

Mewburn Road Pumping Station Upgrade



*Public Information Centre
November 28, 2019*

Welcome

Mewburn Road Sewage Pumping Station Class Environmental Assessment

Public Information Centre
November 28, 2019
5:00 pm to 8:00 pm

- ✓ Your feedback is important to us. Please sign the attendance sheet and fill out the Comment Sheet provided.
- ✓ Niagara Region staff and consultants from Jacobs are available to answer your questions.

Mewburn Road Sewage Pumping Station

Study Purpose

Niagara Region has undertaken a Schedule B Municipal Class Environmental Assessment (EA) to review alternatives to upgrade the Mewburn Road Sewage Pumping Station (SPS), which was built in 1988.

Problem Statement

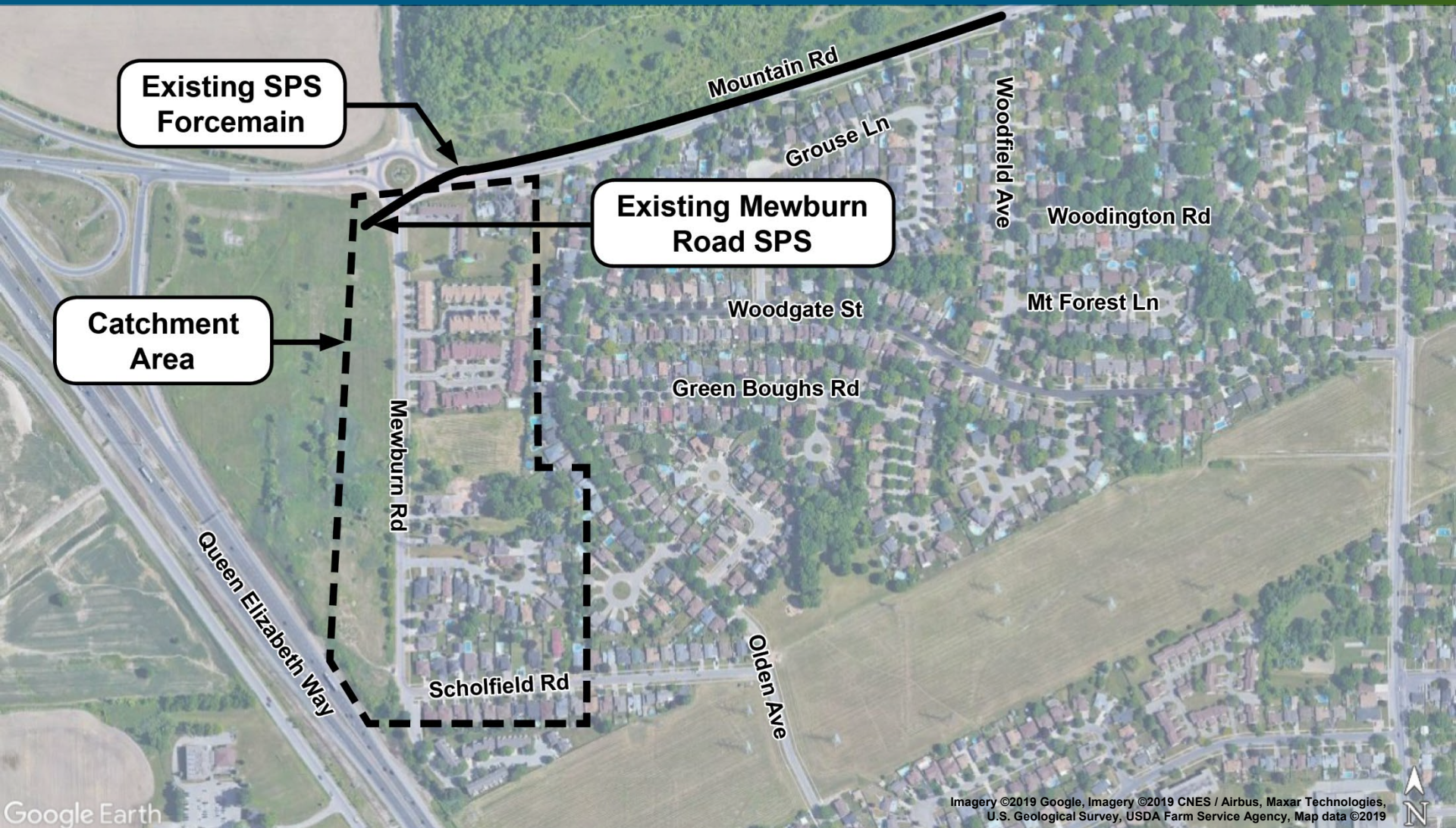
Recent inspections show that the Mewburn Road SPS is aging and in need of major repair or replacement to ensure it can continue to properly service the City. In addition the current location is not owned by the Region, therefore alternative locations or properties for the upgraded SPS needed to be considered.

Project Objectives

The Project will define the current and future needs and preferred locations for an upgraded Mewburn Road SPS. This study will complete a Schedule B Municipal Class EA and prepare the design for the upgrade of the Mewburn Road SPS for the new pumping station which will meet the needs outlined in the Region's Water and Wastewater Master Plan. The current capacity of the pumping station is expected to be adequate for 25 years or more, so the design will be focused on upgrades to the station.

- The study will follow the guidance outlined in the Municipal Class EA document (as amended in 2007, 2011, and 2015).

Project Location



Google Earth

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Background

Mewburn Road SPS:

- Located near Mountain Road and Mewburn Road, south of the roundabout intersection.
- Built in 1988, the existing SPS includes one wet well, two submersible pumps rated at 20.8 L/s as well as a control panel and standby generator.
- Due to the age and condition, major upgrades are required.
- There is also an opportunity to relocate the SPS for land ownership purposes.

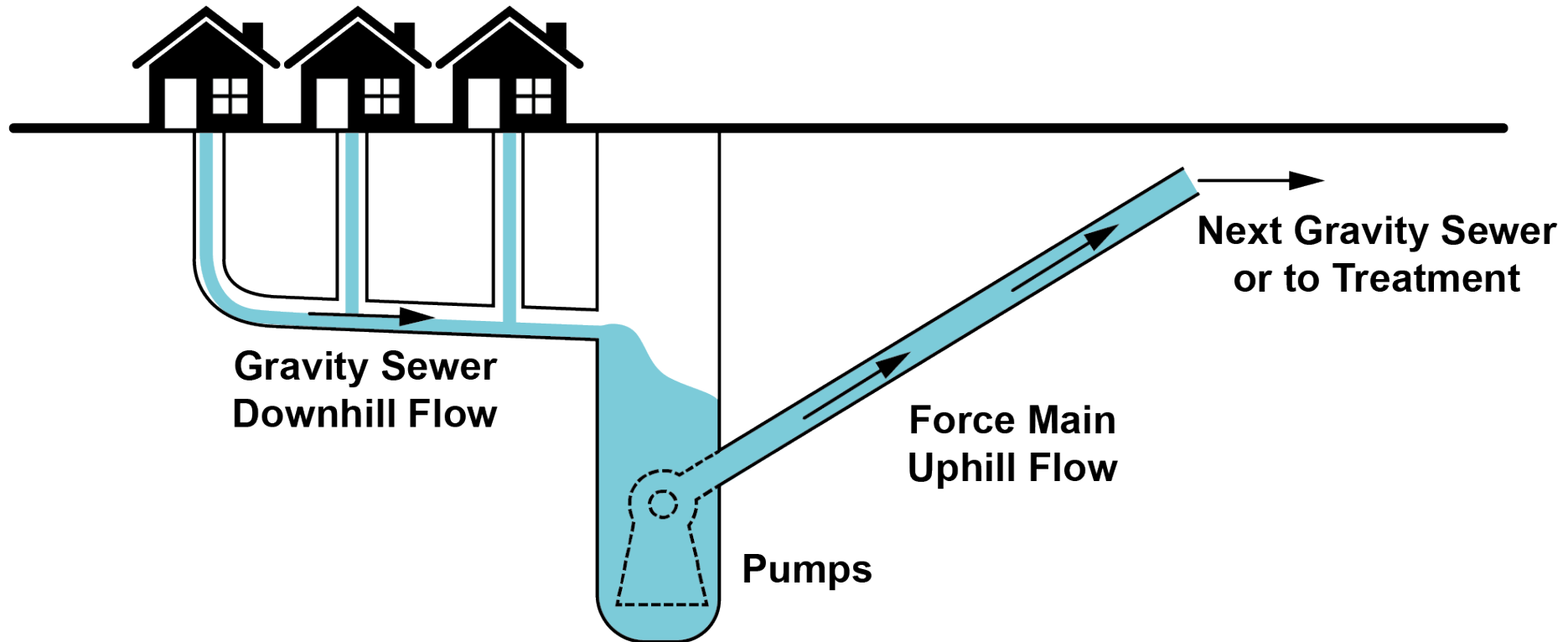
Upgrades Needed

- Catchment area of approximately 15 ha
- Submersible pumping station (2+ pumps)
- Valve chamber for valves and flow meter
- Control panel and shelter
- Standby power



Example Shelter for Electrical Panel

Typical Components and Operation of Sewage Pumping Station



Class Environmental Assessment Process

The Schedule B study will follow the Municipal Class EA process to meet, at a minimum, Phases 1 and 2 of the process:



Phase 1

- Identify the problem or opportunity; Notice of Commencement



Phase 2 – We are Here

- Identify and Assess Alternative solutions
- Consult with Public, Agencies, Indigenous communities, and other stakeholders
- Select a preferred solution based on evaluation criteria and identify proposed timing for implementation
- Public Consultation ← **We are here**



Project File Report

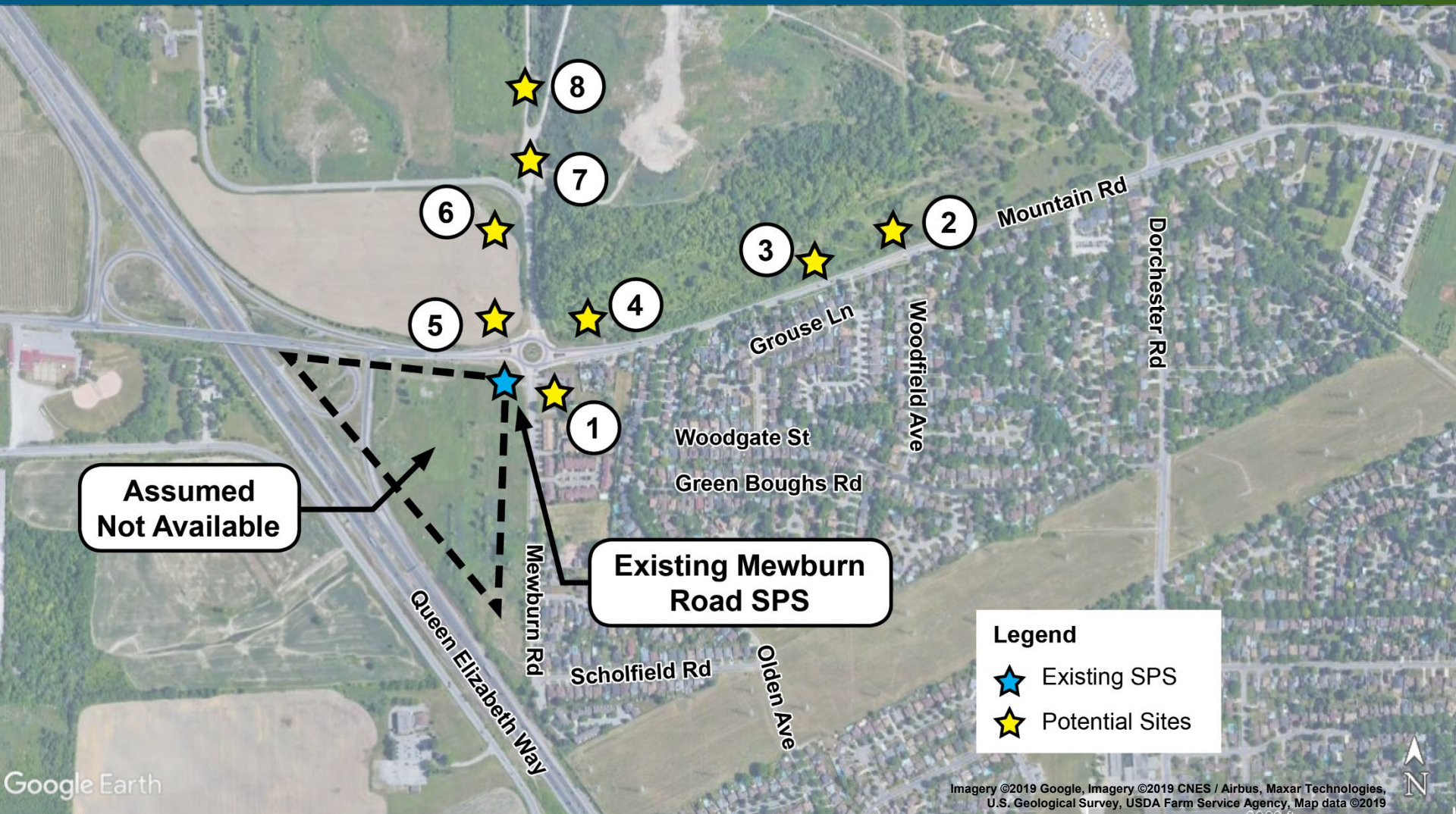
- Prepare Project File Report documenting Phases 1-2 for public review



Implementation

- Conceptual design of preferred solution
- Implement the preferred solution

Long List of Alternative Locations



Long-List Review Criteria

- The following screening criteria were considered for the long list of alternative locations for the SPS.
- Locations with favourable characteristics relating to these criteria were then shortlisted for further evaluation.

Criteria	Description
Distance from existing SPS	Ease of connection to existing sanitary sewers, generally preferred to be within a 500 m radius of existing SPS
Site Elevation	Ease of connection to existing sanitary sewer inverts, wet well depth. Lower elevation allows for easier connection and shallower wet well.
Land Availability	Ease of land acquisition, private land maybe difficult to obtain, Regionally-owned preferred

Long-List Evaluation Results

The following table outlines the evaluation for all locations:

Site	Main Factor	Distance from Existing SPS	Site Elevation	Land Availability	Shortlisted
1	Private Land	100 m	Similar to existing	Private land	No
2	Distance	700 m	Higher than existing	Regional land	No
3	Acceptable	500 m	Higher than existing	Regional land	Yes
4	Busy Location	200 m	Higher than existing	Regional land	No
5	Busy Location	400 m	Similar to existing	Private land	No
6	Acceptable	275 m	Lower than existing	Private land	Yes
7	Acceptable	320 m	Lower than existing	Regional land	Yes
8	No Benefit over Site 7	400 m	Lower than existing	Regional land	No

Short-Listed Evaluation

The Alternative Solutions were evaluated using the Class EA categories respecting the following categories and criteria:

- Each category received a weighting relative to its importance to this project. A high score indicates good performance and a low score indicates poor performance relating to the criteria

Technical (31% of Score):

- Operations Health and Safety
- Constructability
- Integration into the Current System
- Flexibility
- Energy Efficiency

Social/Cultural (27% of Score):

- Odour Control
- Public Health and Safety
- Public Acceptability
- Noise Impact
- Impact on Surrounding Land Uses
- Ease of Land Acquisition

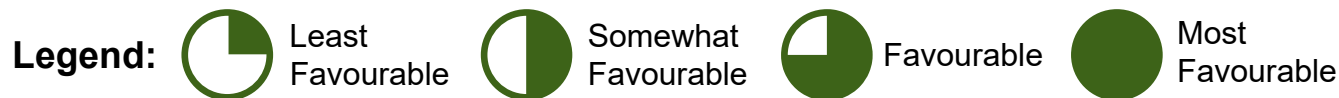
Economic (33% of Score):

- Capital Cost
- Cost of Land Acquisition
- Operations and Maintenance Costs
- Life Cycle Costs

Environmental (9% of Score):

- Terrestrial Systems
- Water Quality and Aquatic Systems
- Groundwater

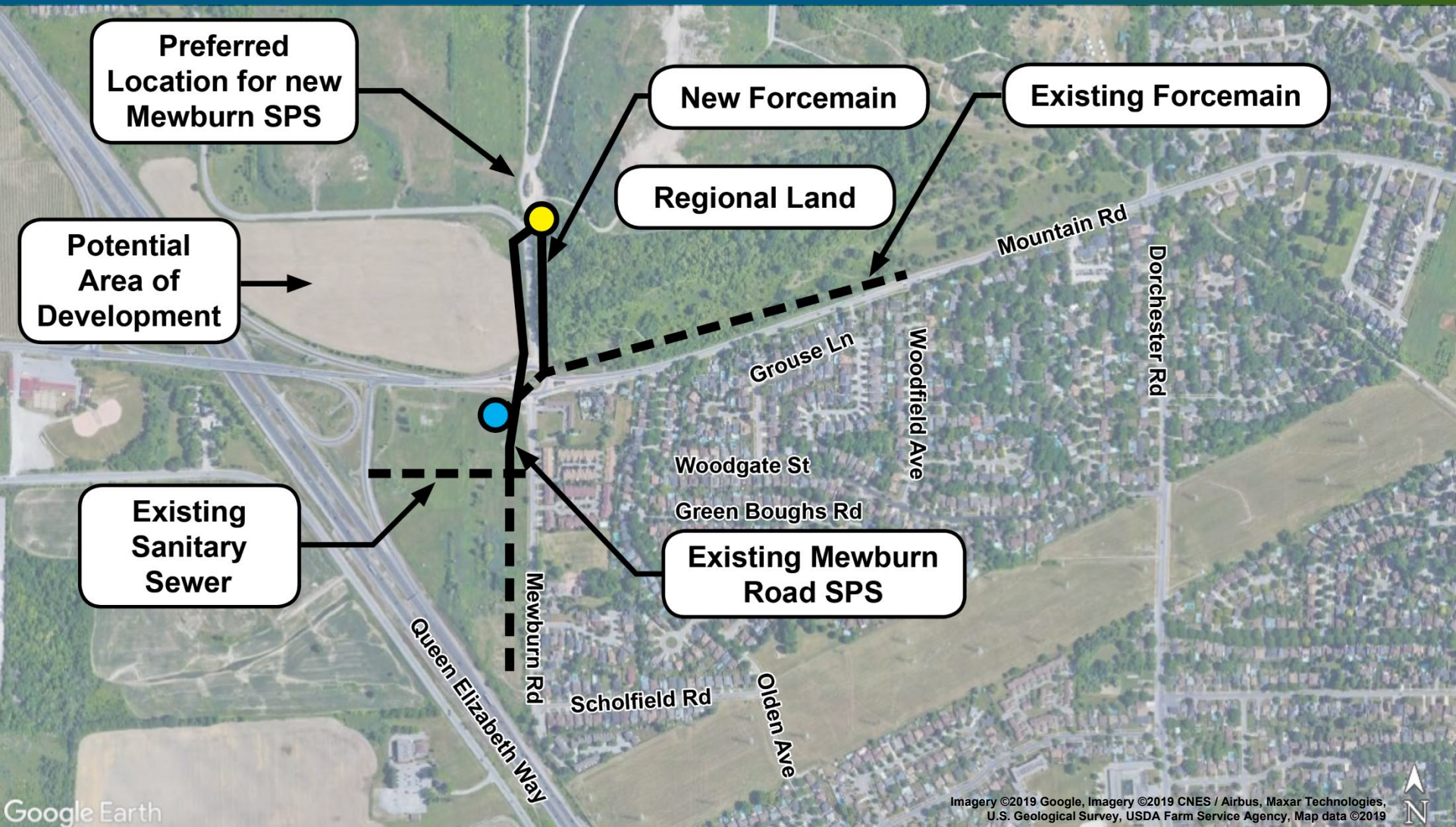
Short-Listed Evaluation Scoring



Preferred Location

Category	Location 3		Location 6		Location 7	
	Description	Score	Description	Score	Description	Score
Technical	- Access and lay down area difficult or limited - Higher elevation		- Access and less busy road - Lower elevation		- Access and less busy road - Lower elevation	
Social	- Close to existing residences - Busy road		- Remote to existing residences - Private land		- Remote to existing residences - Regional property	
Environmental	- Some vegetation could be impacted - Developed area		- Undeveloped area - Open field with potential wetlands north of location		Undeveloped but already impacted site	
Economic	- Deep wet well, shortest forcemain - Lowest capital cost		- Longer forcemain - Land acquisition required		- Longest forcemain - Higher capital cost	

Preferred Location for New Mewburn Road SPS and Connections



Google Earth

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Thank You

Thank you for your interest in the Mewburn Road SPS EA

Next Steps:

- Complete the Class EA
- Implement Mewburn Road SPS Upgrade (Design and Construction)

Public and agency consultation is a key component of the Class EA process, and we value your input. Please fill out the Comment Sheet provided.

If you have any questions or concerns about this study, please feel free to contact any member of the Project team, including:

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