



Staff Report

Operations – Capital Projects Division

Report To: COW-Operations_Planning_and_Development_Services
Meeting Date: April 30, 2024
Report Number: CSOPS.24.028
Title: Drainage Master Plan Engineering Scope Change
Prepared by: Pruthvi Desai, Manager of Capital Projects

A. Recommendations

THAT Council receive Staff Report CSOPS.24.028, entitled “Drainage Master Plan Engineering Scope Change” for their information;

AND THAT Council approve increasing the contract with Tatham Engineering Ltd., related to the Town Wide Drainage Master Plan and Stormwater Hydraulic Model Development by \$106,000 from \$468,265 to a total upset limit of \$574,265, including contingency.

B. Overview

Staff is requesting an increase in contract value for Consulting Services for the Town Wide Drainage Master Plan (the Project).

In 2020, the Town issued a Request for Proposal (RFP) in accordance with the Town of The Blue Mountains’ Purchasing Policy (POL.COR.07.05). The budget for Consulting Services was set at \$650,000. Town retained Tatham Engineering Ltd. (Tatham) and awarded the project for \$428,265 which included a Contingency of \$40,000. A proposal to remove inconsistencies and improve the value of model with requirement for additional work to calibrate the model is resulting in an increase in the project’s consultant fees. Calibration of this model will be most cost effectively undertaken by Tatham as a developer of the Model. Nonetheless, the operation of the Model is not limited solely to Tatham. Any company holding a valid license for the Model software and possessing the necessary expertise in its operation could be retained by the Town for the purpose of running the model.

C. Background

In 2019, Council approved the budget of \$350,000 for the Town Wide Drainage Master Plan (the Project) through Roads and Related Development Charges; however, \$50,000 was paid out to the Grey Sauble Conservation Authority to complete the LiDAR project. Further in 2020, Council approved the budget of \$300,000 for Storm Hydraulic Model Development

(recommendation made through ongoing Drainage Master Plan) through Roads and Related Development Charges.

The Town of The Blue Mountains (the Town) has not historically completed a comprehensive Drainage Master Plan (DMP) but has completed communal Master Plans. More recently, the Town completed a DMP for the Community of Thornbury and several Preferred Alternative Solutions were derived, such as, implementing mechanical devices to address stormwater quality, minor and major drainage improvements to eliminate municipal drainage from entering private property.

Although there are preferred drainage solutions for individual communities, watercourses and developments, a Town Wide Study is required to assess relative risks, costs versus benefits, and social and environmental impacts.

Therefore, the Project will serve as a long-term strategy for the Town to best address management of stormwater resources for both existing and new growth areas and to integrate the Town's regard for water quality and quantity control requirements.

As a part of the Drainage Master Plan, Tatham recommended Streamflow Monitoring and Hydrologic Model Calibration. In 2022, Tatham provided a proposal to the Town to complete the monitoring and model calibration. Tatham provided two options for this work, specifically a full scope and reduced scope options. The proposal was further reviewed with updated original fees thereafter on February 9, 2024, to reflect current costs of the monitoring equipment and consultant's charge out rates.

D. Analysis

Stormwater Hydraulic Model Development

The Drainage Master Plan existing conditions report identified discrepancies between the results of the DMP hydrologic model and the hydrologic model prepared as a part of the 1993 Grey Sauble Conservative Authority Craigeleith Camperdown Sub-watershed Study. Generally, higher peak flows were produced by the DMP hydrologic model which may be leading to conservative infrastructure sizing and inflated project costs. Therefore, a stream flow monitoring program is recommended through ongoing Drainage Master Planning to calibrate the hydraulic model. As the Streamflow Monitoring was recommended through the Drainage Master Plan, to reduce the overall engineering budget, Staff bundled the Streamflow Monitoring with the existing Drainage Master Plan project.

Table 1: Streamflow Monitoring and Hydrologic Model Calibration Fees Summary with Full Scope.

PROPOSED TASK	FEE
Full Scope (10 Watersheds)	
Streamflow Monitoring – (Year 1)	\$46,000
Model Calibration	\$29,000
Total – Full Scope (10 Watersheds) - NOT ACCEPTED	\$75,000

In an attempt to manage costs, this work has been limited to 5 Watersheds. The associated costs are as follows:

Table 2: Streamflow Monitoring and Hydrologic Model Calibration Fees Summary with Reduced Scope.

Reduced Scope (5 Watersheds)	
Streamflow Monitoring – Reduced Scope (Year 1)	\$30,000
Model Calibration – Reduced Scope	\$21,000
Total – Reduced Scope (5 Watersheds)	\$51,000

Having a limited budget for this work, Town staff’s recommendation is to proceed with reduced scope for the streamflow monitoring and hydrologic model calibration.

Public Information Centre (PIC) #3

This Environmental Assessment (EA) is being conducted following Approach #2 of the Municipal Class EA Master Planning Process which involves the preparation of a Master Plan document at the conclusion of Phases 1 & 2 of the Municipal Class EA process. As part of Approach #2 the level of investigation, consultation and documentation are sufficient to fulfill the EA requirements of Schedule B projects. Phases 3 & 4 are not included in the scope of the Drainage Master Plan Project. Further, consultants advanced Phase 2 of the Master Plan Project and carried out PIC #2 in March 2023. Thereafter, due to several developments and changes in the Master Plan document with selected solutions, development framework, implementation programs, etc., Town staff recommends a third Public Information Centre (PIC #3) to the public, interested stakeholders and agencies. Tatham’s scope of work did not include a third PIC and it will cost additional expense to the Town. Tatham estimates the cost to conduct this PIC to be **\$10,000**.

Miscellaneous Works

Over the course of the Drainage Master Plan, additional consultant time was used to undertake stakeholder / agency meetings (i.e., GSCA, MTO, milestone meetings, etc.), which were not part of original contract. The total extra costs incurred to date is **\$15,000**.

Contingency

Staff are recommending increasing the contingency by **\$30,000** in addition to the original \$40,000 (remaining \$5,840) for the Drainage Master Plan Study, for a total contingency of \$70,000. This is a reasonable contingency considering the complexity and magnitude of the Study and one-year period of Hydrologic Modelling.

Recommendation

Staff recommends that Council increases the contract value with Tatham Engineering Ltd., related to the Town Wide Drainage Master Plan and Stormwater Hydraulic Model Development by \$106,000 from \$468,265 to a total upset limit of \$574,265, including contingency. The overall project budget for Drainage Master Plan and Stormwater Hydraulic Model Development is \$600,000. With this contract extension the overall project budget will have a balance of \$25,735 ($\$600,000 - \$574,265 = \$25,735$).

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

Discrepancies in the Drainage Master Plan (DMP) hydrologic model indicate potential inaccuracies affecting water quality and flood risks; drainage solution implementations may cause habitat disturbance or contamination, while effective measures can enhance water quality and minimize flood risks; conducting Public Information Centre (PIC) #3 is crucial for grasping community concerns on drainage and stormwater management.

G. Financial Impacts

Current Upset Fee Limit (not incl. Fee Contingency)	\$428,265
Current Contingency Fee Allowance	\$40,000 (remaining \$5,840)
Total Current Contract value	\$468,265

Streamflow Monitoring & Model Calibration	\$51,000
PIC #3	\$10,000
Miscellaneous Works	\$15,000
Contingency	\$30,000
Total Increase in Contract Value	\$106,000

An additional \$106,000 is proposed to be added to the consulting services contract with Tatham Engineering Ltd., bringing the total upset limit to \$574,265. This adjustment in the Engineering Scope remains within the approved budget of \$650,000, ensuring no Financial Impacts.

H. In Consultation With

Jim McCannell, Manager of Roads and Drainage

Brian Worsley, Manager of Development Engineering

Jeffery Fletcher, Acting Director of Operations

Sam Dinsmore, Acting Director of Finance/Treasurer

Jason Petznick, Communications Coordinator

Serena Wilgress, Manager of Purchasing & Risk Management.

I. Public Engagement

The topic of this Staff Report is to suite the Public Information Centers PIC#1 executed on February 24, 2022 and PIC#2 executed on March 30, 2023 in accordance with the following schedule:

- December 2, 2021 Notice of Study Commencement advertised in Collingwood Connection;
- December 2, 2021 Notice of Study of Commencement mailed to Stakeholders;
- January 13, 2022 PIC 1 Mail Notice to stakeholders;
- January 13, 2022 and January 27, 2022 Notice of PIC 1 advertised in Collingwood Connection;
- January 18, 2022 Committee of the Whole – Initial staff report CSOPS.22.002 with recommendation to proceed to public consultation;
- January 31, 2022 Council – Recommendations from January 18, 2022 Committee of the Whole confirmed;
- February 1, 2022 Virtual Drop In posted on the Town of The Blue Mountains website;
- February 24, 2022 Question and Answer session(s).
- February 21, 2023 Committee of the Whole – Initial staff report CSOPS.23.07 with recommendation to proceed to public consultation;
- March 6, 2023 Council – Recommendations from February 21, 2023 Committee of the Whole confirmed;
- March 7, 2023 Public Meeting Notice posted;
- March 9 2023 and March 23, 2023 Public Meeting advertised in Collingwood Connection;
- March 29, 2023 Question and Answer session at 5:00 p.m.;
- March 30, 2023 Public Meeting at 5:00 p.m.

Any comments regarding this report should be submitted to Pruthvi Desai, Manager of Capital Projects managercapitalprojects@thebluemountains.ca .

J. Attached

N/A

Respectfully submitted,

Pruthvi Desai
Manager of Capital Projects

Jeffery Fletcher
Acting Director of Operations

For more information, please contact:
Pruthvi Desai, Manager of Capital Projects
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519-599-3131 extension 310

Report Approval Details

Document Title:	CSOPS.24.028 Drainage Master Plan Engineering Scope Change.docx
Attachments:	
Final Approval Date:	Apr 18, 2024

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

No Signature found

Pruthvi Desai - Apr 17, 2024 - 3:30 PM

Jeff Fletcher - Apr 18, 2024 - 2:33 PM