

10

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 recommendations contained in the following report dated May 4, 2012, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Council authorize an increase in Blanket Purchase Order Number B00009052 issued to Genivar Inc. for detailed design, contract administration and site inspection services for the Georgina Water Treatment Plant Expansion and Upgrades from \$1,148,649 to \$1,434,896 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 Bylaw.
2. The Commissioner of Environmental Services be authorized to adjust the contract administration and site inspection fee using the competitive unit price of \$3,673.25 per week, excluding HST, to match the actual construction duration in the event future unforeseen delays are encountered, subject to staying within total budget authority for this project.

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 Bylaw.

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 the 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 June 2012

The project was tendered to 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 with an original contract completion date of March 28, 2011. Substantial performance was achieved for the work scoped under the Infrastructure Stimulus Funding program on October 25, 2011; however total completion of the contract will be achieved in June 2012.

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

When a contractor fails to attain total completion 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.

4. ANALYSIS AND OPTIONS

Genivar Inc. has recently provided quotes for out-of-scope activities that are essential to address various project requirements and completion of the project. Staff has reviewed each quotation received from Genivar Inc. to ensure the level of effort is reasonable and is in line with their original financial proposal for the assignment. As 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.

The current value of Genivar Inc.'s Purchase Order is \$1,148,649 exclusive of HST, with no contingency remaining.

Genivar Inc.'s proposed fee for providing additional contract administration and site supervision services is \$121,217

Earlier in the year the project schedule was revised to indicate an additional 33 weeks would be required to bring the project to total completion. 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 \$121,217 to complete this additional 33 weeks of contract and site inspection work. This amount is summarized in Table 1.

Asset tagging to be completed by consultant

It is a York Region standard to have all water and wastewater assets tagged for inclusion into the Region's work order management system. A cost for this work was included in the construction contract in the amount of \$100,000. Due to the nature of the work, the consultant was also asked to provide a price to complete the asset tagging function and they quoted \$79,510.

Since the consultant is more experienced with this detailed work as they have completed asset tagging for other York Region facilities, and given that their price is lower than the contractor's price, it is proposed that the asset tagging function will be completed by the consultant. This cost will not be extra to the budget as the amount in the construction contract will be removed through a change order.

Genivar Inc.'s quote of \$79,510 to complete the asset tagging for Phase II of the Georgina Water Treatment Plant is summarized in Table 1.

Consulting services required to complete four new Granular Activated Carbon filters

Membrane filter trains provide the main treatment of raw water at the Georgina Water Treatment Plant. The original scope of work for this upgrade project included addition of two new membrane filter trains to augment the four installed with the original plant construction for a total of six membrane filter trains.

During design of the plant upgrade works, the Region secured Infrastructure Stimulus Funding from the Federal and Provincial governments for this project. To meet the requirements for this funding, the scope of the upgrade project was revised to include an additional two membrane filter trains for a total of eight trains to be installed in the expanded plant.

Operating with a total of eight membrane filter trains necessitates incorporating an additional Granular Activated Carbon (GAC) filter into the overall water treatment process. GAC filters are used at the end of the water treatment process to remove taste and odour.

To meet strict timelines required to secure the Infrastructure Stimulus Funding, the Region tendered the upgrade works with the GAC design advanced only to the conceptual level and an estimated cash allowance included in the construction contract.

The GAC filter work was originally scheduled to be designed and completed during the course of the construction works. Due to numerous contractor delays experienced to date, a Change Order has been issued to delete the GAC filter works from the current contract with the intent to re-procure this work at a later date. This opportunity exists since this additional GAC filter will not be needed to treat anticipated flows at the time of the commissioning of this plant upgrade.

Genivar Inc. provided a quote for the consulting services required to complete the re-tendering, contract administration and site inspection for the GAC filter of \$85,520 and is summarized in Table 1. The work to complete the additional GAC filter will take approximately 12 to 14 weeks.

These additional consultant services for the GAC filter work in the amount of \$85,520 will be paid from liquidated damages being held from the contractor and will not be extra to the budget.

Table 1
Summary of Fee Increase for Additional Required Project Scope

Description	Fee (\$)
Additional contract administration and site inspection	121,217
Asset tagging	79,510*
Granular Activated Carbon filter	85,520
Total Fee Increase	286,247

* Funding from contract change order of \$100K

Link to Key Council-approved Plans

The Georgina Water Treatment Plant is a critical component of the Region's water infrastructure for now and into the future. This upgrade project is a key project that aligns with the Region's 2011 to 2015 Strategic Planning objective of continuing to deliver and sustain critical infrastructure.

5. FINANCIAL IMPLICATIONS

Sufficient funding available in the approved 2012 Total Project Budget Authority to complete the additional scope

Total cost for this project is anticipated to be approximately \$11,700,000. This total cost includes \$1,434,896 for the revised consultant fees, the current construction cost of \$9,270,530 and the estimated cost for the GAC filter installation of approximately \$800,000. The approved 2012 Total Project Budget Authority for this project is \$12,053,000.

The total requested consulting services fee increase, as summarized in Table 1, is \$286,247. The liquidated damages currently held from the contractor for this project to the end of March 2012 is \$573,207 and additional liquidated damages continue to be assessed on this contract. This amount exceeds the cost of these additional consulting services. It should be noted, however, the construction contractor does not agree with the amount of liquidated damages assessed and plans to submit a formal claim accordingly.

The current construction cost including the future GAC filter contract is \$10,070,530. The total requested consulting services fee for this project is \$1,434,896. This equates to a total fee of 14.2% of construction cost. This percentage is within industry standards for complex retrofits and upgrades to an advanced water treatment facility.

Since 2002, over 1,030 purchase orders with a total value of more than \$2.1 Billion have been issued to secure engineering, consulting and construction services on water and wastewater projects. Of these, 104 or 10% of the purchase orders have required increases beyond the increases allowed in the Regional Purchasing Bylaw. The total value of such increases is approximately \$107 Million, or approximately 5.1% 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 Georgina Water Treatment Plant be upgraded to fulfill the commitment of meeting and sustaining water supply requirements of the Town of Georgina and provide a safe, efficient and reliable operation while complying with all aspects of the Certificate of Approval.

7. CONCLUSION

The additional scope of work and associated fee explained in the report are essential to complete the construction of the Georgina Water Treatment Plant expansion and upgrade.

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 \$1,434,896 excluding HST to accommodate the additional services identified. This fee is 14.2% of the estimated capital costs which is within industry standards.

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.