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KESWICK WATER POLLUTION CONTROL PLANT EFFLUENT OUTFALL EXPANSION - CONSULTANT SELECTION, TOWN OF GEORGINA - PROJECT 72240

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated January 3, 2011, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Hatch Mott MacDonald Ltd. be engaged to undertake Class Environmental Assessment, detailed design, contract administration and site inspection for the Keswick Water Pollution Control Plant Effluent Outfall Expansion Project as outlined in this report, at an upset limit fee of \$1,214,278.80 excluding tax. The upset limit fee includes:
 - a. \$893,078.90 for Class Environmental Assessment and detailed design.
 - b. \$321,199.90 for contract administration and site inspection services, based on an estimated 56 week construction duration.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fees using the competitive unit price of \$4,951.25 per week, excluding taxes, to match updated construction duration determined on completion of detailed design.
3. Regional Council authorize an increase in Total Project Budget Authority for the Keswick Water Pollution Control Plant Expansion project by \$8,048,000 from \$66,837,000 to \$74,885,000 for expansion of the effluent outfall in 2011 and 2012.

2. PURPOSE

This report seeks Council authorization to retain engineering services related to Class Environmental Assessment, detailed design, contract administration and site inspection services for the Keswick Water Pollution Control Plant Effluent Outfall Expansion Project. A location plan is appended to this report (*see Attachment 1*).

The Region's Purchasing By-law requires Council authorization to award a Request for Proposal (RFP) over \$500,000 or when the recommended proponent does not have the lowest cost. In this case, the recommended proponent's fee is over \$500,000 and is not the lowest cost.

3. BACKGROUND

Master Plan identified need to expand existing plant to meet growth requirements in Keswick

The 2009 Water and Wastewater Master Plan Update confirmed a need to expand the Keswick Water Pollution Control Plant to meet growth requirements in Keswick.

The plant expansion work is planned in two phases:

- Phase I expansion will increase plant treatment capacity by approximately 50 percent from the current 12,070 m³/day up to an average day flow of 18,000 m³/day to service approximately 49,300 people.
- Phase II expansion would approximately double the capacity of the existing plant up to an average day flow of 24,000 m³/day to service approximately 66,000 people.

The Phase I expansion is currently under construction and is scheduled to be completed in 2012 while the Phase II expansion is anticipated to be completed by 2023.

Groundwater dewatering activities implemented in 2010 as part of the Phase I construction revealed capacity limitations of the plant's existing effluent outfall that were not apparent during detailed design. Twinning the existing effluent outfall was initially anticipated as part of the Phase II plant expansion. It is now confirmed the most cost effective solution to address capacity limitations is to implement the outfall twinning as part of the Phase I construction.

4. ANALYSIS AND OPTIONS

Two engineering consulting firms responded to the Request for Proposal

In accordance with the Region's Purchasing By-law, a Request for Proposal document was issued by the Supplies and Services Branch. The Request for Proposal was advertised in the Daily Commercial News and electronically on Biddingo.com. Nine vendors received the Request for Proposal document and the following two engineering consulting firms submitted proposals for this assignment:

- GENIVAR Consultants LP
- Hatch Mott MacDonald Ltd.

The Request for Proposal detailed the scope of work required, which included the following services:

- Project management

- Environmental assessment
- Detailed design
- Procurement of approvals
- Tender and award
- Construction contract administration and site inspection
- Quality assurance and quality control

Proposals evaluated using the two-envelope system

Proposals were evaluated using the two-envelope system with technical and financial information submitted in two separate envelopes. The overall proposal score was evaluated based on a weighting of 80 points for the technical/management proposal and 20 points for the financial proposal. Technical/management proposals were evaluated prior to any knowledge of financial information.

The Region's proposal evaluation team reviewed the technical/management proposals based on the following criteria as listed in the Request for Proposal:

- Understanding of the project
- Project delivery approach and methodology
- Corporate experience with similar projects
- Project manager and key staff experience with similar projects
- Sub-consultants' experience
- Project management and implementation
- Other miscellaneous issues

Proponents must achieve a technical score of 48 points out of 80 (60%) in order to have the financial portion of the proposal opened, and therefore be considered for award. If a proponent does not achieve this minimum technical score, their financial proposal is returned unopened. Technical and financial results for each proponent are summarized in Table 1.

Table 1
Consultant Proposal Evaluation Summary

Consulting Engineering Firm	Technical Score (out of 80)	Upset Limit Cost	Financial Score (out of 20)	Total Score (out of 100)
Hatch Mott MacDonald Ltd.	61.0	\$1,214,278.80	18.0	79.0
GENIVAR Consultants LP	50.0	\$1,095,188.75	20.0	70.0

Evaluation summary revealed Hatch Mott MacDonald Ltd. as highest ranked proponent

In accordance with the Terms of Reference in the Request for Proposal, the assignment is to be awarded to the proponent with the highest total score. In this evaluation, the proponent who achieved the highest total score (79.0) is Hatch Mott MacDonald Ltd. Their proposal demonstrates a better understanding of the project requirements, better experience on similar projects, and also represents the best overall value to the Region for this work.

Supplies and Services Branch has reviewed the evaluation summary and has issued their internal report confirming that Hatch Mott MacDonald Ltd. be recommended as the successful overall proponent to undertake the engineering services for the Keswick Water Pollution Control Plant Effluent Outfall Expansion project under Request for Proposal No. P-10-137.

5. FINANCIAL IMPLICATIONS

Additional funding requirement identified in 2011 capital budget

The upset limit fee for the proposed work is \$1,214,278.80, excluding tax. This project will be funded from the Keswick Water Pollution Control Plant Expansion project, which has a Total Project Budget Authority of \$66,837,000.

This report seeks Council approval for an additional \$8,048,000 funding for the expansion of the effluent outfall in 2011 and 2012, increasing the Total Project Budget Authority from \$66,837,000 to \$74,885,000. The revised budget reflects effluent outfall expansion needs identified during the Phase I plant expansion, including both consulting engineering services identified in this report as well as estimated capital construction costs. The capital construction estimate for the effluent outfall expansion is based on approximately two kilometres of 750mm diameter pipe, half of which is to be installed under water along the bottom of Lake Simcoe.

The engineering fee for this assignment, including the environmental assessment, is approximately 15% of the construction cost estimate, which is in the upper end of the range for this type of complex project due to numerous agency consultations and permit requirements.

The fee includes construction contract administration and site inspection services for an estimated duration of construction of 280 working days (56 weeks). Based on the competitive prices within the financial proposal submitted by Hatch Mott MacDonald Ltd., a prorated fee of \$4,951.25 for each week of contract administration and site

inspection will be used to calculate either an increase or decrease in the upset limit fee, as the case may be, to account for the actual duration of construction.

Should the actual duration of construction increase, as determined by the detailed design and specified in the tender documents, it is recommended that the Commissioner of Environmental Services be authorized to amend the contract to reflect these potential changes.

6. LOCAL MUNICIPAL IMPACT

The Keswick Water Pollution Control Plant provides tertiary level wastewater treatment for the community of Keswick in the Town of Georgina. The Phase I expansion is scheduled for completion in 2012. It is critical that the effluent outfall be expanded to accommodate projected flow increase for the Region to fulfill the commitment of meeting planned growth requirements of the Keswick community.

The Town of Georgina provided input into the initial project planning. Throughout the course of the project, the Region's project team will work collaboratively with the Town, regulatory agencies and other stakeholders to deliver the project in a timely manner.

7. CONCLUSION

The outfall expansion project is required for Phase I and Phase II expansion to provide sufficient outfall capacity to meet the ultimate flow requirements from the plant.

Two consultants' proposals for this project were received and evaluated in accordance with the Region's Purchasing By-law. It is recommended that Hatch Mott MacDonald Ltd. be engaged to undertake Class Environmental Assessment, detailed design, contract administration and site inspection for the Keswick Water Pollution Control Plant Effluent Outfall Expansion Project at an upset limit cost of \$1,214,278.80 excluding taxes.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at (905) 830-4444 Ext. 5070.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)

