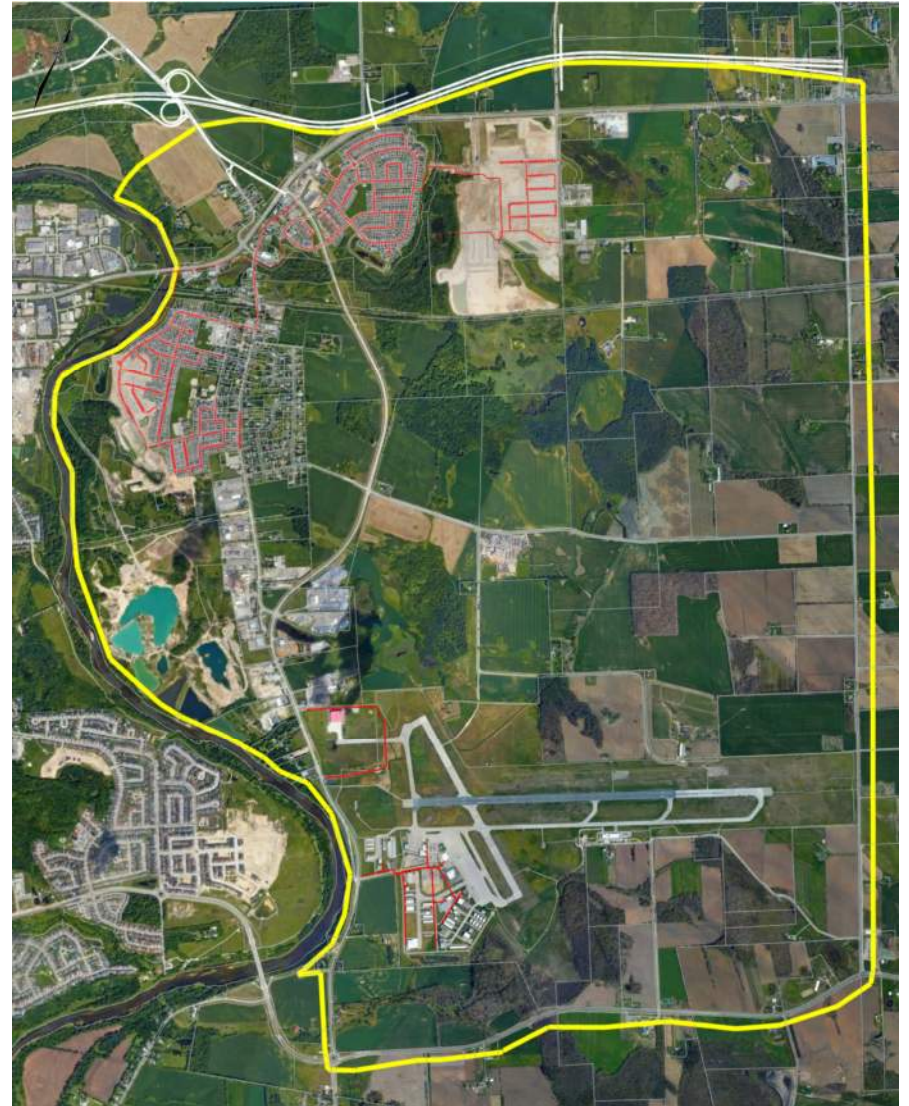




**East Side Lands:
Woolwich Sanitary Servicing
Class Environmental Assessment**

Welcome

**Public Consultation #1
March 13, 2024**



Overview

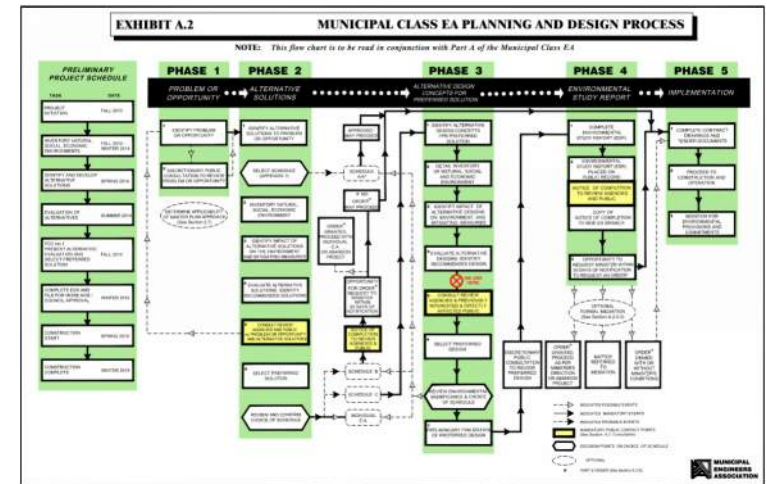
- Overview of the Class Environmental Assessment Process
- Project History & Study Area
- Project Scope & Schedule
- Existing Infrastructure & Downstream Outlet
- Sanitary Drainage Areas & Flow Rates
- Future Sewer Network (Ultimate Buildout)
- Preliminary Pumping Station Sizing & Layout
- Trunk Sewer Alternatives
- Proposed Evaluation Criteria

What is a Municipal Class Environmental Assessment?

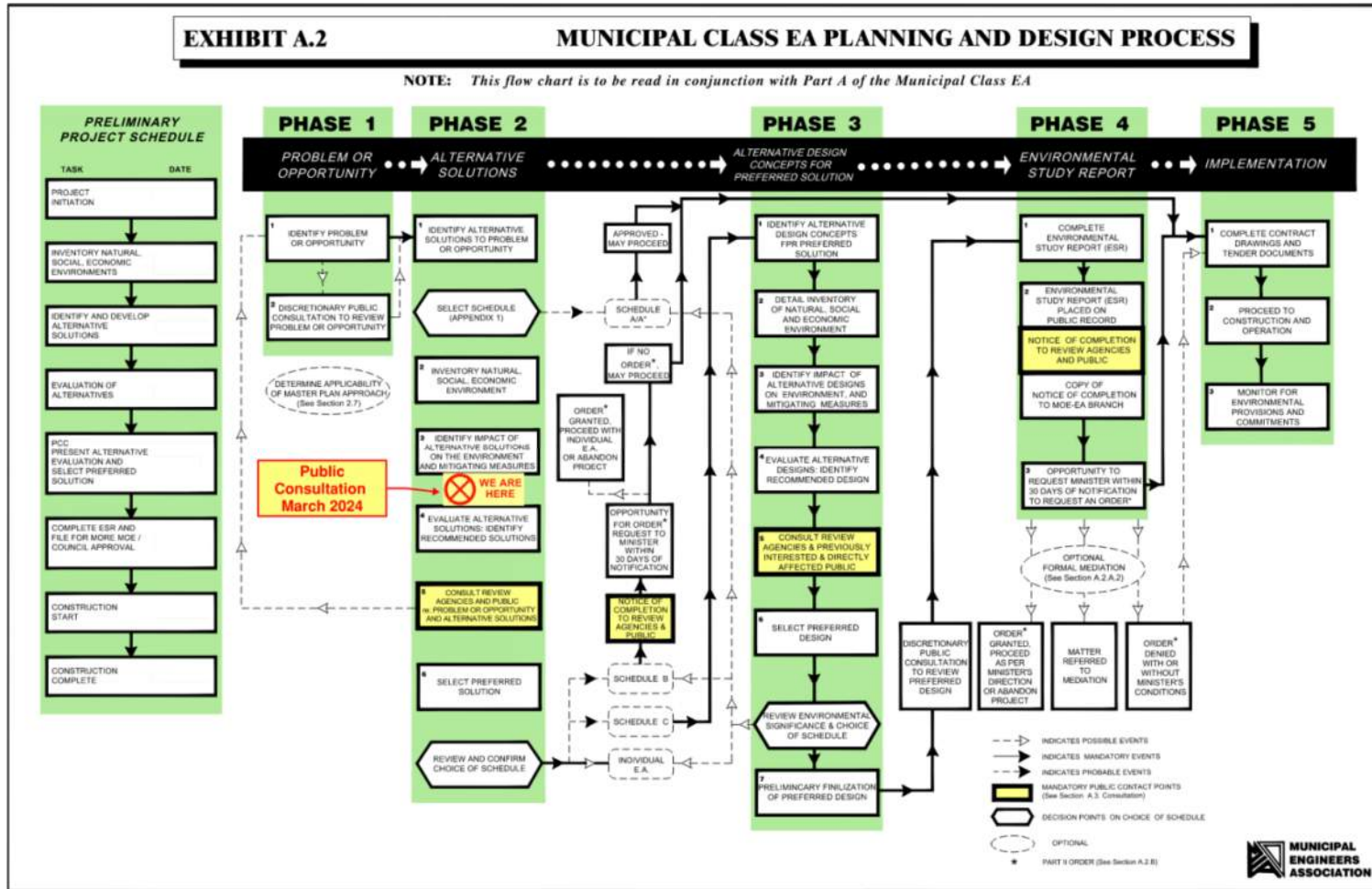
The Class EA process is a formally legislated process used for the planning of municipal infrastructure projects (roads, water and wastewater, and transit) to ensure that project planning and predesign proceeds in accordance with the Environmental Assessment Act.

Typical EA studies include public and review agency consultation, the development and evaluation of alternatives, an assessment of the impacts of the preferred solution, and identification of measures to mitigate any adverse impacts.

The flowchart illustrates the Class EA Process.



What is a Class Environmental Assessment?



Project History & Context

East Side Lands Sanitary Servicing EA

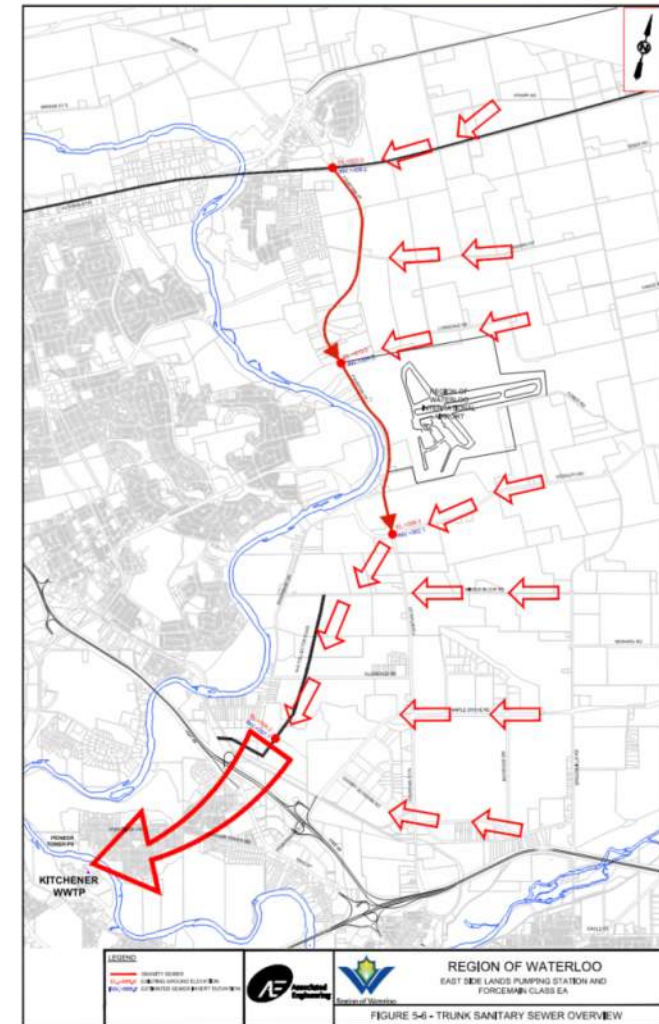
- Completed by the Region in 2018
- Identified ultimate solution (trunk sewer) to convey sanitary sewage from the East Side Lands to the Kitchener Wastewater Treatment Plant
- Future Trunk Sewer / Servicing infrastructure from the City of Cambridge and the Township of Woolwich TBD

North Cambridge Business Park Class EA

- Identified trunk sewers through Cambridge Lands and an interim Pumping Station
- Construction of Pumping Station complete, trunk sewer construction is underway

Region of Waterloo Airport Master Plan

- Identifies future expansion plans



Current EA Study Area

- Focus on Township of Woolwich Lands
- Existing Breslau Community
 - Serviced by the Victoria Street Pumping Station
- Expanded Breslau Boundary
 - Future Hwy #7, Shantz Station Rd and Kossuth Rd
- Key Stakeholders:
 - Future Developments in Breslau
 - Conestoga Meat Packers
 - Region of Waterloo Airport (YKF)
 - City of Cambridge



EA Problem Statement

Sanitary Servicing for the settlement of Breslau is currently provided through a cross-border agreement with the City of Kitchener which allocates partial capacity of the Victoria Street Pumping Station to the Township of Woolwich. As development continues to evolve in Breslau, the use of that capacity is approaching its limits. Planned development / expansion of existing industries near and around the Breslau area as well as surrounding the Region of Waterloo International Airport (YKF) presents an imminent need for new sanitary servicing infrastructure.

Furthermore, the 2023 Region Official Plan Amendment (ROPA6) decision from the province has resulted in an expansion of the Township's urban boundary in the East Side Lands, which had previously been defined by the Township's Breslau Secondary Plan in 2017. This expansion further increases the imminent need for new sanitary servicing infrastructure.

Building on the approved 2018 East Side Lands Sanitary Servicing EA, as well as the recent Airport Master Plan and other known development plans, this Municipal Class EA will investigate and evaluate alternative solutions for the extension of sanitary servicing infrastructure that is required to support existing and future developments within the Township of Woolwich's portion of the East Side Lands.

Specifically, suitable infrastructure is required to collect and convey flows from the northern portions of the study area to the southwest limit of the Township of Woolwich at Fountain Street and Kossuth Road, from which point they would be conveyed by sanitary servicing infrastructure that is being implemented by the Region of Waterloo and the City of Cambridge.

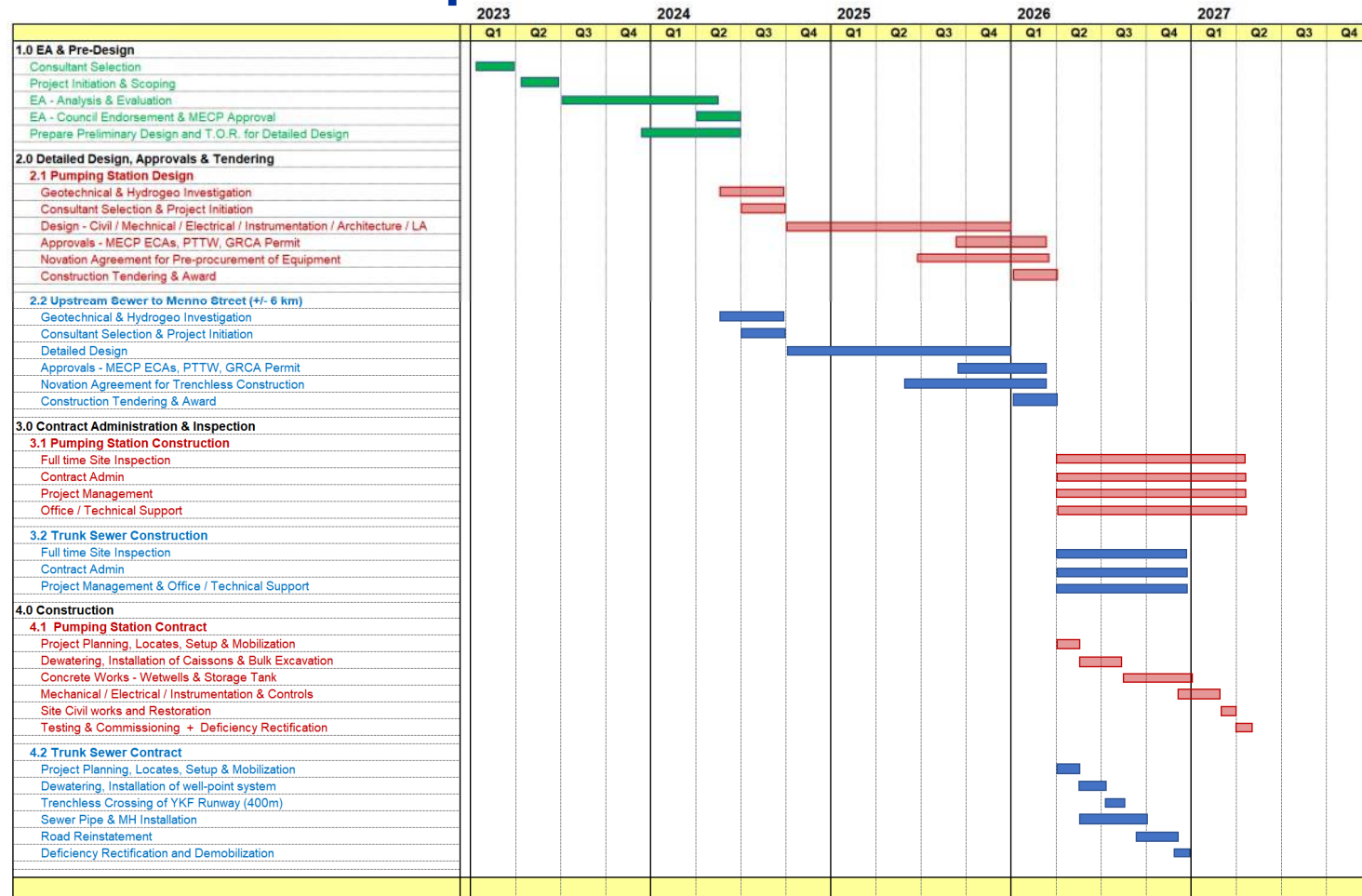
It is anticipated that the new Woolwich servicing infrastructure will include a combination of local and or trunk gravity sewers, pumping/lift station(s) and possibly pumping station(s) and forcemain(s).

The focus of this EA study is to identify the future sanitary servicing infrastructure that will be required, with a focus on the alignment of the main trunk sewer and location of a new pumping / lift station at the southwest limits, needed to service the Woolwich lands south of Menno Street. Furthermore, this study will aim to identify the future sewer alignment(s) and potential additional pumping stations that may be required to service the lands north of Menno Street.

Tentative Project Schedule & Scope Overview

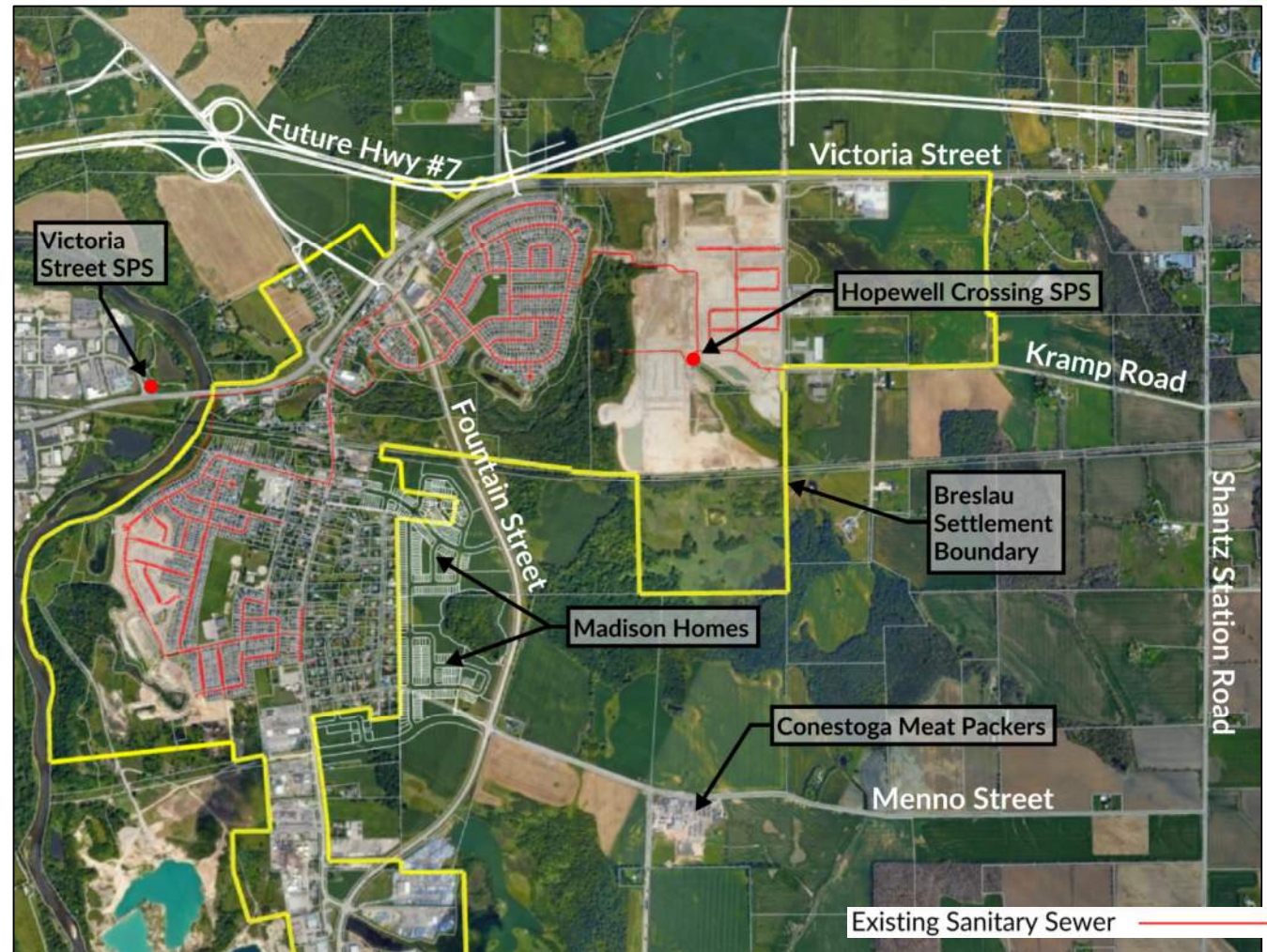
Aggressive Schedules for:

- Target EA Completion by June 2024
- Detailed Design of:
 - Pumping/Lift Station
 - Trunk Sewers
- Construction of:
 - Pumping/Lift Station
 - Trunk Sewer
- Goal: Operational Sewer Outlet by Jan 2027



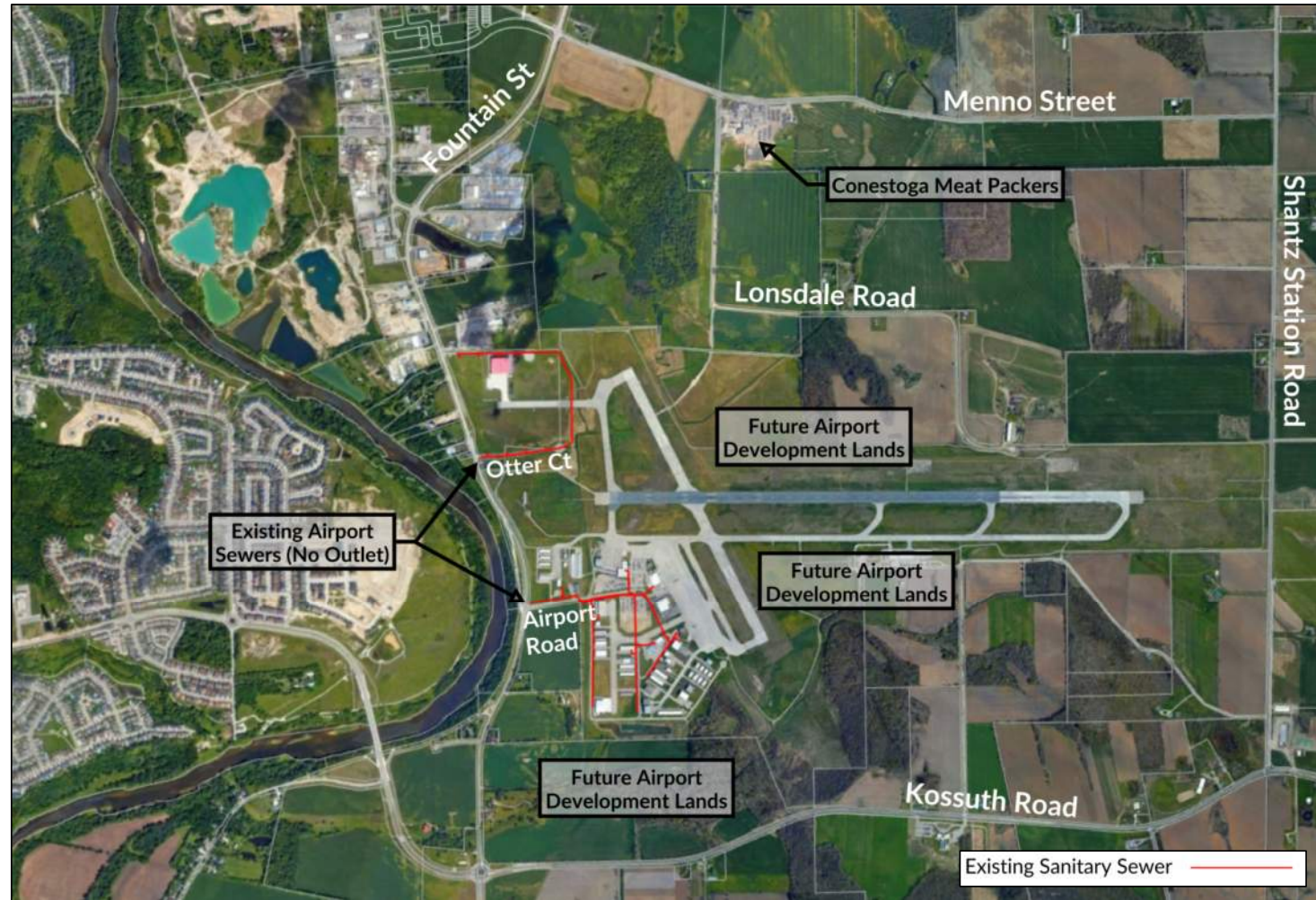
Existing Sanitary Infrastructure

Existing Breslau is serviced by the City of Kitchener's Victoria Street Sanitary Pumping Station (Max. Allowable Flow = 189 L/s)



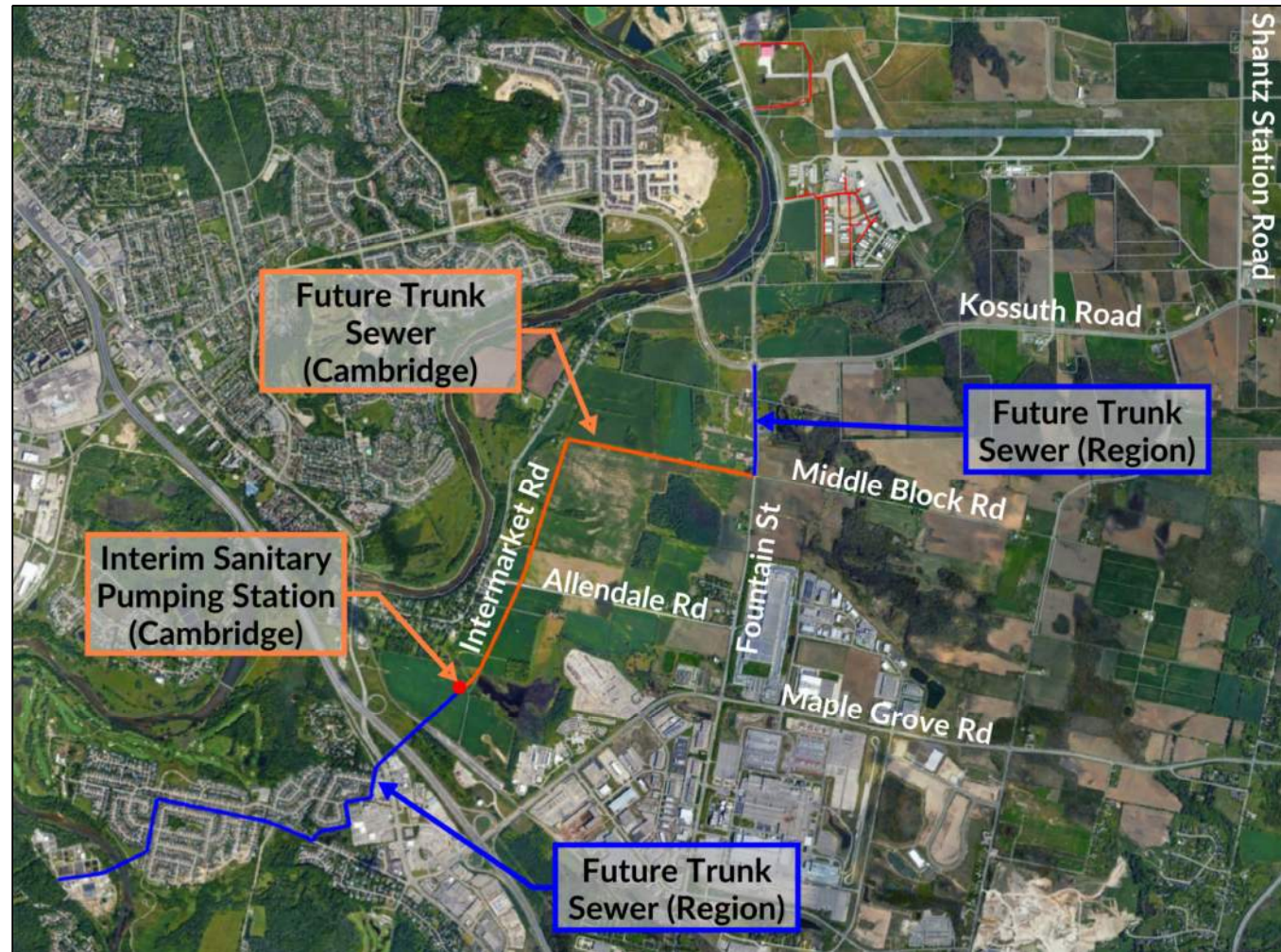
Existing Sanitary Infrastructure

Conestoga Meats and the Regional Airport lands require immediate servicing upgrades to accommodate current and future planned expansions.

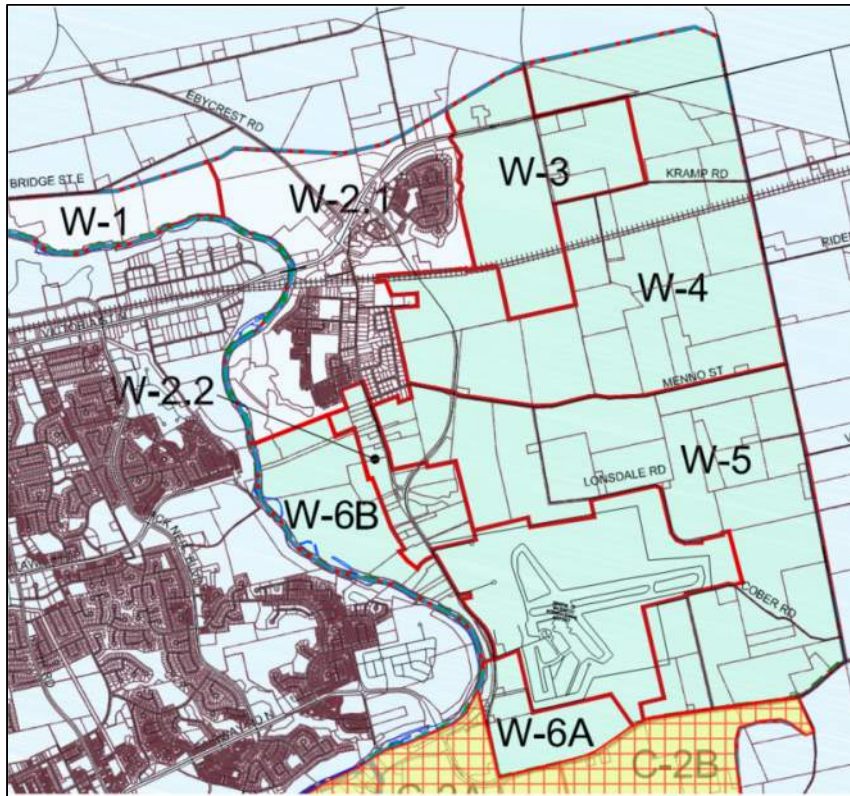


Planned Downstream Sewer Outlet

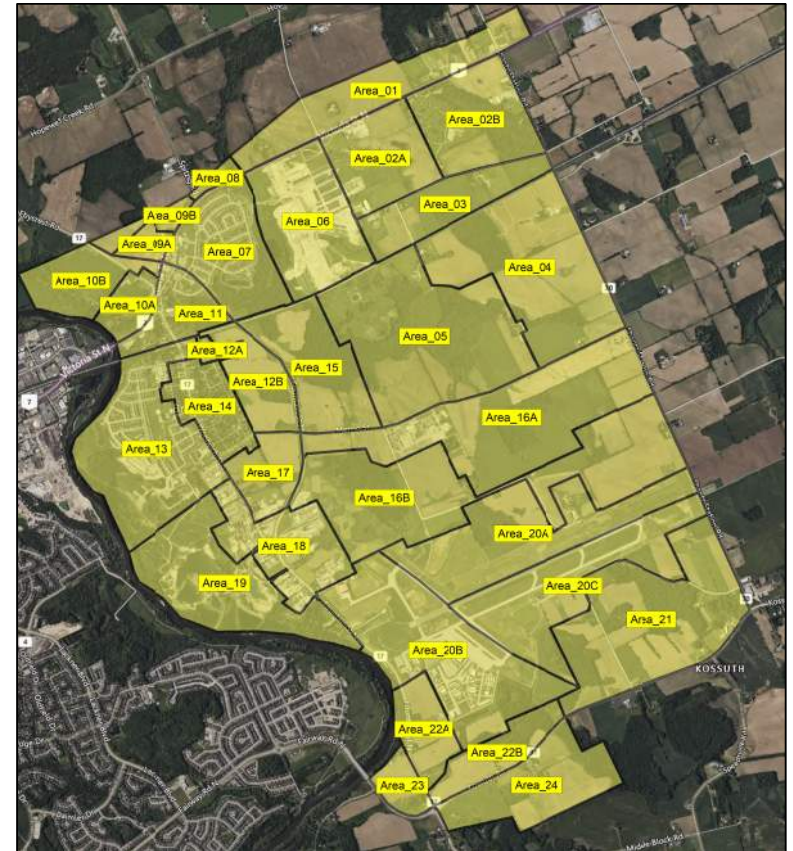
Future trunk sewers downstream of Woolwich are being constructed by the Region of Waterloo and the City of Cambridge



Sanitary Drainage Areas & Flow Rates



Coarse Sanitary Drainage Areas
from the 2018 Sanitary Servicing EA

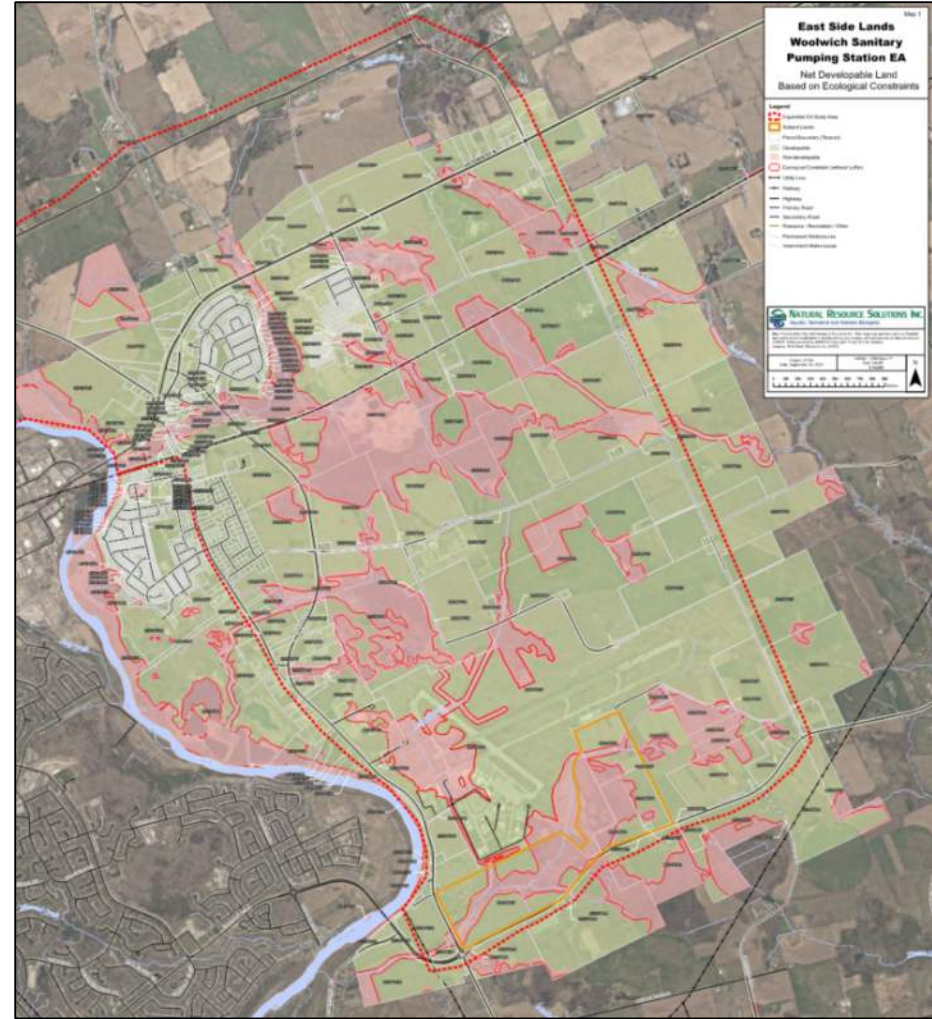


Refined Drainage Areas for Current
EA's Sanitary Assessment

Sanitary Drainage Areas & Flow Rates

Detailed analysis of existing land uses and property ownership.

Exclusion of **Environmental Constraint areas** to determine **“Net Developable Areas”** to be used to calculate design flow rates.



Sanitary Drainage Areas & Flow Rates

Future sanitary servicing infrastructure such as sewers and/or pumping stations will be defined in part by the design flow rate(s) throughout the system.

Design Flow Rates will be calculated based on “*Equivalent Population*” approach, using assumed population densities for residential and non-residential land uses.

Delineation of flows from each sanitary catchment area is used to assist with modeling and development scenarios.



Assumed Future Sewer Network

Ultimately and as lands develop over time, the existing roads will be upgraded and will typically include new sanitary sewers. Some new roads have been assumed based on net developable areas (to be confirmed or adjusted by future planning studies).

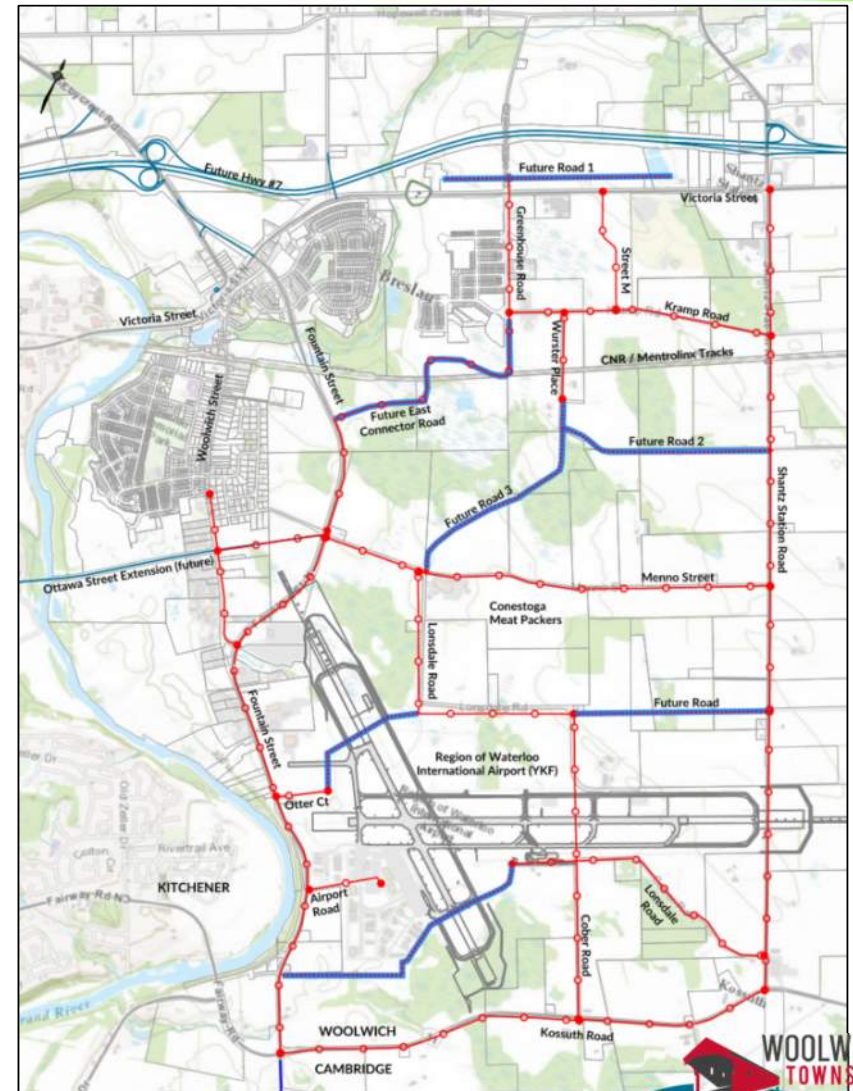
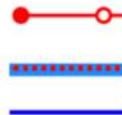
A focus of this EA study is to determine the alignment for ultimate “Trunk” Sewer(s).

Legend

Anticipated Future Sanitary Sewer
(On Ex. Road)

Possible Future Sanitary Sewer
(On Possible Future Road)

Planned Trunk Sanitary Sewer (RMW)

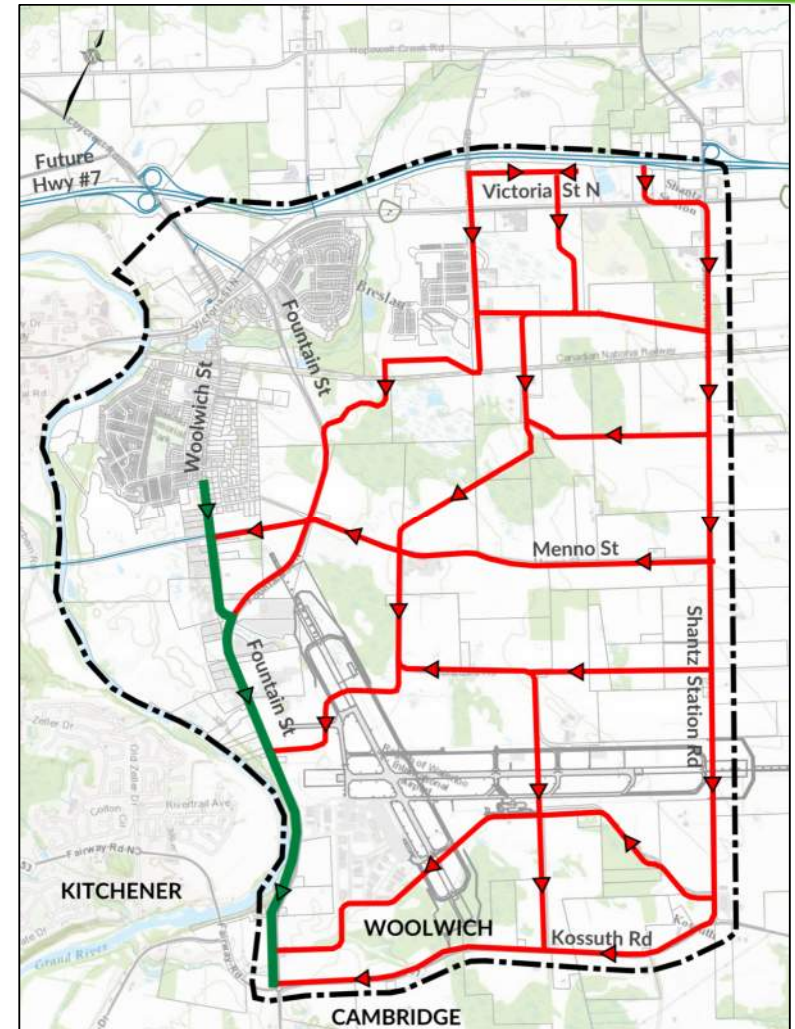


Trunk Sewer Alternative #1

Extending from existing Breslau down Woolwich Street to Fountain Street, and then along Fountain to Kossuth.

Local Sewers running south + west

Legend:
Study Area Boundary ———
Trunk Sewer Alt #1 ———
Future Local Sewer ———



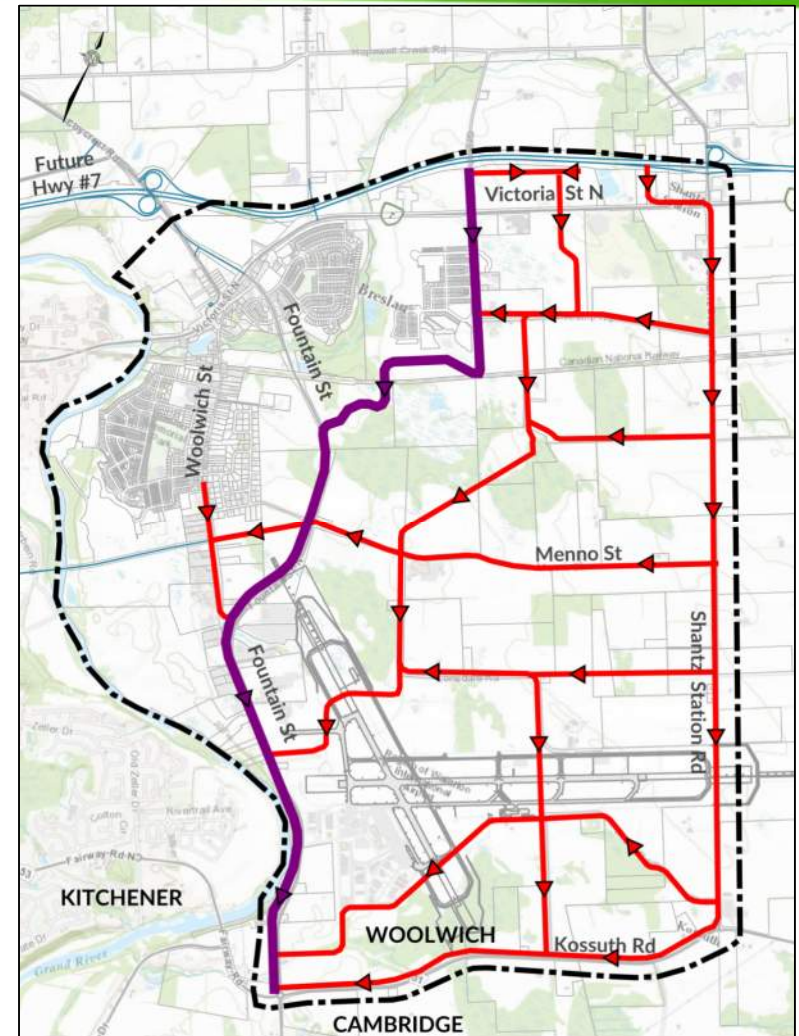
Trunk Sewer Alternative #2

Extending from future development lands north of Victoria, along Greenhouse Road and the future East Connector Road to Fountain Street, then along Fountain to Kossuth.

Local Sewers running south + west

Legend:

- Study Area Boundary ———
- Trunk Sewer Alt #2 ———
- Future Local Sewer ———



Trunk Sewer Alternative #3

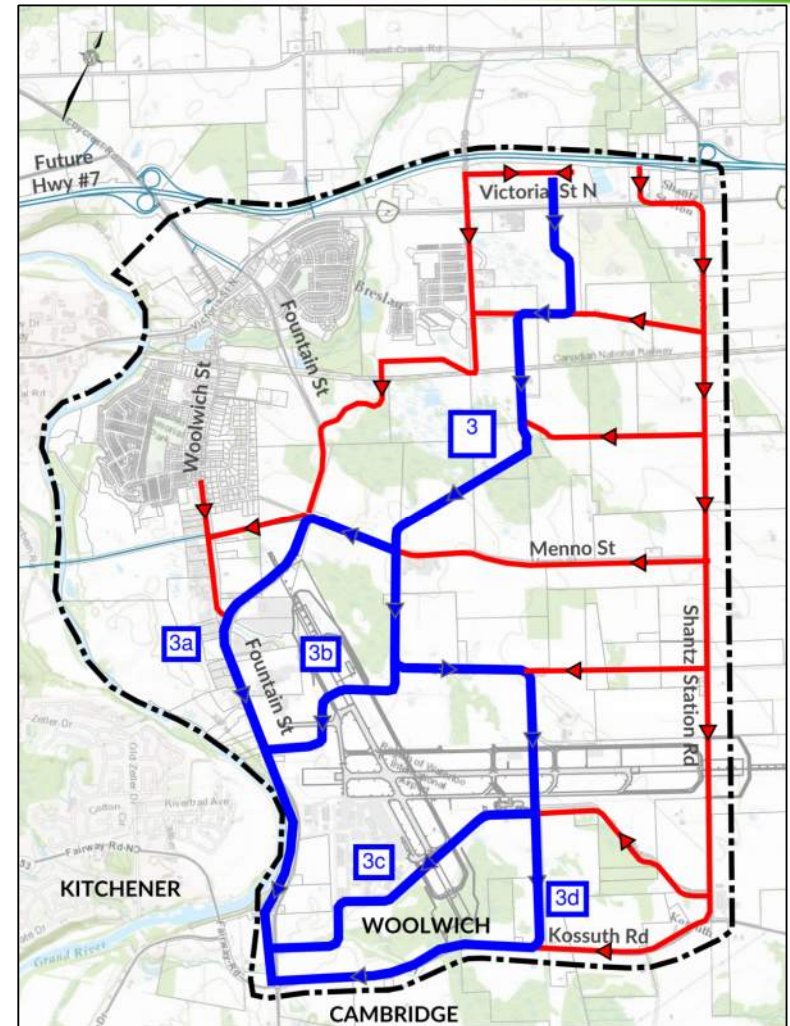
Extending from future development lands north of Victoria, along future Street 'M' and Kramp Road, along Wurster Place and an assumed road extension to Menno Street at Lonsdale Drive. From there, following one of four alternate alignments:

- 3a - Menno to Fountain to Kossuth
- 3b - Lonsdale south to the bend, west across the airport lands and along Otter Court to Fountain, and along Fountain to Kossuth
- 3c - Lonsdale south to the extension of Cober Road, across the airport / runway to New Germany Lane, across the airport developed area to Fountain, and then to Fountain at Kossuth.
- 3d - Lonsdale south to the extension of Cober Road, across the airport / runway to Kossuth Road and along Kossuth Road to Fountain

Local Sewers running south + west

Legend:

- Study Area Boundary
- Trunk Sewer Alt #3
- Future Local Sewer



Trunk Sewer Alternative #4

Extending from future development lands north of Victoria, southerly along Shantz Station Road to one of five alternate alignments:

- 4a - Menno to Fountain to Kossuth
- 4b - Menno to Lonsdale south to the bend, west across the airport lands and along Otter Court to Fountain, and along Fountain to Kossuth
- 4c - Menno to Lonsdale south to the extension of Cober Road, across the airport / runway to New Germany Lane, across the airport developed area to Fountain, and then to Fountain at Kossuth.
- 4d - Lonsdale south to the extension of Cober Road, across the airport / runway to Kossuth Road and along Kossuth Road to Fountain
- 4e - southerly along Shantz Station Road to Kossuth, and Kossuth to Fountain

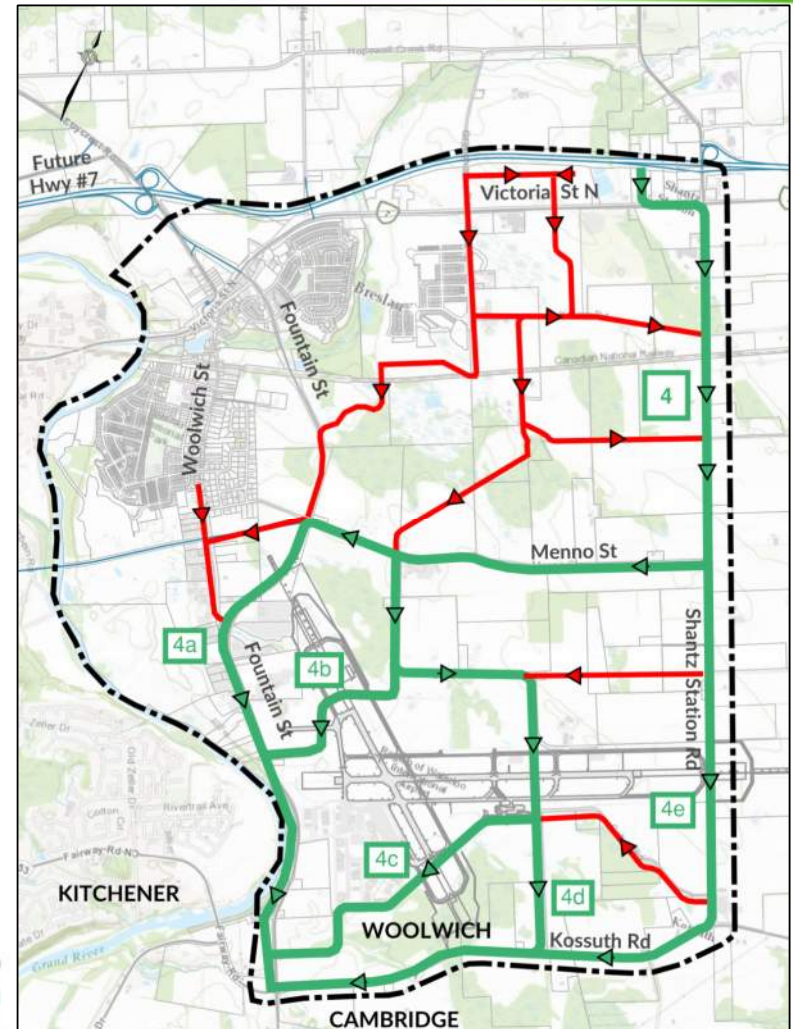
Local Sewers running south + east & west

Legend:

Study Area Boundary

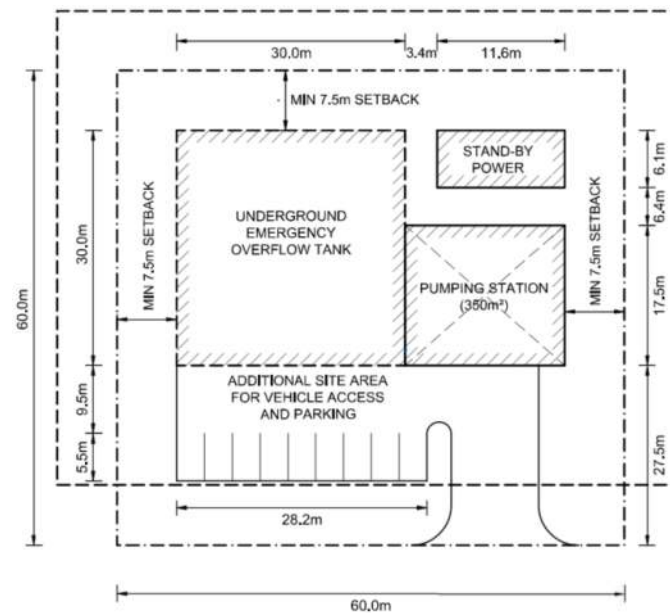
Trunk Sewer Alt #4

Future Local Sewer

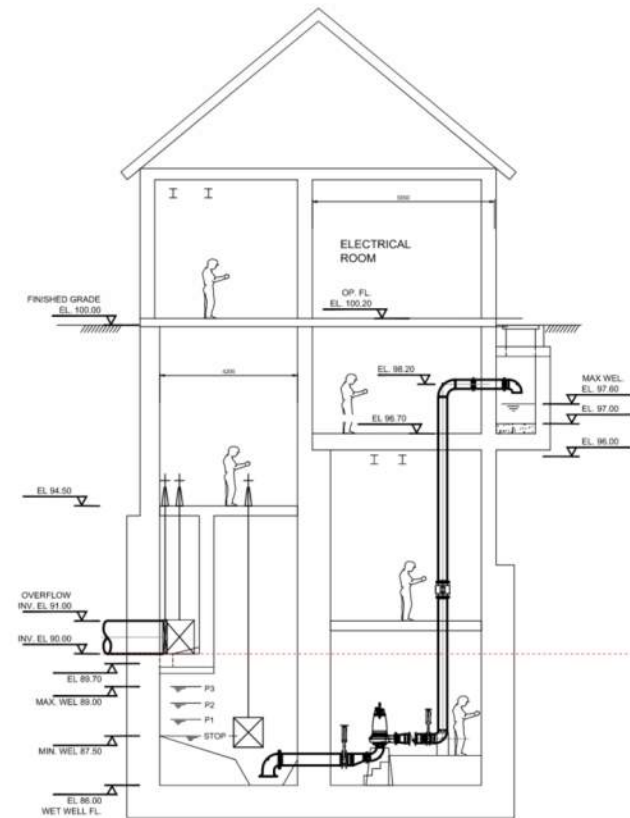


Preliminary Pumping Station Sizing & Layout

- Assumed Design Flow Rate: +/- 500 L/s
- Assumed Influent Sewer Depth: +/- 10m



Plan View



Cross-Section

Alternative Pumping Station Locations

Recognizing that all upstream sewer flows will eventually converge at the Fountain / Kossuth intersection, a 'long list' alternative locations for the Pumping Station site is being considered.

Once a preferred trunk sewer alignment is confirmed, a 'short list' of Pumping Station Sites will be identified for further evaluation.

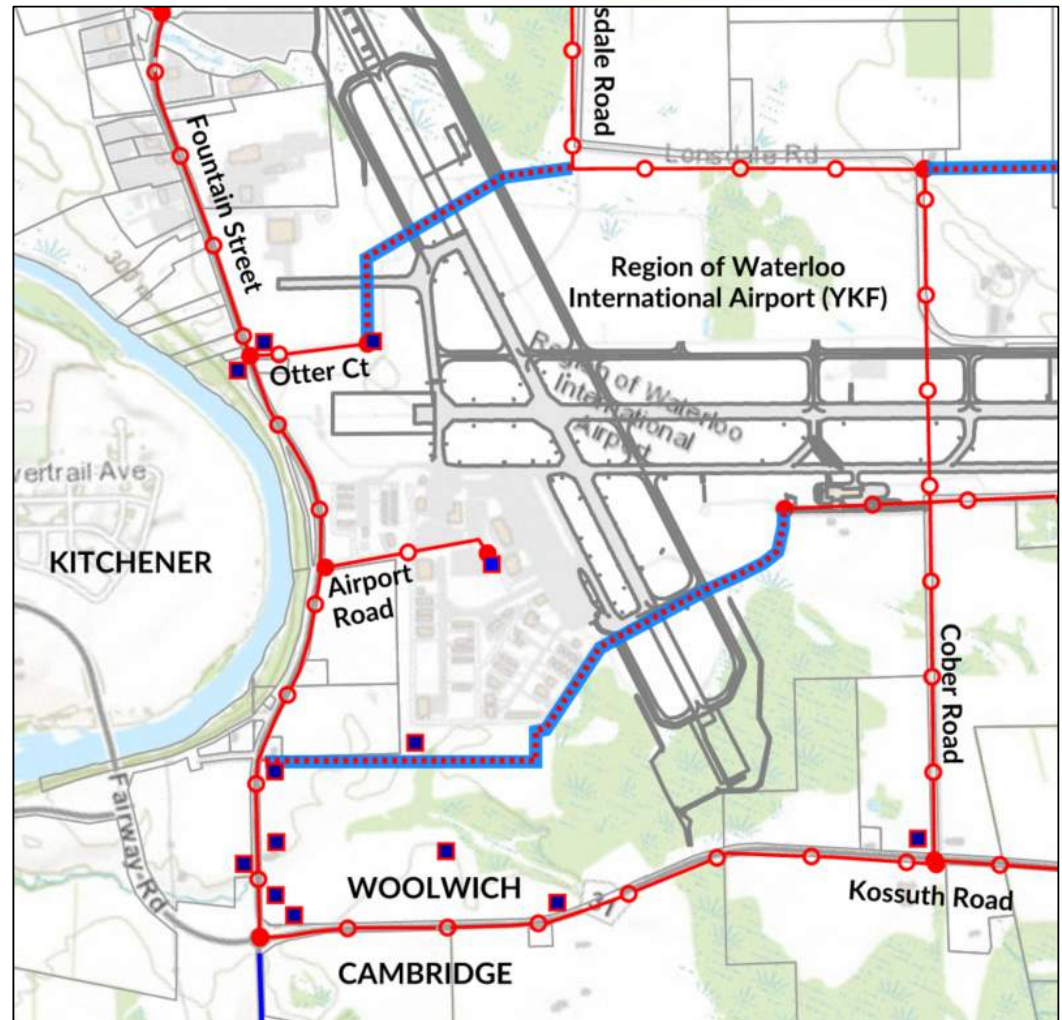
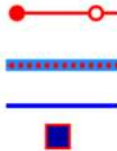
Legend

Anticipated Future Sanitary Sewer
(On Ex. Road)

Possible Future Sanitary Sewer
(On Possible Future Road)

Planned Trunk Sanitary Sewer (RMW)

Potential Pumping Station Site



Evaluation of Alternatives

Proposed Evaluation Criteria:

Social, Natural, Technical & Economic Environments

Key Decision Drivers:

1. Life Cycle Cost – Capital Cost for construction + long term Operations & Maintenance (O&M)
2. Opportunity Cost – Ability to service key land areas for strategic developments in the East Side Lands

Next Steps:

- Consultation with Public, Agencies and Indigenous groups
- Comprehensive analysis of Alternative Trunk Sewer alignments (PCSWMM model)
- Detailed Evaluation & Costing of Alternatives
- Preliminary identification of a possible preferred solution
- Public Consultation #2
- Complete EA study & Council Adoption (June 2024)



**East Side Lands:
Woolwich Sanitary Servicing
Class Environmental Assessment**

Thank You

Public Consultation #1

March 13, 2024

Please Submit Your Comments

**Please provide your comments and contact
information via the EngageWR website.**

