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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING OF WEDNESDAY, SEPTEMBER 9, 2015
FROM:	JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT	SARNIA ROAD PIPELINE INSPECTION - SINGLE SOURCE PROCUREMENT

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, with respect to the award of a single source contract for a pipeline condition assessment on Sarnia Road:

- (a) The contract value for Pure Technologies Ltd., 3rd Floor, 705-11 Avenue SW, Calgary, Alberta, T2R 0E3, **BE APPROVED**, in accordance with section 14.4(e) of the Corporation of the City of London’s Procurement of Goods and Services Policy, in the amount of \$850,000 (excluding H.S.T.) to inspect and provide a condition assessment for the Sarnia Road pipeline in 2015;
- (b) The financing for this project **BE APPROVED** from current available budget 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
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- [EW3717-13, EW3717-15 - Long Term Large Diameter Pipe Inspection Strategy and Single Source Procurement - July 21, 2014, Civic Works Committee, Agenda Item #6](#)
- [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.](#)

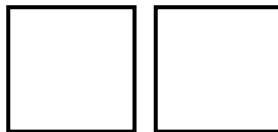
BACKGROUND

Purpose

This report recommends the approval for an inspection of a critical water transmission main on Sarnia Road prior to a road widening which is taking place in 2016. A summary of the inspection is attached in Appendix ‘B’.

Background

In 2014 R.V. Anderson’s Ltd. (RVA) proposed Trunk Water Main Management Plan was adopted as a guideline for selecting, procuring, and inspecting the large diameter (450mm to 1350mm) drinking water pipelines within the City of London. This plan identifies and prioritizes the City’s most critical pipelines with the highest consequence of failure to be inspected in order to gain an understanding of their condition, allowing City staff to take a proactive approach to risk management of these pipelines.



The pipeline assessment program from RVA has been designed to inspect every trunk water main in the City over a period of 20 years. The City maintains approximately 200 km of trunk water mains, and therefore an average length of 10 km per year is the inspection target. The cost to inspect a trunk water main in the City of London represents an average of 2% of the cost of the full replacement value.

In 2014, 20km of the City's most critical pipeline and supply of water was inspected using Pure Technologies PipeDiver Technology.

Discussion

In addition to this Trunk Watermain Management Plan, there are other critical water mains the Water Department intends to have inspected. In 2014, City staff planned and obtained council approval to undertake a condition assessment of the Elgin Pipeline, another critical pipeline and our second supply of water into the City. Due to a shift in priorities, this inspection has since been deferred. Administration would like to use these previously approved funds in order to undertake required inspection work in 2015.

As part of the City's Growth Management Infrastructure Strategy (GMIS) for 2016, Sarnia Road from Wonderland Road North to Sleightholme Avenue will be undergoing a road widening. By inspecting this pipe prior to design and construction, necessary remediation strategies can be developed and carried out during the construction period.

This report identifies the Sarnia Road Pipeline Inspection to be undertaken in 2015 using funds that are currently available from 2014's capital budget.

Limited Number of Qualified Bidders

The large diameter pipe condition assessment industry is small both in North America and worldwide. There are currently only a handful of companies that provide this type of non-destructive inspection and even fewer that have a full suite of inspection technologies available for all pipe materials. The use of the tools supplied by Pure Technologies are advantageous in that they can be inserted into the pipe at the starting point and require little or no modifications to existing infrastructure ahead of the project.

As a result of this and our working relationship with Pure Technologies it is being recommended that this pipeline inspection report be awarded under Section *14.4 Single Source* of the City's *Procurement of Goods and Services Policy*.

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Conclusions

It is proposed that City staff retain Pure Technologies to undertake a condition assessment of 6.7km of watermain on Sarnia Road in 2015. This trunk watermain is a critical transmission main in the City’s water distribution system and knowledge of its condition prior to the Sarnia Road widening in 2016 will allow City staff to determine if any repairs are needed or if replacement is warranted.

Acknowledgements

This report was prepared by Kevin Graham, Engineer-in-Training of the Water Engineering Division.

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
 Alan Dunbar, Manager III, Financial Planning & Policy
 John Freeman, Manager, Purchasing and Supply

Appendices:

- A. Sources of Financing
- B. Sarnia Road Pipeline Inspection Project

Chair and Members
Civic Works Committee

August 28, 2015
(Award Contract)

**RE: Sarnia Road Pipeline Inspection - Single Source Procurement
(Subledger RD140009)
Capital Project EW3717-14 - 2014 Inspect Trunk Concrete Pressure
Pure Technologies Ltd. - \$850,000 (excluding H.S.T.)**

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

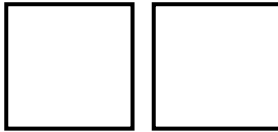
Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental and Engineering Services & City Engineer, the detailed source of financing for this project is:

<u>ESTIMATED EXPENDITURES</u>	<u>Approved Budget</u>	<u>Committed to Date</u>	<u>This Submission</u>	<u>Balance for Future Work</u>
Engineering	\$100,000	\$79,840		\$20,160
Construction	1,642,770	776,556	864,960	1,254
City Related Expenses	80,000	79,039		961
NET ESTIMATED EXPENDITURES	<u>\$1,822,770</u>	<u>\$935,435</u>	<u>\$864,960</u> 1)	<u>\$22,375</u>
<u>SOURCE OF FINANCING:</u>				
Capital Water Rates	\$1,538,064	\$935,435	\$602,629	\$0
Drawdown from Capital Water Reserve Fund	284,706		262,331	22,375
TOTAL FINANCING	<u>\$1,822,770</u>	<u>\$935,435</u>	<u>\$864,960</u>	<u>\$22,375</u>

Financial Note:

1) Contract Price	\$850,000
Add: HST @13%	110,500
Total Contract Price Including Taxes	960,500
Less: HST Rebate	95,540
Net Contract Price	<u>\$864,960</u>

Alan Dunbar
Manager of Financial Planning & Policy



APPENDIX 'B'

Sarnia Road Pipeline Inspection

This project has been discussed with Pure Technologies, and due to their past successful experiences with similar projects in the City of London utilizing their PipeDiver and Robotic Inspection Technologies, we are suggesting that these inspection methods be used for the Sarnia Road Pipeline Inspection. A total of 6.7km of pipeline will be inspected using multiple inspection tools.

The photos below show the PipeDiver tool which will provide corrosion and condition assessment information for 5.15km of the Sarnia Road Pipeline:



PipeDiver Tool

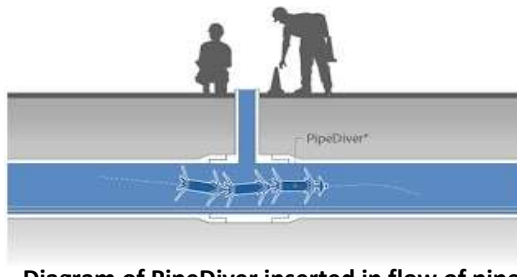
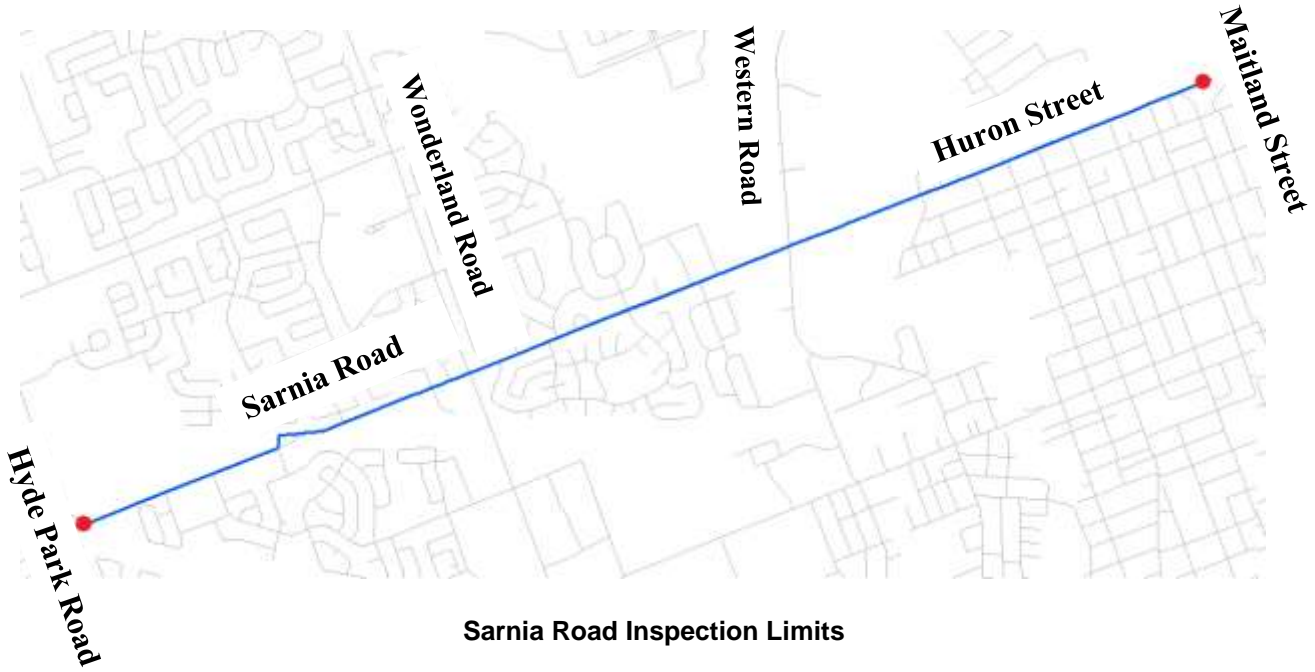


Diagram of PipeDiver inserted in flow of pipe

The photos below show the Robotic tool which will provide corrosion and condition assessment information, as well as CCTV information, for 1.55km of the Sarnia Road Pipeline:



The photo below shows the length pipe to be inspected from Hyde Park to Maitland Street:



Sarnia Road Inspection Limits