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Council-In-Committee Meeting – December 14, 2021

Subject: Port Dover WWTF Upgrades
Report Number: EIS 21-49
Division: Environmental and Infrastructure Services
Department: Administration
Purpose: For Decision

Executive Summary:

The purpose of this report is to obtain Council approval for the completion of the required engineering works and contract administration for the Port Dover Wastewater Treatment Facility (WWTF) upgrades.

Discussion:

The Port Dover WWTF Upgrades project was initiated in 2016 and includes various modifications. The design work to date has been completed by R.V. Anderson Associates Limited with the following goals:

- to address aging infrastructure
 - o much of the facility was originally constructed in 1963 and now requires substantial rehabilitation to preserve the life of the assets
- to provide operational improvements
 - o new Headworks building will be gravity fed thereby allowing us to remove the Woodhouse Acres Pump Station realizing energy and maintenance savings.
 - o Addition of UV and Chemical containment system will lead to better effluent quality
- to reduce by-passes and overflows of untreated waste to the environment by increasing flow equalization within the facility
- to achieve Ministry of Environment, Conservation and Parks (MECP) and Environment and Climate Change Canada (ECCC) compliance related to effluent discharge criteria
 - o Increased aeration to remove ammonia in the plant effluent discharged to the Lake Erie to meet the requirements of the Fisheries Act
 - o Removal of the chlorination component and replaced by a UV disinfection system to meet the requirements of the Fisheries Act
- to increase the rated capacity to 6,100 m³/day as recommended in the Norfolk Integrated Sustainable Master Plan (ISMP).
- to prepare the site for additional future capacity expansion

- understanding that further treatment capacity expansion will be required in the very near future, RVA's proposed design lays the foundation for the required capacity expansion

In April 2020, Staff Report CAO 20-11, Public Works and Procurement Matters, was presented to Council. See attachment #1.

As a result, staff issued RFP CS-CSS-20-01, Peer Review of Waste Water Treatment Plant Upgrades to complete Engineering Peer Reviews of the engineering design work completed to date for the Port Dover WWTF. The two primary purposes of this review were:

- To confirm the sizing of the new facilities meets the process requirements and MECP guidelines/best practices.
- To identify potential alternative approaches that may offer **short term** cost savings and additional value to Norfolk County.

This assignment was awarded to and completed by CIMA+.

Overall, CIMA+'s review confirmed that the design approach utilized by RVA is conservative and achieves the ECA rated capacity.

With respect to short term cost savings, CIMA+ identified a number of items could be deferred from the current scope of work suggested by RVA. This would result in reduced capital construction costs at this time, however CIMA+ went on to acknowledge that all of these works will be required in order to complete the next phase of capacity expansion. For example, RVA's design includes the construction of a new headworks building and processes that will be fully utilized in the subsequent capacity expansion, whereas CIMA+ has identified that the existing headworks could be rehabilitated and modified to save costs in this project, however a new headworks will be required for the future capacity expansion.

Overall, Staff have reviewed and discussed RVA's design, along with CIMA+'s review extensively. Ultimately all of the work included in RVA's current proposed design is required to meet the long term needs of Port Dover.

Financial Services Comments:

The Approved 2020 Capital Budget includes an amount of \$17,300,000 for the Port Dover WPCP Upgrades Capital Project which contains \$1,500,000 for Engineering and \$15,800,000 for Construction costs. Current funding for this project will be through debentures in the amount of \$9,500,000, \$5,980,000 from the Gas Tax Revenue Reserve Fund and \$1,820,000 from the Wastewater Capital Replacement Reserve Fund. Any funding adjustments required will be determined once the construction component of the project has been tendered and awarded.

Due to the extensive delays in project execution, along with the currently unknown impacts of the ongoing COVID-19 global pandemic, staff are not fully confident that the existing approved construction budget will be sufficient. If that is the case, a budget amendment may be required after the construction tender is closed and prior to execution of the contract.

Interdepartmental Implications:Purchasing Services

Purchasing staff have reviewed the report and advise that Norfolk County Policy CS-02 Section 4.8.4 requires all single source procurements to be authorized prior to the purchase through resolution of Council. Single source supply is defined where there is more than one vendor able to supply the goods or services but for reasons of function or service, one supplier is recommended for consideration and the purchase will be made without a competitive bidding process.

Consultation(s):

Environmental Services Department, Engineering Department, Chief Administration Officer, Wastewater Treatment Operations staff

Strategic Plan Linkage:

This report aligns with the 2019-2022 Council Strategic Priorities "Build and Maintain Reliable, Quality Infrastructure" and "Build Solid Foundations".

Explanation:

This WWTF is a piece of critical infrastructure required to support the community of Port Dover. Without the required upgrades, this facility will no longer be able to meet regulatory compliance and the County will be subject to fines and penalties for non-compliance. Without the required capacity expansion, future growth in Port Dover will be limited.

Conclusion:

Staff Report CAO 20-11 raised concerns with procurement practices that had previously been utilized for the engineering design of the Port Dover WWTF. Despite this, Engineering staff remained confident that all the work completed to date was relevant and required for the ultimate success of the project. A peer review was completed and has subsequently reaffirmed staff's confidence in the work completed by RVA. It is staff's recommendation that RVA be directed to finalize the engineering design for the Port Dover WWTF.

Recommendation(s):

THAT Staff Report EIS 21-49, Port Dover WWTF Upgrades, be received as information;

AND THAT Council permit a single source supply as outlined in Norfolk County Purchasing Policy CS-02, Section 4.8.4 with R.V. Anderson Associates Limited;

AND THAT the General Manager, Environmental and Infrastructure Services be authorized to execute the required agreements with R.V. Anderson Associates Limited to complete the engineering detailed design, contract administration and inspection services for the Port Dover WWTF upgrades

Attachment(s):

Attachment # 1 – Staff Report CAO 20-11

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Council Meeting – April 28, 2020

Subject: Public Works and Procurement Matters
 Report Number: CAO 20-11
 Division: Office of the Chief Administrative Officer
 Department: Administration
 Purpose: For Decision

Executive Summary:

The Public Works division in reviewing two significant projects – the Port Dover Waste Water Treatment Plant (WWTP) upgrade and the Simcoe Waste Water Treatment Plant (WWTP) upgrade noticed irregularities with the awarding of engineering contracts, specifically with the use of single source contracts.

In the case of the Port Dover project it would appear as though the initial contract was undertaken through an RFP process with an award for approximately \$90,000 in 2010. Over the next ten (10) years the engineering firm's scope was amended and additional work related to this project was directed to the firm, the total fees paid to the firm for this project now exceeds \$1 million. The Simcoe project has also used a single source contract amendments to address scope increases in the amount of approximately \$500,000.

This report seeks to undertake a process to have a peer review undertaken on these significant projects, prior to the tendering stage for the construction and the possible single source award for continued engineering services on these projects.

Discussion:

The following are some critical aspects for Council to consider:

- These are significant projects both from a financial perspective (approaching \$50 million combined) and in importance to the County's critical infrastructure.
- These projects have taken a several years to progress to the current state. The length of time has seen staff turnover both in Norfolk County's team and with the engineering firms.
- There was extensive scope creep and contract expansion on these engagements, which based on a preliminary view was accomplished through the use of single source contracts. Based on preliminary review it does not appear

as though these contract expansions followed corporate procedures. The process on these projects creates increase business and reputational risk to the County.

- These projects are at the tender document and project management/contract administration phases of the project. Public Works is recommending that the current design firm continue with the project to the next phase. This would require an additional single source award to these firms. This is the most practical approach due to the implications on timing and the knowledge of the design, however due to the history of these projects staff does not want to recommend this approach without some risk mitigation and transparency to Council.
- It should be stressed that staff do not suspect that there are any issues with the practices of the engineering firms nor is there any suggestion that they undertook any improper practices. Additionally, the Ministry of the Environment, Conservation and Parks (MECP) has completed their reviews and approvals of the engineering design, and have noted no concerns or issues with the proposed works.
- Public Works staff believe that the engineering methodology and designs completed to date are in the best interest of the County. Staff support the engineering based decisions that have been made throughout the development of these facility rehabilitation projects.
- Port Dover – project includes a minor capacity expansion, as well as laying the foundation for additional capacity expansions in the future. Many of these upgrades are included to address revised MECP imposed effluent criteria to ensure regulatory compliance. This project will take approximately 3 years to complete.
- Simcoe – projects includes a major rebuild of the existing aged facility, to address numerous TSSA and ESA requirements, and revised MECP imposed effluent criteria to ensure regulatory compliance. This project will take approximately 3 years to complete.

Council has two options:

Option A – Council can approve the expanding the awarded contract to the engineers of record on the Simcoe and Port Dover WWTP projects.

This would mean that RV Anderson would be awarded an additional \$1,300,000. This will be used to complete the design and provide contract administration and inspection services for the Port Dover WWTP. There is sufficient room in the approved capital budget.

For the Simcoe WWTP, Hatch Ltd. would be awarded an additional \$1,515,000. This will be used to complete the design and provide contract administration and inspection services for the Simcoe WWTP. Due to the size and complexity of this project, this also includes a fulltime contract administrator. There is sufficient room in the capital budget for this award. Total engineering, contract administration and inspection expenditures on this project will be approximately \$2,900,000.

This option allows for these projects to move forward without delay and without additional costs.

Option B – That prior to the awarding of additional contracted services to RV Anderson and Hatch, Norfolk County undertakes a peer review on both projects. This will provide Council with confidence that the proposed engineering solution was appropriate prior to moving forward with a significant capital project as well as a potential award of another significant single source contract to the existing engineering firms.

The peer review will add cost and time to the project, but in many cases may determine options to “value engineer” the project. Based on discussions with another municipality and an engineer in the field the cost for a peer review with consideration for value engineering is estimated to cost between \$30,000 and \$50,000 and will take 4 to 6 weeks to deliver a report. There is no budget factored in for this item and any shortfall will have to be made up through a deferral of other capital projects at the time when the additional costs are known. Additionally, if there are potential savings discovered during this review process budget room would be created.

It is recommended that the procurement team undertake a modified single source approach to award the peer review work on these projects. This approach would see Norfolk County procurement staff invite up to five firms to propose on these projects to allow for a quicker turnaround of bid submissions while ensuring a transparent and competitive bidding opportunity.

Financial Services Comments:

These are significant projects and a small savings of one or two percent can create material savings to the County. Ensuring that we have undertaken critical review of our designs on these significant projects represents prudent fiscal management. The funding for these reviews will come from the existing capital budgets.

Further review will be required to understand how these projects were able to move forward without appropriate procurement methods, adherence to policies and procedures, and how Corporate Services can undertake increased control measures.

Interdepartmental Implications:

Corporate Services and Public Works will be undertaking further reviews on these projects as well policies and procedures.

Consultation(s):

Corporate Services and Public Works

Strategic Plan Linkage:

This report aligns with the 2019-2022 Council Strategic Priorities "Build Solid Foundations".

Explanation:

The actions recommended under this report will provide for improved business practices while ensuring the long-term viability of the County's core critical assets.

Conclusion:

Due to the significant nature of these projects and the risks to the County staff is recommending Option B, the use of a peer review on the engineering work completed on these projects.

Staff understands that the previous business practices undertaken were not optimal, however it should be noted that current staff have identified the issue and are prepared to move forward with a process to ensure confidence in the projects. Moving forward with a peer review in an expedited manner will strengthen our due diligence over the projects.

Additionally, Corporate Services and Public Works will look to review these past practices and put into effect additional processes to limit project "creep" and will look to develop a process where peer reviews are considered as part of significant projects.

Recommendation(s):

THAT Report CAO 20-11, Public Works and Procurement Matters be received as information;

AND THAT Council exempt staff from Norfolk County Policy ECS-02 to permit a modified procurement process to select an engineering firm or firms to undertake a peer review on the Port Dover Waste Water Treatment Plant (WWTP) and Simcoe Waste Water Treatment Plant (WWTP) projects; ;

AND THAT Council direct staff to report back to Council on the findings of the peer review;

AND FURTHER THAT Council direct staff to review adherence to the existing policies and processes and look to make procedural or policy changes based on its findings.

Attachment(s):

none

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