

# WELCOME

---

## Pressure District 2/3 Water Storage Tank Municipal Class Environmental Assessment

### Public Information Centre

May 18, 2022



## What is the Purpose of this Public Information Centre?

- Introduce you to the Pressure District 2/3 Municipal Class Environmental Assessment study
- Provide an overview of the Municipal Class Environmental Assessment planning process
- Present the study's problem and opportunities and evaluation of alternative siting options for a new water storage tank, including the preliminary preferred location
- Explain how potential impacts to the community and environment will be addressed
- Inform the community of the next steps for the Project
- Gather feedback on the Project, including the preliminary preferred solution

**As you review the information presented, we encourage you to ask questions and provide written feedback by June 6, 2022. Please fill out a comment form or send comments directly to the Project Managers:**

**Shahab Shafai**  
City Project Manager  
City of Brantford  
Phone: (519) 759-4150 ext. 5745  
Email: [sshafai@brantford.ca](mailto:sshafai@brantford.ca)

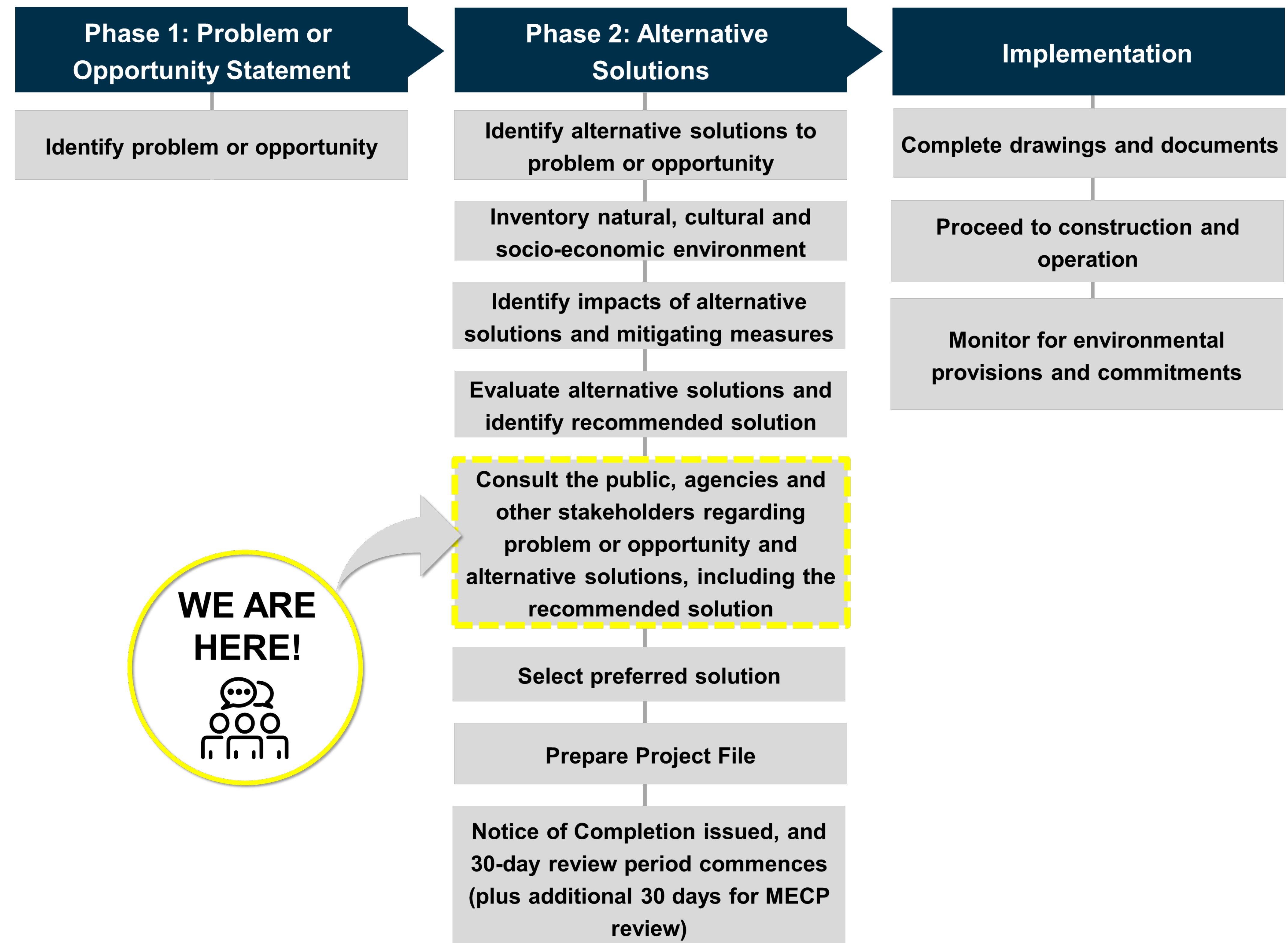
**Semyon Chaymann**  
Consultant Project Manager  
AECOM Canada Ltd.  
Phone: (647) 524-9314  
Email: [semyon.chaymann@aecom.com](mailto:semyon.chaymann@aecom.com)





## Municipal Class Environmental Assessment Planning Process

- This project is following the Schedule B planning process (Phases 1 and 2)
- At the end of Phase 2, a Project File documenting the planning process will be prepared and made available for public review and comment



## Phase 1: Problem Or Opportunity Statement

### Problem

- Significant growth is expected in the City of Brantford (the City) which includes the recent northerly urban expansion area, as well as lands within the current City's northern urban boundary
- The City's recent Water, Wastewater and Stormwater Master Servicing Plan (MSP) 2051 Amendment provides strategic direction for the City's future water distribution system including maintaining or modifying current pressure district (PD) boundaries and providing required storage in each pressure district for projected growth to 2051
- In order to service existing and future residents in the City's Pressure District (PD) 2/3, the MSP identifies the need for additional storage, which requires siting a new water storage tank along with associated watermains and determining pump station upgrade requirements to facilitate the additional storage tank
- The King George Elevated Tank is reaching the end of its useful life and requires substantial capital investment to maintain its operation

### Opportunity

- Complete the Schedule B Municipal Class Environmental Assessment (MCEA) planning process in consultation with key stakeholders, review agencies, and Indigenous Communities in order to provide a viable short and long term solution that can be logically phased to address the need for storage in the City's PD 2/3, taking into account that the existing King George Elevated Tank is reaching the end of its useful life



## Phase 2: Alternative Solutions

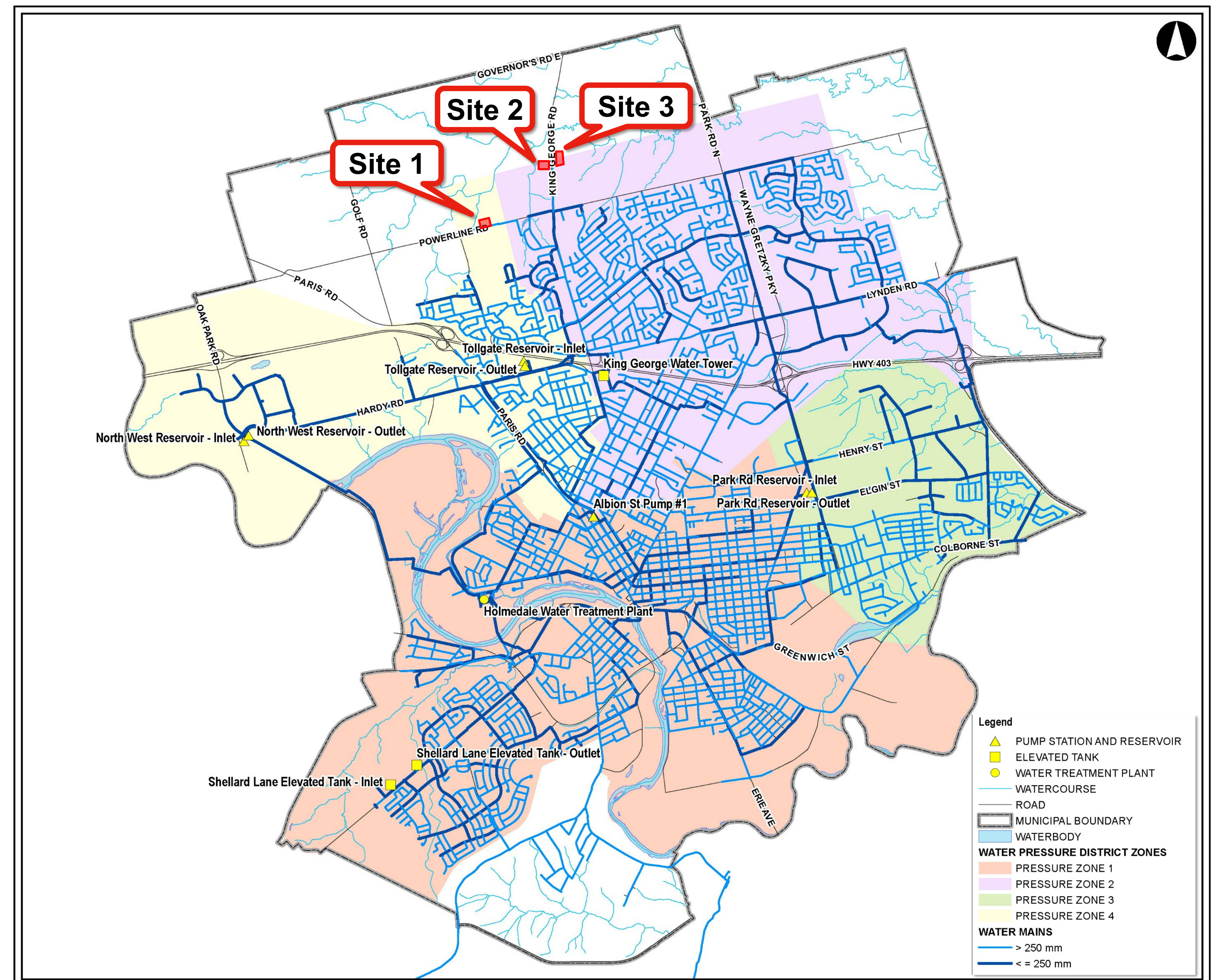
- A feasibility study was completed that identified and screened fourteen potential sites for a new water storage tank for Pressure District 2/3
- Key site identification criteria included location within Pressure District 2/3 or within reasonable distance to existing or planned large diameter watermain, property ownership (preference for City owned, undeveloped lands and/or parks and open space), site attributes (e.g., preference for high elevation, minimum site size of 75x100 m<sup>2</sup>), infrastructure requirements, as well as land use, natural environment and archaeological considerations
- From the fourteen sites, a total of three were short-listed to be further investigated through this current Municipal Class Environmental Assessment planning process
- The short list of three sites shown evolved through this study's evaluation process:
  - Site 1: North side of Powerline Road
  - Site 2: West side of King George Road
  - Site 3: East side of King George Road





## Existing Conditions – Technical Environment

- The City of Brantford's water system is divided into three pressure district zones: Zone 1, Zone 2/3 and Zone 4
- Water is pumped to Pressure District 2/3 from the Holmedale Water Treatment Plant by way of the following pumping stations and storage facilities:
  - Tollgate Road Reservoir and Pumping Station
  - Wayne Gretzky Parkway Reservoir and Pumping Station
  - Albion Street Pumping Station
  - King George Road Elevated Tank
- **Site 1:** The existing site ground elevation (228 m-230 m) is suitable for a water storage tank. Site 1 requires an additional watermain to be constructed along Powerline Road to connect to the site
- **Site 2 and Site 3:** The existing site ground elevation (228 m-232 m) is suitable for a water storage tank. Both sites can connect to the existing watermain on King George Road





## Existing Conditions – Land Use

### Site 1

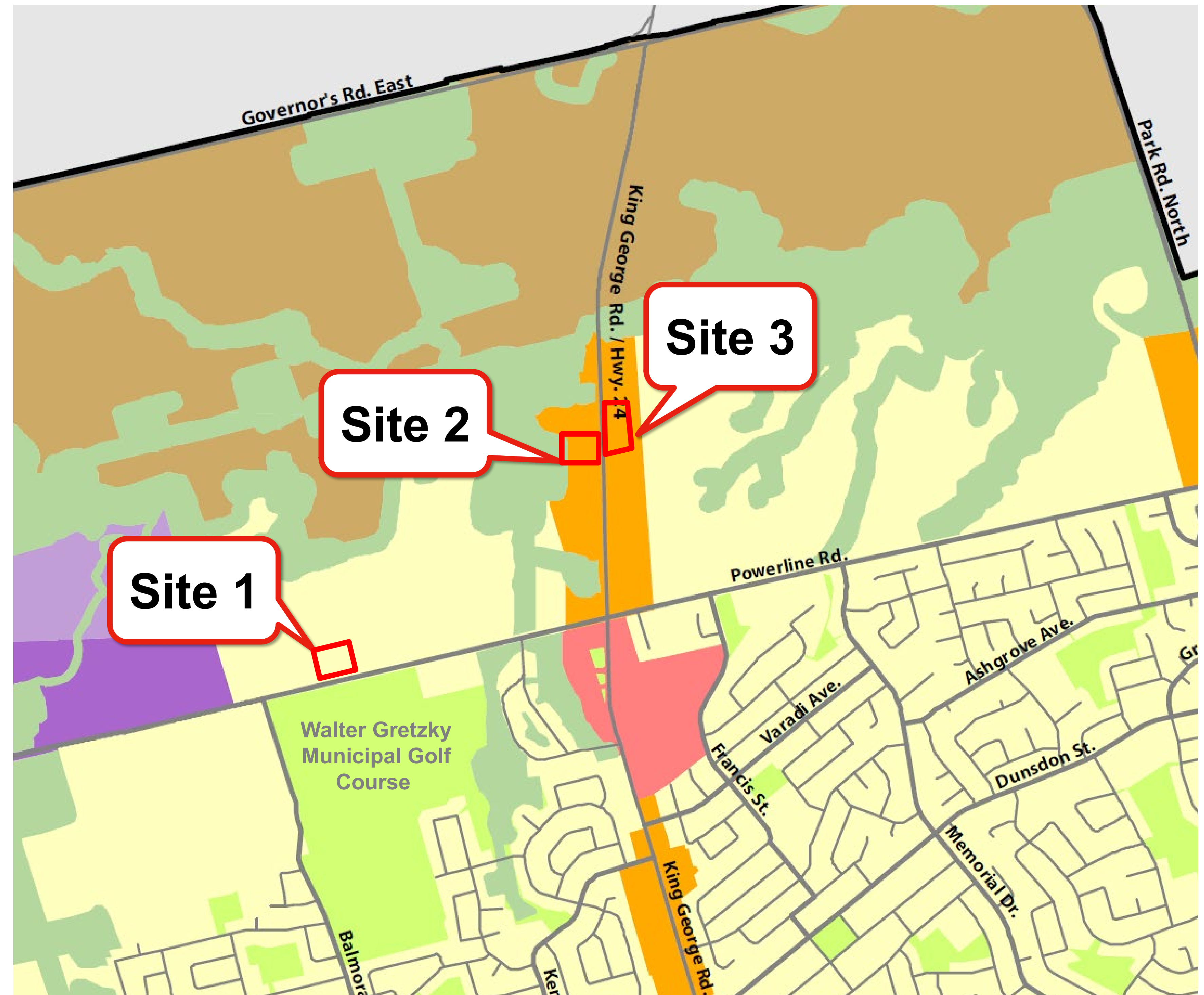
- Designated Residential as per the current City of Brantford Official Plan (August 2021 Consolidation)
- Situated within an agricultural field directly adjacent to residential properties
- Located across the road from the Walter Gretzky Municipal Golf Course

### Site 2

- Designated Intensification Corridor and is situated along the edge of the Core Natural Areas as per the current City of Brantford Official Plan (August 2021 Consolidation)
- No existing development on site
- Adjacent to single family residential dwelling

### Site 3

- Designated Intensification Corridor as per the current City of Brantford Official Plan (August 2021 Consolidation)
- Site includes residential property with woodlands, as well as agricultural field
- Adjacent to single family residential dwelling and local business



Siting a new water storage tank is a permitted use for Sites 1, 2 and 3. It is considered a “Public Service” under the by-law and will be subject to site plan control



## Existing Conditions – Natural Environment

### Site 1

- Entirely within an agricultural field
- Adjacent to a pond and watercourse
- No aquatic Species at Risk records have been identified; however, suitable fish habitat may be present

### Site 2

- Comprised of naturalized communities that may include open marsh, meadow and sparse treed/shrub communities
- Adjacent to the Cold Spring Creek Provincially Significant Wetland Complex and a watercourse that runs through the Provincially Significant Wetland
- No aquatic Species at Risk records have been identified; however, suitable fish habitat may be present

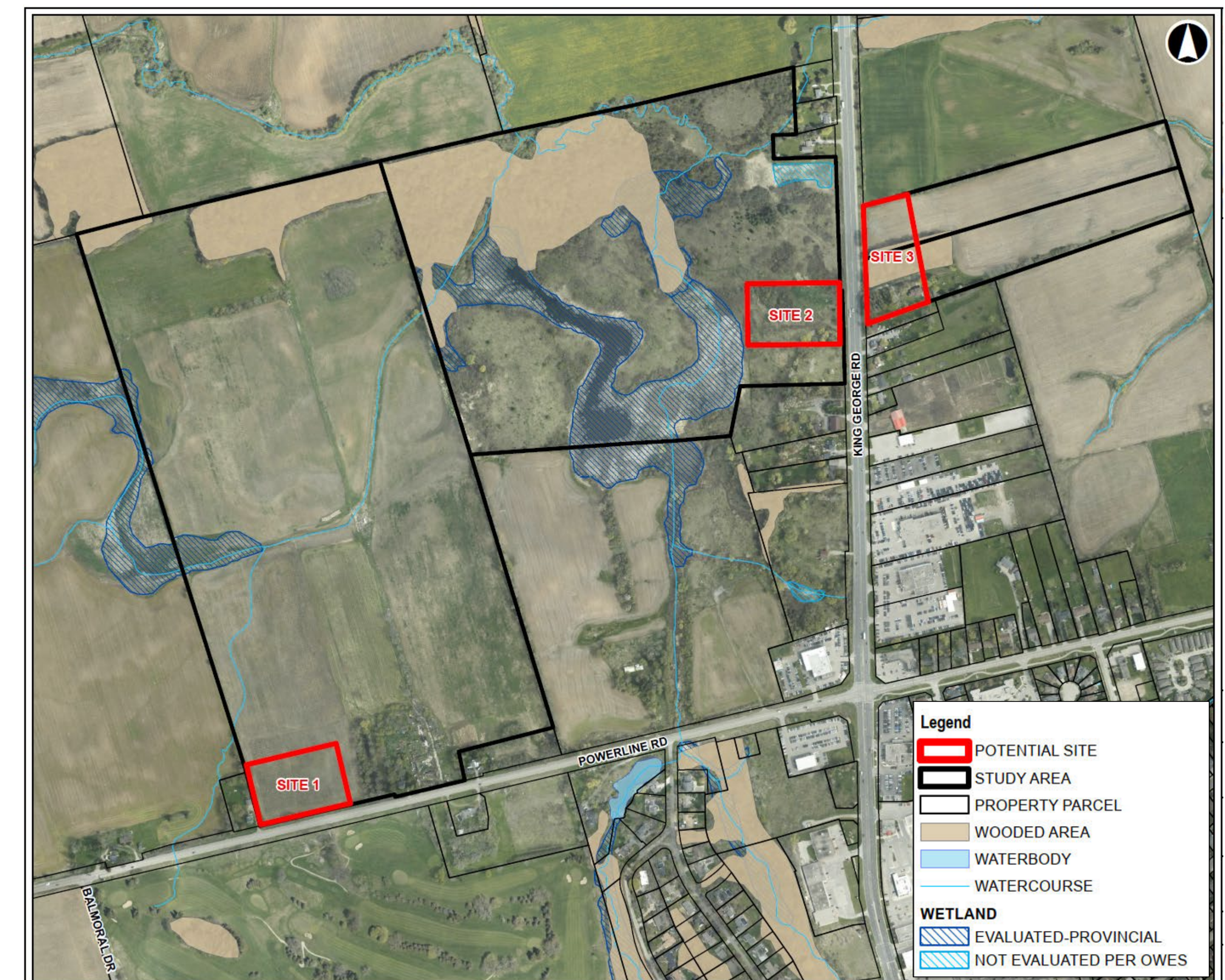
### Site 3

- Comprised of a residential property, woodland and agricultural field
- The woodland has been influenced by humans as evidenced by the manicured grounds and Red Pine Plantation
- No aquatic Species at Risk records have been identified

### Potential for Species at Risk

Species	Status in Ontario	Sites
Bobolink ( <i>Dolichonyx oryzivorus</i> )	Threatened	1, 2, 3
Eastern Meadowlark ( <i>Sturnella magna</i> )	Threatened	1, 2, 3
Eastern Small-footed Myotis ( <i>Myotis leibii</i> )	Endangered	2, 3
Little Brown Myotis ( <i>Myotis lucifugus</i> )	Endangered	2, 3
Northern Myotis ( <i>Myotis septentrionalis</i> )	Endangered	2, 3
Tri-colored Bat ( <i>Perimyotis subflavus</i> )	Endangered	2, 3
Blanding's Turtle ( <i>Emydoidea blandingii</i> )	Endangered	2
Monarch ( <i>Danaus plexippus</i> )	Special Concern	2
Northern Map Turtle ( <i>Graptemys geographica</i> )	Special Concern	2
Snapping Turtle ( <i>Chelydra serpentina</i> )	Special Concern	2

### Natural Heritage Features



Findings are based on desktop analysis. Confirmatory ecological site investigations are being completed. The results will be documented in the Project File

Species at Risk are species that are listed as either Threatened or Endangered provincially. These species as well as their habitats are afforded protection under the Endangered Species Act (2007). Species listed as Special Concern Provincially are not afforded protection under the Endangered Species Act



## Existing Conditions – Cultural Heritage Environment

### Site 1

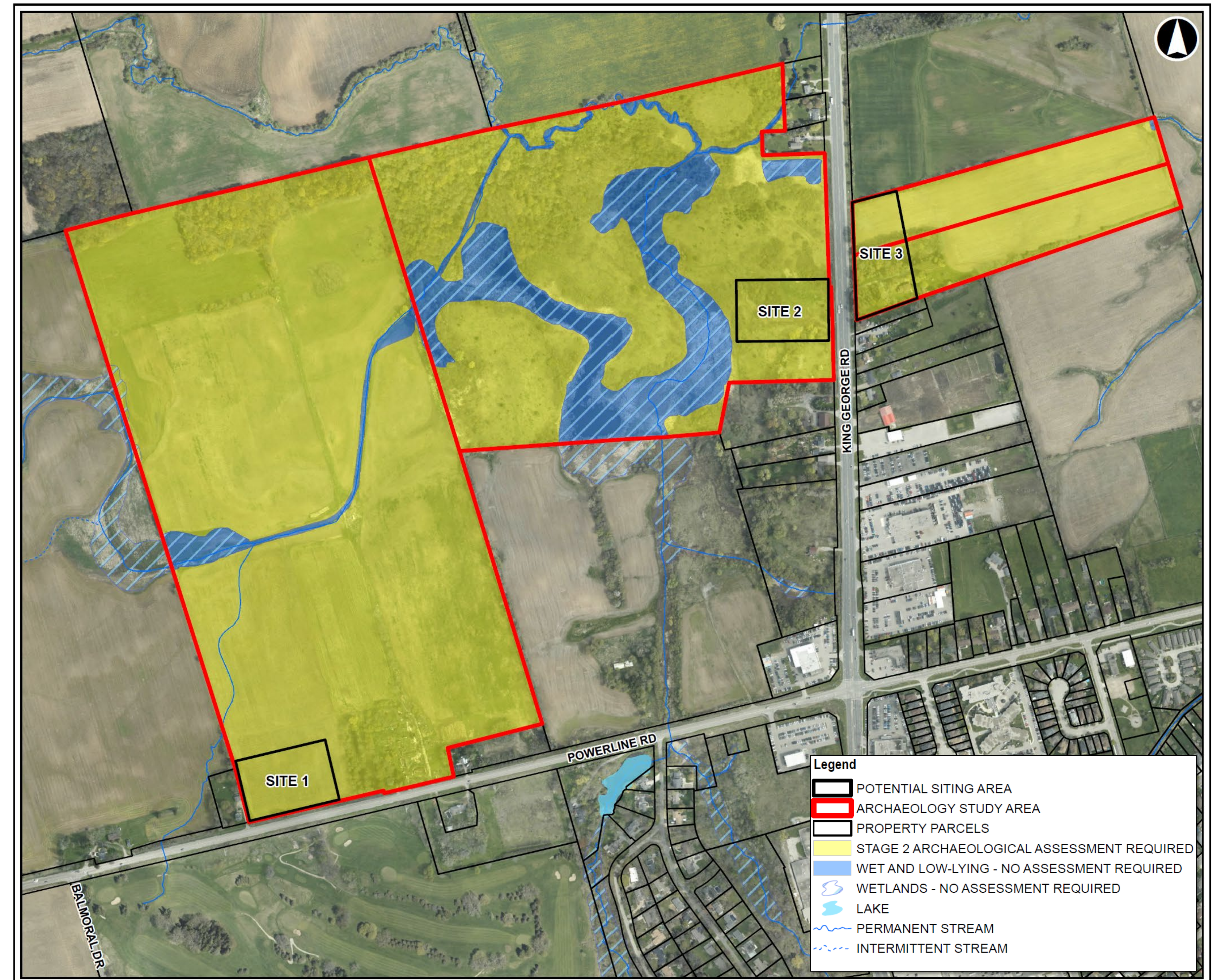
- Requires a \*Stage 2 Archaeological Assessment (see map)
- Site 1 has direct impact to a potential built heritage resource located on the same property

### Site 2

- Requires a \*Stage 2 Archaeological Assessment (see map)
- There are no known direct or indirect impacts to Built Heritage Resources or Cultural Heritage Landscape

### Site 3

- Requires a \*Stage 2 Archaeological Assessment (see map)
- There are no known direct or indirect impacts to Built Heritage Resources or Cultural Heritage Landscape



\*The Stage 2 Archaeological Assessment is only required within the limits of the *Potential Siting Area* before any land alteration takes place




# Pressure District 2/3 Water Storage Tank Municipal Class Environmental Assessment



## Evaluation Summary of Siting Options

Preliminary Preferred Site = 

Category	Site 1	Site 2	Site 3
<b>Land Use</b> <ul style="list-style-type: none"> <li>Potential effects on existing or approved/planned land uses</li> <li>Potential for conforming with provincial and municipal plans and policies</li> <li>Anticipated Site Plan approval and land acquisition requirements, including property owner willingness to sell land</li> </ul>	High Constraints	Medium Constraints	Low Constraints
<b>Technical Environment</b> <ul style="list-style-type: none"> <li>Constructability</li> <li>Impact on operations and maintenance</li> <li>Access and maintenance</li> <li>Future infrastructure coordination opportunities or implementation risks</li> <li>Traffic impacts during construction</li> </ul>	High Constraints	Medium Constraints	Low Constraints
<b>Natural Environment</b> <ul style="list-style-type: none"> <li>Potential effects on terrestrial habitat and species</li> <li>Potential effects on aquatic habitat and species</li> <li>Potential effects on species at risk (SAR) and their habitat</li> <li>Potential effects on surface and groundwater</li> <li>Potential to encounter soil and water contamination</li> <li>Anticipated environmental permitting and approval considerations</li> </ul>	Low Constraints	High Constraints	Medium Constraints
<b>Socio-Economic Environment</b> <ul style="list-style-type: none"> <li>Disruption to residences, institutions, businesses, and recreational facilities during construction (noise, air, vibration, access)</li> </ul>	Medium Constraints	Low Constraints	Low Constraints
<b>Climate Change</b> <ul style="list-style-type: none"> <li>Potential carbon footprint (e.g. energy usage, use of construction materials, construction methods and operations).</li> <li>Potential resilience to extreme weather events</li> </ul>	Medium Constraints	Low Constraints	Low Constraints
<b>Cultural Heritage Environment</b> <ul style="list-style-type: none"> <li>Potential effects on archaeological resources</li> <li>Potential effects on built heritage resources and cultural heritage landscapes</li> </ul>	High Constraints	Medium Constraints	Medium Constraints
<b>Cost</b> <ul style="list-style-type: none"> <li>Cost of construction based on 8 ML Water Storage Tank (WST)</li> <li>Cost of operations and maintenance</li> </ul>	High Constraints • New WST: <b>\$10.5M</b> • watermain extension: <b>\$1.3M</b> • Plus property acquisition (4 acres)	High Constraints • New WST: <b>\$10.5M</b> • watermain connection: <b>\$130,000</b> • Plus property acquisition (preference to sell entire 83 acres)	Medium Constraints • New WST: <b>\$10.5M</b> • watermain connection: <b>\$130,000</b> • Plus property acquisition (4 acres)
<b>Evaluation - Overall Potential Constraint Ranking</b>	<b>High Constraints</b>	<b>Medium Constraints</b>	<b>Low Constraints</b> 



## Preliminary Preferred Solution – Site 3

The rationale for selecting Site 3 as the preliminary preferred solution is based on a combination of the following key factors:

- Elevation of the site (228-232m) is suitable for construction of an elevated tank
- Proximity to Pressure District 2/3 being serviced by the new water storage tank
- No extensive watermain infrastructure required. Site is near 400mm diameter watermain, as well as future proposed watermain north of Powerline Road
- Property owner is a willing host for a new water storage tank based on preliminary discussions with the City
- Based on a desktop review, no aquatic Species at Risk records have been identified for this site
- The siting area largely avoids existing residential areas (no displacement to residential property on the existing site as the property has been sold) with minimal disruption to surrounding land uses (residential and businesses) anticipated during construction
- No known direct or indirect impact to built heritage resources or cultural heritage landscapes
- Fastest in-service date anticipated compared to other siting options
- Has sufficient acreage required to achieve planning setbacks, stormwater, water quality requirements, and flexibility for additional storage, if needed





## Project Description – Site 3

- New elevated water storage tank with accommodation for future additional storage (in-ground or elevated, to be determined) pending growth
- The exact location and details of the proposed elevated water storage tank will be determined through the conceptual design and operational strategy development phases of the Project
- Preliminary estimated cost for constructing a new elevated tank: \$10.5M\*
- The King George Elevated tank will be decommissioned in the future for optimization of Pressure District 2/3 operations
- Upgrades to Tollgate and Wayne Gretzky Pumping Stations to be confirmed through preliminary and detailed design



*\*Plus costs associated with watermain connection and property acquisition*



## How will Potential Impacts be Addressed?

### Natural Environment

- Tree removals will be required. Any vegetation identified for preservation should be protected by fencing during construction. All disturbed areas will be restored to agreed upon conditions
- Ensure vegetation removal is scheduled outside of the breeding bird season (April 1 to August 31) and bat active season (April 1 to September 1)
- Authorization under the Endangered Species Act, 2007 may be required if impacts to Species at Risk and their habitats cannot be avoided
- Implement erosion and sediment control measures to prevent sediment from entering neighbouring properties and natural areas during construction
- Potential for encountering contaminated soils and groundwater will be determined during the preliminary and detailed design phases of the Project

### Cultural Heritage

- Complete a Stage 2 Archaeological Assessment (and further assessments, if required)

### Socio-Economic Environment

- Use of Best Management Practices for dust control and vibration monitoring during construction
- Consideration for aesthetic appeal and designated use of space in design
- Limit construction activity to within Noise Bylaw restrictions
- Use of low noise equipment during construction, where possible
- Communicate upcoming activities to adjacent property owners and the community, prior to construction. General project information and updates will be provided through the City's website





## Next Steps

Timing is subject to Council approval and funding



### Public Information Centre – Spring 2022

- ✳ Consider all questions and comments received from this Public Information Centre
- ✳ Complete the natural environment field investigations
- ✳ Finalize the preferred solution



### Project File Report – Summer/Fall 2022

- ✳ Prepare and circulate the draft Project File to key review agencies
- ✳ Issue the notice of study completion and commence the 30-day public review period for the Project File
- ✳ Address comments received and finalize the Project File



### Preliminary and Detailed Design – 2023

- ✳ If no issues are raised during the Municipal Class Environmental Assessment phase, the City intends to proceed to the preliminary design and detailed design phases starting in 2023, including securing permits and approvals



### Construction

- ✳ Construction of the elevated water storage tank is anticipated to commence within 2-5 years (between 2024 and 2027)
- ✳ The elevated water storage tank will be in-service after construction is complete (between 2026 and 2028)
- ✳ Construction of additional water storage on site post 2041, as needed