
Subject: South Niagara Falls Wastewater Treatment Plant – Project Update and Award Notice

Report to: Public Works Committee

Report date: Tuesday, February 19, 2019

Recommendations

1. That Report PW 8-2019 **BE RECEIVED** for information on the project status and award notice of the new South Niagara Falls Wastewater Treatment Plant.

Key Facts

- The purpose of this report is to inform Council of the project status and consultant award for the new South Niagara Falls Wastewater Treatment Plant (WWTP).
- A new 30 MLD WWTP in the south end of Niagara Falls is required as part of the recommended servicing strategy from the 2016 Water and Wastewater Master Servicing Plan (MSP) Update that was endorsed by Regional Council on June 8, 2017.
- Phase I of the project is the Schedule “C” Environmental Assessment (EA) and the Enhanced Conceptual Design (ECD) for the WWTP and conveyance system in south Niagara Falls.
- The EA and ECD were awarded through competitive bid process (2018-RFP-34) that was guided and moderated by Procurement.
- GM BluePlan Engineering Ltd. achieved the highest overall score and was awarded the EA and ECD phase of the project in the amount of \$1,855,405.00 (excluding contingency and HST).

Financial Considerations

Project 20000724 has a previously approved budget of \$2,500,000, therefore sufficient funds are available to award the EA and ECD, which were previously identified in the MSP.

The EA and ECD will be for work to be done on the new plant, as well as changes required to the conveyance system as identified in the MSP. The MSP has identified the costs (+/- 50%) for the entire scope of the project. Refer to Appendix 1 for a breakdown of project costs and funding sources.

All of the projects identified above have a growth component to them and development charges will be used to fund the growth share of work. Regional sources of funding will

be required to fund the remaining work that is deemed a benefit to existing services. All of these projects have been included in the 10-year Capital Budget forecast.

Analysis

As part of Niagara 2041, there was an update to the MSP. Niagara Region retained GM BluePlan Engineering Ltd. to review, evaluate develop water and wastewater servicing strategies for all servicing within the urban areas of the Region. The MSP Update used updated population and employment growth forecasts based on a 2041 planning horizon.

Through a multiple bottom line evaluation process that reviewed growth areas, system integration/connectivity/hydraulics, infrastructure needs and alignments/sites, capital and lifecycle costing, the MSP Update recommended a new 30 MLD WWTP in south Niagara Falls. It is noted that 64% of the growth in Niagara Falls is projected south of Lundy's Lane and 22.5% of the growth is projected south of the Welland River. A new WWTP will accommodate existing and new development-related flows from south Niagara Falls and help alleviate existing and future system and plant pressures to the north.

As a result, the 2018 Water and Wastewater (WWW) Capital Budget accounted for the EA and ECD required prior to the detailed design and construction of the new WWTP. This phase will be a Schedule C project completed as outlined in the Municipal Water & Wastewater projects in the Municipal Engineers Association document for Municipal Class Environmental Assessment, October 2000, as amended in 2007, 2011 and 2014. The EA will be a large scale, Tier 1 project and will require the following:

- Extensive consultation with the public, various internal and external stakeholders, approval agencies and regulatory bodies
- Development and evaluation of conveyance system and WWTP alternatives and concepts
- Understanding of developmental, political and environmental sensitivities
- Reviews of technology and value engineering
- Funding strategy
- Focused cost estimation

The EA will be completed for the entire Niagara Falls and South Thorold wastewater systems. The following is the anticipated design and construction timing for the new WWTP and conveyance system works:

Project	Design	Construction
South Niagara Falls WWTP	2023	2025
Centre Street Sewage Pumping Station (SPS)	2022	2024
South Side High Lift Conveyance	2022	2024
Blackhorse Sewage SPS	2024	2026
Blackhorse Forcemain	2024	2026

The Terms of Reference for the EA was developed by a core project team in WWW Engineering with guidance and input from various parties including, other WWW groups, Corporate Communications, the City of Niagara Falls and approval agencies.

Given the complexity of the project, and to ensure the best processes and scoping were achieved, a Senior Technical Advisor from Jemma Consulting Ltd. was retained to assist in the development of the Terms of Reference and in the development of tools, criteria and processes to be utilized for selection of the prime consultant for the Environmental Assessment. The intent was to mitigate risk during scoping of the assignment and during the selection of the prime consultant.

The Request for Proposals (RFP) document was prepared together with Procurement and was released on August 8, 2018 via a public, competitive bid process (2018-RFP-34). The entire procurement process was guided and moderated by Procurement. The RFP closed on September 13, 2018 and proposal submissions were received from the following eight (8) proponents:

1. Black & Veatch Canada Company
2. GM BluePlan Engineering Limited
3. GHD Limited
4. Hatch Limited
5. Jacobs Engineering Group (CH2M Hill Canada Limited)
6. RV Anderson Associates Limited
7. Stantec Consulting Service Inc.
8. WSP Canada Inc.

Eight (8) proposals were received and all were deemed to be compliant and were technically evaluated by a team of five (5) evaluators, and of the eight (8) proposals submitted, four (4) met the previously determined minimum threshold to proceed to the proponent interview stage. Three (3) of the four (4) proponents interviewed met the previously determined minimum threshold and proceeded to the opening of their financial proposal. GM BluePlan Engineering Ltd. achieved the highest overall score and was awarded the EA and ECD phase of the project in the amount of \$1,855,405.00 (excluding contingency and HST).

GM BluePlan Engineering Ltd. received notice of selection for award from Procurement on November 9, 2018 and an agreement was executed on December 6, 2018. The project has commenced and the project team is currently conducting the pre-consultation phase of the EA including project initiation meetings, agency meetings, property scanning and information gathering. Notice of Study Commencement for the EA is anticipated in March 2019. The project is anticipated to be complete by November 2020.

Alternatives Reviewed

Not applicable.

Relationship to Council Strategic Priorities

This recommendation is related to the Fostering Growth strategic priority since the planned rehabilitation will ensure reliable infrastructure to support growth and economic development within the City of Niagara Falls and City of Thorold.

Other Pertinent Reports

CL-C 24-2017 Water & Wastewater Services Master Servicing Plan (How We Flow)
Project Update – South Niagara Falls Treatment Plant Review

Prepared by:

Lisa Vespi, P.Eng., PMP
Senior Project Manager, WWW
Engineering
Public Works Department

Recommended by:

Catherine Habermehl
Acting Commissioner
Public Works Department

Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

This report was prepared in consultation with Tony Cimino, C.E.T., Associate Director, W-WW Engineering, Pamela Hamilton, Program Financial Specialist W-WW, Tracie Byrne, Manager Purchasing Services, and reviewed by Joseph Tonellato, P.Eng., Director W-WW.

Appendices

Appendix 1 Project Budget

6

PW 8-2019 APPENDIX 1
Project Budget / Forecast

South Niagara Falls Wastewater Treatment Plant and Associated Projects

	South Niagara Falls WWTP (i)	Centre Street SPS (ii)	South Side High Lift SPS (iii)	Blackhorse SPS (iv)	Blackhorse Forcemain (v)
<u>Total Estimated Project Cost</u>					
(a) Construction (C)	109,000,000	1,000,000	32,300,000	3,900,000	12,500,000
(b) Consulting Engineering Services					
i) Environmental Assessment (EA)	2,500,000				
i) Detailed Design (D)	16,500,000	250,000	5,700,000	700,000	2,200,000
(c) Property Acquisition	2,400,000				
Total Gross Cost	130,400,000	1,250,000	38,000,000	4,600,000	14,700,000

Project Funding Sources

Development Charges	40,330,000	-	30,481,000	2,300,000	11,760,000
Other Funding Sources	90,070,000	1,250,000	7,519,000	2,300,000	2,940,000
	130,400,000	1,250,000	38,000,000	4,600,000	14,700,000

Capital Forecast Timing (as per 10 year Capital Forecast)

- (i) 2018 (EA); 2019 (Property); 2023 (D); 2025 (C)
- (ii) 2022 (D); 2024 (C)
- (iii) 2022 (D); 2024 (C)
- (iv) 2024 (D); 2026 (C)
- (v) 2024 (D); 2026 (C)