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Staff Report

Operations – Engineering and Capital Projects

Report To:	**COW - Operations, Planning and Building Services**
Meeting Date:	December 9, 2025
Report Number:	OPS.25.049
Title:	Request for Construction Budget Increase for Craigleith SLS, Mill St SPS and Bay-Grey St Linear Works
Prepared by:	Pruthvi Desai, Manager of Capital Projects

A. Recommendations

THAT Council receive Staff Report OPS.25.049, entitled "Request for Construction Budget Increase for Craigleith SLS, Mill St SPS and Bay-Grey Linear Works";

AND THAT Council approves an increase of $19,000,000 to the project budget.

B. Overview

The purpose of this report is to seek Council approval for an increase to the construction budget for the Craigleith Main Sewage Lift Station (CMSLS), Mill Street Sewage Pumping Station (MSSPS), and the Bay St - Grey St Linear Works (Bay St – Grey St). These works are funded in part by the Housing Enabling Water Systems (HEWS) Fund and are essential to modernizing critical wastewater infrastructure while leveraging $25.4 million in Provincial government funding, to reduce Town costs to approximately 50 cents on the dollar.

Collectively, the works will address aging and undersized pump stations, reduce inflow and infiltration, decommission the Elgin Street Sewage Pumping Station (ESSPS), and construct new linear infrastructure needed to convey flows to the Thornbury Wastewater Treatment Plant. The project also includes upsizing the watermain to establish a second trunk corridor through the Town, improving system capacity and resilience. At completion, the projects will unlock capacity to support approximately 13,724 additional housing units, positioning the Town for sustainable, serviced growth over the next 20 years while reducing long-term operating risks and costs.

From a community perspective, these upgrades directly improve public health, environmental protection, and neighbourhood livability. Modernizing the wastewater system will significantly reduce the risk of basement flooding, prevent sewage bypasses to the Beaver River and Georgian Bay, and strengthen the Town's ability to manage increasingly intense rainfall events. By replacing failing 1970s infrastructure, enhancing system reliability, and mitigating inflow and

infiltration, the project supports a safer, more resilient community and safeguards both private properties and the natural environment.

C. Background

The scope and cost of the CMSLS, MSSPS, and Bay St linear works have evolved substantially since the preliminary Class C/D estimates were developed. Early estimates were prepared before the completion of the 2024 Wastewater Master Plan and were based on conceptual engineering that did not yet define key elements of the project such as the full build-out flow requirements, the replacement of the existing forcemain up to McAuley Street to facilitate installation of the sanitary sewer (as this requirement was not identified in the early estimates), the decommissioning of the Elgin Street Sewage Pumping Station, the TWWTP effluent outfall routing along Grey Street, extensive bypass pumping, contaminated soils, utility relocations, stormwater treatment requirements, and the replacement of aging mechanical, electrical, and structural components. As detailed design progressed and the system-wide servicing strategy became clearer, these elements were integrated into the finalized engineering packages, resulting in a more comprehensive and accurate understanding of the infrastructure required to support current demands, reduce inflow and infiltration, and enable long-term growth. Consequently, the total project cost has risen from the original $34.79 million used in the HEWS grant application to a revised estimate of $53.56 million. The total additional funding required for these works is approximately $19 million, which includes a proposed $5 million transfer from the TWWTP Outfall Project and an additional $14 million in new funding.

D. Analysis

Leveraging the $25.4M HEWS Grant and Recognizing the Work Completed

The HEWS funding award of $25.4 million is a significant achievement for the Town and reflects extensive effort by staff and consultants to develop, coordinate, and justify an integrated wastewater upgrades project as part of staff's ongoing responsibility to identify and pursue funding opportunities. The CMSLS, MSSPS, and Bay Street linear works were bundled into a single project to achieve an estimated $500,000 reduction in contract administration costs and to strengthen the Town's grant application by demonstrating a clear and defensible connection between added wastewater capacity and the ability to support new housing. The Provincial contribution represents approximately 47% of the total updated project cost, substantially reducing the financial pressure on the Town's Asset Replacement reserves, Development Charge Reserve funds and ultimately, the tax levy. To remain eligible for the full funding allocation, all components of the project must be completed by March 31, 2027, and must achieve the required capacity expansion to support up to 13,724 additional residential units, as identified in the Town's original grant application. This funding provides a rare and time-sensitive opportunity to deliver multiple major wastewater upgrades concurrently, improvements that would otherwise need to be completed incrementally over many years at a significantly higher cumulative cost to the Town.

Renewing Aging Wastewater Assets and Addressing I&I

The Mill Street Sewage Pumping Station is operating well beyond its intended capacity, with actual flows more than double the Ministry of Environment, Conservation and Parks (MECP) recommended peaking factor, which clearly shows that Thornbury's wastewater system is experiencing significant inflow and infiltration issues. As the central wastewater collection hub for all of Thornbury and Lora Bay, ensuring reliable performance of the Mill Street SPS is essential to protecting homes, businesses, and the natural environment. The existing pumping station is undersized for current and future flows during rainfall events, and the designed pumps are configured in a wet well/dry well arrangement that supports safer and more efficient maintenance; operators rely on the rail system in the dry well to access pump motors quickly, whereas a submersible-only arrangement would require a crane to lift 6,000-lb pumps for every repair, blockage, or airlocked pump, introducing delays that could increase the risk of sewage spills or basement backups. The finalized design also incorporated building code requirements for CMSLS and infrastructure upgrades that were not fully defined at the preliminary estimate stage.

While on Bay Street, the wastewater and water infrastructure installed in the 1970s has reached the end of its useful life, with asbestos cement sanitary and watermains in poor to very poor condition and multiple watermain breaks documented in recent years. The sanitary sewer on Bay Street is known to contribute significantly to I&I, with the Wastewater Master Plan identifying this segment as having a very high level of infiltration. Advancing the linear works and the new sanitary forcemain provides an opportunity to fully reconstruct these deficient mains, reduce I&I at one of the system's most problematic locations, and restore and upsize a reliable water service trunk corridor through the Town. Together, the MSSPS expansion and Bay St - Grey St reconstruction address the most critical aging assets in the Thornbury wastewater system, reduces operational risks, and modernizes core infrastructure to current standards.

Planning for Sustainable and Future-Ready Infrastructure

The engineering design for both CMSLS and MSSPS has been to size key building expansion, structural and linear components for the full build-out, while initially installing pumping capacity to serve the 10-year horizon. This strategy lets the Town build the high-cost, hard-to-replace components (the deep wet/dry well, forcemain, and building footprint) up front, with future needs addressed through straightforward pump and electrical upgrades. This staged approach is a sustainable, fiscally responsible way to manage growth: it minimizes repeated construction disruption, reduces long-term lifecycle costs, and ensures that today's investments will continue to serve new residents and businesses in the future with only incremental mechanical upgrades required.

Enabling New Housing, New Commercial/Industrial, and Supporting Growth Targets

The core objective of the HEWS funding program is to enable additional housing through strategic water and wastewater investments. At completion, the combined capacity improvements at CMSLS, MSSPS, the new forcemain, and the TWWTP effluent outfall will allow the Town to accommodate up to approximately 13,724 new housing units as identified in the

grant application. In practical terms, this means that multiple developments currently in the planning process in Craigleith, Lora Bay and Thornbury will be able to move forward once capacity is realized. The projects therefore not only resolve deteriorating asset conditions, but also directly support the Town's ability to respond to provincial housing objectives and local demand for a range of housing options. Following completion of the works, the Town anticipates that 782 residential and commercial units could commence construction in the short to medium term. This includes some sites that have remained in an unfinished state because of the lack of capacity.

Eliminating the Need for Major Upgrades at Elgin Street Sewage Pumping Station

Through the Bay St Linear Works, the sanitary system on Bay St has been lowered and reconfigured so that the Elgin Street Sewage Pumping Station (ESSPS) can be fully decommissioned. This avoids the need for a separate major upgrade of approximately $2.5 million in the future, as identified in the Wastewater Master Plan. Removing ESSPS from service eliminates an aging, undersized asset, reduces long-term operating and maintenance costs, and simplifies the overall wastewater collection network by reducing the number of critical control points. Because the opportunity to deepen the sewer and remove ESSPS exists only while the Bay St–Grey St infrastructure is being reconstructed, this is truly a once in generation opportunity if the station is not eliminated now, it will remain in place indefinitely, requiring ongoing investment and future capital upgrades.

Project Scope & Cost Evolution from Preliminary Design to Final Engineering Estimates

As the detailed design work progressed and the Wastewater Master Plan was completed, the scope of the Craigleith Sewage Lift Station, Mill Street Sewage Pumping Station, and the Bay Street linear works changed significantly from what was originally anticipated. Early Class C/D estimates are based on broad assumptions and are intended to provide only a preliminary cost range. As engineering advanced from high-level concepts to detailed "Issued for Tender" designs that identified actual flow needs, infrastructure requirements, construction methods, staging considerations, and regulatory obligations, the full extent of the work became clearer and resulted in higher and more accurate project costs. Initial estimates were based on conceptual layouts and did not fully account for key elements such as the TWWTP effluent outfall on Grey Street, decommissioning of the Elgin Street Sewage Pumping Station, extensive bypass pumping requirements, additional stormwater treatment (three Oil Grit Separator units and upsized outlets), renewal of end-of-life process and structural components, utility relocations, public relations/communications requirements, and escalation in major equipment and construction pricing. As engineering advanced, these items were incorporated into the final designs, and the projects were sized to accommodate 10-year and 20-year growth horizons with climate change allowances, which further increased costs relative to the original concept. Financially, the combined project budget has increased from the original $34.79 million (engineering and construction) used in the HEWS funding application to an updated total projected cost of approximately $53.56 million, resulting in a variance of about $18.77 million; after applying a $5 million transfer from the TWWTP Effluent Outfall project, the net additional funding requirement for these works is approximately $13.77 million.

Consequences of Not Proceeding

If the Town does not proceed with the CMSLS, MSSPS, and Bay St - Grey St Linear Works as designed, there will be significant operational, financial, regulatory, and community impacts. The existing CMSLS and MSSPS pumps cannot meet the MECP firm capacity guidelines to convey the peak hour in a 10-year storm flows under firm capacity, as well, the built capacity cannot meet the 100 year storm with firm capacity period, resulting in a high risk of basement flooding, sewer surcharging, and emergency bypasses to the natural environment events the Town has already experienced during recent heavy rainfalls, which have become more common in the last few years. Operators would continue to rely on labor emergency response measures, including sewage hauling, all of which significantly increase day-to-day operating costs. High inflow and infiltration will continue to strain the system, escalating maintenance needs and increasing long-term operational expenses. The necessary infrastructure upgrades will still need to be completed in the near future and deferring them will only increase construction costs and heighten the likelihood of failures of aging assets.

From a financial standpoint, not proceeding places the entire $25.4 million HEWS funding grant at risk, as the Town must complete all works by March 31, 2027 to remain eligible. Failure to advance the Mill Street SPS immediately would delay the interconnected Bay St - Grey St forcemain and outfall works, undermining their purpose and jeopardizing the value of the construction contracts already awarded. Work on the CMSLS is underway, with equipment procurement and shop drawings in progress, and the contractor for the Bay–Grey Street linear works has already mobilized and begun construction. Mill Street SPS is the only remaining component pending tender release; without it, the system cannot achieve the required capacity expansions or support new housing growth. For these reasons and to protect the Town's infrastructure reliability, environmental compliance obligations, and the substantial grant funding secured Council's approval of the additional budget is essential.

Summary

The Craigleith SLS, Mill Street SPS, and Bay St - Grey St Linear Works are critical, interdependent components of the Town's wastewater infrastructure and are essential to ensuring long-term system reliability, reducing inflow and infiltration, and supporting sustainable community growth. With aging assets operating beyond their intended capacity, documented basement backups and bypass events during recent heavy rainfalls, and significant I&I impacts on day-to-day operations, these upgrades cannot be deferred without substantial operational, environmental, and financial consequences. Advancing the projects as designed will enable the Town to service up to 13,724 additional housing units, eliminate the need for major future upgrades such as the Elgin Street Sewage Pumping Station, and modernize infrastructure that is approaching end-of-life.

The Town's successful effort in securing $25.4 million in Provincial HEWS funding provides a rare opportunity to complete these works concurrently and at a significantly reduced cost to ratepayers. To retain this funding, all components must be completed by March 31, 2027, making continued progress essential. Construction is already underway on the Craigleith SLS and Bay–Grey Street linear works, and only the Mill Street SPS tender remains to be issued;

maintaining momentum is necessary to meet the funding deadline and avoid jeopardizing the Town's investment to date.

In order to deliver these essential upgrades and maintain eligibility for the Provincial funding, it is recommended that Council receive Staff Report OPS.25.049 and approve an increase of additional $19,000,000 to the construction budget. These actions will ensure the Town can continue to advance critical wastewater infrastructure, protect the community from operational risk, and support long-term growth in a fiscally responsible manner.

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. The MSSPS is a major component in the Thornbury wastewater system, as it directs all the sewage from Thornbury, Lora Bay and the existing connections in Clarksburg to the TWWTP. The CMSLS is a major component in the Craigleith wastewater system. This station conveys the sewage for the entire Craigleith sewer shed to the Craigleith Wastewater Treatment Plant.

When the flow into the station exceeds the current capacity of the station, sewage will back up with the collection system and potentially basements. Overflows in the system may result in sewage going to them natural environment, including the Beaver River and Georgian Bay. In not proceeding with the works, the Town is increasingly at risk of not complying with the Ontario Water Resources Act and the Town's Consolidated Linear Infrastructure Environmental Compliance Approval. Odours from a wastewater pumping station must be addressed in

responsible manner. It is not acceptable to allow the operations of a pumping station to interfere with the neighbor's enjoyment of their properties.

G. Financial Impacts

The current approved project budget is $34,791,129. The table below outlines the committed and anticipated costs.

Table #1, Committed and Anticipated Project Costs

Project	Cost excluding HST	Cost with non-recoverable HST
Engineering	$2,479,747	$2,523,390
Utility Relocation & Miscellaneous	$900,000	$915,840
CMSLS Reconstruction	$8,977,900	$9,135,910
Bay/Grey St. Linear Works	$20,338,000	$20,695,950
MSSPS Reconstruction *	$19,941,000*	$20,291,962*
Total	**$52,636,647**	**$53,563,052**
Total Approved Budget	$34,791,129	$34,791,129
Variance	**($17,845,518)**	**($18,771,923)**
Budget Transfer from TWWTP outfall project	$5,000,000	$5,000,000
Final Variance	**($12,845,518)**	**($13,771,923) or (Approx. $14M)**

*This is an estimated cost, the work has not been tendered.

To be eligible to receive the full amount of the grant funds, it is critical that the projects are all completed by March 31, 2027, and that the projects are able to meet required capacity expansions to the wastewater system to support an additional 13,724 residential units.

Table #2, Funding Breakdown

Project	Grant Allocation	DC Eligible *	Asset Mgmt. Reserves	Total
MSSPS	$10,281,849	$6,906,977	$3,103,134	$20,291,962
CMSLS	$4,629,126	$1,802,714	$2,704,071	$9,135,911
Bay/Grey St	$10,486,547	$3,156,450	$7,052,951	$20,695,949
Engineering		$597,379	$1,926,012	$2,523,391
Utility Relocates		$216,813	$699,027	$915,840
Grand TOTAL	**$25,397,522**	**$12,680,333**	**$15,485,195**	**$53,563,053**

*DC eligibility percentages to be confirmed by Hemson Consulting.

These added expenses were not reflected in the reserve and reserve fund outlook provided in the 2026 budget, which was already constrained. Finance staff will therefore need to re-evaluate the forecast and assess borrowing options to ensure the Town can accommodate these pressures.

To address financial risks related to these major capital projects in the future, staff are discontinuing the practice of grouping project budgets to reduce complexity in financial tracking as they make it difficult to assess remaining balances. Further, additional sign-offs will be required for expenses in excess of $500,000 prior to the award of a tender. This additional step will strengthen the Town's ability to respond more effectively to cost-escalations in major capital projects.

H. In Consultation With

Mike Humphris, Senior Capital Infrastructure Coordinator

Allison Kershaw, Manager of Water & Wastewater

Shawn Postma, Manager of Planning Services

Brian Worsley, Manager of Development Engineering

Monica Quinlin, Director of Corporate & Financial Services

Alan Pacheco, Director of Operations

Adam Smith, CAO

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 Pruthvi Desai, Manager of Capital Projects pdesai@thebluemountains.ca .

J. Attached

N/A

Respectfully submitted,

Pruthvi Desai
Manager of Capital Projects

Alan Pacheco
Director of Operations

For more information, please contact:
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Report Approval Details

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Attachments:	
Final Approval Date:	Nov 28, 2025

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

Pruthvi Desai - Nov 28, 2025 - 2:03 PM

Alan Pacheco - Nov 28, 2025 - 2:23 PM

No Signature found

Adam Smith - Nov 28, 2025 - 5:33 PM