

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON FEBRUARY 21, 2018
FROM:	KELLY SCHERR, P.ENG. MANAGING DIRECTOR OF ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT	GREENWAY WASTEWATER TREATMENT PLANT EXPANSION PROJECT CONSULTING FEE INCREASE

RECOMMENDATION

That on the recommendation of the Managing Director of Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the administration contract for the Greenway Wastewater Treatment Plant expansion and upgrades:

- (a) the value of design and contract administration fees for CH2M **BE INCREASED** by \$473,475.00 to \$4,183,470.00, including contingency, excluding HST, to cover additional efforts required as a result of complex project delivery and additional work scope, as per Procurement of Goods and Services Policy Clause 20.3e;
- (b) The Civic Administration **BE AUTHORIZED** to undertake all administrative acts that are necessary in connection with this project;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix "A";

PREVIOUS REPORTS PERTINENT TO THIS MATTER

CWC Report of 2015-07-20, Item C, Greenway Wastewater Treatment Plant Expansion and Upgrades-Construction Contract Award

CWC Report of 2015-05-05, Item 4, SCADA Integration Services

CWC Report of 2013-10-28, Item 4, Greenway Wastewater Treatment Plant Expansion and Upgrade Update

CWC Report of 2012-05-22, Item 11, Consultant Appointment Greenway Wastewater Treatment Plant

2015-2019 STRATEGIC PLAN

This project supports the City of London Strategic Plan: Building a Sustainable Infrastructure by constructing robust infrastructure and enabling responsible growth.

BACKGROUND

Purpose

The purpose of this report is to seek Council approval to increase the value of contract administration for CH2M because of increasing complexity and additional project scope.

Context

Greenway is the largest wastewater treatment plant (WWTP) in London, providing secondary treatment for roughly 60% of the total wastewater produced by the City of London. The need for additional treatment capacity at Greenway was identified in order to service growth in the downtown core and in the City's southern regions, including parts of those areas to be serviced as part of the Southwest Area Plan. As a result, studies, consultation and detailed design (starting in 2012) were undertaken, with the intention of increasing the rated capacity of Greenway from 152 Megalitres per day (MLD) to 170 MLD. The 18 MLD expansion design optimized existing assets and included the addition of wet weather treatment capacity, increasing the plant's ability to handle high peak flows and providing primary level treatment to bypass flows, thereby reducing our impact on the Thames River.

The Greenway WWTP expansion construction contract was approved by Council for award to North American Construction at a price of \$38,210,000 (including contingency) on July 28, 2015, and construction on the project commenced December 14, 2015.

DISCUSSION

The engineering services for design and contract administration of the Greenway Pollution Control Plant expansion have been provided by the consulting firms CH2M, AECOM, and Eramosa. CH2M is the prime consultant on this project. Since the 2012 approval of the consultant appointment, there has been a number of new and unforeseen complexities that require expansion of the initial project scope. The following sections detail the challenges and scope increases that have resulted in this request for additional fees.

Project Delivery Challenges

As construction of the project has proceeded, the level of effort for site supervision on the part of the consultant has increased significantly beyond that anticipated at the time of tender award. The resident inspector has been required to attend the site for 10-hour days versus the 8 hours originally contemplated in the initial scope of work. As well, the number of formal requests for information and change order requests received from the contractor have been significantly higher than expected, requiring unanticipated consultant time to resolve. It should be noted that high attention to detail in the review of request for information and change order requests typically contribute directly to reduced overall cost to the City and ensure that work completed by the contractor is of the highest overall quality.

Three significant change order claims with a combined value over \$700,000 were reviewed extensively by the consultant and negotiated with the contractor, which ultimately led to a formal mediation process. Preparation for the mediation process required significant amounts of time for analysis and review that could not have been foreseen at the time of the RFP.

Project Scope Increase – Systems and Facility Commissioning

As the project has progressed, it has become apparent that the addition of consultant staff dedicated to the commissioning of the works would provide significant value to the city. Consulting resources to provide commissioning support were not included in the original Request for Proposal. Commissioning of a project of this size and complexity requires significant efforts in coordination, on site review, and tracking of deficiencies. As well, further consulting support will ensure a proper hand-off between the contractors and city operations staff. Focused personnel for commissioning will minimize the possibility of errors and omissions during this critical phase of the project, while still ensuring that ongoing project administration does not suffer.

Budget Implications

There are sufficient funds available in the approved capital budget to accommodate the requested increase in consulting fees.

To assess the value of these fees in the context of the works being undertaken; contract administration fees would represent 4.8% of the total NAC contract value. Contract administration fees for projects of this size and complexity typically exceed 5% or more of the total project value.

CONCLUSIONS

The Greenway WWTP expansion project is a significant undertaking with a high level of complexity that provides good value to the City of London. Through enhanced efforts on the part of the consultant team, the project is still on schedule and budget. The requested fee increase is seen to provide a net benefit to the City and is, therefore, supported by wastewater operations project staff.

Acknowledgements

This report was prepared with the assistance of Kirby Oudekerk, P.Eng., Environmental Services Engineer.

PREPARED BY:	REVIEWED & CONCURRED BY:
GEORDIE GAULD DIVISION MANAGER WASTEWATER TREATMENT OPERATIONS	SCOTT MATHERS, P.ENG. DIRECTOR-WATER AND WASTEWATER
RECOMMENDED BY:	
KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR OF ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER	

Attach: Appendix "A" – Sources of Financing

CC. John Freeman – City of London
Marta Semeniuk- City of London
CH2M Consulting