Municipal Class EA Findings – Council Presentation

Logie St. and Ridout St. Sewage Pumping Station Upgrades

September 9, 2025

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Background Information

The City of Kawartha Lakes (City) is initiating a planning process to upgrade the wastewater collection system for the community of Lindsay. The community of Lindsay is rapidly expanding with new developments and upgrades to the wastewater collection system are required to support the increasing needs of the residents of the community.

To accommodate developments within the South-Eastern area of Lindsay, upgrades will be required to the sanitary collection system in this area. Currently, sewage flows to the Logie St. sewage pumping station (SPS) and is pumped to a nearby gravity sewer and siphon system that carry the flows across the Scugog River to the Ridout St. SPS where all sewage is pumped back across the river to the existing discharge maintenance hole located at the intersection of St David St. and Needham St.

Based on an assessment of future flows, one or both of the Logie St. and Ridout St. sewage pumping stations will require capacity upgrades.

These upgrades and recommendations have been carried out as a Schedule 'B' project under the terms of the Municipal Class Environmental Assessment (Class EA) process, which is approved under the Environmental Assessment Act.

A Public Information Centre (PIC) was held May 29, 2025, during which the proposed alternatives were presented, and questions/concerns were addressed.

The draft EA project file report has now been completed will be submitted to the Ministry of Environment, Conservation and Parks for review and comment should Council endorse this report. Upon MECP review, a notice of completion will be issued, and the report will be filed with the MECP and made available to review agencies and the public for a review period of thirty (30) days.

The review period allows the public and review agencies to express concerns and request additional levels of assessment where required.

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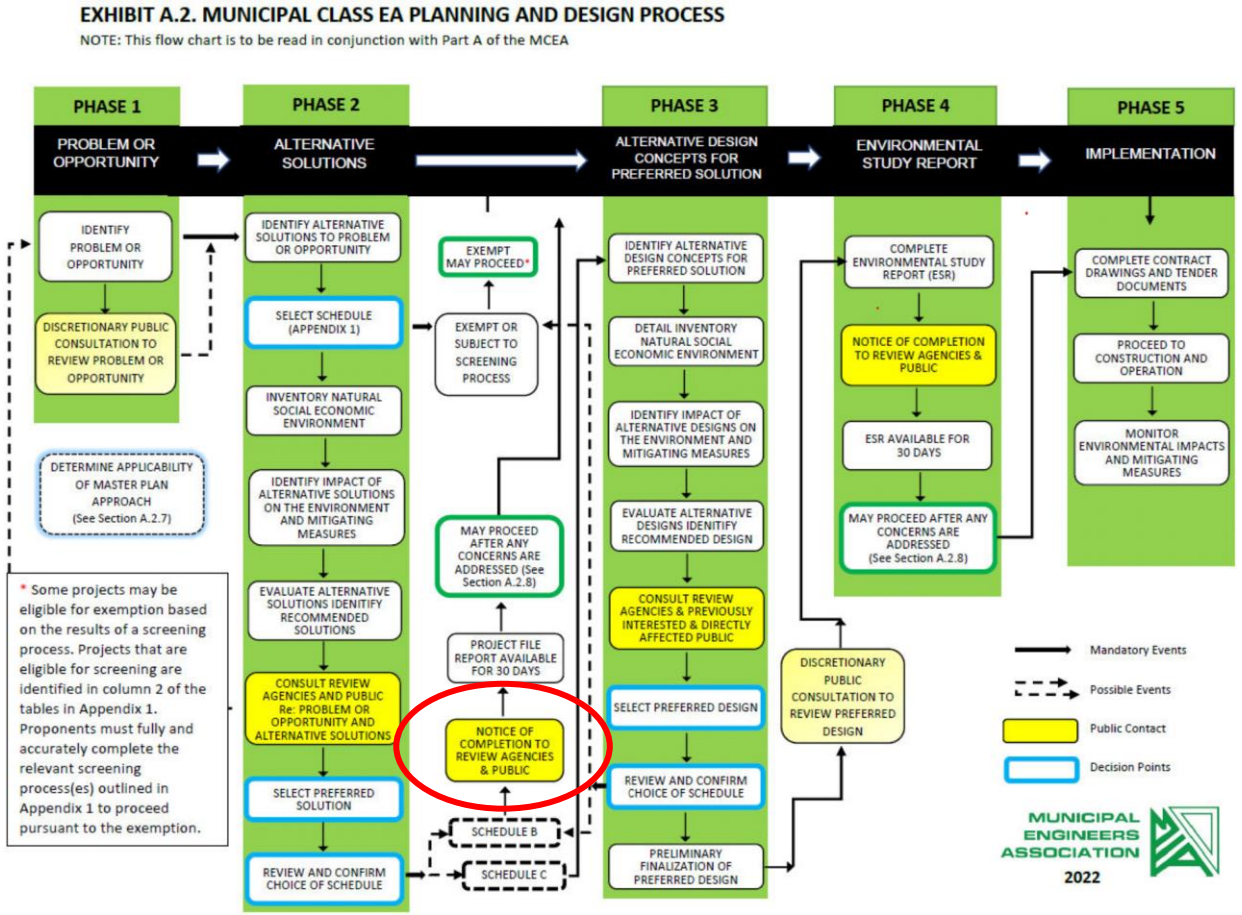
Municipal Class EA Process

- Meets the requirements of Ontario's Environmental Assessment Act by ensuring that potential environmental impacts of projects are considered.

- Consultation with the public and interested stakeholders including government review agencies and First Nations is required to identify environmental impacts of alternative solutions, develop mitigating measures and identify a preferred solution.



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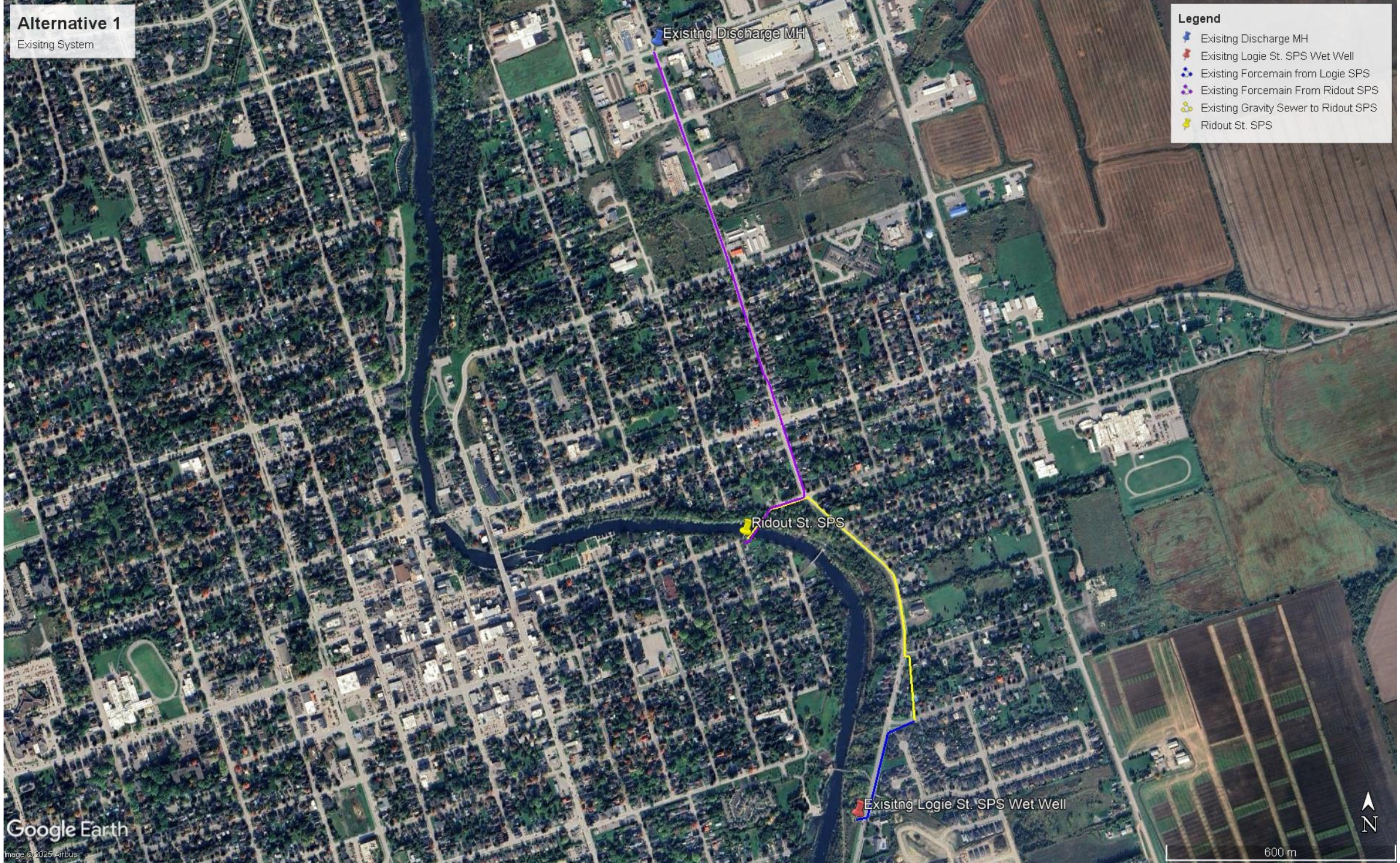
Opportunity Statement

Upgrades to the capacity of the existing wastewater collection system are required to support new and future developments mainly within the South-East area of Lindsay.

Alternative 1

Alternative 1 - Do Nothing/Limit Growth

This alternative would have the lowest capital cost and would involve continuing to use the existing wastewater collection system without any changes. This alternative is not feasible as the current system will not be able to support future developments.


Alternative 1
Exisitng System
Legend
Exisitng Discharge MH
Exisitng Logie St. SPS Wet Well
Existing Forcemain from Logie SPS
Existing Forcemain From Ridout SPS
Existing Gravity Sewer to Ridout SPS
Ridout St. SPS
Exisitng Discharge MH
Ridout St. SPS
Exisitng Logie St. SPS Wet Well
Google Earth
Image © 2025 Airbus
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600 m

Alternative 2

Alternative 2 - Staged Upgrade of Logie Street SPS and Minor Upgrades to Ridout SPS

This option includes the replacement of the Logie St. SPS wetwell with a new wetwell, allowing for the necessary storage volume and sufficient space to install three new sewage pumps. This option will include associated electrical upgrades at the Logie St. station. As an interim step, two new sewage pumps will be installed within the wetwell, each capable of providing 180 L/s of flow for a firm capacity of 180 L/s for the station, with piping for a third pump to be added in future.

A new 500 mm diameter forcemain will be constructed from Logie St. SPS to connect to the existing abandoned 400 mm forcemain that previously connected Ridout St SPS to the existing discharge point.

Ultimately, the station will be upgraded in the future to add a third pump providing 180 L/s and the station will operate with two duty pumps and the third pump as a backup. The two duty pumps operating together will provide a firm capacity flow of approximately 250 L/s to meet the full build-out design requirements. The 500 mm forcemain will also be disconnected from the abandoned forcemain and be extended the remaining distance of 1200 m up to the discharge point.

These upgrades to Logie St. divert existing flows away from Ridout St. SPS and therefore, only minor upgrades to aging equipment will be required at Ridout SPS. It is recommended that the City proactively replace the aging pumps at Ridout St. SPS with higher capacity pumps to meet the future demands of the station and avoid duplicate costs in the near (estimated 5-year) future. Ridout St. SPS will be upgraded with three (3) new pumps to provide a firm station capacity of 320 L/s in addition to related electrical equipment, valves, and piping upgrades.

Alternative 2 has a preliminary cost estimate of $7.0 million including HST.

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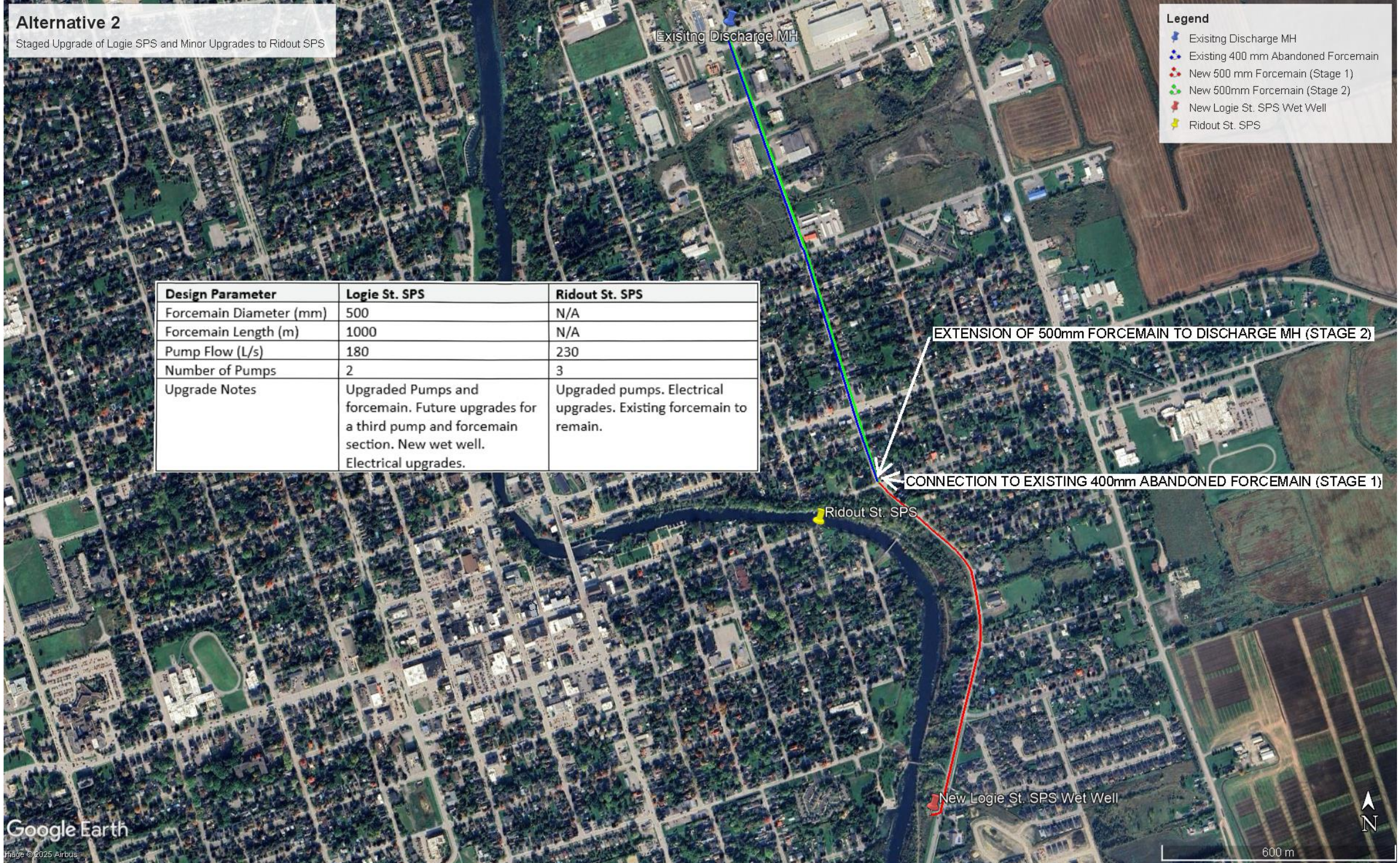

Design Parameter	Logie St. SPS	Ridout St. SPS
Forcemain Diameter (mm)	500	N/A
Forcemain Length (m)	1000	N/A
Pump Flow (L/s)	180	230
Number of Pumps	2	3
Upgrade Notes	Upgraded Pumps and forcemain. Future upgrades for a third pump and forcemain section. New wet well. Electrical upgrades.	Upgraded pumps. Electrical upgrades. Existing forcemain to remain.

Alternative 3

Alternative 3 – Full Upgrade of Logie St. SPS and Minor Upgrades to Ridout St. SPS

Alternative 3 will provide the full build out upgrade to the Logie St. SPS immediately. This option includes the replacement of the Logie St. SPS wetwell with a new wetwell allowing for the necessary storage volume. The wetwell will be equipped with three new pumps providing the station with a firm capacity of 250 L/s to meet the full buildout flow requirements. This option will include associated electrical upgrades at the Logie St. station.

A new 500 mm diameter forcemain will be constructed from Logie St. SPS to the existing discharge point. This results in a new 500 mm forcemain length of approximately 2200 m to connect to the discharge point.

These upgrades to Logie St. divert existing flows away from Ridout St. SPS and therefore, Ridout St. SPS will only require minor upgrades to any aging equipment. It is recommended that the City proactively replace the aging pumps at Ridout St. SPS with higher capacity pumps to meet the future demands of the station and avoid duplicate costs in the near (estimated 5-year) future. Ridout St. SPS will be upgraded with three (3) new pumps to provide a firm station capacity of 320 L/s in addition to related electrical equipment, valves, and piping upgrades.

For this option, Logie St. SPS will be fully upgraded to be capable of handling all proposed and anticipated growth in the future. Diverting flows from Logie St. SPS to be pumped directly to the discharge point will limit much of the required works for Ridout St. SPS upgrades. This option will result in significantly higher costs in the short term for the construction of the new 500 mm forcemain for the full distance of 2200 m and the third pump as compared to Alternative 2. Additionally, if developments proceed at the anticipated pace, higher operating costs will be incurred in the short term due to the Logie St. SPS pumps operating inefficiently at the existing lower flows.

Alternative 3 has a preliminary cost estimate of $8.7 million Including HST.

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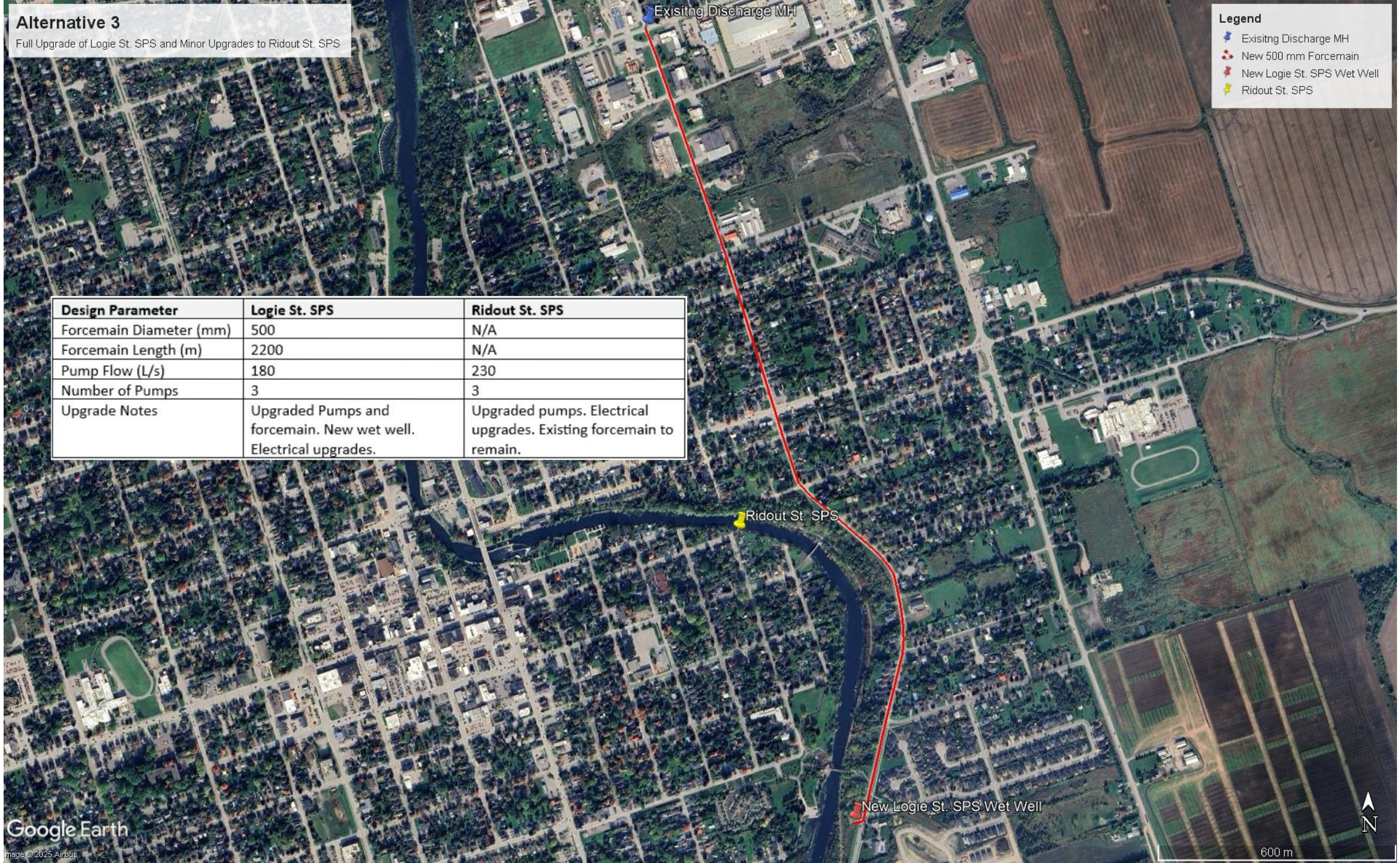

Design Parameter	Logie St. SPS	Ridout St. SPS
Forcemain Diameter (mm)	500	N/A
Forcemain Length (m)	2200	N/A
Pump Flow (L/s)	180	230
Number of Pumps	3	3
Upgrade Notes	Upgraded Pumps and forcemain. New wet well. Electrical upgrades.	Upgraded pumps. Electrical upgrades. Existing forcemain to remain.

Alternative 4

Alternative 4 – Full Upgrades of Logie St. SPS and Ridout St. SPS

Alternative 4 will provide a full build out upgrade to both Logie St. SPS and Ridout St. SPS. This option will not divert any existing flow away from the Ridout SPS.

This option requires major upgrades to both Logie St. SPS and Ridout St SPS including new wet wells with sufficient storage volume at both stations and associated electrical upgrades. Logie St. SPS will be equipped with three new pumps providing a firm capacity of 250 L/s to meet the full build out requirement. Ridout St. SPS will be equipped with three new pumps each providing 380 L/s of flow. Ridout St. SPS will continue to operate with two duty pumps and the third pump being a backup. The two duty pumps together will provide a firm capacity flow of approximately 570 L/s to meet the full build-out requirement.

A new 500 mm forcemain will be constructed from Logie St. SPS to the existing gravity sewer connecting across the river to Ridout St. SPS. The gravity sewer and siphon will also require additional upgrades to accommodate the increased flows. The existing 500 mm forcemain and the existing 400 mm abandoned forcemain will be twinned to split the flows from the Ridout SPS to the existing discharge point.

No forcemain upgrade will be needed from Ridout St. to the discharge point. Ridout St. SPS would also be fully refurbished as part of the upgrades with this option. This option, however, will result in the highest overall costs from the capital costs of upgrading both stations and the operating costs of pumping all flows from Logie St. SPS twice. This option will also have additional environmental and economic impact due to construction works done around the river crossing.

Alternative 4 has a preliminary cost estimate of $12.7 million including HST.

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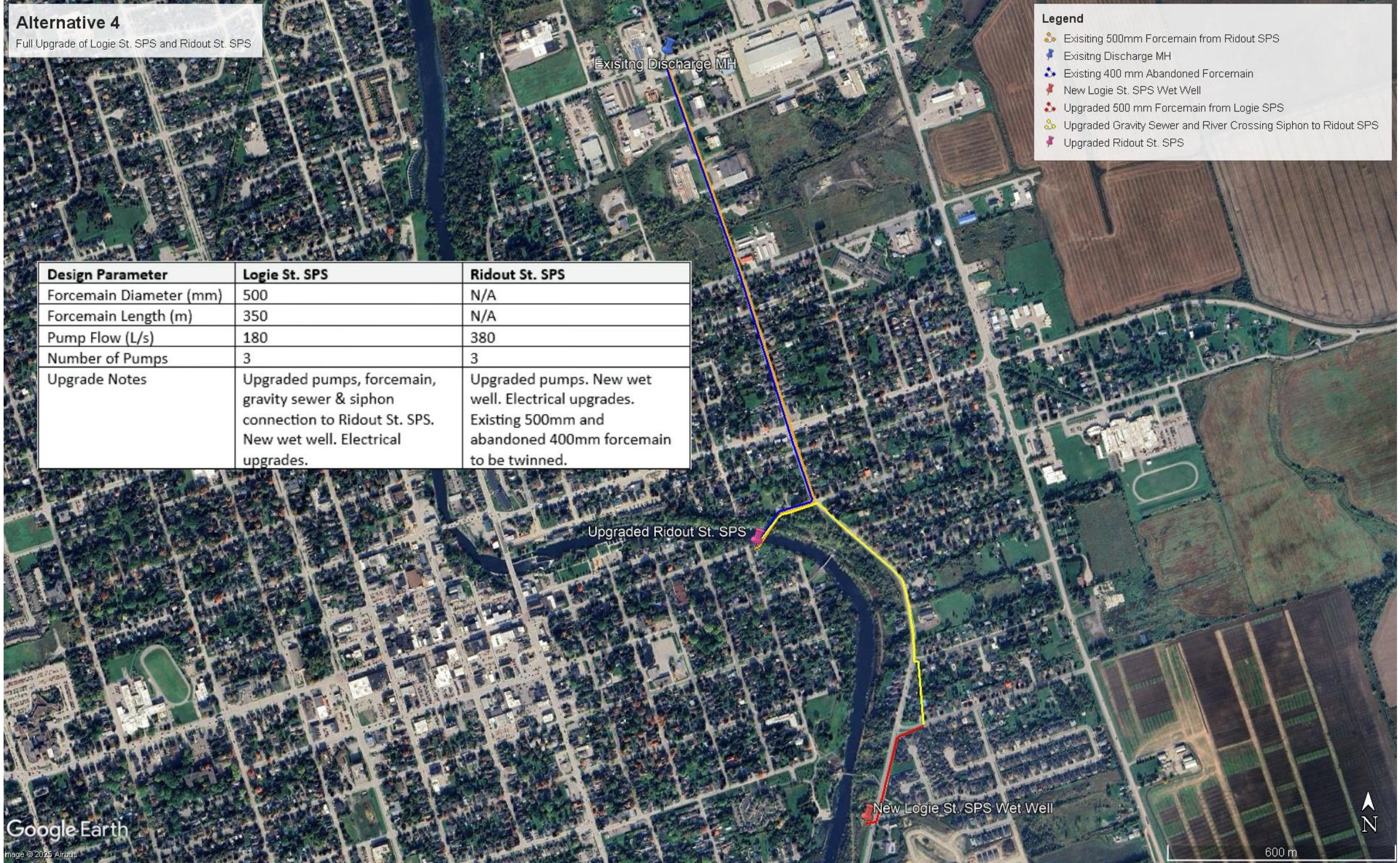

Design Parameter	Logie St. SPS	Ridout St. SPS
Forcemain Diameter (mm)	500	N/A
Forcemain Length (m)	350	N/A
Pump Flow (L/s)	180	380
Number of Pumps	3	3
Upgrade Notes	Upgraded pumps, forcemain, gravity sewer & siphon connection to Ridout St. SPS. New wet well. Electrical upgrades.	Upgraded pumps. New wet well. Electrical upgrades. Existing 500mm and abandoned 400mm forcemain to be twinned.

Alternatives Summary Table

Alternative	Station	Forcemain Diameter (mm)	Forcemain Length (m)	Pump Flow (L/s)	Number of Pumps	Upgrade Notes	Preliminary Cost Estimate (Including HST)
1. Do Nothing/Limit Growth	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2. Staged Upgrade of Logie St. SPS and Minor Upgrades to Ridout St. SPS	Logie St.	500	1000	180	2	Upgraded pumps and forcemain. Future upgrades for a third pump and forcemain section. New wet well. Electrical upgrades.	$7.0 million
	Ridout St.	N/A	N/A	230	3	Upgraded pumps, existing forcemain to remain. Electrical upgrades.	
3. Full upgrade of Logie St. SPS and Minor Upgrades to Ridout St. SPS	Logie St.	500	2200	180	3	Upgraded pumps and forcemain. New wet well. Electrical upgrades.	$8.7 million
	Ridout St.	N/A	N/A	230	3	Upgraded pumps, existing forcemain to remain. Electrical upgrades.	
4. Full Upgrades of Logie St. SPS and Ridout St. SPS	Logie St.	500	350	180	3	Upgraded pumps, forcemain, gravity sewer, and siphon connecting to Ridout SPS. New wet well. Electrical upgrades.	$12.7 million
	Ridout St.	N/A	N/A	380	3	Upgraded pumps and forcemain. New wet well. Existing 500mm and abandoned 400mm forcemain to be twinned. Electrical upgrades.	

Alternatives Evaluation Matrix

City of Kawartha Lakes Logie and Ridout Sewage Pumping Stations

Project No. 2437800

Evaluation of Alternative Solutions

Description/Elements		Alternative 1		Alternative 2		Alternative 3		Alternative 4	
		Do Nothing		Logie St. Staged Upgrade		Logie St. Full Upgrade		Logie St. and Ridout St. Full Upgrades	
	Weighing Factor	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Meet Flow Capacity Requirements	0.25	0	0	4	1	5	1.25	5	1.25
Site/Neighbourhood/Impact/Noise/Odour/Aesthetics	0.05	5	0.25	4	0.2	4	0.2	1	0.05
Property Acquisition/Availability	0.05	5	0.25	5	0.25	5	0.25	5	0.25
Expansion Potential	0.2	0	0	5	1	0	0	0	0
Ease of Integration/Constructability	0.05	5	0.25	4	0.2	3	0.15	1	0.05
Terrestrial Habitat/Wildlife	0.05	5	0.25	3	0.15	3	0.15	1	0.05
Archaeological Resources	0.05	5	0.25	4	0.2	4	0.2	4	0.2
Operability	0.1	0	0	4	0.4	4	0.4	3	0.3
Capital/Operating Costs	0.2	5	1	4	0.8	3	0.6	1	0.2
Total Weighted Score	1		2.25		4.2		3.2		2.35

*Scoring: 5 is the highest (best). The highest scoring alternative reflects the preferred solution

Preferred Alternative

- The preferred alternative is Alternative 2. The existing abandoned forcemain has been determined to be in good condition, as such, Alternative 2 will provide substantial cost savings in the short term as compared to Alternative 3, likely in the range of $1.7 million.
- The upgraded Logie St. SPS will be a wetwell type with space for three submersible pumps. Initially, two submersible pumps will be installed in the new wetwell each capable of providing 180 L/s of flow for a firm capacity of 180 L/s for the station. Piping for a third, future pump will be included.
- Ultimately the station will be upgraded in the future with the addition of a third pump providing 180 L/s. The fully upgraded station will operate with two duty pumps and the third pump as a backup. The two duty pumps operating together will provide a firm capacity flow of approximately 250 L/s to meet the full build out requirements.
- A new, 500 mm diameter, 1000 m long, forcemain will be installed from the Logie St. SPS to the existing 400 mm abandoned forcemain. Future upgrades will include the disconnection of the 500mm forcemain from the abandoned forcemain and the extension of the 500 mm forcemain the remaining 1200m to the discharge point.
- The high-level cost estimate for the Alternative 2 Stage 1 upgrades of the pumping station and forcemain , is $7.0 million including HST.

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Consultation

Agency Consultation

Consultation with review agencies has been undertaken throughout the project to evaluate environmental impacts of the alterative solutions and develop mitigating measures. Agencies consulted include the Kawartha Conservation, Ministry of Environment, Conservation and Parks (MECP) and the Ministry of Citizenship and Multiculturalism (MCM).

First Nations Consultation

Consultation with relevant First Nations groups has been undertaken throughout the project to assess the impacts of the project on Aboriginal or treaty rights. The list of relevant First Nations groups to be contacted was provided by the MECP.

Public Consultation

Interested members of the public will be added to the project contact list. Project notices were circulated and received questions will be addressed from interested public stakeholders. A Public Information Centre (PIC) has been held, during which the proposed alternatives were presented, and questions/concerns were addressed.

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Existing Environmental Inventory

Environmental Impact Study

The project site has been subjected to a desktop Environmental Impact Study and a site investigation has been completed to assess existing conditions of natural features and document wildlife and vegetation in the area.

Archaeological Assessment

The project site has been subjected to a Stage 1 and 2 Archeological Assessment which concluded that there is no presence of any archeological resources of cultural value or interest. As such, the conclusion of the checklists is that the study area has low potential for archeological, built heritage, cultural heritage and marine archeological resources.

Other Investigations

A geotechnical and hydrogeological assessment is underway. A noise assessment study of the backup generator will also be completed in the future.

Screening Checklists Completed

The following screening checklists developed by the MCM have been completed as part of the EA Project File:

- Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes
- Criteria for Evaluating Archaeological Potential
- Criteria for Evaluating Marine Archaeological Potential

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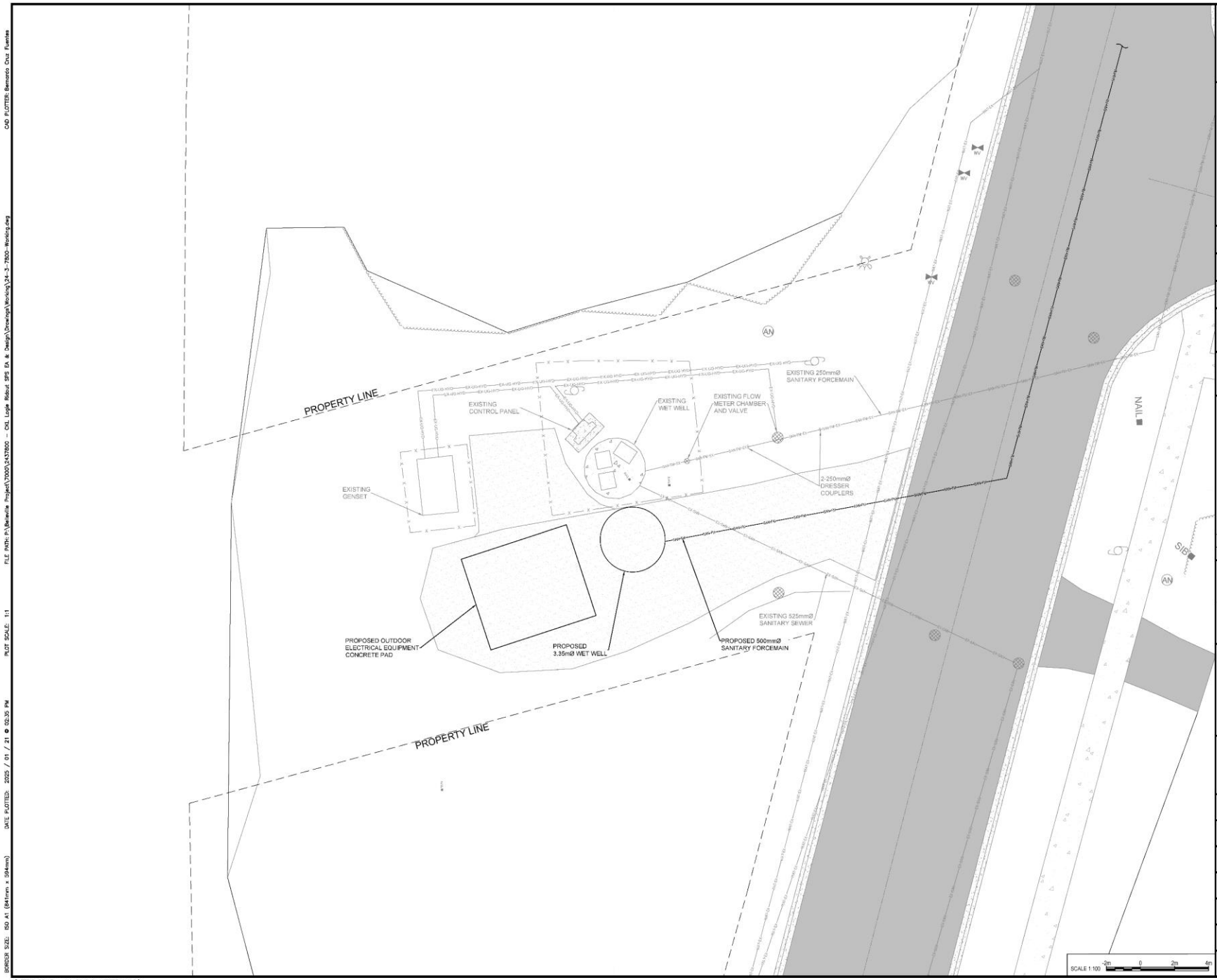

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NOTES:
1. ALL WORK SHALL BE IN ACCORDANCE WITH RELEVANT CODES AND GUIDELINES.
2. ALL DRAWINGS AND ADDENDA ARE TO BE READ AS, AND IN CONJUNCTION WITH THE SPECIFICATIONS.
3. ALL EQUIPMENT SHALL BE INSTALLED AS SPECIFIED OR APPROVED EQUIVALENT.
4. CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK AND BE RESPONSIBLE FOR SAME.
5. CONTRACTOR MUST REPORT ANY DISCREPANCIES TO ENGINEER FOR RESOLUTION BEFORE COMMENCING THE WORK.
6. ANY CHANGES MUST BE APPROVED BY THE ENGINEER.

(A/B) A DETAIL NO. / B DRAWING NO. – WHERE DETAILED

TOPOGRAPHICAL SURVEY SOURCE:
GREER GALLOWAY GROUP
SEPT 25 2024

UTILITY LOCATE SOURCE:
N/A

GEOTECHNICAL SOURCE:
N/A

CONTROL POINTS/BENCHMARKS:
SIB A
ELV=256.229m
N=491.3071.8600m
E=681404.8300

CONTROL POINTS/BENCHMARKS:
SIB B
ELV=256.180m
N=4912676.9000m
E=681433.7100m

REVISION	DESCRIPTION	DATE
01	–	YY/MM/DD

NORTH

STAMP

PROJECT
LOGIE ST & RIDOUT ST
PUMP STATION

LINDSAY ON, CITY OF KAWARTHA LAKES

DRAWING TITLE
SITE PLAN
PUMPING STATION

DESIGNED BY: G. GOUD
DRAWN BY: B. CRUZ-FUENTES
REVIEWED BY: –
APPROVED BY: –
PROJECT DATE: 2024/09/25 (YYYY/MM/DD)
PROJECT #: 24-3-7800
DRAWING #: SP1
DRAWING SCALE (ISO A1): HOR: 1 : 100 VER: N/A

BORDER SIZE: ISO A1 (841mm x 594mm) DATE PLOTTED: 2025 / 01 / 21 @ 02:35 PM PLOT SCALE: 1:1 FILE PATH: P:\Belleville Project\7000\2437800 – CKL Logie Ridout SPS EA & Design\Drawings\Working\24-3-7800-Working.dwg CAD PLOTTER: Bernardo Cruz Fuentes

(METRIC SCALE – ALL DIMS IN METERS U.N.O.)

Next Steps

- Finalize Project File Report and issue Notice of Completion
- Complete review period and address raised concerns if any
- Complete Contract Drawings and Request for Quotation Documents

Project Contact Information

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Thank you