

Cobourg East Community Secondary Plan Area Municipal Servicing Class EA

Public Information Centre – February 8, 2023



Cobourg East Development Owners Group



Land Acknowledgement

We respectfully acknowledge that we are located in the traditional and treaty territory of the Michi Saagiig (Mississauga) and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include: Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

We respectfully acknowledge that the Williams Treaties First Nations have been stewards and caretakers of these lands and waters, and that today remain vigilant over their health and integrity for generations to come.

We are all Treaty people.

Project Team

Co-Proponents

Town of Cobourg



Terry Hoekstra, C.E.T., LET, rcca
Project Manager
Town of Cobourg

Cobourg East Development Owners Group (Tribute Communities and Mistral Land Development)

Consultants

CIMA+



Chad Stephen, P.Eng., PMP
Project Manager

Why Are We Here?

Purpose of the Public Information Centre (PIC)

1. Introduce the study
2. Outline the Class EA process and study schedule
3. Review background information and existing conditions
4. Evaluation of alternatives and selection of the recommended alternative solution
5. Obtain community and public feedback and identify next steps

How to Get Involved



Review the information in this presentation



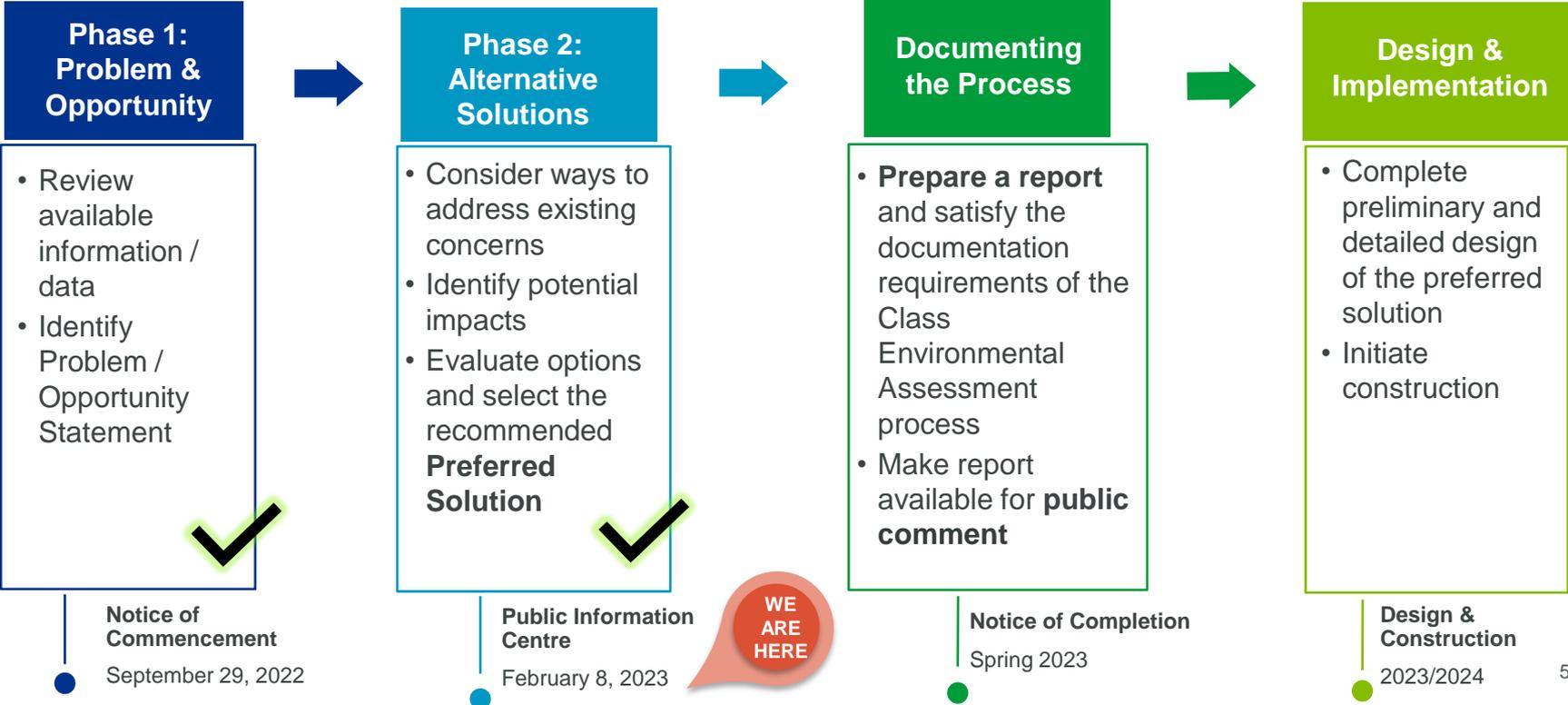
Provide comments and feedback



Join the study mailing list or contact the Project Team

Overview of Schedule 'B' Municipal Class EA Process & Consultation

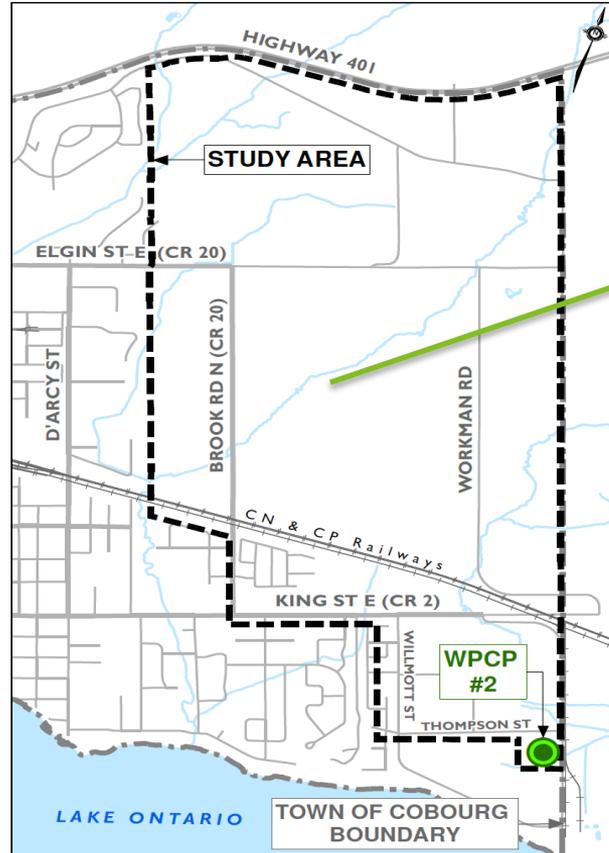
The study is following the Municipal Engineers Association (MEA) **Municipal Class Environmental Assessment** (Class EA) process for **Schedule B** projects (October 2000, as amended 2015).



Project Background & Study Area

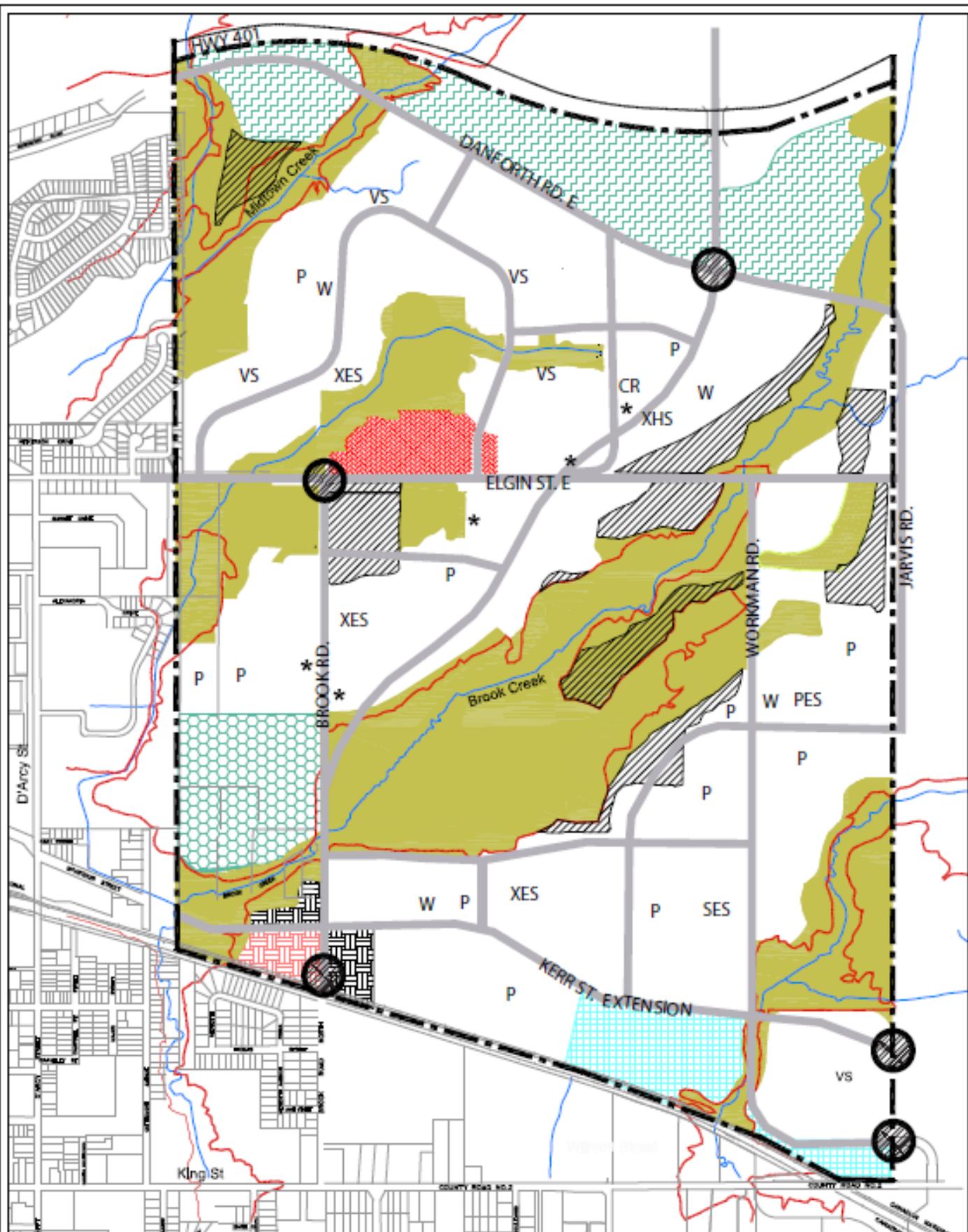
The Town of Cobourg and the Cobourg East Development Owners Group have initiated a Municipal Class EA Study to provide wastewater and water servicing infrastructure that will support future development of lands within the Cobourg East Community Secondary Plan Area (Cobourg East).

The municipal wastewater and water trunk services will be designed to extend and support the full build-out needs of Cobourg East for ongoing and future developments.



Cobourg East Development Owners Group – Landownership Map

Cobourg East Secondary Land Use Plan



Legend

Residential Area

- Living Area
- Heritage Building
- Gateway

Employment Area

- Business Park
- Light Industrial
- General Industrial

Commercial Area

- Mixed Use Main Street/Light
- Service Commercial One
- Service Commercial Two

Community Use Area

- Parkland
- Potential High School
- Potential Elementary School
- Public Elementary School
- Separate Elementary School
- Community Recreation Centre
- Village Square
- Place of Worship

Environmental Area

- Environmental Protection
- Special Study Area Overlay
- Flood Lines

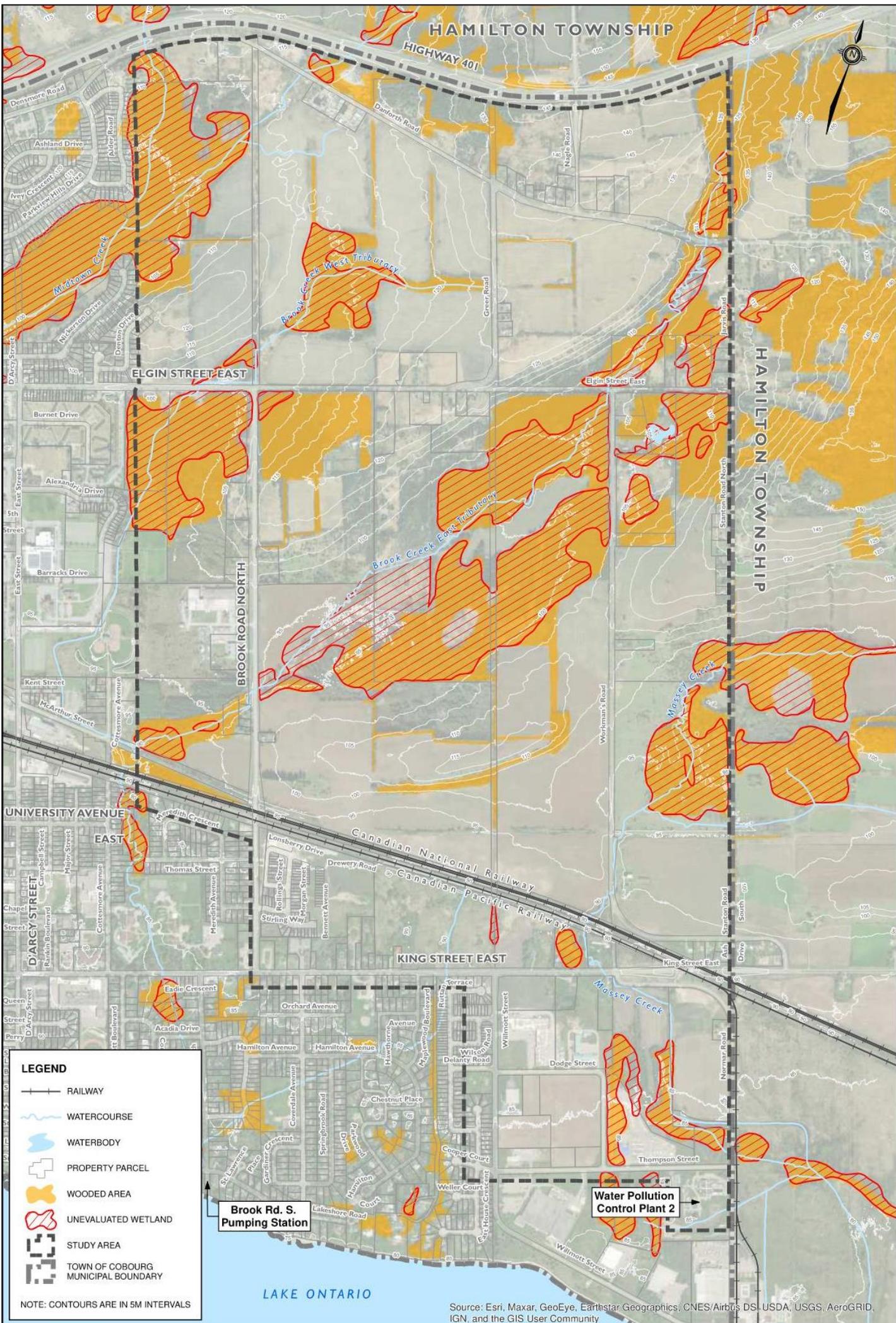
Schedule X1
Land Use Plan
 Cobourg East Community
 Secondary Plan
 Official Plan Amendment
 No. 76

September 2019

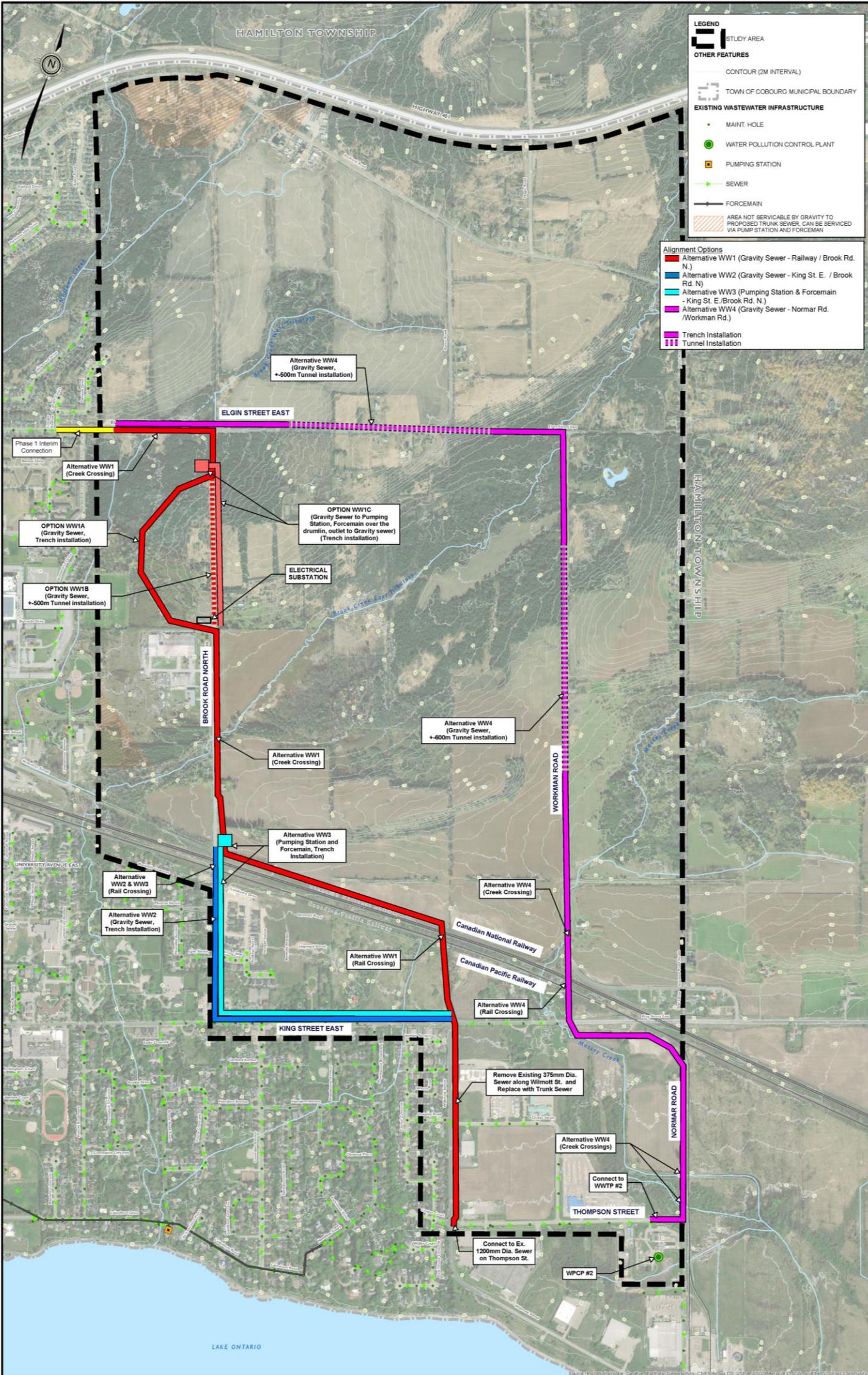


0 100 200 300 400 500m

Project Constraints - Existing Conditions

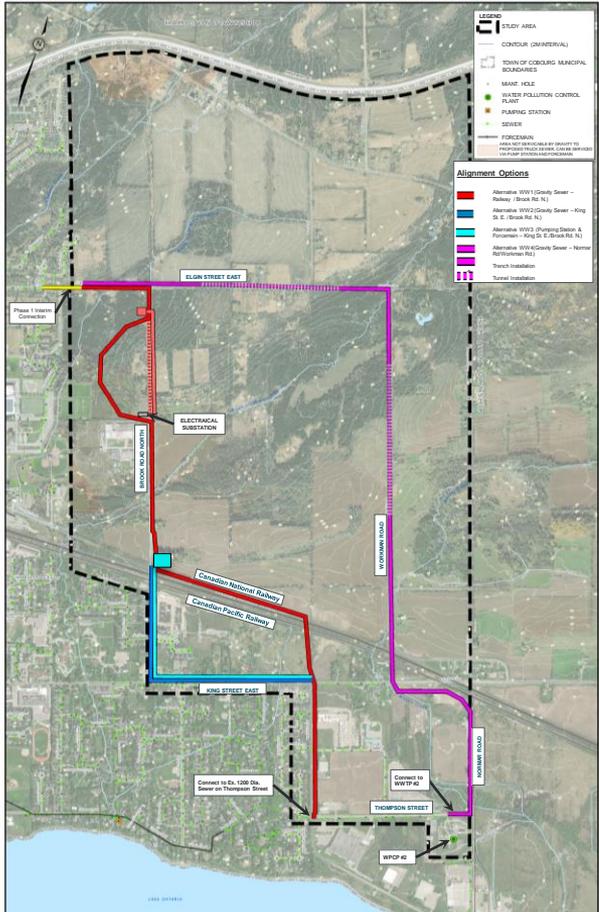


Proposed Alternatives – Wastewater Servicing



Screening of Alternative Wastewater Solutions

- Alternative Solution WW4 (Gravity Sewer – Normar Rd./Workman Rd.) was screened out at the beginning of the evaluation due to the following:
 - Difficult to service the development area from the easterly side of study area;
 - To service the development via gravity, the sewer along this alignment would have to be constructed at depths between 23 m to 36 m deep;
 - To construct the sewer at these proposed depths, it can only be done using tunneling methods; and
 - There would be a significant cost to constructing a sewer by tunneling.



Alternative Sanitary Servicing Solutions

- For portions of the alignment the only solution is following Brook Rd N from north of the railway line to the electrical substation and then west from the intersection of Elgin St E and Brook Rd N to the Study Area boundary.
- There are two areas that require evaluation and selection of a recommended alternative:
 1. Southern portion which includes solutions WW1, WW2 and WW3 representing different options for crossing the Railway Line and connecting with the existing sanitary sewer on Thompson St.
 2. Northern portion which includes WW1A, WW1B and WW1C which represents the area from the electrical substation to the intersection of Brook Rd N and Elgin St E.
- The recommended wastewater alternative solution will be a combination of the alignment **WW1, WW2, or WW3** (from Thompson Street to Brook Road North (north of the railway line)) + **Brook Road North up to the electrical substation** + **WW 1A, 1B or 1C** (from electrical station to Elgin Street East) + **Elgin Street East** (from Brook Road North to the Phase 1 Interim Solution).
- Evaluation of the **Do Nothing** wastewater option has not been included in the evaluation table since the Do Nothing does not provide wastewater servicing that will support future development of lands within the Cobourg East Community Secondary Plan Area (Cobourg East).

Selecting the Recommended Alternative Solution: Detailed Evaluation Criteria

The criteria shown below were used to evaluate the alternative solutions.



- Terrestrial, aquatic species & habitats
- Sensitive Natural Features, Species at Risk and Regulated Floodplain Areas
- Climate Change



Natural Environment

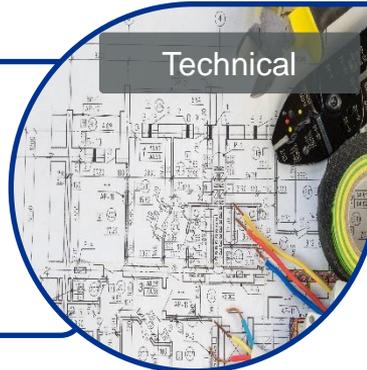


Socio-Cultural

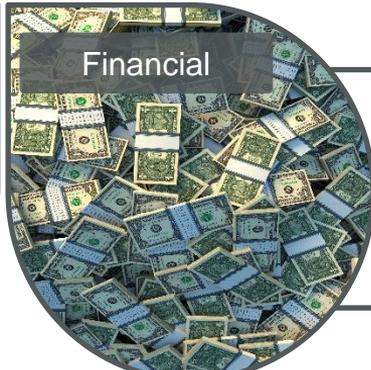
- Short-term and Long-term disruptions during construction (e.g., visual, noise, dust, traffic, air quality)
- Impacts to cultural heritage resources
- Property requirements



- Operational Complexity
- Ease of Implementation
- Resiliency
- Constructability
- Regulatory Approvals
- Railway crossings and dewatering needs



Technical



Financial

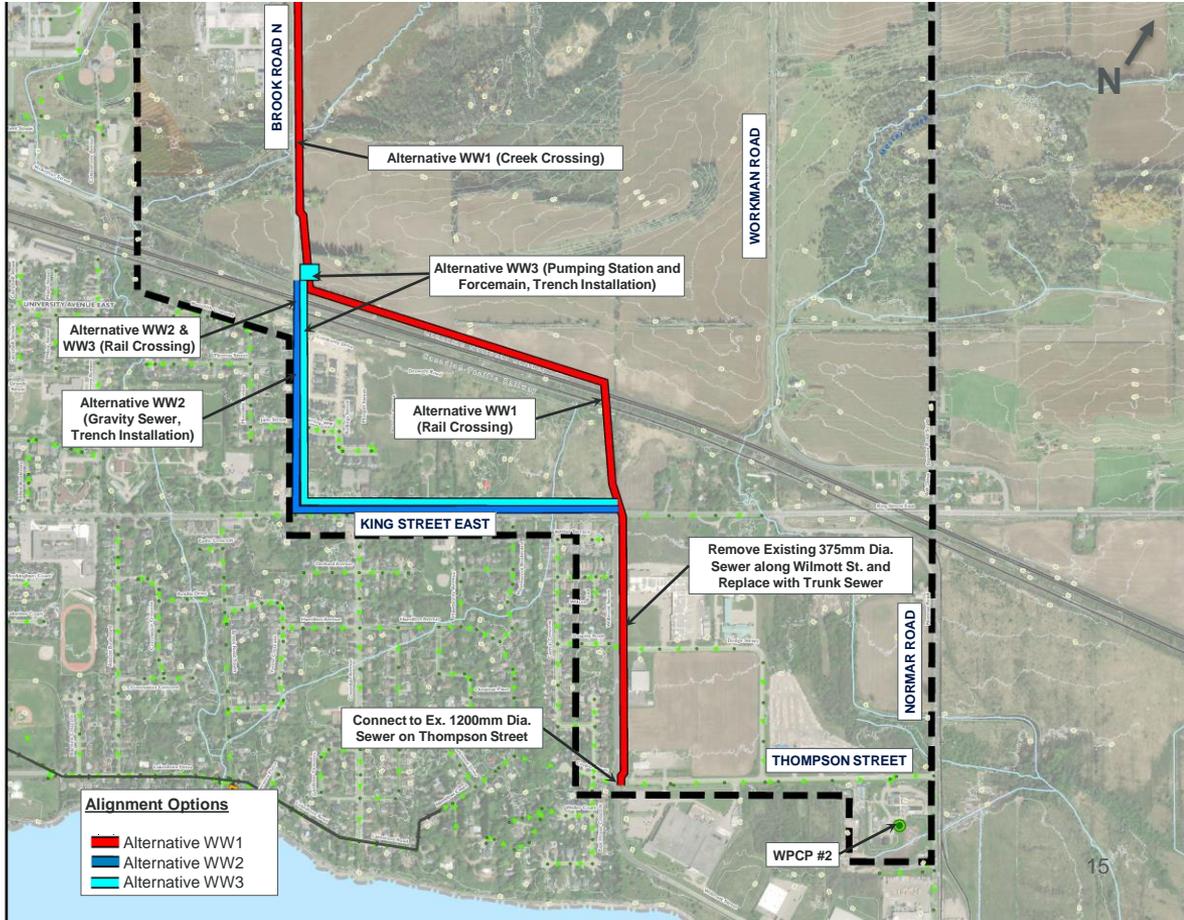
- Life cycle costs, including capital and operation and maintenance costs



Wastewater Servicing Alternative Solutions - South Portion

Alternatives from Electrical Substation to Thompson Street

- Alternative WW 1 – Gravity Sewer – Railway / Brook Road North
- Alternative WW 2 – Gravity Sewer – King Street East / Brook Road North
- Alternative WW 3 - Pumping Station and Forcemain – King Street East / Brook Road North



Evaluation of Wastewater Servicing Alternatives - South Portion

- From electrical substation to Thompson Street



Evaluation Criteria	Alt. WW1	Alt. WW2	Alt. WW3
Natural Environment	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Construction stays within Brook Road N and Willmott Street ROW 	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Construction stays within Brook Road N, King Street E and Willmott Street ROW 	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Construction stays within Brook Road N, King Street E and Willmott Street ROW
Social and Cultural Environment	<ul style="list-style-type: none"> Lower construction impacts by crossing disturbed development lands (north of CN/CP Railway) and Willmott Street Greater construction related impacts on Brook Road N 	<ul style="list-style-type: none"> Greater construction impacts on Brook Road N and King Street E and within built-up area Larger portion of lands within existing urban environment (south of CN/CP Railway) 	<ul style="list-style-type: none"> Forcemain and pumping station results in greater construction impacts on Brook Road N and King Street E and within built-up area
Technical Considerations	<ul style="list-style-type: none"> Majority is gravity sewer making it more resilient Constructed via open cut trench methods, trenchless methods at railway and creek crossing 	<ul style="list-style-type: none"> Majority is gravity sewer making it more resilient Constructed via open cut trench methods, trenchless methods at railway and creek crossing Significant construction constraints on King Street E 	<ul style="list-style-type: none"> Gravity sanitary sewer, pumping station and forcemains – less resilient Constructed via open cut trench methods, trenchless methods at railway and creek crossing Significant construction constraints on King Street E

Evaluation of Wastewater Servicing Alternatives - South Portion

- From electrical substation to Thompson Street

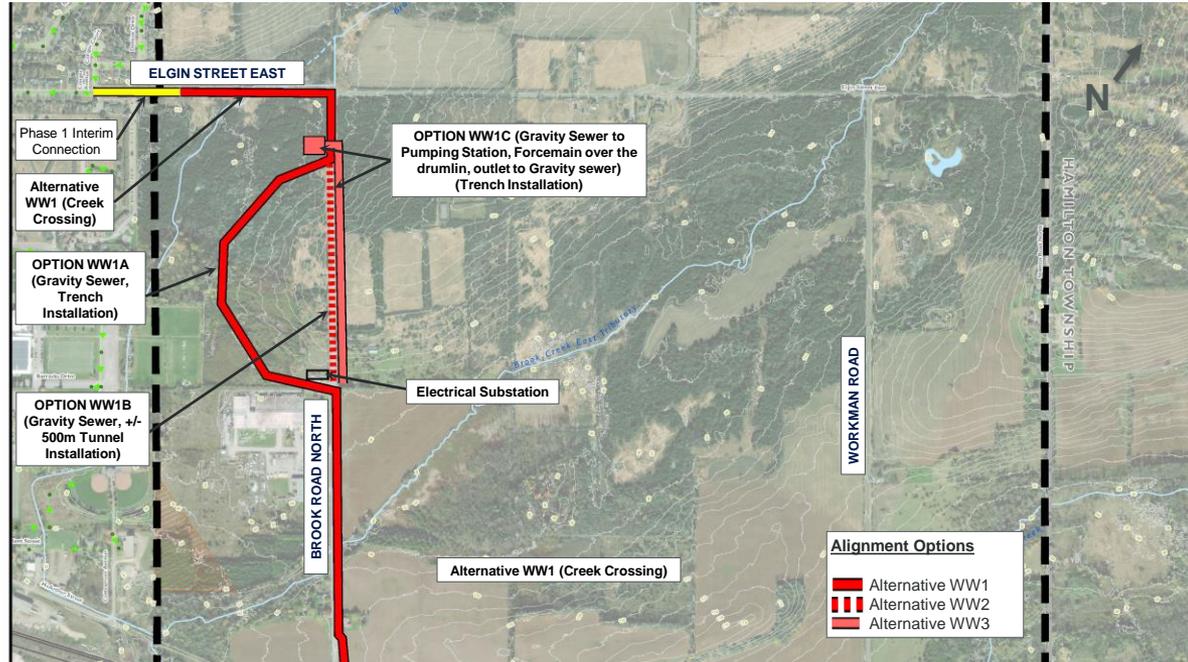
Most Preferred
 Less Preferred
 Least Preferred

Evaluation Criteria	Alt. WW1	Alt. WW2	Alt. WW3
Financial Considerations	<ul style="list-style-type: none"> Lower capital costs and low operating/maintenance costs Development lands required 	<ul style="list-style-type: none"> High capital costs with low operating/maintenance costs No land acquisition required 	<ul style="list-style-type: none"> Highest capital, operating/maintenance costs with forcemain and pumping station Land required for pumping station
Overall Rating	Preferred	Less Preferred	Least Preferred

Wastewater Servicing Alternative Solutions - North Portion

Alternatives from Elgin Street East to Electrical Substation

- Alternative WW 1A – Gravity Sewer, Trench Installation
- Alternative WW 1B – Gravity Sewer, Tunnel Installation
- Alternative WW 1C - Gravity Sewer to pumping station, forcemain over the drumlin, outlet to gravity sewer, Trench Installation



Evaluation of Wastewater Servicing Alternatives – North Portion

- From Elgin Street East to electrical substation



Evaluation Criteria	Alt. WW#1A	Alt. WW#1B	Alt. WW#1C
Natural Environment	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Marsh and unevaluated wetlands present but these are located on disturbed lands that will be developed 	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Construction stays within Elgin Street E and Brook Road N ROW 	<ul style="list-style-type: none"> Creek crossing through trenchless technology (no in-water work) Construction stays within Elgin Street E and Brook Road N ROW with minimal impacts
Social and Cultural Environment	<ul style="list-style-type: none"> Undeveloped lands impacted Some construction impacts along Elgin Street E 	<ul style="list-style-type: none"> Construction impacts along Brook Road N and Elgin Street E 	<ul style="list-style-type: none"> Shallow forcemain results in greater construction impacts on Brook Road N and Elgin Street E Land required and potentially impacted for pumping station
Technical Considerations	<ul style="list-style-type: none"> Gravity sewer making it more resilient Open cut trench construction around the drumlin 	<ul style="list-style-type: none"> Gravity sewer making it more resilient Sewer required to be constructed via tunnelling methods through the drumlin on Brook Road N 	<ul style="list-style-type: none"> Space required to construct pumping station, forcemain constructed via open trench method along Brook Road N through the drumlin Sewer system requires pumping station and forcemains – less resilient

Evaluation of Wastewater Servicing Alternatives – North Portion

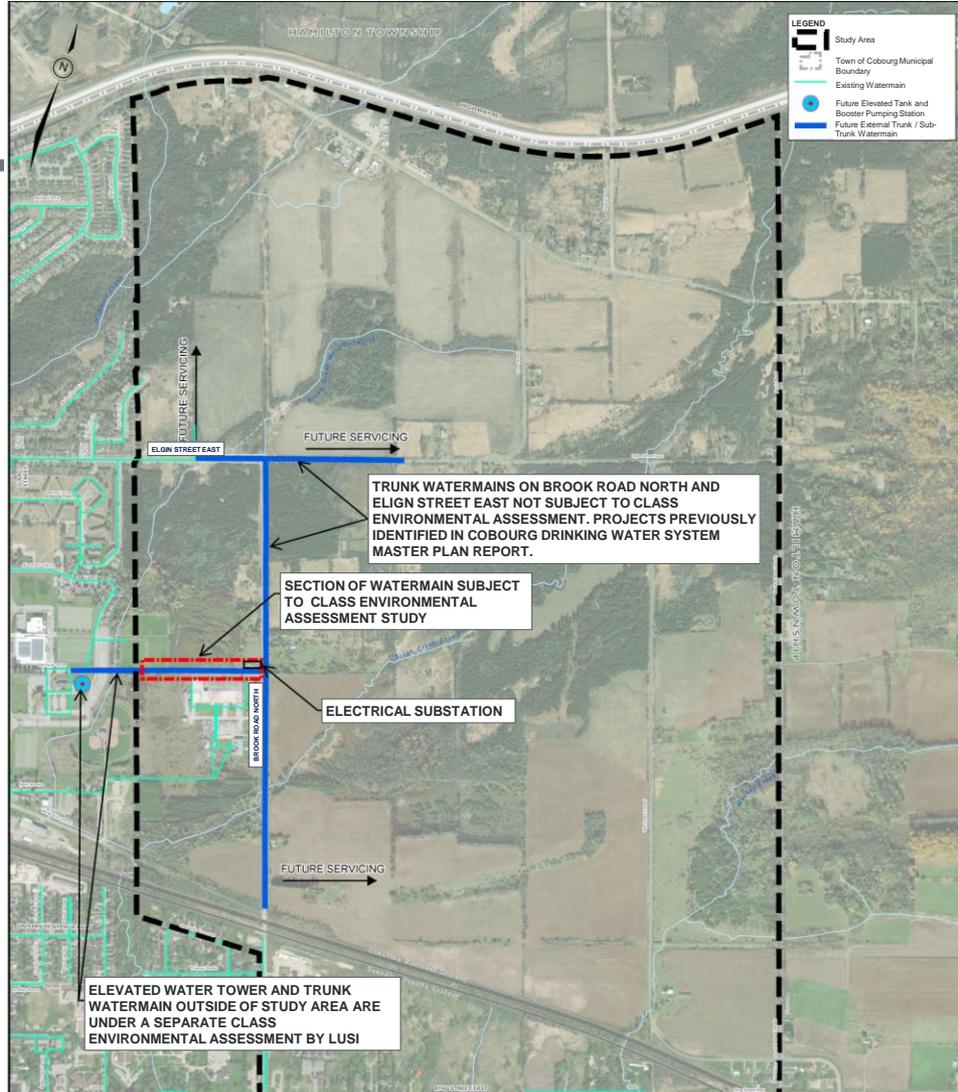
- From Elgin Street East to electrical substation

Most Preferred
 Less Preferred
 Least Preferred

Evaluation Criteria	Alt. WW#1A	Alt. WW#1B	Alt. WW#1C
Financial Considerations	<ul style="list-style-type: none"> Lowest capital costs and low operating/maintenance costs Land required from development lands 	<ul style="list-style-type: none"> Higher capital costs with depth of gravity sewer but low operating/maintenance costs No land acquisition required 	<ul style="list-style-type: none"> High capital, costs and higher operating/ maintenance costs with forcemain and pumping station Land required for pumping station
Overall Rating	Preferred	Less Preferred	Least Preferred

Water Servicing Alternative Solutions

- There was only one alternative to the “Do Nothing” Alternative which is to build the feedermain from the proposed elevated water tower to Brook Road North.



Evaluation of Water Alternatives

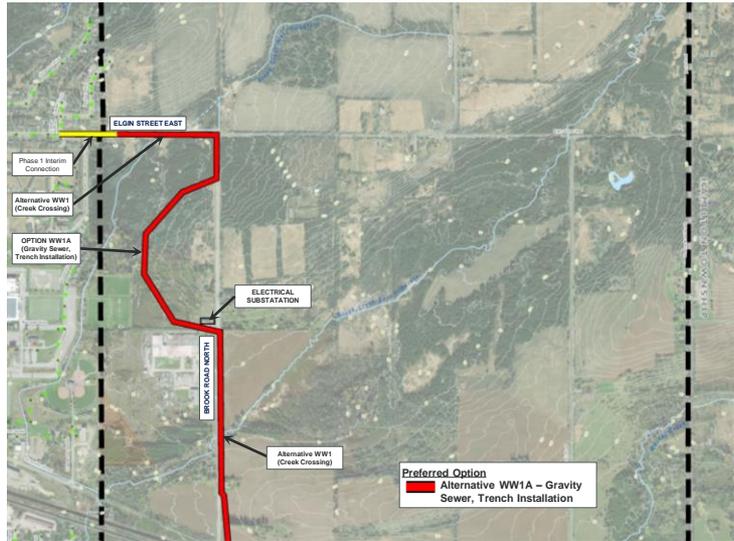
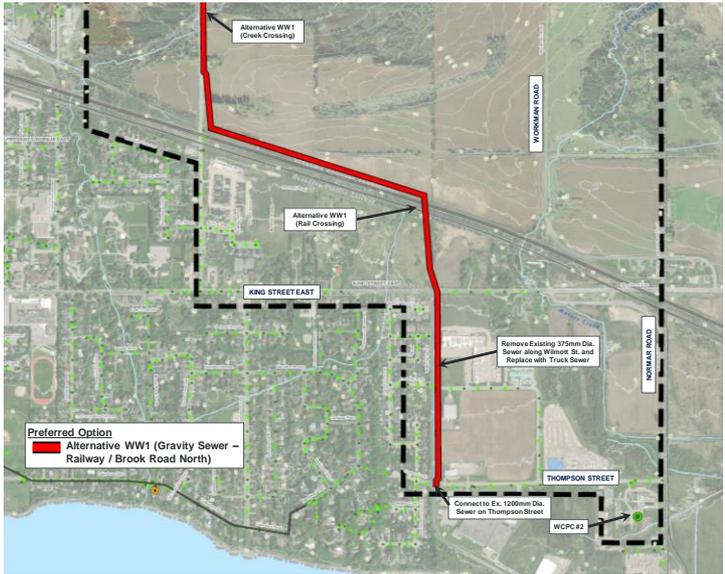


Evaluation Criteria	Alternative #1	Do Nothing
Natural Environment	<ul style="list-style-type: none"> Crosses through recreational fields, Buckthorn deciduous shrub thicket and Willow Lowland deciduous forest 	<ul style="list-style-type: none"> No construction related impacts
Social and Cultural Environment	<ul style="list-style-type: none"> Air and noise impacts during construction with minimal effect on industrial business and recreational fields 	<ul style="list-style-type: none"> No construction related impacts
Technical Considerations	<ul style="list-style-type: none"> Constructed via open cut trench methods with minimal dewatering impacts due to shallow bury of minimum 1.8 m depth Watermain will provide main supply of expanded water supply system 	<ul style="list-style-type: none"> Does not provide water servicing to development areas and does not meet problem statement No resiliency provided
Financial Considerations	<ul style="list-style-type: none"> Some land needs to be provided from development lands Approximately \$500,000 capital costs and minimal operating and maintenance costs 	<ul style="list-style-type: none"> No capital costs but inability to provide water services to development areas is a cost to the Town
Overall Rating	Preferred	Least Preferred

Recommended Preferred Wastewater Alternative Solutions

- For the Wastewater Servicing the recommended preferred alternative for the south portion is:
 - Alternative WW 1 – Gravity Sewer – Railway / Brook Road North

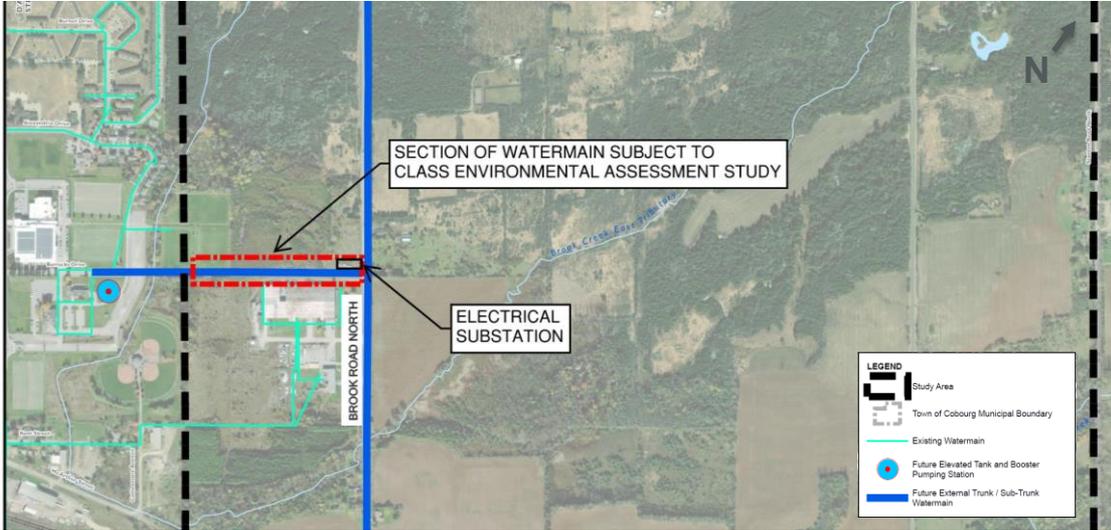
- For the Wastewater Servicing the recommended preferred alternative for the north portion is:
 - Alternative WW 1A – Gravity Sewer, Trench Installation



Recommended Preferred Water Alternative Solution

For the Water Servicing the recommended preferred alternative is:

- Feedermain from Elevated Tank to Brook Road North



Proposed Mitigation Measures

Concern	Proposed Mitigation Measure(s)
Railway Crossings	- Use trenchless technologies
Creek Crossings	- Use trenchless technologies
Erosion and Sedimentation	- Erosion control measures - Buffers and setbacks - Sediment traps - Staging work
Traffic Impacts	- Staging of construction to cause least disruption - Notify public and adjacent landowners of construction scheduling
Private Well Impacts	- Conduct well monitoring program with intent to rectify any impacted wells
Dust & Noise	- Employ noise and dust control measures - Staging of construction to cause least disruption
Maintenance & Operation	- Construct access roads to maintenance access structures outside of road right-of-ways - Provide sufficient setbacks from adjacent infrastructure and foundations

Next Steps – Please Stay Engaged

Please submit any comments or feedback on the PIC by **Wednesday, February 22, 2023.**

After the PIC, the Project Team will:

- Review and consider input received during the PIC
- Confirm the recommended alternative solution to provide the preferred alternative for water and wastewater.
- Prepare the Project File Report.
- Issue the Notice of Completion when the Project File Report is available for a 30-calendar day public comment period.



Project Information

- For more information about this project, please visit our webpage:

<https://www.cobourg.ca/en/town-hall/Reports-Studies-and-Plans.aspx>



- Should you have any questions or comments at any time during the project, please contact:

Terry Hoekstra, C.E.T., LET, rcca
thoekstra@cobourg.ca
Town of Cobourg
Project Manager

Chad Stephen, P.Eng., PMP
chad.stephen@cima.ca
CIMA+
Project Manager

Thank You for Attending!