Staff Report

Operations –
Water & Wastewater Services

Report To:	**COW - Operations, Planning and Building Services**
Meeting Date:	August 25, 2026
Report Number:	OPS.26.035
Title:	Craigleith Wastewater Treatment Plant Upgrades 30% Design Update
Prepared by:	Allison Kershaw, Manager of Water & Wastewater Services

A. Recommendations

THAT Council receive Staff Report OPS.26.035, entitled "Craigleith Wastewater Treatment Plant Upgrades 30% Design Update" for their information.

B. Overview

This report provides Council with an update on the seven (7) scopes of work associated with the Craigleith Wastewater Treatment Plant (CWWTP). The Town has recently received the 30% design packages, as well as a Class D estimate for the construction. The linear works on Long Point Road is also included in this project. Staff brought Staff Report OPS.26.021 on April 7, 2026, providing a summary of the costs associated with the linear works.

Council approved an additional $150,000 to complete a value engineering or third-party review for all seven associated projects on Monday April 20th, 2026.

C. Background

In conjunction with approving the value-engineering assignment, Council also passed the following resolution:

> *THAT Council receive Staff Report OPS.26.021, entitled "Long Point Road Linear Works 30% Design Update";*
>
> *WHEREAS this motion is aligned with the new Strategic Plan Our Path Forward, Specifically the pillar:*

Accountability and Transparency:

- *Deliver transparent, effective, and evidence-based governance and decision making*
- *Ensuring the Town's long term financial health*

THAT Council direct staff to provide a copy of the grant application submitted under the Provincial Health and Safety Water Stream Fund for all seven projects to the Committee of the Whole on April 28, 2026.

AND THAT Council direct staff to report back no later than the Committee of the Whole meeting on June 29, 2026, with the following:

Updated Class D (or better) cost estimates for the six remaining project components (Lift Station, Septage Receiving Station, etc.) to be provided prior to commencing the Value Engineering exercise;

A quantified estimate of Development Charge (DC) units and collection timelines, including an assessment of financial risks;

Projected annual debt-servicing costs and the resulting impact on the Town's debt capacity;

An analysis of how the $3.3 million wastewater reserve shortfall affects the delivery of this project and others in the 10-Year Capital Plan, such as Bay Street Reconstruction, Thornbury West Reconstruction Phase 2

The percentage of funding allocated to contingency and an explanation of how design-stage uncertainties are managed

AND FURTHER THAT this report be brought back to Council prior to any further commitment of construction resources beyond the approved additional amount of $150,000 for the value-engineering and third-party review assignment increase to the current budget.

The upgrades to the Craigleith Wastewater Treatment Plant (CWWTP) include seven (7) different projects. The engineering assignment for all seven projects commenced in 2025, and construction budget for each scope was approved as part of the 2026 Annual Town Budget.

These projects stem from the Long Point Road Environmental Assessment and the Asset Replacement Program.

While these projects were delivered under a single engineering assignment to improve coordination and efficiency, each scope of work maintains an individually approved budget. The seven project components are as follows:

1. The linear works on Long Point Road
2. Construction of a lift station at the CWWTP

3. Construction of a septage receiving station at the CWWTP
4. Screening and grit removal at the CWWTP
5. Replacement of the existing Motor Control Centre (MCCs) at the CWWTP
6. Replacement and upsizing of the existing back-up generator as the CWWTP
7. Replacement of the existing blowers at the CWWTP

The Town submitted a grant application under the Provincial Health and Safety Water Stream Fund for all seven projects, with a total anticipated project cost of approximately $45,000,000. Unfortunately, we were not successful with this grant opportunity.

The 30% design class D estimates indicate the total cost of the project to be $50,220,000.

D. Analysis

The 2026 approved Town budget includes a total of $45,000,000 for the construction of the seven individual projects identified earlier in this report; however, each project has its own dedicated budget allocation. The approved budget for the construction of the linear works is $4,800,000. These costs were based on 2024 construction pricing, with a 10% escalation applied to estimate 2027 construction costs. At the time the budget was developed, no significant engineering work had been completed, and the budget was therefore based on staff's best available estimates from the Long Point Road Environmental Assessment.

On March 19, 2026, the Town received the 30% design drawings, along with a Class D cost estimate, for the construction of the linear works on Long Point Road, including the Highway 26 crossing. The estimated construction cost is $5,611,128, which is approximately $811,000 higher than the initial staff estimate.

Staff Report OPS.26.021 was presented to the Committee of the Whole on April 7, 2026, this report detailed the Class D cost estimate for the linear works. This staff report includes Class D cost estimates for the other six (6) scopes of work.

The table below summarizes the cost estimates used in the approved budget, the recently received 30% design estimates, and the corresponding percentage increase or decrease for each scope of work.

Scope of Work	**2026 Approved Budget (based on staff's best estimate)**	**30% Design Class D Estimate(-25% to +30%)**	**% Increase/ Decrease**
Linear Works	$4,800,000	$5,611,128	+16.8%
Lift Station	$13,700,000	$20,740,244	+51.4%

Septage Receiving Station	$2,800,000	$5,005,000	+78.8%
Screening & Grit Removal	$7,400,000	$8,723,000	+17.9%
Motor Control Centre (Electrical)	$9,600,000	$3,120,000	-67.5%
Back-up Power Generator	$2,700,000	$1,495,000	-44.6%
Aeration Blowers	$4,000,000	$5,526,000	+38.2%
Total	**$42,000,000**	**$50,220,372**	**+19.5%**

Staff have worked with the Consultant to understand the differences between the staff estimations and the Consultant's Class D Estimates. Provided below in analysis based on current information available with respect to the resolution of Council:

Updated Class D (or better) cost estimates for the six remaining project components (Lift Station, Septage Receiving Station, etc.) to be provided prior to commencing the Value Engineering exercise;

Linear Works

Through consultation with the Ministry of Transportation (MTO), the Town was advised that a gravity sewer crossing of Highway 26 would not be permitted within the existing intersection area. To meet MTO requirements and avoid potential conflicts with the limits of a future roundabout, the project scope was extended by approximately 150 m. This represents an increase of approximately 30% in the overall sewer length and allows the sewer alignment to clear the MTO's required intersection construction zone.

The extension of the gravity sewer north along Long Point Road to the newly constructed sewage lift station at the Craigleith Wastewater Treatment Plant (WWTP) will allow approximately 417 existing wastewater users (units) to be redirected from the Craigleith Main Sewage system. The proposed sanitary sewer will also provide sufficient capacity to accommodate the full build-out of the collection system, estimated at approximately 5,500 units.

Lift Station

The 30% design established the required depth of the lift station wet-well. As part of the 30% design process, geotechnical investigations identified the presence of bedrock that conflicts with the proposed wet well installation. The extent and depth of the required rock excavation could not be accurately quantified until the geotechnical investigations were completed. Based on the findings, the cost associated with rock excavation is estimated at approximately $2 million.

The lift station cost estimate has been updated to reflect current market conditions and incorporates information from the Mill Street SPS tender pricing, based on the average cost of submitted bids. Construction pricing has increased due to ongoing market uncertainties, including tariff risks and increases in oil prices.

The lift station has been designed to accommodate future expansion and is expected to meet the Town's servicing requirements for the next 50 to 75 years. Over this period, routine lifecycle requirements are anticipated to be limited primarily to pump replacements.

The concrete and steel will be constructed to support the full buildout of the sewer shed, approximately 5,500 units, however, the pumps will be sized to accommodate the existing users plus the anticipated short-term needs for a total of 1,300 units.

Table 1 – Wastewater Units, Existing-, Short-, Medium- and Long-Term Developments

Development Timeline	**Units**
Existing units	417
Short-term Development	1,288
Medium-term Development	3,281
Long-term Development	5,481

Septage Receiving Station

The septage receiving station is integrated with the lift station, and a portion of the additional rock excavation costs can be attributed to the construction of this facility. During the interim period, additional septage storage and mixing capacity is required to reduce shock loading on the wastewater treatment system. In addition, staff

recommend incorporating a recreational vehicle (RV) unloading station into the design to provide an additional service to the community. The septage receiving station is expected to generate revenue and will be evaluated through a lifecycle cost analysis to determine payback and establish appropriate cost recovery mechanisms from sewage haulers and RV users.

Screening & Grit Removal

Initially, staff anticipated that the project scope would be limited to the addition of screening units. However, as the design progressed, further investigation identified more complex system requirements, particularly when considering future growth, operational flexibility, and long-term reliability. As part of the 30% design process, the existing grit removal system was assessed and determined to be underperforming relative to current operational requirements, resulting in the recommendation that the system be upgraded.

The existing screening system at the CWWTP consists of a manual bar screen that requires operators to hand-rake accumulated debris and remove screenings using buckets. This process presents health and safety concerns associated with manual handling, repetitive tasks, and potential exposure to hazardous materials. The existing 19 mm manual bar screen and comminutor have reached the end of their service life and require replacement. The proposed automated screening units will provide 6 mm screening capability, improving solids removal efficiency and providing enhanced protection for downstream treatment equipment.

The screening units initially considered were proposed for outdoor installation, leaving the equipment exposed to environmental conditions. Through discussions with the consultant and a review of similar installations throughout Ontario, it was recommended that a dedicated headworks structure be constructed to protect the equipment, improve operational conditions, and maximize the service life of the new infrastructure.

Project cost estimates have been developed based on recent comparable construction costs associated with the Phase 1A expansion of the Thornbury Wastewater Treatment Plant.

Motor Control Centre (MCCs) (Electrical)

The reduction in electrical costs is primarily attributed to cost sharing between the sewage lift station, headworks, and blower systems. Each of these components includes allowances for the main electrical works within its respective estimate. As a result, the overall electrical scope and associated costs for the motor control centres (MCCs) were reduced to avoid duplication and reflect the shared infrastructure requirements.

Back-up Power Generator

The 30% design included an assessment of the electrical loads required to provide standby power to the treatment plant and all associated systems and appurtenances. This assessment was used to determine the anticipated capacity and size of the standby generator required to maintain operation of the entire facility during a power outage.

Blowers

As part of the 30% design process, the overall blower requirements were evaluated, including opportunities to optimize system operation by sharing blower capacity between the secondary treatment process and the digesters. The existing blowers are approximately 42 years old and have reached the end of their anticipated service life.

While replacement of the existing blowers represents a higher upfront capital investment, the proposed approach is expected to improve operational flexibility and efficiency, reduce long-term operation and maintenance costs, and mitigate operational risks associated with aging equipment reliability.

A quantified estimate of Development Charge (DC) units and collection timelines, including an assessment of financial risks;

Staff Report ADM.26.038 provides a projection of net DC revenue extending into 2030 reflective of the Town's 10-year capital plan. Based on the current projects in the plan and estimated DC collection, the reserve is anticipated to be in a deficit of approximately $50 million by 2030. While this projection creates concern, it is important to recognize the Town's capital plan is reevaluated on an annual basis and financial risks are weighted into prioritization process. Among these risks is the accuracy of projections given legislative changes underpinning the collection of DCs. Rather than at the time of agreement execution, residential developments now have the ability to defer payment until the time of occupancy. As a result, collection timelines are now more complicated given occupancy can occur years following the creation of new lots.

Projected annual debt-servicing costs and the resulting impact on the Town's debt capacity;

To illustrate the potential impact of using debt financing for the Craigleith Wastewater Treatment Plant Upgrades project, the following scenario applies the same estimated annual repayment limit referenced in Staff Report ADM.26.038.

If the Town were to apply for a $28.1 million loan through the HEWI loan program, amortized over 40 years at an estimated interest rate of 4.82%, the annual debt repayment would be approximately $1.6 million.

This would result in total annual debt charges of approximately $3.76 million, representing approximately 38% of the estimated 2026 annual repayment limit. This would leave approximately $6.2 million or 62% of the annual repayment limit available for other debt-financed projects and obligations.

Annual Repayment Limit Calculation

	Calculation
Estimated 2026 Annual Repayment Limit (ARL)	$9,939,253
Current Annual Debt Charges	(727,404)
Estimated HEWS Projects Annual Debt Charges	(1,430,000)*
Estimated CWWTP Upgrades Annual Debt Charges	(1,600,000)*
Estimated Annual Repayment Limit	$6,181,849

*using an amortization loan type

An analysis of how the $3.3 million wastewater reserve shortfall affects the delivery of this project and others in the 10-Year Capital Plan, such as Bay Street Reconstruction, Thornbury West Reconstruction Phase 2

As illustrated in the table above, the shortfall in reserves is already reflective of the HEWS related projects being Bay-Grey Street Reconstruction, Mill Street Pumping Station and the Craigleith Lift Station. The 2027 Budget process is inclusive of a prioritization framework with consideration of the Town's overall debt capacity. This will impact the timing of certain projects with a focus on critical services and alignment with strategic objectives of the Town. Thornbury West Reconstruction Phase 2 will be included in this evaluation.

The percentage of funding allocated to contingency and an explanation of how design-stage uncertainties are managed

The Town generally applies a 25% contingency associated with a projects of this nature. Given the Class D estimates received, a stage-gate control is the application of a value-engineering study to understand how scope can be refined to control costs while still meeting intended outcomes. Once complete, and as an additional control, consideration can also be given to phasing components of the overall project. While some aspects are interrelated the seven scopes address a combination of growth needs and asset replacement. For example, this report documents growth in the short term that needs to be accommodated through the linear works and lift station while also noting the blowers being end of life from an asset management perspective.

Next Steps

Staff will proceed with a Request for Proposals (RFP) for consulting engineering services from firms with experience conducting Value Engineering Exercises and/or Third-Party Reviews. The purpose of this work will be to ensure that the 30% designs for the

proposed projects are fit for purpose, identify opportunities for cost efficiencies, and represent good value for money.

The review will also identify and assess key project risks, including risks related to scope, cost, schedule, constructability, site conditions, utilities, and other factors that could affect project delivery. A project risk register will be established and maintained throughout the design and construction phases, with risks assigned to appropriate project team members for mitigation and monitoring.

Staff will use the outcomes of the additional review to inform the development of the 60% designs and refine the project cost estimates, contingencies, and delivery schedules. Staff and the consultant will continue to monitor and manage project risks, costs, and timelines as the designs progress.

Staff will provide Council with an update once the 60% designs are completed, including any significant changes to scope, estimated cost, schedule, and identified project risks.

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

Safely collecting and treating sewage through a communal system protects human health and the natural environment.

G. Financial Impacts

Staff are not requesting a budget increase currently for these projects. As these projects progress through engineering, staff should have a better understanding of the total construction costs for all seven projects. Staff will address any shortfalls through the 2027 Annual Town Budget.

Currently, the Wastewater Reserve Fund balance at the end of 2025 is $12.4M and estimated to be $4.0M at the end of 2026. Projections for 2027 show the fund will be in a deficit of ($4.0M) which is exclusive of this project. As discussed during the budget process internal and/or external borrowing will need to be assessed based on the current 10-year plan. Staff are working on updating this plan as well to fully appreciate the borrowing needs.

It is also noted that portions of this work are DC Eligible (Sewage Lift Station – 100% DC Eligible; Long Point Rd Reconstruction - ~33% DC Eligible). However, the rest of the work is mostly asset replacement funding with a very small percentage DC Eligible.

In is important to understand that every year this project is delayed, there can be an expected 3 to 5% cost escalation.

The Town submitted a grant application under the Provincial Health and Safety Water Stream Fund for all seven projects, with a total anticipated project cost of approximately $45 million. Unfortunately, the Town was not successful in securing funding through this grant opportunity. Staff have since submitted an application for funding under the Development Charge Reduction Program tied to the DC eligible components of the work being in the amount of $15.7 million.

H. In Consultation With

Adam Smith – CAO

Serena Wilgress – Manager of Purchasing & Risk Management

Vicky Bouwman – Supervisor of Accounting & Budgets

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 .

J. Attached

N/A

Respectfully submitted,

Allison Kershaw,
Manager of Water & Wastewater Services

Adam Smith
CAO

For more information, please contact:
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Report Approval Details

Document Title:	OPS.26.035 Craigleith Wastewater Treatment Plant Upgrades 30 percent Design Update.docx
Attachments:	
Final Approval Date:	Aug 17, 2026

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

Allison Kershaw - Aug 17, 2026 - 10:03 AM

Adam Smith - Aug 17, 2026 - 10:05 AM