
L9S 0J3

Attention: Jenna DeGroote, C.E.T.
Capital Project Manager

Dear Ms. DeGroote:

Re: Stroud Water Storage Facility and Booster Pumping Station Municipal Class EA
Project File Report – Final Copy

Please find enclosed the final copy of the Project File Report for the Stroud Water Storage Facility and Booster Pumping Station Municipal Class Environmental Assessment.

Please do not hesitate to contact the undersigned if you have any questions.

Yours very truly,

R.V. Anderson Associates Limited

Walid Abi Akar, P.Eng.
Project Manager

Encls.

STROUD WATER STORAGE FACILITY AND BOOSTER PUMPING STATION MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

PROJECT FILE REPORT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

1.1 Purpose of Study

In 2023, InnServices Utilities Inc. (InnServices) completed a Master Servicing Plan (MSP) update which identified short- and long-term strategies for water and wastewater servicing to accommodate population and employment growth outlined in the 2018 Innisfil Official Plan.

Under Section 9.2 of the MSP final report - Recommended Water and Wastewater Master Servicing Plan - the project involving the construction of a New Stroud Water Storage Facility and Booster Pumping Station (BPS) was recommended for implementation under the short-term timeline. The facility will be supplied by the Lakeshore Water Treatment Plant via the Alcona Reservoir and BPS and a Schedule B Municipal Class Environmental Assessment (MCEA) will be required prior to its construction.

The objective of this Project File Report (PFR) is to document the results of the MCEA process pertaining to the identification, evaluation and recommendation of the preferred location, facility type and associated system upgrades. In addition, communication and consultation efforts with the public, government agencies, First Nations and Indigenous Communities and other interested stakeholders are documented in the report.

1.2 Municipal Class Environmental Assessment Planning Process

The Municipal Class Environmental Assessment (MCEA) Document provided by the Municipal Engineers Association (MEA) in 2000 (as amended in 2007, 2011, 2015 and 2023) outlines an approved planning process for municipal infrastructure projects, including water and wastewater projects. Proponents can use the MCEA process to meet the requirements of the Ontario Environmental Assessment Act. The MCEA process is illustrated in Figure 1.1.

The MCEA process includes mandatory requirements for gathering input from directly affected members of the public, relevant regulatory agencies, First Nations and Indigenous Communities. The evaluation of alternatives to a problem or opportunity is also required in this process.

The Stroud Water Storage Facility and Booster Pumping Station MCEA was completed as a Schedule B Class EA. The MCEA defines Schedule B projects as follows:

Schedule B projects have the potential for some adverse environmental effects. A proponent undertaking a Schedule B Class EA must undertake Phase 1 and 2 of the Class

EA process. During this Class EA process, the Proponent must provide one (1) mandatory point of contact with the directly affected public, relevant government agencies and First Nations and Indigenous Communities to allow for the identification and consideration of concerns raised. The documentation of the process is included in the PFR. If there are no outstanding concerns during the 30-day review period, then the proponent may proceed to implementation.

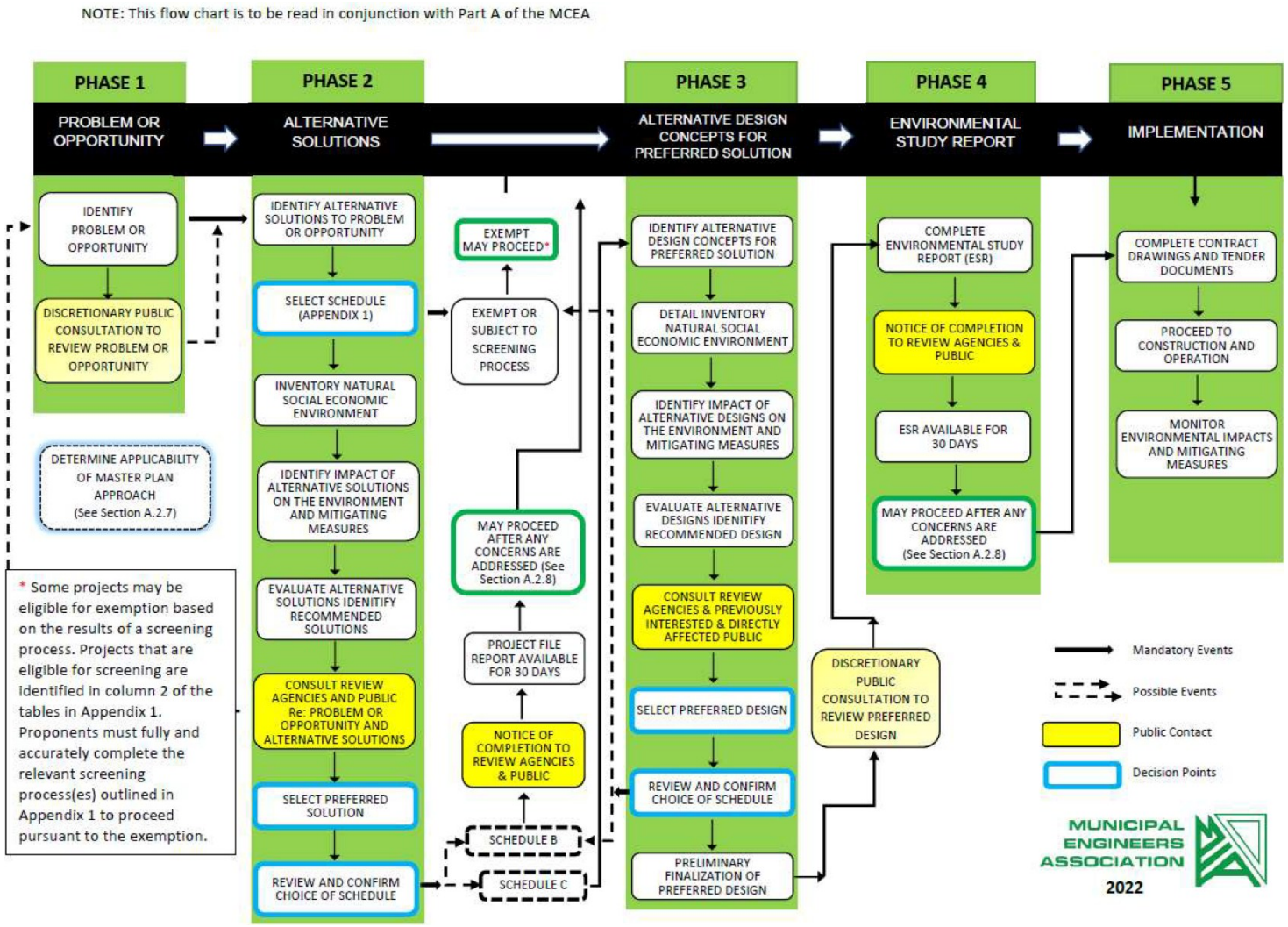


Figure 1.1 – Municipal Class Environmental Assessment Process

1.3 Municipal Class Environmental Assessment Schedule

The Stroud Water Storage Facility and BPS MCEA was undertaken as a **Schedule B** project and included completion of Phase 1 and 2 of the Class EA process.

The procedure for a Schedule 'B' undertaking is indicated below. Further details of the MCEA process are provided in Section A.2 of the MCEA (2000, as amended in 2007, 2011, and 2015 and 2023).

Phase 1	Identify the problem or opportunity.
Phase 2	Identify and evaluate alternatives to the problem or opportunity by considering the existing environment and establishing the preferred solution, considering public, agency, First Nations and Indigenous Communities input. Document the decisions in a PFR.
Notice of Completion	Upon completion of the PFR, advertise and issue a Notice of Completion (or Notice of Addendum) to the public, to agencies, and to First Nations and Indigenous Communities for a 30-day review period. During this time, consider any comments or requests from stakeholders, agencies, or concerned parties, according to the procedures outlined in the Municipal Class EA Manual (2000, as amended in 2007, 2011, 2015 and 2023). In addition, during the 30-day review period, a request may be made to the Ministry of the Environment, Conservation and Parks (MECP) for a Section 16 Order requiring a higher level of study (i.e. requiring an individual/comprehensive Class EA approval before being able to proceed to the Implementation Phase), or requiring that conditions be imposed (e.g. completion of further studies). However, with the COVID Economic Recovery Act and the 2023 MCEA Amendment, the Section 16 Order may only be requested on the grounds that it will prevent, mitigate or remedy adverse impacts on constitutionally protected Indigenous and treaty rights. Requests on other grounds will not be considered.
Implementation	Provided that no Section 16 Order Requests are made to the MECP within the 30-day review period, and provided that

concerns have been addressed, the project is approved and may proceed to detailed design, construction, operation, and monitoring. The project would still be subject to all applicable environmental regulations and approvals.

2.0 EXISTING CONDITIONS

2.1 Planning and Policy Context

The following municipal and provincial planning policies are related to municipal water services and this Class EA:

2.1.1 2024 Provincial Planning Statement

The 2024 Provincial Planning Statement (PPS) is a provincial land use planning policy framework and issued under the authority of the Planning Act. It provides direction on policies related to land use planning and development, while protecting natural and built environment, public health and safety, and resources of provincial interest. It replaces both the Provincial Policy Statement, 2020 and A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2019 – it came into effect on October 20, 2024. The PPS 2024 updated definition of the "employment" area to exclude office, institutional and commercial (retail) uses, unless associated with a primary employment use. The previous PPS and Growth Plan provided the policy foundation for the Town Innisfil (Town) Official plan & amendments. The community of Stroud is included as a Village Settlement Area within the Town of Innisfil Official Plan.

2.1.2 Planning Act

In accordance with the Planning Act, the Council of the Town of Innisfil may provide for the preparation of a plan suitable for adoption as the Town of Innisfil Official Plan. An Official Plan is defined in the Planning Act as a document, approved by the Approval Authority, containing objectives and policies established primarily to provide guidance for the physical development of the Town while having regard to relevant social, economic and environmental matters. Section 24 of the Act further provides that where an Official Plan is in effect, no public work shall be undertaken and no by-law passed for any purpose unless it is in conformity with the Official Plan.

2.1.3 2022 Municipal Comprehensive Review and Bill 23

Municipal Comprehensive Review (MCR) is a long-term land use planning process to accommodate population and employment growth as outlined in the provincial growth plans. Simcoe County was undertaking the 2022 MCR to confirm that County's Official Plan is in conformity with the provincial 2020 Growth Plan; however, Bill 23 was passed by the Provincial Government of Ontario in November 2022 and legislated the removal of planning responsibilities from certain upper tier municipalities including Simcoe County. The MCR process was subsequently suspended.

2.1.4 Innisfil Official Plan and Official Plan Amendments

Town of Innisfil Official Plans guide planning and zoning decisions. The Innisfil Official Plan came into effect in 2018, was consolidated in August 2020, and is titled "Our Place" to enhance "place making" and to strategically guide the growth of the town to 2031.

Official Plan Amendments (OPA) approved and adopted since 2018 include 2020 OPA No.2 expanding the boundary of Innisfil Heights Strategic Settlement Employment Area, and 2024 OPA No.12 adopting the Orbit Secondary Plan.

There are ongoing OPA to reflect the latest growth projections to 2051. Public Open House #1 was held on March 5, 2025 to discuss the vision and goals for the Official Plan update and Public Open Houses #2 and #3 were held on January 6, 2026 and January 21, 2026 to share the draft OPA and collect community feedback.

2.1.5 2023 Innisfil Master Servicing Plan Update

In 2023, InnServices completed a Master Servicing Plan (MSP) update which identified short- and long-term strategies for water and wastewater servicing to accommodate population and employment growth outlined in the Innisfil Official Plan (2018).

The goal of the MSP update was to identify sustainable water and wastewater servicing solutions to accommodate Innisfil's growth up to 2051. The document stated that water and wastewater servicing solutions should be financially, socially and environmentally sustainable, meeting Innisfil's servicing needs for the long term, while continuing to provide servicing to Innisfil's existing residents, business and institutions.

2.1.6 Other Town of Innisfil Master Plans

The 2022 Innisfil Transportation Master Plan (TMP) update was approved by Council in August 2022. This TMP update provided a planning horizon to the year 2051, incorporating

new growth targets as defined through the MCR process, including the new Orbit community. The 2023 Water and Wastewater MSP coordinates with the TMP to confirm the recommended improvements are planned in alignment with the TMP, to minimize and/or mitigate, where possible, disruption to traffic. The Civic (Town) Campus Master Plan is currently ongoing and aims to create a comprehensive plan to give guide land use, design and growth for Innisfil Town Campus and the Royal Victoria Health Centre (RVH) Innisfil Campus.

2.1.7 Water

Drinking water systems in Innisfil are regulated by:

- Ontario Safe Drinking Water Act, 2002, which provides the framework for control and regulation of drinking water treatment, distribution, and testing
- Ontario Clean Water Act, 2006, which mandates municipal drinking water supplies are protected through the development of source water protection plans
- Ontario Water Resources Act, 1990, which provides conservation, protection, and management of groundwater and surface water resources
- Lake Simcoe Protection Act, 2008, which is established to protect and restore the ecological health of the Lake Simcoe watershed

2.2 Study Area

Stroud is a village settlement area located in the Innisfil North Area. The downtown commercial area along Yonge Street is the centre of the community, and the Go Transit rail corridor runs along the east border without a stop. Stroud is currently serviced by a municipal groundwater system and private septic systems.

The Stroud Water Storage and BPS Study Area for this Class EA is located along a Yonge Street corridor of approximately 460 m wide between the 9th Line and Lockhart Road, as presented in Figure 2.1. Within this Study Area, several alternative sites for the proposed Water Storage Facility and BPS were identified, as detailed in Section 4.1. The Study Area is wider on the east side of the Yonge Street corridor to include an alternative site situated within Stroud Recreational Centre (Alternative 4 in Section 4.1). :

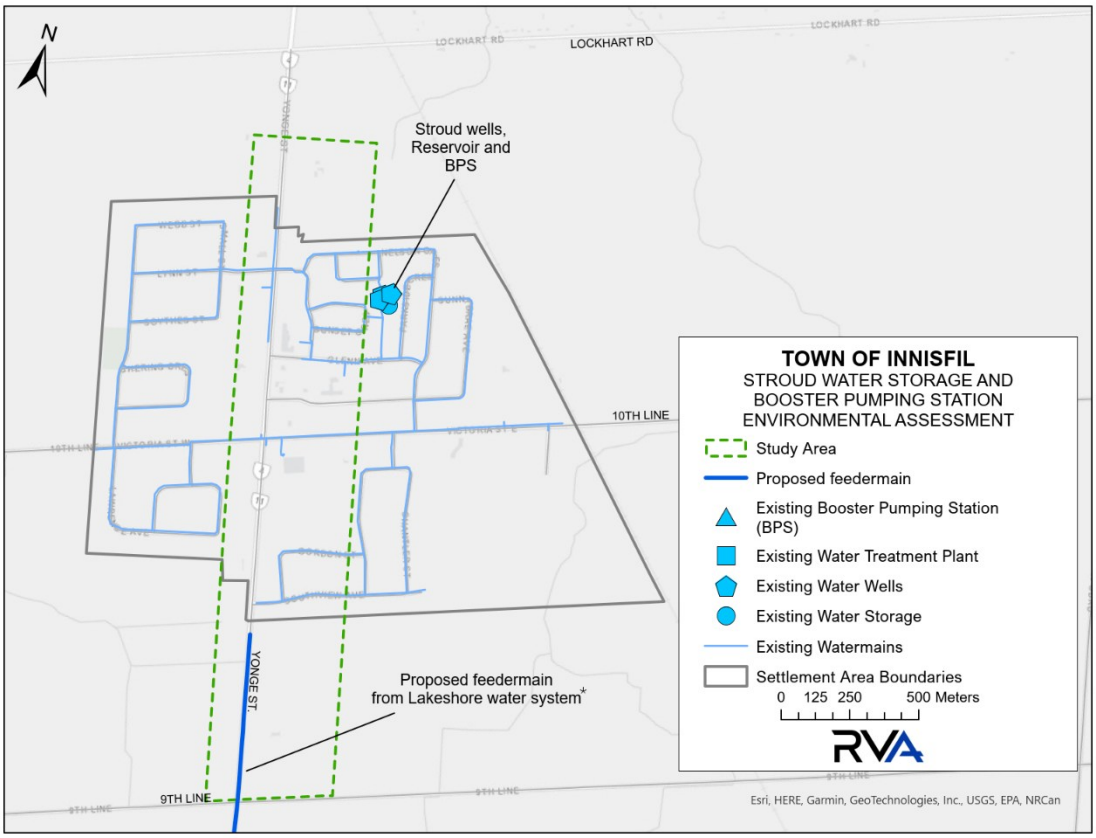


Figure 2.1 – Overview of the Study Area

2.3 Overview of the Existing Water Supply System

2.3.1 Water System Needs

Stroud residents are currently on a groundwater system. The population is expected to grow to approximately 5,800 residential population with 18 ha of employment lands by 2051. The existing Stroud groundwater system has a Permit to Take Water (PTTW) up to a capacity of 3,020 m^3 per day. The existing population in Stroud is currently connected to a 1,263 m^3 storage facility using groundwater from Well No.3. The existing water supply and storage infrastructure are aging and their capacities are not sufficient to meet the municipal servicing needs to meet new growth, as shown in Table 2.1. The current capacity of Stroud storage (1,263 m^3) and booster pumping station (51.2 L/s) would only be sufficient for future maximum day flow (30.6 L/s) but not the required Fire Flows for new growth. According to the MSP, the Town intends to supply several communities from the Lakeshore Water System via the Alcona BPS and a new transmission main along Innisfil Beach Road. These communities include Stroud, the Innisfil Town Campus, and Innisfil Heights. Both the

Alcona BPS and the transmission main are currently in design and construction phases. The existing groundwater supply wells, BPS, and reservoir at Stroud will be decommissioned.

Table 2.1 – Stroud Water Needs and Capacity Comparison

Phase	Existing Supply	Max Day Demand	Existing Storage (2023)	Required Storage (2051)	Water Servicing Needs
By 2031	Municipal Groundwater System	1,733 m^3	1,263 m^3	2,972 m^3	Insufficient groundwater supply and insufficient storage
By 2041		2,641 m^3			
By 2051		2,641 m^3			

2.4 Water Storage Needs

As per the 2023 MSP update, there will be a storage shortfall by 2051 for Stroud that need to be addressed. The total required storage volume to service the 2051 forecasted population was calculated based on the Ministry of Environment, Conservation and Parks (MECP) Design Guidelines for Drinking Water Systems (last updated May 11, 2023). Table 2.2 shows the total storage volume required to be 2,972 m^3, with the required fire flow, equalization, and emergency storage volumes. Based on the existing storage capacity, there would be a storage shortfall of 2,972 m^3.

Table 2.2 – Calculation of Capacity of the New Storage Facility as Per 2023 MSP Update

Description	Storage Volume
Fire Storage (A)	1,717 m^3
Equalization Storage (B)	660 m^3
Emergency Storage (C)	594 m^3
Total Required Storage (A+B+C)	**2,972 m^3**

3.0 PHASE 1: PROBLEM OR OPPORTUNITY

3.1 Problem and Opportunity Statement

Phase 1 of the MCEA process includes the identification and development of a problem (deficiency) or opportunity statement. Generally, a project may be initiated because an issue or problem has been identified, or because an opportunity to improve a given system

has been identified. Usually, these problems or opportunities have been identified in previous studies, as the case in the previous MSP described in Section 1.2.

The Problem and Opportunity Statement for this MCEA is as follows:

"The community of Stroud's existing water system relies on groundwater wells that are not sufficient to meet the community's future servicing needs. The Town of Innisfil's 2023 Master Servicing Plan (MSP) recommended that Stroud be serviced by the Lakeshore water system through a new Water Storage Facility and Booster Pumping Station. This Class Environmental Assessment (Class EA) will identify and evaluate alternative locations and solutions to construct the new Water Storage Facility and Booster Pumping Station (if required) in the community of Stroud."

4.0 PHASE 2: ALTERNATIVE SOLUTIONS

4.1 Identification of Alternative Solutions

As mentioned in Section 1.1, the 2023 MSP update recommended the construction of a New Stroud Water Storage Facility and BPS. The MSP suggested the facility location to be south of existing Stroud boundary, and east of Yonge Street. As part of this Class EA, additional alternative site locations were reviewed in addition to the existing facility site. The following is a summary of the long list of alternative locations for the new Stroud Water Storage Facility and BPS:

- Do Nothing
- Alternative 0 – Existing Site
- Alternative 1 – 7667 Yonge Street – MSP Location
- Alternative 2 – 7678 Yonge Street
- Alternative 3 – 7750 Yonge Street
- Alternative 4 – 2138 Gordon Street – Stroud Recreational Centre
- Alternative 5 – 8156 Yonge Street
- Alternative 6 – 8093 Yonge Street

Refer to Figure 4.1 for a map showing the long list of alternative locations. This long list of alternative locations has been reviewed and screened into a short list for further evaluation

by answering three questions. Evaluation of long-listed alternatives are summarized in Table 4.1 and Sections 4.1.1 to 4.1.8.

Figure 4.1 – Alternative Sites for the Water Storage Facility and Booster Pumping Station (if required)

Table 4.1 – Evaluation of Long-Listed Alternatives

Alternative Sites	Does the alternative address the Problem & Opportunity Statement?	Is the alternative technical and economically feasible?	Can the alternative be implemented without significant impacts?
Do Nothing	No	No	Yes
Alternative 0 – Existing Site	Yes	No	No
Alternative 1 – 7667 Yonge Street – MSP Location	Yes	Yes	No
Alternative 2 – 7678 Yonge Street	Yes	Yes	Yes
Alternative 3 – 7750 Yonge Street	Yes	Yes	Yes
Alternative 4 – 2138 Gordon Street – Stroud Recreational Centre	Yes	Yes	No
Alternative 5 – 8156 Yonge Street	Yes	Yes	No
Alternative 6 – 8093 Yonge Street	Yes	Yes	No

4.1.1 Do Nothing

As required in the MCEA process, a “Do Nothing” alternative must be considered. This alternative provides a benchmark of what would occur should the proposed activities not proceed and provides a point of reference for other alternatives. “Do Nothing” alternative means that no improvements or expansions would be undertaken to address the identified problem or opportunities in water supply, storage, and distribution.

This alternative does not meet the problem and opportunity statement and was not evaluated further.

4.1.2 Alternative 0 – Existing Site

The property has limited space and access. It will require a long watermain extension and high impact on the community. Existing facility should remain in operation during construction of the new facility. Since using this site for the new reservoir and BPS is not technical and economically feasible and can not be implemented without significant impact, this alternative was not carried forward to the shortlist.

4.1.3 Alternative 1 – 7667 Yonge Street – MSP Location

This property is privately owned and the owner has already given land to InnServices for a Sewage Pumping Station project. While this location satisfies the problem and opportunity statement and is technical and economically feasible, additional land acquisition from property owner will be a significant challenge. As such this alternative was not carried forward to the short list.

4.1.4 Alternative 2 – 7678 Yonge Street

This property is not included in the Stroud Settlement Area Boundary Expansion per the draft Official Plan Amendment presented at the Public Open Houses #3 on January 21, 2026. However, the location would have adequate space for the new Water Storage Facility and BPS and the property is adjacent to the proposed feeder main on Yonge St that will supply the community from Alcona BPS. Based on this, Alternative 2 was carried forward to the short list.

4.1.5 Alternative 3 – 7750 Yonge Street

This property is included in the Settlement Area Boundary Expansion per the Town of Innisfil's OPA update. The location would have adequate space for the new Water Storage Facility and BPS and is adjacent to the proposed feeder main on Yonge St that will supply the community from Alcona BPS. Alternative 3 was carried forward to the short list for further evaluation.

4.1.6 Alternative 4 – 2138 Gordon Street – Stroud Recreational Centre

The existing recreational centre is planned to be rebuilt and potentially expanded on the current property per the Council approved Facilities Master Plan, as well as additional areas on the property for public recreational space, as per the Council approved Innisfil Parks and Recreation Master Plan Update, and Stormwater improvements on the property as per the Council approved Stormwater Masterplan. Therefore, a space for a water storage facility can not be provided at this time and Alternative 4 was not carried forward to the short list.

4.1.7 Alternative 5 – 8156 Yonge Street

This property is not included in the Stroud Settlement Area Boundary Expansion as per the Town of Innisfil's OPA update. Moreover, the feeder main that is proposed to supply the community from Alcona BPs would need to be extended north on Yonge Street and may

present construction challenges in a relatively busy corridor. Based on this, this location was not carried forward to the short list.

4.1.8 Alternative 6 – 8093 Yonge Street

This property is not included in the Stroud Settlement Area Boundary Expansion as per the Town of Innisfil's OPA update. Moreover, the feeder main that is proposed to supply the community from Alcona BPs would need to be extended north on Yonge Street and may present construction challenges in a relatively busy corridor. Based on this, this location was not carried forward to the short list.

4.1.9 Short List of Alternative Solutions

The short list of alternative solutions was determined to include the following sites:

- Alternative 2 – 7678 Yonge Street
- Alternative 3 – 7750 Yonge Street

4.2 Supporting Studies

4.2.1 Natural Environmental Investigation

A Natural Heritage Report, summarized in Appendix 1, was prepared by RVA to document the desktop assessment of the Study Area and subsequent field investigations of the short-listed alternative solutions (Alternatives 2 and 3). The field investigation was restricted to the road-of-ways (ROWs) adjacent to the Study Areas and surveys were completed during a site visit by walking transects throughout the ROWs and scanning into adjacent lands. A summary of the findings of the desktop and field investigations is presented below.

4.2.1.1 Wildlife and Wildlife Habitat

No provincially rare vegetation communities were observed during site investigations nor were any candidate or confirmed point-source areas of wildlife concentration/specialized habitats.

4.2.1.2 Vegetation and Vegetation Communities

Both Alternatives 2 and 3 are within a landscape that is primarily rural agricultural land use along the borders of suburban Stroud. Both Alternatives 2 and 3 occur within similar habitats. Each alternative consists of mostly actively cultivated agricultural field bordered by Dry – Moist Old Field Meadow (CUM1-1) within roadsides and field edges. None of the

recorded species within the Study Area are Species at Risk (SAR) or Species of Conservation Concern (SoCC).

4.2.1.3 Fish Habitat

A watercourse was located at the northern boundary of Alternative Location 2 and the southern boundary of Alternative Location 3. Due to limitations of the field survey, direct access to the Alternative Location 2 and 3 Study Areas was not possible, and fish sampling was outside the scope of this assessment. As such, to err on the side of caution, this channel is assumed to support direct fish habitat.

4.2.1.4 Natural Heritage Constraints

Study Areas were identified to be low, moderate, and high constraint areas based on candidate and confirmed natural heritage features and functions and applicable legislation. The watercourse mapped through the Alternative Location 2 and 3 Study Areas is the only area defined as high natural heritage constraint, due to the presumed presence of direct fish habitat within the watercourse. The remaining land within the Study Areas and adjacent lands, consisting primarily of agricultural fields and Cultural Meadow, are presented as being a low natural heritage constraint.

4.2.2 Stage 1 Archaeological Assessment

Archaeological Services Inc. was contracted by R.V. Anderson Associates Limited (RVA) to conduct a Stage 1 Archaeological Assessment (AA) and the Stage 1 AA report is included in Appendix 2.

Stage 1 background research determined three previously registered archaeological sites are located within one kilometer of the Project Area. The property inspection identified areas of archaeological potential which require further stage 2 AA by test pit and pedestrian survey at five-meter intervals, where appropriate, before development.

The remainder of the project area does not retain archaeological potential on account of being previously assessed (P449-0735-2923) and deep and extensive land disturbance. These lands do not require further archaeological assessment. Details can be found in Appendix 2.

4.3 Evaluation of Alternative Solutions

The short list of alternative solutions developed to address the Problem and Opportunity Statement were evaluated with respect to their impact to the social, economical, technical,

and environmental categories. The evaluation criteria under each category are shown in Table 4.2. Considerations within each category were developed in consultation with the Project Team.

Table 4.2 – Evaluation Criteria and Considerations

Criteria	Considerations
Social	• Ability to accommodate growth to planning horizon • Effects on neighboring properties and public • Effects on the Town, local business, etc. • Effects on First Nation and Indigenous Communities • Sensory impacts during and after construction (noise, dust, etc.) • Archaeological and/or cultural heritage resources
Economical	• Life cycle costs (capital cost, operation & maintenance cost) • Sustainability and affordability
Technical	• Constructability and construction impacts to existing system • Compatibility and potential impacts to existing infrastructure • Ease of Implementation • Effects on operations and maintenance • Ability to meet existing and future water demands • Resiliency and adaptability to future needs • Regulatory and approval requirements
Environmental	• Effects on wildlife and vegetation • Effects on habitats and air quality • Effects on Source Water Protection • Climate Change

A graphical scoring method, as shown in Table 4.3, was used in the evaluation. Preference for an alternative solution is indicated by the amount of shading within the circle symbol. The highest impact, which would be the most negative solution, is shown as an empty/white circle symbol. The lowest impact, which would be the most positive solution, is shown as the circle symbol coloured fully green.

Table 4.3 – Scoring Graphic Legend

				
Highest Impact	High Impact	Moderate Impact	Low Impact	Lowest Impact
(Most Negative)	(Negative)	(Neutral)	(Positive)	(Most Positive)

4.3.1 Evaluation of Alternatives

The evaluation of the shortlisted alternative solutions was completed by the Project Team. The evaluation is shown in Table 4.4.

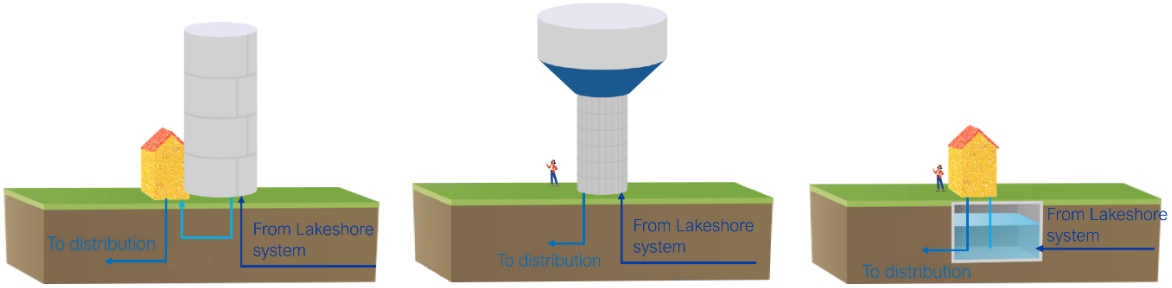
Table 4.4 – Evaluation of Short-Listed Alternatives

Evaluation Criteria	Alternative 2 – 7678 Yonge Street	Rating	Alternative 3 – 7750 Yonge Street	Rating
Social	• Land ownership: privately owned; land acquisition required • Minimum aesthetic and construction impacts to community • Stage 2 Archaeological Assessment (AA) is required		• Land ownership: privately owned; land acquisition required • Minimum to moderate aesthetic and construction impacts to community due to closer distance to residential area • Stage 2 AA is required	
Economical	• Shorter feedermain but longer local watermain required to connect to the existing water network • Similar total lifecycle cost over 60 years anticipated for both Alternatives (similar TDH if a BPS is considered). Refer to Appendix 3 for Opinion of Probable Cost details. • Similar operations and maintenance (O&M) costs over 60 years anticipated for both alternative locations for same type of storage. Refer to Appendix 3 for Opinion of Probable Cost details. • On-site geotechnical and hydrogeological investigations required if site is selected		• Longer feedermain but shorter local watermain required to connect to the existing water network • Similar total lifecycle costs over 60 years anticipated for both Alternatives (Similar TDH if a BPS is considered). Refer to Appendix 3 for Opinion of Probable Cost details. • Similar O&M costs over 60 years anticipated for both alternative locations for same type of storage. Refer to Appendix 3 for Opinion of Probable Cost details. • On-site geotechnical and hydrogeological investigations required if site is selected	
Technical	• Likely less approvals required than Alt. 3 • Similar O&M for alternative locations (for same type of storage) • Similar improvements to water distribution system for pressure and fire flows • Close to existing watercourse and may impact construction due to soil condition and groundwater levels. On site geotechnical and hydrogeological investigations required if site is selected		• Most of the area is within LSRCA Regulation Limit and more approvals are anticipated to be required • Similar O&M for alternative locations (for same type of storage) • Similar improvements to water distribution system for pressure and fire flows • Close to existing watercourse and may impact construction due to soil condition and groundwater levels. On-site geotechnical and hydrogeological investigations required if site is selected	
Environmental	• Most of area located in low-risk constraint area based on Natural Environmental Assessment • Site partly within LSRCA regulation limits but storage facility can be built outside of the limits • Sensitive fish habitat is mapped through northern part of the Alternative. Storage facility can be built away from the habitat.		• Most area located in medium to high-risk constraint area based on natural environmental assessment • Site mostly within LSRCA regulation limits • Sensitive fish habitat is mapped through southern part of the Alternative. Storage facility can be built away from the habitat.	
Overall	**Alternative 2 – Preferred Solution**		**Alternative 3 – Possible. Not preferred**	

4.4 Types of Storage Facilities

A total of three types of storage facilities were reviewed and summarized in Table 4.5.

Table 4.5 – Comparison of Different Storage Types



	Standpipe with Booster Pumping Station	Elevated Tank (ET)	In-Ground Reservoir with Booster Pumping Station
Description	A water storage tank at ground level, usually placed at higher elevation. Has more 'unusable' volume and stagnant water compared to other tank styles unless accompanied with booster pumping station (BPS) to reduce 'unusable' volume and achieve required pressure.	A water storage tank is raised above ground level to the desired elevation. Utilizes gravity to push water to distribution system. Does not need BPS downstream of tank.	A water storage tank under ground level supported by a BPS at ground level to provide adequate pressure to distribution system.
Conclusion	Although this has a cheaper construction cost, the other storage options provide more advantages: In-ground reservoir + BPS: better aesthetics in residential area and ability to expand Elevated Tank: no requirement for additional pumping	Will be carried forward for evaluation	Will be carried forward for evaluation

4.4.1 Advantages and Disadvantages of Different Storage Types

The advantages and disadvantages of elevated tank (ET) and In-ground reservoir with BPS were evaluated in Table 4.6.

Table 4.6 – Advantages and Disadvantages of Different Storage Types

Criteria	New Elevated Tank at Site 2	New In-Ground Reservoir + New BPS at Site 2
Characteristics	• Volume: 3000 m^3 • Minimum water level elevation: 45 m • Approximate Area Required: 1,600 m^2	• Volume: 3000 m^3 • In-ground reservoir with vertical turbine pumps • BPS Design Basis: TDH: 45m; Future Max Day Flow: 30.6 L/s; Fire Flow: 159 L/s • Approximate Area Required: 3,000 – 3,600 m^2
Advantages	• No continuous pumping required. Floating storage helps to regulate pressure in water distribution system. • Smaller area required • Lower operations and maintenance (O&M) costs (estimated at NPV O&M cost of $0.6 M over 60 years - Refer to Appendix 3 for details)	• Can be constructed to have multiple cells, allowing for operational flexibility for maintenance • Allows room for future expansion by building additional cells • Construction can be done in phases based on population growth and water demand requirements • Lower maintenance for tank required in the long term • Less aesthetic impact than elevated tank • Lower capital cost (estimated at $6.7 M - Refer to Appendix 3 for details)
Disadvantages	• Single cell operation; For maintenance, the tank must be taken offline • No capacity for storage expansion. A new tank would need to be constructed for additional capacity • No flexibility in phasing capital cost • Larger aesthetic impact for the community • Requires more maintenance in the long term • Higher capital cost (estimated at $15.9 M - Refer to Appendix 3 for details)	• Closed pressure zone pressure system operation. Continuous pumping is required • Two sets of pumps required (normal service and fire flow) • Larger area required • Higher O&M costs (estimated at NPV O&M cost of $1.3 M over 60 years - Refer to Appendix 3 for details)
Overall		**Preferred solution due to expandability, possibility to phase in growth and capital cost, lower maintenance required on the long term, flexibility in operations and maintenance and lower aesthetic impact to the community.**

5.0 PREFERRED ALTERNATIVE PRESENTED AT PUBLIC INFORMATION CENTRE (FEBRUARY 2026)

Based on the supporting study completed and the evaluation of the short-listed alternatives, the preferred alternative presented at Public Information Centre (PIC) in February 2026 was to construct the new Stroud Water Storage Facility and BPS at Site Alternative 2 (7678 Yonge Street).

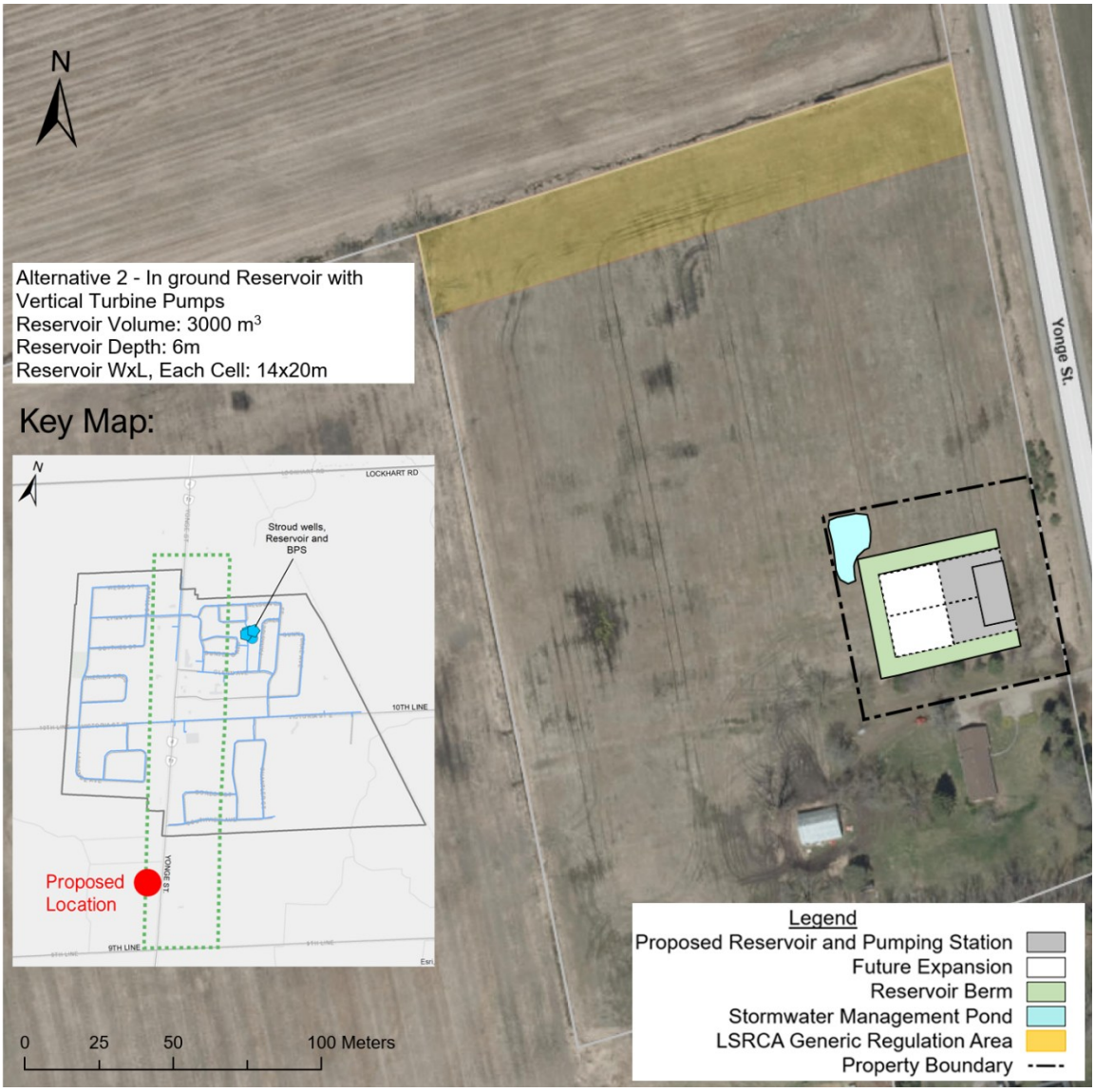


Figure 5.1 – Conceptual Site Layout of Preferred Alternative – At Location 2 with In-Ground Reservoir and Booster Pumping Station

As shown in Figure 5.1 above, the preliminary preferred solution is to have a new in-ground reservoir and BPS at Alternative 2, subject to input received from the public, agencies, First Nations and Indigenous Communities, and other interested and affected parties. Additional supporting studies would need to be completed to support the Class EA and/or detailed design process including a Stage 2 Archaeological Assessment and a Geotechnical/Hydrogeological Study.

As shown in Table 4-4, Alternative 2 has been identified as the preferred location for the new storage facility. Upon completion of the Class EA process, the landowner of this preferred site will be contacted to initiate land acquisition. If the landowner is not agreeable, Alternative 3 will be considered, and its property owner will also be approached. The evaluation confirms that Alternative 3 is a viable option that satisfies all assessment criteria.

5.1 Opinion Of Probable Cost

Table 5.1 is a high-level budgetary estimate for the elevated tank and in-ground reservoir options (including associated BPS costs). The estimated costs are exclusive of applicable duties, taxes, tariffs and government-imposed fees. The costs also do not include for engineering services (e.g. geotechnical, design, construction administration). Details can be found in Appendix 3.

Table 5.1 – High Level Cost Estimates for Water Storage Solutions

Storage Type	Estimated Cost	Comments
Elevated Tank (ET)	Capital Cost: $15.9 M NPV O&M Cost over 60 years: $0.6 M NPV Total Life Cycle Cost over 60 years: $16.5 M	Based on previously tendered projects or unit price
In-ground Reservoir + New BPS	Capital Cost: $6.7 M NPV O&M Cost over 60 years: $1.3 M NPV Total Life Cycle Cost over 60 years: $8.0 M	Based on previously tendered projects or unit price

6.0 MITIGATION MEASURES

Mitigation measures were identified to minimize the impacts of the preferred solution (Alternative 2), as outlined in Table 6.1. These mitigation measures will be implemented during the design, construction and operation of the preferred solution (Alternative 2).

Table 6.1 – Project Impacts and Mitigation Measures

Evaluation Category and Impact	Mitigation Measures
Social – Dust and Noise (Operation of BPS)	Once the BPS is operational, dust generation will likely not occur. Noise studies up to and including an Acoustic Assessment Report will be completed for the site to confirm the new equipment and site meets the Environmental Noise Guideline – Stationary and Transportation Sources (NPC-300).
Social – Dust and Noise (Construction of reservoir and BPS)	Dust is expected during the construction phase of the project. Dust limiting temporary measures such as tarping, proper erosion controls, and mud mats can be employed during the construction works of the project. If dust suppressants are specified in the contract, they will be non-chloride types. Noise during construction will comply with local by-laws.
Social – Construction Traffic Management	A site-specific traffic management plan will be required as part of the construction process, and may include flag crews, signage, and lane reductions to provide a safe construction area and to minimize traffic disruptions along Yonge St on an as needed basis. Long-term lane closures are not anticipated as part of the construction of the reservoir and BPS.
Social – Aesthetic Impacts and Concerns	The new reservoir and BPS will be built in a currently undeveloped area that is generally surrounded by rural agricultural land; however, the reservoir and BPS will follow the Town of Innisfil & InnServices Utilities Inc. Engineering Design Standards and Specifications Manual where feasible.
Social – Archeological and Cultural Resources	Stage 1 Archaeological Assessment determined three previously registered archaeological sites are located within one kilometer of the Project Area. The property inspection identified areas of archaeological potential which require further stage 2 AA by test pit and pedestrian survey at five-meter intervals, where appropriate, before development.
Technical – Geotechnical Investigations	A geotechnical investigation will be completed as part of the design stage, which will identify soil conditions and parameters for construction. Ket outputs from this investigation will include uplift considerations, foundation design requirements, and applicability of shoring methodologies or construction approaches.

Evaluation Category and Impact	Mitigation Measures
Environmental – Source Water Protection	Alternative 2 location is partly within LSRCA regulation limits, but storage facility can be built outside of the limits. As part of the design stage, hydrogeological investigations will be completed for the construction of the reservoir and BPS, including the monitoring of wells onsite.
Environmental – Surface Water Protection	There is a watercourse located at the north edge of Alternative 2. Stormwater flows will be directed to the local right-of-way ditches or into other detention ponds or soakaway pits. A stormwater management plan will be completed as part of the design stage. During construction, the contractor is required to provide a Spill Management Plan, Sedimentation and Erosion Control Plan, and adhere to any water taking permits. The preferred alternative site is not within an Intake Protection Zone (IPZ)
Environmental – Groundwater	As part of the construction of the reservoir and BPS, dewatering is expected. If expected dewatering requirements are greater than 50,000 L/day, and Environmental Activity and Sector Register must be filed, and if over 400,000 L/day, a Category 3 Permit to Take Water application must be filed. These quantities will be informed by a hydrogeological assessment to be completed during the design stage. In addition, during the design stage and throughout construction, well monitoring for wells in the vicinity of the preferred site will be completed, to note any quality or quantity impacts as a result of the dewatering. The preferred site is not within a wellhead protection area.
Environmental – Excess soil	It is expected that construction of the reservoir and BPS will result in excess soils being generated at the site. As part of the design and construction of the reservoir and BPS, O. Reg 406/19 will be adhered to, including completion of the Assessment of Past Use, Sampling and Analysis Plan, Soil Characterization Report, and Excess Soil Destination Assessment Report. Excess soils will be quantified early in the design stage, to properly inform the sampling amount.

7.0 PUBLIC, AGENCY, STAKEHOLDER, FIRST NATIONS AND INDIGENOUS COMMUNITIES CONSULTATION

The public consultation and communications carried out during this project provided opportunities for the public, government agencies/authorities and First Nations and Indigenous Communities to review information from the project team, to provide comments and feedback, and to receive clarifications in accordance with the Class EA process. A description of the stakeholders and First Nations and Indigenous Communities contacted and opportunities for comment is provided below. Input into the Class EA process from the stakeholders and right holders is also summarized in the relevant sections noted below.

7.1 Notices and Communications

7.1.1 Notice of Commencement

The Notice of Commencement was published on August 20, 2025 on Innservices Utilities Inc. website: “innservices.co.” The notice was also emailed or mailed to stakeholders, agencies, First Nations and Indigenous Communities.

The notice advised that InnServices was undertaking a study for a new Stroud water storage facility and BPS. The notice advised that the project was a Schedule ‘B’ Class EA, and additional information will be made available under Phase 2 of the MCEA. The notice also advised that comments on the project should be submitted to InnServices or RVA.

Copies of the mailing list and notice are provided in Appendix 4.

7.1.2 Public Information Centre (PIC)

On Monday, February 9, 2026, an in-person PIC was held at Innisfil Town Hall, located at 2101 Innisfil Beach Road. The PIC was held between 5 pm and 7pm and InnServices staff and members of the consulting team were available to discuss the project and receive and respond to questions and comments from the public.

The PIC presented the problem and opportunity statement, study area, water storage requirements, the preliminary and short list of location alternatives for the new Stroud water storage facility and BPS (if required), the evaluation criteria, the evaluation results, the recommended alternative site, type of storage facilities, preliminary preferred alternative, a conceptual layout, next steps, and directions on how to provide input on the project.

A total of eight (8) public members attended the PIC and two (2) comment sheets were received from the public at the PIC.

Copies of the display materials, and sign-in sheet of the PIC are provided in Appendix 5.

7.1.3 Notice of Completion

The Notice of Completion will be published on InnServices' website upon completion of the study.

A copy of the Stroud Water Storage Facility and BPS Municipal Class EA Project File Report will be posted on InnServices' website for a 30-day review period.

A copy of the notice is provided in Appendix 4.

7.2 First Nations and Indigenous Engagement

7.2.1 Engagement as Part of the Class EA Process

Various engagement initiatives were conducted with First Nations and Indigenous Communities throughout the Study. The following communities were contacted, as per the list of potentially affected communities provided by the MECP on September 8, 2025:

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

Additionally, the following communities and organizations representing Indigenous Communities were contacted based on the 2023 MSP mailing list and other recent undertakings in proximity to the study the area:

- Métis Nation of Ontario
- Saugeen First Nation

- Saugeen Ojibway Nation
- Chippewas of Nawash Unceded First Nation
- Haudenosaunee Development Institute

Four (4) of these communities/organizations which were contacted expressed an interest in the project – Haudenosaunee Development Institute, Saugeen Ojibway Nation, Curve Lake First Nation, and Alderville First Nation. No major comments were received. Communications with the First Nation and Indigenous Communities are summarized in Appendix 6.

7.3 Agencies, Utilities, and Community Consultation

As part of the consultation process, various agencies, regulatory authorities, utilities, and community groups were contacted for input during the Class EA. A few of the key stakeholders contacted included various government ministries (e.g. MECP), conservation authorities (e.g. Lake Simcoe Region Conservation Authority), and utility providers (e.g. Bell and Rogers), and other regulatory agencies (e.g. Innisfil Heritage Committee). For a full list of all agencies/authorities contacted, please refer to Appendix 6.

The feedback and input provided during the Class EA, along with copies of the questions/feedback and responses are included in Appendix 6. No major comments were received.

7.4 Public and Interested Stakeholder Consultation

Information, comments, and feedback were exchanged with the general public and interested stakeholders through PIC, as well as conversations and correspondence with the public. One resident asked about how the costs of development will be spread onto existing residents and if the project will have an impact on the known flooding issues in Stroud. A summary of comments/responses received from the public and interested stakeholders is summarized in Appendix 6.

8.0 CONCLUSIONS AND NEXT STEPS

The project team has determined through this Schedule B Class EA that the preferred solution for the new Stroud Water Storage Facility and BPS and associated system upgrades include the following components to be designed and constructed:

- A new in-ground reservoir and BPS at Location 2 (7678 Yonge Street), with a pond for stormwater runoff, emergency overflow incidents and for maintenance purposes for the facility
- An access road from Yonge St to the facility
- A new watermain connection from the dedicated feedermain on Yonge Street to the facility
- A new watermain from the new facility discharge line, connected to the existing local watermain, to provide treated water to the local water service area.

The preferred location has the least impact out of all evaluated alternatives and has similar or fewer aesthetic, technical, archaeological, and environmental impacts. The preferred solution meets the needs of the growing community and improves the storage and pressure in the Stroud Water System.

As per the Municipal Class EA Process, Phase 2 of the Schedule B Class EA includes the issuance of the Notice of Completion, the filling of this PFR, and a minimum 30-day public review period.

During the minimum 30-day review period, the public and agencies can provide comments on the presented information. If a public member has concerns, they are encouraged to discuss and resolve the concerns with the proponent. If there are any Indigenous treaty rights' concerns, parties are encouraged to discuss and resolve the concerns with the proponent. If concerns are not resolved through discussions with the proponent, parties raising the concern(s) may write to the Minister of the MECP and request a Section 16 Order (i.e., a "bump-up request"). In this case, the MECP will review the information and prepare a recommendation for the Minister's consideration. The Minister will then decide whether the Section 16 Order will be denied or upheld, or if the matter will be referred to a mediator.

Provided that no Section 16 Order requests are made to the Minister within the public review period, the project is approved and may proceed to design, construction, operation,

and monitoring. Any environmental provisions and commitments identified in this PFR are also to be followed.

During conceptual design of the new Stroud Water Storage Facility and BPS, InnServices will complete the topographic survey of the site, and undertake geotechnical and hydrogeological investigations as well as a Stage 2 AA for the preferred location of the new Storage Facility and BPS.

APPENDIX 1

NATURAL HERITAGE REPORT

APPENDIX 2

STAGE 1 ARCHAEOLOGICAL ASSESSMENT REPORT

APPENDIX 3

COST ESTIMATION

APPENDIX 4

STUDY MAILING LIST, NOTICES AND PUBLICATIONS

APPENDIX 5

PUBLIC INFORMATION CENTRE DOCUMENTS

APPENDIX 6

PROJECT CONSULTATION LOG

APPENDIX 7

PROJECT CORRESPONDENCE RECORDS