

BEMIS PARK ELEVATED TANK ENVIRONMENTAL ASSESSMENT

Public Information Centre No. 2

MOVING
WATER
FORWARD

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Niagara  Region



Project Introduction

The Niagara Region is undertaking the **Bemis Park Elevated Tank Environmental Assessment (EA)** to develop, evaluate, and select a preferred storage facility site and transmission main route to replace the existing Bemis Park Elevated Tank and optimize water servicing within the City of Welland.

This **Schedule 'B' Municipal Class Environmental Assessment** was triggered by recommendations from Niagara Region's 2016 Master Servicing Plan. A new elevated tank is proposed following the decommissioning of the Bemis Park elevated tank, to meet storage and pumping demands and optimize operations.



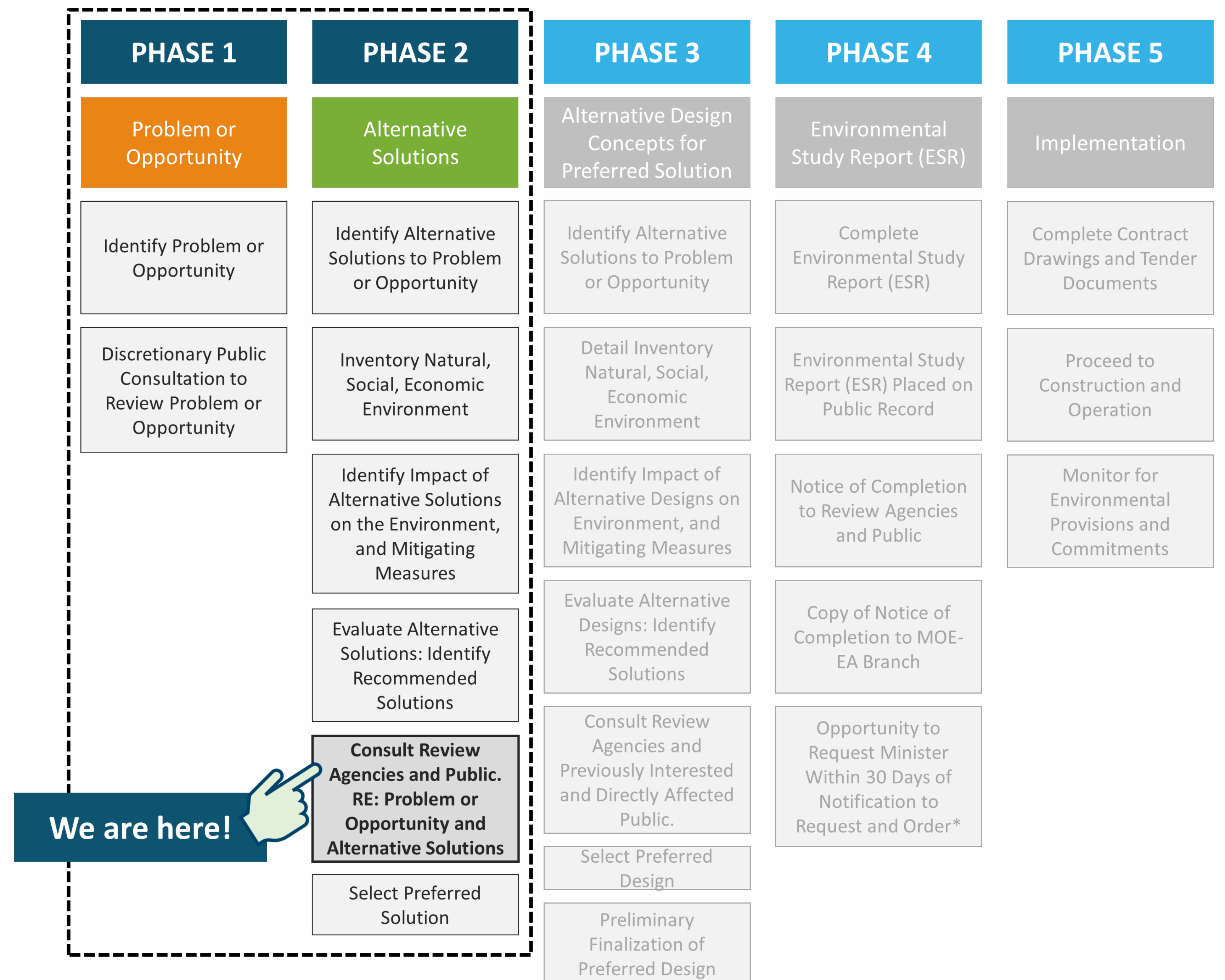
Problem Statement

“**Identify and develop a preferred solution for meeting storage and pumping requirement needs to efficiently operate the Welland Water Distribution System**”

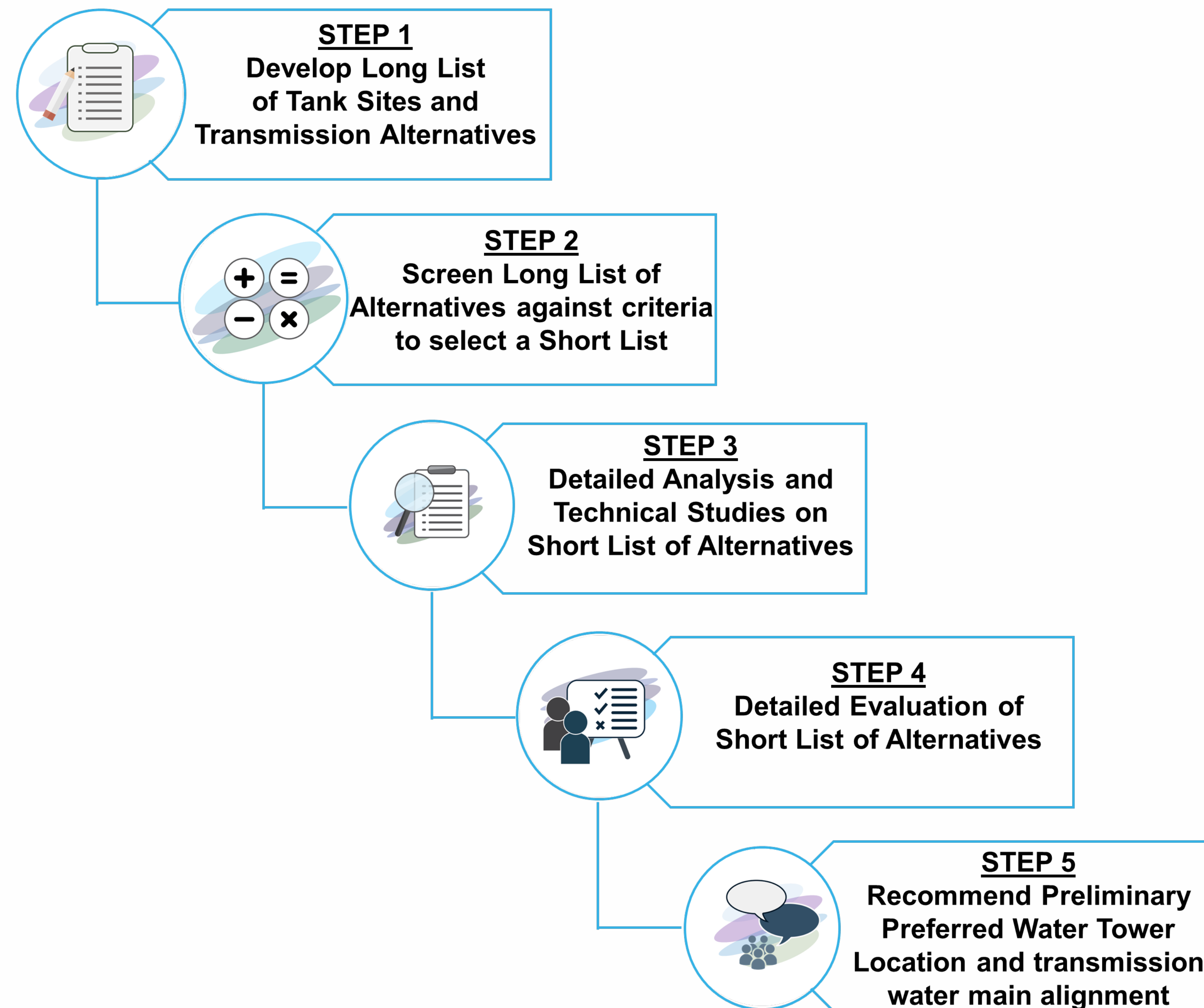
EA Process

This study is being completed as a **Schedule ‘B’ Class Environmental Assessment**, satisfying Phases 1 and 2 of the Municipal Engineers Association (MEA) Class Environmental Assessment process.

This is a decision-making process that Ontario municipalities follow for rehabilitating and building new infrastructure.



Project Road Map



Locating a New Water Tower

Technical

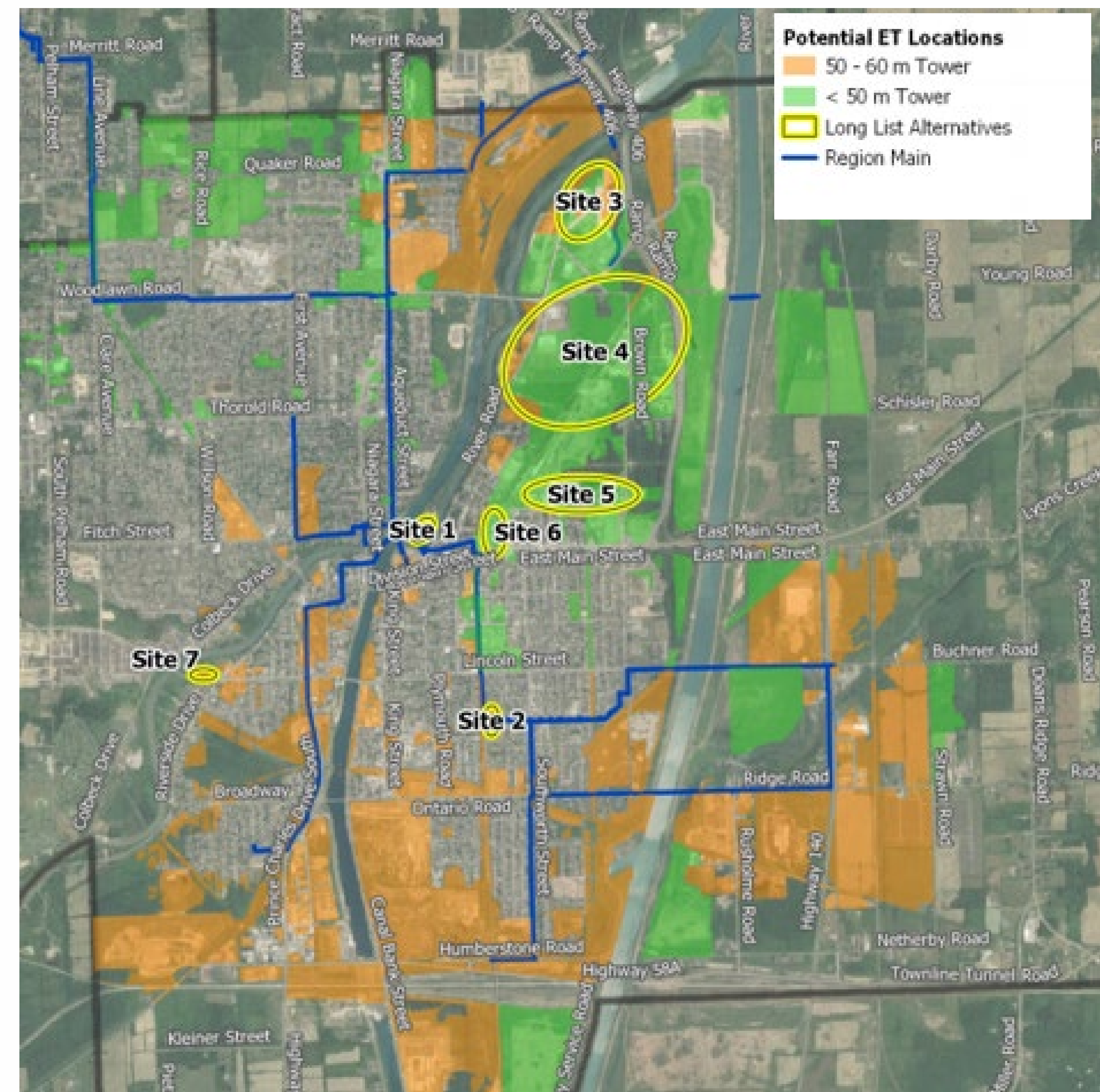
- Appropriate size of property for new water tank.
- Ground elevation to support tank height.
- Consideration of distance from water treatment plant to new water tank.
- Close to existing watermains for connecting feedermain from water tank.

Environmental

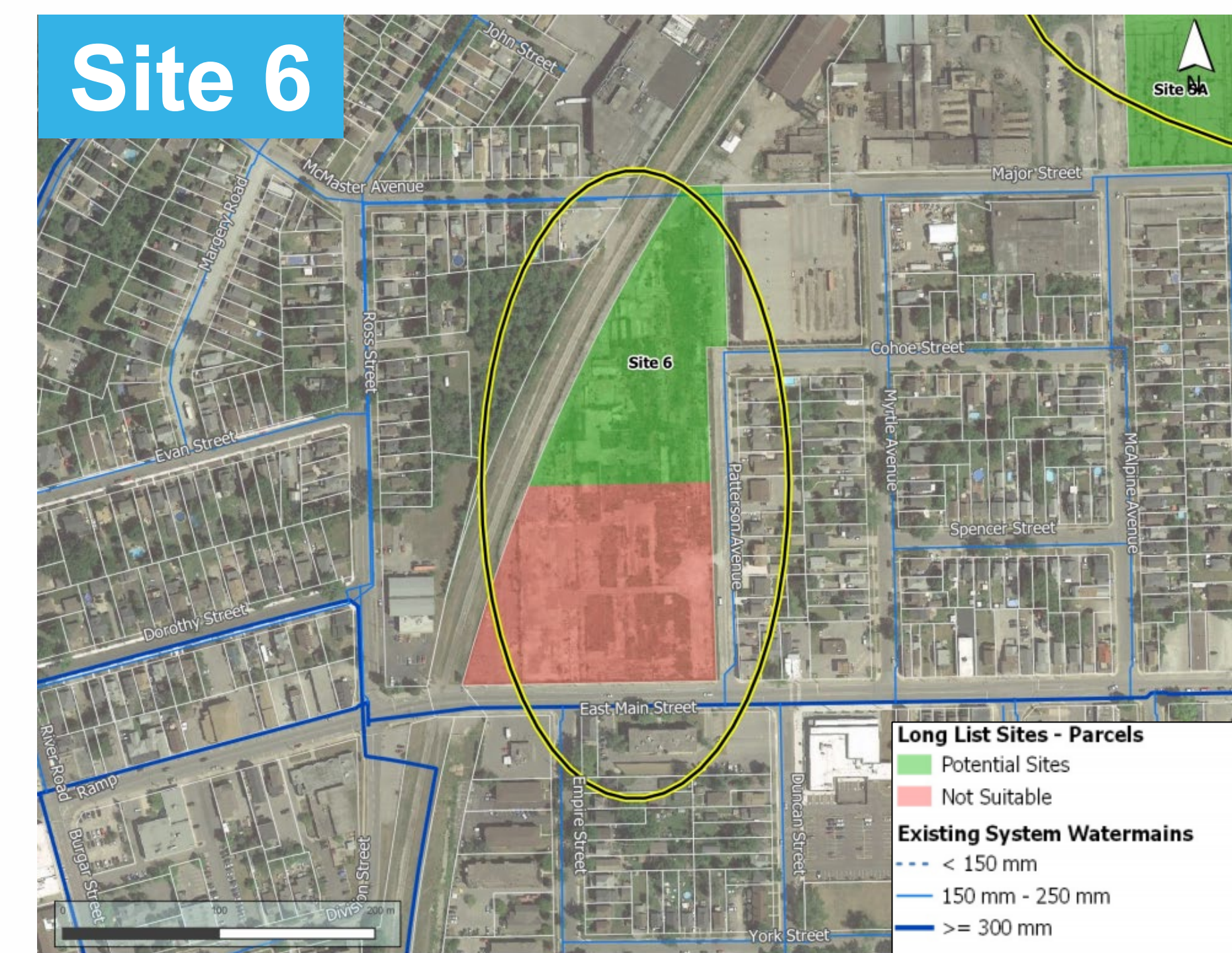
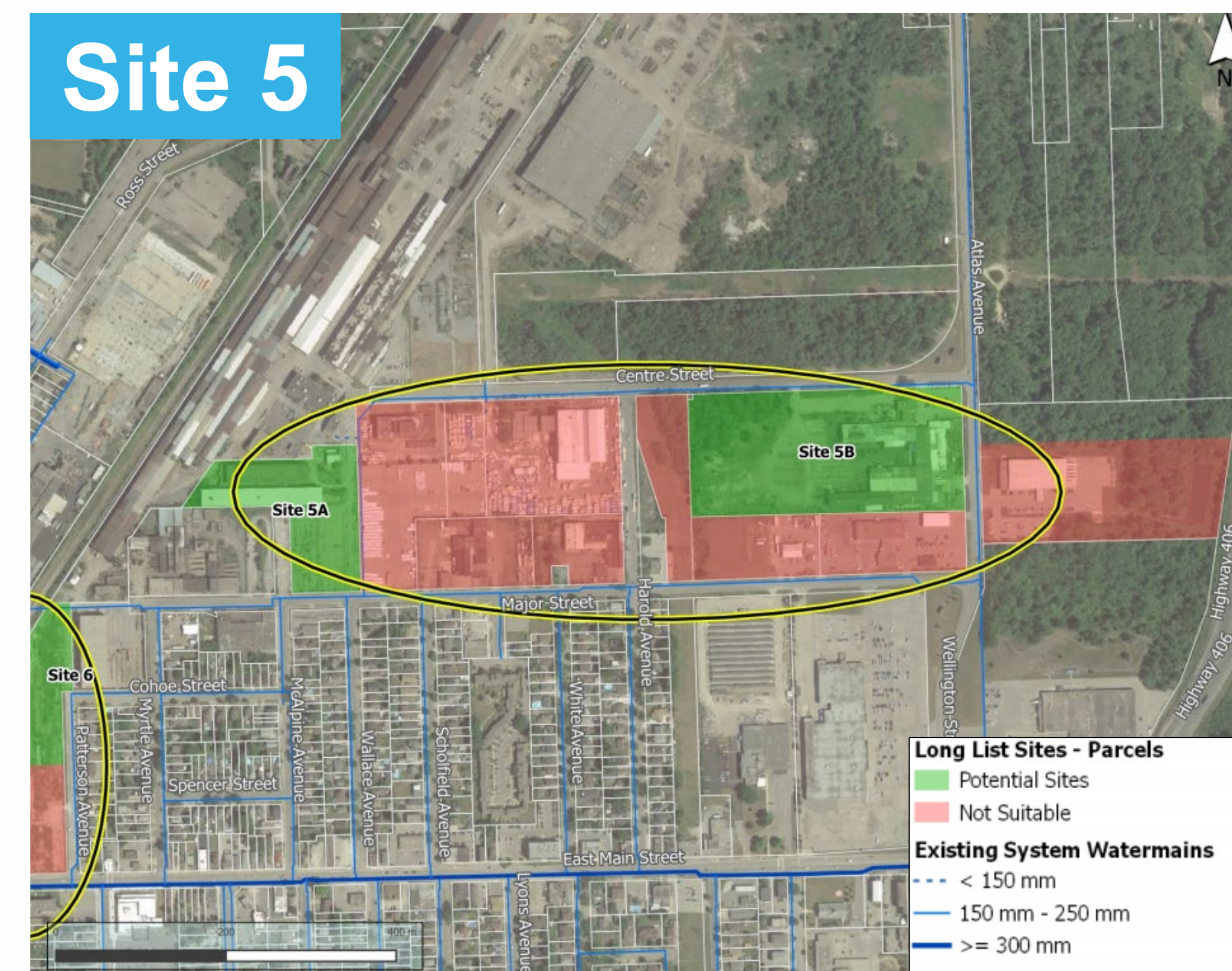
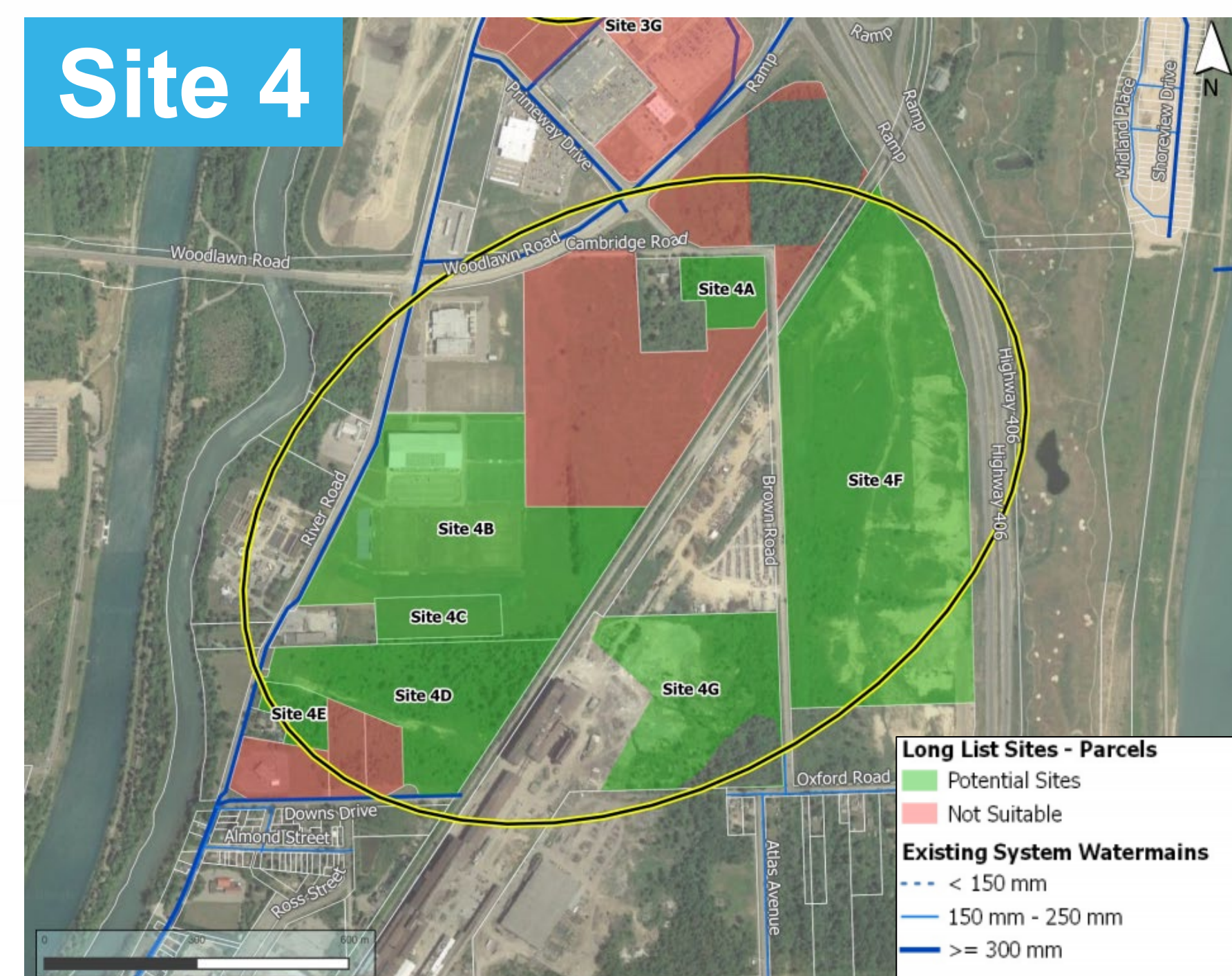
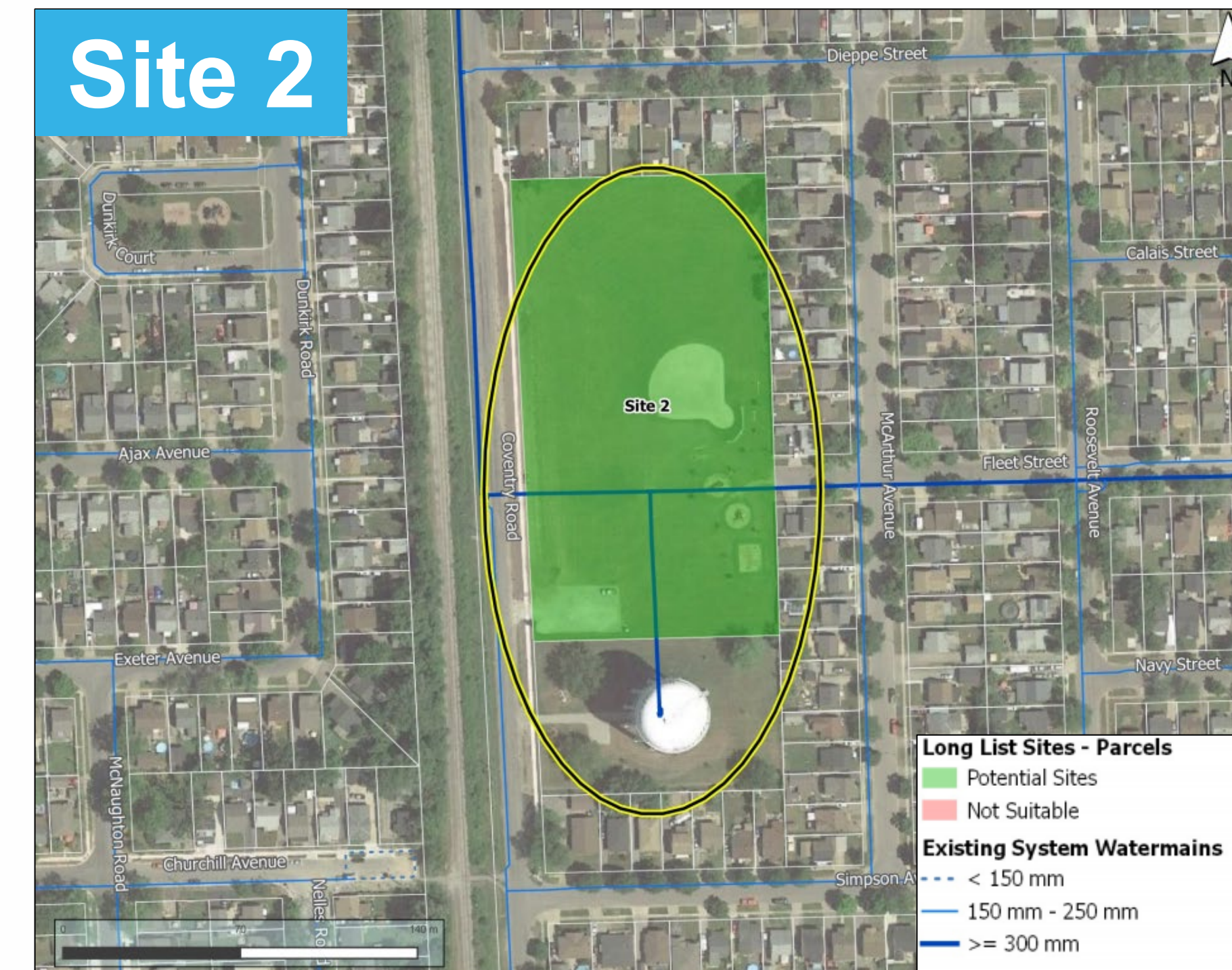
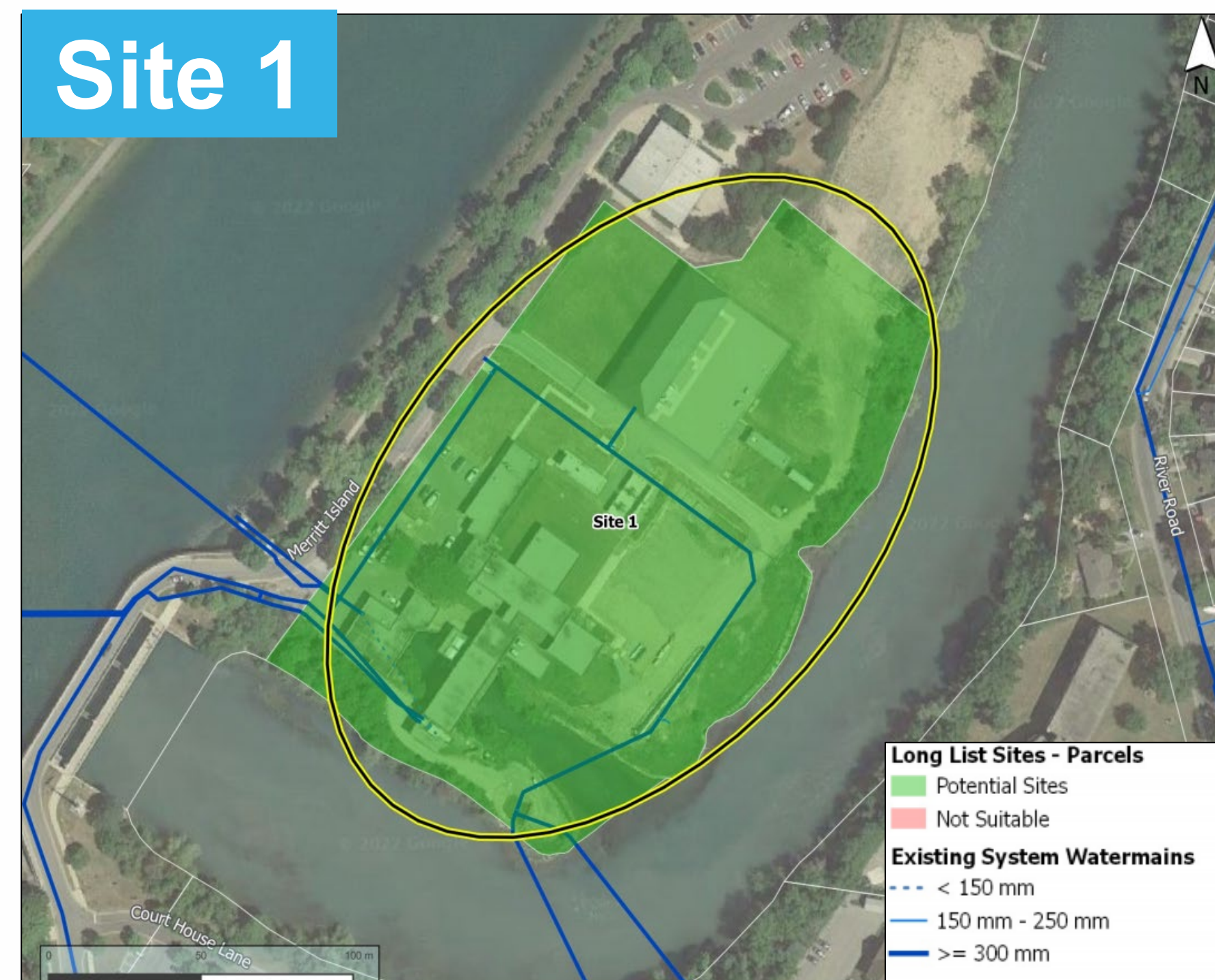
- Minimize impact to natural, cultural / heritage and socio-economic features.
- Ability to mitigate potential impacts.

Land Use

- Consideration of current and future land use of site.
- Consideration of surrounding landuse.



Shortlist Sites



Background Studies

Technical Discipline Studies were undertaken to support site alternative baseline and site inventory review.

Stage 1 Archaeological Assessment (AA) – ASI

- All five (5) short list sites evaluated.
- Three (3) sites may retain archaeological potential and require Stage 2 AA prior to construction.

Natural Heritage Background Report – Terrastory Environmental Consulting Inc.

- Review of potential impacts to wetlands, woodlands, wildlife habitat, endangered / threatened species habitat, and other natural features.
- Three (3) sites were flagged as impactful to environmental features.

Cultural Heritage – ASI

- Inventory of known and potential built heritage resources and cultural heritage landscapes was undertaken.
- Two (2) shortlist sites had impacts on cultural heritage sites.

Geotechnical & Hydrogeological Desktop Study – Palmer

- All five (5) shortlist sites were reviewed to support geotechnical and hydrogeological conditions

Evaluation Criteria

Criteria Scoring



The short-listed water tower locations will be evaluated according to the criteria shown below, with each category of criteria being considered equally. The highest score will identify the preferred option.

Environmental Factors

- Protects environmental features.
- Protects wildlife and species-at-risk.
- Minimizes climate change impacts.



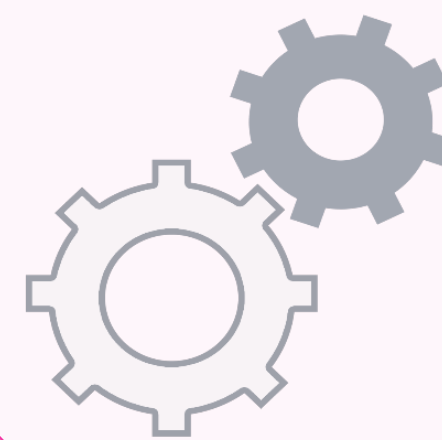
Financial Viability

- Low lifecycle costs.



Technical Factors

- Meets existing and future needs.
- Aligns with existing system and strategy.
- Provides a reliable water supply.
- Minimizes and manages construction risk.
- Ability to adapt to climate change.
- Minimizes operations and maintenance needs.
- Minimizes legal and jurisdictional issues.

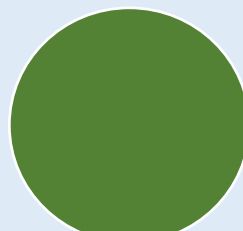
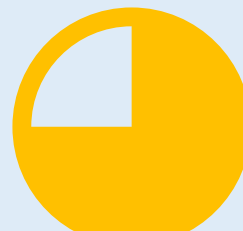
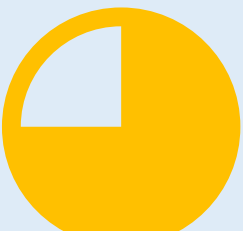
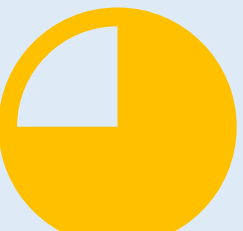
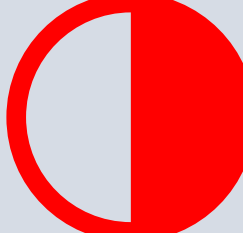
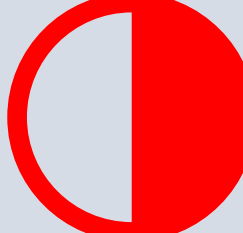
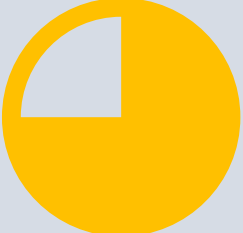
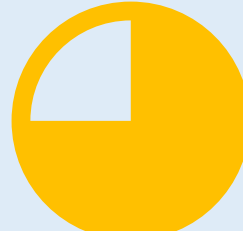
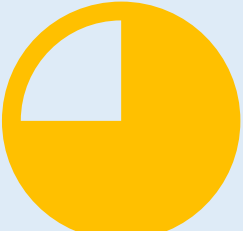
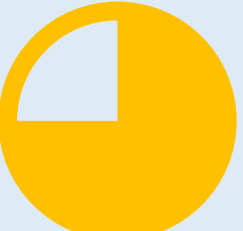
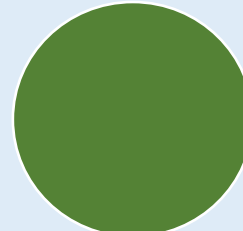
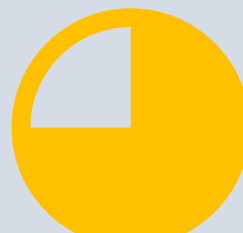
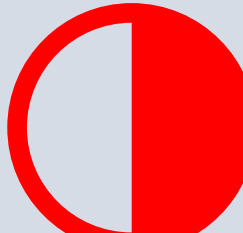
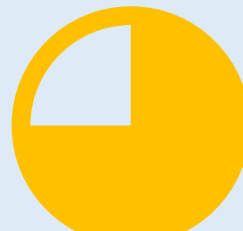
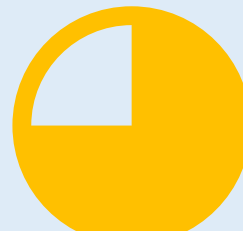
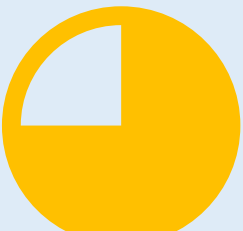
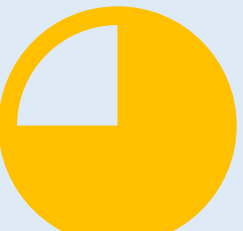


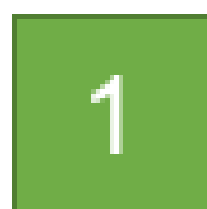
Social and Cultural Factors

- Minimizes disruptions to residents related to noise, traffic, and aesthetics.
- Minimizes disruptions to businesses.
- Minimizes source water protection impacts.
- Manages and minimizes construction impacts.
- Protects cultural heritage features.
- Protects archaeological features.



Shortlist Evaluation

	Site 1	Site 2	Site 4	Site 5	Site 6
System Operations and Performance					
Constructability Implementation					
Environmental Factors					
Social and Cultural Factors					
Financial Viability					
	3	3	2	2	1

 1 Most Preferred and Least Potential Impact  2 Not Preferred and Moderate Potential Impact  3 Least Preferred and Most Potential Impact

Preferred Solution – Site 6

Site 6, located at the Welland Fire Station #1, is the preliminary preferred site for the elevated tank.



This site was ranked first out of five short-list alternatives for numerous reasons:

- **Property is City-owned** and partially developed by the Welland Fire Station #1, expediting real estate acquisition
- **Minimal / no impact to businesses** during operations and maintenance of Elevated Tank
- **Low greenhouse gas production** due to proximity to existing and planned trunk infrastructure reducing pipe construction and materials
- **Avoids environmental features** reducing potential impacts
- **Aligns with surrounding land use**
- **Close to future planned watermain** alignment slotted for 2031
- **Increased storage capacity** provides improved system resiliency to increases in system demands and / or changes to supply capacity

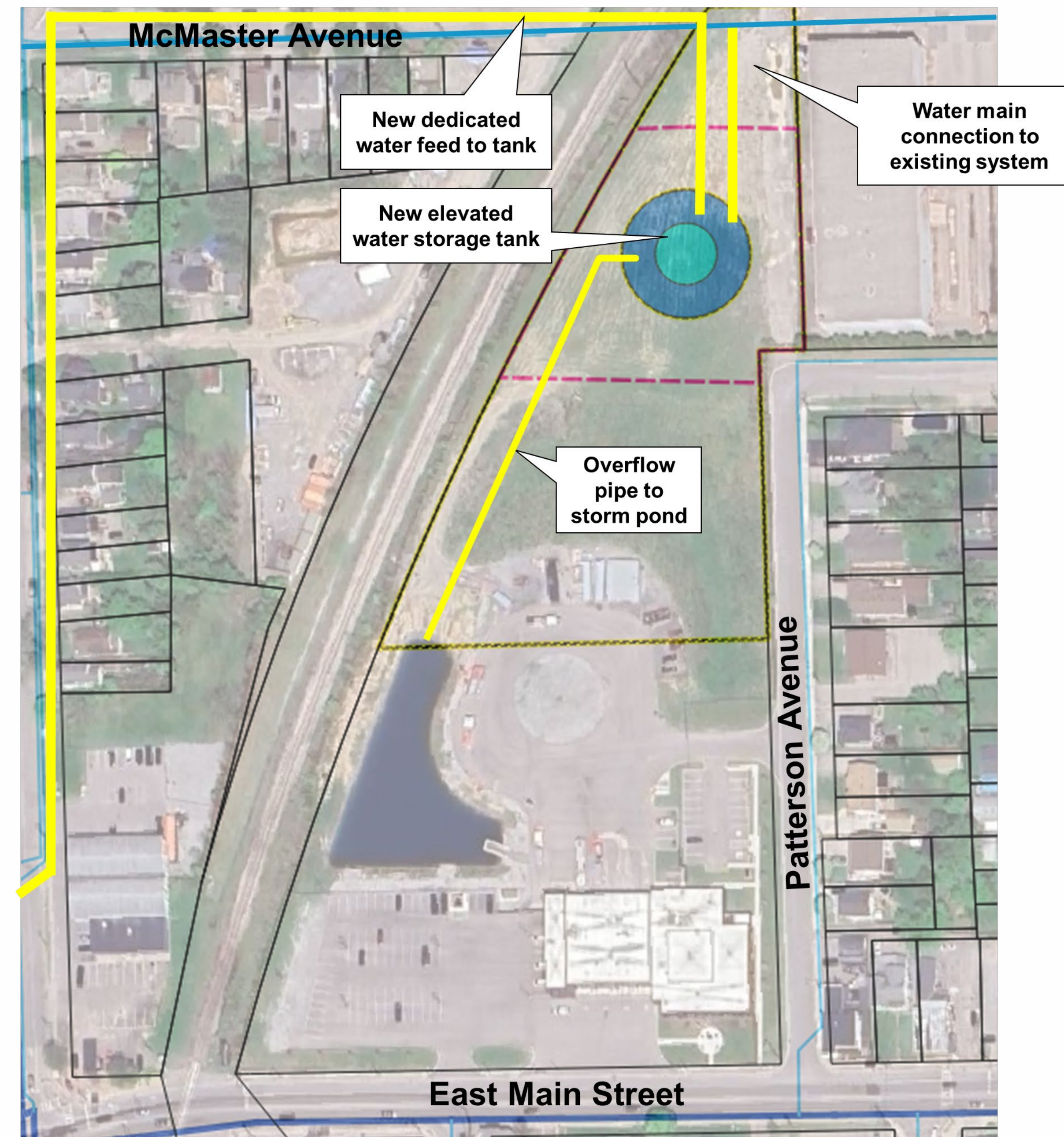
Preliminary Preferred Solution

Recommendations

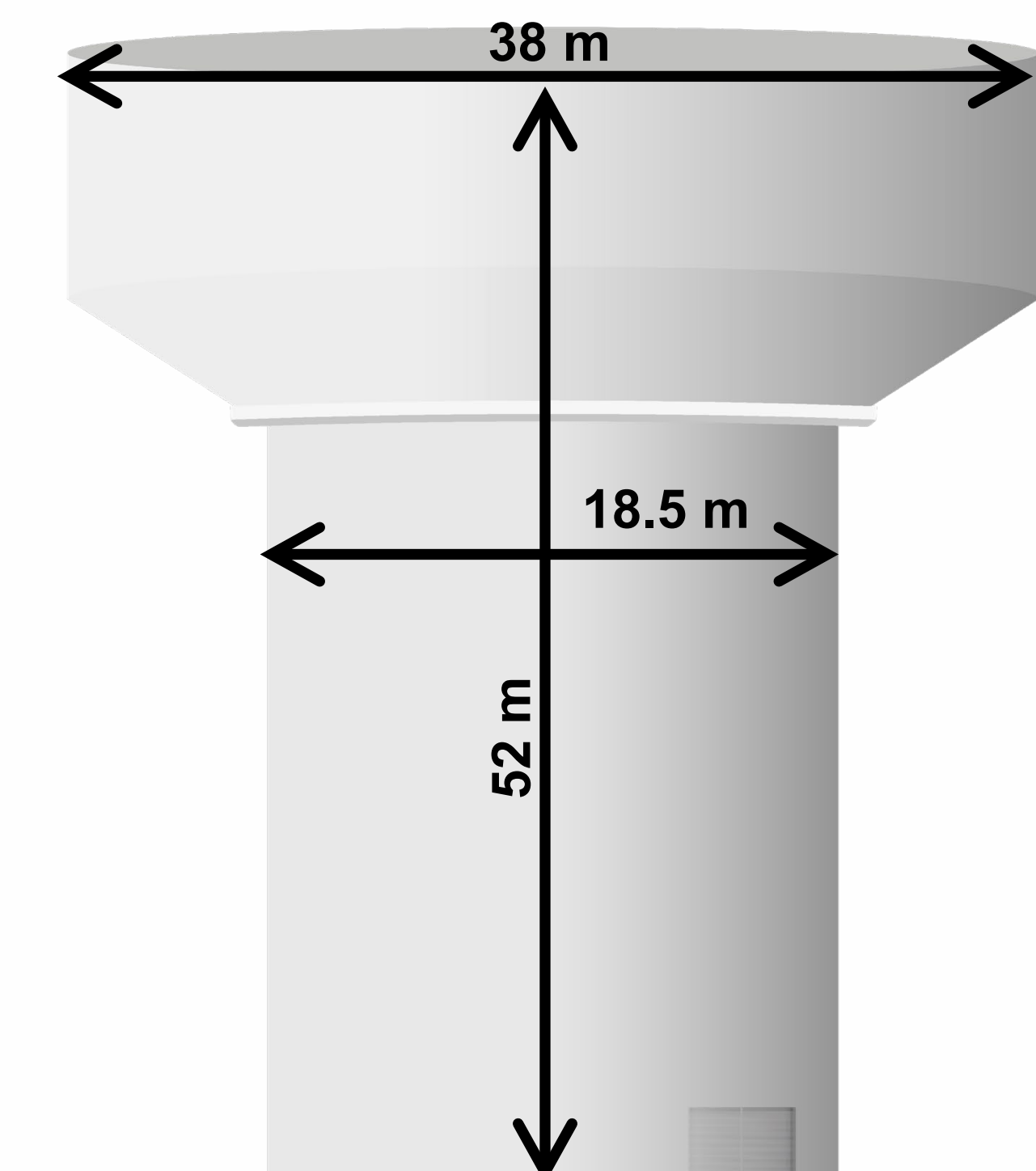
- New elevated water tank site and facility.
- New dedicated water transmission main from the Welland Water Treatment Plant to the tank.
- New water feedermain from tank connecting back to water system.

Preliminary Design

- The water tank (upper bulb) will hold 12ML (Megaliters) of water and be approximately 38 meters wide.
- The tank pedestal is approximately 18.5 meters wide.
- The overall tank height, water tank and pedestal is approximately 52 meters.



(Note: rendering for example purposes only)



Next Steps & Impact Mitigation

Future Commitments

- Finalize selection of the preferred solution based on comments and feedback.
- Ongoing discussions with property owner will be required.
- Identify and adhere to all municipal, environmental, and review agency approval requirements through design and construction.
- Permit to Take Water (PTTW) to support construction is not anticipated however monitoring and contingency plans will be prepared.

Contamination

- Further Due Diligence Risk Assessment (DDRA) as part of property review.
- Complete Excess Soil Management Plan once details are available.
- Confirm any further impacts to design and construction requirements.

Project Implementation

- The Region will retain a detailed design consultant through standard practices.
- Once detailed design is complete, the Region will tender the project to retain the preferred contractor.

Next Steps

Environmental Assessment 2022 – 2025

Design 2026 – 2027

Construction 2027 – 2030

2022 Problem and Opportunity

- Project Notice of Commencement
- Background Information Review

2022 – 2023 Identify Alternative Solutions

- Public Information Centre No. 1
- Screening of Water Tower Locations to Develop a Short List
- Site Visits and Investigations

2024 Evaluate Alternative Solutions

- Evaluate short list of Water Tower Locations

2025 Select Preferred Solutions

- Public Information Centre No. 2
- 30 Day Public Review

All comments to be received by October 3, 2025

Contact Project Team

Gordon Bell

Niagara Region, Senior Project Manager

289-696-1680

Gordon.Bell@niagararegion.ca

