



Public Information Centre 1
Arthur P. Kennedy
Water Treatment Plant (WTP)
Reservoir Expansion
Class Environmental Assessment (EA) Study

Region of Peel
October 18, 2023

Land Acknowledgements

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.

Public Information Centre 1

Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study

Purpose of the Study:

- Provide a design concept for additional water storage for the WTP to ensure long-term reliable water treatment and supply.

Help us help you!

- This is your opportunity to comment on the study.
- All comments received will be considered and incorporated where possible.

What should I be doing?

- Reviewing the PIC presentation boards.
- Share comments with one of the team members in attendance or via e-mail during the comment period.

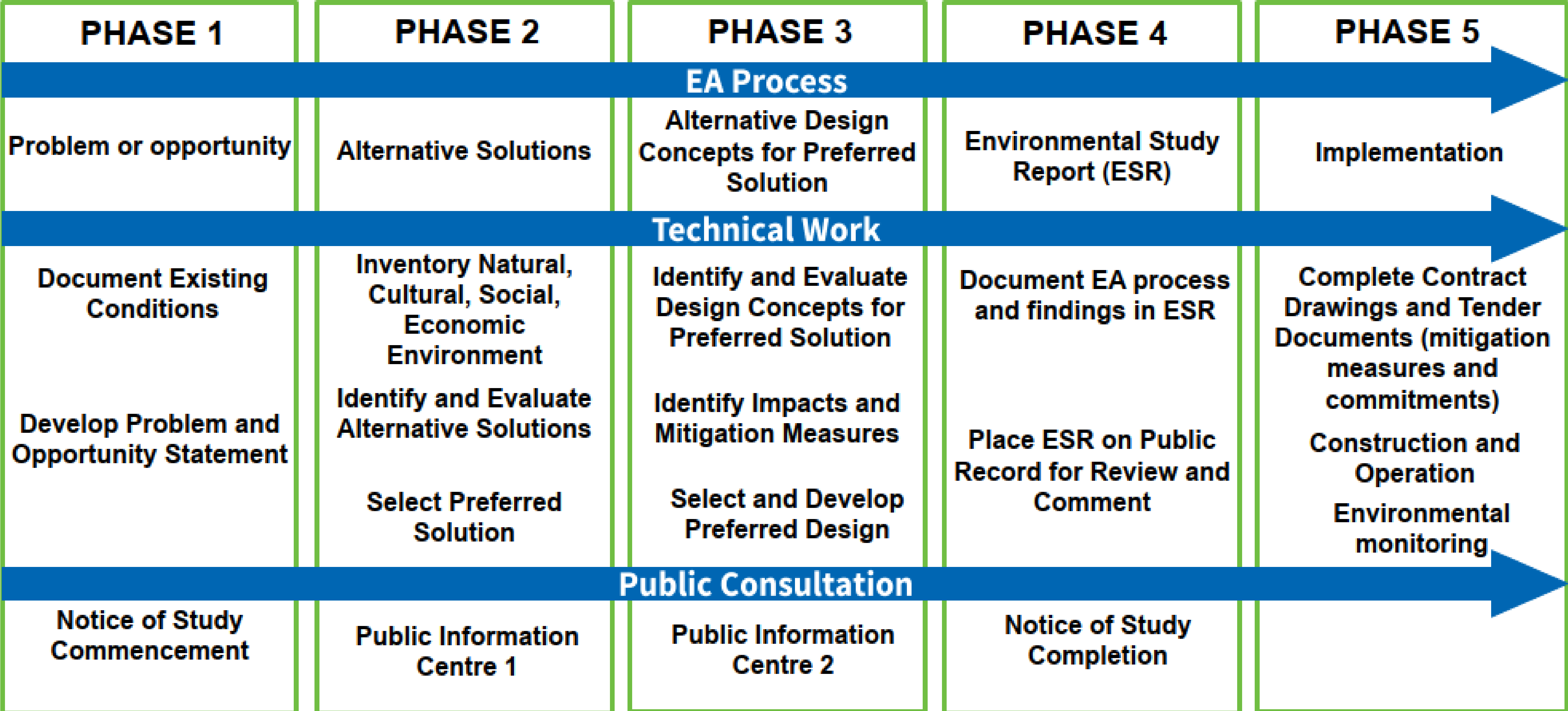
Objectives of PIC 1:

1. Introduce the Study
2. Outline the work progress to date.
3. Share the alternative solutions being considered and evaluation methods.
4. Discuss next steps and obtain your input.



Schedule 'C' Class EA Process

Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study

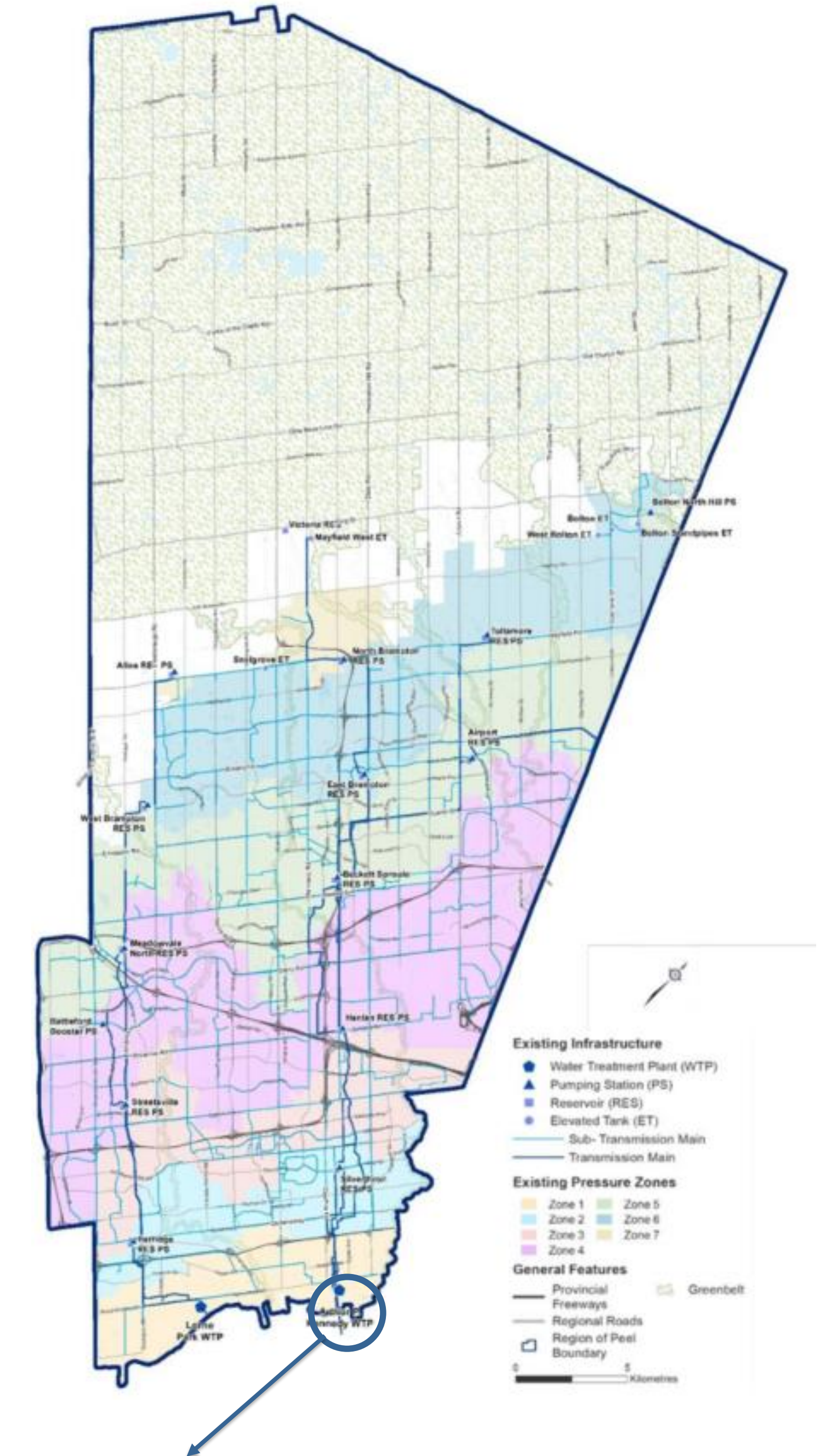



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Project Background

Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study

- The Region is serviced by Arthur P. Kennedy WTP and Lorne Park WTP. These WTPs, with trunk water systems and pumping stations, combine as the “Lake Based Water System”.
- Arthur P. Kennedy WTP is one of the world’s largest water treatment facilities with a capacity to produce 1,200 ML of clean water every day
- Serves residents in the eastern part of Mississauga, Brampton, York Region and the community of Bolton.
- Built in 1952, with multiple expansions and upgrades, with the latest capacity expansion in 2014.
- The Region of Peel’s Water and Wastewater Master Plan (2020) and updated 2051 population forecast identifies the current treated water storage as insufficient at Arthur P. Kennedy WTP .

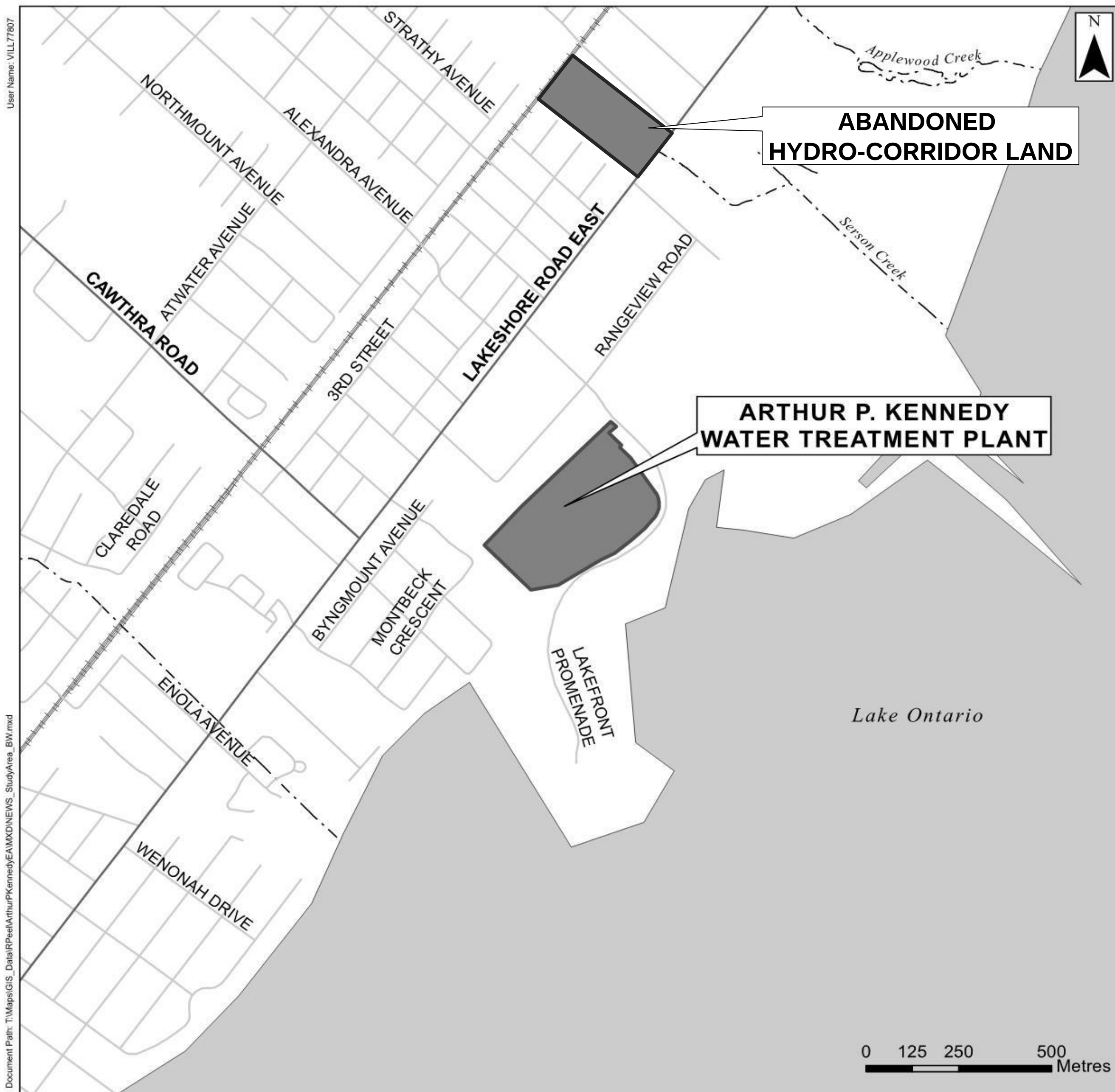


Arthur P. Kennedy Water Treatment Plant

Image Source: South Peel Water Quality Report, Brampton, Mississauga and South Caledon, 2020

Study Area

Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study



Study Area

- The approximate limits of the Study Area extend from:
 - Lakeshore Road East southerly to Lake Ontario
 - Just east of Montbeck Crescent to East Avenue extending to the western limits of the Douglas Kennedy Park
- For the purpose of alternative solutions, the Study Area also considers other sites within the Region.

1. Identify the Problem or Opportunity

Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study

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Problem Statement:

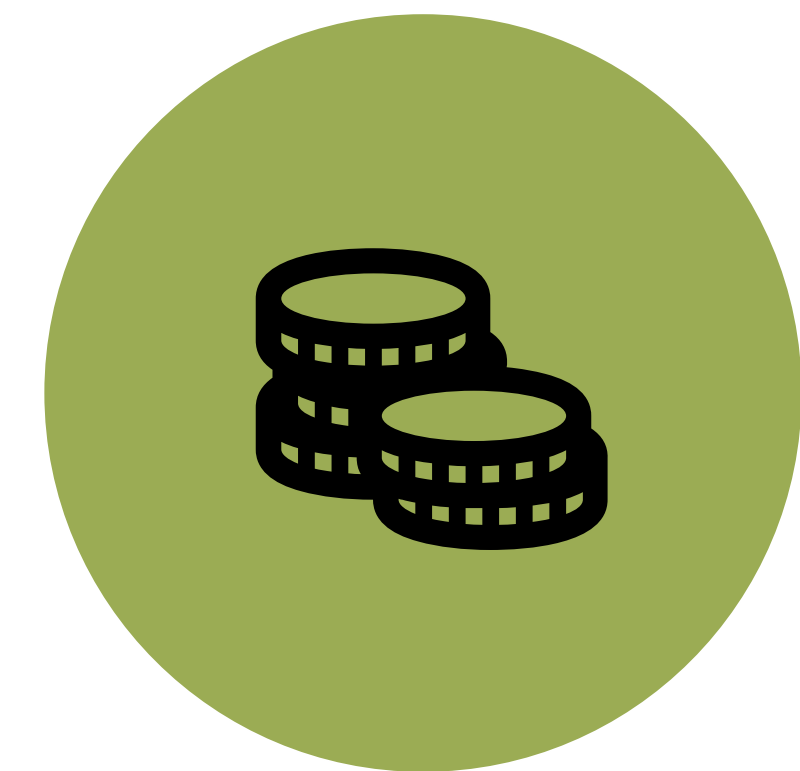
- The Region's major servicing policies and guiding principles require system reliability, security for its residents and businesses, and maintaining the same level of service from every facility.
- The Water and Wastewater Master Plan (2020) identified the water storage facility at the Arthur P. Kennedy WTP requires expansion to support the Region's water servicing requirement.
- The population forecast for the 2051 planning horizon will increase the water demand at Arthur P. Kennedy WTP; and the plant facilities must align with the increased requirements.



Image Source: Liber360° INC., 2018. RETRIEVED FROM: [Arthur P. Kennedy Water Treatment Plant — Liberty360° Inc. \(liberty360inc.com\)](https://liberty360inc.com)

2. Project Objectives

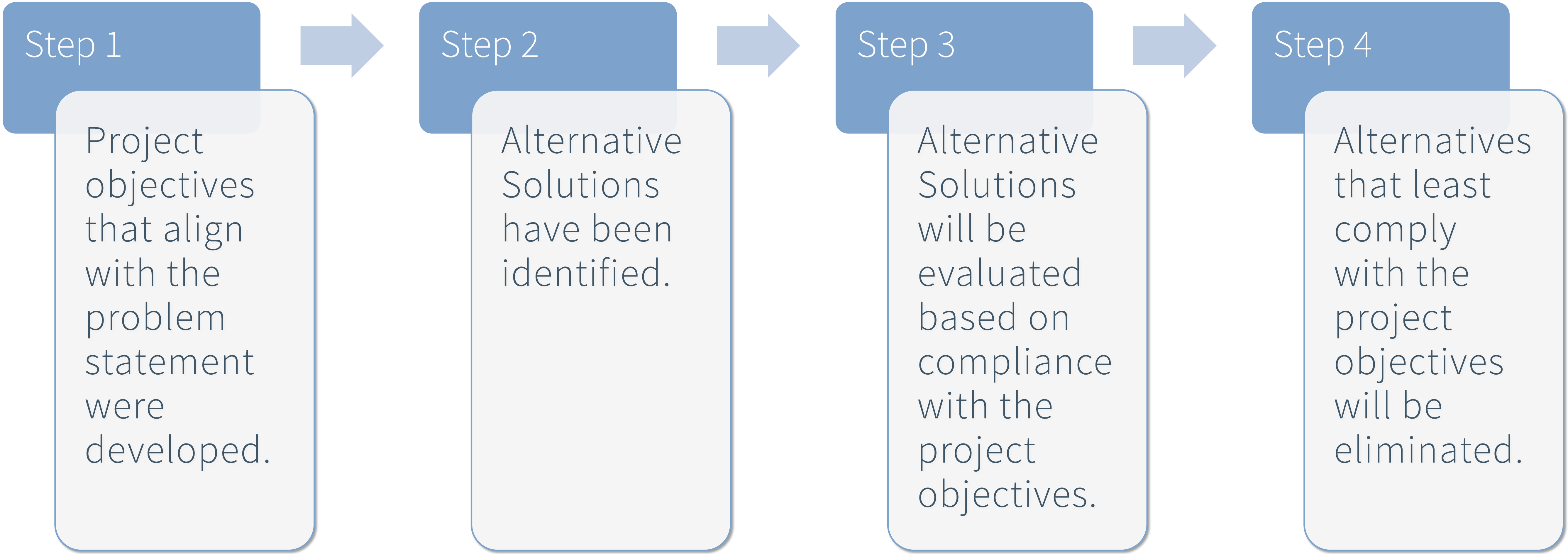
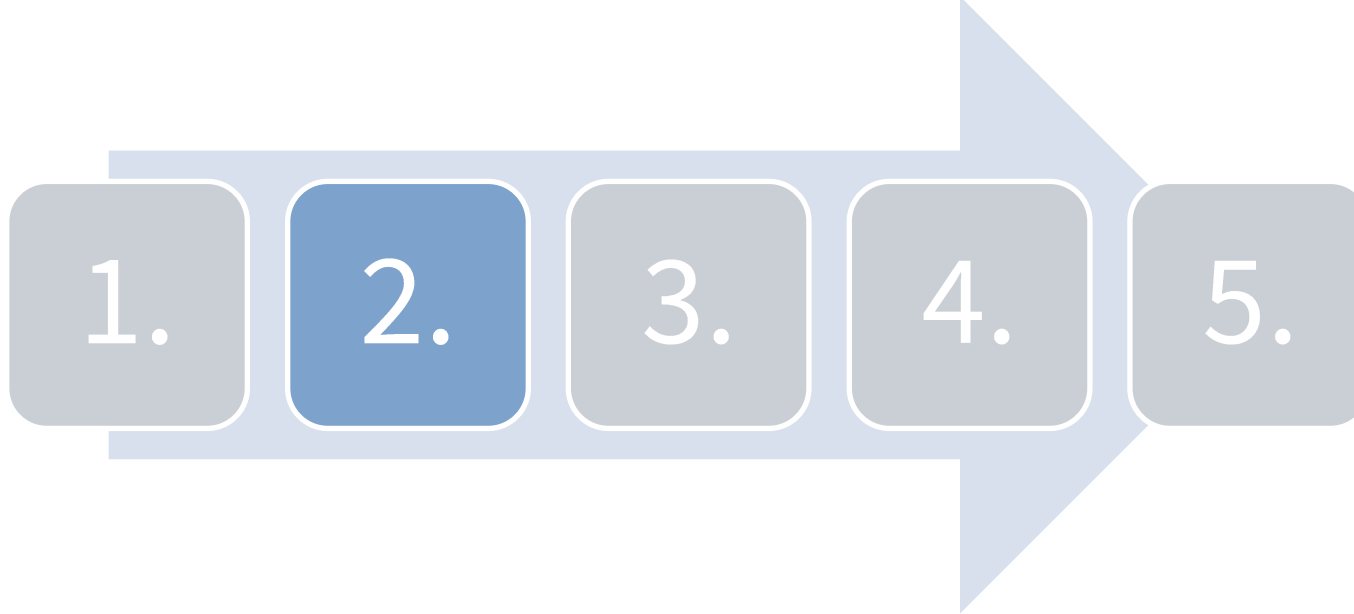
Arthur P. Kennedy WTP Reservoir Expansion - Class EA Study



Technical (System Reliability, Security and Level of Service)	Planning	Environmental Protection	Community Acceptability	Fiscal Responsibility
<ul style="list-style-type: none"> • The plant requires increased redundancy for water storage. • Keeping consistency with the level of service with the other WTP and other similar sized plants in Ontario, the plant requires a total reservoir storage volume to provide a minimum of 1.3 to 2 hours of water supply at the rated plant capacity. • Integration of a new reservoir to the existing WTP operation to improve security of operation. 	<ul style="list-style-type: none"> • Design that aligns with the 2020 Master Plan and latest Official Plan. • New reservoir should have the ability to support future capacity expansions in alignment with the 2051 and post-2051 growth. • Considering the limitation of the current site, the space allocated for the reservoir should not prevent opportunities for future capacity expansions. 	<ul style="list-style-type: none"> • Evaluate alternative solutions with consideration for the natural, social, and cultural environments. • Mitigate risks to natural, social, cultural environments. 	<ul style="list-style-type: none"> • Effective consultation with the stakeholders and approval agencies. • Develop visually appealing design and landscaping that integrates into the existing community. 	<ul style="list-style-type: none"> • Balance project costs while protecting the natural, social and cultural environments.

2. Alternative Solutions and Evaluation Approach

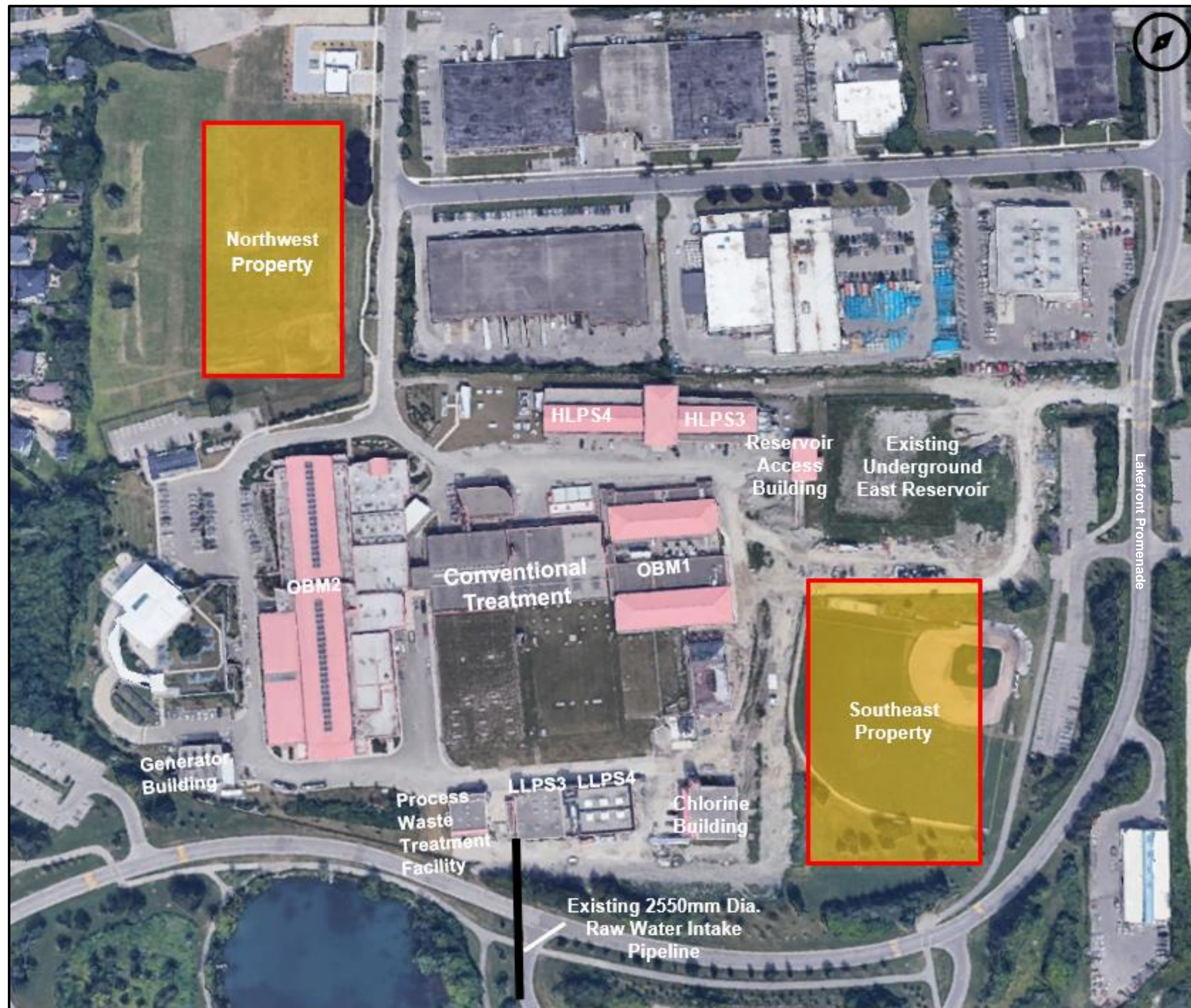
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2. Available Properties for Alternatives

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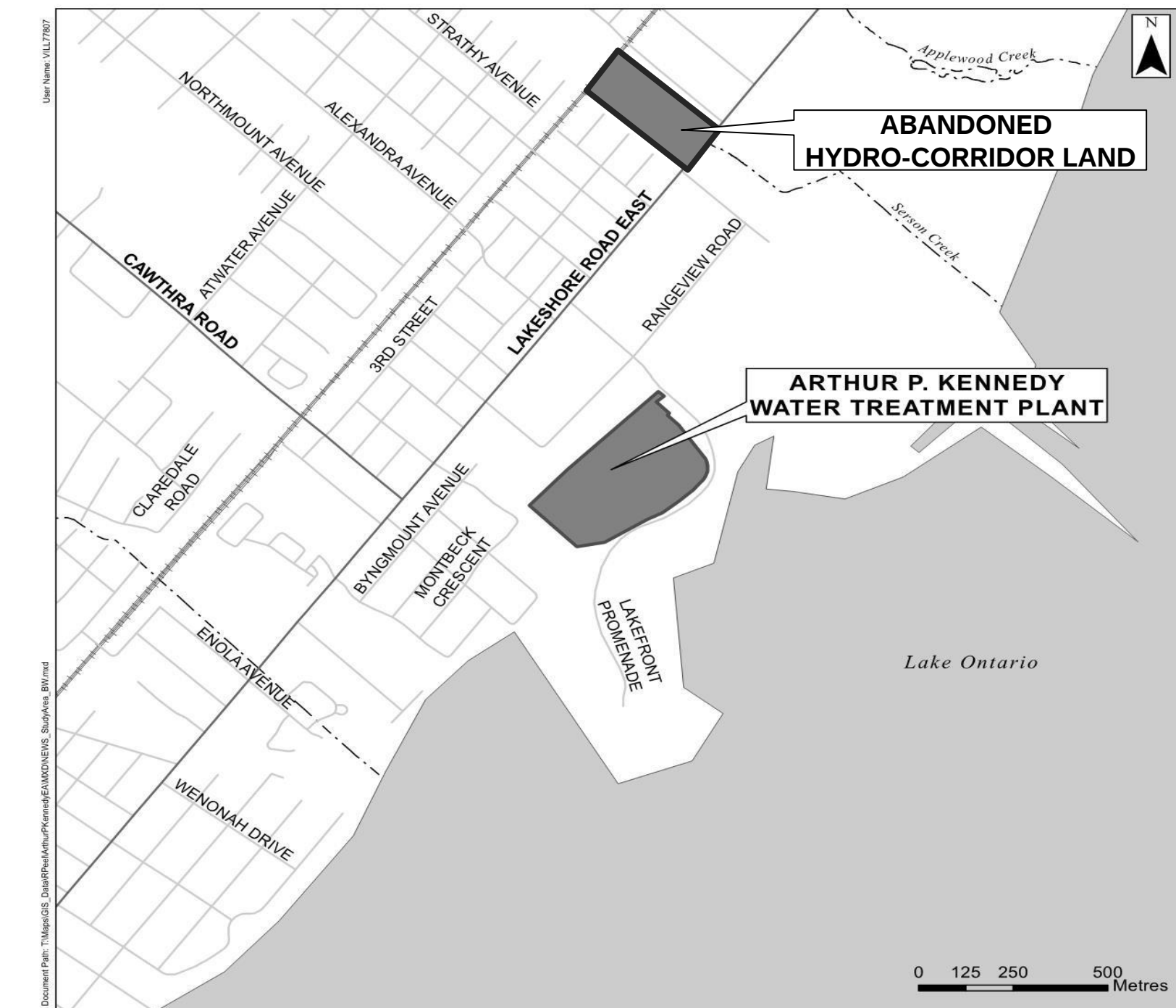
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On-site Properties: Northwest and Southeast



Off-site Property – Abandoned Hydro-corridor



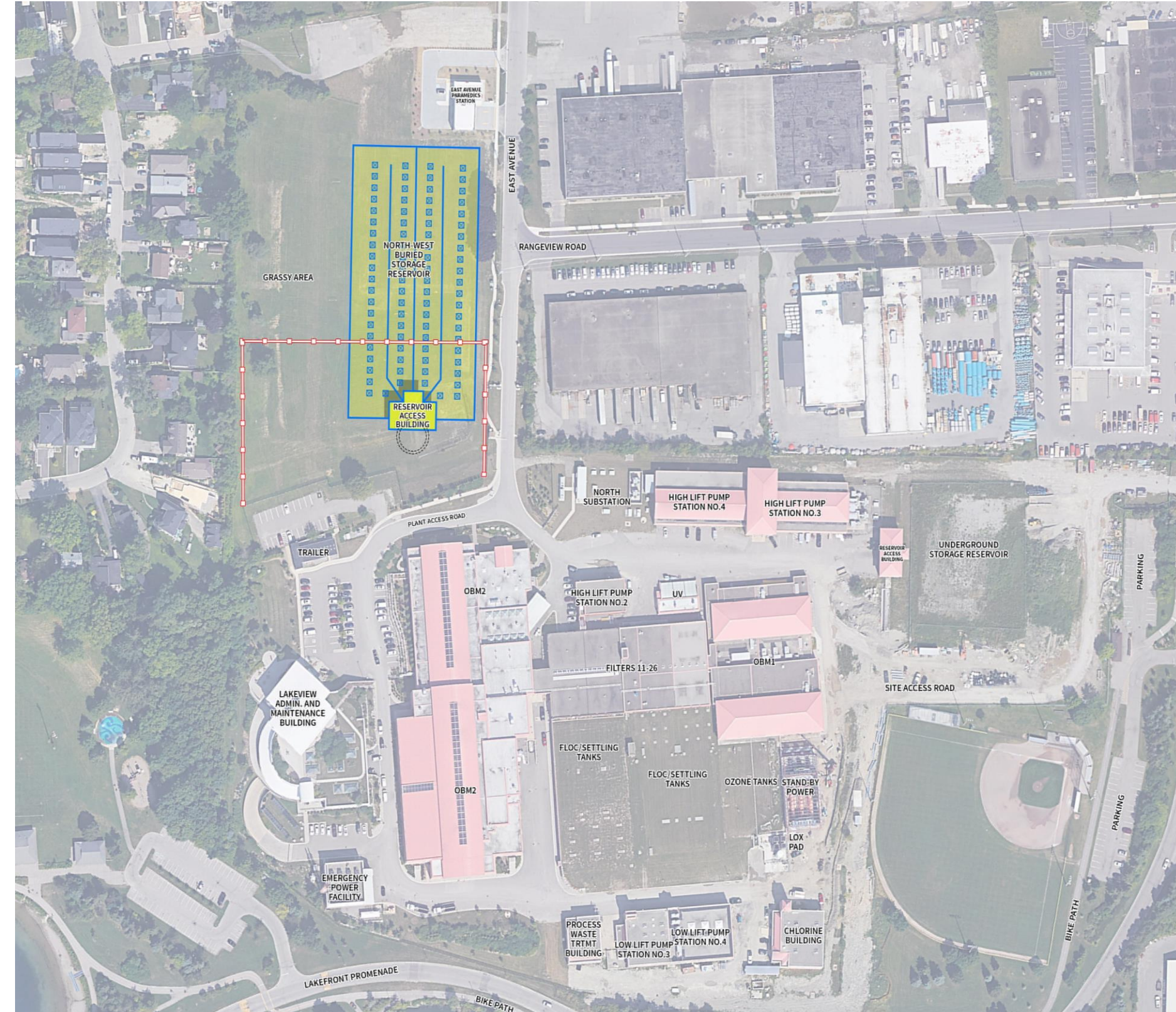
Key Plan Map

2. Long List of Alternative Solutions

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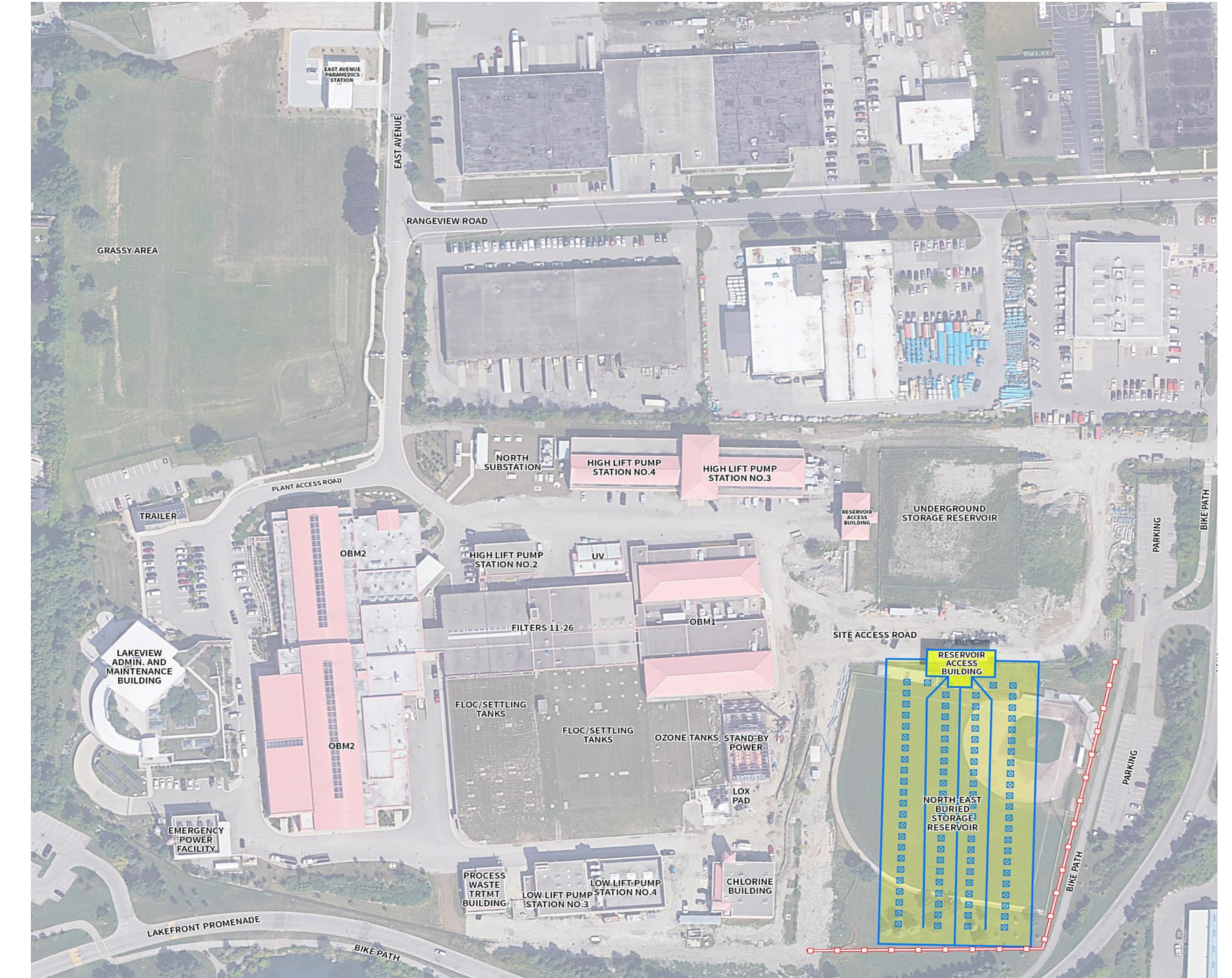


Two On-site Alternatives are considered for the properties within the Arthur P. Kennedy WTP site.



Alternative Solution 1: Northwest Reservoir

- New reservoir would be on the northwest property, where the filtered water is conveyed from the treatment train on the west and drained to the High Lift pumping station through a tunnel.
- Future treatment capacity expansions could be on the southeast property, the Conventional Treatment Plant area and off-site property (abandoned hydro-corridor).

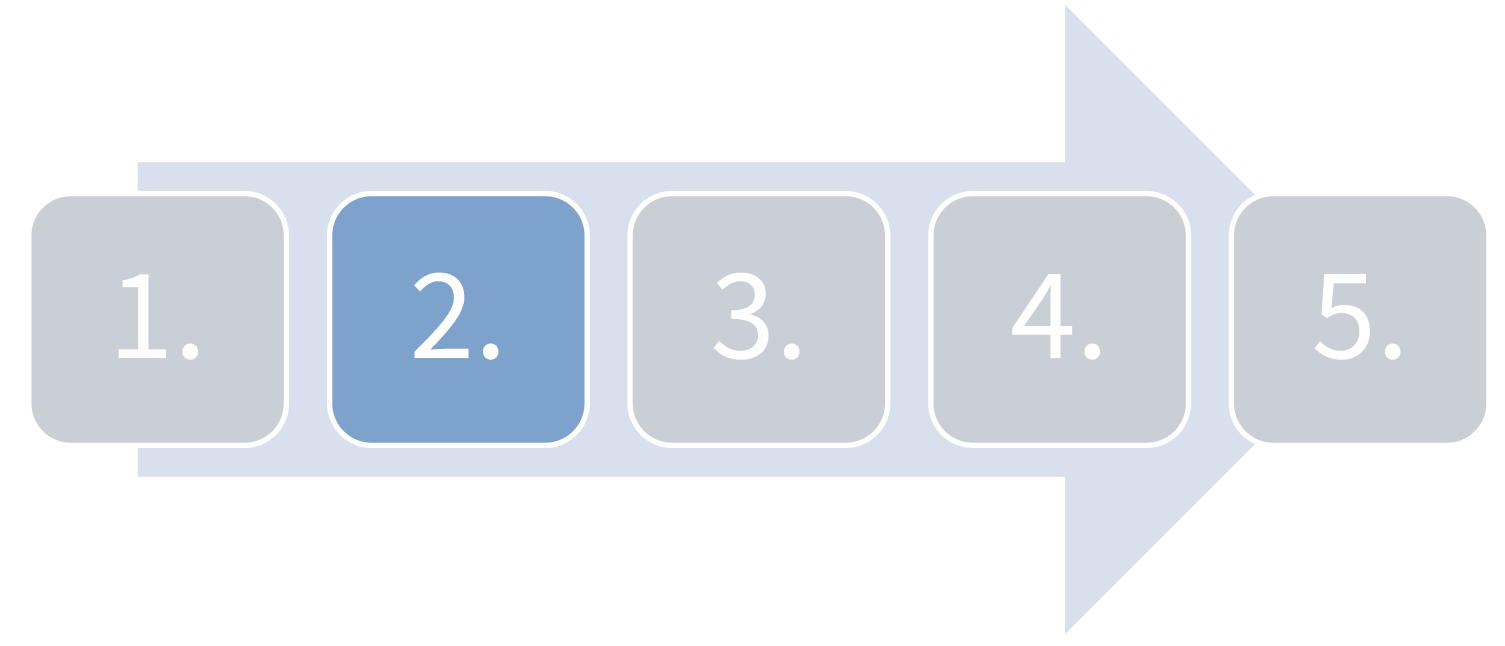


Alternative Solution 2: Southeast Reservoir

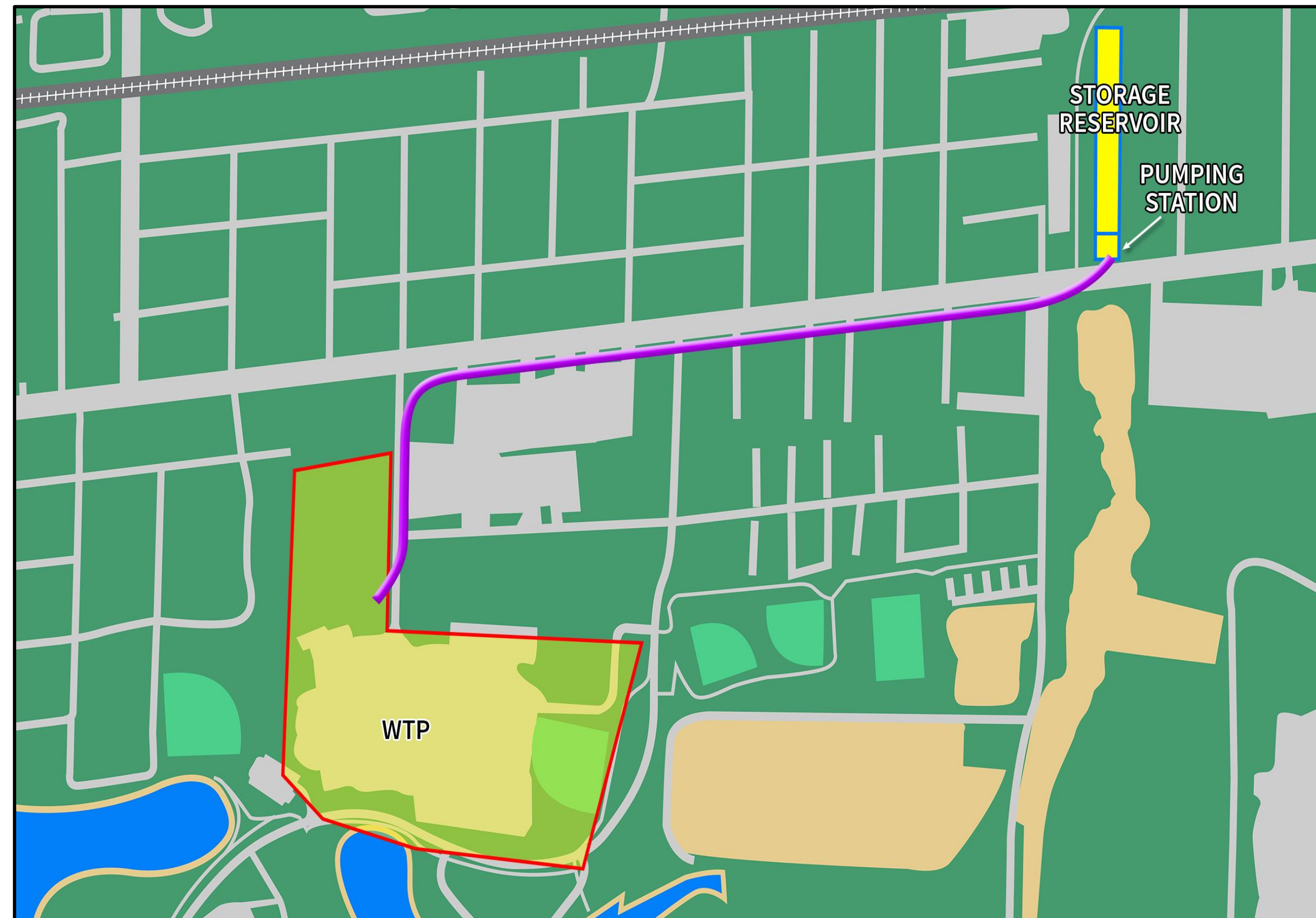
- New reservoir would be on the southeast property, where the filtered water is conveyed from the treatment train on the east and drained to the High Lift pumping station through the existing reservoir and pipes.
- Future treatment capacity expansions could be on the northwest property, the Conventional Treatment Plant area and off-site property.

2. Long List of Alternative Solutions

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Off-site Alternative



Alternative Solution 3: Off-Site Reservoir

- New reservoir would be within the abandoned Hydro-Corridor Land (approximately 1.2 km east of the plant site, and on the north side of Lakeshore Road East).
- Future treatment capacity expansions could be in the available properties within the Arthur P. Kennedy WTP site.

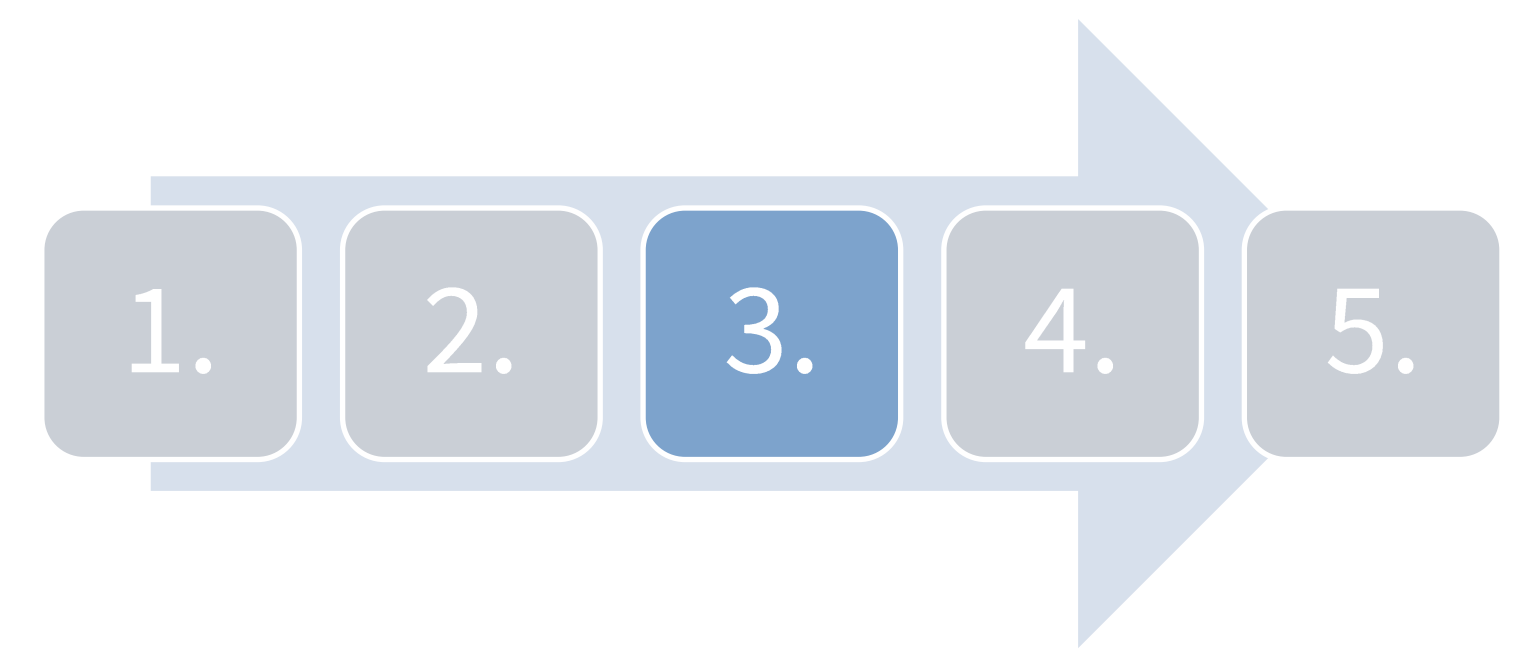


Off-Site Reservoir Site Layout

- The Reservoir Access and Pumping Building would be positioned on the south side of the site with entrance from the Lakeshore Road East.

3. Next Steps....

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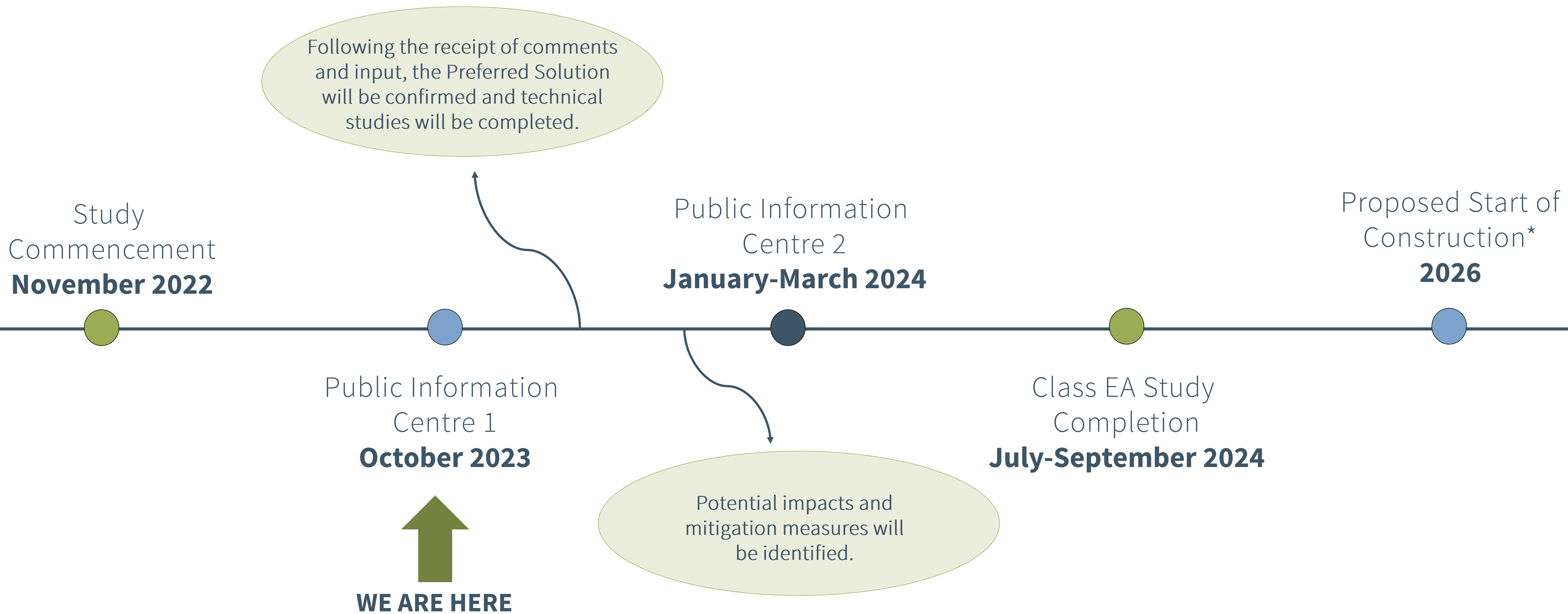


After the first Public Information Centre (PIC), the project team will;

- Review and consider input received during the meeting.
- Complete a detailed evaluation of the alternative solutions.
- Initiate investigative studies to advance the evaluation of the alternative solutions such as Archaeological Assessment, Natural Features Assessment, Geotechnical Study, Hydrogeology Study, and Phase 1 Environmental Site Assessment.
- Continue to engage with review and approval agencies and other key stakeholders and rightsholders.
- Complete detailed evaluation of the alternatives for the preliminary preferred solution.
- Prepare for PIC No. 2.

Project Schedule and Next Steps

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**The construction timing window is dependent upon approval of the construction budget by Region Council.*



**Thank you!
Comments or Questions?**

Your questions and comments are greatly appreciated!

Please email them by November 18th, 2023, to:

Janice Hatton

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Engineering Services Division

Public Works

Region of Peel

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