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AUTHORIZATION OF CONSULTING SERVICES KLEINBURG WATER POLLUTION CONTROL PLANT UPGRADES

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, September 25, 2006, from the Commissioner of Transportation and Works:

1. RECOMMENDATIONS

It is recommended that:

1. Approval be given to increase the scope of engineering services for the Kleinburg Water Pollution Control Plant (WPCP) upgrades to include SCADA upgrades and a new building to house the upgrades to the inlet works.
2. Approval be given to increase Hatch Mott MacDonald Ltd. fees for providing additional engineering services during the detailed design and construction phases of the Kleinburg WPCP Upgrades project by \$144,160.80 from \$249,002.80 to \$393,163.60 (excluding GST), to include the above noted increase to the scope of engineering services.

2. PURPOSE

The purpose of this report is to obtain Regional Council approval to increase the approved scope of services and the corresponding increase to the purchase order amount for the services of Hatch Mott MacDonald Ltd. on the Kleinburg WPCP upgrade project.

The purchasing by-law requires that where purchases from the same vendor exceed 20% of the original proposal, the increase be authorized by Council.

3. BACKGROUND

3.1 Scope of the Original Assignment

The existing water pollution control plant that serves the community of Kleinburg has a rated capacity of 1,205 m³/d. The plant will require expansion to service approved future development and an Environmental Assessment (EA) for this expansion is to be completed before the end of this year (2006).

Through assessments conducted during the EA with operations staff, it was determined that upgrades and repairs are required to ensure the plant continues to meet effluent compliance criteria as average daily flows approach the rated capacity of the existing facility. These upgrades and repairs are required urgently, and as such, they can not be included with any future project to expand the plant.

Hatch Mott MacDonald (formerly American Water Services) was retained to provide engineering services for the detailed design, construction supervision and contract administration for this upgrade project through a competitive request for proposal. The CAO awarded the assignment on March 7, 2006, in accordance with the purchasing by-law. Summary of the evaluation of the competitive proposals is provided below.

Table 1
Summary of the Evaluation

#	Name of Company	Total Price	Technical Score	Score Including Price
1	Hatch Mott MacDonald Ltd.	\$266,433.00	63.15%	83.15%
2	Earth Tech Canada Inc.	\$317,051.70	57.15%	73.95%
3	CH2MHILL Limited	\$503,987.12	57.60%	68.20%

The original scope allowed for detailed design of repairs and upgrades within the existing plant structures. At the time the original scope was prepared, the Environmental Assessment was considering several future servicing options which included: i) decommissioning the WPCP; ii) continued operation of the WPCP with surplus flows directed to the YDSS; or iii) expansion of the WPCP to service the planned growth in Kleinburg.

3.2 Project Status

Based on the original scope, the consultant has completed the Project Definition Report, the Preliminary Design Report and a portion of the detailed design. The Preliminary Design Report indicates that several components cannot be efficiently repaired as originally proposed and should be replaced with new, more efficient equipment. This includes an upgrade to the computerized SCADA system that monitors and controls the WPCP. The current SCADA system is outdated and requires substantial upgrades to meet current York Region standards.

The Environmental Assessment which is nearing completion indicates that the preferred wastewater servicing option will be expansion of the existing WPCP to service the proposed growth within Kleinburg. The SCADA upgrades noted above will be required by the expanded WPCP.

4. ANALYSIS AND OPTIONS

4.1 Reasons for Change of Scope

Given that upgrades to the preliminary treatment process are needed at this time and with the expansion of the WPCP in mind, it was determined that a new structure to house the preliminary treatment would be required. The location of the new structure and the completion of the new structure will allow for an orderly and cost-effective expansion of the WPCP within the existing property. The new building and the preliminary treatment

process will be designed to accommodate the increased flows associated with the proposed growth.

As noted above, upgrades to the SCADA system were identified after the award of the assignment to Hatch Mott MacDonald Ltd. through the Project Definition Report.

The recommendations of the Environmental Assessment to expand the existing WPCP mean that any investment in repairs and upgrades to the existing plant will have a long-term benefit. In addition, the proposed modifications should facilitate easy expansion of the facility in the future.

4.2 Options to Address Change in Scope

Given the change in scope, the Region has two options to proceed as follows:

1. Terminate the assignment with Hatch Mott MacDonald Ltd. and retain a new consultant to complete the expanded scope of services; or
2. Increase the scope of services to be provided by Hatch Mott MacDonald Ltd. at an increased fee to the originally approved fee.

4.2.1. Retaining a New Consultant

The option of terminating the existing assignment and retaining a new consultant would have the following advantages and disadvantages:

The main advantage of a new competitive process is that the remaining services would be based on competitive proposals with competitive pricing.

Main disadvantages of this option are as follows:

- A new competitive process in accordance with the purchasing by-law would take a minimum of 20 weeks to select a new consultant and reinitiate the project resulting in a significant delay to the project.
- Urgently required upgrades to the treatment processes at Kleinburg WPCP would be delayed.
- Additional costs may be incurred due to some duplication of effort, specifically with respect to a different consultant “getting up to speed” with the assignment.

4.2.2 Retaining the Existing Consultant

Given that Hatch Mott MacDonald Ltd., have completed the preliminary phases of the design, it would be beneficial to have the same consultant complete the remaining phases of the project, including the additional upgrades that are proposed. This will ensure project continuity and facilitate timely delivery of the project.

4.2.3 Recommended Option

Based on the discussion above, it is recommended that authorization be given to increase the purchase order by \$144,160.80 for Hatch Mott MacDonald Ltd. to complete the detailed design, contract administration and construction supervision to a total cost of \$393,163.60 excluding GST.

5. FINANCIAL IMPLICATIONS

The following table summarizes the additional costs. Staff has reviewed the extra costs and concur they are reasonable and appropriate. Sufficient funds are available in the 2006 budget.

Table 2
Summary of Work Completed and Additional Costs

Task	Original Cost	Revised Cost	Additional Cost
Study schedule	\$18,252.00	\$18,252.00	
Completion of 30% Design Package	32,071.00	92,071.00	\$60,000.00
Completion of 60% Design Package	13,026.00	57,367.70	44,341.70
Procurement of all Required Approvals	224.00	2,072.00	1,848.00
Completion of 90% Design Package	16,168.00	45,106.10	28,938.10
Completion of Pre-Tender Package	5,004.00	9,004.00	4,000.00
Completion of "Camera Ready" Tender Package	2,956.00	4,244.00	1,288.00
Construction Supervision and Contract Administration	149,592.00	149,592.00	
Disbursements	11,709.80	15,454.80	3,745.00
TOTAL (excluding GST)	\$249,002.80	\$393,163.60	\$144,160.80

6. LOCAL MUNICIPAL IMPACT

The project is required to optimize the treatment of wastewater and ensure that effluent compliance is maintained at the Kleinburg WPCP. The scope has been developed in consultation with York Region operations staff. Delay in implementing the repairs and upgrades will increase the difficulty of ensuring compliance with the effluent criteria of the WPCP at all times.

7. CONCLUSION

The proposed upgrades are required to improve the operation of the Kleinburg Water Pollution Control Plant. Maintaining the current consultant to complete the expanded scope of services is recommended as the best option to complete the project in a timely

manner. An increase to the current purchase order is required to retain Hatch Mott MacDonald to complete the project.

The Senior Management Group has reviewed this report.