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<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON APRIL 2, 2012</b>
<b>FROM:</b>	<b>JOHN BRAAM, P. Eng. ACTING EXECUTIVE DIRECTOR, PLANNING, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>
<b>SUBJECT:</b>	<b>CONTRACT AWARD: SPRINGBANK RESERVOIR #2 REHABILITATION PROJECT No. EW3617 TENDER No. 12-52</b>

<b>RECOMMENDATION</b>
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That, on the recommendation of the Acting Executive Director, Planning, Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to the award of contract for the Spingbank Reservoir #2 Rehabilitation project.

- (a) the bid submitted by Layfield Environmental Systems Ltd., 11603 -180 Street, Edmonton, Alberta, T5S 2H6, at its corrected tendered price of \$769,868.29 (excluding H.S.T.), for the Springbank Reservoir #2 Rehabilitation project, **BE ACCEPTED**; it being pointed out that the bid submitted by Layfield Environmental Systems Ltd. was the lowest of two bids received and meets the City's specifications and requirements in all areas;
- (b) R.V. Anderson Associates Limited, 557 Southdale Road East, London, Ontario, N6E 1A2, **BE AUTHORIZED** to carry out the resident inspection and contract administration for the said project in accordance with the estimate, on file, at an upset amount of \$82,010.00 (excluding H.S.T.), noting that this firm completed the engineering design, based upon the Fee Guideline for Professional Engineering Services, recommended by the Ontario Society of Professional Engineers; and in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix "A";
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (e) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order for the material to be supplied and the work to be done relating to this project (Tender 12-52); and
- (f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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No previous reports

<b>BACKGROUND</b>
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**Purpose:**

This report recommends award of tender to a contractor and continuation of consulting engineering services for the Springbank Reservoir #2 Rehabilitation project. This work includes the installation of a replacement liner and floating cover for the Springbank #2 reservoir.

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**Discussion:**

The City of London has a relatively robust water supply system, being fed from two Great Lakes, and having considerable stored water available in and around London. The City's storage is required to balance peak demands for water, usually in the summer, but also to provide back-up supply in the event the Lake Huron pipeline were to fail, as has occurred in 1983, 1988 and 2010. Ideally, we have enough storage available to continue feeding our customers while experiencing a 48 hour supply interruption from Lake Huron, either to repair the pipeline or address intake/ treatment issues at the water treatment plant.

Storage Location	Volume (million litres)
Springbank No. 1	82
Springbank No. 2	45
Springbank No. 3	82
Arva – 4 cells shared with Komoka Kilworth	109
Southeast Reservoir – 2 cells	113 (future)
EMPS – 2 cells shared with St. Thomas & Aylmer	24 (1 cell)
<b>Total Gross Volume</b>	<b>455</b>

Currently 25% of the reservoir at Arva is out of service for inspection and minor repairs and this will continue into the spring – a requirement of the final inspection work by American Water for their Operating Contract, prior to turning the contract over to OCWA. Compounding that the Elgin Water Treatment Plant is undergoing emergency repair of one of the 4 filters (with another repair being likely to another filter), so less than 75% of its capacity is available.

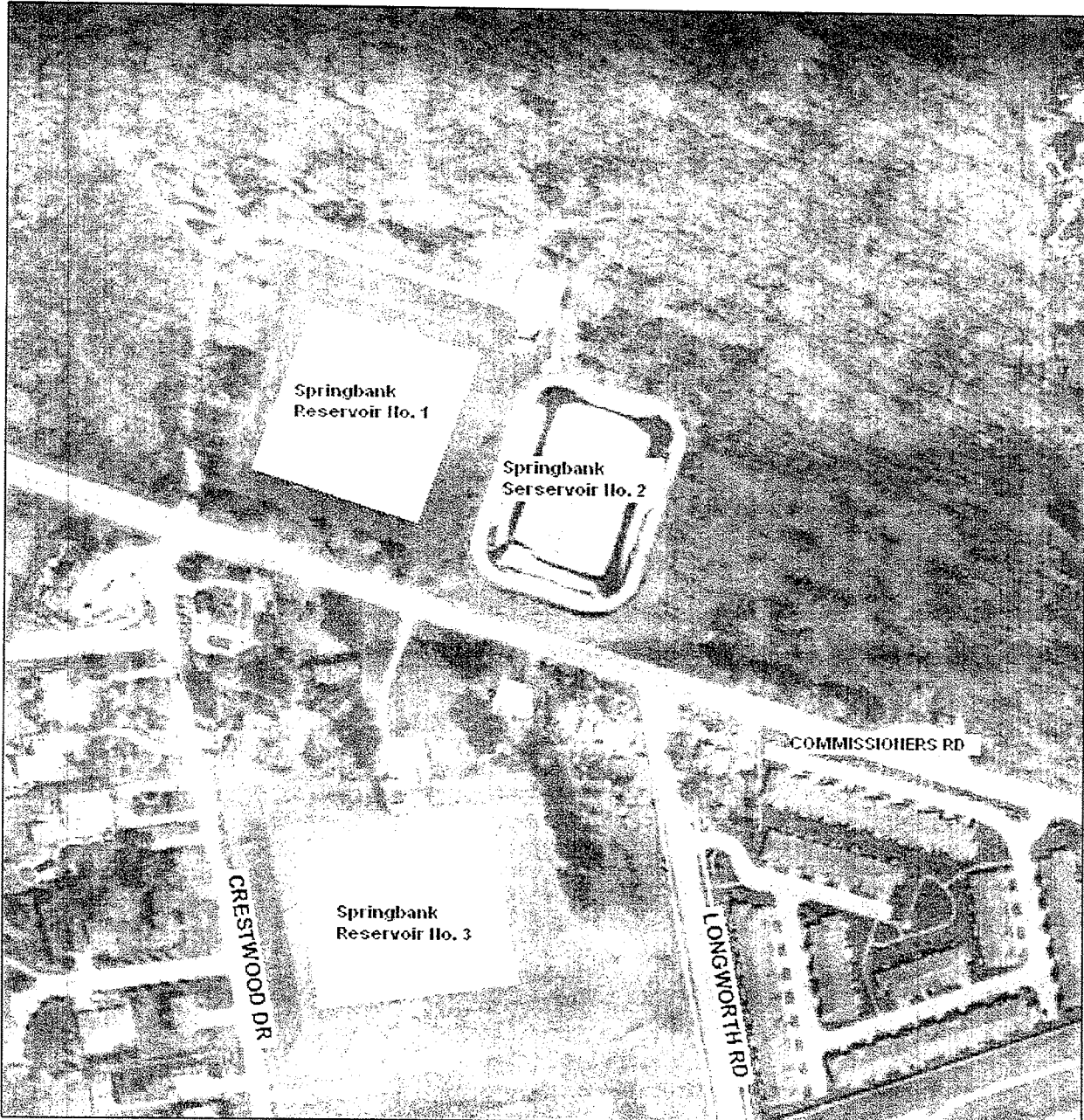
The Springbank Reservoir #2 was originally constructed in 1920 as an open-air reservoir. The Reservoir was constructed of earth embankments and sloping concrete panels. The reservoir was lined in 1977 with a polymer liner and a floating cover. The cover is supported by a series of floats that permit the cover to ride up and down with the change in water level. In past years, the reservoir has been taken out service during the lower water demand periods in the winter months to extend the life of the cover. The storage provided by the reservoir is especially required during the higher demand periods in the summer months to ensure a secure supply of potable water to the City of London. The Springbank Reservoir #2 is one of the Critical Control Points listed in the Drinking Water Quality Management System (DWQMS) for the City of London Water System which requires the City to complete comprehensive, videotaped inspections of the floating cover and liner every five years (minimum).

The City engaged an inspection firm in October 2011 to carry out an underwater inspection which was completed by a scuba diver. The inspection identified that the liner was ripped or separated at the seams in several locations. Previous patches in the liner showed signs of wear and were generally in poor condition. The reservoir cover was also identified as beginning to show signs of severe deterioration with several small holes noted, thin in areas and at greater risk of being perforated, thereby compromising the sanitary seal that the cover provides. The 2007 inspection showed that the cover was generally in good condition; therefore it has deteriorated rapidly from 2007 to 2011. The Springbank Reservoir #2 is currently out of service as recommended by the inspection company and our Water Operations staff.

The cover was previously replaced in 1987. The liner is the one originally installed in 1977 and repaired in 1987. The cover and liner were both repaired in 1995. In 2001, it was intended to also repair the cover; but the successful contractor offered to replace the entire cover, as opposed to repairing it for a small additional cost.

The City of London has been deferring the significant capital expenditure (approximately \$14 million) to replace the Springbank Reservoir #2 with a more robust concrete structure similar to other reservoirs in the City for several years, given that the liner and cover had been lasting longer than originally expected. Some funds are available in the existing budget with the remainder required to come from reserves. Future expenditure amounts were included in the budget outlook in 2016/2017 (\$3.6 million) and in 2023 (\$11 million).

A Project Location map is included below for reference. Reservoirs #1 and #3 are also shown in the aerial photo. They are both newer (1970 and 1964 respectively) and are constructed of reinforced concrete floors, walls and roof. Both reservoirs are covered with earth to provide insulation. The roof of Reservoir #1 is leased out by Parks and Recreation for youth soccer.



**Tender Summary:**

Tenders for the the Spingbank Reservoir #2 Rehabilitation project were opened on March 28, 2012. Two(2) contractors submitted tender prices as listed below (exclusive of H.S.T.).

	CONTRACTOR	TENDER PRICE SUBMITTED	CORRECTED TENDER PRICE
1.	Layfield Environmental Systems	\$769,870.29	\$769,868.29
2.	Garnet Services Inc.	\$785,027.00	

All tenders have been checked by the City's project manager, and our consultant R.V. Anderson Ltd. One of the tender bids contained mathematical errors. The corrected amounts had no affect on the ranking of tenders.

The tender estimate just prior to tender opening was \$825,000.00 (excluding H.S.T.). All tenders include a contingency allowance of \$75,000.00 (excluding H.S.T.).

There will not be any additional annual operating costs as a result of this project.

Agenda Item #	Page #

**Consulting Services:**

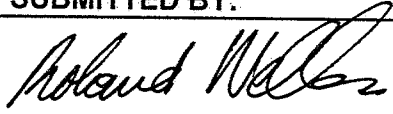
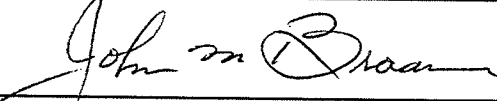
R.V. Anderson Limited was awarded the design and contract administration on January 6, 2012 in the amount of \$82,010.00.

**Conclusions:**

Award of this contract to Layfield Environmental Systems Ltd. will ensure the security of the water supply system.

**Acknowledgements:**

This report was prepared within the Water Engineering Division by Jake Blancher, C.E.T. Senior Technologist.

<b>SUBMITTED BY:</b>	<b>RECOMMENDED BY:</b>
	
<b>ROLAND WELKER, P. ENG.</b> DIVISION MANAGER WATER ENGINEERING	<b>JOHN BRAAM, P.ENG.</b> ACTING EXECUTIVE DIRECTOR, PLANNING, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER

March 29, 2012

RW/jb

Attach: Appendix "A" – Sources of Financing  
 c.c. Layfield Environmental Services Ltd.  
 R.V. Anderson Associates Limited

APPENDIX "A"

Chair and Members  
Civic Works Committee

#12053  
March 30, 2012  
(Award Contract)

RE: Springbank Reservoir #2 Rehabilitation  
Capital Project EW3617- Springbank Reservoir #2 Replacement  
Layfield Environmental Systems Ltd. - \$769,868.29 (excluding H.S.T.)  
R.V. Anderson Associates Limited - \$82,010.00 (excluding H.S.T.)

**FINANCE DEPARTMENT REPORT ON THE SOURCES OF FINANCING:**

Finance Department confirms that the cost of this project can not be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendation of the Acting Executive Director, Planning, Environmental and Engineering Services and City Engineer, the detailed source of financing for this project is:

<u>ESTIMATED EXPENDITURES</u>	<u>Approved Budget</u>	<u>Additional Funding Required</u>	<u>Revised Budget</u>	<u>Committed to Date</u>	<u>This Submission</u>	<u>Balance for Future Work</u>
Engineering	\$165,326		\$165,326	\$81,873	\$83,453	\$0
Construction	280,283	503,135	783,418		783,418	0
City Related Expenses	4,391		4,391	4,391		0
<b>NET ESTIMATED EXPENDITURES</b>	<b>\$450,000</b>	<b>\$503,135</b>	<b>\$953,135</b>	<b>\$86,264</b>	<b>\$866,871</b>	<b>\$0</b>

<u>SOURCE OF FINANCING</u>							
Drawdown from Capital Water Reserve Fund	2)	\$450,000	\$503,135	\$953,135	\$86,264	\$866,871	\$0
<b>TOTAL FINANCING</b>		<b>\$450,000</b>	<b>\$503,135</b>	<b>\$953,135</b>	<b>\$86,264</b>	<b>\$866,871</b>	<b>\$0</b>

1) **Financial Note:**

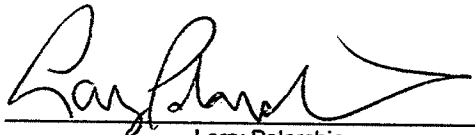
	<u>Engineering</u>	<u>Construction</u>	<u>Total</u>
Contract Price	\$82,010	\$769,868	\$851,878
Add: HST @ 13%	10,661	100,083	110,744
Contract Price Including Taxes	92,671	869,951	962,622
Less: HST Rebate	9,218	86,533	95,751
<b>Total Contract Price</b>	<b>\$83,453</b>	<b>\$783,418</b>	<b>\$866,871</b>

2) The additional \$503,135 drawdown from the Capital Water Reserve Fund can be accommodated by:

1) Transfer from EW3533 (09-10 Lead Mitigation Strategy) which is complete and identified to be closed	\$303,504
2) Transfer from annual programs in the Water capital plan in 2012 (to be identified)	199,631
	<u>\$503,135</u>

Note that the 2011 Operating Budget Status Report – Fourth Quarter also identified an \$800,000 deficit at 2011 year end in the Water rate supported budget which was to be offset by an \$800,000 drawdown from the Capital Water Reserve Fund. The combined impact of these two draws leaves the Capital Water Reserve Fund \$1.0 million below the original projected balance of \$4.8 million at 2012 year end. The FP&P Division will work with the Water Division to ensure that the 2012 Water capital plan is amended by the necessary \$1.0 million to return the Capital Water Reserve Fund to its originally projected \$4.8 million balance.

3) There are no anticipated additional annual operating costs associated with the approval of this project.

  
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 Larry Palarchio  
 Director of Financial Planning & Policy