

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING OF MONDAY, JULY 21, 2014
FROM:	JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT	LARGE DIAMETER WATERMAIN INSPECTION: RENEWAL OF MONITORING CONTRACT EW3538

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer and on the advice of the Director of Water and Wastewater, the following actions **BE TAKEN** with respect to the ongoing condition assessment of the pipeline connecting the Arva Pumping Station to the Springbank Reservoir; it be noted that this is a sole source purchase under section 14.3 of the City's Procurement of Goods and Service Policy:

- (a) The quote submitted by Pure Technologies Ltd., 3rd Floor, 705-11 Avenue SW, Calgary, Alberta, T2R 0E3, for a 3-year monitoring contract for the ongoing assessment of the pipeline connecting the Arva Pumping Station to the Springbank Reservoir, at their proposed price of \$149,865.89 (excluding H.S.T.) per year, **BE APPROVED**, be approved with an option to extend the contract based on an agreed upon price in accordance with section 20.2 of the 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.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- [EW3717 - Concrete Pressure Pipe Inspection Fiber Optic Installation – Amendment of Existing Contract, May 29, 2012, Civic Works Committee, Agenda Item #10](#)
- [Sole Source: EW3717 Concrete Pressure Pipe Inspection – Fiber Optic Installation, April 14, 2010, Board of Control, Agenda Item #27](#)
- [Water System Risk Management Exercise and Evaluation, April 23, 2007, Environment and Transportation Committee, Agenda Item #3.](#)

BACKGROUND

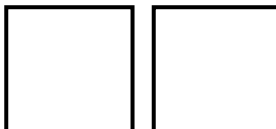
Purpose

This report authorizes a three year monitoring contract in the amount of \$149,865.89 per year to report when and where wire breaks occur on the pipeline. The contract also includes a warranty for the monitoring system to perform repairs as required.

This contract has an option for renewal on a continuing basis for the life of the acoustic fiber optic (AFO) system. This report also authorizes the future renewals as per section 20.2 of the Procurement of Goods and Services Policy.

Background

In 2010, Council awarded a contract to Pure Technologies to install an AFO cable inside the pipeline that connects Arva Pumping Station and Springbank Reservoir. This pipeline is considered one of the most critical watermains in the system. Recommendation (f) identified annual monitoring fees at an upset limit of \$155,856 (excluding H.S.T.) which cover the cost of



monitoring and the detailed reporting of when and where wire breaks occur:

- (f) *future additional annual operating costs of \$155,856 **BE RECOGNIZED** to pay for the long term acoustical monitoring of the pipeline following the installation of the fibre optic*

These fees have been adjusted since the installation of the system and include a warranty for the continued maintenance and monitoring of the system.

Future Opportunities

At the June 12, 2104 Lake Huron Primary Water Supply System Board meeting, a design-build contract was awarded to a team consisting of Pure Technologies, L82 Construction, and Stantec Consulting for the design and modifications of the Lake Huron Pipeline and the installation of an acoustic fibre optic monitoring system. This new monitoring system will stretch over 40 km from the Lake Huron treatment plant to the Arva Reservoir.

When the existing monitoring agreement between the City and Pure Technologies has been completed (in 2016) both LHPWSS and the City’s Water Services Area will undertake joint negotiations with Pure Technologies. The goal of the discussion will be to benefit from economies of scale by monitoring of the two water systems which are closely tied together.

Conclusions

Renewal of the monitoring and warranty contract will provide the City with timely information about when and where wire breaks occur along the Arva Pumping Station to Springbank Reservoir pipeline. This information can help prevent a costly and dangerous rupture of this large diameter watermain that varies in size from 900mm to 1350mm diameter.

This ongoing monitoring contract will be reviewed at the end of the contract period and a renewal may be granted in accordance with section 20.2 of the Procurement of Goods and Service Policy.

Acknowledgements

This report was prepared with the assistance of Matt Feldberg, Water Demand Manager.

PREPARED BY:	PREPARED AND RECOMMENDED BY:
ROLAND WELKER, P.ENG. DIVISION MANAGER, WATER ENGINEERING	JOHN LUCAS, P.ENG. DIRECTOR, WATER AND WASTEWATER
	REVIEWED & RECOMMENDED BY: JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER

- CC: John Simon, Division Manager, Water Operations
 Andrew Henry, Division Manager, Regional Water Supply
 Alan Dunbar, Manager III, Financial Planning & Policy
 John Freeman, Manager, Purchasing and Supply