

<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON NOVEMBER 19, 2019</b>
<b>FROM:</b>	<b>KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>AWARD OF CONSULTING ENGINEERING SERVICES FOR ARVA-HURON WATER PIPELINE MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT MASTER PLAN – RFP 19-53</b>

<b>RECOMMENDATION</b>
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That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of consulting engineering services for RFP 19-53 Arva Pumping Station to Huron Street Water Pipeline Municipal Class Environmental Assessment Master Plan (EW3553):

- (a) The proposal submitted by AECOM Canada Limited, 410-250 York Street, Citi Plaza, London, Ontario N6A 6K2, is in the amount of \$373,082, including 10% contingency (\$33,917), excluding H.S.T. The contingency amount is to be increased to \$50,000 (\$16,083 in addition to the \$33,917). This will increase the total fee to \$389,165, excluding H.S.T, to **BE AWARDED** in accordance with Section 15.2 (e) of the City of London's Procurement of Goods and Services Policy;
- (b) The financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix "A";
- (c) The Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project; and
- (d) The Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to effect these recommendations.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- [Corporate Asset Management Plan 2019 \(GM BluePlan and City of London 2019\)](#)
- [Arva-Huron Pipeline Chamber Upgrades and Pipe Replacement – EW3576 – Civic Works Committee Meeting on January 10, 2017, Agenda Item #12](#)
- [Long-term Large Diameter Pipe Inspection Strategy and Single Source Procurement – EW3717, EW3717-14 – Civic Works Committee Meeting on July 21, 2014, Agenda Item #6](#)
- [Concrete Pressure Pipe Inspection Fiber Optic Installation – EW3717 - Amendment of Existing Contract, May 29, 2012, Civic Works Committee Meeting, Agenda Item #10](#)
- [Sole Source: EW3717 Concrete Pressure Pipe Inspection – Fiber Optic Installation, April 14, 2010, Board of Control, Agenda Item #27](#)

## 2019-2023 STRATEGIC PLAN

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City:
  - Infrastructure is built, maintained and operated to meet the long-term needs of our community; and
  - Growth and development is well planned and sustainable over the long term.
- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and
  - Leader in public service as an employer, a steward of public funds, and an innovator of service.

## BACKGROUND

### Purpose

This report recommends that AECOM Canada Limited (AECOM) be appointed as the consultant to undertake the Arva Pumping Station to Huron Street Water Pipeline Municipal Class Environmental Assessment Master Plan (EW3553).

### Context

The City of London receives approximately 85% of its water supply from the Lake Huron Water Supply System (LHWSS). A key component of the delivery of this water into the City's distribution system is through Pipelines from Arva Pumping Station to Huron Street. The alignment of the current pipeline is through agricultural lands, environmental lands, and areas highly constrained by existing development. The current location of the pipeline make repair and maintenance extremely difficult. The Arva-Huron Water Pipeline EA will develop a new alignment for the pipeline. Once this corridor is established, a long-term replacement plan will be developed and the recommended corridor will be protected.

## DISCUSSION

### Arva-Huron Pipeline

The current Arva-Huron pipeline configuration is as follows:

- There are two 1050mm (42") concrete pipelines from the Arva Pumping Station to Fanshawe Park Road;
- There is a single 1050mm (42") concrete pipeline between Fanshawe Park Road and Chamber 13 (located in Huron Street Woods); and
- There is a single 1350mm (54") concrete pipeline between Chamber 13 and Huron Street.

The majority of these water pipelines were constructed in 1966 and range in condition from fair to very good. These water pipelines are extremely critical to the City's water supply system and are important assets to monitor and maintain. Due to this fact, the City has completed multiple risk assessments and inspections since the pipelines were installed. An Acoustic Fiber Optic (AFO) system was also installed in the majority of the pipeline in order to actively detect leaks and/or deterioration occurring in the pipelines.

There are a number of issues with the current alignment and condition of these pipelines. These issues include:

- Access to repair and maintain the pipeline between Fanshawe Park Road and Windermere Road is highly challenging if not impossible due to the encroachment of existing development. A sample map of this encroachment is included as Appendix C

- The area between the Thames River and Huron Street is located in an environmental area. Work within the area is highly disruptive to the natural environment and access for pipeline maintenance is limited. This area is also prone to flooding. An Acoustic Fiber Optic (AFO) system for monitoring the pipeline condition could not be installed within the pipe in this area due to accessibility issues. A map of this area is included as Appendix D.
- Pipes in this area south of Windermere Road and north of the Thames River were replaced in 2017 and found to be highly deteriorated.
- The existing 15.2m (50 ft.) wide easement south of Windermere Road is not adequate to allow twinning of the existing pipeline by traditional methods.
- The majority of this pipe north of London was constructed through agricultural fields and is difficult to access.

The Arva-Huron Water Pipeline Municipal Class Environmental Assessment Master Plan will address short and long-term asset management and develop a recommended re-alignment of the pipeline.

### **Procurement Process**

A two-stage process of request for qualifications and request for proposals was selected for this project in accordance with section 15.2(e) of the City of London's Procurement of Goods and Services Policy. The two-stage process was followed because of the complexity of the project and the desire to prequalify consultants for the RFP process.

In June of 2019, a public request for qualifications was posted for consulting services for a municipal class environmental assessment and a preliminary design for the water pipeline from Arva Pumping Station to Huron Street. Five firms responded, submitting expressions of interest and qualifications. Three (3) firms were shortlisted to submit proposals. In September 2019, the request for proposal for the Arva Pumping Station to Huron Street Water Pipeline Municipal Class Environmental Assessment Master Plan was sent to the three consultants, and three proposals were received at the RFP closing.

The City's evaluation team determined that the proposal provided by AECOM provided the best value. AECOM is the most experienced consultant when it comes to hydraulic modeling of our system and they have extensive understanding of how our system operates. They also have extensive experience in asset management and completing EAs and master plans. AECOM's fees were the lowest of the successful proposals and within the budget for the project. Overall, their proposal met all of the key project requirements and their staff are qualified to undertake the required engineering services.

### **Scope of Work**

The scope of the project is to carry out a municipal class environmental assessment master plan and the necessary preliminary design work to evaluate short and long-term asset management and develop a proposed re-alignment in accordance with the municipal class environmental assessment process outlined by the Municipal Engineers Association of Ontario.

This project will:

- Recommend an asset management plan including continued or enhanced maintenance, inspection, rehabilitation, etc. for the existing water pipelines from Arva Pumping Station to Huron Street; and
- Review the appropriate locations for new, expanded, or replacement sites for the existing water pipelines from Arva Pumping Station to Huron Street.

Future engineering assignments beyond this environmental assessment master plan may be carried out to address detailed design and construction administration of the preferred short-term and long-term alternatives if necessary. Any future assignments will follow appropriate procurement procedures per the City of London's Procurement of Goods and Services Policy.

## Project Costs

AECOM's fee submission of \$373,082, including 10% contingency, with an additional \$16,083 contingency and excluding H.S.T., is within the budget allocation for this work. The project's evaluation team reviewed AECOM's proposal and found it met all of the key project requirements. The additional contingency was agreed upon because the relatively large project limits and unknown future corridor alignment causes uncertainty in the archaeological and heritage scope.

<b>CONCLUSIONS</b>
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The proposed consulting team, AECOM, has extensive experience with similar work and is well qualified to undertake the required engineering services. Based on the review by the evaluation team, it is determined that retaining AECOM is in the best financial and technical interests of the City. It is recommended that AECOM be awarded this consulting assignment to undertake all tasks related to the Arva-Huron Water Pipeline Municipal Class Environmental Assessment Master Plan

<b>PREPARED BY:</b>  <b>AARON ROZENTALS, P. ENG. DIVISION MANAGER, WATER ENGINEERING</b>	<b>REVIEWED &amp; CONCURRED BY:</b>  <b>SCOTT MATHERS, MPA, P. ENG. DIRECTOR, WATER AND WASTEWATER</b>
<b>RECOMMENDED BY:</b>  <b>KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER</b>	

November 8, 2019

Attach: Appendix "A" – Sources of Financing  
Appendix "B" – Project Limits  
Appendix "C" – Access Issues Examples

CC. John Freeman – Manager, Purchasing & Supply  
Chris Ginty – Procurement Officer, Purchasing & Supply  
Gary McDonald – Budget Analyst, Finance & Corporate Services  
John Haasen – Senior Vice President, AECOM Canada Ltd.  
John Simon – Division Manager, Water Operations  
Pat Lupton – Environmental Services Engineer, Water Engineering  
Alan Dunbar  
Jason Davies