

**THE FOURTH MEETING OF THE ST. THOMAS AREA
SECONDARY WATER SUPPLY SYSTEM**

COMMITTEE ROOM #309

NOVEMBER 10, 2016

4:00 p.m. The meeting convened with Councillor J. Kohler, Chair, presiding.

ATTENDANCE

Members

Councillor L. Stevenson, City of St. Thomas
Councillor D. Crevits, Municipality of Central Elgin
Councillor J. Kohler, Chair, City of St. Thomas

Staff

J. Lawrence, Director, Environmental Services and City Engineer
N. Bokma, Manager of Development and Compliance, Environmental Services
M. Smale, Corporate Administrative Clerk
L. Perrin, Director of Physical Services, Municipality of Central Elgin
J. McKillop, Public Works Superintendent, Township of Southwold

DISCLOSURES OF INTEREST

Nil.

MINUTES

Motion by L. Stevenson - D. Crevits:

THAT: The minutes of the meeting held on September 22, 2016 be confirmed.

Carried.

NEW BUSINESS

St. Thomas Area Secondary Water Supply System - 2017 Water Rate - Appendix "A"

Motion by D. Crevits - L. Stevenson:

THAT: Report SWB-07-16 relating to the St. Thomas Area Secondary Water Supply System - 2017 Water Rate be received for information; and further,

THAT: The blended supply rate of \$0.8921 per cubic metre for the St. Thomas Area Secondary Water Supply System effective January 1, 2017 be approved.

Carried.

Project Update on St. Thomas Area Secondary Water Supply System Pump Replacement and 2017 Capital Plan - Appendix "B"

Councillor Stevenson inquired about the project timelines and any potential service disruptions.

Mr. Bokma stated that three pumps were planned for replacement and that the project was expected to take a few months with ordering, installation, and replacement of a number of additional components. There was not expected to be any disruption in service as not all pumps would be offline at the same time.

Mr. Lawrence added that Mr. Andrew Henry with the Lake Huron and Elgin Area Primary Water Supply Systems would be advised when the work was taking place.

Councillor Crevits inquired if the number or size of the pumps could be reduced with the Ford site vacant.

Mr. Lawrence advised that the three replacement pumps would be the same size as those being

replaced to accommodate fire protection and future growth. The new pumps would be variable frequency driven and would operate at lower frequency or go dormant when demand warranted. It was anticipated that there could be operating savings from reduced energy costs with the new units.

Mr. Bokma noted that the current units were approximately 40 years old.

Motion by L. Stevenson - D. Crevits:

THAT: Report SWB-08-16 relating to the update on the St. Thomas Area Secondary Water Supply System pump replacement project be received for information; and further,

THAT: Funds for the relining of the Ford Water Tower be reallocated towards the Elgin-Middlesex Pumping Station pump replacement project.

Carried.

UNFINISHED BUSINESS

Elgin-Middlesex Pumping Station Building Ownership

Mr. Lawrence advised that he had spoken with Ms. Kelly Scherr, the new City Engineer for the City of London. All indications were that the City of London would be proceeding in the same direction with regard to the ownership of the EMPS building as had been discussed with the previous City Engineer.

OCWA Operating Agreement

Mr. Lawrence advised that a new draft operating agreement with OCWA should be ready for the members consideration in the next few months.

Councillor Stevenson inquired if there were any concerns about the quality of service provided by OCWA and if a report could be provided to Council regarding that service level.

Mr. Lawrence that there were no concerns with the quality of service and he would advise of this fact when the new agreement came up for consideration.

Primary Board Supply Agreement

Mr. Lawrence stated there was no formal agreement in place at this time for the Secondary Water System to purchase water from the Primary Water System. He would like to negotiate one new multi party agreement to formalize this arrangement.

The members were informed that the CAO/Clerk of the Municipalities of Dutton/Dunwich and Southwold would need to approve the agreement as well as the Secondary Board, through St. Thomas as the administering municipality.

Mr. Lawrence stated that at this time, staff would be begin discussions with the relevant parties and bring something back to the members once negotiations were more advanced.

ADJOURNMENT

Motion by D. Crevits – L. Stevenson:

THAT: The Board adjourn at 4:18 p.m.

Carried.



Corporation of the City of St. Thomas

Report No.

SWB07-16

File No.

Directed to:

Chairman Kohler and the Members of the Joint Board of Management for the St. Thomas Secondary Area Water Supply System

Meeting Date:

November 9, 2016

Date Authored:

October 17, 2016

Department:

Environmental Services

Attachment

Prepared By:

Lynn Stafford, C.E.T., Compliance Coordinator

Subject:

St. Thomas Area Secondary Water Supply System – 2017 Water Rate

Recommendation:

THAT: Report SWB07-16, St. Thomas Area Secondary Water Supply System- 2017 Water Rate be received for information; and further,

THAT: The Blended Supply Rate for the Secondary, \$0.8921/m³, effective January 1st 2017, be approved.

Origin:

The St. Thomas Area Secondary Water Supply System provides water to the City of St. Thomas, the Municipality of Central Elgin and the Township of Southwold, which is supplied by the Primary System.

The St. Thomas Area Secondary Water Supply System water rate is calculated as a portion of the overall Blended Supply Rate for the St. Thomas and Suburban Service Area. The forecast Blended Supply Rate is calculated to reflect 70% of the overall supply to the area being purchased directly from the Primary System with 30% being purchased from the Secondary System (i.e. a rate comprising both the Primary and Secondary rates.) The cost of supplying water services is recovered through the Blended Supply Rate, which forms part of the St. Thomas and Suburban Service area Rate. The Blended Supply Rate includes water purchased through the Primary and Secondary System.

Analysis:

The Primary System Water Rate was approved by the Elgin Area Primary Water Supply System Joint Board of Management on October 6, 2016, at a rate increase of 5%. In 2017, the rate is scheduled to be changed from \$0.7370/m³ to \$0.7738/m³.

In order to meet the requirements of the provincial water legislation and to build an adequate reserve fund balance, the Secondary System Water Rate will increase from \$0.3578/m³ to \$0.3939/m³, a 10.1% increase.

The Blended Supply Rate is a combination of the Primary and the Secondary Rates, which will increase from \$0.8443/m³ to \$0.8921/m³, resulting in an overall rate increase of 5.7% for the Secondary System.

The table outlines the current rate increase and the projected rates. The full version of the 2015 Secondary Rate Study is available on the city website at http://stthomas.civicwebcms.com/content/secondary-water-supply-system, for the period of 2015-2024.

Table with 10 columns (Year 2016-2024) and 5 rows (Secondary Rate, Primary Rate, Blended Supply Rate, % Increase). 2017 column is highlighted.

Financial Considerations

The 2017 Residential Customer Water Rate impact for the total annual water increase (Primary and Secondary blended rate) will be an increase of \$8.56 per year, which is in keeping with the approved 2015 St. Thomas Area Secondary Water Supply System Water Rate Study.

Respectfully submitted,

Lynn Stafford (signature)

Lynn Stafford, C.E.T. Compliance Coordinator, Environmental Services

Reviewed By:

Treasury Env Services Planning City Clerk HR Other



Directed to: Members of the Board of Management for the St. Thomas Area Secondary Water Supply System

Meeting Date: November 9, 2016

Date Authored: October 24, 2016

Department: Environmental Services

Attachments

Prepared By: Nathan Bokma, P. Eng.
 Manager of Development and Compliance

Subject: Project Update on STASWSS Pump Replacement and 2017 Capital Plan

Recommendations:

THAT: Report SWB 08-16, Project Update on St. Thomas Area Secondary Water Supply System Pump Replacement, be received for information; and

THAT: Funds for the relining of the Ford Water Tower be reallocated towards the EMPS pump replacement project.

Origin:

In February 2016, the City tendered a Request for Proposal (RFP) to qualified consulting firms to complete an assignment to establish water pressure zones within the City and complete a study to review the existing pumps at the Elgin-Middlesex Pumping Station (EMPS). In April 2016, the City awarded RFP 2016-012 to Parsons Inc. to complete the assignments.

Parsons has submitted both a preliminary design report and a draft final design reports that have outlined several key recommendations for the St. Thomas Area Secondary Water Supply System (STASWSS). City staff has reviewed these recommendations, and provided input back to Parsons to finalize the final design report.

Analysis:

In review of the draft final design report and discussion between City staff and Parsons, several recommendations were made in relation to the STASWSS:

- Replace the existing pumps with similar sizes pumps with variable frequency drives (VFD) to allow for greater operational flexibility.
- Decommission the Ford Water Tower due to its age and limited impact on the overall system's operational capacity. The decommissioning can only happen after two pumps have been replaced at EMPS.
- Install new pressure reducing valve (PRV) along secondary transmission main to relieve high pressure levels within the system. Currently, a PRV at the EMPS does this work, but when this event happens, the EMPS parking lot floods with the backflow of water. Also, this PRV should act as an emergency measure.
- A small surge tank should be installed to take into account the backflow of water in the water pressure blow-off situations as noted above.



Moving forward from these recommendations, City staff has directed Parsons prepare contract documents and engineering drawings for the EMPS pump replacements. The tentative tender schedule for this project is January 2017 with construction to commence in Spring 2017.

The EMPS pump replacement project was slated to be a 2016 capital project as per Report 113-15 to the Board of Management, and will be included with several other projects to be considered for the STASWSS capital plan up to 2018.

Financial Considerations

Through Report ES 113-15 to the Board of Management, a budget of \$300,000 was approved for the engineering and replacement of one or more of the EMPS pumps depending on the most efficient strategy. Technical and financial analysis has indicated it is best to replace all three pumps with similar size and to upgrade to VFD's in one project. Preliminary cost estimate provided by Parsons suggests that three replacements and VFD's will require approximately \$600,000 plus engineering.

As per the Capital Budget Plan for the STASWSS that was approved in 2015, the relining of the Ford Water Tower was to happen in 2016 at a cost of \$408,000, which was to be funded by reserves and potential debt. City staff will remove the tower relining project from the capital plan and reallocate associated funds towards the replacement of the EMPS pumps. Instead of relining the water tower inside and outside, the tower will be decommissioned and removed saving considerable funds and reducing the gross asset value of the secondary system.

Below is the list of the recommended STASWSS capital plan for the next two years.

Description	Forecast		
	2016	2017	2018
<u>Capital Projects</u>			
EMPS Pump Replacement (Engineering)	\$70,000		
EMPS Pump Replacement (Construction)		\$600,000	
Ford Water Tower Decommissioning			\$100,000 - \$200,000
Various Instrumentation and Equipment Upgrades	\$133,000	\$40,000	\$15,000
Total Expenditures	\$203,000	\$640,000	\$115,000 - \$215,000
<u>Capital Financing</u>			
Yearly Revenue	\$2,260,000*	\$2,160,000**	\$2,279,000
Yearly Expenses	(\$1,750,000)*	(\$1,550,000)**	(\$1,600,000)
Projected Transfer to Secondary Water Reserve	\$510,000*	\$614,000**	\$679,000
Water Reserve Year End Balance	\$307,000	\$367,000	\$831,000 - \$931,000

* Values above are projected based on financial statements to date.

**2017 Budgeted Values

The net result of the capital project additions and deletions results in an estimated increase in the reserve fund. However, there is an interest stated by both the board and staff to plan for replacements sections of the transmission main in the next 5 – 10 year period.

Respectfully Submitted,



Nathan Bokma, P. Eng.
 Manager of Development and Compliance

Reviewed By: David Christie Justin _____
 Treasury Services Planning City Clerk HR Other