

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Contract Award – Dingman Creek Pumping Station
Construction Tender T21-19

Date: May 11, 2021

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **be taken** with respect to the award of contract for the construction of the Dingman Creek Pumping Station facility:

- (a) the bid submitted by Hayman Construction Inc. at its tendered price of \$21,632,010.00, excluding HST, for the Dingman Creek Pumping Station Construction project (RFT21-19), **BE ACCEPTED**, it being noted that the bid submitted by Hayman Construction Inc. was the lowest of four bids received and meets the City's specifications and requirements in all areas.
- (b) Stantec Consulting Ltd, **BE AUTHORIZED** to carry out the resident inspection and contract administration for the Dingman Creek Pumping Station Construction project in accordance with the estimate, on file, at an upset amount of \$749,029.38, including 10% contingency, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy.
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A', noting the required wastewater capital budget transfers and adjustments.
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project.
- (e) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract, or issuing a purchase order for the material to be supplied and the work to be done, relating to this project; and
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends award of a tender for the construction of the Dingman Creek Pumping Station to Hayman Construction Inc. in accordance with a two-stage tender process, and the continuation of consulting engineer services by Stantec Consulting Ltd. for the associated contract administration.

Context

The Dingman Creek Pumping Station project, including the recently completed forcemain, forms an essential element of the growth wastewater servicing strategy for southeast London. This project was accelerated and subsequently fast tracked to provide critical servicing to City developed industrial lands including the new Maple Leaf Facility. The construction of this pumping station is the culmination of three years of intense effort to deliver timely servicing. The new pumping station will be the second largest of London 37 pumping stations. The project will result in increased wastewater capacity and reduced maintenance costs for downstream infrastructure.

Linkage to the Corporate Strategic Plan

This report supports the 2019-2023 Corporate Strategic Plan in the following areas:

- Building a Sustainable City: Maintain or increase current levels of service; build infrastructure to support future development and protect the environment; and manage the infrastructure gap for all assets; and
- Strengthening Our Community: Continue to conserve London's heritage properties and archaeological resources.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Works Committee, August 11, 2020, Item 2.3 – Request for Contract Increase - Dingman Creek Pumping Station Forcemain Installation Contract #2.

Civic Works Committee, June 18, 2019, Item 2.3 – Contract Award: Tenders T19-48 and T19-49, Dingman Creek Pumping Station Forcemain Installation.

Civic Works Committee, July 17, 2018, Item 2.7 – Dingman Creek and Colonel Talbot Pumping Stations Budget Adjustments.

Civic Works Committee, May 15, 2018, Item 2.5 – Appointment of Consulting Engineer – Design and Construction Administration Services – Dingman Creek Pumping Station Upgrades.

Civic Works Committee, April 17, 2018, Item 2.6 – South London Wastewater Servicing Study Municipal Class Environmental Assessment: Notice of Completion.

Civic Works Committee, August 29, 2017 – Appointment of Consulting Engineer, Dingman Creek PS Municipal Class EA.

2.0 Discussion and Considerations

2.1 Previous Work

The Dingman Creek Pumping Station is the result of multiple years of consultation and design. It was developed as a means to provide increased wastewater servicing capacity for the White Oaks and Pond Mills areas, as well as the strategic industrial growth area in southeast London, south of highway 401. These areas are currently serviced by the Wonderland Pumping Station, which also services the Lambeth area.

Constructed in 2009, Wonderland is now approaching its rated capacity as a result of residential and industrial growth in its sewershed. In addition, Wonderland is also challenged by high solids and grit content in the wastewater, resulting in high rates of equipment wear and increased maintenance costs as compared with other stations.

An environmental assessment process was undertaken and established that the preferred option for addressing both capacity and maintenance concerns would be the construction of a new facility at the site of the previously decommissioned Dingman Creek Pumping Station.

2.2 Key Facility Design Considerations

The primary purpose of the new Dingman Creek Pumping Station is to provide increased wastewater servicing capacity in order to enable growth in southeast and southwest London. Constructing a new facility with a dedicated forcemain rather than upgrading Wonderland Pumping Station effectively doubles the available capacity and

introduces redundancy in the system. Therefore, not only does constructing a new facility enable growth, it also increases overall system reliability.

A separate growth-funded project was planned for 2025 to provide peak shaving at the Dingman Creek Pumping Station (ES5171). Peak shaving is a process that reduces the overall maximum amount of flow, usually by storing wastewater at critical times. At the Dingman Creek Pumping Station it is important to ensure that the flow does not exceed the capacity of the downstream system to protect homes downstream from basement flooding and to prevent overflows. However, during detailed design of the pumping station project it was decided that, by providing enhanced screening and transfer capacity to the existing peak shaving facility, the new pumping station facility would be capable of providing the necessary peak flow capacity. This could be done for a lower overall capital cost than the budget that was projected for the new peak shaving facility.

In order to address concerns within the downstream infrastructure, the Dingman Creek facility will include service improvements such as solids screening and grit removal facilities that will remove difficult and abrasive solids from the wastewater stream. This is an enhanced feature not typically found in wastewater pumping stations, and it will play a significant role in reducing pump wear and solids deposition in the sanitary sewer system. In the situation where overflows must occur, this pre-treatment also reduces the environmental impacts of those unfortunate but sometimes necessary events.

2.3 Heritage Preservation

The new Dingman Creek facility will be constructed on lands recently purchased by the City. Those lands are the remnant residential portion of an extensive historical farm tract, and a yellow brick farmhouse constructed in 1869 remains on site. That farmhouse was in poor condition at the time of the purchase.

As part of the City's commitment to preserve heritage properties, the Division decided to restore the exterior of the farmhouse in order to improve its appearance and ensure that it remains a stable structure for decades to come. In addition, the new facility is being constructed to resemble a barn structure, sight lines to the farmhouse are being maintained rather than obstructing views with new infrastructure, and tree plantings are planned to restore the feel of a tree-lined driveway. These features were added to the project in order to preserve the agricultural aesthetic of the area and complement the heritage building but did not result in any significant increase of overall contract cost. Of note, this same approach to preserving the historic feel of an area was also taken with the construction of the Wonderland Pumping Station by fashioning it after an agricultural silo.

3.0 Financial Impact/Considerations

3.1 Procurement Process

Considering the significant scale of this construction project and the specialized nature of the work, it was decided to undertake a two-stage procurement process whereby contractors were pre-qualified for the tendering process. Pursuant to a Request for Qualifications process (RFQUAL20-04), five general contractors were invited to bid on the Tender for construction of the new pumping station facility.

Request for Tender RFT21-19 was issued and all five pre-qualified prospective general contractors were invited to submit tenders. All five invited general contractors attended the site visit, with four of the five ultimately submitting tenders. The results are summarized below in ascending order. All tender prices shown exclude HST, but include \$1,200,000.00 in contingency:

1. Hayman Construction Inc.: \$21,632,010.00
2. Stonetown Construction Limited: \$22,297,514.20
3. Baseline Constructors Inc.: \$22,834,750.00

4. K&L Construction: \$24,542,285.00

3.2 Sources of Financing

The tendered price for this construction project was higher than expected and it is believed that a portion of that increase is due to the impacts of COVID-19 on the cost of raw materials and equipment, especially since the majority of this equipment is made outside of Canada. An estimated \$2M of the cost increase is thought to be attributable to these impacts. As the construction of the Dingman Creek Pumping Station is required to support imminent industrial growth the project cannot be delayed; therefore, it is recommended to proceed with the project in accordance with the detailed financing provided in the Source of Financing Report attached as Appendix 'A'.

Construction of the Dingman Creek Pumping Station facility was originally conceived as a 100% growth servicing project. Accordingly, the forcemain and a significant portion of the facility contemplated under RFT21-19 are funded through development charges. This funding includes additional non-rate (growth) supported debt financed through the City Services Wastewater Reserve Fund, which is required to address part of the tender price that exceeds the pre-tender budget estimate. The need for this additional funding will further stress the City Services Wastewater Reserve Fund which was already under pressure after previous adjustments made to accommodate the significant economic opportunity presented by the Maple Leaf processing plant for the City of London (Civic Works Committee, July 17, 2018, Item 2.7). Civic Administration will actively monitor this reserve fund and continue to explore measures that mitigate the financial pressures currently posed by the Wastewater and Treatment growth capital plan in light of these adjustments. As discussed in section 2.2 above, the Dingman Creek Peak Shaving (ES5171 - \$7.9M) scheduled in 2025 has been identified as a project that can now be cancelled relieving some pressure on the reserve fund. The integration of the peak shaving functionality into the Dingman Creek Pumping Station design provides an integrated solution to peaks in wastewater flows at this location and results in a net reduced impact to the City Services Wastewater Reserve Fund.

Service improvements (solids screening and grit removal) that were included in the scope of the Dingman Creek Pumping Station during detailed design to address future downstream impacts will be funded via an additional drawdown from the Sewage Works Reserve Fund. It was determined that the most cost-effective opportunity to make these enhancements was as part of this construction project. As these enhancements benefit the existing wastewater system, they cannot be funded by development charges. It is estimated that \$3.5M of the tender price is related to these enhancements.

4.0 Other Key Issues and Considerations

4.1 Timing to Support Economic Development

The additional capacity provided by the planned facility is essential in order to provide servicing for the new Maple Leaf processing facility in southeast London. That facility is currently under construction. In order to ensure that adequate wastewater collection capacity exists to handle the flows expected from that facility, construction must commence this summer. Given the projected timelines for this project, servicing will be in place in time to support the commissioning and production needs of the Maple Leaf facility.

Conclusion

The Dingman Creek Pumping Station Facility forms an essential component of the City's wastewater servicing strategy in south London. The tendering of this pumping station is the result of intense effort by staff to provide a highly complex multi-phase project in time to service the new Maple Leaf Foods facility and other City industrial lands. The pumping station will service growth in an environmentally responsible way while preserving the area's heritage.

Hayman Construction Inc. was selected as a capable general contractor for this type of facility through a prequalification process and has successfully completed similar projects for the City in the past. They submitted the lowest bid in a competitive tender process. Stantec Consulting Ltd. is the engineering consultant responsible for the design of the facility and forcemain, and also completed the contract administration for forcemain construction. It is therefore recommended that the construction tender be awarded to Hayman Construction Inc. and that Stantec Consulting Ltd be retained to provide the associated contract administration services using the sources of financing described.

Prepared by: Kirby Oudekerk, P.Eng., Division Manager, Wastewater Treatment Operations

Submitted by: Scott Mathers, MPA, P.Eng., Director, Water, Wastewater and Stormwater

Recommended by: Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure

cc: Kyle Murray, Director, Financial Planning & Business Support
Jason Davies, Manager III, Financial Planning & Policy
Zeina Nsair, Financial Business Administrator
John Freeman, Manager III, Purchasing & Supply
Chris Ginty, Procurement Officer
Peter Hayman, Hayman Construction Inc.
Nelson Oliveira, Stantec Consulting

Appendix "A"

#21062

May 11, 2021

(Award Contract)

Chair and Members

Civic Works Committee

RE: RFT21-19 - Dingman Creek Pumping Station

(Subledger FS20DC01)

Capital Project ES2332 - Dingman Creek PS Headworks

Capital Project ES5263 - Southwest Capacity Improvement

Capital Project ES5264 - Wonderland Pumping Station Upgrade

Hayman Construction Inc. - \$21,632,010.00 (excluding HST)

Stantec Consulting Ltd. - \$749,029.38 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:

Finance and Corporate Services confirms that the cost of this project cannot be accommodated within the financing available for it in the Capital Budget but can be accommodated with development charge funding and a drawdown from the Sewage Works Renewal Reserve Fund and that, subject to the adoption of the recommendations of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	Additional Funding Requirement	Revised Budget	Committed To This Date	This Submission
ES2332 - Dingman Creek PS Headworks					
Construction	0	3,500,000	3,500,000	0	3,500,000
ES5263 - Southwest Capacity Improvement					
Engineering	2,028,815	0	2,028,815	1,266,603	762,212
Construction	17,966,453	4,082,600	22,049,053	8,536,320	13,512,733
City Related Expenses	4,732	0	4,732	4,732	0
ES5263 Total	20,000,000	4,082,600	24,082,600	9,807,655	14,274,945
ES5264 - Wonderland Pumping Station Upgrade					
Construction	5,000,000	0	5,000,000	0	5,000,000
Total Expenditures	\$25,000,000	\$7,582,600	\$32,582,600	\$9,807,655	\$22,774,945

Sources of Financing

ES2332 - Dingman Creek PS Headworks					
Drawdown from Sewage Works Renewal Reserve Fund (Note 1)	0	3,500,000	3,500,000	0	3,500,000
ES5263 - Southwest Capacity Improvement					
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) (Note 2)	4,993,613	0	4,993,613	4,993,613	0
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) - transfer from ES5171 - Dingman Creek PS Peak Shaving (Notes 2 and 3)	0	150,000	150,000	0	150,000
Debenture By-law No. W.-5642-466 (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) (Notes 2 and 5b)	15,006,387	0	15,006,387	4,814,042	10,192,345
Debenture Quota (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) - transfer from:					
ES2204-Colonel Talbot PS (Notes 2, 3 and 5b)	0	1,104,400	1,104,400	0	1,104,400
ES5169 - Oxford WWTP Expansion (Notes 2, 3 and 5b)	0	500,000	500,000	0	500,000
Additional Debenture Quota (Serviced through City Services - Wastewater Reserve Fund (Development Charges)) (Notes 2, 4 and 5b)	0	2,328,200	2,328,200	0	2,328,200
ES5263 Total	20,000,000	4,082,600	24,082,600	9,807,655	14,274,945

Appendix "A"

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(Award Contract)

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RE: RFT21-19 - Dingman Creek Pumping Station

(Subledger FS20DC01)

Capital Project ES2332 - Dingman Creek PS Headworks

Capital Project ES5263 - Southwest Capacity Improvement

Capital Project ES5264 - Wonderland Pumping Station Upgrade

Hayman Construction Inc. - \$21,632,010.00 (excluding HST)

Stantec Consulting Ltd. - \$749,029.38 (excluding HST)

	Approved Budget	Additional Funding Requirement	Revised Budget	Committed To This Date	This Submission
ES5264 - Wonderland Pumping Station Upgrade					
Debenture Quota (Note 5a)	5,000,000	0	5,000,000	0	5,000,000
Total Financing	\$25,000,000	\$7,582,600	\$32,582,600	\$9,807,655	\$22,774,945

Financial Note: Construction	ES2332	ES5263	ES5264	Total
Contract Price	\$3,439,465	\$13,279,023	\$4,913,522	\$21,632,010
Add: HST @13%	447,130	1,726,273	638,758	2,812,161
Total Contract Price Including Taxes	3,886,595	15,005,296	5,552,280	24,444,171
Less: HST Rebate	-386,595	-1,492,563	-552,280	-2,431,438
Net Contract Price	<u>\$3,500,000</u>	<u>\$13,512,733</u>	<u>\$5,000,000</u>	<u>\$22,012,733</u>

Financial Note: Engineering	ES5263
Contract Price	\$749,029
Add: HST @13%	97,374
Total Contract Price Including Taxes	846,403
Less: HST Rebate	-84,191
Net Contract Price	<u>\$762,212</u>
Total Construction & Engineering	<u>\$22,774,945</u>

Note 1: The additional funding requirement for the service improvement costs (solids and grit removal) is available as a drawdown from Sewage Works Renewal Reserve Fund. The uncommitted balance in the reserve fund will be approximately \$43.68 million with the approval of the project.

Note 2: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Note 3: Approved Development Charges funding totalling \$1.75 million is available from ES5171-Dingman Creek PS Peak Shaving (\$150 thousand), ES2204-Colonel Talbot PS (\$1.10 million) and ES5169-Oxford WWTP Expansion (\$500 thousand) to fund a portion of the \$4.08 million funding requirement. The future budget for ES5171 - Dingman Creek PS Peak Shaving will be removed from the wastewater growth capital budget as it is now redundant and also necessary to offset pressure in the City Services Wastewater Reserve Fund.

Note 4: Additional non-rate (growth) supported debt of \$2.33M, financed through City Services Wastewater Reserve Fund, will be required to fund the balance of the budget shortfall. The uncommitted balance in the reserve fund will be approximately \$3.14 million with the approval of this additional debt, which will further stress the Fund placing significant strain on the 10-year forecasted balance. Administration will monitor this reserve fund and explore measures to mitigate the financial pressure currently posed by the Wastewater and Treatment growth capital plan in light of these adjustments.

Note 5: Note to City Clerk: Administration hereby certifies that the estimated amounts payable in respect of this project does not exceed the annual financial debt and obligation limit for the Municipality of Municipal Affairs in accordance with the provisions of Ontario Regulation 403/02 made under the Municipal Act, and accordingly the City Clerk is hereby requested to prepare and introduce the necessary by-laws.

- a) An authorizing by-law should be drafted to secure debenture financing for project ES5264 - Wonderland Pumping Station Upgrade for the net amount to be debentured of \$5,000,000.
- b) The City Clerk be authorized to increase Debenture By-law No.W.-5642-466 by \$3,932,600 from \$15,006,387 to \$18,938,987.

 Kyle Murray
 Director, Financial Planning & Business Support

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