

**THE THIRD MEETING OF 2021 OF THE ST. THOMAS AREA
SECONDARY WATER SUPPLY SYSTEM BOARD OF MANAGEMENT**

MICROSOFT TEAMS MEETING

OCTOBER 14, 2021

4:31 p.m. The meeting convened with Councillor Crevits, presiding.

ATTENDANCE

Members

Councillor Dennis Crevits, Municipality of Central Elgin
Councillor Jeff Kohler, City of St. Thomas
Councillor Justin Pennings, Southwold Township
Councillor Steven Peters, City of St. Thomas

Staff

C. Andrew, Manager of Water and Sewer, Environmental Services
N. Bokma, Manager of Development & Compliance, Environmental Services
L. Higgs CAO/Clerk/Deputy Treasurer, Southwold Township
K. Kamerman, Compliance Coordinator, Environmental Services
J. Lawrence, Director, Environmental Services and City Engineer
A. Piggot, Manager of Environmental Services , Municipality of Central Elgin
C. Scrimgeour, , Auditor - Scrimgeour & Company CPA Professional Corporation
T. Tiersma, Administrative Assistant, Environmental Services

With Regrets

Councillor Steve Wookey, City of St. Thomas
G. Brooks, Director of Infrastructure and Community Services, Municipality of Central Elgin

DISCLOSURES OF INTEREST

Nil.

MINUTES

Motion by Councillor Pennings – Councillor Kohler:

THAT: The minutes of the meeting held on June 17, 2021, be confirmed.

Carried.

NEW BUSINESS

Christene Scrimgeour, Auditor, provided a presentation of the 2020 St. Thomas & Area Secondary Water Supply System DRAFT Financial Statements for the Board's review and approval with a brief explanation of the auditor's report, highlighting reserve fund and tangible capital assets.

Motion by Councillor Peters – Councillor Pennings:

THAT: The 2020 audited financial statements for the St. Thomas Area Secondary Water Supply System be received for information; and further that the audited financial statements be approved.

Carried.

REPORTS OF COMMITTEE

Report No. SWB04-21 - St. Thomas Area Secondary Water Supply System - 2022 Water Rates

Members discussed the equitable distribution of costs to secondary partners and the use of reserve funds for infrastructure upgrades. Questions arose on the redevelopment of the Ford property with respect to the water usage and the future of the water tower. It was discussed that the water usage would be minimal in comparison to that required by Ford Motor Plant and the removal of the tower would proceed as a future project.

Motion by Councillor Kohler– Councillor Pennings:

THAT: Report No. SWB 04-21, relating to the St. Thomas Area Secondary Water Supply System - 2022 Water Rates, be received for information; and further that the Secondary Rate for the St. Thomas Area Secondary Water Supply System of \$0.5904/m³ , effective January 1, 2022, be approved.

Carried.

Report SWB05-21 - Drinking Water Works Permit and Municipal Drinking Licence Renewal

CONFIRMED

 CHAIRMAN

3rd Meeting of 2021 - St. Thomas Area Secondary Water Supply System Board of Management - 2

After reviewing the report on license renewal, members discussed the recent lake activity and water quality complaints from residents. J. Lawrence, Director of Environmental Services and City Engineer stated it was a significant but not uncommon lake process that triggered the issue. He assured the members that repeated testing had been done and all chlorine levels were well above required levels (which is indicative of low risk of bacteria). He stated that the lake turbidity left some pockets of sediment within the St. Thomas system that was in some places experienced several weeks after the initial weather phenomenon.

Councillor Crevits asked if anything could be done in the future to avoid this, to which J. Lawrence stated that this is related to weather patterns and the measures taken were prudent in maintaining water safety. Water Flushing of mains after these occurrences are the recommended course of action.

Councillor Peters asked that in the event of an emergency in Lake Erie, if the Secondary Board could rely on Lake Huron for its water supply. J. Lawrence noted that water could be pumped backwards from the Southeast reservoir in London in the event of an emergency as a short-term response, but areas further removed from this point would experience low water pressure.

Report SWB06-21 - Ontario Clean Water Agency (OCWA) Management Review Meeting Minutes

Having previously viewed this report, the members were satisfied with the minutes and had no further questions.

UNFINISHED BUSINESS

J. Lawrence, Director of Environmental Services and City Engineer shared a verbal update on Landlord/Tenant Agreement with Elgin Middlesex Pumping Station. While there were some questions and comments from the Aylmer Secondary System, it appears that this will likely be resolved by minor changes to the agreement. The Landlord/Tenant Agreement was previously approved but if adjustments are made, this will be brought back for the Board's review.

J. Lawrence, Director of Environmental Services and City Engineer shared that the Primary Board has extended the Operations and Maintenance Amending Agreement between the Primary and Ontario Clean Water Agency (OCWA) for the operation of the Elgin treatment plant and pipeline and that this would not result in significant changes for the Secondary Board. The Secondary Board would normally follow the Primary Board in extending the contract, but this is not mandatory. Staff are working with OCWA and the other 2 tenants of the EMPs regarding an extension and will report at the next meeting for the Board's consideration.

NEXT MEETING

Members agreed that 4:30pm by Teams works for the next meeting which will be at the call of the Chair or as necessary.

ADJOURNMENT

Motion by Councillor Peters – Councillor Kohler:

THAT: The Board adjourn at 5:01p.m.

Carried.

CONFIRMED



CHAIRMAN

APPENDIX A

**ST. THOMAS AREA SECONDARY
WATER SUPPLY SYSTEM**

FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2020

DRAFT

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2020**

-1-	Independent Auditor's Report
-3-	Statement of Financial Position
-4-	Statement of Operations and Accumulated Surplus
-5-	Statement of Cash Flows
-6-	Statement of Change in Net Financial Assets
-7- to -8-	Notes to the Financial Statements
-9-	Schedule 1 - Schedule of Tangible Capital Assets

INDEPENDENT AUDITOR'S REPORT

To the Members of Board, Ratepayers and Inhabitants of the St. Thomas Area Secondary Water Supply System

Opinion

We have audited the accompanying financial statements of St. Thomas Area Secondary Water Supply System (the "Joint Board"), which comprise the Statement of Financial Position as at December 31, 2020, and Statements of Operations and Accumulated Surplus, Cash Flows and Change in Net Financial Assets for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of St. Thomas Area Secondary Water Supply System as at December 31, 2020 and its financial performance and its changes in cash flows and net financial assets for the year then ended, in accordance with Canadian public sector accounting standards.

Basis of Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Joint Board in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Joint Board's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless management either intends to liquidate the Joint Board or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Joint Board's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Joint Board's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Joint Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Joint Board to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

October 14, 2021
London, Canada

LICENSED PUBLIC ACCOUNTANT

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2020**

	2020	2019
FINANCIAL ASSETS		
Due from City of St. Thomas (note 2)	\$ 2,536,944	\$ 1,955,639
NET FINANCIAL ASSETS	2,536,944	1,955,639
NON FINANCIAL ASSETS		
Tangible capital assets (note 1.c) (Schedule 1)	1,347,869	1,463,170
	1,347,869	1,463,170
ACCUMULATED SURPLUS (note 3)	\$ 3,884,813	\$ 3,418,809

The accompanying notes are an integral part of these financial statements.

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS
FOR THE YEAR ENDED DECEMBER 31, 2020**

	Budget 2020	Actual 2020	Actual 2019
REVENUE			
Current interest	\$ -	\$ 33,059	\$ 36,177
Water billings	2,611,000	3,287,519	3,340,334
	2,611,000	3,320,578	3,376,511
EXPENDITURES			
Amortization	-	73,248	67,623
OCWA contract and callouts	218,770	206,688	195,876
Operating and maintenance	1,727,000	2,486,585	2,501,357
Wages	94,270	88,053	88,214
	2,040,040	2,854,574	2,853,070
REVENUE OVER EXPENDITURES	570,960	466,004	523,441
ACCUMULATED SURPLUS, BEGINNING OF YEAR	3,418,809	3,418,809	2,895,368
ACCUMULATED SURPLUS, END OF YEAR	\$ 3,989,769	\$ 3,884,813	\$ 3,418,809

The accompanying notes are an integral part of these financial statements.

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2020**

	2020	2019
OPERATING ACTIVITIES		
Revenue over expenditures (page 4)	\$ 466,004	\$ 523,441
Non-cash expenditures - amortization	73,248	67,623
Net change in non-cash working capital balances related to operations (A)	(581,305)	(98,062)
	(42,053)	493,002
INVESTING ACTIVITIES		
Tangible capital asset disposals (additions)	42,053	(493,002)
Change in cash during the year	-	-
CASH, BEGINNING OF YEAR	-	-
CASH, END OF YEAR	\$ -	\$ -

(A) Consists of changes in and due from the City of St. Thomas.

The accompanying notes are an integral part of this financial statement.

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
STATEMENT OF CHANGE IN NET FINANCIAL ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2020**

	2020	2019
Excess of revenue over expenditures (page 4)	\$ 466,004	\$ 523,441
Amortization of tangible capital assets	73,248	67,623
Acquisition of tangible capital assets	42,053	(493,002)
Increase in net financial assets	581,305	98,062
NET FINANCIAL ASSETS, BEGINNING OF YEAR	1,955,639	1,857,577
NET FINANCIAL ASSETS, END OF YEAR	\$ 2,536,944	\$ 1,955,639

The accompanying notes are an integral part of these financial statements.

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2020**

Effective November 13, 1998, the Ministry of Environment issued a Transfer Order to transfer ownership and associated properties of the St. Thomas Area Secondary Water Supply System from the Ontario Clean Water Agency ("OCWA") to area municipalities. As part of the Transfer Order, a Joint Board of Management ("the Joint Board") was established to govern the management of the System. The Joint Board consists of one representative of the Councils of the Municipality of Central Elgin, the Township of Southwold, and two representatives of the Council of the City of St. Thomas. The City of St. Thomas is the administering municipality on behalf of the Municipalities and the Joint Board. The Joint Board has authority to manage the system on behalf of the Municipalities for the purpose of constructing, operating, repairing and improving the System.

1. Significant accounting policies

The financial statements of the Joint Board are prepared by management in accordance with Canadian public sector accounting standards.

a. Revenue recognition

Revenue is recognized when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Government grants and transfers are recognized in the financial statements as revenue in the period in which events giving rise to the transfer occur, providing the transfers are authorized, any eligibility criteria have been met, and reasonable estimates of the amounts can be made.

b. Uses of estimates

The preparation of financial statements in conformity with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenditures during the period. Actual results could differ from these estimates.

c. Tangible capital assets

Tangible capital assets are recorded at cost which includes all amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The costs, less residual value, of the tangible capital assets are amortized on a straight-line basis over their estimated useful lives as follows:

Equipment	15 to 80 years
Reservoir	100 years
Waterlines	75 years

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2020**

1. Significant accounting policies continued

d. Budget

The Joint Board set a budget based on the accounting policies adopted previous to PSAB Handbook policy for tangible capital assets.

e. Deferred revenue

Revenue received for specific purposes which are externally restricted by legislation, regulation or agreement and are not available for general municipal purposes are accounted for as deferred revenue on the Statement of Financial Position. The revenue is recognized in the Statement of Operations and Accumulated Surplus in the year in which it is used for the specified purpose.

2. Continuing operations

All banking activities are administered by the City of St. Thomas, on behalf of the Joint Board's activities. The amount due from the City of St. Thomas represents assets of the reserve fund held by the City of St. Thomas.

3. Accumulated surplus

The accumulated surplus is comprised of the following:

	2020	2019
Reserve fund for future operations	\$ 2,536,944	\$ 1,955,639
Invested in tangible capital assets	1,347,869	1,463,170
	\$ 3,884,813	\$ 3,418,809

4. Commitment

The Joint Board has contracted with OCWA to operate and maintain the System for a five year term ending June 30, 2022. The Joint Board is responsible for 28.5% of the overall contracted amount with annual costs for 2020 of \$58,631 (2019 - \$57,651).

5. Significant event

In March 2020, the Province of Ontario declared a state of emergency due to the COVID-19 virus. It is unclear the total financial impact the COVID-19 virus will have on the operations of the Joint Board. The Joint Board and management continue to monitor the situation.

**ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
SCHEDULE OF TANGIBLE CAPITAL ASSETS
FOR THE YEAR ENDED DECEMBER 31, 2020**

	Equipment	Reservoir	Waterlines	Total
COST				
Balance, beginning of year	\$ 1,259,042	\$ 76,621	\$ 1,433,922	\$ 2,769,585
Add:				
Additions during the year	-	-	-	-
Less:				
Disposals during the year	(42,053)	-	-	(42,053)
Balance, end of year	1,216,989	76,621	1,433,922	2,727,532
ACCUMULATED AMORTIZATION				
Balance, beginning of year	499,798	39,843	766,774	1,306,415
Add:				
Amortization during the year	42,181	766	30,301	73,248
Less:				
Disposals during the year	-	-	-	-
Balance, end of year	541,979	40,609	797,075	1,379,663
NET BOOK VALUE OF TANGIBLE CAPITAL ASSETS	\$ 675,010	\$ 36,012	\$ 636,847	\$ 1,347,869

This schedule is provided for information purposes only.

BACK TO AGENDA

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

Date Authored:
October 5, 2021
Meeting Date:
October 14, 2021

Department: Environmental Services

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

Attachment

Subject: St. Thomas Area Secondary Water Supply System – 2022 Water Rate

Recommendation:

THAT: Report SWB 04-21, St. Thomas Area Secondary Water Supply System – 2022 Water Rate, be received for information; and further,

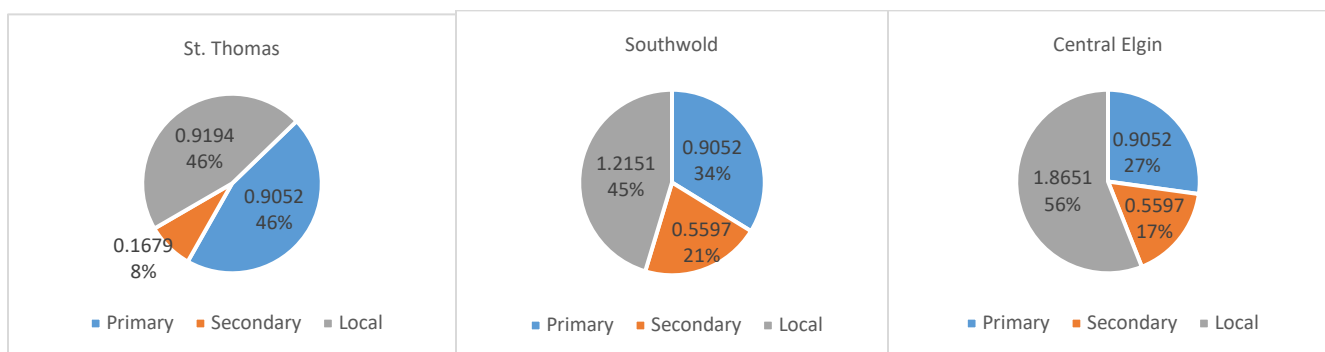
THAT: The Secondary Rate for the St. Thomas Area Secondary Water Supply System of \$0.5904/m³, effective January 1, 2022, be approved.

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 directly to the City of St. Thomas, the Municipality of Central Elgin, the Township of Southwold and indirectly to the Municipality of Dutton-Dunwich.

In order to recover the 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.

In 2021, each of the benefitting municipalities charged their users a consumption rate, consisting of different components, in order to recover expenses arising from the use of the Primary System, Secondary System and Local distribution systems, as follows:



It should be noted that the City of St. Thomas obtains 70% of their water demands directly from the Primary System, and as such, their rate structure reflects a lower contribution percentage to the Secondary.

In 2020, The City of St. Thomas, in their capacity as administering municipality, completed a Water Rate Study to forecast the full costs (including infrastructure renewal and rehabilitation) of supplying water through the STASWSS to the year 2031. The Study recommends the *Secondary Rates* that are required for the system to be financially self-sustaining, based on anticipated flows to the various benefitting municipalities. The full version of the 2020 Secondary Rate Study is available on the City of St. Thomas website.

Analysis and Financial Considerations:

The EAPWSS Joint Board of Management is anticipated to approve the 2021 Primary Rate at their October 7, 2021 meeting. Effective January 1, 2022, the *Primary Rate* is proposed to increase by 4%, and is expected to be changed from \$0.9052/m³ to \$0.9414/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 \$0.5597/m³ to \$0.5904/m³, a 5.5% increase. The *Secondary Rate* increase being recommended is aligned with the STASWSS Water Rate Study completed in 2020.

The proposed rate increase will result in a total bill increase for the average user (167 m³/year) of 0.28%, 0.83% and 0.55% for the users located in St. Thomas, Southwold, and Central Elgin, respectively.

Respectfully,



Karel Kamerman, B.Sc. C.Tech.
Compliance Coordinator

Reviewed By:   _____
ES Treasury HR City Clerk City Manager

BACK TO AGENDA



APPENDIX C

Report No.

SWB 05-21

File No.

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

Date Authored:
October 5, 2021
Meeting Date:
October 14, 2021

Department: Environmental Services

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

Attachment
1. MDWL_190-201_ISSUE_5_FINAL
2. DWWP_190-201_ISSUE_3_FINAL

Subject: Drinking Water Works Permit and Municipal Drinking Water Licence Renewal

Recommendation:

THAT: Report SWB 05-21, Drinking Water Works Permit and Municipal Drinking Water Licence Renewal, be received for information.

Origin:

The Municipal Drinking Water License (MDWL) and Drinking Water Works Permit (DWWP) for the STASWSS have successfully been renewed. These regulatory instruments, which provide approval for operation, maintenance, renewal, rehabilitation, and expansion for the STASWSS require renewal on a five (5) year cycle. The renewed MDWL was issued on September 30, 2021 and is set to expire on September 29, 2026.

Analysis and Financial Considerations:

New conditions of renewed DWWP require that the 2020 Ontario Watermain Disinfection Procedure be complied with effective November 1, 2021. This will result in changes in the watermain break response and new watermain commissioning activities. This change is consistent with the timing of the transition for the St. Thomas Drinking Water System. Due to the nature of the STASWSS, this condition will have minimal effect on operations. Other changes to the conditions of the permit are administrative clarifications, the majority of which relate to pre-approved minor modifications.

Changes to the conditions of the renewed MDWL are mostly administrative clarifications, with the most significant change relating to drinking water source protection. The STASWSS has no operations within the protective zones established by the local Drinking Water Source Protection Plans, therefore these changes will have no effect on operations.

Respectfully,

Karel Kamerman, B.Sc. C.Tech.
Compliance Coordinator

Reviewed By:

ES

Treasury

HR

City Clerk

City Manager



MUNICIPAL DRINKING WATER LICENCE

Licence Number: 190-101
Issue Number: 5

Pursuant to the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, this municipal drinking water licence is issued under Part V of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 to:

**The Joint Board of Management of the
St. Thomas Area Secondary Water Supply System**

**545 Talbot St.
P.O. Box 520, City Hall
St. Thomas, ON N5P 3V7**

For the following municipal residential drinking water system:

St. Thomas Area Secondary Water Supply System

This municipal drinking water licence includes the following:

Schedule	Description
Schedule A	Drinking Water System Information
Schedule B	General Conditions
Schedule C	System-Specific Conditions
Schedule D	Conditions for Relief from Regulatory Requirements

Upon the effective date of this drinking water licence, all previously issued versions are revoked and replaced by this licence.

DATED at TORONTO this 30th day of September, 2021

Signature

Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act*, 2002

Schedule A: Drinking Water System Information

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Licence Number	190-101
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Licence Effective Date	September 30, 2021

1.0 Licence Information

Licence Issue Date	September 30, 2021
Licence Effective Date	September 30, 2021
Licence Expiry Date	September 29, 2026
Application for Licence Renewal Date	March 29, 2026

2.0 Incorporated Documents

The following documents are applicable to the above drinking water system and form part of this licence:

2.1 Drinking Water Works Permit

Drinking Water System Name	Permit Number	Issue Date
St. Thomas Area Secondary Water Supply System	190-201	September 30, 2021

2.2 Permits to Take Water

Water Taking Location	Permit Number	Issue Date
Not Applicable	Not Applicable	Not Applicable

2.3 Other Documents

Document Title	Version Number	Version Date

3.0 Financial Plans

The Financial Plan Number for the Financial Plan required to be developed for this drinking water system in accordance with O. Reg. 453/07 shall be:	190-301
Alternately, if one Financial Plan is developed for all drinking water systems owned by the owner, the Financial Plan Number shall be:	190-301A

4.0 Accredited Operating Authority

Drinking Water System or Operational Subsystems	Accredited Operating Authority	Operational Plan No.	Operating Authority No.
St. Thomas Booster Station in the Elgin-Middlesex Pumping Station Building	OCWA	190-401 A	St. Thomas Booster Station in the Elgin-Middlesex Pumping Station Building
Water Supply System	City of St. Thomas – Environmental Services Operations Division	190-401 B	Water Supply System

Schedule B: General Conditions

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Licence Number	190-101
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Licence Effective Date	September 30, 2021

1.0 Definitions

1.1 Words and phrases not defined in this licence and the associated drinking water works permit shall be given the same meaning as those set out in the SDWA and any regulations made in accordance with that act, unless the context requires otherwise.

1.2 In this licence and the associated drinking water works permit:

“**adverse effect**”, “**contaminant**” and “**natural environment**” shall have the same meanings as in the EPA;

“**alteration**” may include the following in respect of this drinking water system:

- (a) An addition to the system,
- (b) A modification of the system,
- (c) A replacement of part of the system, and
- (d) An extension of the system;

“**compound of concern**” means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged to the air from a component of the drinking water system in an amount that is not negligible;

“**CT**” means the CT Disinfection Concept, as described in subsection 3.1.1 of the Ministry’s Procedure for Disinfection of Drinking Water in Ontario, dated July 29 2016.

“**Director**” means a Director appointed pursuant to section 6 of the SDWA for the purposes of Part V of the SDWA;

“**drinking water works permit**” means the drinking water works permit for the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“**emission summary table**” means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;

“**EPA**” means the *Environmental Protection Act*, R.S.O. 1990, c. E.19;

“**financial plan**” means the financial plan required by O. Reg. 453/07;

“Harmful Algal Bloom (HAB)” means an overgrowth of aquatic algal bacteria that produce or have the potential to produce toxins in the surrounding water, when the algal cells are damaged or die. Such bacteria are harmful to people and animals and include microcystins produced by cyanobacterial blooms.

“licence” means this municipal drinking water licence for the municipal drinking water system identified in Schedule A of this licence;

“Ministry” means the Ontario Ministry of the Environment, Conservation and Parks;

“operational plan” means an operational plan developed in accordance with the Director’s Directions – Minimum Requirements for Operational Plans made under the authority of subsection 15(1) of the SDWA;

“owner” means the owner of the drinking water system as identified in Schedule A of this licence;

“OWRA” means the *Ontario Water Resources Act*, R.S.O. 1990, c. 0.40;

“permit to take water” means the permit to take water that is associated with the taking of water for purposes of the operation of the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“point of impingement” has the same meaning as in section 2 of O. Reg. 419/05 under the EPA;

“point of impingement limit” means the appropriate standard from Schedule 2 or 3 of O. Reg. 419/05 under the EPA and if a standard is not provided for a compound of concern, the concentration set out for the compound of concern in the document titled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the Ministry and available on a government of Ontario website;

“licensed engineering practitioner” means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act;

“provincial officer” means a provincial officer designated pursuant to section 8 of the SDWA;

“publication NPC-300” means the Ministry publication titled “Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning” dated August 2013, as amended;

“SCADA system” means a supervisory control and data acquisition system used for process monitoring, automation, recording and/or reporting within the drinking water system;

“SDWA” means the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32;

“sensitive receptor” means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from a discharge to air from an emergency generator that is a component of the drinking water system, including one or a combination of:

- (a) private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),
- (b) institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.),
- (c) outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.), and
- (d) other outdoor public areas where there are continuous human activities (e.g.: commercial plazas and office buildings).

“sub-system” has the same meaning as in Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) under the SDWA;

“surface water” means water bodies (lakes, wetlands, ponds - including dug-outs), water courses (rivers, streams, water-filled drainage ditches), infiltration trenches, and areas of seasonal wetlands;

“UV” means ultraviolet, as in ultraviolet light produced from an ultraviolet reactor.

2.0 Applicability

- 2.1 In addition to any other applicable legal requirements, the drinking water system identified above shall be established, altered and operated in accordance with the conditions of the drinking water works permit and this licence.

3.0 Licence Expiry

- 3.1 This licence expires on the date identified as the licence expiry date in Schedule A of this licence.

4.0 Licence Renewal

- 4.1 Any application to renew this licence shall be made on or before the date identified as the application for licence renewal date set out in Schedule A of this licence.

5.0 Compliance

- 5.1 The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, all applicable regulations made in accordance with that act, the drinking water works permit and this licence and shall take all reasonable measures to ensure any such person complies with the same.

6.0 Licence and Drinking Water Works Permit Availability

- 6.1 At least one copy of this licence and the drinking water works permit shall be stored in such a manner that they are readily viewable by all persons involved in the operation of the drinking water system.

7.0 Permit to Take Water and Drinking Water Works Permit

- 7.1 A permit to take water identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.
- 7.2 A drinking water works permit identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.

8.0 Financial Plan

- 8.1 For every financial plan prepared in accordance with subsections 2(1) and 3(1) of O. Reg. 453/07, the owner of the drinking water system shall:
- 8.1.1 Ensure that the financial plan contains on the front page of the financial plan, the appropriate financial plan number as set out in Schedule A of this licence; and
- 8.1.2 Submit a copy of the financial plan to the Ministry of Municipal Affairs and Housing within three (3) months of receiving approval by a resolution of municipal council or the governing body of the owner.

9.0 Interpretation

- 9.1 Where there is a conflict between the provisions of this licence and any other document, the following hierarchy shall be used to determine the provision that takes precedence:
- 9.1.1 The SDWA;
- 9.1.2 A condition imposed in this licence that explicitly overrides a prescribed regulatory requirement;
- 9.1.3 A condition imposed in the drinking water works permit that explicitly overrides a prescribed regulatory requirement;
- 9.1.4 Any regulation made under the SDWA;
- 9.1.5 Any provision of this licence that does not explicitly override a prescribed regulatory requirement;
- 9.1.6 Any provision of the drinking water works permit that does not explicitly override a prescribed regulatory requirement;
- 9.1.7 Any application documents listed in this licence, or the drinking water works permit from the most recent to the earliest; and

- 9.1.8 All other documents listed in this licence, or the drinking water works permit from the most recent to the earliest.
- 9.1.9 Any other technical bulletin or procedure issued by the Ministry from the most recent to the earliest.
- 9.2** If any requirement of this licence or the drinking water works permit is found to be invalid by a court of competent jurisdiction, the remaining requirements of this licence and the drinking water works permit shall continue to apply.
- 9.3** The issuance of and compliance with the conditions of this licence and the drinking water works permit does not:
- 9.3.1 Relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including the *Environmental Assessment Act*, R.S.O. 1990, c. E.18; and
- 9.3.2 Limit in any way the authority of the appointed Directors and provincial officers of the Ministry to require certain steps be taken or to require the owner to furnish any further information related to compliance with the conditions of this licence or the drinking water works permit.
- 9.4** For greater certainty, nothing in this licence or the drinking water works permit shall be read to provide relief from regulatory requirements in accordance with section 46 of the SDWA, except as expressly provided in the licence or the drinking water works permit.

10.0 Adverse Effects

- 10.1** Nothing in this licence or the drinking water works permit shall be read as to permit:
- 10.1.1 The discharge of a contaminant into the natural environment that causes or is likely to cause an adverse effect; or
- 10.1.2 The discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters.
- 10.2** All reasonable steps shall be taken to minimize and ameliorate any adverse effect on the natural environment or impairment of the quality of water of any waters resulting from the operation of the drinking water system including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- 10.3** Fulfillment of one or more conditions imposed by this licence or the drinking water works permit does not eliminate the requirement to fulfill any other condition of this licence or the drinking water works permit.

11.0 Change of Owner or Operating Authority

- 11.1 This licence is not transferable without the prior written consent of the Director.
- 11.2 The owner shall notify the Director in writing at least 30 days prior to a change of any operating authority identified in Schedule A of this licence.
- 11.2.1 Where the change of operating authority is the result of an emergency situation, the owner shall notify the Director in writing of the change as soon as practicable.

12.0 Information to be Provided

- 12.1 Any information requested by a Director or a provincial officer concerning the drinking water system and its operation, including but not limited to any records required to be kept by this licence or the drinking water works permit, shall be provided upon request.

13.0 Records Retention

- 13.1 Except as otherwise required in this licence or the drinking water works permit, any records required by or created in accordance with this licence or the drinking water works permit, other than the records specifically referenced in section 12 or section 13 of O. Reg. 170/03, shall be retained for at least 5 years and made available for inspection by a provincial officer, upon request.

14.0 Chemicals and Materials

- 14.1 All chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60, NSF/61 and NSF/372.
- 14.1.1 In the event that the standards are updated, the owner may request authorization from the Director to use any on hand chemicals and materials that previously met the applicable standards.
- 14.2 The most current chemical and material product registration documentation from a testing institution accredited by either the Standards Council of Canada or by the American National Standards Institution ("ANSI") shall be available at all times for each chemical and material used in the operation of the drinking water system that comes into contact with water within the system.
- 14.3 Conditions 14.1 and 14.2 do not apply in the case of the following:
- 14.3.1 Water pipe and pipe fittings meeting AWWA specifications made from ductile iron, cast iron, PVC, fibre and/or steel wire reinforced cement pipe or high density polyethylene (HDPE);
- 14.3.2 Articles made from stainless steel, glass, HDPE or Teflon®;

- 14.3.3 Cement mortar for watermain lining and for water contacting surfaces of concrete structures made from washed aggregates and Portland cement;
- 14.3.4 Gaskets that are made from NSF approved materials;
- 14.3.5 Food grade oils and lubricants, food grade anti-freeze, and other food grade chemicals and materials that are compatible for drinking water use that may come into contact with drinking water, but are not added directly to the drinking water; or
- 14.3.6 Any particular chemical or material where the owner has written documentation signed by the Director that indicates that the Ministry is satisfied that the chemical or material is acceptable for use within the drinking water system and the chemical or material is only used as permitted by the documentation.

15.0 Drawings

- 15.1 All drawings and diagrams in the possession of the owner that show any treatment subsystem as constructed shall be retained by the owner unless the drawings and diagrams are replaced by a revised or updated version showing the subsystem as constructed subsequent to the alteration.
- 15.2 Any alteration to any treatment subsystem shall be incorporated into process flow diagrams, process and instrumentation diagrams, and record drawings and diagrams within one year of the alteration being completed or placed into service.
- 15.3 Process flow diagrams and process and instrumentation diagrams for any treatment subsystem shall be kept in a place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system.

16.0 Operations and Maintenance Manual

- 16.1 An up-to-date operations and maintenance manual or manuals shall be maintained and applicable parts of the manual or manuals shall be made available for reference to all persons responsible for all or part of the operation or maintenance of the drinking water system.
- 16.2 The operations and maintenance manual or manuals, shall include at a minimum:
 - 16.2.1 The requirements of this licence and associated procedures;
 - 16.2.2 The requirements of the drinking water works permit for the drinking water system;
 - 16.2.3 A description of the processes used to achieve secondary disinfection within the drinking water system;
 - 16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

- 16.2.5 Procedures for the operation and maintenance of monitoring equipment;
- 16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
- 16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;
- 16.3** Procedures necessary for the operation and maintenance of any alterations to the drinking water system shall be incorporated into the operations and maintenance manual or manuals prior to those alterations coming into operation.
- 16.4** All of the procedures included or referenced within the operations and maintenance manual must be implemented.

Schedule C: System-Specific Conditions

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Licence Number	190-101
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Licence Effective Date	September 30, 2021

1.0 Additional Sampling, Testing and Monitoring

Drinking Water Health and Non-Health Related Parameters

- 1.1 For a drinking water system or drinking water subsystem identified in column 1 of Tables 1 and 2 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 at the sampling frequency listed in column 3 and at the monitoring location listed in column 4 of the same row.

Table 1: Drinking Water Health Related Parameters

Column 1 Drinking Water System or Drinking Water Subsystem Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Table 2: Drinking Water Non-Health Related Parameters

Column 1 Drinking Water System or Drinking Water Subsystem Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Environmental Discharge Parameters

- 1.2 Pursuant to Condition 10 of Schedule B of this licence, the owner may undertake the following environmental discharges associated with the maintenance and/or repair of the drinking water system:
- 1.2.1 The discharge of potable water from a watermain to a road or storm sewer;
 - 1.2.2 The discharge of potable water from a water storage facility or pumping station:
 - 1.2.2.1 To a road or storm sewer; or

- 1.2.2.2 To a watercourse where the discharge has been dechlorinated and if necessary, sediment and erosion control measures have been implemented.
- 1.2.3 The discharge of dechlorinated non-potable water from a watermain, water storage facility or pumping station to a road or storm sewer;
- 1.2.4 The discharge of potable water or non-potable water from a treatment subsystem to the environment where if necessary, the discharge has been dechlorinated and sediment and erosion control measures have been implemented.
- 1.2.5 The discharge of any excess water to a road, storm sewer or the environment, associated with the management of materials excavated as part of watermain construction or repair, where necessary sediment, erosion and environmental control measures have been implemented.

2.0 Studies Required

- 2.1 Not applicable

3.0 Source Protection

- 3.1 The owner of the drinking water system shall implement risk management measures, as appropriate, to manage any potential threat to drinking water that results from the operation of the drinking water system.
- 3.2 The owner of the system shall notify the Director in writing within thirty (30) days of any approved changes to an applicable source protection plan that impact the assessed threat level of a fuel oil system identified in Schedule A of drinking water works permit.
- 3.3 The notification required in condition 3.2 shall include:
 - 3.3.1 A description of the changes and their impact on the assessed threat level of the fuel oil system(s); and,
 - 3.3.2 A timeline for re-assessing the threat level and providing the results of the assessment to the Director.

Schedule D: Conditions for Relief from Regulatory Requirements

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Licence Number	190-101
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Licence Effective Date	September 30, 2021

Effective the date of issue of this licence, no relief from regulatory requirements is authorized by the Director under section 46 of the SDWA in respect of the drinking water system.



DRINKING WATER WORKS PERMIT

Permit Number: 190-201

Issue Number: 3

Pursuant to the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, I hereby issue this drinking water works permit under Part V of the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32 to:

**The Joint Board of Management of the
St. Thomas Area Secondary Water Supply System**
545 Talbot St
St. Thomas, ON N5P 3V7

For the following municipal residential drinking water system:

St. Thomas Area Secondary Water Supply System

This drinking water works permit includes the following:

Schedule	Description
Schedule A	Drinking Water System Description
Schedule B	General
Schedule C	All documents issued as Schedule C to this drinking water works permit which authorize alterations to the drinking water system
Schedule D	Process Flow Diagrams

Upon the effective date of this drinking water works permit #190-201, all previously issued versions of permit #190-201 are revoked and replaced by this permit.

DATED at TORONTO this 30th day of September, 2021

Signature

Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act, 2002*

Schedule A: Drinking Water System Description

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Permit Number	190-201
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Permit Effective Date	September 30, 2021

1.0 System Description

- 1.1 The following is a summary description of the works comprising the above drinking water system:

Overview

The **St. Thomas Area Secondary Water Supply System** receives treated water from the Elgin Area Primary Water Supply System. The treated water is supplied from the Elgin Area Primary Water Supply System Water Treatment Plant near Port Stanley and is sent through Pipeline A – 750 mm and Pipeline B - 900 mm to the Elgin-Middlesex Pumping Station. The water is then delivered into the St. Thomas Area Secondary Water Supply System transmission main.

There are three connections from the St. Thomas Area Secondary Water Supply to the City of St. Thomas Distribution System through the East Chamber, the West Chamber and the St. George Chamber. The St. George Chamber is operational only when the pressure in the immediate vicinity falls below 380 kPa.

The Secondary Line also supplies water to the Municipality of Central Elgin, the Township of Southwold and the Municipality of Dutton-Dunwich.

The **St. Thomas Area Secondary Water Supply System** consists of:

- St. Thomas Booster Station located in Elgin-Middlesex Pumping Station Building
- Ford Tower
- East Chamber, West Chamber and St. George Chamber
- Approximately 11.2 km of water transmission main
- Ford Meter Chamber

Pumping Stations

St. Thomas Booster Station in the Elgin-Middlesex Pumping Station (EMPS) Building

Location	490 South Edgeware Road, Municipality of Central Elgin, ON
UTM Coordinates	NAD 83: UTM Zone 17: 488296 m E 4737955 m N
Pumping Equipment	Pump Nos. 1, 2 and 3 - rated at 263 L/s at 42 m TDH. Equipped with variable frequency drives.
Rechlorination Equipment	A gas chlorination disinfection system with facilities shared between the Aylmer Secondary Water Supply System (ASWSS) and St. Thomas Area Secondary Water Supply System (STASWSS). The system includes:
	One (1) dual weigh scale with space for two (2) 68 kg cylinders (duty/standby) with automatic switchover (shared between ASWSS and STASWSS)
	One (1) 22.75 kg/d chlorinator and associated equipment (dedicated to ASWSS)
	One (1) 22.75 kg/d chlorinator and associated equipment (dedicated to STASWSS)
	One (1) 22.75 kg/d chlorinator and associated equipment (shared standby between ASWSS and STASWSS)
Instrumentation and controls	Chlorine residual analyzer located in the East Chamber
Standby Power	600 kW Diesel Engine Generator, shared by the Aylmer Secondary and the St. Thomas Secondary
Notes	A dual celled reservoir shared amongst the City of St. Thomas, Aylmer Secondary, the Town of Aylmer and the City of London/County of Middlesex, each cell 27,300 m ³ capacity. Owned by the Elgin Area Primary Water Supply System (EAPWSS)

Elevated Storage Tanks

Ford Tower

Location	43897 Water Tower Line, St. Thomas, ON
UTM Coordinates	NAD 83: UTM Zone 17: 484884 m E 4738549 m N
Total Volume	763 m ³
Notes	Water level is monitored at the EMPS, which is regulated and controlled through operation of the St. Thomas pumps in the EMPS. SCADA is currently monitored 24/7 by operators at the EAPWSS (Elgin Treatment Plant)

Other Subsystem, Components

East Chamber

Location	490 South Edgeware Road, Municipality of Central Elgin, ON
UTM Coordinates	NAD 83: UTM Zone 17: 487948 m E 4737786 m N
Notes	Water supply to the City of St. Thomas Distribution System and is regulated through valves and monitored through SCADA system. Free Chlorine Analyzer

West Chamber

Location	2 South Edgeware Road, Waterworks Park, St. Thomas, ON
UTM Coordinates	NAD 83: UTM Zone 17: 484731 m E 4737807 m N
Notes	Water supply to the City of St. Thomas Distribution System and is regulated through valves and monitored through SCADA system. Free Chlorine Analyzer

St. George Chamber

Location	Intersection of Wellington Road and Ford Line, Township of Southwold, ON
UTM Coordinates	NAD 83: UTM Zone 17: 482804 m E 4737991 m N
Equipment	

Fuel Oil Systems

Fuel Storage Locations

Location	UTM NAD83 Zone17 488075.88 mE 4737853.81 mN
Description	Diesel Fuel – 10,000L
Fuel Type	Diesel
Source Protection Area	Not Applicable
Notes	

Location	UTM NAD83 Zone17 488075.88 mE 4737853.81 mN
Description	Diesel Fuel – 455L
Fuel Type	Diesel
Source Protection Area	Not Applicable
Notes	

Watermains

1.2 Watermains within the distribution system comprise:

1.2.1 Watermains that have been set out in each document or file identified in column 1 of Table 1.

Table 1: Watermains	
Column 1 Document or File Name	Column 2 Date
STASWSS Mapping_November 2020.pdf	November 2020

1.2.2 Watermains that have been added, modified, replaced or extended further to the provisions of Schedule C of this drinking water works permit on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.

1.2.3 Watermains that have been added, modified, replaced or extended further to an authorization by the Director on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.

Schedule B: General

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Permit Number	190-201
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Permit Effective Date	September 30, 2021

1.0 Applicability

- 1.1 In addition to any other applicable legal requirements, the drinking water system identified above shall be altered and operated in accordance with the conditions of this drinking water works permit and the licence #190-101.
- 1.2 The definitions and conditions of licence #190-101 are incorporated into this permit and also apply to this drinking water system.

2.0 Alterations to the Drinking Water System

- 2.1 Any document issued by the Director to be incorporated into Schedule C to this drinking water works permit shall provide authority to alter the drinking water system in accordance with the applicable conditions of this drinking water works permit and licence #190-101.
- 2.2 All documents issued by the Director as described in condition 2.1 shall form part of this drinking water works permit.
- 2.3 All parts of the drinking water system in contact with drinking water that are added, modified, replaced, extended shall be disinfected in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:
- a) Until October 31, 2021 the ministry's Watermain Disinfection Procedure, dated November 2015. As of November 1, 2021 the ministry's Watermain Disinfection Procedure, dated August 1, 2020;
 - b) Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure;
 - c) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
 - d) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
 - e) AWWA C654 – Standard for Disinfection of Wells.
- 2.3.1 For greater clarity, where an activity has occurred that could introduce contamination, including but not limited to repair, maintenance, or physical / video inspection, all equipment that may come in contact with the drinking water system shall be disinfected in accordance with the requirements of condition 2.3. above.
- 2.3.2 Updated requirements described in condition 2.3 b) are effective six months from the date of publication of the updated Watermain Disinfection Procedure.

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- 2.4 The owner shall notify the Director in writing within thirty (30) days of the placing into service or the completion of any addition, modification, replacement, removal or extension of the drinking water system which had been authorized through:
- 2.4.1 Schedule B to this drinking water works permit which would require an alteration of the description of a drinking water system component described in Schedule A of this drinking water works permit;
 - 2.4.2 Any document to be incorporated in Schedule C to this drinking water works permit respecting works other than watermains; or
 - 2.4.3 Any approval issued prior to the issue date of the first drinking water works permit respecting works other than watermains which were not in service at the time of the issuance of the first drinking water works permit.
- 2.5 The notification required in condition 2.4 shall be submitted using the "Director Notification Form" published by the Ministry.
- 2.6 For greater certainty, the notification requirements set out in condition 2.4 do not apply to any addition, modification, replacement, removal or extension in respect of the drinking water system which:
- 2.6.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03;
 - 2.6.2 Constitutes maintenance or repair of the drinking water system; or
 - 2.6.3 Is a watermain authorized by condition 3.1 of Schedule B of this drinking water works permit.
- 2.7 The owner shall notify the legal owner of any part of the drinking water system that is prescribed as a municipal drinking water system by section 2 of O. Reg. 172/03 of the requirements of the licence and this drinking water works permit as applicable to the prescribed system.
- 2.8 For greater certainty, the owner may only carry out alterations to the drinking water system in accordance with this drinking water works permit after having satisfied other applicable legal obligations, including those arising from the *Environmental Assessment Act*, *Niagara Escarpment Planning and Development Act*, *Oak Ridges Moraine Conservation Act, 2001* and *Greenbelt Act, 2005*.

3.0 Watermain Additions, Modifications, Replacements and Extensions

- 3.1 The owner may alter the drinking water system, or permit it to be altered by a person acting on the owner's behalf, by adding, modifying, replacing or extending a watermain within the distribution system subject to the following conditions:
- 3.1.1 The design of the watermain addition, modification, replacement or extension:
 - a) Has been prepared by a licensed engineering practitioner;
 - b) Has been designed only to transmit water and has not been designed to treat water;

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- c) Satisfies the design criteria set out in the Ministry publication “Watermain Design Criteria for Future Alterations Authorized under a Drinking Water Works Permit – June 2012”, as amended from time to time; and
 - d) Is consistent with or otherwise addresses the design objectives contained within the Ministry publication “Design Guidelines for Drinking Water Systems, 2008”, as amended from time to time.
- 3.1.2 The maximum demand for water exerted by consumers who are serviced by the addition, modification, replacement or extension of the watermain will not result in an exceedance of the rated capacity of a treatment subsystem or the maximum flow rate for a treatment subsystem component as specified in the licence, or the creation of adverse conditions within the drinking water system.
 - 3.1.3 The watermain addition, modification, replacement or extension will not adversely affect the distribution system’s ability to maintain a minimum pressure of 140 kPa at ground level at all points in the distribution system under maximum day demand plus fire flow conditions.
 - 3.1.4 Secondary disinfection will be provided to water within the added, modified, replaced or extended watermain to meet the requirements of O. Reg. 170/03.
 - 3.1.5 The watermain addition, modification, replacement or extension is wholly located within the municipal boundary over which the owner has jurisdiction.
 - 3.1.6 The owner of the drinking water system consents in writing to the watermain addition, modification, replacement or extension.
 - 3.1.7 A licensed engineering practitioner has verified in writing that the watermain addition, modification, replacement or extension meets the requirements of condition 3.1.1.
 - 3.1.8 The owner of the drinking water system has verified in writing that the watermain addition, modification, replacement or extension meets the requirements of conditions 3.1.2 to 3.1.6.
- 3.2 The authorization for the addition, modification, replacement or extension of a watermain provided for in condition 3.1 does not include the addition, modification, replacement or extension of a watermain that:
 - 3.2.1 Passes under or through a body of surface water, unless trenchless construction methods are used;
 - 3.2.2 Has a nominal diameter greater than 750 mm;
 - 3.2.3 Results in the fragmentation of the drinking water system; or
 - 3.2.4 Connects to another drinking water system, unless:
 - a) Prior to construction, the owner of the drinking water system seeking the connection obtains written consent from the owner or owner’s delegate of the drinking water system being connected to; and

- b) The owner of the drinking water system seeking the connection retains a copy of the written consent from the owner or owner's delegate of the drinking water system being connected to as part of the record that is recorded and retained under condition 3.3.
- 3.3 The verifications required in conditions 3.1.7 and 3.1.8 shall be:
- 3.3.1 Recorded on "Form 1 – Record of Watermains Authorized as a Future Alteration", as published by the Ministry, prior to the watermain addition, modification, replacement or extension being placed into service; and
- 3.3.2 Retained for a period of ten (10) years by the owner.
- 3.4 For greater certainty, the verification requirements set out in condition 3.3 do not apply to any addition, modification, replacement or extension in respect of the drinking water system which:
- 3.4.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
- 3.4.2 Constitutes maintenance or repair of the drinking water system.
- 3.5 The document or file referenced in Column 1 of Table 1 of Schedule A of this drinking water works permit that sets out watermains shall be retained by the owner and shall be updated to include watermain additions, modifications, replacements and extensions within 12 months of the addition, modification, replacement or extension.
- 3.6 The updates required by condition 3.5 shall include watermain location relative to named streets or easements and watermain diameter.
- 3.7 Despite clause (a) of condition 3.1.1 and condition 3.1.7, with respect to the replacement of an existing watermain or section of watermain that is 6.1 meters in length or less, if a licensed engineering practitioner has:
- 3.7.1 inspected the replacement prior to it being put into service;
- 3.7.2 prepared a report confirming that the replacement satisfies clauses (b), (c) and (d) of condition 3.1.1 (i.e. "Form 1 – Record of Watermains Authorized by a Future Alteration" (Form 1), Part 3, items No. 2, 3 and 4); and
- 3.7.3 appended the report referred to in condition 3.7.2 to the completed Form 1,
- the replacement is exempt from the requirements that the design of the replacement be prepared by a licensed engineering practitioner and that a licensed engineering practitioner verify on Form 1, Part 3, item No. 1 that a licensed engineering practitioner prepared the design of the replacement.
- 3.8 For greater certainty, the exemption in condition 3.7 does not apply to the replacement of an existing watermain or section of watermain if two or more sections of pipe, each of which is 6.1 meters in length or less, are joined together, if the total length of replacement pipes joined together is greater than 6.1 meters.

4.0 Minor Modifications to the Drinking Water System

- 4.1 The drinking water system may be altered by adding, modifying or replacing the following components in the drinking water system:
- 4.1.1 Coagulant feed systems in the treatment system, including the location and number of dosing points:
 - a) Prior to making any alteration to the drinking water system under condition 4.1.1, the owner shall undertake a review of the impacts that the alteration might have on corrosion control or other treatment processes; and
 - b) The owner shall notify the Director in writing within thirty (30) days of any alteration made under condition 4.1.1 and shall provide the Director with a copy of the review.
 - c) The notification required in condition 4.1.1 b) shall be submitted using the "Director Notification Form" published by the Ministry
 - 4.1.2 Instrumentation and controls, including new SCADA systems and upgrades to SCADA system hardware;
 - 4.1.3 SCADA system software or programming that:
 - a) Measures, monitors or reports on a regulated parameter;
 - b) Measures, monitor or reports on a parameter that is used to calculate CT; or,
 - c) Calculates CT for the system or is part of the process algorithm that calculates log removal, where the impacts of addition, modification or replacement have been reviewed by a licensed engineering practitioner;
 - 4.1.4 Filter media, backwashing equipment, filter troughs, and under-drains and associated equipment in the treatment system;
 - 4.1.5 Spill containment works; or,
 - 4.1.6 Coarse screens and fine screens
- 4.2 The drinking water system may be altered by adding, modifying, replacing or removing the following components in the drinking water system:
- 4.2.1 Treated water pumps, pressure tanks, and associated equipment;
 - 4.2.2 Raw water pumps and process pumps in the treatment system;
 - 4.2.3 Inline booster pumping stations that are not associated with distribution system storage facilities and are on a watermain with a nominal diameter not exceeding 200 mm;
 - 4.2.4 Re-circulation devices within distribution system storage facilities;
 - 4.2.5 In-line mixing equipment;

- 4.2.6 Chemical metering pumps and chemical handling pumps;
 - 4.2.7 Chemical storage tanks (excluding fuel storage tanks) and associated equipment; or,
 - 4.2.8 Measuring and monitoring devices that are not required by regulation, by a condition in the Drinking Water Works Permit, or by a condition otherwise imposed by the Ministry.
 - 4.2.9 Chemical injection points;
 - 4.2.10 Valves.
- 4.3 The drinking water system may be altered by replacing the following:
- 4.3.1 Raw water piping, treatment process piping or treated water piping within the treatment subsystem;
 - 4.3.2 Measuring and monitoring devices that are required by regulation, by a condition in the Drinking Water Works Permit or by a condition otherwise imposed by the Ministry.
 - 4.3.3 Coagulants and pH adjustment chemicals, where the replacement chemicals perform the same function;
 - a) Prior to making any alteration to the drinking water system under condition 4.3.3, the owner shall undertake a review of the impacts that the alteration might have on corrosion control or other treatment processes; and
 - b) The owner shall notify the Director in writing within thirty (30) days of any alteration made under condition 4.3.3 and shall provide the Director with a copy of the review.
 - c) The notification required in condition 4.3.3 b) shall be submitted using the "Director Notification Form" published by the Ministry.
- 4.4 Any alteration of the drinking water system made under conditions 4.1, 4.2 or 4.3 shall not result in:
- 4.4.1 An exceedance of a treatment subsystem rated capacity or a treatment subsystem component maximum flow rate as specified in the licence;
 - 4.4.2 The bypassing or removal of any unit process within a treatment subsystem;
 - 4.4.3 The addition of any new unit process other than coagulation within a treatment subsystem;
 - 4.4.4 A deterioration in the quality of drinking water provided to consumers;

- 4.4.5 A reduction in the reliability or redundancy of any component of the drinking water system;
 - 4.4.6 A negative impact on the ability to undertake compliance and other monitoring necessary for the operation of the drinking water system; or
 - 4.4.7 An adverse effect on the environment.
- 4.5 The owner shall verify in writing that any addition, modification, replacement or removal of drinking water system components in accordance with conditions 4.1, 4.2 or 4.3 has met the requirements of the conditions listed in condition 4.4.
- 4.6 The verifications and documentation required in condition 4.5 shall be:
- 4.6.1 Recorded on “Form 2 – Record of Minor Modifications or Replacements to the Drinking Water System” published by the Ministry, prior to the modified or replaced components being placed into service; and
 - 4.6.2 Retained for a period of ten (10) years by the owner.
- 4.7 For greater certainty, the verification requirements set out in conditions 4.5 and 4.6 do not apply to any addition, modification, replacement or removal in respect of the drinking water system which:
- 4.7.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
 - 4.7.2 Constitutes maintenance or repair of the drinking water system, including software changes to a SCADA system that are not listed in condition 4.1.3
- 4.8 The owner shall update any drawings maintained for the drinking water system to reflect the modification or replacement of the works, where applicable.

5.0 Equipment with Emissions to the Air

- 5.1 The drinking water system may be altered by adding, modifying or replacing any of the following drinking water system components that may discharge or alter the rate or manner of a discharge of a compound of concern to the air:
- 5.1.1 Any equipment, apparatus, mechanism or thing that is used for the transfer of outdoor air into a building or structure that is not a cooling tower;
 - 5.1.2 Any equipment, apparatus, mechanism or thing that is used for the transfer of indoor air out of a space used for the production, processing, repair, maintenance or storage of goods or materials, including chemical storage;
 - 5.1.3 Laboratory fume hoods used for drinking water testing, quality control and quality assurance purposes;
 - 5.1.4 Low temperature handling of compounds with a vapor pressure of less than 1 kilopascal;

- 5.1.5 Maintenance welding stations;
 - 5.1.6 Minor painting operations used for maintenance purposes;
 - 5.1.7 Parts washers for maintenance shops;
 - 5.1.8 Emergency chlorine and ammonia gas scrubbers and absorbers;
 - 5.1.9 Venting for activated carbon units for drinking water taste and odour control;
 - 5.1.10 Venting for a stripping unit for methane removal from a groundwater supply;
 - 5.1.11 Venting for an ozone treatment unit;
 - 5.1.12 Natural gas or propane fired boilers, water heaters, space heaters and make-up air units with a total facility-wide heat input rating of less than 20 million kilojoules per hour, and with an individual fuel energy input of less than or equal to 10.5 gigajoules per hour; or
 - 5.1.13 Emergency generators that fire No. 2 fuel oil (diesel fuel) with a sulphur content of 0.5 per cent or less measured by weight, natural gas, propane, gasoline or biofuel, and that are used for emergency duty only with periodic testing.
- 5.2 The owner shall not make an addition, modification, or replacement described in condition 5.1 in relation to an activity that is not related to the treatment and/or distribution of drinking water.
- 5.3 The emergency generators identified in condition 5.1.13 shall not be used for non-emergency purposes including the generation of electricity for sale or for peak shaving purposes.
- 5.4 The owner shall prepare an emission summary table for nitrogen oxides emissions only, for each addition, modification or replacement of emergency generators identified in condition 5.1.13.

Performance Limits

- 5.5 The owner shall ensure that a drinking water system component identified in conditions 5.1.1 to 5.1.13 is operated at all times to comply with the following limits:
- 5.5.1 For equipment other than emergency generators, the maximum concentration of any compound of concern at a point of impingement shall not exceed the corresponding point of impingement limit;
 - 5.5.2 For emergency generators, the maximum concentration of nitrogen oxides at sensitive receptors shall not exceed the applicable point of impingement limit, and at non-sensitive receptors shall not exceed the Ministry half-hourly screening level of 1880 ug/m³ as amended; and
 - 5.5.3 The noise emissions comply at all times with the limits set out in publication NPC-300, as applicable.

- 5.6 The owner shall verify in writing that any addition, modification or replacement of works in accordance with condition 5.1 has met the requirements of the conditions listed in condition 5.5.
- 5.7 The owner shall document how compliance with the performance limits outlined in condition 5.5.3 is being achieved, through noise abatement equipment and/or operational procedures.
- 5.8 The verifications and documentation required in conditions 5.6 and 5.7 shall be:
- 5.8.1 Recorded on "Form 3 – Record of Addition, Modification or Replacement of Equipment Discharging a Contaminant of Concern to the Atmosphere", as published by the Ministry, prior to the additional, modified or replacement equipment being placed into service; and
- 5.8.2 Retained for a period of ten (10) years by the owner.
- 5.9 For greater certainty, the verification and documentation requirements set out in conditions 5.6 and 5.8 do not apply to any addition, modification or replacement in respect of the drinking water system which:
- 5.9.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
- 5.9.2 Constitutes maintenance or repair of the drinking water system.
- 5.10 The owner shall update any drawings maintained for the works to reflect the addition, modification or replacement of the works, where applicable.

6.0 Previously Approved Works

- 6.1 The owner may add, modify, replace or extend, and operate part of a municipal drinking water system if:
- 6.1.1 An approval was issued after January 1, 2004 under section 36 of the SDWA in respect of the addition, modification, replacement or extension and operation of that part of the municipal drinking water system;
- 6.1.2 The approval expired by virtue of subsection 36(4) of the SDWA; and
- 6.1.3 The addition, modification, replacement or extension commenced within five years of the date that activity was approved by the expired approval.

7.0 System-Specific Conditions

- 7.1 Not Applicable

8.0 Source Protection

- 8.1 Not Applicable

Schedule C: Authorization to Alter the Drinking Water System

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Permit Number	190-201
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Permit Effective Date	September 30, 2021

1.0 General

1.1 Table 2 provides a reference list of all documents to be incorporated into Schedule C that have been issued as of the date that this permit was issued.

1.1.1 Table 2 is not intended to be a comprehensive list of all documents that are part of Schedule C. For clarity, any document issued by the Director to be incorporated into Schedule C after this permit has been issued is considered part of this drinking water works permit.

Table 2: Schedule C Documents				
Column 1 Issue #	Column 2 Issued Date	Column 3 Description	Column 4 Status	Column 5 DN#
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

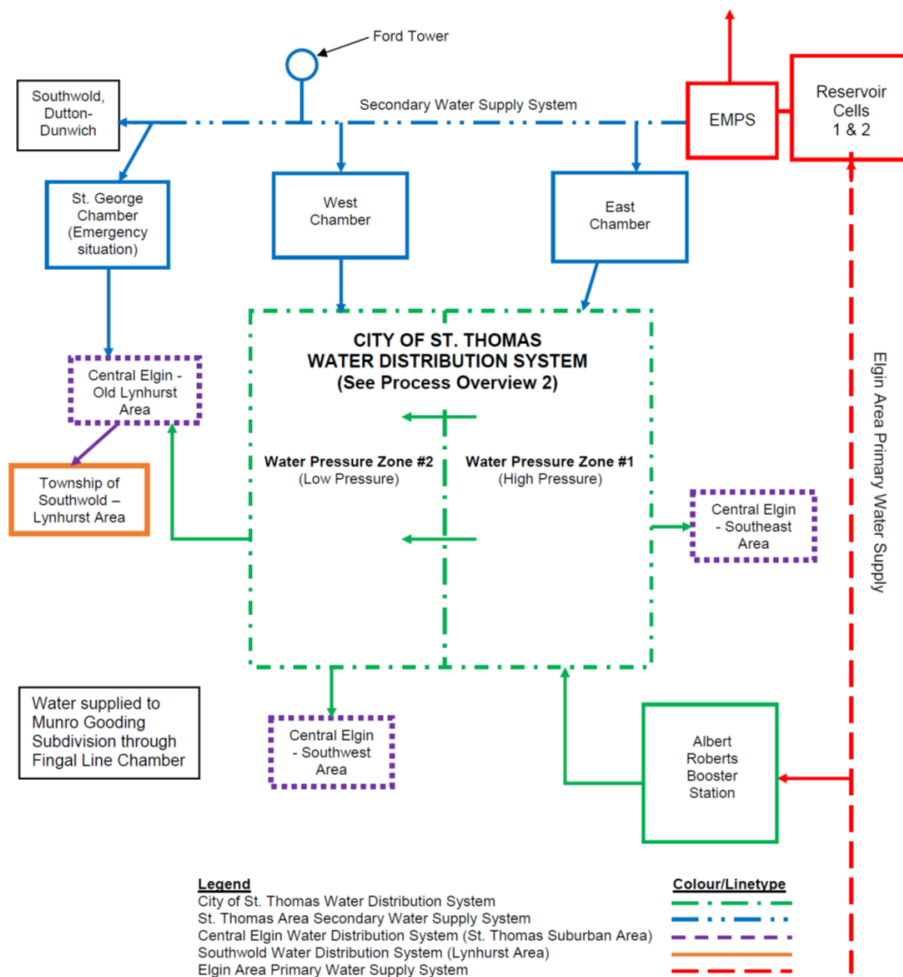
1.2 For each document described in columns 1, 2 and 3 of Table 2, the status of the document is indicated in column 4. Where this status is listed as 'Archived', the approved alterations have been completed and relevant portions of this permit have been updated to reflect the altered works. These 'Archived' Schedule C documents remain as a record of the alterations.

Schedule D: Process Flow Diagrams

System Owner	The Joint Board of Management of the St. Thomas Area Secondary Water Supply System
Permit Number	190-201
Drinking Water System Name	St. Thomas Area Secondary Water Supply System
Permit Effective Date	September 30, 2021

1.0 Process Flow Diagrams

St. Thomas Water Supply System



Note: this process flow diagram is for reference only and represents a high level overview of the system as of November 10, 2020.

BACK TO AGENDA



APPENDIX D

Report No.

SWB 06-21

File No.

Date Authored:

October 5, 2021

Meeting Date:

October 14, 2021

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

Department: Environmental Services

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

Attachment
2021 EMPS St. Thomas
Management Review Minutes
(Sept-8-2021) Rev 1

Subject: OCWA Management Review Meeting Minutes

Recommendation:

THAT: Report SWB 06-21, OCWA Management Review Meeting Minutes, be received for information.

Origin:

Element 20 of the Drinking Water Quality Management Standard (DWQMS) requires that a management review be conducted at least once per calendar year and that the results of that meeting, any identified deficiencies, decisions and action items be reported to the owner.

Analysis and Financial Considerations:

OCWA is the contracted operating authority for the EMPS portion of the STASWSS. They undertook their annual Management Review Meeting on September 8, 2021. The minutes of the meeting are attached.

Respectfully,

Karel Kamerman, B.Sc. C.Tech.
Compliance Coordinator

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

Reviewed By:

ES

Treasury

HR

City Clerk

City Manager

Management Review Minutes
Issued: September 9, 2021

Drinking Water System Name: Elgin Middlesex Pumping Station (EMPS) – St. Thomas Portion	Address: 490 South Edgeware Rd. St Thomas, ON
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Meeting Information

Subject/Title:	DWQMS Management Review Minutes		
Date/Time:	September 8, 2021 08:30 am	Location:	WebEx

Meeting Participants

Attendees:	Simon Flanagan, Glenn McEown and Denny Rodrigues
Regrets:	Vas Nanu
Distribution:	All participants, Blair Tully – OCWA, General Manager, Owner Representatives from the City of St. Thomas, Chris Andrews –Water Wastewater Supervisor, Nathan Bokma, Development and Compliance Manager and Karel Kamerman, Compliance Coordinator.
Notes Taken By:	Denny Rodrigues

Meeting Minutes

Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
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1. Introductions

The following staff were in attendance at the EAPWSS-Boardroom, and represented OCWA the Operating Authority for the Elgin Middlesex Pumping Station (EMPS) St. Thomas Portion during the DWQMS Management Review:

- Simon Flanagan, Sr. Operations Manager, Facility Level Top Management
- Denny Rodrigues, Compliance Manager, Facility Level Top Management, QMS Rep.
- Glenn McEown, Operations and Compliance Team Lead,

The purpose and objectives of the Management Review meeting were reviewed as follows: To evaluate the continuing suitability, adequacy, and effectiveness of OCWA's QMS. The Management Review will include a review of the DWQMS operational plan, SAI audit report(s), OCWA internal audit report, EMPS St. Thomas Portion OP-20, Management Review Procedure and the standing agenda items and other related operational documents/records as required. Corrective action items were assigned if applicable and detailed in the following minutes.

Meeting Minutes

Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
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2. Review of minutes from most recent Management Review.

The minutes from the most recent Management Review were reviewed by all and all standing items were reviewed. Corrective action items were assigned and closed out.

[a]	<p>Incidents of regulatory non-compliance:</p> <p>2020/21 MECP Inspections EMPS Aylmer = 100% EMPS St. Thomas = 100% EMPS London = 100% Elgin APWSS = 100%</p> <p>Annual and Compliance Reports submitted to the owner 2 weeks before deadlines.</p> <p>Zero non-compliances in 2021 to date</p>	None	NA	NA
[b]	<p>Incidents of adverse drinking water tests:</p> <p>No AWQI at the EMPS No AWQI at the EAPWSS</p>	None	NA	NA

Meeting Minutes				
Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
[c]	<p>Deviations from critical control limits and response actions: Secondary Chlorination (Rechlorination) Free Cl Residual</p> <ul style="list-style-type: none"> • Minimum 0.50 mg/L • Maximum 2.5 mg/L <p>Set points are requested within these defined limits at the owner's request.</p> <p>Reviewed monthly water quality reports (Chlorine residuals) Explanation for any low or high chlorine residual readings</p> <p>Increase the chlorine leaving the plant this summer due to the increase water temperature.</p>	There were no deviations from the critical control limits	NA	NA
[d]	<p>Effectiveness of the risk assessment process: Review and updated the Summary of Risk Assessment Outcomes</p>	Completed 36-month risk assessment on August 13 & 31, 2021	NA	NA

<p>[e]</p>	<p>Internal and third-party audit results: Reviewed the 2021 OCWA-Internal Audit report.</p> <p>2021 OCWA-Internal audit findings:</p> <p>Document & Record Control OFI - SharePoint Documents not included on Designated Document Control Location 1. Visitor Log - EA-ADMIN-1800 2. Sampling schedule/Plan/Calendar - EA-ADMIN-2050 3. Weekly Distribution Sample Sheet - EF-ADMIN-2054</p> <p>OFI - Hardcopy out of date version for multiple components.</p> <p>Drinking Water Description OFI: Consider updating description of source water is detailed in section 3.2. Raw water characteristic at intake based on 2017 data</p> <p>Risk Assessment OFI: Reviewed EMPS SOP-04 SCADA Communication Failure, update to reflect new telecommunication company as listed in ECP-2 Bearcom and remove Execulink.</p> <p>OFI: Name change – MECAP & MOECC to MECP throughout Operational plan</p>	<p>Update Designated Document Control procedure. Add the 3 forms listed</p> <p>Update binders</p> <p>Updated the raw water data with 2020 data</p> <p>Reviewed, update as follows: Communication between the EMPS and plant, are Bearcom. St. Thomas is all Execulink (Ford Tower, Ease Chamber, West Chamber, Albert Roberts). Malahide (Aylmer Tower) is Execulink. Central Elgin (Port Stanley Tower) is Execulink</p> <p>Review and updated procedure with MECP not MECAP</p>	<p>Denny</p> <p>Denny</p> <p>Denny</p> <p>Denny</p> <p>Denny</p>	<p>Dec 31, 2021</p> <p>Completed</p> <p>Dec 31, 2021</p> <p>Dec 31, 2021</p> <p>Dec 31, 2021</p>
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<p>Risk Assessment Outcomes OFI - Overdue, possibly in draft, unable to locate on E local Server (EAPWSS)- Denny provided emails with draft copy 2021</p>	<p>Completed on August 31, 2021</p>	<p>Denny, Simon and Glenn</p>	<p>Completed</p>
<p>OFI: Description of Hazard – Communications failure between facility and main plant EAPWSS, include SD memory card as an existing control measure</p>	<p>Review and add as a control</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: Description of Hazard – Chemical Spill, include CP-01 EMPS Spill Response</p>	<p>Review and add CP-01 EMPS Spill Response</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: Description of Hazard – Unauthorized access, add alarms, doors and motion detector or sensor</p>	<p>Review and clarify wording</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>Org structure, roles and responsibilities OFI: Table 9-2: QEMS describes the roles, responsibilities and authorities for the Huron Elgin Hub – Add Asset Maintenance Specialist and Regional Business Hub Manager to QEMS roles and flow chart</p>	<p>Add AMS and RBHM to chart</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>Competencies OFI: Add Regional Hub Business Manager, Asset Maintenance Specialists not listed</p>	<p>Add AMS and RBHM</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: Consider including Walkerton Entry Level course as a requirement for class one water treatment license in section 3.10. Consider adding paragraph for OIT requirements to achieve OIC/Class one license.</p>	<p>Review and consider. Add entry level course Will not add paragraph re OIT/Class one licence.</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: Blank tab in training matrix - Consider removing or updating training matrix tab License & Certificates – OCWA corporate sends out monthly emails with license status/renewal</p>	<p>Delete tab</p>	<p>Glenn</p>	<p>Dec 31, 2021</p>

<p>OFI: Jason Hulst – is required to complete EC 101 training (within first year of joining OCWA) - Noted in 2019 internal audit Jason Hulst was signed up for EC 101 in October of 2019 – training matrix indicates training has been scheduled but not completed. - Denny provided OCWA training summary - Update training matrix to included Jason EC 101 course completed in July 22-24 2021</p>	<p>Update Training matrix</p>	<p>Glenn</p>	<p>Dec 31, 2021</p>
<p>Personal Coverage OFI: Maintenance shift hours change to 07:00-17:30, on call shift change would also change from 07:30-07:00 Operations Management assigns on call staff member for the time of the facility is unstaffed (i.e. evenings, weekends, and Statutory holidays). The on call shift change is 07:00 Tuesday. Consider changing to at the start of the shift to eliminate time confusion.</p>	<p>Update procedure</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: To standardize between both plants (Huron/Elgin), consider creating OSOP-Operator Coverage.</p>	<p>GM to create and implement</p>	<p>Glenn & Simon</p>	<p>Dec 31, 2021</p>
<p>Communications OFI: Consider including communication with OCWA staff 1. OCWA weekly flows weekly emails 2. OPS news – Ontario Public Service weekly emails 3. Quarterly compliance meetings with SPC manager</p>	<p>Reviewed. Will add #1 and #3 to procedure.</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>Essential Supplies & Services OFI: Include all telecommunication companies, currently only Bearcom listed – add Spectrum communications as there St. Thomas provider.</p>	<p>Spectrum is now Bearcom. Add executlink to list and who they provide service to in brackets</p>	<p>Denny</p>	<p>Dec 31, 2021</p>

<p>Sampling, Testing and Monitoring OFI: Reviewed EF-ADMIN-2054 Weekly distribution for November 2020 to August 2021 found multiple incomplete forms – see attached document of screen shots.</p>	<p>DR to review at Q3 Compliance meeting All forms must be completed with no blank spaces/boxes – NA or a line through the area or a reason it was not done</p>	<p>Denny</p>	<p>Dec 31, 2021</p>
<p>OFI: Reviewed EF-ADMIN-2050 for upstream sampling. Reviewed lab reports CA20465-FEB21 Relinquished by on Chain of Custodies – pre populated with Simon Flanagan dated August 4, 2016 Operator who collects samples and drives to lab should be signing relinquished by as per Practices for the Collection and Handling of Drinking Water Samples Version 2 – this document is reference in Sampling schedule/Plan/Calendar - EA-ADMIN-2050</p>	<p>Update CofCs</p>	<p>Glenn</p>	<p>Dec 31, 2021</p>

Meeting Minutes				
Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
	Third-party audit results: External DWQMS S2 Audit - November 8-10, 2021			
[f]	Results of emergency response testing: CP 01 – EMPS Spill Response	Contingency Plan Review/Test Summary Form completed.	NA	NA
[g]	Operational performance: The operation of the facility meets all regulatory and contractual requirements. Water quality review completed every 24 hours by duty operator. Monthly O&M Reports send to client. -chlorine residuals (daily) - flows (daily) -microbiological tests (weekly) - THM's and HAA's (quarterly) -work orders	No issues.	NA	NA

Meeting Minutes				
Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
[h]	<p>Raw water supply and drinking water quality trends</p> <ol style="list-style-type: none"> 1. Annual Harmful Algal Bloom (HAB) sampling for Microcystin (ELISA) at the Elgin WTP from June - October. 2. Monitor the Lake Erie Harmful Algal Bloom Bulletin – NOAA 3. Sharing info with neighboring systems – Chatham-Kent, West Elgin 4. Storm sampling at the EAPWSS 5. 1 Geosmin hit this summer. Increased PAC. Next 2 sample results = ND 6. Iron & Manganese event in Sep 	No issues.	NA	NA
[i]	<p>Follow-up on action items from previous Management Reviews:</p> <p>All action items have been completed = 100% completion. See CAF tracking spreadsheet.</p>	None	NA	NA
[j]	<p>Status of management action items identified between reviews:</p> <p>None</p>	None	NA	NA
[k]	<p>Changes that could affect the QEMS:</p> <p>Jim Laur retired in September Vas Nanu – new Maintenance & Distribution Team Lead New Staff: Austin Unachukwu – Instrumentation Tech (UPIT) Kevin Todd – Mechanic/operator</p>	None	NA	NA

Meeting Minutes				
Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
[l]	<p>Consumer feedback:</p> <p>We had 4 concerns noted in 2021 Please see summary below after COVID notes</p>	None	NA	NA
[m]	<p>Resources needed to maintain the QEMS:</p> <p>The resources needed to maintain the QMS are adequate with management and staff supporting the program.</p>	None	NA	NA
[n]	<p>Results of the infrastructure review:</p> <p>1. Monthly O&M reports – maintenance summary 2. Meeting schedule in Q4 2021 to discuss recommendation to Board. 3. Quarterly Meetings – Capital update status</p>	None	NA	NA
[o]	<p>Operational Plan currency, content and updates:</p> <p>The Operational Plan will be updated based on the external and internal audits findings for its currency and content and from action items from the Management Review.</p>	None	NA	NA
[p]	<p>Staff suggestions:</p> <p>None this past year</p>	None	NA	NA

Meeting Minutes				
Item No.	Discussion Points/ Issues Raised/ Decisions Made	Corrective Action Items	Responsible	Due Date
[q]	<p>Considerations of applicable best management practices Reviewed:</p> <ul style="list-style-type: none"> - Elgin's 2020/21 MECP Inspection report no BMP - City of London's 2020/21 MECP Inspection report 2 BMPs - City of St. Thomas's 2020/21 MECP Inspection report no BMPs - Aylmer Secondary System 2020/21 MECP Inspection report no BMPs <p>City of London BMPs</p> <ol style="list-style-type: none"> 1. Security measures – reservoirs OCWA – WOs to physically inspect, security fencing in place at EMPS 2. New watermain installation were not documented on a standard form. OCWA – DAR program. Watermain disinfection form 	None	NA	NA
[r]	<p>COVID-19 Emergency Response – 18 month Debrief See notes below</p>	None	NA	NA

COVID Notes:

Reviewed emergency response plans

- Supplies (PPE, hand sanitizer, etc.)
- Physical distancing
- Masks
- COVID-19 screening tool/checklist
- Continue to follow public health units, provincial and OCWA protocols

Reviewed personnel coverage

- No concerns to date
- New senior operator position to help with shift coverage if needed

Communications

- Regular updates

Essential supplies and services

- Performing daily monitoring of our suppliers for chemicals and ordering to ensure supplies are kept elevated
- H&S supplies – masks, gloves
- Good inventory of disinfection and cleaning products

Audits & Inspections

- Internal audits completed
- External audits being completed Nov 8-10, 2021

Operational Performance

- No issues with operations to date
- No issues with scheduled maintenance activities to date

Compliance Obligations

- All regulatory reporting required to be submitted in 2020 is completed
- Regulatory relief not needed to date
- Compliance obligations have been met to date

Staff training

- Monitoring staff hours

Concerns noted 2021 monthly OM reports under Complaints and Concerns:

On Jan. 11th a resident from the Town of Aylmer Secondary System who breeds exotic fish reported that they observed a substantial change in the water pH. They reported that the pH was previously 7.6 but recently it's been as high as 8.2. The resident also advised that other fish breeders in south London had observed similar pH readings. All internal lab testing results for distribution water reviewed from Jan. 1st to 11th, 64 testing results, maximum reading: 7.60 pH, average: 7.45 pH. SCADA trending indicates some brief pH spikes during pump changes (this is normal, no change from previous operations or observations). Samples from the Aylmer and St. Thomas systems were collected and analyzed, highest reading was 7.48 pH. On Jan. 14th a sample was collected from the residence. The result from testing performed by the resident at time of sampling was 7.70 pH. Test results from the Elgin WTP lab. were 7.48 pH. On Jan. 15th the Town of Aylmer reviewed their records and reported no elevated pH readings.

Complaint received on March 16, 2021 regarding a chlorinous odor from cold water taps by a resident in the St. Thomas Secondary System. Provided the resident with contact information for the City of St. Thomas water department. Also provided the resident with average treated water free chlorine residuals leaving the Elgin Water Treatment Plant and the EMPS St. Thomas Secondary System.

April 29th, 2021: Call received from a Port Stanley resident, concerned about what appeared to be a fuel spill in Port Stanley Harbour. Operations Manager investigated the report and observed nothing at that time, but later that afternoon received a call from the Kettle Creek Conservation Authority informing that a small fuel spill occurred earlier in the day and was reported to Spills Action Centre (SAC).

On May 31/21 the plant OIC received a call from the Kettle Creek Conservation Authority (KCCA) advising that there was a spill in Kettle Creek near the Sunset Café (just south of Elm St. in St. Thomas). They advised that the spill had been reported to SAC. OCWA staff inspected Port Stanley harbour and observed no signs of a spill. In a follow up call with the KCCA, they advised that they had observed a small amount of an oily like substance entering Kettle Creek from the west bank near where the decommissioned St. Thomas landfill is located and that they are reporting to the MECP. Operations staff monitored the raw water quality closely for any abnormalities. None were noted.

Other Business Notes

4. Roundtable/Other:

Denny – reviewed Corporate emails for any regulatory changes. No changes noted.

Denny – scheduled EMPS Management Review with owners December 15th, 2021.

Next Meeting Date:	TBD
Location:	EAPWSS Boardroom

BACK TO AGENDA