

West Caledon Storage Facility and Transmission Main Schedule 'C' Class Environmental Assessment

Public Information Centre No. 1

Margaret Dunn Valleywood
Library and Community Room
20 Snelcrest Drive, Caledon ON, L7C 1B5

Date: November 9, 2022
Time: 6 – 8 p.m.

Welcome!

Here are the objectives for today's Public Information Centre:



Present the study area and objectives.



Present the environmental assessment process.



Provide a clear and transparent process for the evaluation of storage concepts.



Receive feedback on the evaluation process and preliminary results.

Be on the lookout for this prompt. This indicates content we are looking for your feedback on!



Get Engaged!

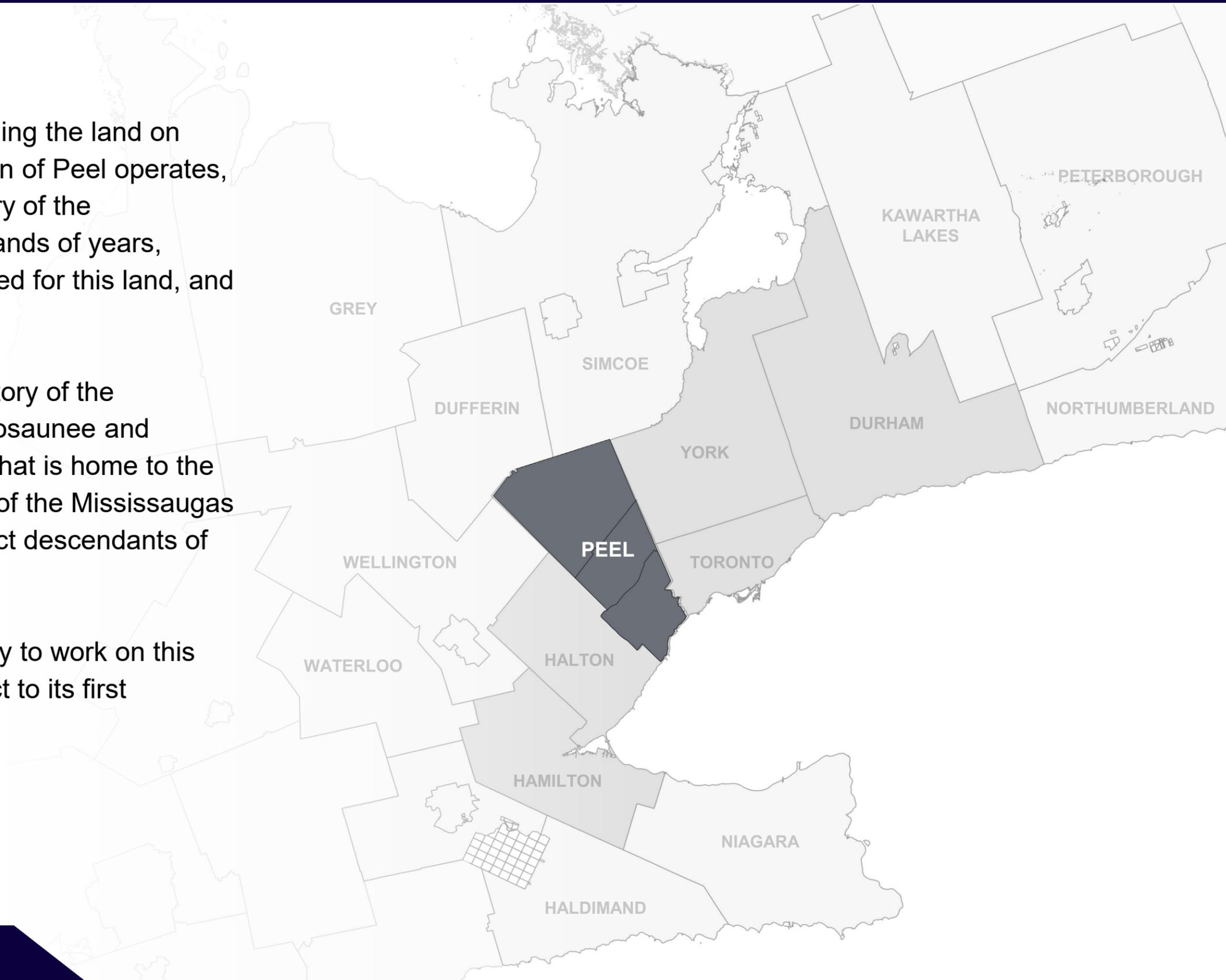


- ✓ Please sign in and take a comment sheet.
- ✓ Have a look at the project information on display and chat with the Project Team.
- ✓ Provide your feedback regarding the information presented.

We would like to begin by acknowledging the land on which we gather, and which the Region of Peel operates, is part of the Treaty Lands and Territory of the Mississaugas of the Credit. For thousands of years, Indigenous peoples inhabited and cared for this land, and continue to do so today.

In particular we acknowledge the territory of the Anishinabek, Huron-Wendat, Haudenosaunee and Ojibway/Chippewa peoples; the land that is home to the Metis; and most recently, the territory of the Mississaugas of the Credit First Nation who are direct descendants of the Mississaugas of the Credit.

We are grateful to have the opportunity to work on this land, and by doing so, give our respect to its first inhabitants.

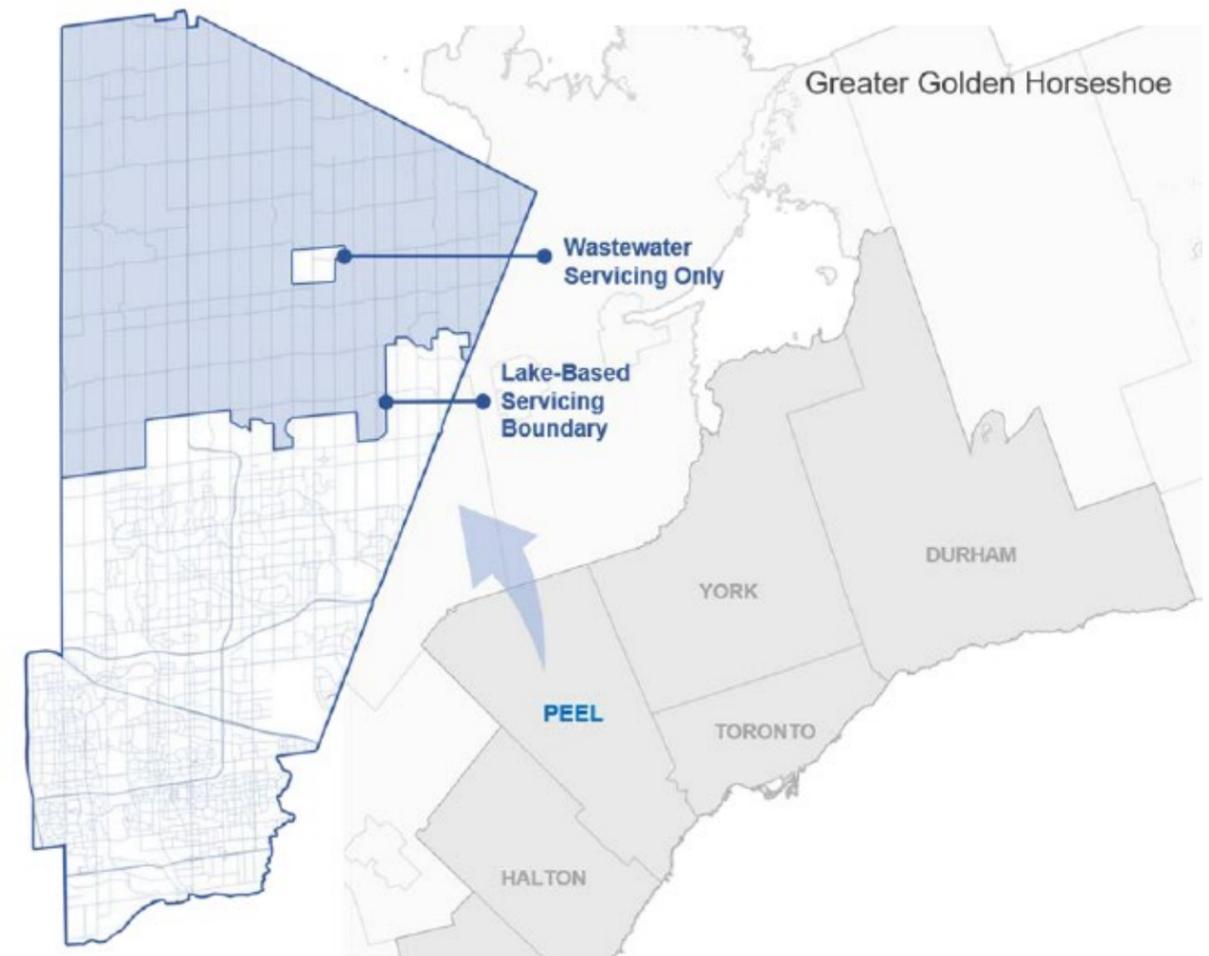


The Region of Peel completed a **Water and Wastewater Master Servicing Plan Update (2020)** which identified the need to construct new water storage infrastructure to service future planned population growth in the southwestern boundary of the Town of Caledon.

The goal of the **West Caledon Storage Facility and Transmission Main Schedule 'C' Class Environmental Assessment** is to develop, evaluate, and select a preferred water storage facility and water transmission main alignment(s) to service the projected growth.

Key Strategic Goals:

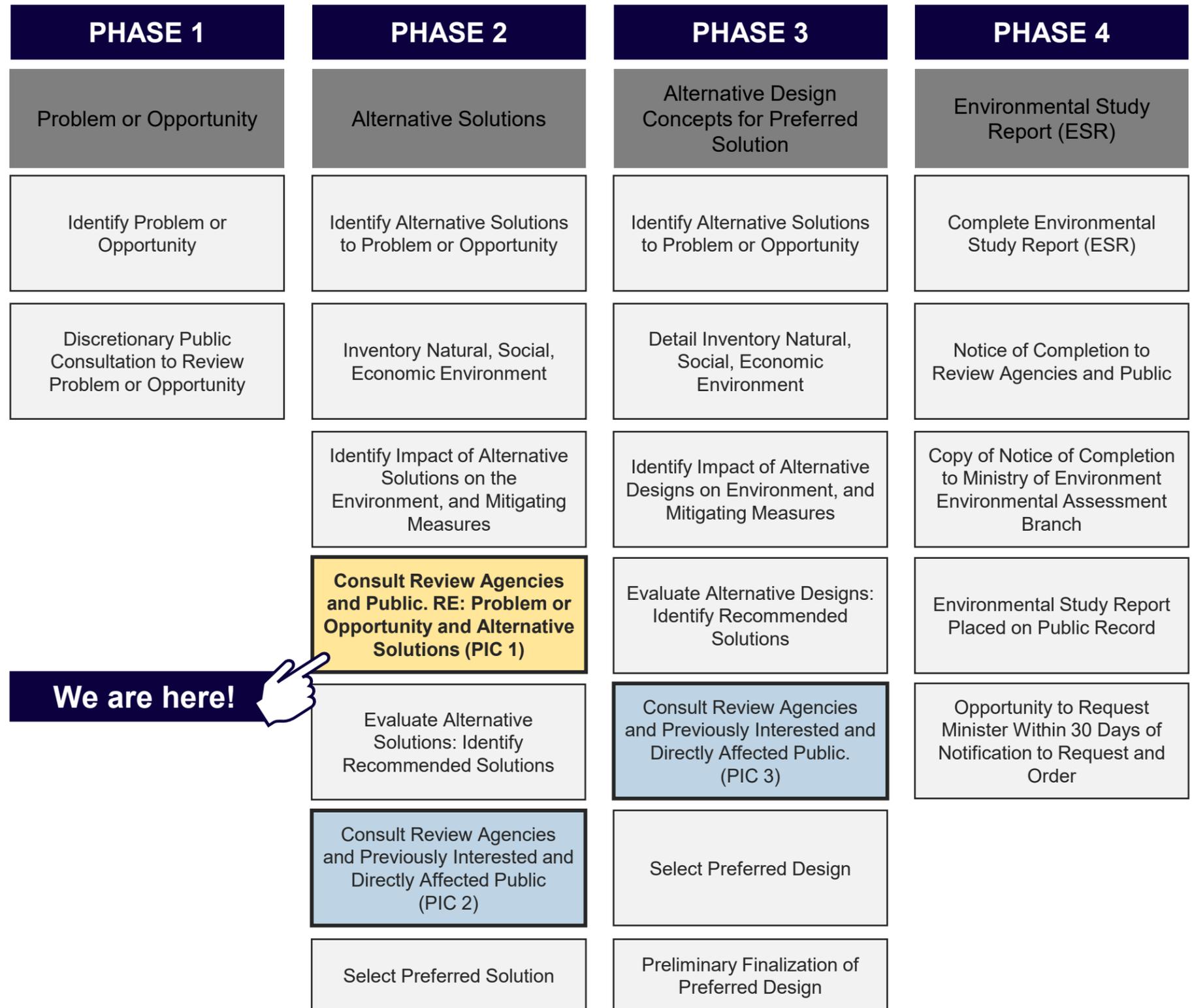
1. Increase system capacity to service future growth.
2. Ensure the best use and enhancement of the existing water infrastructure.
3. Investigate all potentially feasible water storage concepts in a stepped approach.



Municipal Class Environmental Assessment Process

The **West Caledon Storage Facility and Transmission Main** project is being undertaken as a Schedule 'C' Class Environmental Assessment, satisfying Phases 1 to 4 of the Municipal Class Environmental Assessment (MCEA) process.

This study will hold three Public Information Centres (PICs) which are consultation and engagement milestones highlighted in yellow and blue.



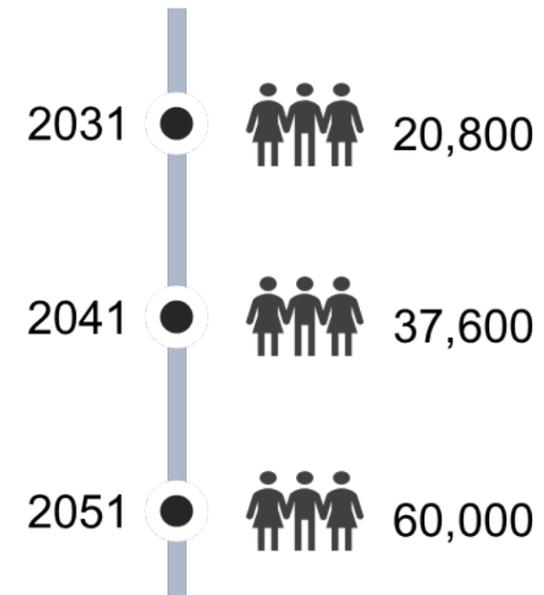
We are here! 

Why is this study being conducted? Problem and Opportunity Statement



A Place to Grow is the provincial framework for implementing growth in the Greater Golden Horseshoe (GGH) which the Region of Peel is situated within. There is a need for additional water storage in order to meet anticipated servicing demands due to growth forecasted to 2051.

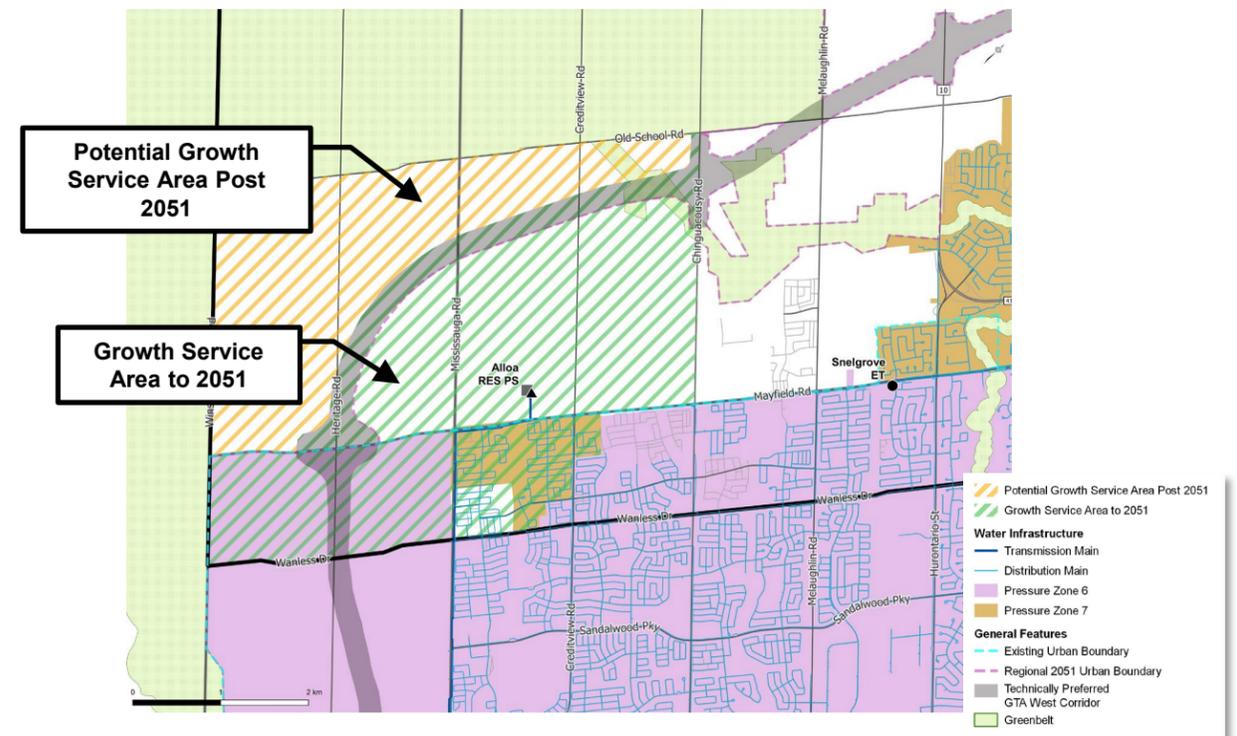
As growth continues to progress further north within the Region, greater focus is placed on the municipal water infrastructure servicing these higher elevation zones in southwest Caledon within the Zone 7 Pressure Zone.



Population projections for the growth service area to 2051 in green on the map.

Problem and Opportunity Statement

The Region of Peel completed a **Water and Wastewater Master Servicing Plan Update (2020)** which identified the need to construct new water storage infrastructure for Pressure Zone 7 West. The goal of this study is to develop, evaluate, and select a preferred storage facility and transmission main alignment to service projected growth to 2051.

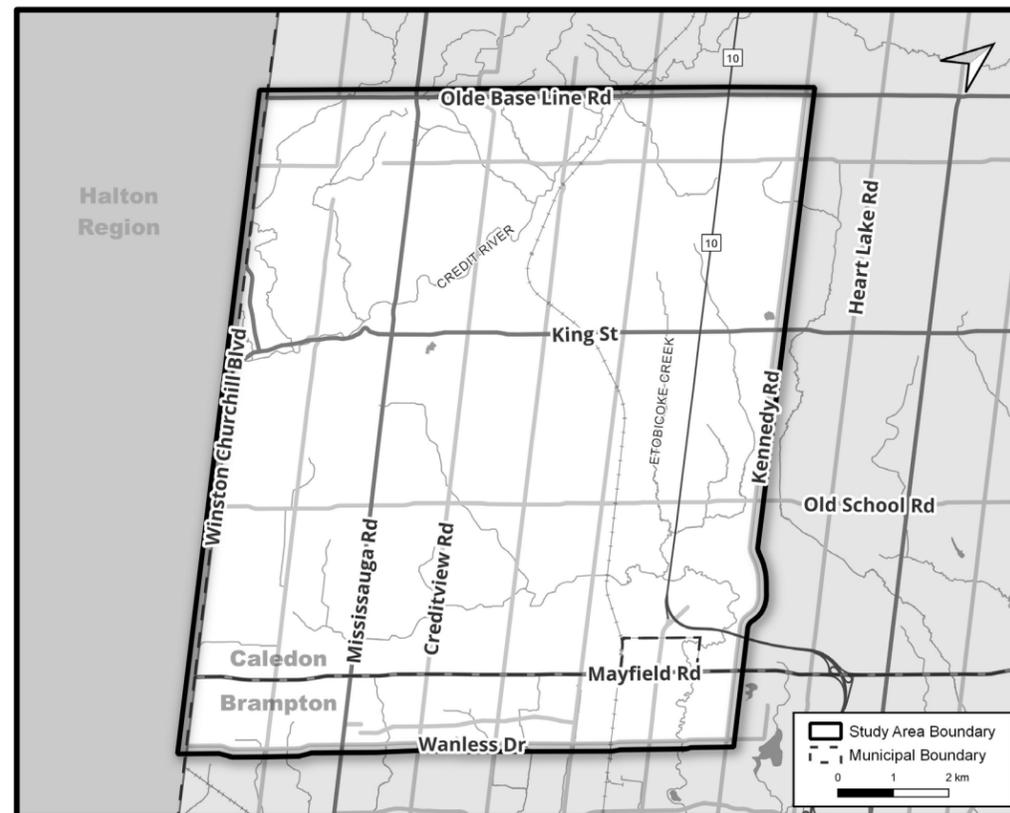


Study Area and Existing Water System

Study Area includes a large area within the Town of Caledon and a portion of the City of Brampton. It is bound by:

- Olde Base Line Road to the north,
- Winston Churchill Boulevard to the west,
- Kennedy Road to the east, and
- Wanless Drive to the south.

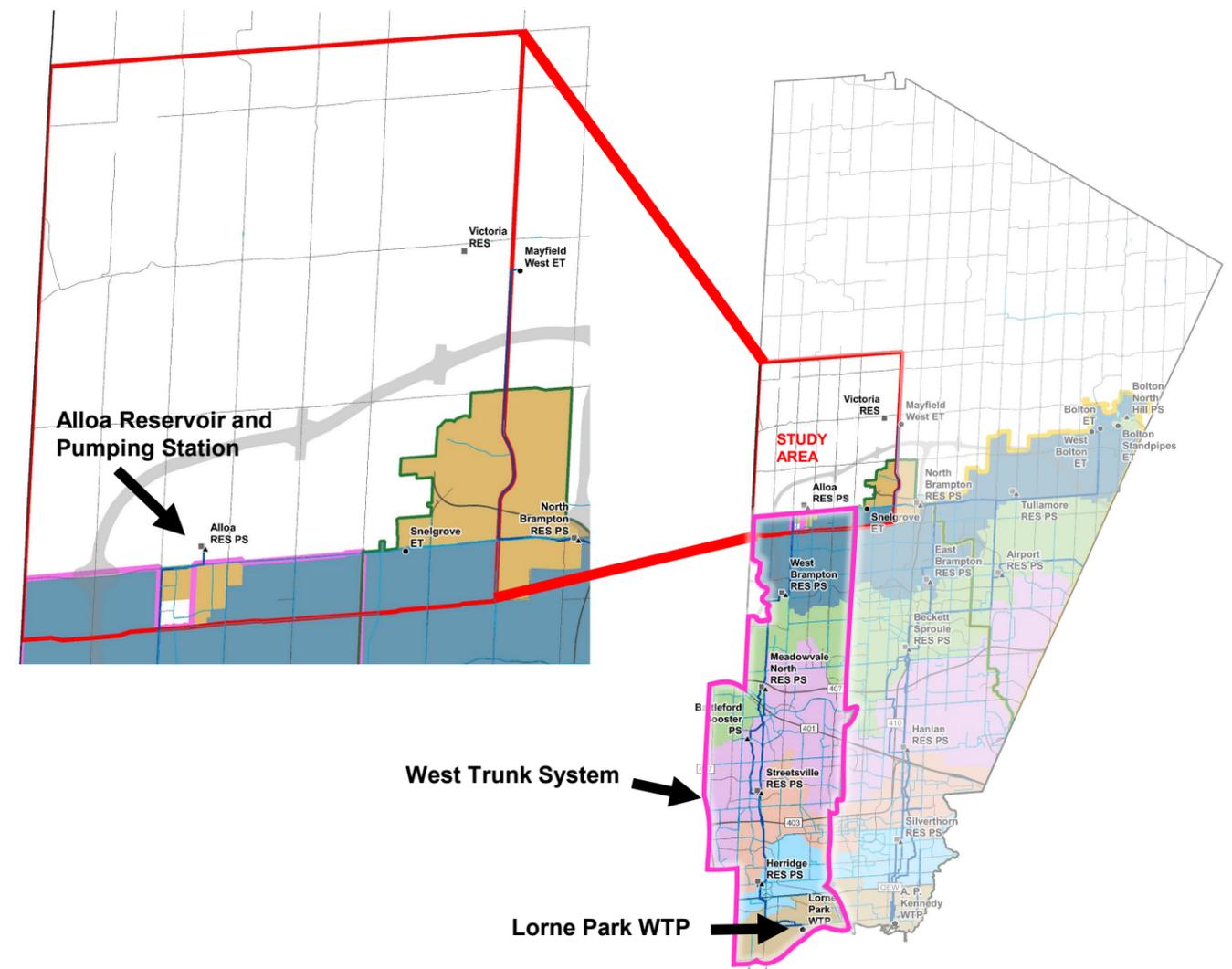
Study Area provides a range of servicing elevations required for the water storage alternatives.



The Region of Peel’s water system is generally broken into the East Trunk System, Central Trunk System, and West Trunk System.

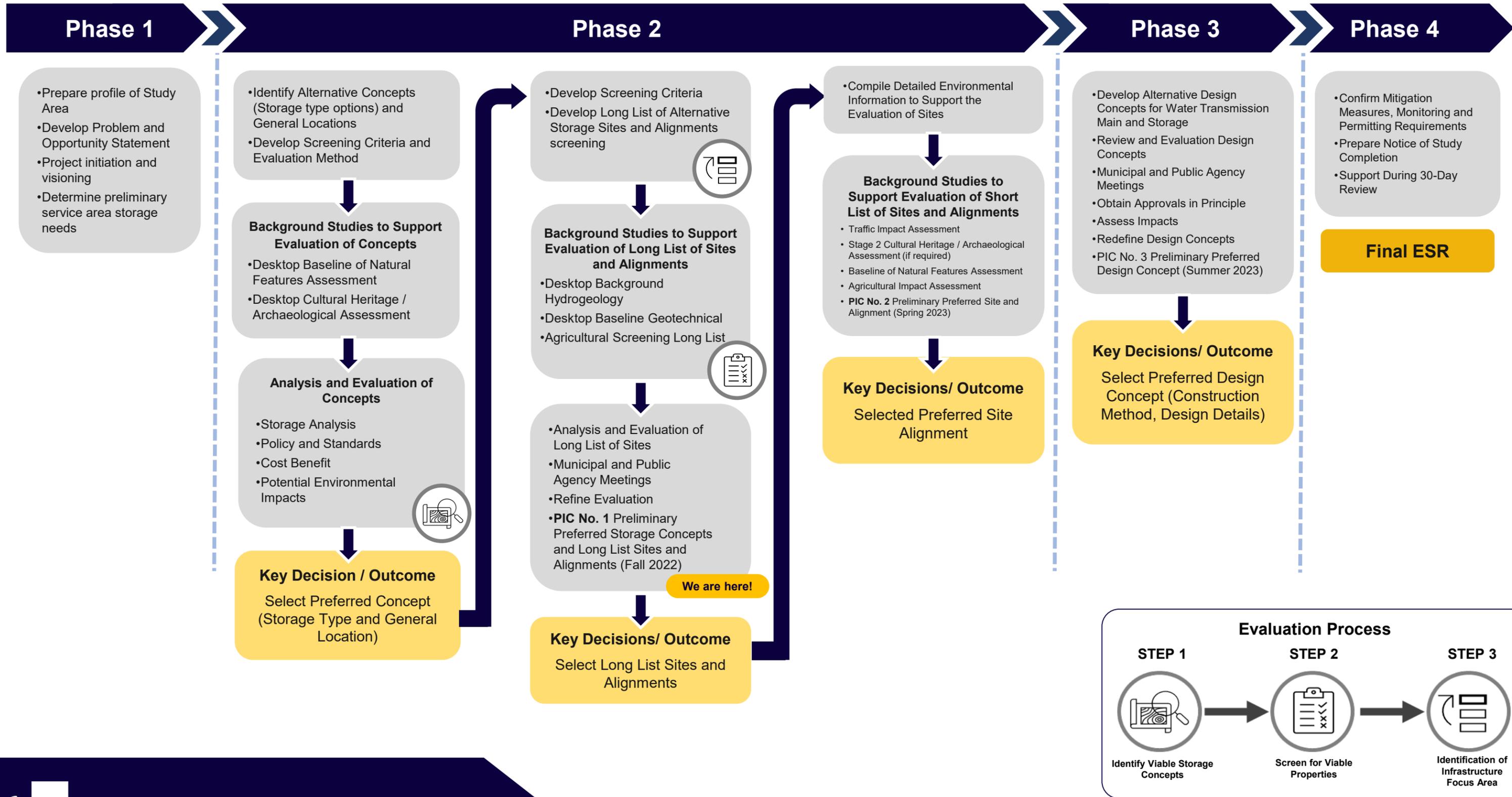
The local water distribution system consist of water mains in seven pressure zones separated by approximately 30-metre intervals of elevation.

The Study Area is north of the West Trunk System, whose water is treated by the Lorne Park Water Treatment Plan (WTP), pumped through the West Trunk System, and ultimately ends at the southern limits of the Study Area at the Alloo Reservoir and Pumping Station (PS).



How is this project being conducted?

Project Process



What are the potential solutions? Development of Storage Concepts

Topographic elevations within the Study Area were reviewed to identify viable locations for each storage concept.

The following storage concepts were evaluated in this study:

- **Option 1:** Do Nothing
- **Option 2:** Limit Growth
- **Option 3:** In-Ground Storage
- **Option 4:** Partial In-Ground Storage
- **Option 5:** Elevated Tank(s) and Pumped Storage
- **Option 6:** Stand Pipe(s) and Pumped Storage
- **Option 7:** Pumped Storage Only



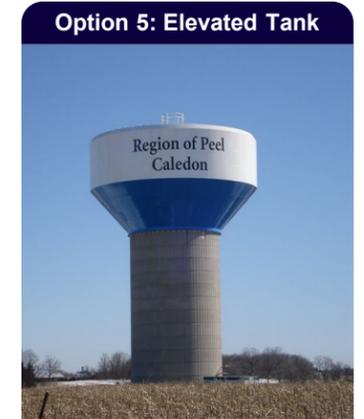
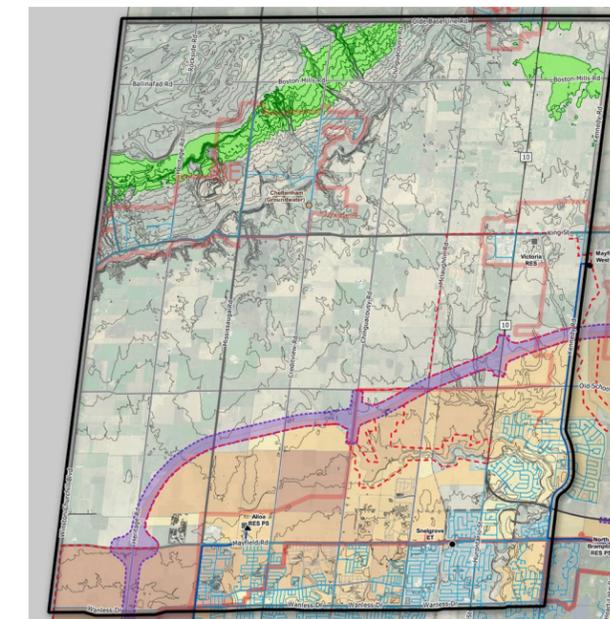
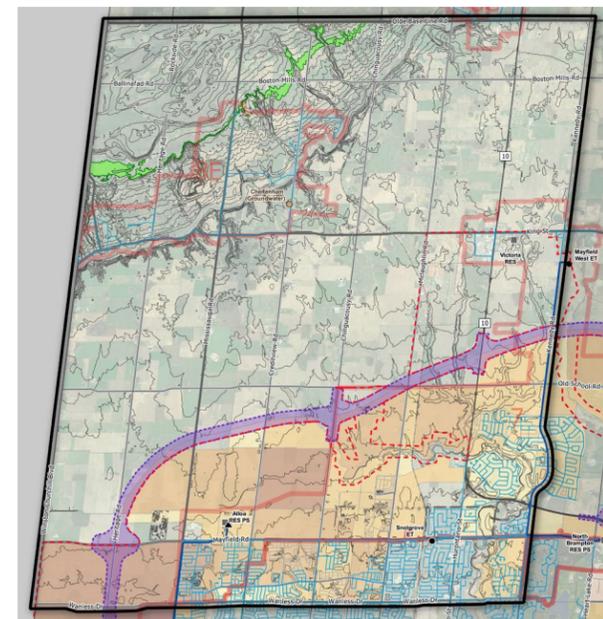
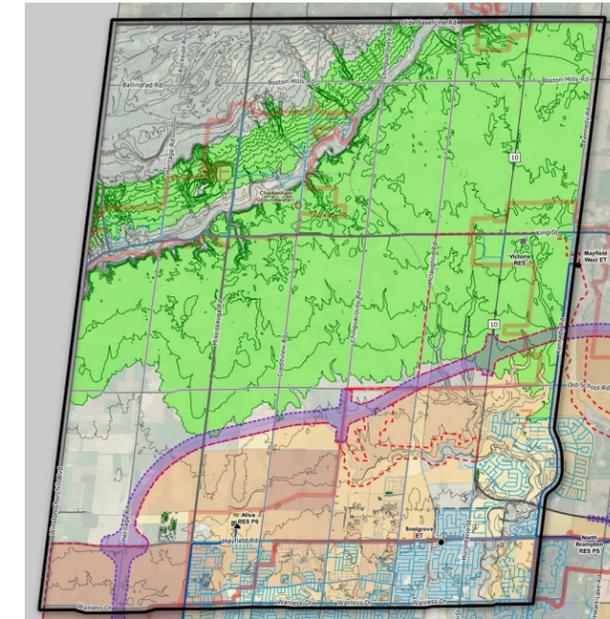
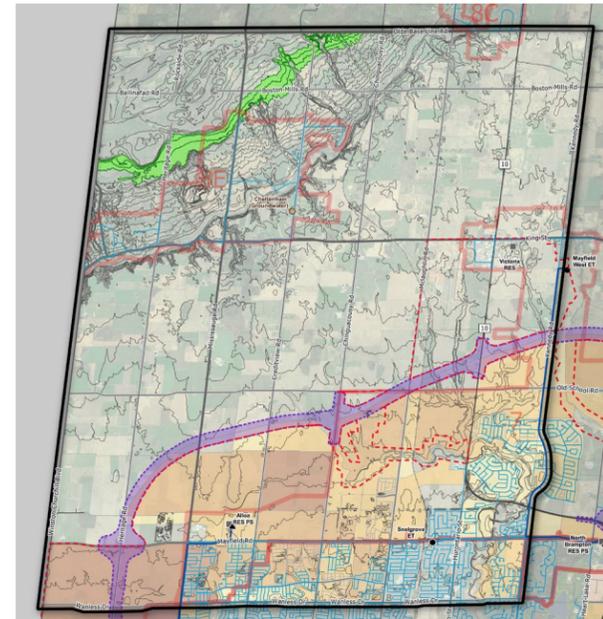
Option 3: In-Ground Storage

Target Elevations: 325m to 340m



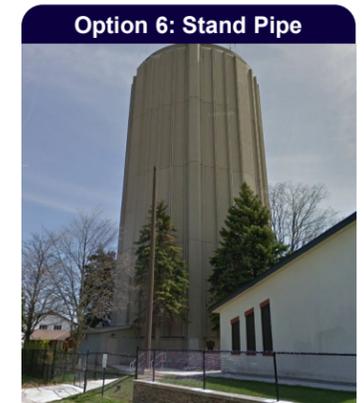
Option 4: Partial In-Ground Storage

Target Elevations: 320m to 325m



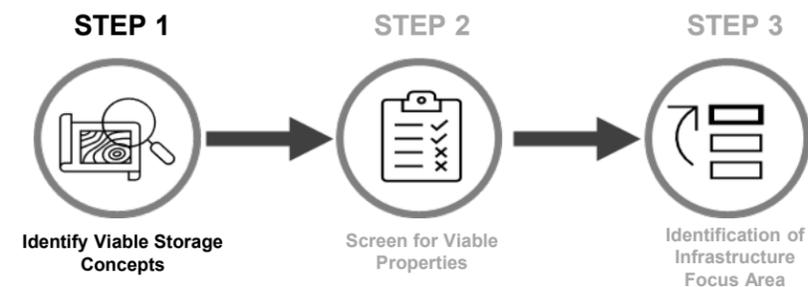
Option 5: Elevated Tank

Target Elevations: 270m to 310m



Option 6: Stand Pipe

Target Elevations: 300m to 330m



Desktop Baseline Natural Features Assessment



Description of Study: Inventory of Species at Risk, significant natural features, wildlife habitats, and City parks.

Study Purpose: Determine the potential impacts to this project and any mitigation measures required.

Desktop Cultural Heritage / Archaeological Stage 1



Description of Study: Identification of properties within the study area with cultural heritage classification and archaeological potential.

Study Purpose: Determine the constraints and recommendations for further investigations or studies.

Desktop Socio-Economic and Agricultural Screening



Description of Study: Identification of the existing and future land uses within the study and of significant agricultural lands.

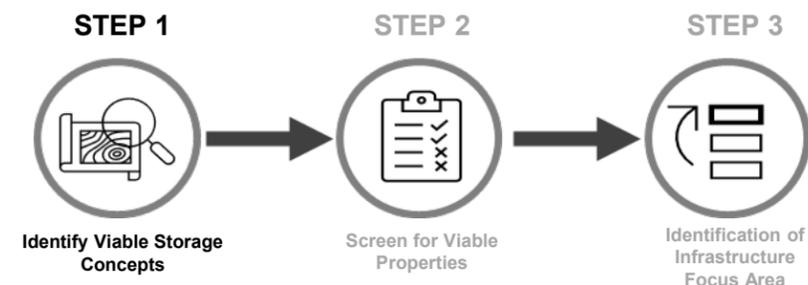
Study Purpose: Develop a solution that corresponds with future land uses.

Hydrogeological and Baseline Geotechnical



Description of Study: Establish the existing groundwater, soil, and rock conditions, hydrogeological conditions and Source Water Protection policy areas.

Study Purpose: Identify necessary mitigation measures on potential impacts to groundwater and surface water resources.



How were the options evaluated? Evaluation of Storage Concepts

Individual storage concepts were assessed according to the problem and opportunity statement as well as the following criteria:



Technical Viability

Can the option be technically constructed? Are there nearby watermains the new storage facility can be connected to?



Environmental Impacts

Are there sensitive environmental features to consider / avoid?



Social and Cultural Impacts

Are there sensitive archaeological or culturally significant features to consider / avoid?



Policy and Jurisdictional

Is the option permissible under the current regulations?



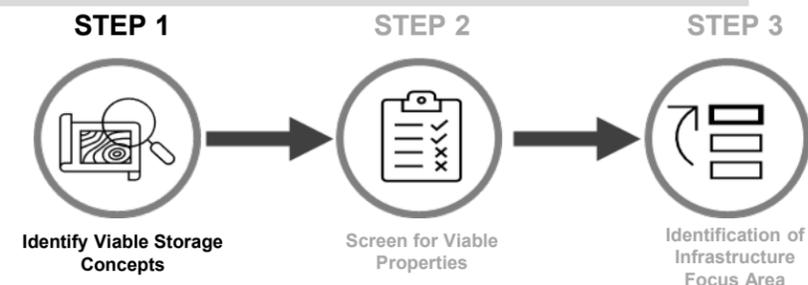
Economic

Is the option the most financially sustainable for construction and long-term operations?

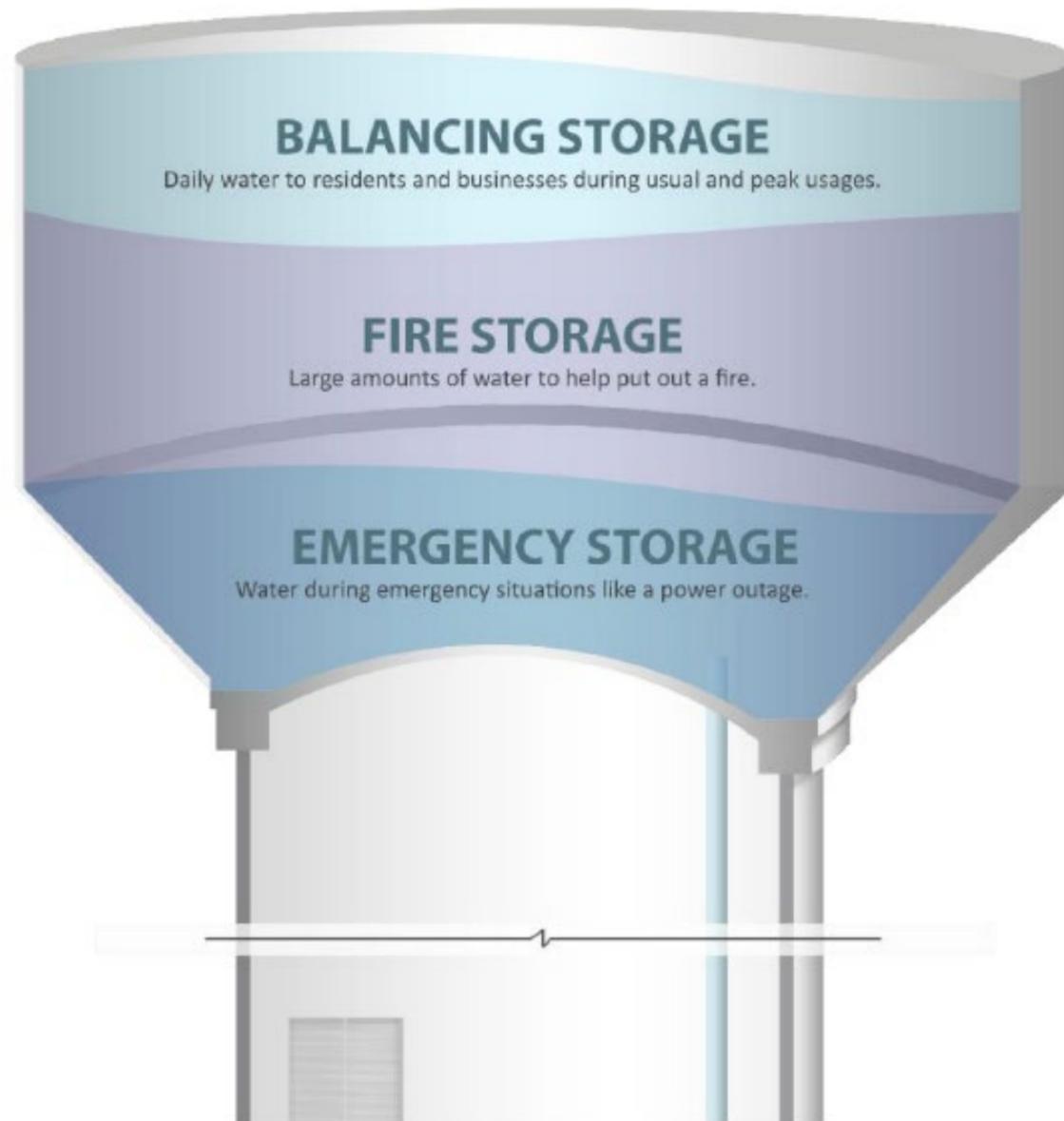
Storage Concept	Evaluation
Option 1: Do Nothing	<ul style="list-style-type: none"> Does not satisfy the study's Problem and Opportunity Statement.
Option 2: Limit Growth	<ul style="list-style-type: none"> Does not satisfy the study's Problem and Opportunity Statement.
Option 3: In-Ground Reservoir	<ul style="list-style-type: none"> Limited property availability outside of sensitive environmental features and is far from the service area. Has increased costs due to required watermain length.
Option 4: Partial In-Ground Reservoir	<ul style="list-style-type: none"> Limited property availability outside of sensitive environmental features and is far from the service area. Has increased costs due to additional structural requirements of the storage facility.
Option 5: Elevated Tank(s) and Pumped Storage	<ul style="list-style-type: none"> ✓ Greatest flexibility for property acquisition within the service area. ✓ Provides opportunity for phased construction to meet growth demands. ✓ Provides improved connectivity. ✓ Requires a shorter watermain(s) than reservoir alternatives thereby minimizing environmental impact, adheres to policies, and provides a cost-effective storage concept.
Option 6: Standpipe(s) and Pumped Storage	<ul style="list-style-type: none"> Provides similar benefits to Option 5, but the standpipe does not have the same design options, siting flexibility, and storage benefits as the elevated tank. Limited site availability outside of the service area and environmental features.
Option 7: Pumped Storage Only	<ul style="list-style-type: none"> Does not provide floating storage, redundancy, or emergency back-up. Does not meet Regional operations and servicing practices.



Do you have any thoughts on the evaluation methodology? Please let us know!



What is the preferred preliminary storage concept? Elevated Tank(s) and Pumped Storage

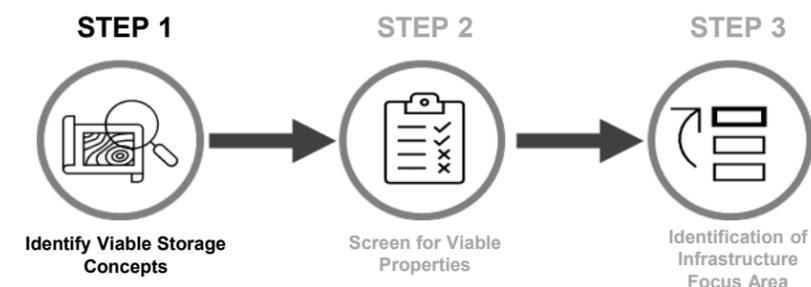


Option 5 Elevated Tank(s) and Pumped Storage was selected as it provides:

- Siting flexibility within the study area;
- Opportunity for phased construction to meet growth demands;
- Improved connectivity;
- Shorter watermain(s) than other reservoir alternatives (minimizing environmental impact);
- Adherence to guiding policies, and,
- Cost-effective storage concept.



Do you have any thoughts on the preferred preliminary storage concept? Please let us know!

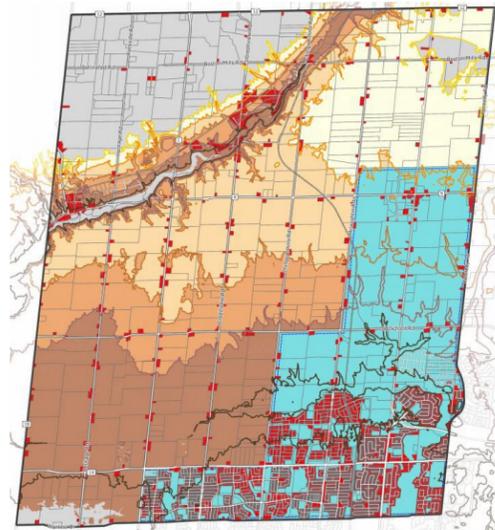


What areas are not suitable for elevated tanks? Screening Criteria

The study area was assessed against the following criteria to develop a focus area for siting new infrastructure. Areas with the following criteria were removed or screened out.



Technical Viability

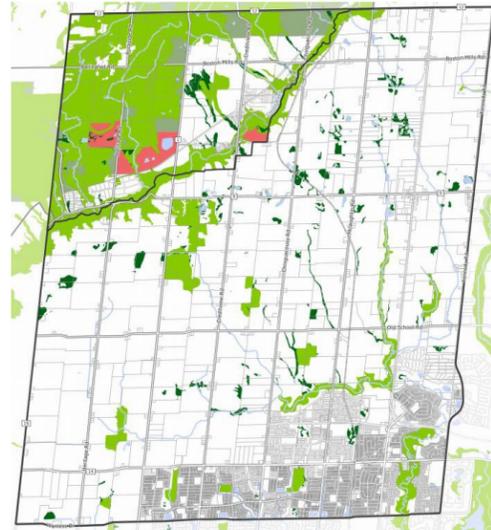


Screened Out:

- Properties outside required elevation
- Properties less than 2 hectares
- Properties in pressure zone 7 central



Natural Environment

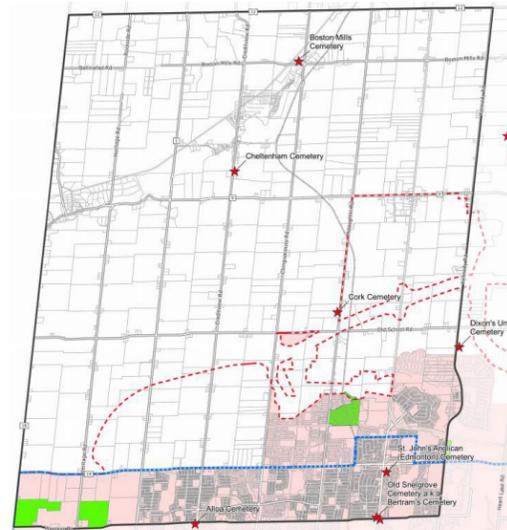


Screened Out:

- Properties in Niagara Escarpment
- Environmentally Sensitive Areas
- Area of Natural and Scientific Interest



Social / Cultural

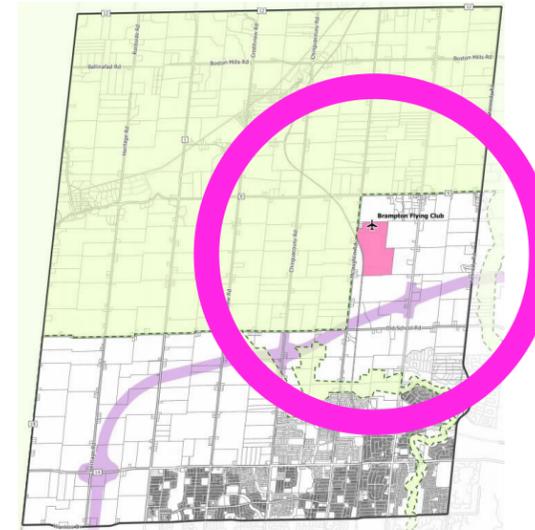


Screened Out:

- Archeological and Cultural Heritage Properties
- Existing Urban Areas



Policy / Jurisdictional

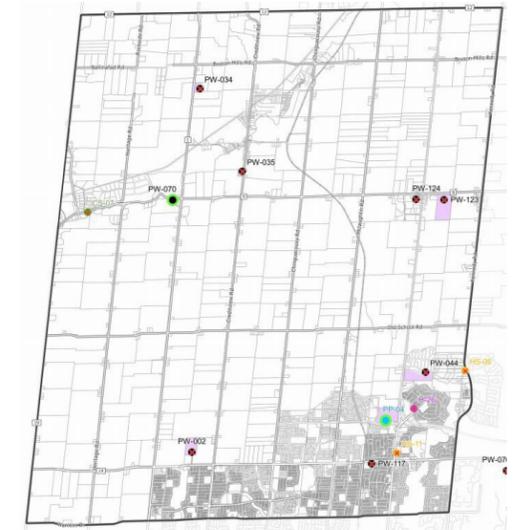


Screened Out:

- Properties in the Greenbelt
- Technically preferred corridor for Hwy 413 (GTA West)
- 4 km radius of Brampton Flying Club



Economic

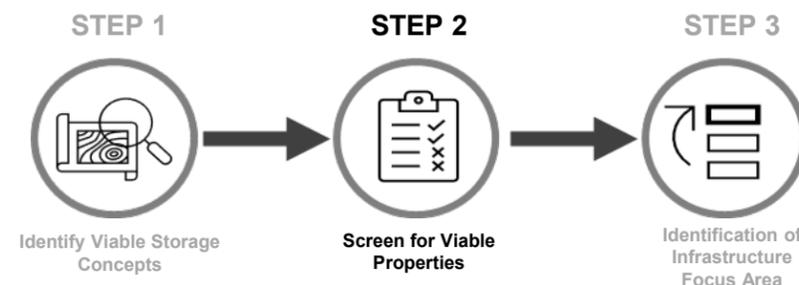


Screened Out:

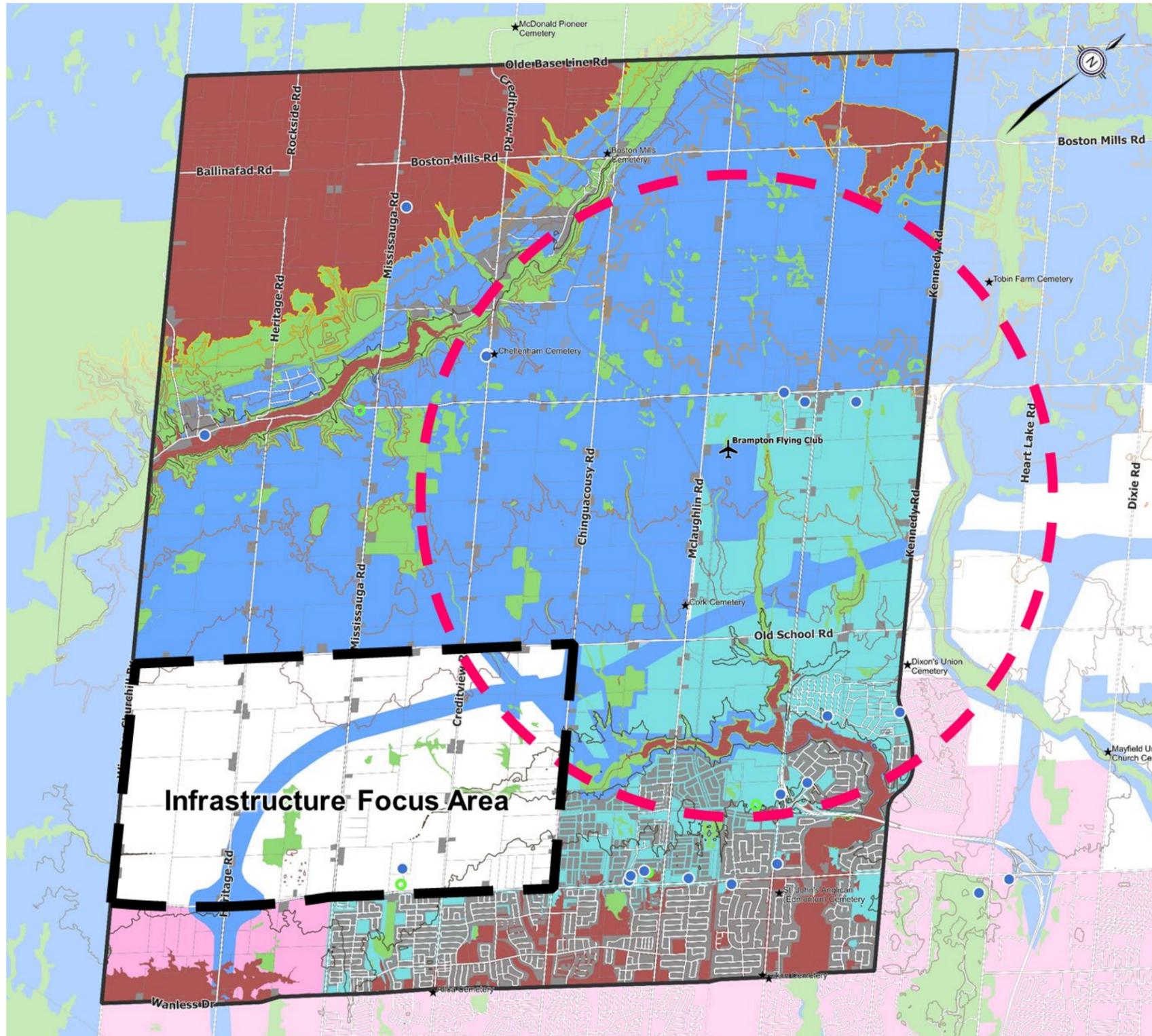
- Existing Region-owned properties that are not available



Do you have any thoughts on the screening criteria? Please let us know!



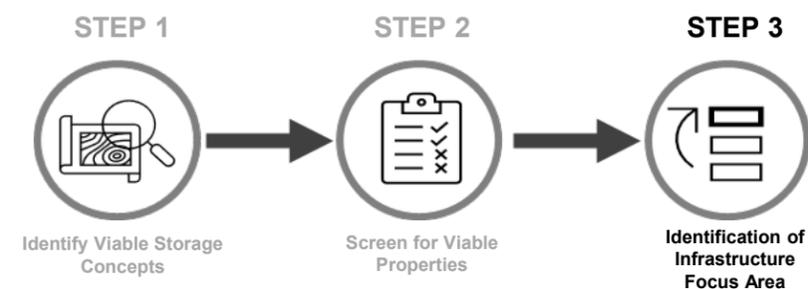
What is the result of applying the screening criteria? Identification of Infrastructure Focus Area



Having removed the land area that met the screening criteria, the study identified the **Infrastructure Focus Area**.

The next step will be to review and develop a range of storage facility sites and watermain alignment alternatives for further consideration within the Infrastructure Focus Area.

- | General Features | Screening Criteria |
|-----------------------------------|-------------------------------------------------------------|
| ● Active Peel Regional Facilities | ■ Parcel does not meet minimum size requirement (1 Hectare) |
| ● Future Peel Regional Facilities | ■ Bampton Flying Club Setback (4km Buffer) |
| ★ Cemetery | ■ Elevation less than 260 metres, greater than 300 metres |
| ✈ Bampton Flying Club | ■ Natural Environment Area |
| — Rail | ■ Policy / Jurisdictional Areas |
| ■ Infrastructure Focus Area | ■ Social / Cultural Area |
| ■ Study Area | ■ Zone 7 Central (Approximate) |
| ■ Parcels | |



What are we doing next?

- Review and incorporate responses from PIC No. 1.
- Confirm short list of sites within the Infrastructure Focus Area for new elevated tank(s).
- Complete detailed evaluation of the following:
 - Short listed sites for new elevated tank(s), and
 - Water transmission main alignments.
- Complete additional supporting technical studies related to short listed sites including:
 - Stage 2 Archaeological Assessment,
 - Natural Features Assessment,
 - Geotechnical Study, and
 - Phase One Environmental Site Assessment.
- Continue to engage with review and approval agencies and other key stakeholders and rightsholders.
- Select a preliminary preferred site for the new elevated tank(s) and water transmission main alignments.
- Prepare for PIC No. 2.

Project Timeline

Spring 2023: PIC No. 2 is anticipated to be held to review the Phase 2 Preliminary Preferred Site and Alignment.

Late Summer 2023: PIC No. 3 is anticipated to be held to review the Phase 3 Preliminary Preferred Design Concept.

Fall 2023: A detailed costing, phasing and implementation plan are anticipated to be developed and completed.

Late Fall 2023: A Notice of Study Completion for the project is anticipated to be sent out.

Engagement with Indigenous Communities, review and approval agencies, public as well as other key stakeholders will continue throughout the project timeline.



Additional project information can be found on the project website, which can be accessed by scanning the QR Code with your smartphone.

How to Stay Involved



- ✓ Fill out the questionnaire and comment sheet.
- ✓ Sign up for project information updates.
- ✓ Provide your feedback regarding materials presented in this PIC No. 1.

Do you have any questions, comments, or want to stay up to date? Please contact us anytime.

Sogol Bandehali, MSc. P.Eng.

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Please note that information related to this study will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments received will become part of the public record and may be included in the study documentation prepared for public review.

If you need any accommodations to provide comments and/or feedback for this study, please contact the Project Manager.