



Long Point Road Sanitary Sewer and Craigleith Wastewater Treatment Plant Upgrades Municipal Class EA

Public Information Centre No. 2

January 26, 2023

PRESENTATION OUTLINE

Background

Problem Identification

Alternative Identification

Complementary Investigations

Alternative Evaluation

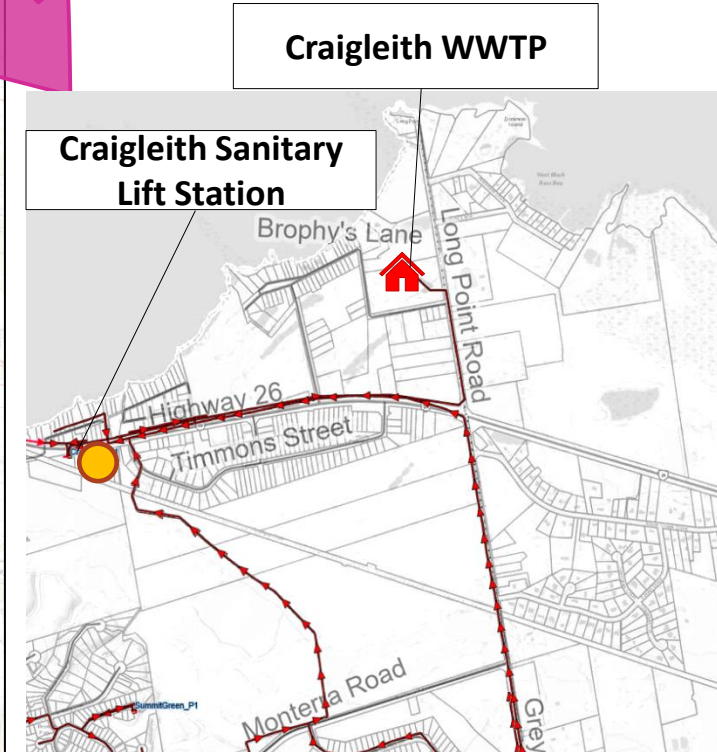
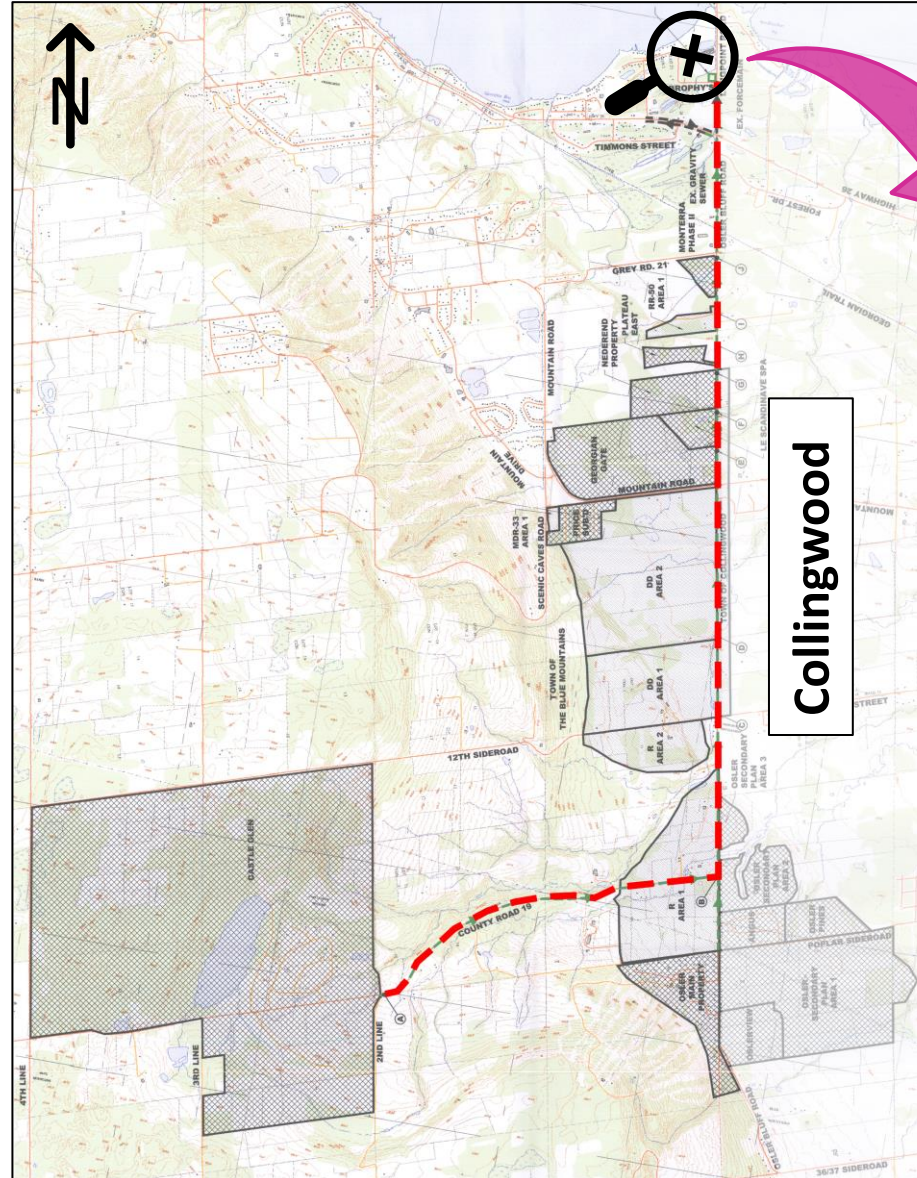
Preferred Alternative

Next Steps

Questions

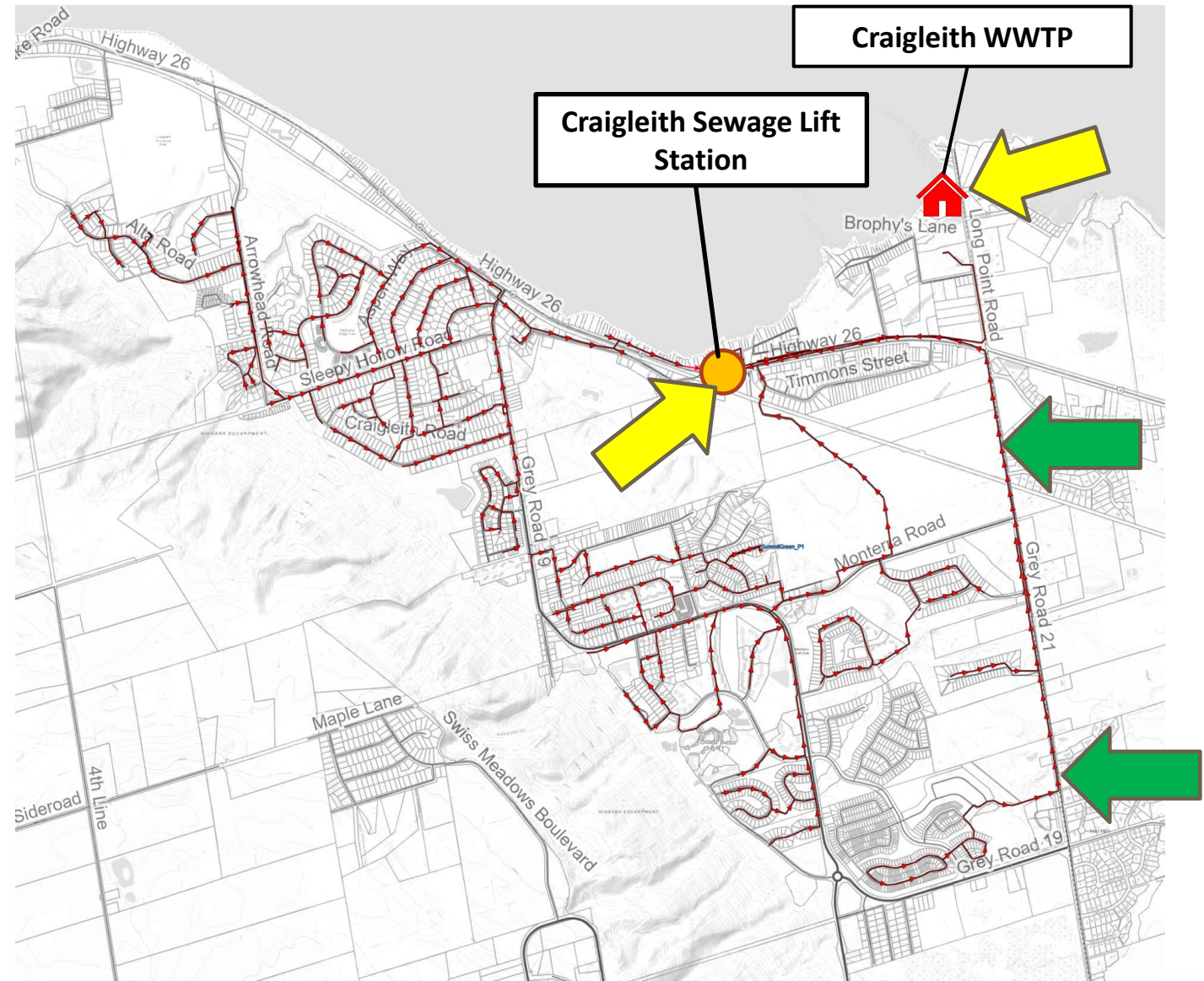
BACKGROUND: CURRENT OPERATION

- Sanitary Sewer on County Road 21 discharges to Craigleith Sanitary Lift Station via gravity sewer.
- Land bordering Grey 21 is currently connected to just north of Grey 19.
- Additional planned/implemented projects including Price's Development Sanitary Servicing Extension
- Future expansion potential up to Castle Glen development and Osler area.



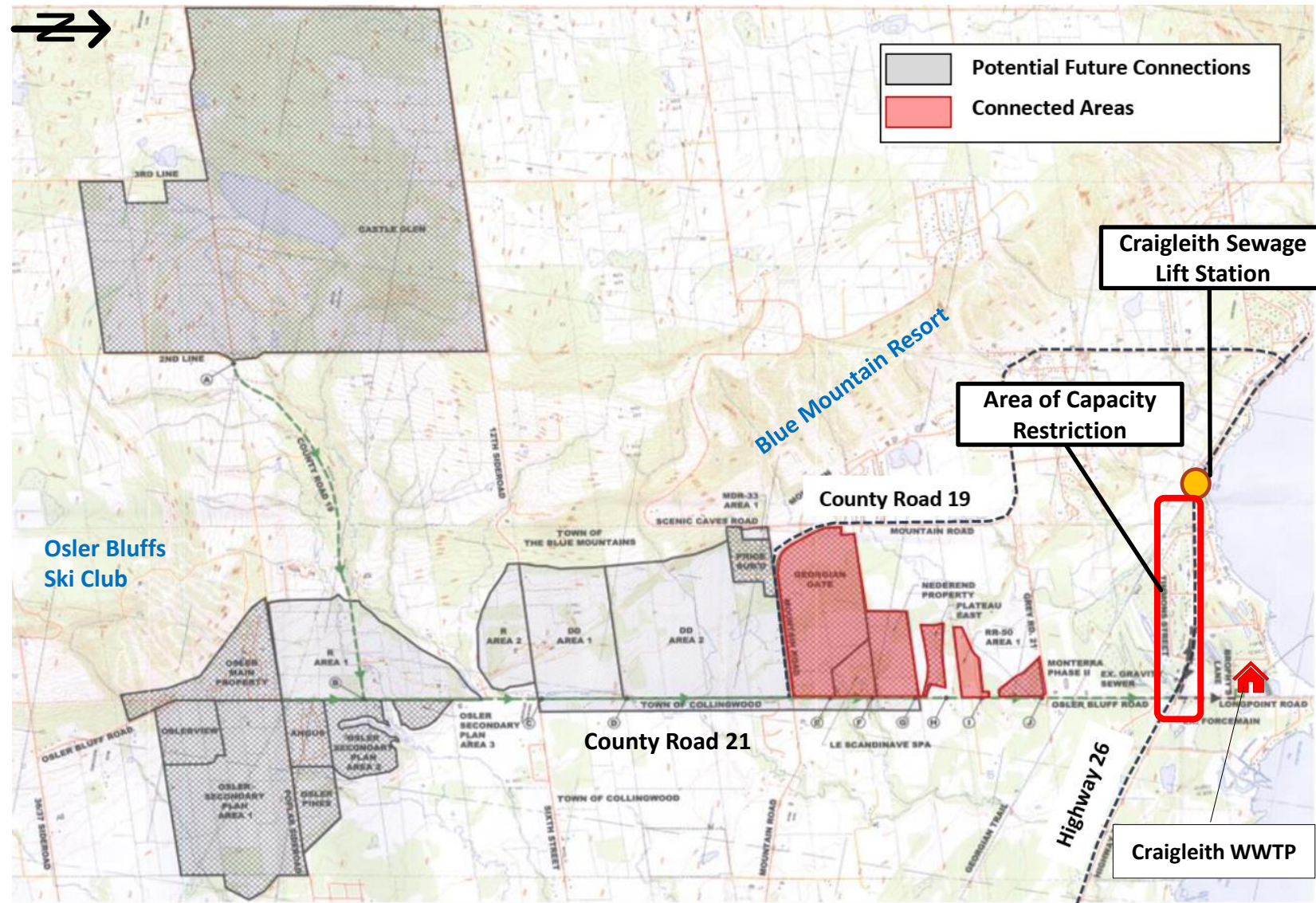
BACKGROUND: SANITARY SEWER OPERATION

- 450mm existing sewer begins near County Road 19 and increases to a 525mm sewer on Grey Road 21 to Hwy 26.
- 300 mm sanitary sewer extends west to the existing Craigleith Sewage Lift Station.
- Craigleith Sewage Lift Station pumps wastewater to the Craigleith WWTP via dual force mains.
- Craigleith Main Lift Station includes an exterior septage and leachate receiving station.



BACKGROUND: SERVICE AREA – GREY 21 SANITARY TRUNK SEWER

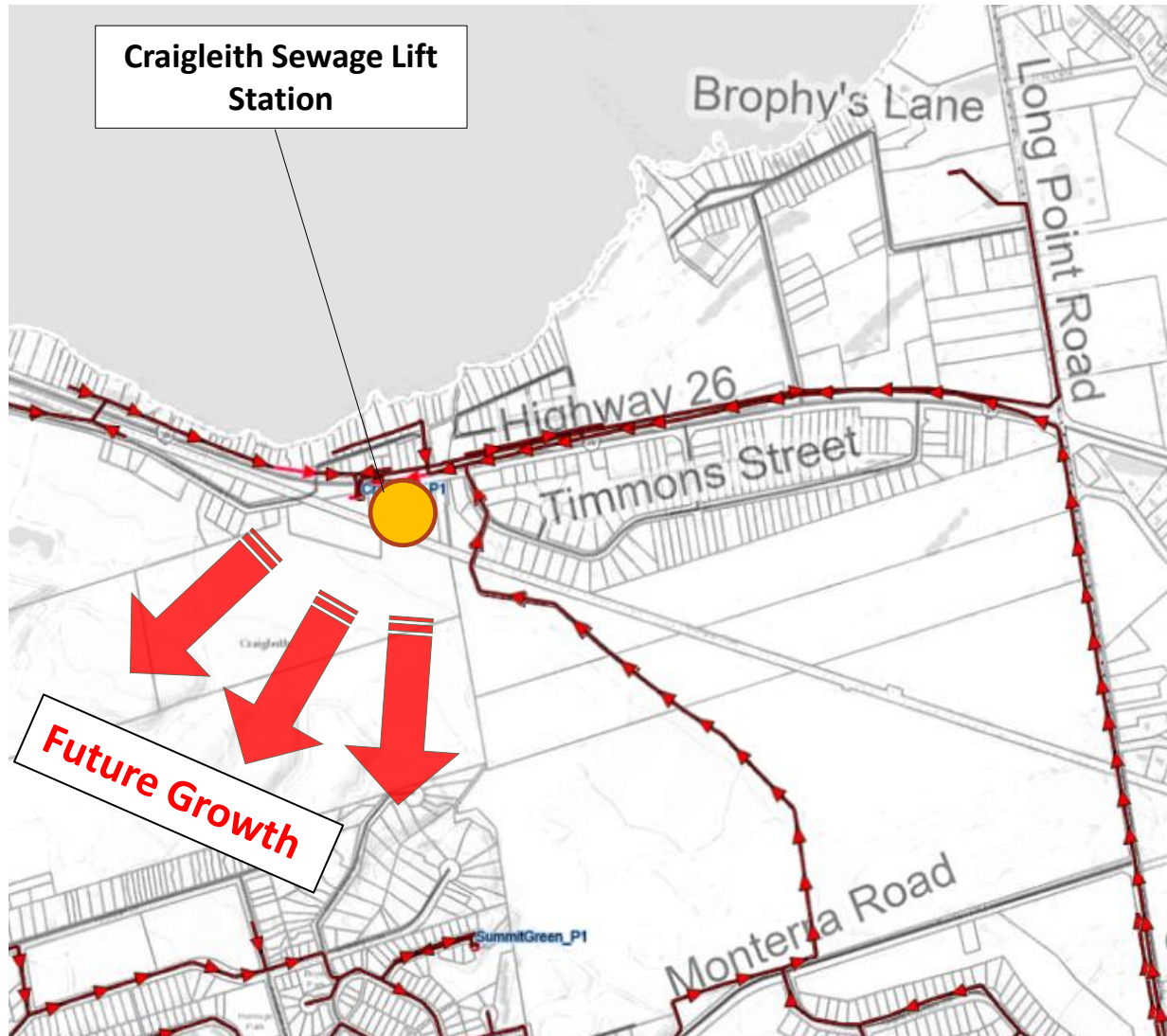
- Currently services 417 units with design flow of 19 L/s
- Near-term identified development increase this to 871 units with a design flow of 45 L/s.
- Opportunities for servicing unserved areas within Collingwood along Grey 21.
- Existing Trunk Sewer on Grey 21 has capacity for 260 L/s.
- Connection between Grey 21 and Craigleith Sanitary Pumping Station (Lakeshore Rd) has capacity of 45.4 L/s, but other development demands limit future capacity at Craigleith SPS



PRUDENT PREPARATION FOR PROJECTED GROWTH

- 2022 Official Plan Review identifies 6,750 new residents in 3,590 new households in the Town by 2046.
- Currently over 4,500 units in the Town's development pipeline.
- Craigleith, Blue Mountain Village, Swiss Meadows plus Castle Glen continue to be the focus of future development.
- All of these developments with the exception of Swiss Meadows will drain to the Craigleith System.
- Some developments are in progress and will be complete before this project can be implemented.
- Major Development Timeline (Subject to Approvals and Economic Conditions)
 - Castle Glen 5-10 years
 - Ostler Bluffs 10 – 15 years

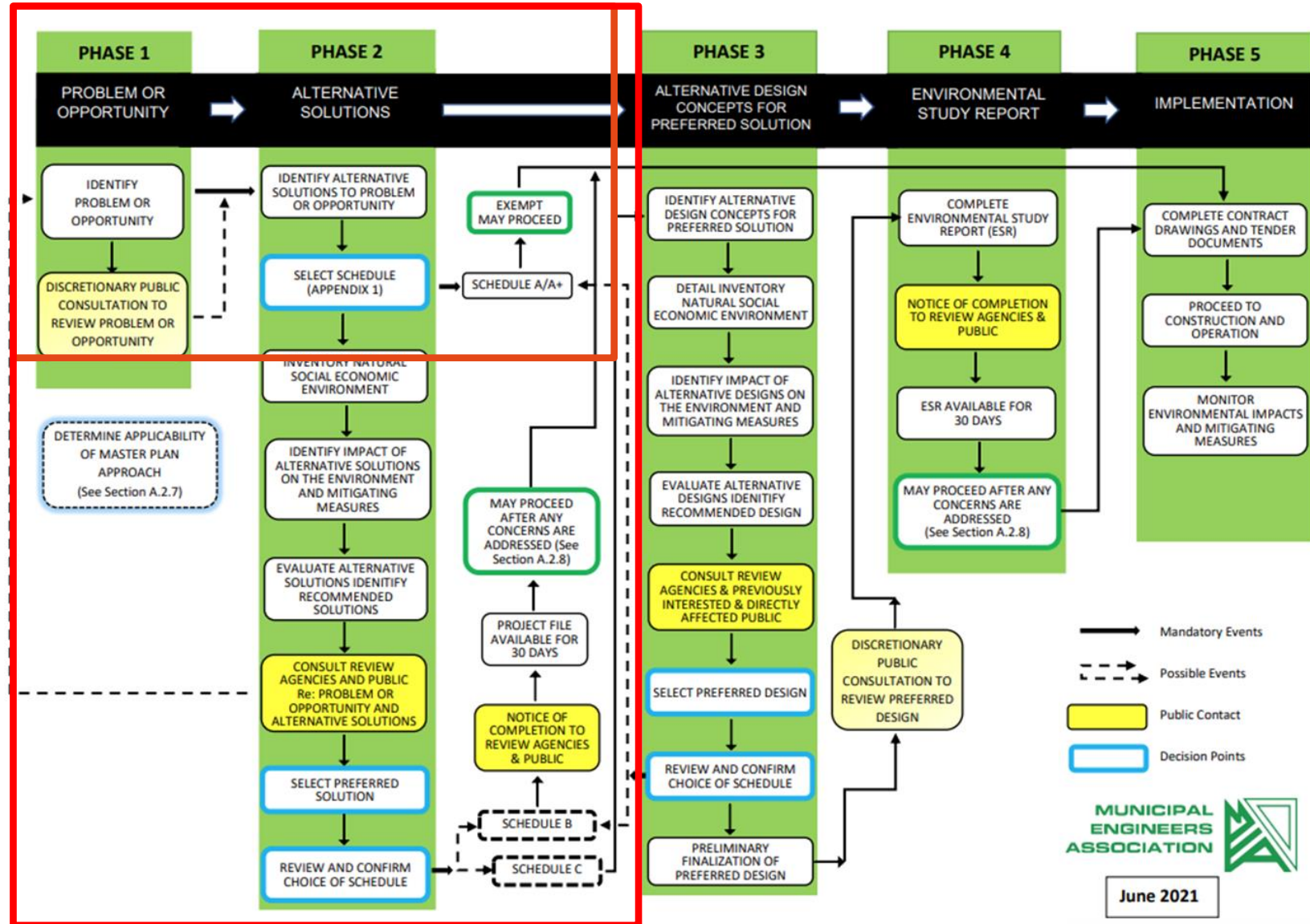
PROBLEM IDENTIFICATION – CRAIGLEITH PUMPING STATION



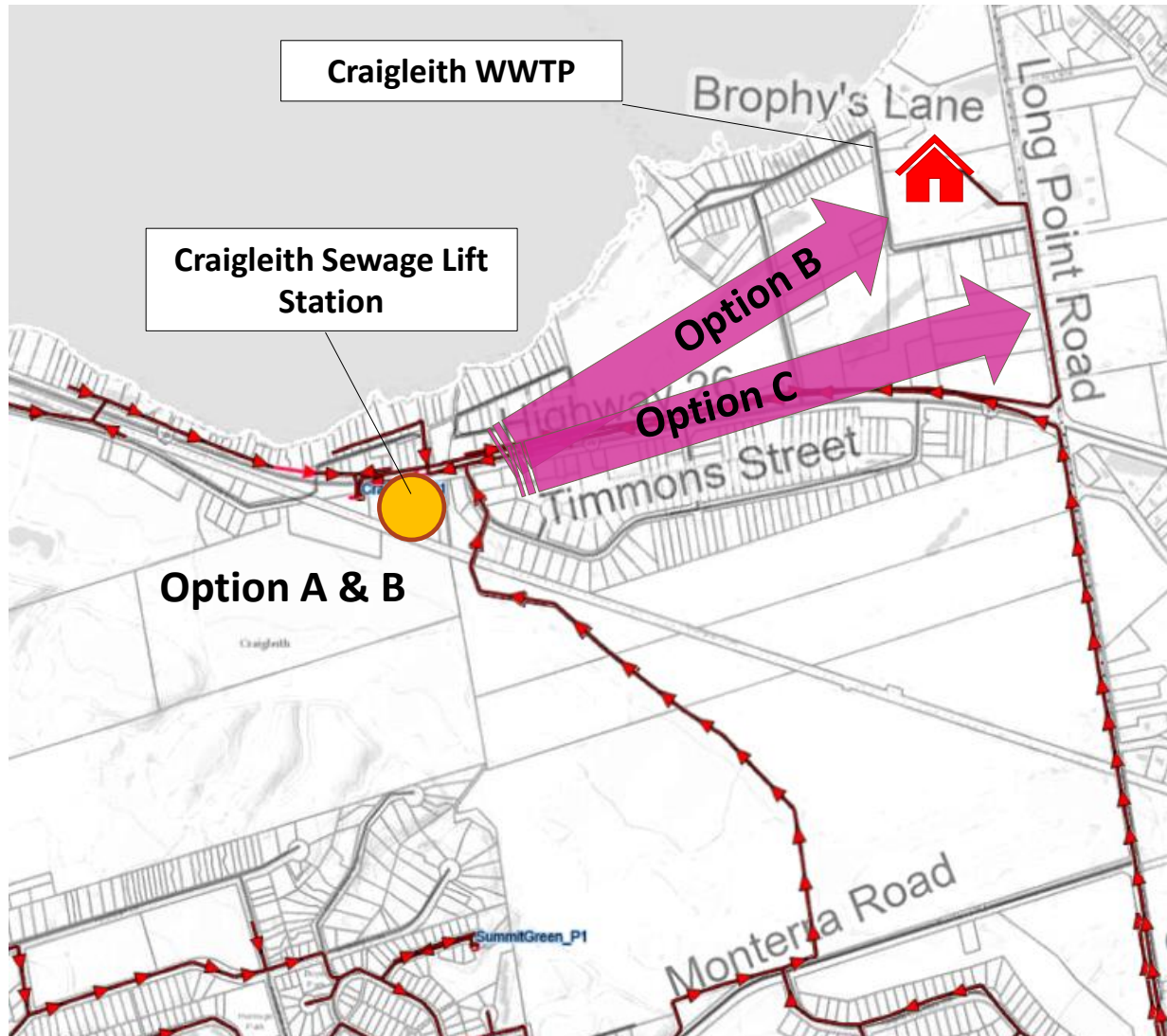
- Existing lift station was not intended to convey Grey 21 sanitary flow permanently.
- Growth pressures require additional capacity both from Grey 21 and other contributors to Craigleith SPS.
- Operational Challenges and Proximity of neighbours and development do not lend themselves to expansion at the existing pumping station.

MUNICIPAL CLASS EA FLOWCHART

- The Class EA process
 - Decision-making process that all Ontario municipalities follow for building new infrastructure.
 - Includes mandated public consultation throughout the project

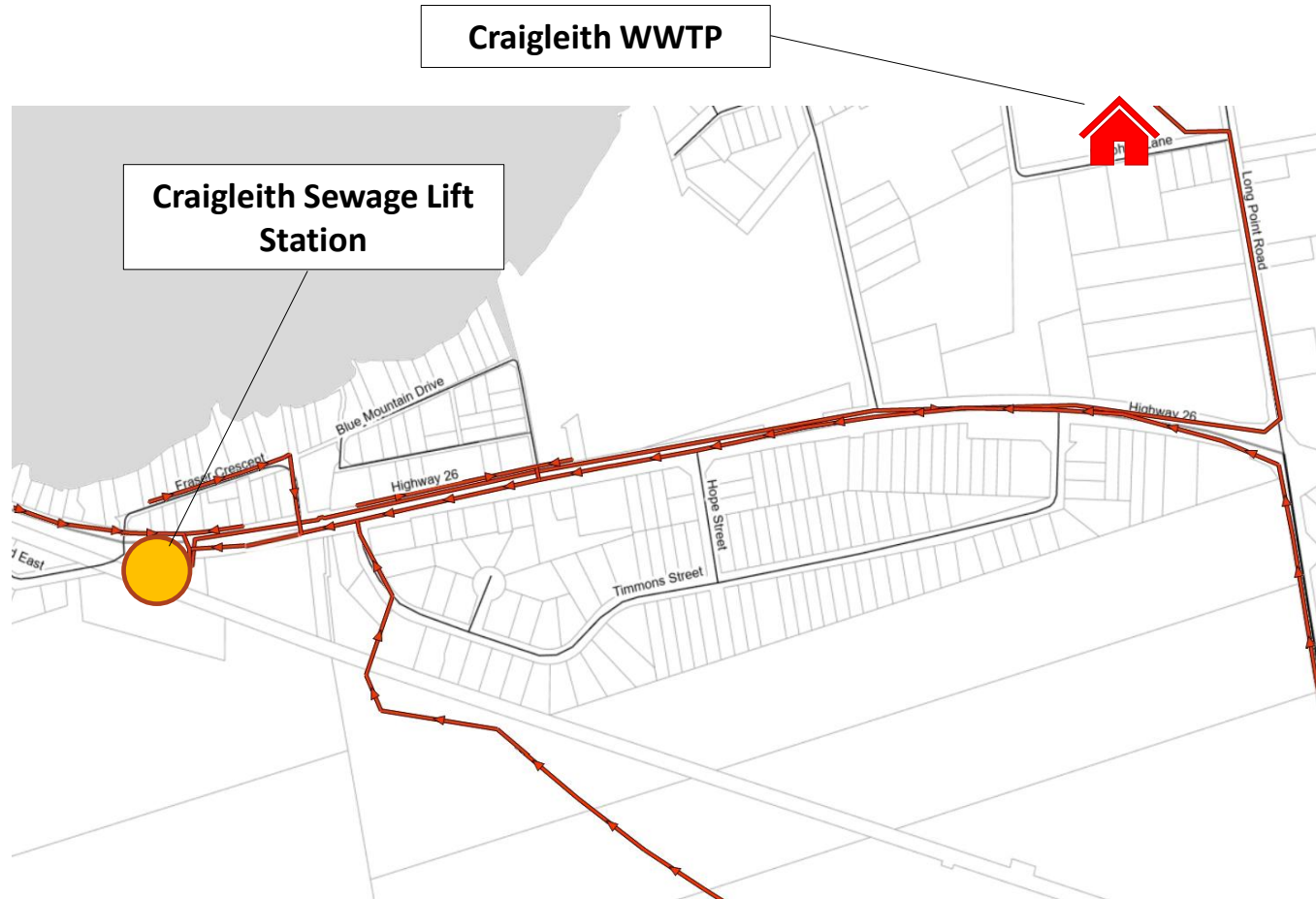


ALTERNATIVE IDENTIFICATION



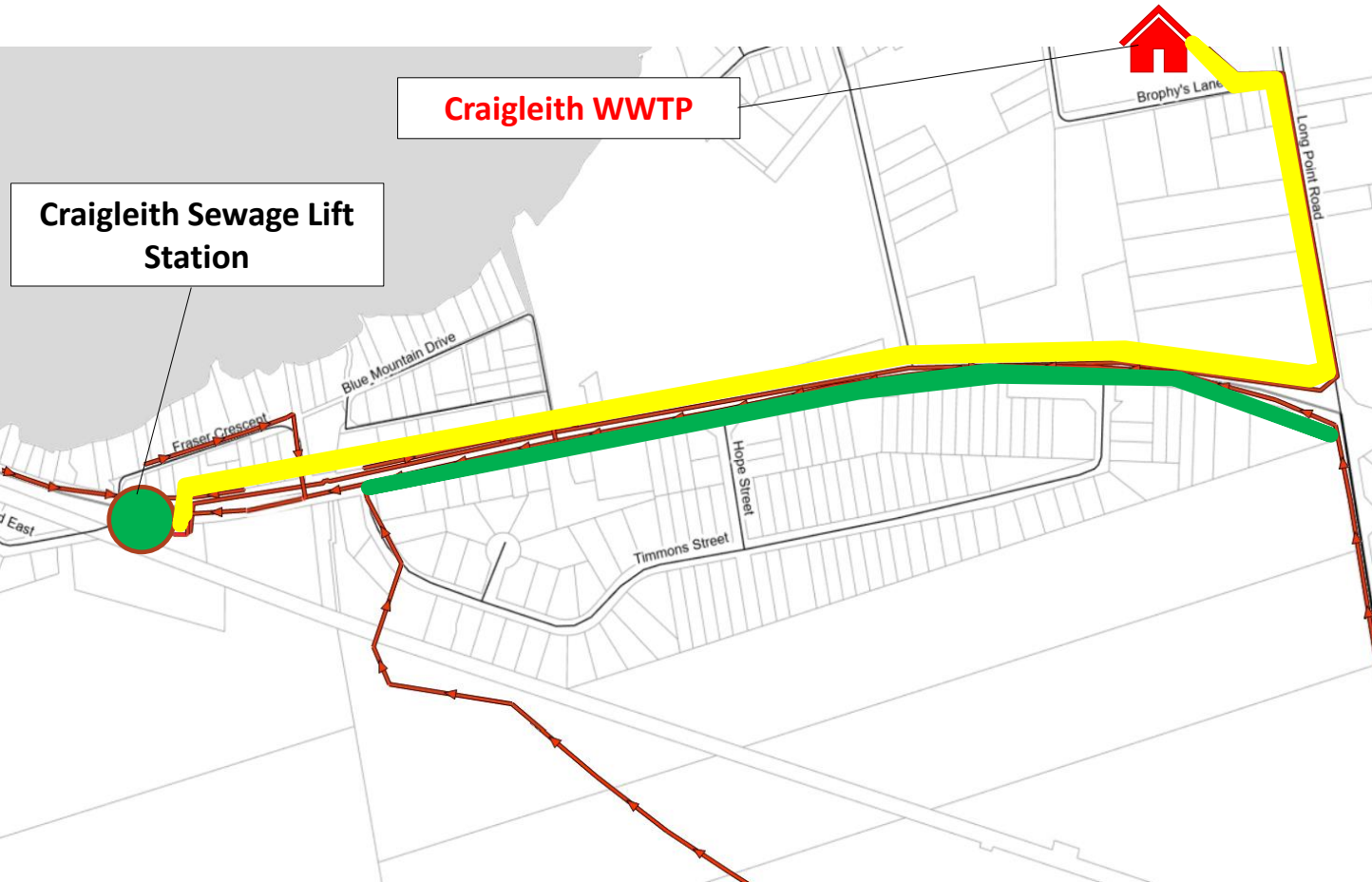
- Reviewed Alternatives
 1. Do Nothing
 2. Expand Craigleith Pumping Station including inlet sewer and forcemains.
 3. New SPS at the Plant Site
 4. New SPS between Highway 26 and Plant Site
- **Schedule B Class EA** based on following triggers:
 - Construct a new pumping station
 - Increase pumping station capacity in a new structure.
 - Land acquisition

ALTERNATIVE A – DO NOTHING



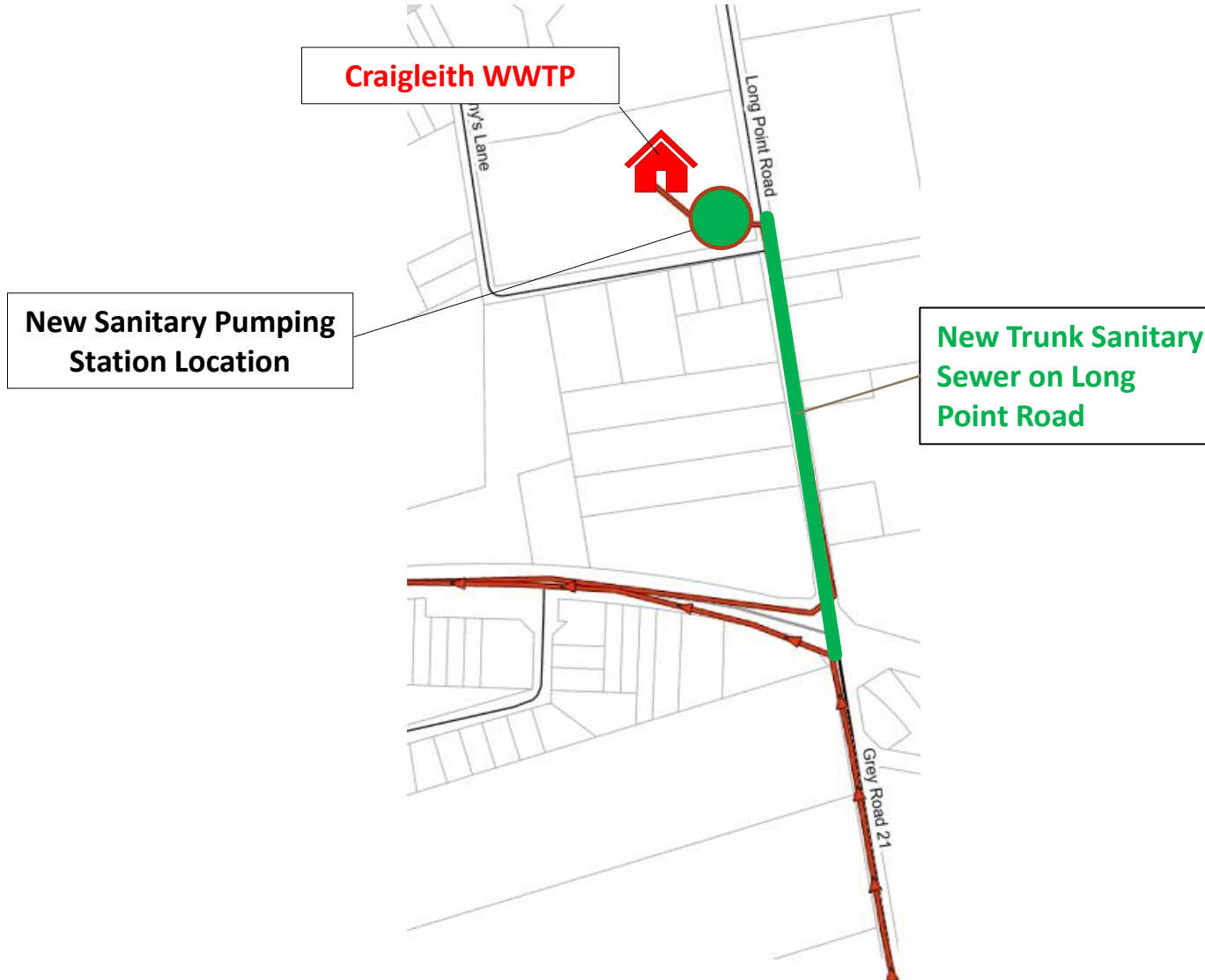
- Maintain existing sanitary sewer from Grey 21 to Craigleith SPS – Full capacity of 45.4 L/s.
- Upgrade the Craigleith Sanitary Pumping Station as currently planned based on optimization study (pumps, generator, safety/operational issues).
- Low-cost alternative – Existing budgeted work only to be completed.
- Does not address identified problem.
- Limits growth
- No additional cost over current planned expenditures to maintain operation.

ALTERNATIVE B – EXPAND CRAIGLEITH PUMPING STATION



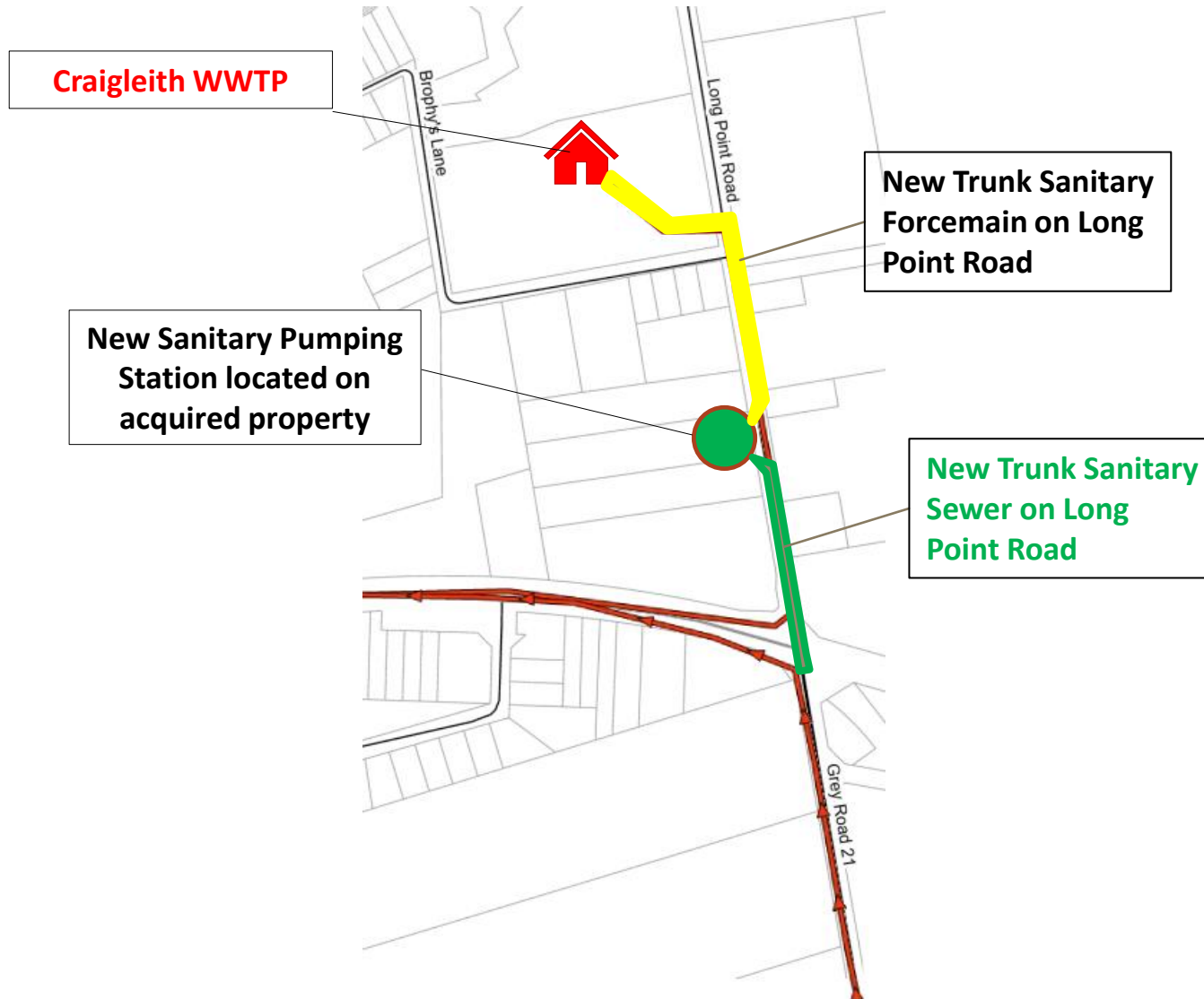
- Replace 1.3 km of sanitary sewer from Grey 21 to west intersection of Timmons and Highway 26 with larger size (525-600mm) (Green Line).
- Upgrade Craigleith SPS for ultimate capacity of upstream areas.
- Add third 2.2km long forcemain between pumping station and Craigleith WWTP (Yellow Line).
- Estimated Cost: \$16M - \$19M (incl. engineering and contingency) +/- 25%

ALTERNATIVE C – NEW TRUNK SEWER AND PUMPING STATION AT CRAIGLEITH WWTP



- Extend gravity sanitary sewer approximately 450 metres from Grey 21/Highway 26 to the Craigleith WWTP along Long Point Road.
- Construct new sanitary pumping station on the existing wastewater treatment plant site immediately south of the existing main plant building.
- Install new forcemain connection from new pumping station to the existing WWTP headworks.
- Estimated Cost: \$8.1M (incl. engineering and contingency) +/-25%

ALTERNATIVE D – NEW TRUNK SEWER AND PUMPING STATION BETWEEN HIGHWAY 26 AND CRAIGLEITH WWTP



- Extend gravity sanitary sewer approximately 100-400 metres from Grey 21/Highway 26 to the Craigleith WWTP.
- Construct new sanitary pumping station on land to be acquired along Long Point Road.
- Construct new 50 – 350 m long forcemain from proposed pumping station site to headworks of WWTP.
- Estimated Cost: \$9.5M (incl. engineering and contingency)

EVALUATION CRITERIA

ENVIRONMENTAL



Potential impacts to the environment (i.e., resource depletion, natural heritage, tree removal, agricultural resources).



Evaluating the Options

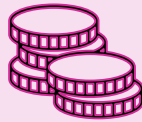
With input from the public, key stakeholders, and review agencies, the team developed criteria to evaluate the project alternatives

SOCIAL



Potential impacts of the solution to the cultural sphere, residences, businesses, community, institutional, or recreational facilities.

ECONOMIC



Capital costs associated with the solution
Lifecycle Cost Assessment (Capital, Operational and Maintenance)

TECHNICAL



Constructability, operability, construction risk and effectiveness of the solution.

ENVIRONMENTAL INVESTIGATION INFORMATION

Ecological

- No endangered species at risk identified.
- Some habitat around WWTP may be suitable for species of concern (Canada Warbler, Eastern Wood-Pewee and Wood Thrush)
- Roost quality of trees/vegetation around WWTP is generally poor, but any construction impacted trees will need to be removed in the winter to avoid potential impacts with bat or bird breeding.

Geotechnical

- Bedrock is typically 4.6 to 7.6 m below surface
- Groundwater is typically 0.2 to 0.9 m below surface but is shallower closer to the Bay.
- Dewatering will be an issue during construction and may require specialized design considerations.

Archaeological

- Majority of project areas are identified as disturbed.
- Undisturbed area around WWTP and land to be potentially acquired will require a Stage 2 Assessment prior to construction.

SOCIAL ENVIRONMENTAL IMPACTS

■ **Alternative A: Do Nothing**

- No impacts from construction.
- Craigleith SPS will remain a single point of failure risk for a larger area as growth occurs.

■ **Alternative B: Upgrade Craigleith SPS**

- Localized construction impacts along Highway 26, Forcemain alignment and Lakeshore Road near pumping station.
- Craigleith SPS will remain a single point of failure risk for a larger area as growth occurs.

















■ **Alternative C: Trunk Sewer on Long Point Road and New Sanitary Pumping Station at Craigleith WWTP**





- Localized construction impacts along Long Point Road and at the Craigleith WWTP.
- Pumping Station site will be screened from adjacent residences with existing and enhanced vegetative buffer.

■ **Alternative D: Trunk Sewer on Long Point Road and New Sanitary Pumping Station on acquired land between WWTP and Highway 26.**

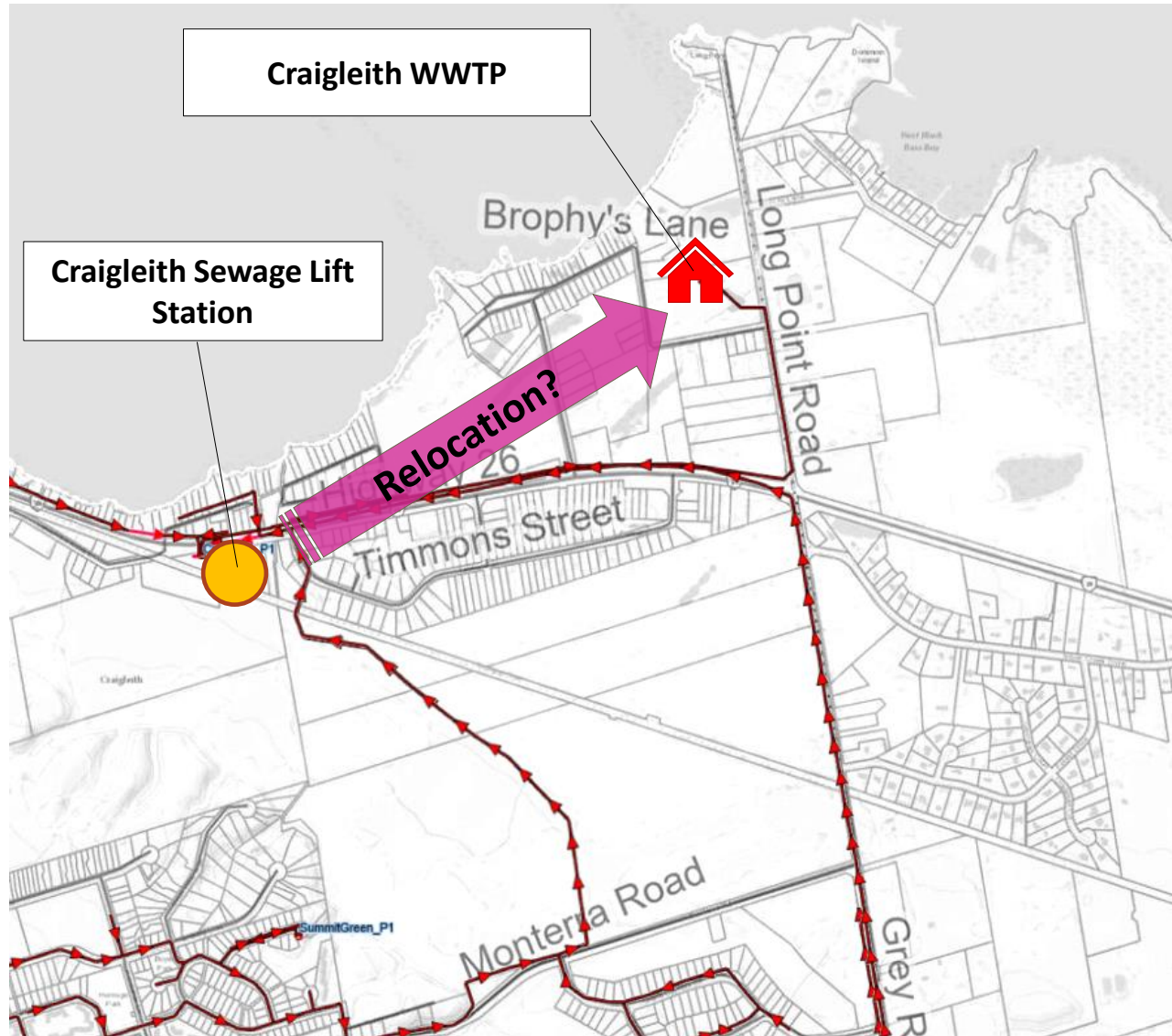
- Localized construction impacts along Long Point Road, new SPS site and at the Craigleith WWTP.
- Pumping Station site would be constructed in residentially zoned area.

EVALUATION OF ALTERNATIVES

Criteria	Alternative A: Do Nothing	Alternative B: Expand Craighleith SPS	Alternative C: New Trunk Sewer and SPS at Craighleith WWTP	Alternative D: New Trunk Sewer and SPS on new property
Technical				
Environmental				
Social				
Economic				
Ranking	4	3	1	2

 Most Preferred  Somewhat Preferred  Less Preferred  Least Preferred

SEPTAGE AND LEACHATE RECEIVING STATION - ALTERNATIVES



- Alternatives considered:
 - A. Maintaining septage receiving at the Craigleith SLS
 - B. Moving septage receiving to the WWTP Extension of the existing sewer to the Craigleith WWTP
- If the preferred alternative is to construct a new SPS at the Craigleith WWTP, moving the septage receiving station makes sense.

SEPTAGE AND LEACHATE RECEIVING STATION IMPACTS

WHY MOVE IT?

- Addresses challenges with existing sites due to traffic, safety, odour, efficiency.

WHAT IMPACT WILL MOVING IT HAVE?

- Improvements to traffic, safety, odour, and security
- Increased truck traffic to the site along Long Point Road
- Additional concerns related to noise and odour

MITIGATION

- Improving buffers, traffic management and enforcement, enclosed environment for discharge

PREFERRED ALTERNATIVE: ALTERNATIVE C – EXTEND SANITARY SEWER ALONG LONG POINT ROAD AND CONSTRUCT NEW PUMPING STATION AT CRAIGLEITH WWTP



Trunk Sewer – Grey Road 21 to Craigleith WWTP along Long Point Road

- Installed under centreline of road approximately 3 m deep.
- Construction will take approximately 2-3 months.
- No significant environmental impacts anticipated after construction.



New Pumping Station at the Craigleith WWTP

- 5-8 metre deep wet-well with submersible pumps
- Integrated building with Septage and Leachate Receiving Station
- Vegetated buffer to south to be maintained and enhanced



Septage and Leachate Receiving Station

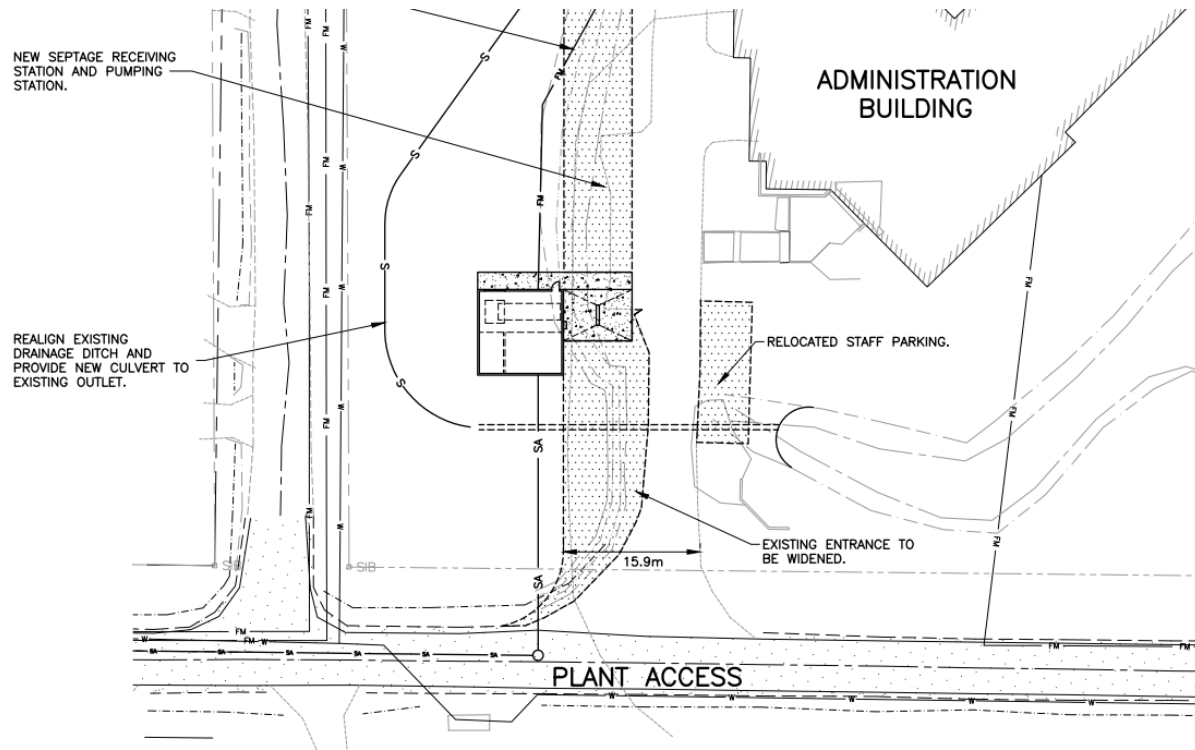
- Access via existing secondary access from Brophy's Lane
- Drive through design to improve safety and efficiency.
- Integrated with pumping station to allow for dilution and odour management.
- Complementary use adjacent to WWTP.



Other Issues/Impacts

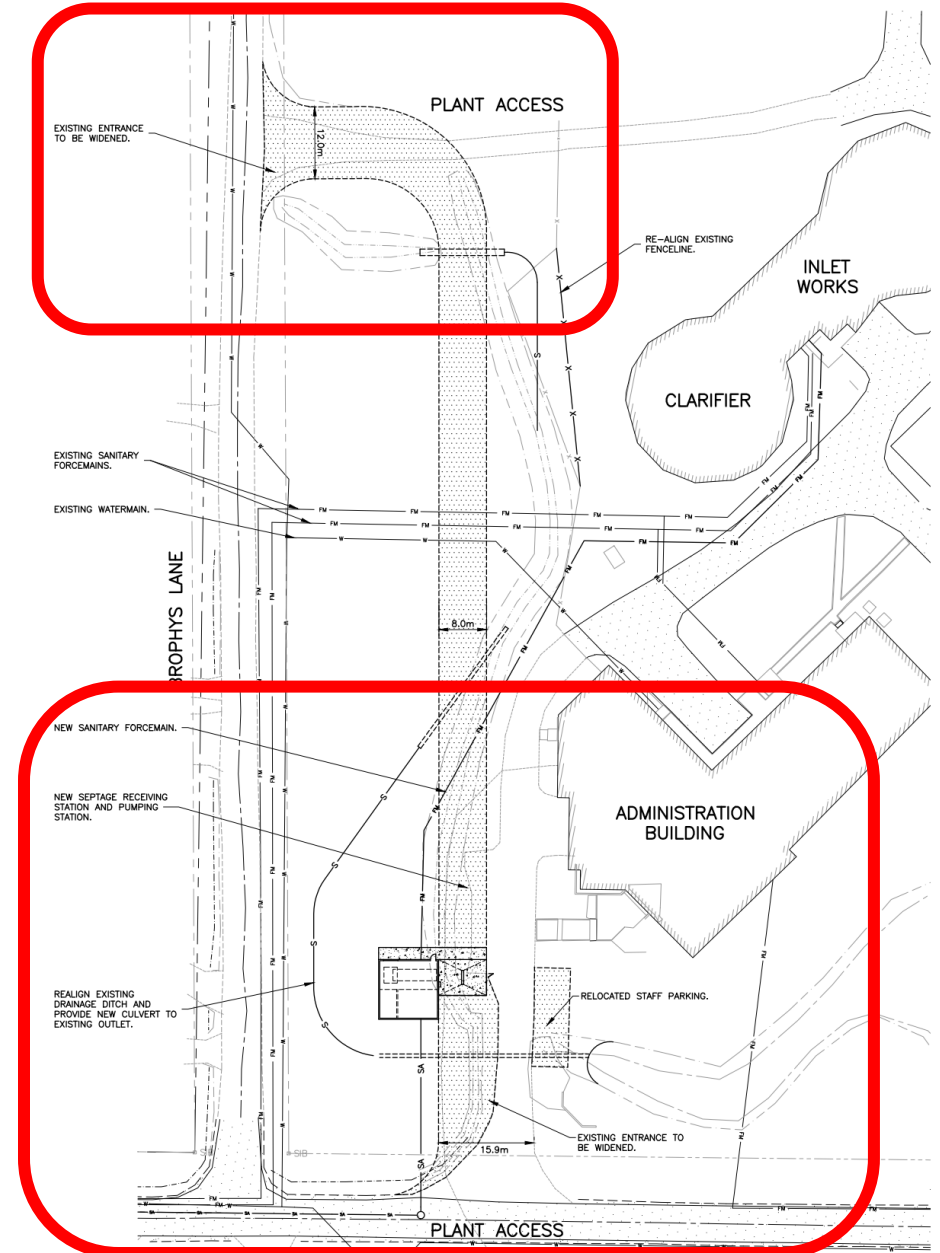
- New SPS emergency power demand can be integrated in cost effective manner with proposed generator upgrade at plant.
- Gravity sewer will have capacity to service Long Point Road and Brophy Lane with sanitary service in future.

PREFERRED ALTERNATIVE: ALTERNATIVE C – EXTEND SANITARY SEWER ALONG LONG POINT ROAD AND CONSTRUCT NEW PUMPING STATION AT CRAIGLEITH WWTP - MAPS

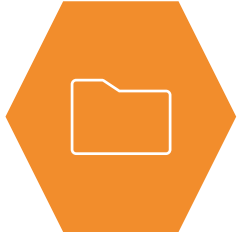


Key Components

- New Sanitary Pump Station containing Septage/Leachate Receiving Station.
- Changes to Access to site for safety and efficiency.



NEXT STEPS



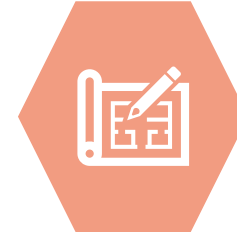
COMPLETION OF
PROJECT FILE/REPORT
FOR CLASS EA



NOTICE OF
COMPLETION



PUBLIC REVIEW PERIOD



DEVELOPMENT OF
PRELIMINARY DESIGN
AND BUDGET APPROVAL



DETAILED DESIGN,
TENDERING AND
CONSTRUCTION

Thank you for your time Questions?

For additional project information and updates go to:
www.thebluemountains.ca/LongPointRoadEA

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