

ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM

JOINT BOARD OF MANAGEMENT

Tuesday, October 9, 2018 at 4:00 p.m.

City Hall – Room 304

AGENDA

DISCLOSURES OF INTEREST

Minutes

Review and approval of the minutes of May 24, 2018.

Reports

1. SWB 03-18: STWDS Drinking Water Quality Management System – Management Review Meeting 2018.
2. SWB 04-18: St. Thomas Water Distribution System (STWDS) and St. Thomas Area Secondary Water Supply System (STASWSS) DWQMS Reaccreditation.
3. SWB 05-18: STASWSS 2019 Water Rates.

Unfinished Business

New Business

1. .

Adjournment



Report No.
SWB 03-18

File No.

Directed to: Councillor Jeff Kohler and Members of the Board of Management of the St. Thomas Area Secondary Water Supply System

Date Authored:
September 10, 2018
Meeting Date:
October 9, 2018

Department: Environmental Services

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

Attachment
Minutes of Management Review for St. Thomas Area Water Supply System

Subject: STWDS Drinking Water Quality Management System – Management Review Meeting 2018

Recommendation:

THAT: Report No. SWB 03-18, relating to St. Thomas Water Distribution System (STWDS) Drinking Water Quality Management System (DWQMS) – Management Review Meeting 2018, be received for information.

Background:

As the Operating Authority for the St. Thomas Water Distribution System (STWDS) and the St. Thomas Area Secondary Water Supply System (STASWSS), the Environmental Services Department is continually striving to improve its Drinking Water Quality Management System (DWQMS). This improvement is accomplished through internal audits and the implementation of the decisions and actions recommended in the management review.

The management review occurs once within a 12 month period by Senior Management of the DWQMS. The purpose of the management review is to stay informed on the DWQMS and ensure it is:

- Suitable to Operations staff
- Adequately managing quality issues
- Performing quality management effectively
- Adequate resources are provided.

As part of the management review, specific topics were discussed pertaining to the DWQMS of the secondary system, which can be seen in the attached meeting minutes. Discussion and decisions made as part of the management review was recorded and compiled in the meeting minutes, which were recorded by the Manager of Development and Compliance.

Analysis:

The management review meeting was held on May 9, 2018, which was attended by Justin Lawrence, Chris Andrew, and Nathan Bokma.

One of the topics of the management review was the internal audit, which is completed every 12 months by the Compliance Coordinator. Results of the internal audit were discussed as well as the process to address any minor non-conformances or opportunities for improvement (OFI's). The Manager of Development & Compliance will follow up on the results of the internal audit as per the timelines established in the DWQMS.

The Compliance Coordinator position has recently been filled by Karel Kamerman, who comes to the City from the Town of Innisfil. Karel has a vast amount of experience in DWQMS and with the STASWSS from his time with American Water's contracted operations of the EMPS.

In summary, the management review was completed with no major issues to discuss, and the DWQMS policy and procedures in place contribute to the excellent operation of the STASWSS.

Respectfully,

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

Reviewed By: _____

ES Treasury HR City Clerk City Manager



DWQMS Management Review Meeting

City of St. Thomas

May 9, 2018
10:00 AM

City of St. Thomas – City Hall

Meeting Minutes

Present: Justin Lawrence – Director of Environmental Services & City Engineer, City of St. Thomas (CITY)
Chris Andrew – Manager of Water and Sewer
Nathan Bokma – Manager of Development & Compliance, City of St. Thomas

Previous Minutes

- **Review 2017 minutes and approve 2018 Agenda**
The 2018 agenda and the Minutes from the May 2017 Management Review Meeting were reviewed and approved by those present. No additional items were presented by the participants.

Agenda Items

- **Incidents of regulatory non-compliance**
There were no incidents or reports of non-compliance in 2017.
- **Incidents of adverse drinking-water tests**
There were no adverse drinking water tests in the St. Thomas system or the greater St. Thomas Distribution System or STASWSS.
- **Deviations from critical control point limits and response actions**
There were no deviations from the critical control points (CCP) in 2017. Therefore, no response actions were required.
- **The efficacy of the risk assessment process**
Participants discussed the risk assessment process, which the City refers to as the Hazard Analysis Procedure. The review of the hazard analysis spreadsheet was recently completed by City staff, with additions made to reflect to the MOECC's mandated hazard analysis list.
- **Internal and third-party audit results**
A desktop audit by SAE was carried out on March 26-27, 2018, and there were 7 OFI's and 2 minor non-conformances from the audit that were dealt with through Preventative Action Forms and Corrective Action Forms. The 2 non-conformances were:
 - NCR #1 – EMPS Ownership in Secondary OP
 - NCR #2 – Emergency Testing Reference

Internal Audit for 2017 occurred on April 30-May 1, 2018. There was 1 non-conformance and 3 OFI's from the audit that will be dealt with through Preventative and Corrective Action forms. The 1 non-conformance was:

- **NCR #1 – Watermain repair procedure** does not contain the minimum information outlined as per MOECC Watermain Disinfection Procedure (released November 2015).

- **Results of emergency response testing**
This emergency training is scheduled to be done in mid May 2018. Last one was completed on May 2017 (topic - soap entering distribution system).

- **Operational performance**
St. Thomas was satisfied with the overall operational performance.

- **Raw water supply and drinking water quality trends**
Raw water is supplied through the Elgin Area Primary Water Supply System. No issues with the water supply.

- **Follow-up action items from previous management reviews:**
No follow up action items from the last meeting.

- **The status of management action items identified between reviews**
No action items have arisen between management review meetings, so no follow up required.

- **Changes that could affect the DWQMS, QMS Elements, or legislative changes**
New updates from MOECC on the DWQMS, which will be implemented over the next year. Changing over to the new DWQMS standard over the next year. City has implemented the new MOECC hazard analysis items as mandated.

- **Consumer feedback (including any concerns, complaints, or expectations from customers)**
None were mentioned.

- **The resources needed to maintain the Quality Management System**
There are adequate resources available to City staff to maintain the DWQMS.

- **The results of the infrastructure review**
Planned projects are listed below in the review. The results of the review allowed for coordination and awareness of planned works within the vicinity.

- **Effectiveness of infrastructure maintenance, rehabilitation and renewal program**
The infrastructure program remains effective since it allows for the City and St. Thomas to maintain an efficient water distribution system.

- **Operational plan currency, content and updates**
The St. Thomas Operation Plan is up to date and does not require any immediate updates.

- **Staff suggestions**
No staff suggestions were made at this meeting about the DWQMS or the water distribution system. However, the City staff discuss issues over the course of the year during various STASWSS board meetings and other meetings. None to note during this meeting.

- **Significant non-conformances, corrective and preventative actions (e.g. winning an award, incident free year)**

MOECC inspection was completed in September 26, 2017 for St. Thomas Distribution, which received a 93.62%. MOECC inspection was completed in September 26, 2017 for St. Thomas Secondary, which received a 100%.

No non-conformances came about outside of audit processes for the year.

Infrastructure Review

- **St. Thomas Capital projects**

- Southdale Line Watermain and PRV Installation
- Pump replacement at EMPS (completion in May 2018)
- Pump replacement at ARBS (completion early 2019)
- Watermain lining on Edward Street and Woodworth Ave.
- Talbot St. Reconstruction (Mary to Steele) – WM Replacement
- St. George Street Reconstruction – WM Replacement
- Center Street Reconstruction – WM Replacement
- Flora Street Reconstruction – WM Replacement
- West pearl Reconstruction – WM Replacement
- City-wide water meter replacement
- Projects planned for the STASWSS happening in 2019 or later (ie. Ford Tower removal, WM replacement)

Action Items

- No action items to note from this meeting.

These minutes were completed by Nathan Bokma. Any changes or discrepancies should be forwarded to nbokma@stthomas.ca.

Next Meeting Date: May 2019 (TBD)



Report No.

SWB 05-18

File No.

Directed to: Councillor Jeff Kohler and Members of the Board of Management of the St. Thomas Area Secondary Water Supply System

Date Authored:
September 14, 2018

Meeting Date:
October 9, 2018

Department: Environmental Services

Attachment

Prepared By: Karel Kamerman, B.Sc.
Compliance Coordinator

Subject: St. Thomas Area Secondary Water Supply System – 2019 Water Rate

Recommendation:

THAT: Report SWB05-18, St. Thomas Area Secondary Water Supply System – 2019 Water Rate, be received for information; and further,

THAT: The Secondary Rate for the St. Thomas Area Secondary Water Supply System of \$0.4773/m³, effective January 1, 2019, be approved.

Origin:

The St. Thomas Area Secondary Water Supply System (STASWSS), which obtains water from the Elgin Area Primary Water Supply System (EAPWSS), provides drinking water to the City of St. Thomas, the Municipality of Central Elgin and the Township of Southwold.

In order to recover costs related to the maintenance and operations of the infrastructure, as well as meet the requirements of provincial water legislation and build an adequate reserve balance to help fund future rehabilitation and renewal projects for the St. Thomas Area Secondary Water Supply System infrastructure, each benefitting municipality must establish water rates that include cost recovery for the use of the EAPWSS and STASWSS infrastructure.

The EAPWSS is governed by a Joint Board of Management, who set the *Primary Rate*.

In 2015, Watson & Associates, in association with GM BluePlan Engineers were retained to complete a Water Rate Study to forecast the full costs (including infrastructure renewal and rehabilitation) of supplying water through the STASWSS to the year 2024. The Study recommends the *Secondary Rates* that are required in order for the system to be financially self-sustaining, based on anticipated flows to the various benefitting municipalities. The full version of the 2015 Secondary Rate Study is available on the City of St. Thomas website.

The cost of supplying water services through the EAPWSS and STASWSS is recovered through the *Blended Supply Rate*. The *Blended Supply Rate* is a calculated value and reflects 70% of the overall supply for the area coming directly from the Primary System and the remaining 30% being supplied through the Secondary System (i.e. the *Blended Rate* comprises 100% of the *Primary rate* and 30% of the established *Secondary rate*). The *Blended Rate* and a *Common Water Rate* (established and set by the City of St. Thomas) are combined to establish the *St. Thomas and Suburban Rate*, which is then used by each benefitting municipality as the foundation of each of their overall water consumption rates, which are the rates ultimately charged to the end user.

Analysis:

The EAPWSS Joint Board of Management approved the 2019 Primary Rate at their October 4, 2018 meeting. Effective January 1, 2019, the *Primary Rate* will be increased by 4%, and is scheduled to be changed from \$0.8047/m³ to \$0.8369/m³.

In order to meet the requirements of provincial water legislation and build an adequate reserve balance to help fund future rehabilitation and renewal projects, the *Secondary Rate* is recommended to increase from \$0.4336/m³ to \$0.4773/m³, a 10.1% increase. The *Secondary Rate* increase being recommended is aligned with the STASWSS Water Rate Study completed in 2015.

The approved *Primary* and *Secondary Rates* are utilized to calculate the *Blended Supply Rate*. As a result of the increase in the *Primary rate* and the *Secondary rate* increase recommended within this report, the *Blended Supply Rate* is forecasted to increase from \$0.9348/m³ to \$0.9801/m³, an increase of 4.8%.

The table below outlines the current and 2019 forecasted rates and demonstrates the respective % increase for each of the supply rates.

Year	2018	2019	% Increase
Secondary Rate (\$/m ³)	0.4336	0.4773	10.1
Primary Rate (\$/m ³)	0.8047	0.8369	4.0
Blended Supply Rate (70% Primary and 30% Secondary)	0.9348	0.9801	4.8

The water rates for the STASWSS will continue to fund several capital projects. A status update for ongoing, completed, or upcoming projects from the recent 10 year plan is summarized in the table below:

Item	Capital Project	Project Value	Status
1.	EMPS Pump Replacement	\$650,000	COMPLETE – July 2018
2.	Process Electrical & HVAC SCADA PLC Server	\$35,000	PENDING - approval from partner municipalities
3.	Replacement of 1050mm Suction Header Valve and Actuator (33% of \$125k share with London and Aylmer)	\$42,000	PENDING - approval from partner municipalities
4.	Replacement of suction header coupling between St. Thomas header and London Header	\$12,500	PENDING - approval from partner municipalities
5.	Pump Discharge Control Valve Rebuilding	\$20,000	IN PROCESS: ~60% Complete
6.	Chlorinator System (Annual Contribution)	\$5,000	COMPLETE
7.	DWQMS Audit	\$2,000	2018 Audit COMPLETE
8.	Drawing Revisions	\$10,000	PENDING - completion of items 2,3&4
9.	Replace all light fixture upper and lower level	\$15,000	IN PROCESS – Obtaining Quotes
10.	Ford Tower Decommissioning	\$400,000	IN PROCESS - Consultant RFP to be issued Fall/Winter 2018

City staff are also looking forward to initiate future STASWSS capital projects in 2020 and beyond. Two key projects to note that are targeted to start in 2020 are the chlorination equipment replacement at the EMPS in partnership with the Aylmer Area SWSS, and the design/environmental assessment phase of the first portion of the watermain replacement for the STASWSS.

Financial Considerations:

Based on an assumed typical annual consumption of 179 m³/annum, the 2019 Residential Customer Water Rate impact for the total annual water increase (Primary and Secondary blended rate) will be an increase of \$8.11 per year, which is lower than the \$9.62 increase indicated in the STASWSS Water Rate Study. This discrepancy is a result of the *Primary Rate* increasing at a slower rate than was anticipated in the report.


Respectfully,



Karel Kamerman, B.Sc.
Compliance Coordinator



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

Reviewed By:  _____
 ES Treasury HR City Clerk City Manager