
Subject: Contract 2014-T-114 (RN14-14) NOTL Wastewater Treatment Plant and Contract 2014-T-113 (RN14-13) Lakeshore Road, Garrison Village and William Street Pumping Station Upgrades and Linear Works – Project Status Update

Report to: Public Works Committee

Report date: Tuesday, July 14, 2020

Recommendations

1. That Report PW 31-2020 **BE RECEIVED** for information.

Key Facts

- The purpose of this report is to provide a status update on the new Wastewater Treatment Plant (WWTP), Contract 2014-T-114 (RN14-14), as well as the Pumping Station Upgrades and Linear Works project, Contract 2014-T-113 (RN-1413) in the Town of Niagara-on-the-Lake (NOTL).
- The sewage flows from the existing plant were redirected to the new NOTL Wastewater Treatment plant on June 25th, 2019. The new plant has been in operation and treating sewage since that time.
- All three pumping stations, Lakeshore Road, Garrison Village and William Street, are fully operational and have been sending flows to the new plant since June 25, 2019.
- Varcon Construction Corporation was awarded Contract 2014-T-113 (RN14-13) as per PW 67-2014. The project commencement date was June 20, 2014. The completion date specified in the contract was December 12, 2015. This project was deemed to be substantially completed on January 31, 2017.
- Varcon Construction Corporation was awarded Contract 2014-T-114 (RN 14-14) as per PW 100-2014. The project commencement date was December 9, 2014. The completion date specified in the contract was December 31, 2016. Construction is complete. Substantial completion was obtained on January 17, 2020.
- CSD 29-2020 Confidential Report Update Regarding NOTL WWTP, NOTL SPS and Welland WWTP Upgrades contains confidential legal advice regarding litigation regarding NOTL Wastewater Treatment Plant upgrades.

Financial Considerations

The total project expenditures and funding sources to date are shown in the Total Project Budget Summary in Appendix 1. As outlined in the chart, there is an overall approved budget of \$51,179,573 across the two projects (10SW0807 / 10SW1407). There is no anticipated surplus of funding associated with this project.

For Contracts 2014-T-114 (RN14-14) and 2014-T-113 (RN14-13), there has been \$40,955,079 expended & committed to Varcon Construction Corporation as of June 24, 2020. This amount includes holdbacks pursuant to the *Construction Act*.

At the time of writing this report, liquidated damages associated with the Varcon contract for this project total \$2,097,000. The liquidated damages have yet to be formally assessed as ongoing discussions continue between Regional staff and Varcon surrounding satisfying terms for this project.

Niagara Region partnered with the Federal and Provincial governments for funding to complete this project. Each level of government has contributed, or agreed to contribute, up to \$14,333,333 in project costs, for a total of \$28,666,666 in upper tier funding. This represents two thirds (2/3) of the original construction budget of \$43,000,000 for the NOTL WWTP.

Analysis

Background

The Northeast Area Wastewater Study identified the need for an upgraded or expanded wastewater treatment plant (WWTP) for the Town of Niagara-on-the-Lake as the existing plant was anticipated to reach capacity in 2017. The Town of Niagara-on-the-Lake Wastewater Servicing Municipal Schedule 'C' Class EA evaluated alternatives that would increase capacity and enhance wastewater services for the residents of Town of Niagara-on-the-Lake. It also looked at addressing wastewater flows occurring during wet weather events and operating issues (e.g. odour) at the existing WWTP.

Report PWC-C 19-2015, previously received by Committee, provided an overall project description and delineated the four distinct phases / contracts required for the execution of the project. Cole Engineering Group was retained in 2013 as the design Consultant for the design and contract administration of the project under 2012-RFP-57. Cole's

assignment was increased three times to cover additional efforts due to the project delay.

A public tender process was initiated in 2014 for Contract 2014-T-113 (RN14-13) and a total of seven bids were received. The lowest bid of \$7,460,092 (including 13% HST) was submitted by Varcon Construction Corporation. The next lowest was submitted by V. Gibbons Contracting and was valued at \$7,473,312.40 (including HST).

A contingency amount of \$1,110,824 was added to Varcon's contract to cover unforeseen construction costs due to the complexity of the project. With this contingency in place the revised contract amount totaled \$8,715,322 (including 13% HST). Varcon Construction Corporation was awarded Contract 2014-T-113 (RN14-13) as per PW 67-2014, dated June 3, 2014. The project commencement date was June 20, 2014. This project was deemed to be substantially completed on January 31, 2017.

A public tender process was also initiated in 2014 for Contract 2014-T-114 (RN14-14) and a total of six bids were received, with the lowest bid being \$36,062,679 (including 13% HST). The next lowest was submitted by Graham Construction and Engineering LP and was valued at \$37,775,900 (including 13% HST).

Varcon Construction Corporation (Varcon) was awarded Contract 2014-T-114 (RN14-14) as per PW 100-2014, dated November 6, 2014. The project commencement date was December 9, 2014. The completion date specified in the contract was December 31, 2016. Substantial completion was obtained on January 17, 2020

Water and Wastewater Engineering staff have been providing a higher than normal amount of resources throughout the project in order to manage the contract. Legal Services are also engaged and are investing time, effort and resources on this project.

The Ministry of Environment Conservation and Parks (MECP) local office as well as approvals branch in Toronto were engaged during the design process to obtain the Environmental Compliance Approval (ECA). The MECP Local Office has been kept aware of the progress to date.

Project Status (RN14-13) Pumping Station Upgrades and Linear Works

All three pumping stations, Lakeshore Road, Garrison Village and William Street, are fully operational and have been sending flows to the new plant since June 25, 2019.

The pumping station project was deemed to be substantially completed on January 31, 2017. At that time, there were a few minor deficiencies, some outstanding work, and an extra installation to be completed.

By early 2018, these works were completed, deficiencies rectified and contract completion was achieved on March 19, 2018.

Project Status (RN14-14) NOTL Wastewater Treatment Plant

The sewage flows from the existing plant were redirected to the new plant on June 25, 2019 commencing the 30 day commissioning timeline. The plant has been in operation and treating sewage since that time. As of February 2020 the plant was meeting compliance and was deemed to be running very efficiently by Operations staff and as a result, the effluent was redirected to Lake Ontario. Coordination for the decommissioning of the existing plant is ongoing.

Due to some critical deficiencies substantial completion was delayed. A few of the concerns that delayed the project from substantial completion were:

- Digester Roof Sewage Leak
- Digester Pumps Overheating
- Chemical Pump Failures
- Cementitious Coating
- Waste Gas Burner changes due to TSSA requirements

These items have since been rectified and the project was deemed substantially complete on January 17, 2020. Deficiencies to resolve outstanding work still remain to be completed, along with some maintenance/warranty issues which are being coordinated through the consultant. Currently the total value of deficiencies amounts to just under \$80,000 as of June 24, 2020. The outstanding contract work is worth approximately \$135,000 and includes items such as sodding, demobilization, air vapor barrier membrane, fibreglass reinforced plastic siding, soffits and flashing, and the following four outstanding change orders.

- CO #12 LEED Consulting Services
- CO #27 LEED Subcontractor Services
- CO #107 Gate Motors
- CO #187 Waste Gas Burner Changes

During the course of this project, from design to commissioning, other additional works were identified that were not necessary to complete as part of this contract. These were noted and categorized for possible implementation in the future.

Alternatives Reviewed

No specific alternatives have been presented at this time. This report has been prepared as an update for the construction contract. Several challenges have been faced through the course the project. Staff will continue to work with the design Consultant and the General Contractor to complete all outstanding deficiencies in accordance with the terms of the contracts.

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 Niagara Region.

Other Pertinent Reports

PW 67-2014 Award of Tender 2014-T-113 (Contract RN 14-13) Lakeshore Road, Garrison Village and William Street Sewage Pumping Stations Upgrade & Linear Works in the Town of Niagara-on-the-Lake

PW 69-2014 General, Mechanical and Electrical Contractor Pre-Qualification for Construction of the New Niagara-on-the-Lake Wastewater Treatment Plant in the Town of Niagara-on-the-Lake

PW 93-2014 Status of the Construction of Niagara-on-the-Lake Wastewater Treatment Plant project in the Town of Niagara-on-the-Lake

PW 100-2014 Award of Tender 2014-T-114 (Contract RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant in the Town of Niagara-on-the-Lake

PWC-C 19-2015 Status update on the Construction of the new Niagara-on-the-Lake Wastewater Treatment Plant and related linear infrastructure in the Town of Niagara-on-the-Lake

PW 47-2016 2017 Wastewater Operating Budget Program Change Niagara-on-the-Lake Wastewater Treatment Plant

PW 16-2017 Contract 2014-T-114 (RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant and Contract 2014-T-113 (RN 14-13) Lakeshore Road, Garrison Village and William Street Pumping Station Upgrades and Linear Works – Project Status Report

PW 17-2017 **Confidential Report** A Matter of Litigation or Potential Litigation, Including Matters Before Administrative Tribunals, Affecting the Municipality – Contract 2015-T-109 (RN 15-09) – Welland WWTP Phase I Upgrades – Project Status Report

PWC-C 19-2017 **Confidential Memo** A Matter involving Litigation or Potential Litigation against the Niagara Region – Contract 2014-T-114 (RN 14-14) – Niagara-on-the-Lake Wastewater Treatment Plant

PW 33-2017 Contract 2014-T-114 (RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant and Contract 2014-T-113 (RN 14-13) Lakeshore Road, Garrison Village and William Street Pumping Station Upgrades and Linear Works

PW 7-2018 Budget Adjustment and Status Update for Contract 2014-T-114 (RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant and Contract 2014-T-113 (RN 14-13) Lakeshore Road, Garrison Village and William Street Pumping Station Upgrades and Linear Works

PW 5-2019 Gross Budget Adjustment and Status Update for Contract 2014-T-114 (RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant

CSD 29-2020 **Confidential Report** Update Regarding NOTL WWTP, NOTL SPS and Welland WWTP Upgrades

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Appendices

Appendix 1 Total Estimated Project Cost

PW 31 - 2020 APPENDIX 1
TOTAL ESTIMATED PROJECT COST

**Contract 2014-T-113 (RN 14-13) Lakeshore Road, Garrison Village and William Street Pumping Station Upgrades and Linear Works &
Contract 2014-T-114 (RN 14-14) Niagara-on-the-Lake Wastewater Treatment Plant**

	Total Council Approved Budget	Budget Reallocation	Revised Project Budget	Expended & Committed as of June 24, 2020 **	Forecast	Budget Remaining (F)= (C)-(D)- (E)
	(A)	(B)	(C) = (A) + (B)	(D)	(E)	
<u>Total Estimated Project Cost (10SW0807 & 10SW1407) *</u>						
(a) Construction (includes contract contingency)	40,934,538	20,541	40,955,079	40,955,079		-
(b) Project Contingency	173,183	(20,541)	152,643		152,643	-
(c) Consulting Engineering Services (Design, Contract Administration, & Inspection)	2,491,284	207,949	2,699,233	2,699,233	-	-
(d) Project Management & Internal Costs	465,264		465,264	446,923	18,342	-
(e) Other Project Costs	7,115,304	(207,949)	6,907,355	6,537,475	369,879	-
Total Estimated Project Cost	51,179,573	-	51,179,573	50,638,709	540,863	-
<u>Project Funding Sources</u>						
Regional Reserves & Debt (includes Federal Gas Tax funding)	(16,364,708)		(16,364,708)	(16,364,708)		-
Development Charges	(6,049,278)		(6,049,278)	(5,968,605)	17,434	(98,107)
Provincial Grants	(14,333,333)		(14,333,333)	(14,430,000)		96,667
Federal Grants	(14,333,334)		(14,333,334)	(12,984,002)	(1,349,332)	-
Other Costing Sharing / External	(98,920)		(98,920)	(100,359)		1,440
	(51,179,573)	-	(51,179,573)	(49,847,675)	(1,331,898)	-

* All costs above include the non-refundable 1.76% portion of HST.

** Includes holdbacks