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**CONSULTANT SELECTION -**  
**YONGE STREET AQUIFER WELL CAPACITY RESTORATION PROJECT**  
**PROJECT 75550**

**The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated October 27, 2011, from the Commissioner of Environmental Services.**

**1. RECOMMENDATIONS**

It is recommended that:

1. AECOM Canada Ltd. (AECOM) be engaged to undertake a Class Environmental Assessment, including a well performance assessment and groundwater resource exploration study, detailed design, contract administration and site inspection for the Yonge Street Aquifer Well Capacity Restoration project, as outlined in this report, at a fee of \$3,151,889, excluding taxes. The fee includes:
  - a. \$2,261,128 for Class Environmental Assessment, including well performance assessment and groundwater exploration study
  - b. \$560,221 for detailed design and engineering services for construction
  - c. \$330,540 for contract administration and site inspection services, based on an estimated 80-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 \$4,132 per week, excluding taxes, once the updated construction duration is determined and specified in the tender documents, within the Total Project Budget Authority.
3. Regional Council authorize an update in the Total Project Budget Authority for the Yonge Street Aquifer Well Capacity Restoration project by \$2.8 million from \$500,000 to \$3.3 million for project work in 2011 through to 2015 and within the approved total project budget.

**2. PURPOSE**

This report seeks Council authorization to retain engineering services related to well performance assessment, Class Environmental Assessment, groundwater resource exploration study, detailed design, contract administration and site inspection for the Yonge Street Aquifer Well Capacity Restoration project. A location map is appended to this report (*see Attachment 1*).

The Region's Purchasing By-law requires Council authorization to award Request for Proposals over \$500,000 or when the recommended proponent is not the lowest cost. In this case, the recommended proponent submitted the lowest cost, however the recommended proponent's bid is over \$500,000.

### **3. BACKGROUND**

#### **Region's Master Plan Update identified a blended water supply system**

The Region's November 2009 Water and Wastewater Master Plan Update identified continued operation of a blended water supply system consisting of lake-based and groundwater-based drinking water for the Towns of Aurora, Newmarket and East Gwillimbury.

#### **10-year Infrastructure Improvement Plan identifies key projects to maintain service levels and water supply capacity**

To ensure that future capital investments for rehabilitation and replacement of infrastructure are made most effectively, a strategic 10-year Infrastructure Improvement Plan (IIP) is managed by Environmental Services. The Infrastructure Improvement Plan is part of a broader Infrastructure Management Program to develop and implement service levels required to meet customer expectations as well as monitor performance to support infrastructure planning. The Yonge Street Aquifer Well Capacity Restoration project was identified in the Infrastructure Improvement Plan as a key project to maintain service levels and water supply capacity, given that some wells are now over 40 years old.

#### **Need to recover lost groundwater supply capacity to maintain sustainable permitted capacity**

Currently there are 18 wells operating under the Yonge Street Aquifer Permit to Take Water which service the Towns of Aurora, Newmarket, and East Gwillimbury. Some wells are declining in performance and cannot deliver their full permitted capacity. Based on existing operational and performance data, it is estimated that up to two new wells may be required to restore diminished capacity of the existing Yonge Street Aquifer wells.

Restoration of the diminished well capacity will also form part of the ongoing responsible management of the Yonge Street Aquifer.

### **Regional Official Plan and Clean Water Act will inform selection of target sites for new production wells**

The Region's December 2009 Official Plan contains updated Wellhead Protection policies. Draft Source Protection Plans are also being developed by the Source Protection Authorities under the *Clean Water Act*, 2006. These Plans will inform selection of target sites for the groundwater exploration study and ensure that new production wells are developed in areas with compatible land uses and activities, from both a drinking water quantity and quality perspective.

### **The proposed project consists of two phases**

The Yonge Street Aquifer Well Capacity Restoration project is planned in two stages:

1. Class Environmental Assessment Study, including a performance assessment of existing wells based on historical well data, followed by a groundwater exploration study to identify up to two new well locations.

The performance assessment will identify which existing wells have performance and/or operational issues and will include a feasibility study to determine which wells should be tested, replaced, rehabilitated or supplemented. The groundwater exploration study will identify up to two new well locations, through a desktop analysis and a field drilling program, to restore lost groundwater supply capacity due to declining performance of existing wells. The study will also evaluate the feasibility and potential effects of new groundwater takings at different locations.

2. Detailed design and construction of up to two well houses. Design and construction of the well houses will include pumps, all necessary treatment systems, controls and valves, meters and instrumentation, backup generators, and watermains to connect the well houses to the existing Regional water distribution system.

## **4. ANALYSIS AND OPTIONS**

### **Four engineering consulting firms responded to the Request for Proposal**

In accordance with the Region's Purchasing By-law, a Request for Pre-Qualification was issued (P-11-09) and the following four pre-qualified engineering firms submitted proposals for the assignment:

- AECOM Canada Ltd. (AECOM)
- MMM Group Limited (MMM)
- Stantec Consulting Ltd. (Stantec)
- R. J. Burnside & Associates Limited (R.J. Burnside)

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

- Project management, planning and control
- Well performance assessment
- Environmental Assessment
- Groundwater resource exploration study
- Detailed design
- Securing permits and approvals
- Tender and award
- Construction contract administration including 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.

#### **Project Team Experience:**

- Corporate experience related to groundwater explorations, environmental assessments and well house designs
- Project manager and proposed key staff experience with similar projects
- Proposed technical support staff experience with similar projects
- References

#### **Project Implementation:**

- Project understanding and ability to deliver the project
- Project approach methodology
- Project schedule, work plan and deliverables
- Project management approach
- Implementation of Quality Assurance/Quality Control processes
- Approach to health and safety
- Value added services and innovative concepts presented by the proponent
- Other miscellaneous items

The financial evaluation composed the remaining 20% of the total evaluation. To be considered for award proponents must achieve a minimum score of 60% (48 points out of the potential 80 points) allocated to technical merit. Technical and financial results for each proponent are summarized in Table 1.

**Table 1**  
Consultant Proposal Evaluation Summary

| <b>Consultant</b>                       | <b>Technical<br/>Score<br/>(Out of 80)</b> | <b>Financial<br/>Score<br/>(Out of 20)</b> | <b>Total<br/>Score</b> | <b>Total Fee<br/>(Excluding<br/>taxes)</b> |
|-----------------------------------------|--------------------------------------------|--------------------------------------------|------------------------|--------------------------------------------|
| <b>AECOM Canada Ltd.</b>                | <b>59.8</b>                                | <b>20.0</b>                                | <b>79.8</b>            | <b>\$3,151,889</b>                         |
| MMM Group Limited                       | 59.4                                       | 14.6                                       | 74.0                   | \$4,316,179                                |
| Stantec Consulting Ltd.                 | 50.3                                       | 19.9                                       | 70.2                   | \$3,175,051                                |
| R.J. Burnside and Associates<br>Limited | 48.8                                       | 16.5                                       | 65.3                   | \$3,822,882                                |

### **Evaluation summary revealed AECOM as highest ranked proponent**

In circumstances where a single overall proposal score is more than 5 points higher than all other overall proposal scores, the bidder with the highest overall proposal score will be deemed the successful bidder. In this case, the proponent with the highest overall proposal score (79.8) was AECOM, and their overall proposal score was more than 5 points higher than all other overall proposal scores. AECOM's proposal represents the best overall value to the Region.

Supplies and Services Branch has reviewed the evaluation summary and has issued their internal report confirming that AECOM be recommended as the successful overall proponent to undertake the engineering consulting services related to the Yonge Street Aquifer Well Capacity Restoration project under Request for Proposal P-11-99.

### **Link to key Council-approved Plans**

The Yonge Street Aquifer production well system is a critical component of the Region's water infrastructure, both now and into the future. The restoration of the Yonge Street Aquifer well capacity 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**

The fee for the proposed scope of work is \$3,151,889, excluding taxes. The approved 2011 capital program includes a total project budget of \$5.2 million for this project and a Total Project Budget Authority of \$500,000.

Due to the multi-year nature of the work in this assignment, this report seeks Council approval for an additional \$2.8 million in Total Project Budget Authority for project work in 2011 through to 2015 and within the currently approved total project budget. The consulting fee includes construction contract administration and site inspection services for an estimated duration of 80 weeks. The proposal includes unit prices for contract administration and site inspection, in this case \$4,132 per week, which staff deem acceptable for this type of project.

Actual construction duration will be determined upon completion of detailed design and construction staging and may vary from the estimated hours that were quoted on by all parties in the Request for Proposal. The construction administration and site inspection fees may need to be adjusted based on competitive pricing to match the updated construction duration at the tendering stage for the contract. It is recommended that the Commissioner of Environmental Services be authorized to amend the contract to reflect these potential changes within the Total Project Budget Authority.

## **6. LOCAL MUNICIPAL IMPACT**

Currently there are 18 wells operating under the Yonge Street Aquifer Permit to Take Water which service the Towns of Aurora, Newmarket, and East Gwillimbury. Some wells are declining in performance and cannot deliver their full permitted capacity. The restoration of this lost capacity, through the introduction of new wells to the Yonge Street Aquifer groundwater supply system, will improve the security, integrity and reliability of the water supply to the Towns of Aurora, Newmarket and East Gwillimbury.

## **7. CONCLUSION**

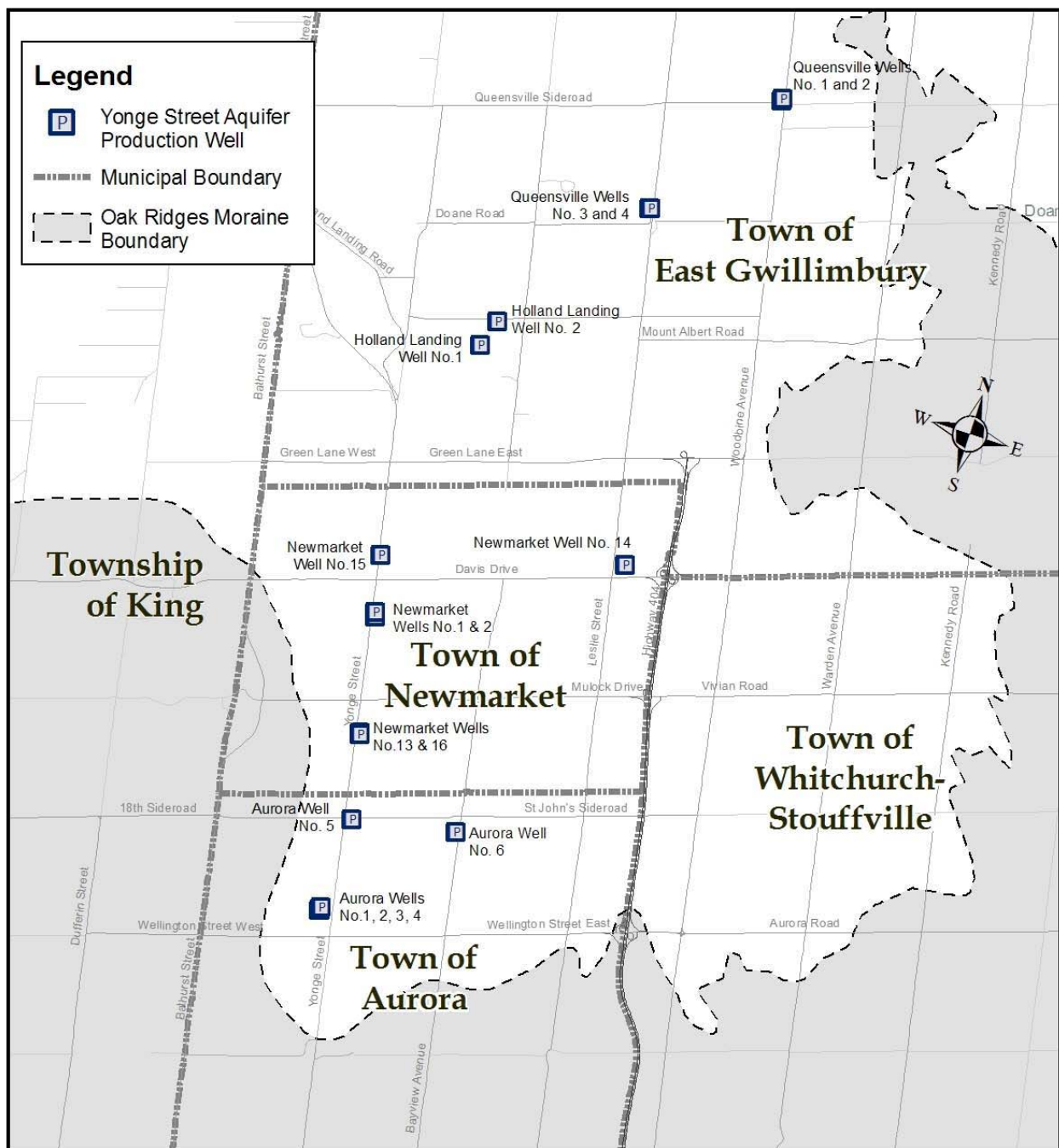
Completion of the Yonge Street Aquifer Well Capacity Restoration project will restore the groundwater production capacity required to supply water to the Towns of Aurora, Newmarket and East Gwillimbury.

Four consultants' proposals for this project were received and evaluated in accordance with the Region's Purchasing By-law. The proposal from AECOM represents the best overall value to the Region and it is recommended that the project assignment be awarded to AECOM at a fee of \$3,151,889, excluding taxes.

For more information on this report, please contact Daniel Kostopoulos, Director, Capital Planning and Delivery, Environmental Services at extension 5070.

The Senior Management Group has reviewed this report.

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



## LOCATION PLAN

Consultant Selection  
Yonge Street Aquifer Well Capacity Restoration Project  
Project 75550



ENVIRONMENTAL SERVICES