



Sanitary Sewershed Master Plan

Water Pollution Control Plant No. 1

Lakeview / Forth Street and Monks Cove Sanitary Pumping Stations

Public Information Centre 2

June 17, 2026

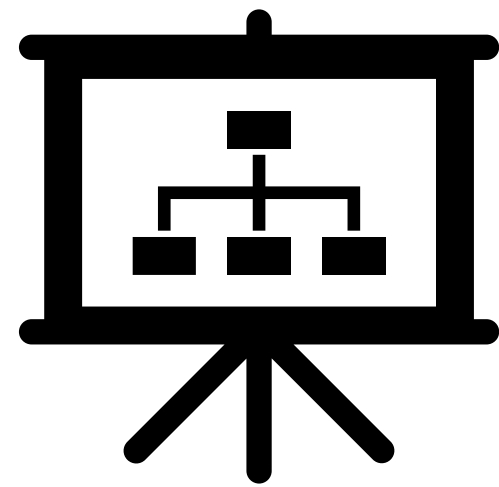
5:00 PM to 7:00 PM

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Review the display boards



Share your thoughts with study team members



Complete a comment form and deposit it into the
Comment Box

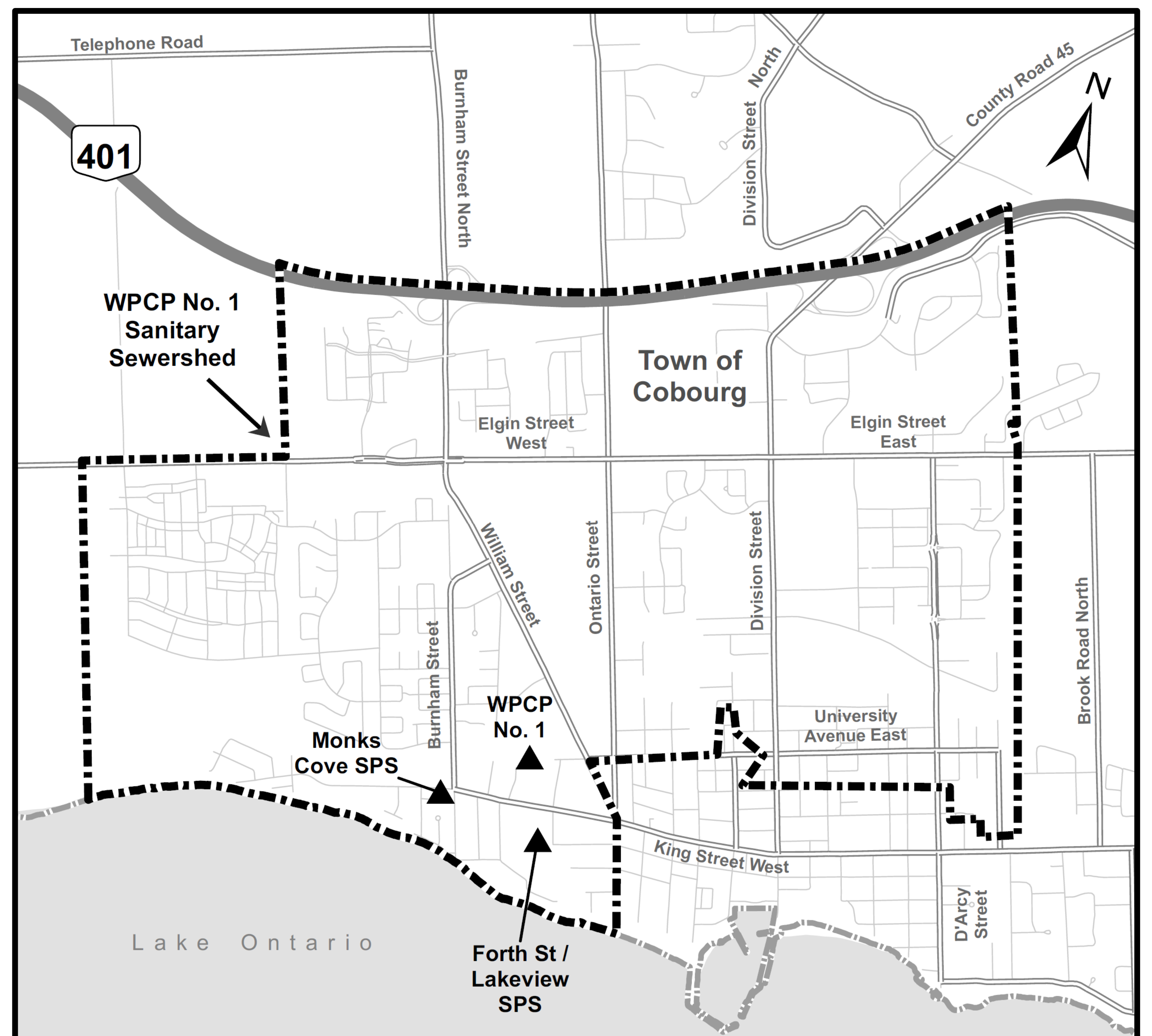
Why is this study being done?

The Town of Cobourg (Town) is undertaking a Master Plan study to identify the potential sewage system improvements required to address projected growth within the Water Pollution Control Plant No. 1 sanitary sewershed. The existing wastewater system is serviced by Water Pollution Control Plant (WPCP) No. 1 and the associated sewage pumping stations (SPSs) and sewer network. Projected growth within the sanitary sewershed area is expected to exceed the existing sewage system capacity.

This study will assess wastewater treatment, pumping station and sewer network deficiencies, and identify the capacity improvements required to meet future demands within the sewershed.

The purpose of this PIC is to:

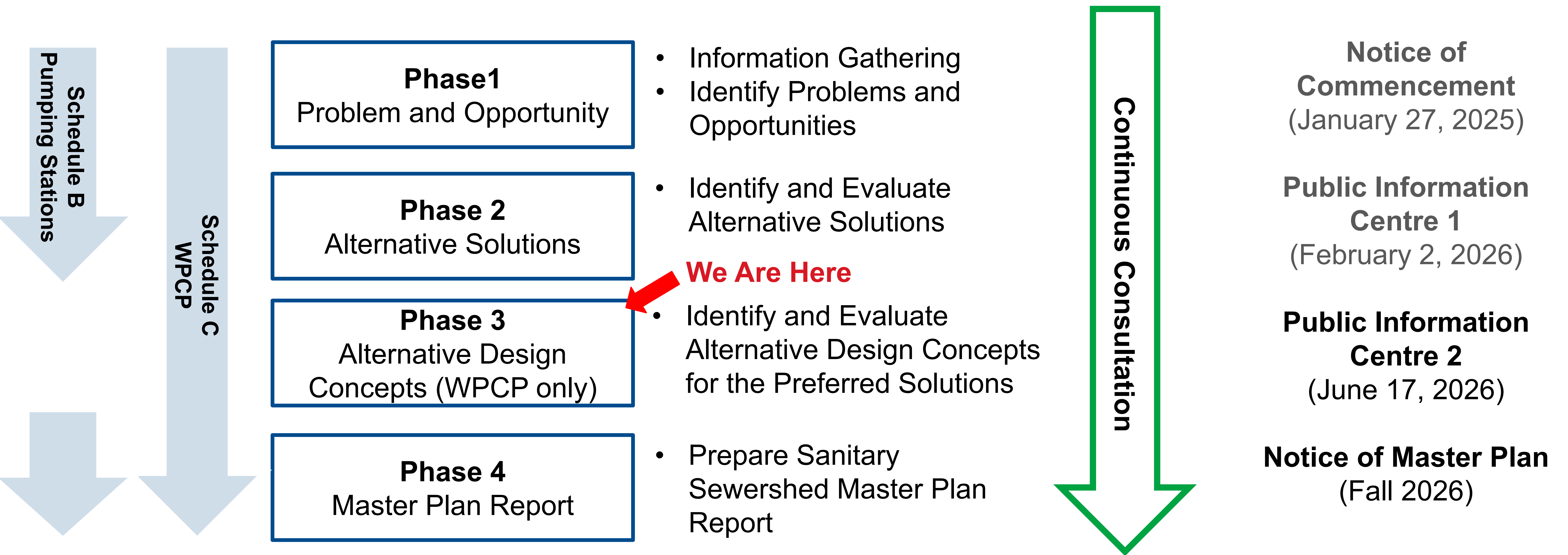
- Present the findings of the technical and environmental investigations
- Gather feedback on the preliminary identification and evaluation of alternative design concepts for WPCP No. 1, the preliminary recommended design concept and potential impacts and mitigation measures
- Outline next steps in the study process



Sanitary Sewershed Master Plan Process

Municipal planning for infrastructure improvements must be completed in accordance with the **Municipal Class Environmental Assessment (MCEA)** process, which is an approved process under the Ontario Environmental Assessment Act.

This study is being following Approach #3 of the Master Planning process and will address Phases 1 through 4 of the MCEA process to fulfill the requirements for the recommended Schedule B and C projects identified within it.



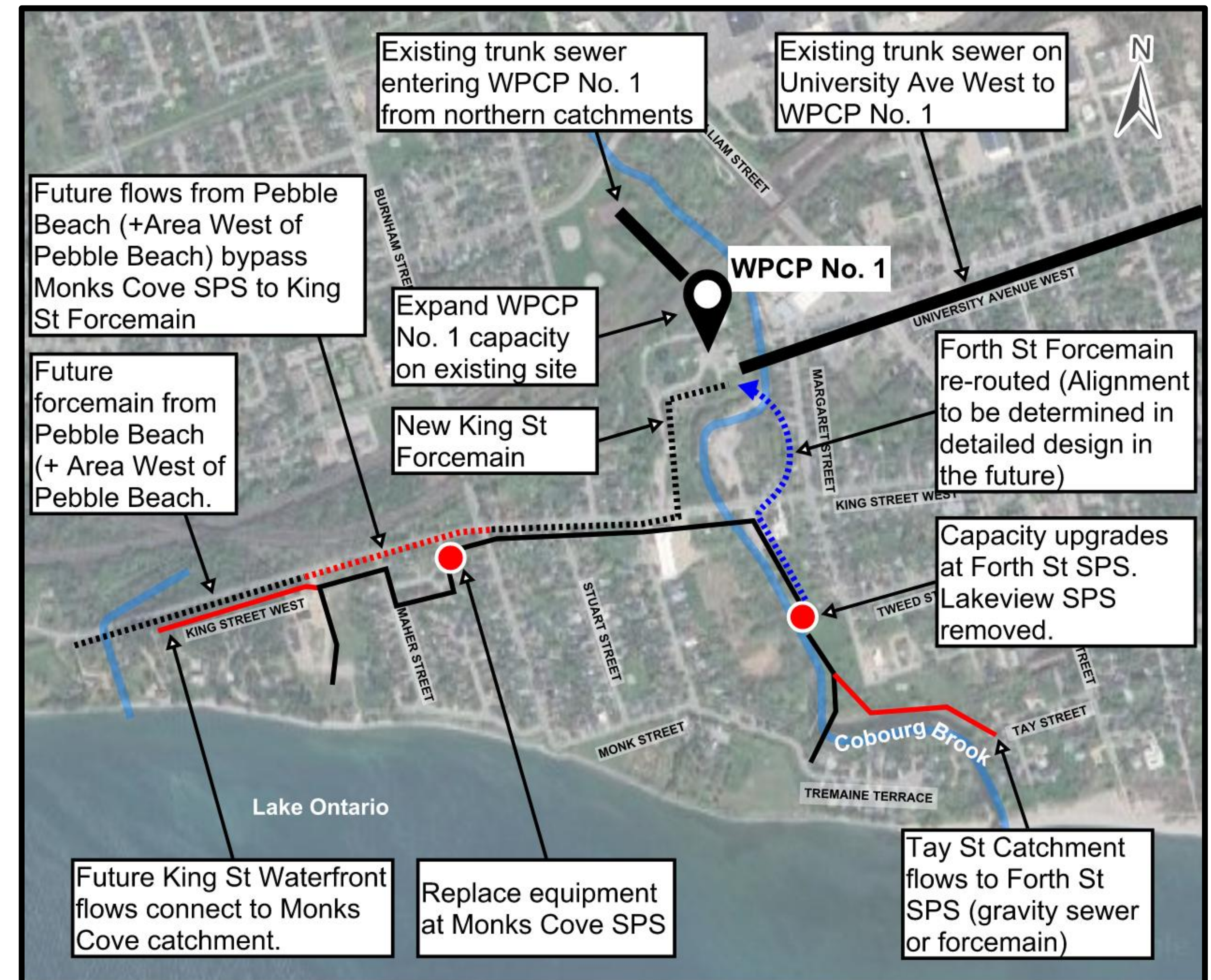
Recap of PIC 1

PIC 1 was held on February 2, 2026, to introduce the study and gather feedback on the study background, existing study area conditions, problems and opportunities, preliminary evaluation criteria, identification and evaluation of alternative solutions and next steps in the study process.

A set of alternative solutions were identified to address capacity constraints for WPCP No. 1, and the Monks Cove, Forth Street and Lakeview Sewage Pumping Stations (SPSs). Following a detailed evaluation, a recommended set of solutions were confirmed.

The recommended solutions are illustrated on this slide, and listed as follows:

- Monks Cove SPS (Replace equipment)
- Lakeview SPS (Eliminate Lakeview SPS and merge with Forth Street SPS)
- Forth Street SPS (Expand on existing site and accept flows from Tay Street catchment)
- WPCP No. 1 (expand on-existing site)

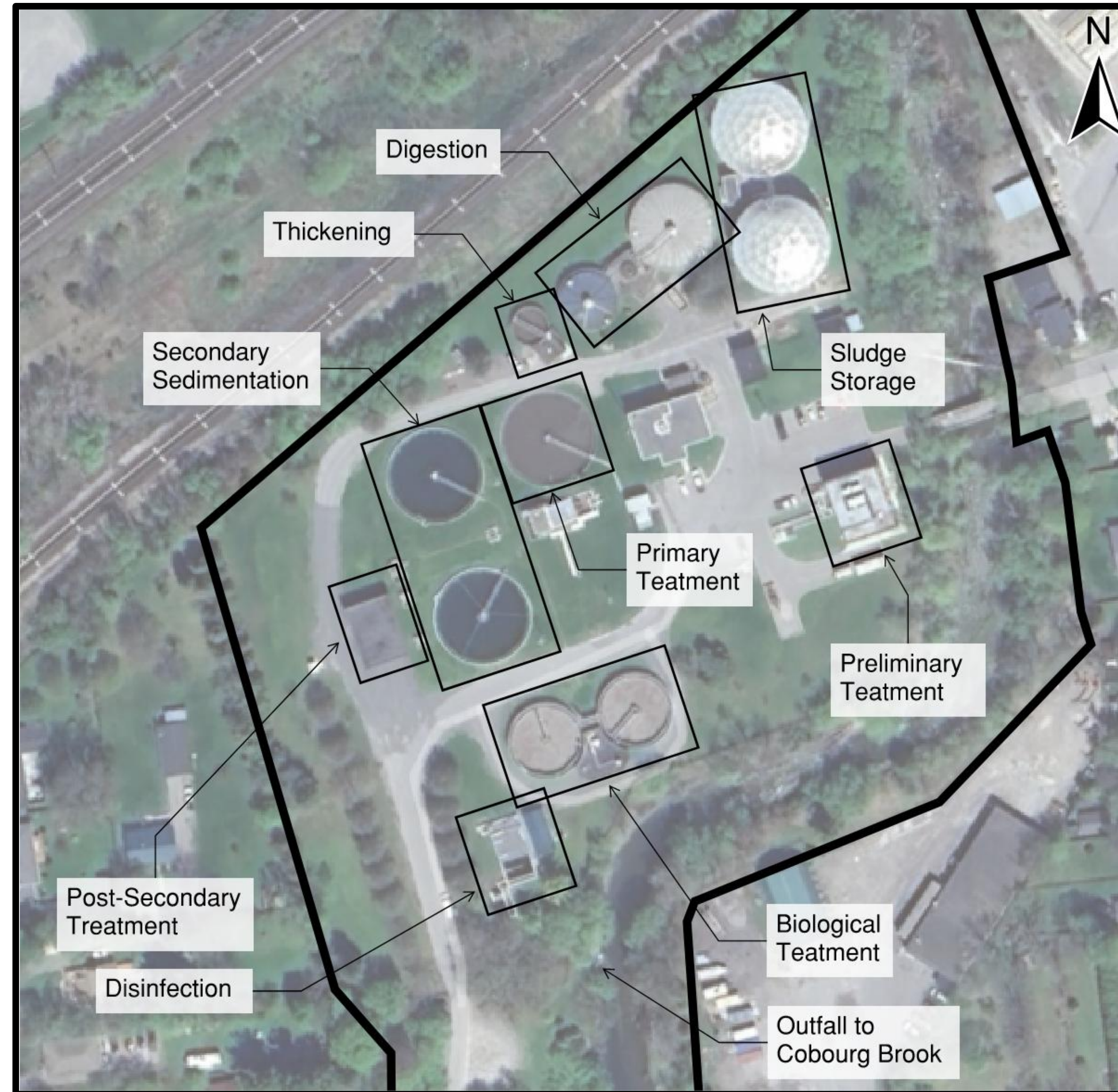


Legend

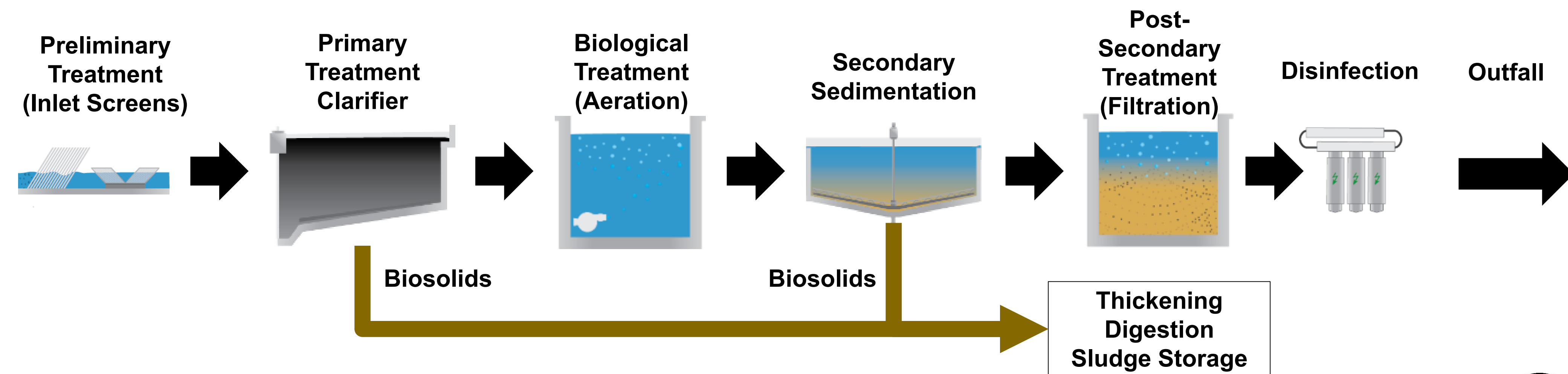
- Existing gravity sewer
- Existing / new forcemain
- Existing trunk sewer
- Potential gravity sewer
- Potential forcemain
- Potential forcemain (alignment TBD)

***Locations and alignments (routes) are conceptual in nature, to be confirmed during detail design**

Existing Conditions - WPCP No. 1



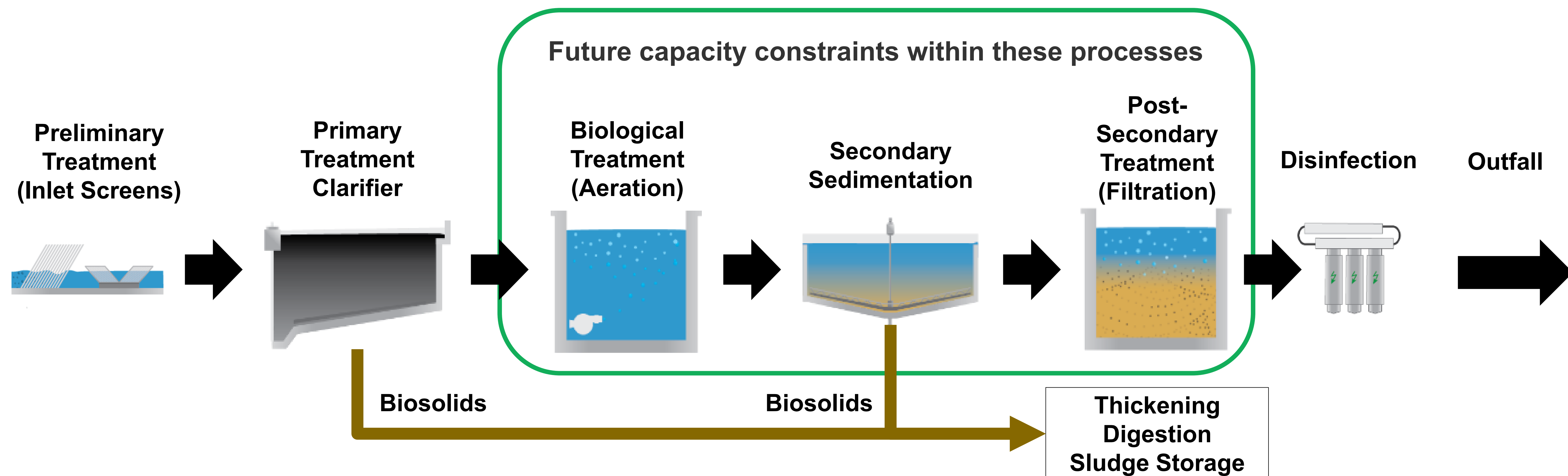
Treatment process:



Future Flows - WPCP No. 1

In consideration of the current WPCP No. 1 capacity and anticipated growth within the sewershed, it is estimated that capacity will be exceeded by 2045.

- Current rated plant capacity = 13,640 m³/day
- Current average flow = 8,884 m³/day
- Estimated future average flow by 2051 (full build-out) = 15,921 m³/day (2,281 m³/day exceedance)



Problems and Opportunities – WPCP No.1

Improvements to WPCP No. 1 are required to address existing deficiencies and meet future capacity demands.

- Future hydraulic flow demand exceeds current plant hydraulic capacity, specifically for secondary clarifiers, aeration and tertiary filtration.
- Limited biological treatment capacity (nitrification) during cold weather conditions.
- High peak flows have been observed.
- Existing site is within Cobourg Brook floodplain.

Secondary needs at WPCP No. 1 (identified by Town of Cobourg Operations staff):

- Odour issues noted from the primary clarifier.
- Issues/hazards with current chlorine gas use for disinfection. Desire to use liquid chlorine in the short term and possibly switch to ultraviolet (UV) disinfection in the long-term.
- Maintenance access is difficult at the plant, particularly for buried piping.
- Sluice gates at aeration tanks are not useable.
- No redundancy for grit removal at preliminary treatment.
- Reconnect secondary bypass upstream of the biological treatment.
- Disinfection tank is in poor condition.
- Additional primary clarifier needed for redundancy.
- Potential future effluent limits for emerging contaminants.

Recommended Solution for WPCP No. 1

Alternative 2 (Expand on Existing Site) was recommended instead of building a new WPCP on a new site because it:

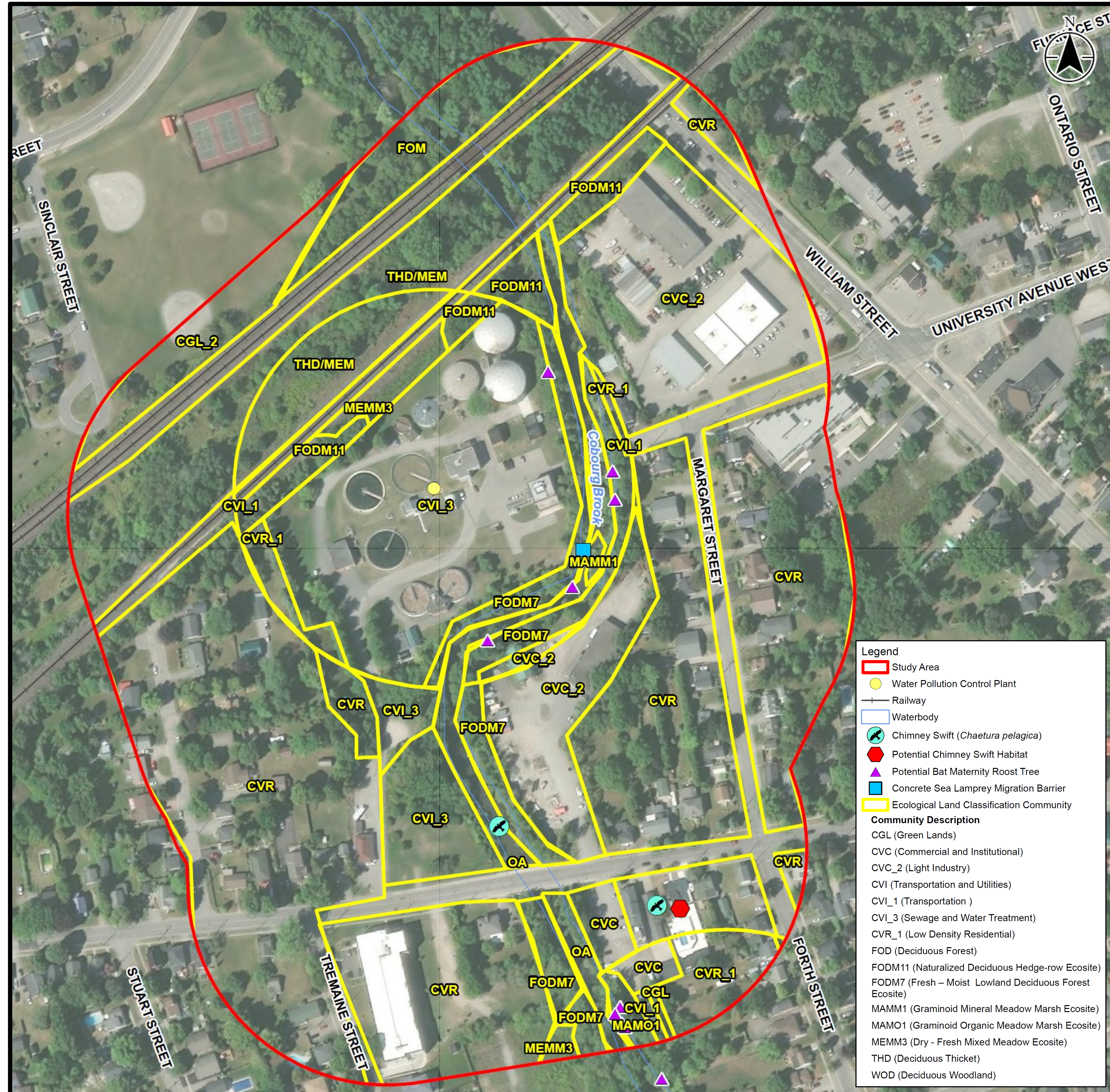
- Accommodates future growth, uses existing infrastructure and utility connections and does not require extensive land clearing.
- Has a lower potential to impact the natural, socio-economic and cultural heritage environment when compared to other alternatives, and potential impacts can be mitigated.
- Incurs a significantly lower cost when compared to building a new plant on a new site.



Natural Environment

An Environmental Impact Assessment has been undertaken for this study, which identified the following natural heritage features within the WPCP No. 1 site:

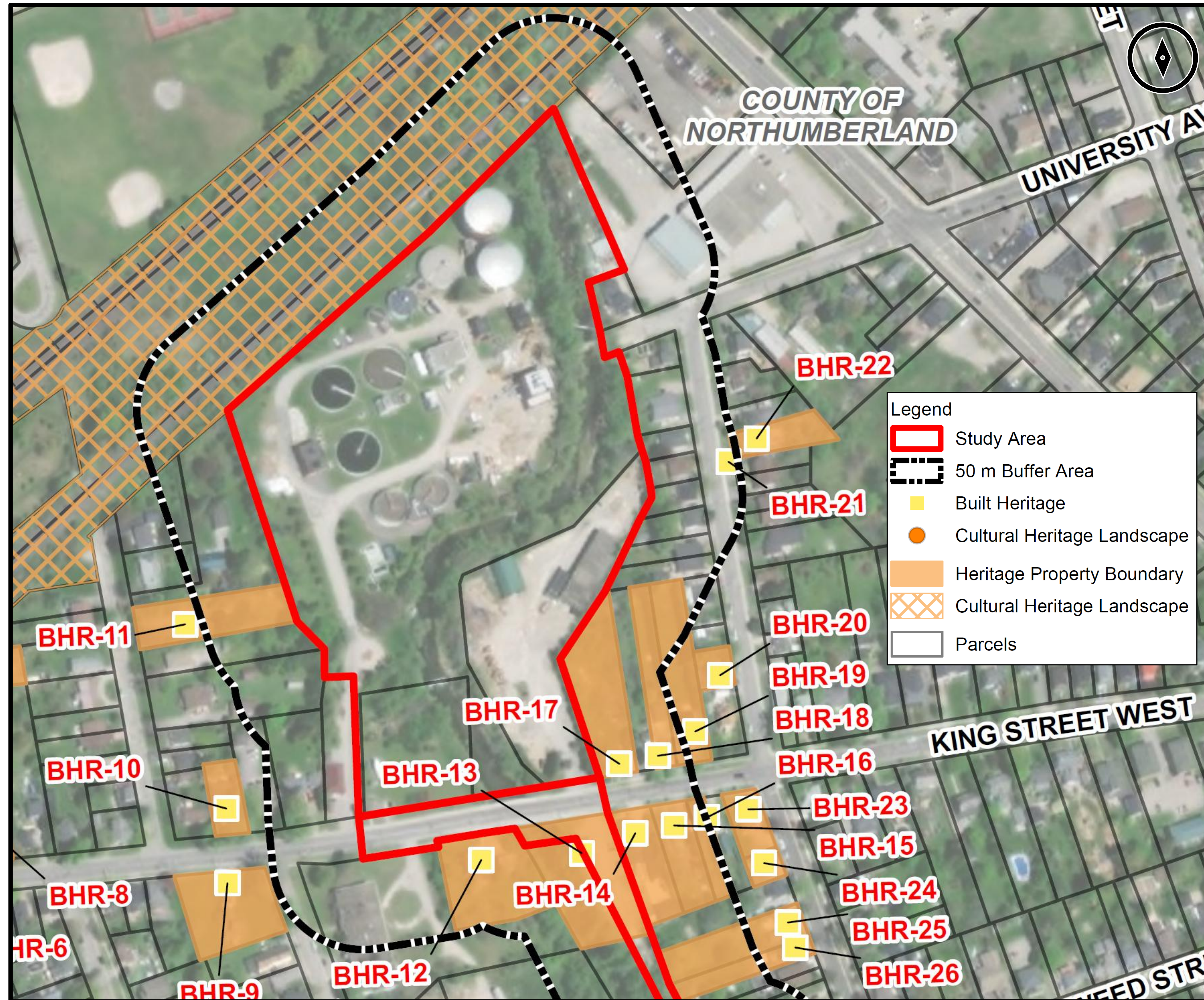
- Potential habitat for Species at Risk including Chimney Swift and bats
- Potential habitat for Monarch butterfly, a Species of Special Concern
- Mix of vegetation types, including forest, meadow marsh and thicket



Cultural Heritage

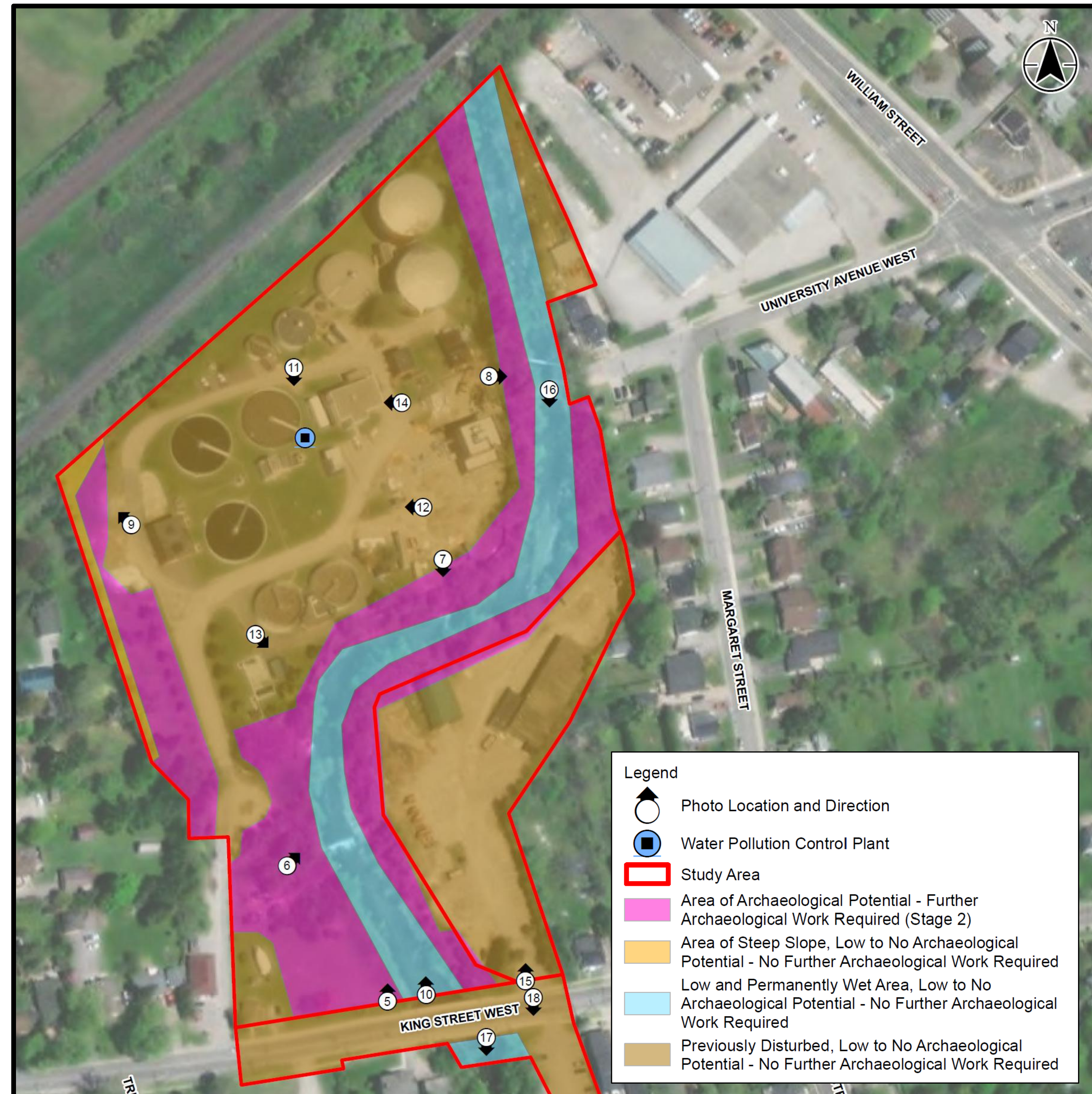
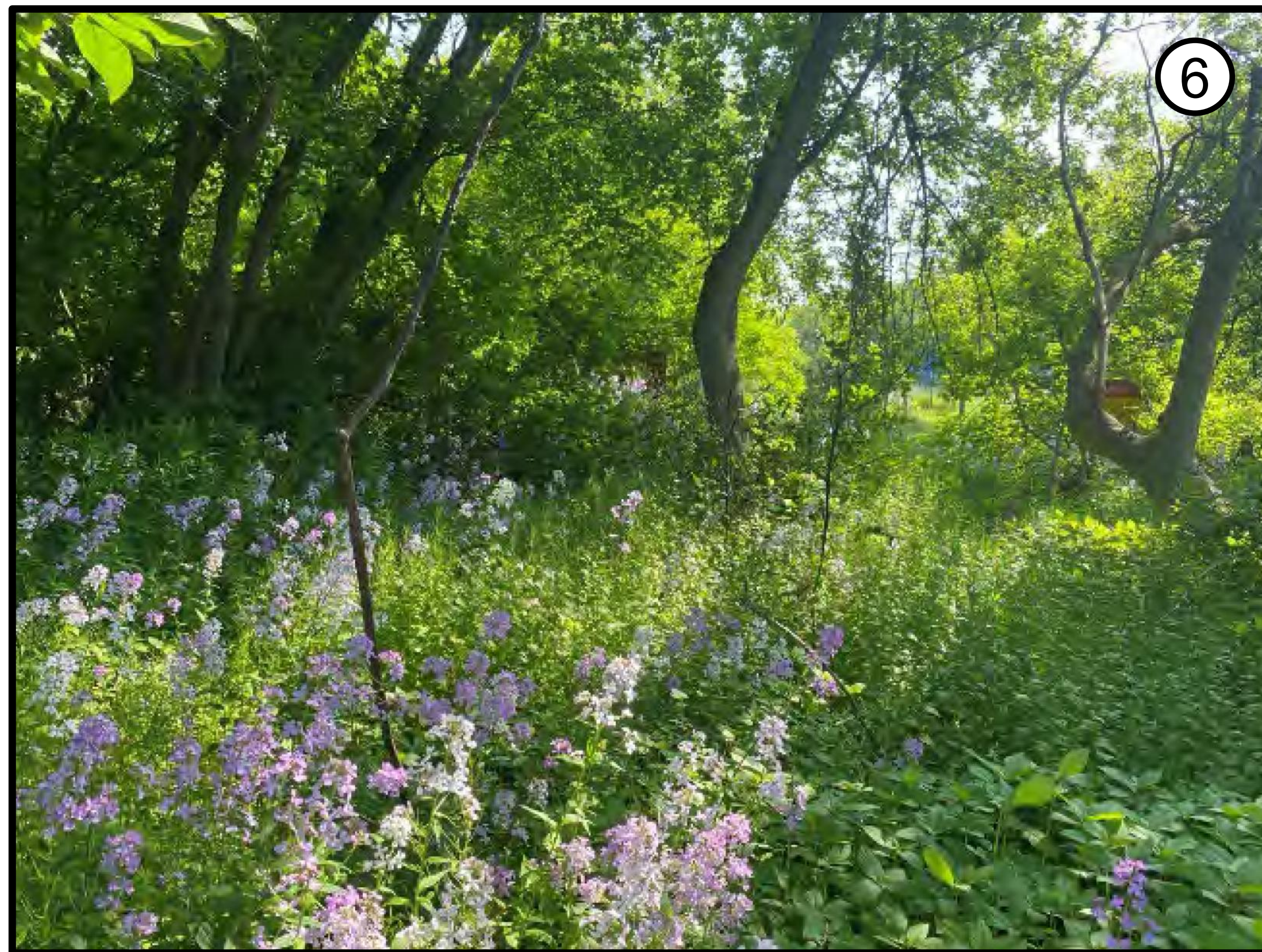
A Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment has been undertaken as part of this study, which identified the following within 50 m of the WPCP No. 1 study area:

- 9 Built Heritage Resources (BHRs)
- 1 Cultural Heritage Landscape (Canadian Pacific Railway)



Archaeology

A Stage 1 Archaeological Assessment has been undertaken as part of this study, the findings of which confirmed that portions of the WPCP No. 1 site retain the potential for the recovery of archeological resources.



Legend

- Photo Location and Direction
- Water Pollution Control Plant
- ▭ Study Area
- ▭ Area of Archaeological Potential - Further Archaeological Work Required (Stage 2)
- ▭ Area of Steep Slope, Low to No Archaeological Potential - No Further Archaeological Work Required
- ▭ Low and Permanently Wet Area, Low to No Archaeological Potential - No Further Archaeological Work Required
- ▭ Previously Disturbed, Low to No Archaeological Potential - No Further Archaeological Work Required

Alternative Design Concept #1

Expand Existing Processes

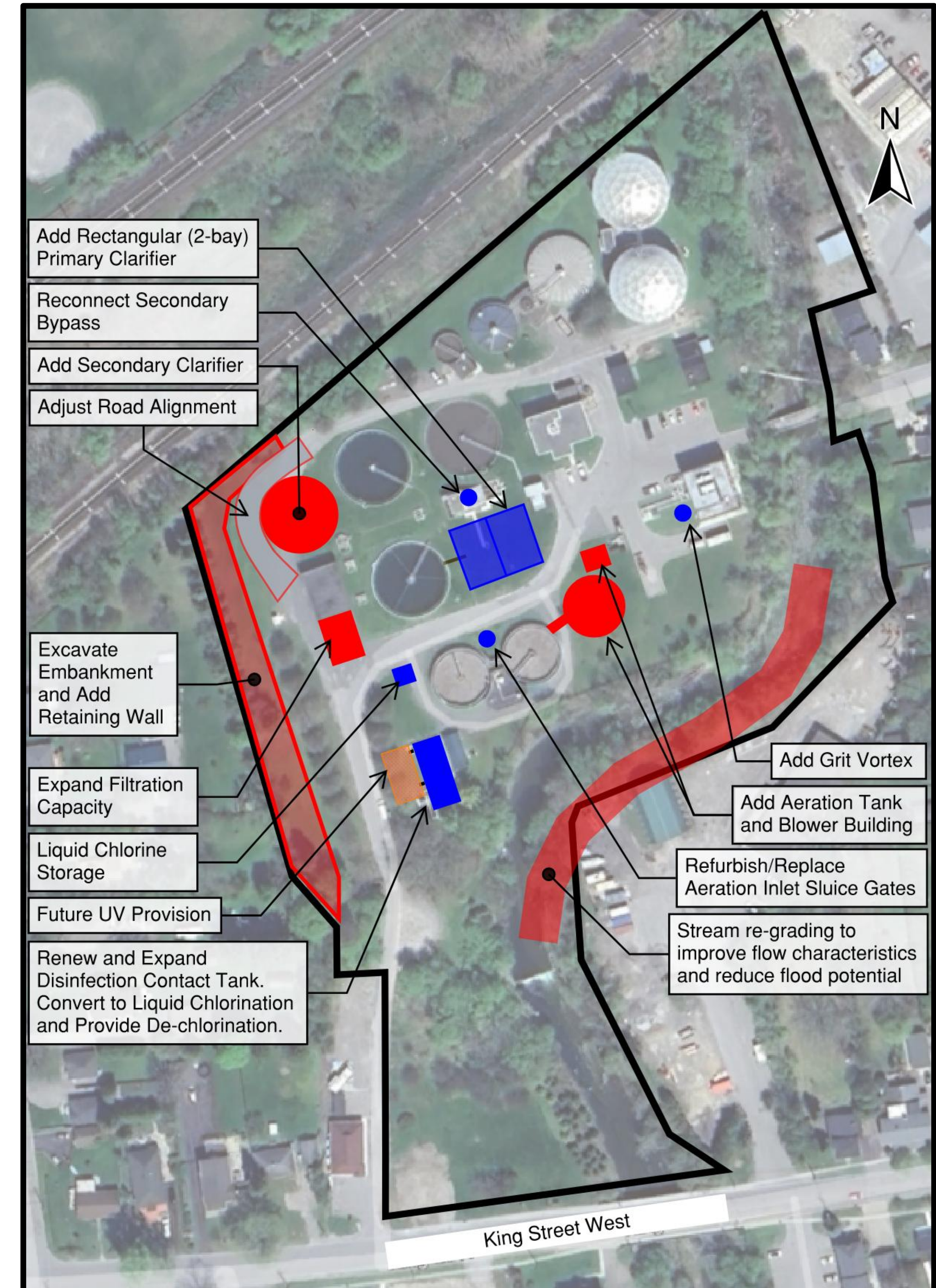
Changes required to address capacity demands:

- Addition of one secondary clarifier and adjust road alignment
- Expansion of post-secondary filtration capacity
- Addition of one aeration tank and blower building
- Floodplain footprint compensation: excavate embankment on Western site boundary and re-grade Cobourg Creek

Secondary needs to be addressed:

- Addition of primary clarifier to provide redundancy
- Renew and expand the disinfection contact tank
- Convert to liquid chlorination and provide dechlorination
- Provide provisions for possible future UV disinfection
- Refurbish or replace aeration inlet sluice gates
- Addition of grit vortex for preliminary treatment redundancy
- Reconnect secondary bypass connection upstream of aeration tanks
- Addition of grit vortex for preliminary treatment redundancy
- Addition of aeration tank and blower building
- Stream re-grading to improve flow characteristics and reduce flood potential

***Layout is preliminary in nature, to be refined during detailed design.**



Alternative Design Concept #2

Process Intensification

Changes required to address capacity demands:

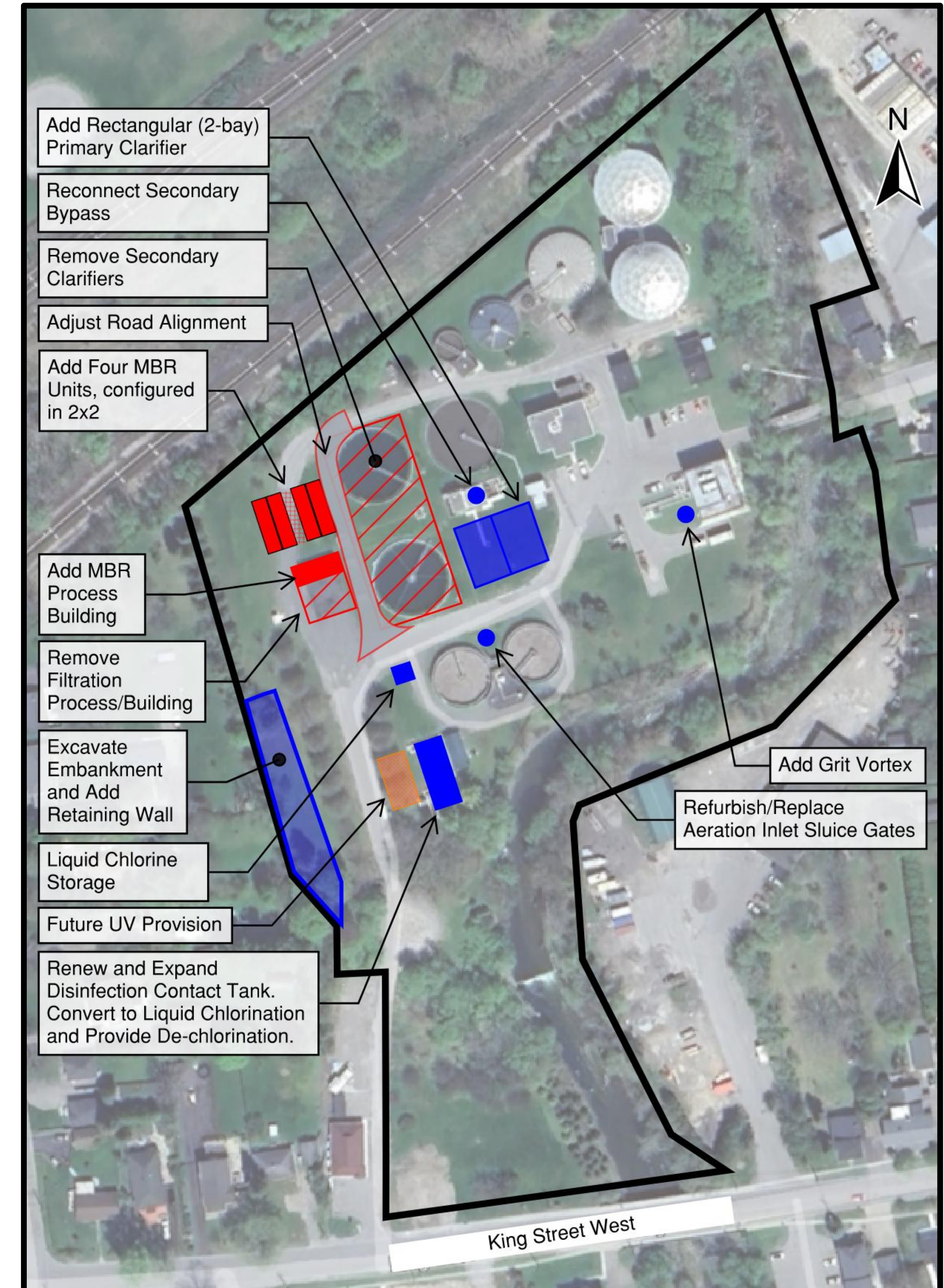
- Remove existing secondary clarifiers
- Remove post-secondary filtration system
- Add Membrane Bioreactor (MBR) tanks (configured in 2 x 2 arrangement with redundancy)
- Remove secondary clarification and tertiary filtration as they are no longer required with MBR
- Add MBR Process Building (for auxiliary MBR equipment)

Secondary needs to be addressed:

- Addition of primary clarifier to provide redundancy
- Floodplain footprint compensation for additional primary clarifier: excavate embankment on Western site boundary
- Renew and expand the disinfection contact tank
- Convert to liquid chlorination and provide dechlorination
- Provide provisions for possible future UV disinfection
- Refurbish or replace aeration inlet sluice gates
- Addition of grit vortex for preliminary treatment redundancy
- Reconnect secondary bypass connection upstream of aeration tanks

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*Opportunity for MBR to be substituted for other compact treatment process/equipment.



Preliminary Evaluation Criteria

Technical and Cost

- Technical Suitability
- Construction Feasibility
- Operations and Maintenance Complexity
- Ability to Meet Effluent Quality Standards
- Utilities and Chemical Use
- Impact to Other Existing Processes/Facilities on Site.
- Flood Resilience
- Ability to Address Secondary Needs
- Cost (Capital/Construction, Operations/Maintenance)

Cultural Environment

- Archaeological Resources
- Built Heritage Resources and Cultural Heritage Landscapes

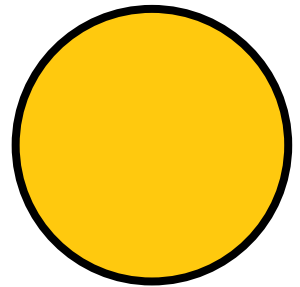
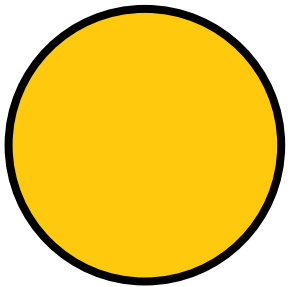
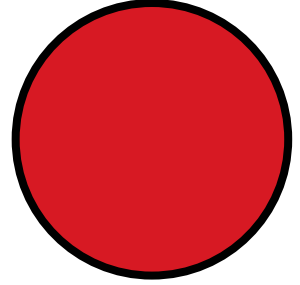
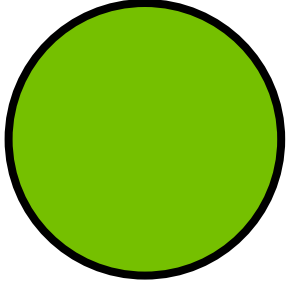
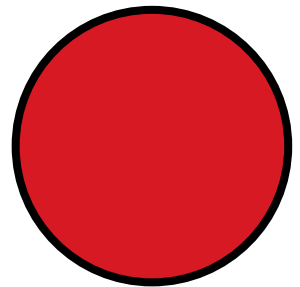
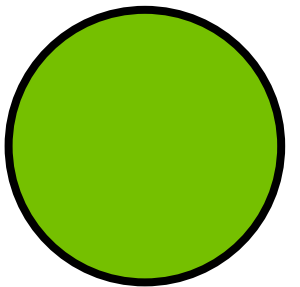
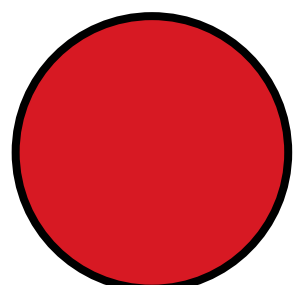
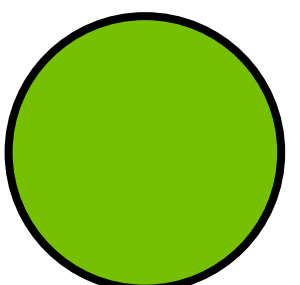
Socio-Economic Environment

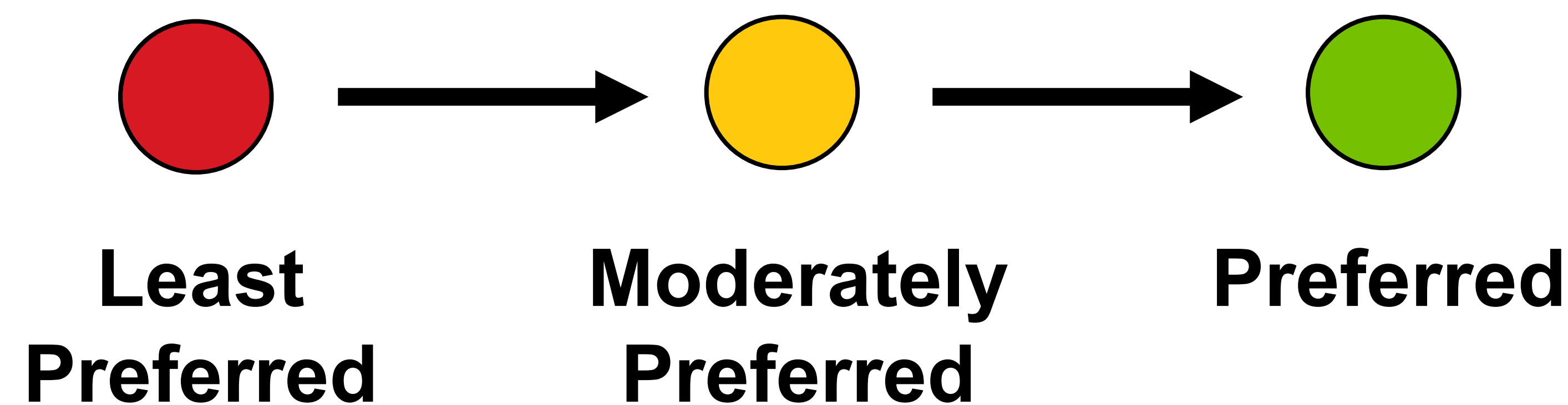
- Existing and Future Land Use
- Public Health
- Noise
- Air Quality

Natural Environment

- GRCA Regulated Area Impact
- Vegetation, Trees and Natural Areas
- Wildlife and Species at Risk
- Aquatic Environment
- Climate change

Preliminary Evaluation of Alternative Design Concepts

Criteria	Alternative Design Concept #1 (Expand Existing Processes)	Alternative Design Concept #2 (Process Intensification)
Technical and Cost	 <ul style="list-style-type: none"> Addresses problems and secondary needs. Lower construction feasibility. Lower operations and maintenance complexity. Higher construction cost, lower operating cost. 	 <ul style="list-style-type: none"> Addresses problems and secondary needs. Moderate construction feasibility. Greater operations and maintenance complexity. Lower construction cost, higher operating cost.
Cultural Environment	 <ul style="list-style-type: none"> Highest potential to impact area with potential archaeological resources. 	 <ul style="list-style-type: none"> Moderate potential to impact area with potential archaeological resources.
Socio-Economic Environment	 <ul style="list-style-type: none"> High potential to impact land uses. Limited ability to treat emerging contaminants. Low potential to increase noise. Moderate potential to produce odours. 	 <ul style="list-style-type: none"> Moderate potential to impact land uses. Higher ability to treat emerging contaminants. Moderate potential to increase noise. Low potential to produce odours.
Natural Environment	 <ul style="list-style-type: none"> High potential impact to regulated floodplain area, vegetation, trees, natural areas, wildlife and/or species at risk, and aquatic environment. High potential impact to climate change. 	 <ul style="list-style-type: none"> Low potential impact to regulated floodplain area, vegetation, trees, natural areas, wildlife and/or species at risk, and aquatic environment. Moderate potential impact to climate change.
Conclusion	Not Recommended	Recommended



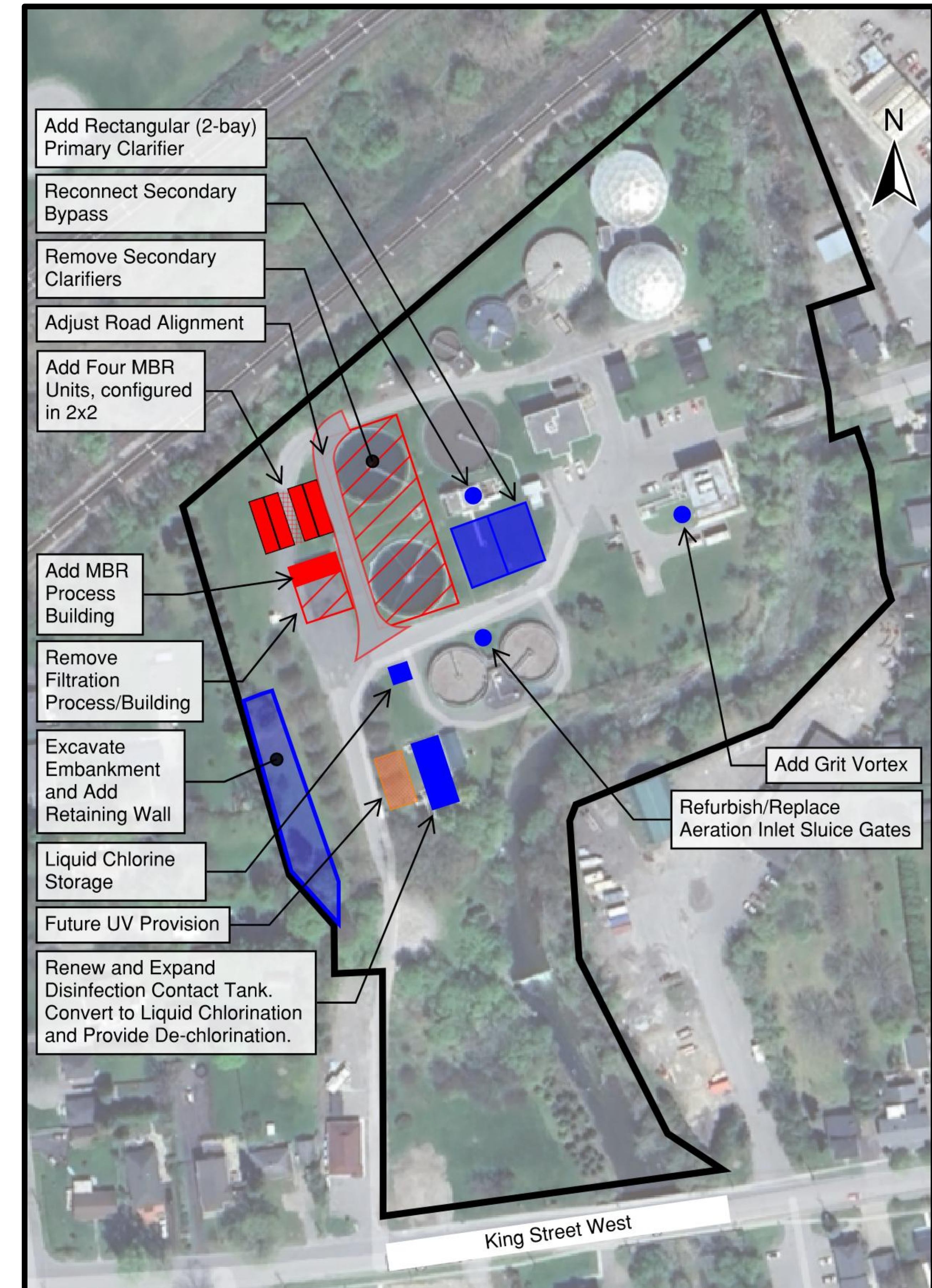
Recommended Design Concept

Alternative Design Concept #2 - Process Intensification is recommended because it:

- Provides high effluent quality within a more compact treatment footprint.
- Provides additional space and flexibility for operations and maintenance access and future expansion needs.
- Improves future adaptability for evolving effluent quality requirements and emerging contaminants.
- Has the least potential to impact the natural, cultural, and socio-economic environments due to its smaller construction footprint and avoids impacts to Cobourg Creek.

*Layout is preliminary in nature, to be refined during detailed design.

*Opportunity for MBR to be substituted for other compact treatment process/equipment.



Environmental Impacts and Mitigation Measures

Potential Impact	Preliminary Proposed Mitigation Measures
<p>Natural Environment</p> <ul style="list-style-type: none"> Vegetation removal may impact potential habitat for migratory birds, Species at Risk (SAR) and Species of Conservation Concern. Fish/fish habitat may be impacted by construction activities within 30 m of Cobourg Creek (e.g., runoff, erosion, slope instability) . 	<ul style="list-style-type: none"> Impacts to vegetation and trees will be minimized to the extent possible. Tree removal and/or shrub clearing to occur outside of the bat SAR active season (March 15 - November 30) and breeding bird season (April 1 - August 31). Erosion and Sediment Control Management Plan and Spill Management Plan to be developed during detail design.
<p>Cultural Heritage</p> <ul style="list-style-type: none"> Potential indirect impacts to 9 Built Heritage Resources (BHRs). 	<ul style="list-style-type: none"> 50 m construction buffer zone should be established around BHRs to avoid impacts. If buffer cannot be established, risk should be mitigated through a pre-condition survey and vibration monitoring, where required.
<p>Archaeology</p> <ul style="list-style-type: none"> Potential to impact areas that retain archaeological potential. 	<ul style="list-style-type: none"> Stage 2 archaeological assessment to be completed during detail design, where required. No construction activities to take place until Ministry of Citizenship and Multiculturalism requirements have been satisfied.
<p>Property</p> <ul style="list-style-type: none"> No direct impacts to private property anticipated. 	<ul style="list-style-type: none"> Property impacts will be confirmed during detail design in consultation with property owners.

Preliminary Implementation Plan

Short-Term (2-5 years)

Address Secondary Needs

- Construct additional primary clarifier and floodplain footprint compensation (retaining wall on Western site boundary).
- Refurbish aeration tank sluice gates.
- Renew and expand disinfection contact tank and modify chlorination system.
- Reconnect the secondary bypass.
- Other repairs and replacements as noted in previous condition assessment studies.

Medium-Term (5-20 years)

Address Secondary Needs

- Investigate potential for implementing UV disinfection.
- Investigate potential for implementing additional grit vortex.
- Future studies to address emerging contaminants and evolving regulations.
- Incorporate flood protection measures for existing facilities.
- Other repairs and replacements as noted in previous condition assessment studies.

Long-Term (20+ years)

Expand Treatment Capacity to meet future capacity demands

- Review technology and confirm recommended process equipment.
- Construct MBR system and associated auxiliary systems.
- Decommission tertiary filtration and secondary clarifiers.
- Investigate repurposing the existing primary clarifier as an equalization tank.

Next Steps



Review and consider feedback received



Confirm the Preferred Design Concept



Document the recommendations and decision-making process within a Sanitary Sewershed Master Plan Report



Publish the Notice of Master Plan indicating that the Master Plan Report is available for a 30-day comment period

Thank you for participating!

Your feedback is very important to us! There are several ways for you to provide your comments:



Share your comments with us! Please complete and submit a comment form.



Contact the study team!

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We would appreciate receiving any comments or questions that you may have by **Friday, July 17, 2026.**

For additional study information, please visit the study website: www.cobourg.ca/reportsandstudies