



Staff Report

Operations – Water & Wastewater Services

Report To: Special Meeting of Council
Meeting Date: April 14, 2023
Report Number: CSOPS.23.019
Title: Engineering Services for Craigleith SLS, Mill St SPS and Mill St FM Upgrades Budget Increase
Prepared by: Allison Kershaw, Manager of Water & Wastewater Services

A. Recommendations

THAT Council receive Staff Report CSOPS.23.019, entitled “Engineering Services for Craigleith SLS, Mill St SPS and Mill St FM Upgrades Budget Increase”;

AND THAT Council approve increasing the project budget for Engineering Services for the Craigleith SLS, Mill Street SPS and the Mill Street Forcemain from \$2,000,000 to a total budget of \$2,200,000, to be funded from the Wastewater Asset Replacement Reserve Fund and the Wastewater Development Charges Reserve Fund.

B. Overview

This staff report requests that the budget for the Engineering Services for the Craigleith Sewage Lift Station (SLS), Mill Street Sewage Pumping Station (SPS) and the Mill Street Forcemain (FM) be increased from \$2,000,000 to \$2,200,000. This staff report is being brought directly to Council as this project is considered urgent to ensure there is adequate capacity at both the Craigleith SLS and the Mill Street SPS. The additional capacity is required to keep up with the proposed development in both sewer sheds, including the proposed Campus of Care. The project has been delayed while negotiating with the highest scoring proponent to identify cost savings.

C. Background

The Craigleith SLS and the Mill Street SPS are critical infrastructure in the wastewater collection system. Both pumping stations require extensive rebuilds, as the equipment has reached the end of their useful lives and are quickly approaching their maximum capacity. They both have been identified as having insufficient firm capacity during wet weather events. The growth in both the Craigleith and the Thornbury sewer sheds require these stations to be overhauled and upsized. An additional forcemain is also required at the Mill Street SPS. Staff brought forth Staff Report [CSOPS.22.041](#) on May 3, 2022, requesting permission to bundle the engineering services

for Craigleith Main Sewage Lift Station Upgrades, Mill Street Sewage Pumping Station and the forcemain.

The Craigleith SLS is located on Lakeshore Road in Craigleith. All flows entering the Craigleith Wastewater Treatment Plant (CWWTP) must be pumped by the Craigleith SLS to the CWWTP. Currently the station has adequate firm capacity to pump peak flows, but insufficient firm capacity during a 5-year storm. During these events, both pumps must be fully operational to keep up with the incoming flows. It is anticipated that during a 100-year storm event, due to the lack of pumping capacity at the Craigleith SLS, 37 sanitary sewers in the vicinity the pumping station will surcharge where the freeboard in the maintenance holes is predicted to be less than 2 meters. This type of surcharging may result in sewage backing up in basements and crawlspaces in low lying properties and close to the station. The Craigleith SLS is not equipped with an overflow. All backed up sewage will remain in the system, or back-up in basements. The station was originally built in 1984, and has undergone the required preventative maintenance, however the station requires rebuilding and enlarging to meet the needs of the growing community it serves.

The Mill Street SPS is located at the corner of Mill and Bay Street in Thornbury. This station is only equipped with one forcemain, from the station to the Thornbury Wastewater Treatment Plant (TWWTP). The station currently has adequate capacity to pump peak flows, however insufficient firm capacity during a 2-year storm event. The Mill Street SPS is equipped with overflow to the Beaver River. During significant rain events, a sewage hauler is required to haul sewage from this pumping station to the plant to prevent overflows to the natural environment or backing up in basements. Additionally, a second forcemain from the Mill Street SPS to the TWWTP is also required.

D. Analysis

The engineering assignment includes final design, tendering and contract administration for the Craigleith SLS, Mill Street SPS and a second forcemain from the Mill Street SPS to the TWWTP. To reduce the overall engineering budget, staff bundled these similar projects together, to allow for a more competitive bidding process.

The engineering assignment request for proposal (RFP) was tendered on December 14, 2022, and was on Bids and Tenders website for 6 weeks. The Town received and evaluated four submissions. The preferred bidder's cost estimate exceeded the Town's approved budget.

Staff have negotiated with the preferred proponent to identify cost reductions. The allowances to some of the required studies have been reduced, as well as the Town has an opportunity to reduce the contract administration portion of the assignment if the construction of all three components is undertaken concurrently. The scope of the project was also reduced, resulting in a cost savings. The total cost savings achieved by this exercise was almost \$900,000.

Staff are recommending increasing the budget to \$2,200,000 for the engineering. This includes a reasonable contingency, considering this type of brownfield work and the amount of construction monitoring requested.

The Town will be limited to the amount of development that can be allocated to both treatment plants unless these pumping stations are enlarged. This may affect the Town's ability to move ahead with the Campus of Care, as there will not be adequate capacity at this station without being enlarged and the second forcemain.

E. Strategic Priorities

1. Communication and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

2. Organizational Excellence

We will continually seek out ways to improve the internal organization of Town Staff and the management of Town assets.

3. Community

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

4. Quality of Life

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

F. Environmental Impacts

Sewage pumping stations are critical infrastructure in the wastewater collection system. It is vital that they are adequately maintained and sized to meet the demands of a growing community.

G. Financial Impacts

The current approved budget of \$2M is split 50/50 for funding from the Wastewater Asset Replacement Reserve Fund and several specific Wastewater Service Area Development Charges. Staff have taken a conservative approach with this split and a more detailed replacement versus growth split will be calculated through the detailed engineering.

Currently the Wastewater Asset Replacement Reserve Fund has a 2022 unaudited year-end balance of \$16M; with current commitments of \$6.3M leaving an adjusted balance of \$9.7M. The sole source of funding going into this reserve fund is from the fixed charge collected on bi-monthly utility bills. For 2023 the Town increased the fixed charge by 15.6%; this increase was required to fund these critical projects and keep up with the increasing construction costs.

The Mill Street SPS and the additional forcemain follow the same funding split between four different Development Charges as they service the same growth units from these different service areas. Below is a list of these services areas and the associated development charge reserve fund's 2022 unaudited year-end balance:

- Lora Bay Sewer - \$27,385
- Thornbury West Sewer - \$276,536
- Clarksburg Sewer – (\$431,609)
- Thornbury East Sewer - (\$84,978)

Over the next three to five years staff are forecasting 125 units to be added in the Lora Bay service area and 55 units in the two Thornbury service areas. Staff believe that this forecast growth is sufficient to justify this additional cost.

The Craigleith SLS growth costs are being 100% funded from the Craigleith Sewer Development Charge Reserve Fund; this reserve fund has a 2022 unaudited year-end balance of \$727,827. Staff are forecasting up to 990 units to be added to the service area over the next three to five years and believe that this is sufficient to justify the additional costs.

Staff are currently working to update the Town's Development Charge Background Study and By-law; the work done in this engineering assignment will be vital to updating not just the costs of these projects but of similar projects that are carried in the growth-related capital program.

H. In Consultation With

Sam Dinsmore, Deputy Treasurer/Manager of Accounting & Budgets

Serena Wilgress, Manager of Purchasing & Risk Management

Mark Service, Wastewater Supervisor

I. Public Engagement

The topic of this Staff Report has not been the subject of a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. However, any comments regarding this report should be submitted to Allison Kershaw, Manager of Water & Wastewater Services managerwww@thebluemountains.ca .

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J. Attached

None

Respectfully submitted,

Allison Kershaw,
Manager of Water & Wastewater Services

Shawn Carey
Director Operations

For more information, please contact:
Allison Kershaw, Manager of Water & Wastewater Services
managerwww@thebluemountains.ca
519-599-3131 extension 226

Report Approval Details

Document Title:	CSOPS.23.019 Engineering Services for Craigleith SLS, Mill St SPS and Mill St FM Upgrades Budget Increase.docx
Attachments:	
Final Approval Date:	Apr 6, 2023

This report and all of its attachments were approved and signed as outlined below:

Allison Kershaw - Apr 6, 2023 - 9:57 AM

Shawn Carey - Apr 6, 2023 - 3:49 PM