

Subject: Contract Amendment for 2019-RFP-239 Niagara Falls Wastewater Treatment Plant Secondary Treatment and Digester Upgrades

Report to: Public Works Committee

Report date: Tuesday, May 6, 2025

Recommendations

1. That a contract amendment to increase engineering construction and design services with Environmental Infrastructure Solutions Inc. in the amount of \$821,169 (including 13% HST) **BE APPROVED** for a total revised contract value of \$5,106,068 (including 13% HST) for the Niagara Falls Wastewater Treatment Plant Secondary Treatment Upgrades project, in a form satisfactory to the Director of Legal and Court Services.

Key Facts

- There are sufficient funds within the capital project budget to cover this contract amendment.
- The project, originally estimated to be complete by summer of 2025, is now expected to be complete by fall 2025 owing to delays in key equipment deliveries from suppliers.
- Council approval is required pursuant to Procurement By-law 02-2016 as amended, given the cumulative value of additional work exceeds \$1,000,000.
- This report seeks Council's approval to amend the Agreement with Environmental Infrastructure Solutions Inc. (EIS) for construction engineering and design services to include additional works in the amount of \$528,738 (excluding HST) for additional Phase 1 construction engineering services and \$197,961 (excluding HST) for Phase 2 engineering design services for a total increase of \$726,699 (excluding HST).
- This complex brownfield project has faced numerous constructability challenges while maintaining operations at a live plant providing uninterrupted service and striving to meet compliance requirements. Key obstacles include asbestos abatement, difficult ground conditions affecting piling, contaminated groundwater and filtration challenges, and delays in equipment delivery.

Financial Considerations

No Additional Budget Required

There are sufficient funds within the capital project budget to cover this contact amendment.

Procurement By-law Requires Council Approval

Although the original contract was competitively bid and awarded to EIS, the required additional work is treated as a single source purchase which requires Council approval, as per Schedule B, and Section 18(a)(i) of Procurement By-law 02-2016 as amended, as the cumulative value of the contract increase is greater than \$1,000,000 before taxes.

Staff recommend continuing with the current supplier, as they possess essential in-depth knowledge of the design and have been conducting site inspections since the project's inception. Their ongoing involvement has provided them with a thorough understanding of the design and key challenges, making their continued engagement crucial to ensuring consistency and project success.

The original contract award for Phase 1 design, contract administration and inspection services, and Phase 2 design services was \$2,493,858 (including non-recoverable HST). Given an increase in project timelines and design complexity, the contract was increased by a total of \$1,008,667 (including non-recoverable HST) between September 2020 and December 2020 by staff under delegated authority as single source purchases under the Procurement By-law 02-2016 as amended, Section 18(a)(i) and Schedule B.

A further contract increase was approved by Council in September 2022 via PW 38-2022 in the amount of \$356,160 (including non-recoverable HST) for additional contract administration and inspection hours under single source Section 18(a)(i) of Procurement By-law 02-2016, as amended. The current contract increase requires Council approval given the cumulative value of the single source increases over the life of the contract are greater than \$1,000,000 (excluding taxes).

Contract Amendment Required

This report seeks Council's approval to amend the Agreement with EIS for construction engineering and design services to include additional works in the amount of \$538,043 for additional Phase 1 construction engineering services and \$201,445 for Phase 2

engineering design services for a total increase of \$739,488 (including non-recoverable HST). The total revised value of the contract will be \$4,598,173 (including non-recoverable HST).

The total approved capital budget for this project is \$62,030,529. The total spent and committed on the project as of February 28, 2025, is \$60,803,032 and with the contract increase of \$739,488, the project costs remain within budget. A full project budget breakdown can be found in Appendix 1 to Report PW 7-2025 – Total Estimated Project Cost.

Analysis

Niagara Falls WWTP Upgrades Needed

The Niagara Falls WWTP upgrades are necessary to address the compliance challenges due to the degradation of existing treatment equipment that is beyond its useful life.

Improvements for the Niagara Falls WWTP have been ongoing since 2019 when EIS was retained through a competitive bid process 2019-RFP-239 and awarded detailed design and tendering of the Niagara Falls Wastewater Treatment Plant Secondary Treatment and Digester Upgrades-Phase 1 Design and Phase 2 Sludge Handling and Storage (Provisional) on October 22, 2019.

As noted above, the consulting assignment was extended due to increased project timelines and design complexity. Additional background on the compliance challenges and engineering consulting services can be found in Appendix 2.

This complex brownfield project has faced numerous constructability challenges while maintaining operations at a live plant and ensuring uninterrupted service. Key obstacles include asbestos abatement, difficult ground conditions affecting piling, contaminated groundwater, and filtration challenges. Additionally, long equipment lead times from suppliers have further impacted the project timeline requiring additional site inspection to ensure successful project completion.

These challenges have resulted in multiple extensions to the project completion date. The original contract completion date was June 2024 and these delays have extended project completion to the Fall of 2025.

The project requires additional project management, engineering, contract administration and inspection to ensure successful project completion.

The project website provides more details on the required WWTP upgrades.

[Niagara Falls Wastewater Treatment Plant Upgrades - Niagara Region, Ontario](https://www.niagararegion.ca/projects/niagara-falls-wastewater-treatment-plant-upgrades/default.aspx)
(<https://www.niagararegion.ca/projects/niagara-falls-wastewater-treatment-plant-upgrades/default.aspx>).

Alternatives Reviewed

Not Recommended

Without the recommended necessary additional engineering services that include contract administration and inspection, the construction project would have to proceed without site inspection services. The absence of site inspection on a construction project can lead to significant risks and quality concerns. Without regular oversight, there is a higher chance of errors, non-compliance with design specifications, and substandard workmanship. This can result in costly rework, project delays, and potential safety hazards. Site inspections are crucial for ensuring that construction activities align with approved plans, codes, and industry standards.

Relationship to Council Strategic Priorities

This recommendation is related to the Green and Resilient Region, the Niagara Falls WWTP upgrades project is necessary to ensure sustainable investments in the infrastructure needed to provide proper treatment of wastewater which meets MECP effluent quality requirements.

Other Pertinent Reports

See Appendix 2

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Appendices

Appendix 1	Total Estimated Project Cost
Appendix 2	Background for Compliance Challenges, Engineering Consulting Services, and Other Pertinent Reports