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### **CONSULTING SERVICES FEE FOR ADDITIONAL SCOPE REQUIRED FOR GEORGINA WATER TREATMENT PLANT EXPANSION AND UPGRADES TOWN OF GEORGINA PROJECT 72140/72500**

**The Environmental Services Committee recommends the adoption of the recommendation contained in the following report dated April 28, 2011 from the Commissioner of Environmental Services.**

#### **1. RECOMMENDATIONS**

It is recommended that:

1. Regional Council authorize an increase in Blanket Purchase Order Number B00009052 issued to Genivar Inc. (formerly MacViro Consultants Incorporated) for detailed design, contract administration and site inspection services for the Georgina Water Treatment Plant Expansion and Upgrades from \$875,198.62 to \$1,077,770.62 excluding HST, for additional consulting services outside the original scope of work and in excess of the contingency and scope change allowance in the Purchasing By-law.

#### **2. PURPOSE**

This report seeks Council authorization to increase Blanket Purchase Order Number B00009052 for consulting services outside the original scope of work for the Georgina Water Treatment Plant Expansion and Upgrades beyond the additional scope change allowance provided for in the Purchasing By-law.

#### **3. BACKGROUND**

##### **Detailed design, contract administration and site inspection services assignment awarded to MacViro Consultants Inc. in 2005**

In November of 2005, MacViro Consultants Inc., currently under the name Genivar Inc., was awarded the assignment for the detailed design and contract administration of the Georgina Water Treatment Plant for the Phase 2 expansion and upgrade project. The project scope had three components: upgrades to satisfy Ministry of Environment regulatory requirements related to the Certificate of Approval; upgrades to improve the plant operation, flexibility, and efficiency; and provisions for capacity expansion from 20ML/day to 40ML/day capacity.

### **Project currently in construction and scheduled for completion in October 2011**

The project was tendered to the pre-qualified bidders in December 2009 and closed in January 2010. The contract was awarded to W.A. Stephenson Mechanical Contractors Limited at the tender price of \$9,980,952, excluding taxes. Construction commenced in March 2010 and is currently scheduled for completion in October 2011.

### **Additional scope to meet Infrastructure Stimulus Funding requirements was not included in the original scope**

This project became an Infrastructure Stimulus Fund financed item during its final design stage in 2009. The consultant faced supplemental design, tendering, and construction challenges due to this change. Site conditions required additional consulting services for resolving newly identified issues. Moreover, duration of construction extended beyond the agreement's limit due to contractor's difficulty in providing construction deliverables within the contract time allotted.

In March 2011, considering the work associated with implementing changes into the design and contract administration to satisfy the Infrastructure Stimulus Funding requirements the Purchase Order was increased to its maximum extent allowed by Purchasing By-law to cover a part of it. This increase provided for work associated with preparation of pre-purchasing and novation documentation for membrane trains, modification of tender package to facilitate the procurement and construction time within the allotted Contract working days and closing of project with documentation in accordance with for Infrastructure Stimulus Funding requirements.

The current value of the Purchase Order is \$875,198.62, exclusive of HST.

### **Failure of contractor to complete the work within contract time results in liquidated damages**

When a contractor fails to attain total performance of the work within the contract time, additional contract administration and site inspection work is required by the consultant resulting in additional project costs. A mechanism in every York Region construction contract exists that allows the Region to retain liquidated damages from the contractor to cover these additional project costs.

Although the funds have been retained to cover additional costs incurred by the consultant due to the contractor exceeding the allowed schedule, the Purchasing By-law does not allow Region staff to increase the consultant's purchase order outside the available scope change and contingency allowances provided for in the Purchasing By-law without Council authorization.

#### **4. ANALYSIS AND OPTIONS**

Genivar Inc. has recently provided quotes for out-of-scope activities that are essential to address various new project requirements related to Infrastructure Stimulus Funding conditions, and construction administration services that could not have been previously anticipated. Staff has reviewed each of these quotations received from Genivar Inc. to ensure the level of effort is reasonable and is in line with their original financial proposal for the assignment. Furthermore, since Genivar Inc. continues to provide services on this project for the original scope of work, extending their assignment represents the best value to the Region for completing these required additional activities.

##### **Genivar Inc.'s proposed fee for providing additional contract administration and site supervision services equals \$176,316**

Earlier in the year, the contractor provided a revised project schedule that indicated an additional 48 weeks would be required to complete the project. With the increase in construction duration additional contract administration and site inspection services are now required.

Genivar's original fee proposal for this project included a provisional cost item for additional contract administration and site inspection services in the amount of \$3,673.25 per week for a total of \$176,316 to complete this additional work. A breakdown of the requested fees is shown in Table 1.

##### **Genivar Inc.'s proposed fee for fulfilling additional Infrastructure Stimulus Funding conditions equals \$12,056**

In July 2009, the project was approved for Infrastructure Stimulus Funding. In order to satisfy the stringent schedule associated with this funding, the consultant was required to provide additional contract administration services.

Genivar Inc. provided a quote for completion of additional contract administration services for \$12,056. Of this amount \$5,480 covered work completed during the original 40 weeks of the contract and \$6,576 for the additional 48 weeks required to complete the contract. Breakdown of the requested fees is shown in Table 1.

**Table 1**  
Breakdown of fees for Additional Work

| Item #                                                                  | Description                                                                                                                                       | Fee (\$)       |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1                                                                       | 48 weeks of contract administration and full time site inspection @ \$3,673.25/week in excess of the 40 weeks provided in the agreement           | 176,316        |
| 2                                                                       | 48 weeks of construction reporting of Infrastructure Stimulus Funding parameters @ \$137/week in excess of the 40 weeks provided in the agreement | 6,576          |
| <b>Subtotal Additional contract administration and site supervision</b> |                                                                                                                                                   | <b>182,892</b> |
| 3                                                                       | Construction reporting of Infrastructure Stimulus Funding parameters @ \$137/week during the original 40 weeks                                    | 5,480          |
| 4                                                                       | Review options for separate completion of Infrastructure Stimulus Funding scope                                                                   | 9,200          |
| 5                                                                       | Prepare the Request for Extension of Infrastructure Stimulus Funding deadline from March 30, 2011 to October 25, 2011                             | 5,000          |
| <b>Subtotal Infrastructure Stimulus Funding impact</b>                  |                                                                                                                                                   | <b>19,680</b>  |
| <b>Total Fees for additional work scope</b>                             |                                                                                                                                                   | <b>202,572</b> |

**Challenges exist to approve funding for additional consultant services required for late completion of construction projects**

In certain circumstances contractors will not complete construction within the required schedule. Delays can materialize during the final construction phases or during commissioning and extra construction time is then required to complete the project to the satisfaction of the Region. In these cases, if the contractor requires time beyond the working days allowed in the contract, liquidated damages may be assessed to the contractor for additional costs to the Region as a result of the delay. These costs include consulting services for contract administration and inspection during the extended time required to complete the project. Currently, in the event an increase to the consultant's purchase order is required beyond the contingency and scope change allowances in the Purchasing By-Law, Council authority is required for the increase.

**5. FINANCIAL IMPLICATIONS**

The total requested consulting services fee increase, as summarized in the Table 1 above, is \$202,572 exclusive of HST.

**Additional consultant fees recovered from liquidated damages do not increase total project costs**

Additional contract administration and site inspection costs to complete the project caused by construction delays in the amount of \$182,892.00, represents approximately

90% of the requested fee increase will be recovered from liquidated damages retained from the contractor and will not increase the total project cost. The remaining additional costs are covered under the approved project budget.

**Sufficient funding available in the approved 2011 Total Project Budget  
Authority to complete the additional scope**

The total project cost is \$10,816,596.62. This total cost includes the revised consultant fees of \$1,077,770.62, less \$182,892.00 recoverable from liquidated damages and the current construction cost of \$9,921,718.00. The approved 2011 Total Project Budget Authority for this project is \$11,276,000.00.

It is imperative that the plant expansion be substantially completed by October 25, 2011 to fulfill the Region's obligations in the agreement associated with Infrastructure Stimulus Funding of this project.

The current construction cost is \$9,921,718.00, excluding taxes. Additional consulting services related to additional work would bring the total consulting fee to 10.8% of the construction cost, which is within industry standards.

Since 2002, over 700 purchase orders with a total value of approximately \$1.3 billion have been issued to secure engineering, consulting and construction services on water and wastewater projects. Of these, approximately 77 or 11% of the purchase orders have required increases beyond the increases allowed in the Regional Purchasing By-law. The total value of such increases is approximately \$46 million or 3.5% of the total original value of the purchase orders.

## **6. LOCAL MUNICIPAL IMPACT**

The Georgina Water Treatment Plant, together with the Keswick Water Treatment Plant, provides water supply for the communities of Keswick and Sutton in the Town of Georgina and services a population of about 40,000.

It is important that the plant be upgraded to fulfill the commitment of meeting and sustaining the water supply requirements of the Town of Georgina and to provide a safer, more efficient, and reliable operation while complying with all aspects of the Certificate of Approval.

The upgraded facility is scheduled for completion by the end of October 2011.

## **7. CONCLUSION**

The additional scope of work and associated fee explained in the report are essential to meet the construction schedule expansion and upgrade.

An approval for this increase is required to minimize potential construction schedule delays of the project, for which completion is required by October 2011, to address the Infrastructure Stimulus Funding agreement.

It is recommended Blanket Purchase Order Number B00009052 issued to Genivar Inc. (formally MacViro Consultants Incorporated) for detailed design, contract administration and site inspection services for the Georgina Water Treatment Plant Expansion and Upgrades be increased to \$1,077,770.62, excluding HST to accommodate additional identified and necessary work scope.

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

The Senior Management Group has reviewed this report.

*(Please refer to Clause 8)*