

Agenda

Elgin Area Primary Water Supply System

Joint Board of Management

The 1st Meeting of the Elgin Area Primary Water Supply System Joint Board of Management
December 2, 2021, 5:00 PM
2021 Virtual Meeting - during the COVID-19 Emergency

	Pages
1. Call to Order	
1.1. Disclosures of Pecuniary Interest	
2. Adoption of Minutes	
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5. Deferred Matters/Additional Business

6. Upcoming Meeting Dates

March 3, 2022

June 2, 2022

October 6, 2022

7. Adjournment

Elgin Area Primary Water Supply System Report

4th Meeting of the Elgin Area Primary Water Supply System Joint Board of
Management
October 7, 2021

Attendance: Meeting held remotely on Thursday, October 7, 2021,
commencing at 5:10 PM.

PRESENT: P. Barbour (Chair), S. Hillier, E. Peloza, S. Peters
and M. van Holst and J. Bunn (Committee Clerk)

ALSO PRESENT: A. Drouillard, A. Henry and K. Scherr

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Adoption of Minutes

2.1 Minutes of the 3rd Meeting held on June 3, 2021

VAN HOLST AND PETERS

That the minutes of the 3rd meeting of the Elgin Area Primary Water
Supply System Joint Board of Management, from the meeting held on
June 3, 2021, **BE NOTED AND FILED. CARRIED**

Motion Passed

3. Consent Items

3.1 Quarterly Compliance Report (2nd Quarter 2021: April - June)

PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the
report dated October 7, 2021, with respect to the general, regulatory and
contractual obligations of the Elgin Area Primary Water Supply System, for
April to June 2021, **BE RECEIVED. CARRIED**

Motion Passed

3.2 Environmental Management System and Quality Management System

PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the report dated October 7, 2021, with respect to the Environmental Management System and Quality Management System for the Elgin Area Primary Water Supply System, **BE RECEIVED. CARRIED**

Motion Passed

3.3 Quarterly Operating Financial Status - 2nd Quarter 2021

PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the report dated October 7, 2021, with respect to the Quarterly Operating Financial Status of the Elgin Area Water Supply System, **BE RECEIVED. CARRIED**

Motion Passed

3.4 Capital Status Report

PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated October 7, 2021, related to the Elgin Area Primary Water Supply System Capital Projects:

- a) the above-noted report **BE RECEIVED**;
- b) project EA2170 Computerized Maintenance Management System and EA4169 Sluice Gate Repairs **BE CLOSED**, with surplus funding in the approximate amount of \$921 being released to the Reserve Fund;
- c) project EA4023 Residue Management Facility **BE CLOSED**, reducing the required authorized debt; and,
- d) project EA4114-20 Annual Maintenance (2020) and EA4149 Low Lift HVAC **BE CLOSED**, with additional funding in the approximate amount of \$44,279 being drawn from the Reserve Fund. **CARRIED**

Motion Passed

3.5 Climate Change Assessment

PETERS VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the report dated October 7, 2021, with respect to the Climate Change Assessment for the Elgin Area Primary Water Supply System, **BE RECEIVED. CARRIED**

Motion Passed

3.6 Electric Vehicle Charging Stations

PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the report dated October 7, 2021, with respect to Electric Vehicle Charging Stations, **BE RECEIVED. CARRIED**

Motion Passed

3.7 50th Anniversary of the Elgin Area Water Supply System Water Treatment Plant

PETERS AND VAN HOLST

That the communication, dated September 9, 2021, from K. Scherr, Chief Administrative Officer, with respect to the 50th Anniversary of the Elgin Area Water Supply System Water Treatment Plant, **BE RECEIVED. CARRIED**

Motion Passed

4. Items for Discussion

4.1 2022 Operating and Capital Budgets

HILLIER AND VAN HOLST

That the following actions be taken by the Board of Management for the Elgin Area Water Supply System with respect to the report dated October 7, 2021, related to the 2022 Operating and Capital Budgets:

- a) the 2022 Operating Budget, in the total amount of \$14,765,000, **BE APPROVED** as appended to the above-noted report;
- b) the 2022 Capital Budget, in the total amount of \$4,524,000, **BE APPROVED** as appended to the above-noted report;
- c) the 2023 to 2031 Capital Forecast, as appended to the above-noted report, **BE RECEIVED**;
- d) the 2022 rate for water of \$0.9414 per cubic meter **BE APPROVED**; and,
- e) the 2020 to 2026 Flow and Financial Analysis, as appended to the above-noted report, **BE RECEIVED. CARRIED**

Motion Passed

4.2 Operations and Maintenance Services Agreement - Negotiation of Term Extension

HILLIER AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated October 7, 2021, related to the Negotiation of Term Extension for the Operations and Maintenance Services Agreement:

- a) the Amended and Restated Operations and Maintenance Services Agreement, as appended to the above-noted report, **BE APPROVED**; and,
- b) the Board Chair and the Chief Administrative Officer **BE AUTHORIZED** to execute the above-noted Agreement with the Ontario Clean Water Agency. **CARRIED**

Motion Passed

4.3 Asset Management Policy and Asset Management Plan Update

PELOZA AND PETERS

That the following actions be taken with respect to the report dated October 7, 2021, related to the Asset Management Policy and Asset Management Plan Update for the Elgin Area Primary Water Supply System:

- a) the Asset Management Policy, as appended to the above-noted report, **BE APPROVED**; and,

- b) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

5. Deferred Matters/Additional Business

None.

6. Next Meeting Date

December 2, 2021

7. Adjournment

The meeting adjourned at 5:45 PM.

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Quarterly Compliance Report (3rd Quarter 2021: July - September)

RECOMMENDATION

That the Quarterly Compliance report with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System **BE RECEIVED** for the information of the Board of Management; it being noted that there were no Adverse Water Quality Incidents reported in the 3rd quarter of 2021.

BACKGROUND

Pursuant to Board of Management resolution, this Compliance Report is prepared on a quarterly basis to report on general, regulatory and contractual compliance issues relating to the regional water system. For clarity, the content of this report is presented in two basic areas, namely regulatory and contractual, and does not intend to portray an order of importance or sensitivity nor a complete list of all applicable regulatory and contractual obligations.

DISCUSSION

Regulatory Issues

Recent Regulatory Changes: At the time of drafting this report, there are no new regulatory changes for this reporting period which may significantly impact the EAPWSS.

New Environmental Registry of Ontario (ERO) Postings: At the time of drafting this report, there were no postings on the ERO that may have a significant impact on the EAPWSS.

Quarterly Water Quality Reports: The [Water Quality Quarterly Report](#) for the period of July 1 – September 30, 2021 was completed by the operating authority, and is posted on the Water Systems' website for public information.

Note: In order to better comply with the *Accessibility for Ontarians with Disabilities Act, 2005*, the detailed tables of water quality test results which were previously appended to this Report have been removed. The full list and test results of drinking water quality parameters is posted on the water system's website and available in print at the Board's Administration Office in London upon request. In addition, the detailed water quality information is also published within the water system's Annual Report required by O.Reg. 170/03 under the *Safe Drinking Water Act*.

Adverse Water Quality Incidents (AWQI): There were no AWQI reported by the operating authority or adverse laboratory results reported by the third-party accredited laboratory during this quarter.

Compliance Inspections: There were no compliance inspections conducted during this quarter.

Contractual Issues

ARTICLE 3, “Operation and Maintenance of the Facilities – General”:

Board staff informally meets with OCWA on a monthly basis to discuss operations and maintenance related issues, and formally on a quarterly basis to review contractual performance. The 2021 third quarter Contract Report was received from OCWA on October 28, 2021 and was scheduled to be discussed at the quarterly administration meeting between Board staff and OCWA on November 10, 2021. Copies of the monthly Operations and Maintenance Reports, or quarterly Contract Reports are available at the Board’s Administration Office in London upon request.

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Environmental Management System and Quality Management System

RECOMMENDATION

That the following report with respect to the Environmental Management System and Quality Management System for the Elgin Area Primary Water Supply System **BE RECEIVED** for information.

BACKGROUND

Environmental Management System (EMS)

The Elgin Area Primary Water Supply System (EAPWSS) has an Environmental Management System (EMS) which has been registered to the ISO 14001 standard since 2003. The EAPWSS underwent a three-year registration audit in October 2020 and was recommended for registration to the ISO 14001:2015 standard for a three-year period (ending in 2023).

The continued utilization and registration of the EMS to the ISO 14001 standard is a requirement of the Service Agreement with Ontario Clean Water Agency (OCWA), the contracted Operating Authority for the EAPWSS.

Quality Management System (QMS)

In 2006, the Drinking Water Quality Management Standard (DWQMS) was integrated with the existing EMS and the combined EMS/QMS is maintained by the contracted Operating Authority. The *Safe Drinking Water Act* (SDWA) and the water system's Municipal Drinking Water License (MDWL) require that an accredited Operating Authority be in operational charge of the drinking water system. In order to become accredited, the Operating Authority must utilize and maintain an Operational Plan that meets the requirements of the DWQMS and must undergo an external accreditation audit.

OCWA received full scope DWQMS re-accreditation in October 2019 and is currently accredited for the three-year period ending in 2022.

DISCUSSION

Management Review

The documented EMS/QMS and its performance requires Management Review by Top Management a minimum of once every calendar year to ensure that the management team of the Board and the Operating Authority stay informed of environmental and quality related issues. Items discussed at the Management Review meetings include, but are not limited to, water quality test results, environmental and quality performance, legislative changes, identified non-conformances, corrective and preventive actions, staff suggestions, changing circumstances and business strategies, and resource requirements. Corrective and preventive actions include not only those to address non-conformance issues and opportunities for improvement identified as part of internal and external audits, but also non-compliance issues identified by the Ministry of the Environment, Conservation and Parks (MECP), suggestions from staff, and opportunities for improvement identified during the Management Review process.

In order to carry out more effective Management Review meetings, the Board's administration has opted to conduct shorter meetings at more frequent intervals. Although each required Management Review input may not be covered at every meeting, over the course of the year all required inputs are reviewed at least once. Management Review meetings are held in a combined format for both the EAPWSS and the Lake Huron Primary Water Supply System (LHPWSS).

A Management Review meeting was held on September 22, 2021. The meeting minutes are included as [Appendix A](#) for the information of the Board.

Internal Audits

Pursuant to the international ISO 14001 EMS standard and the provincial DWQMS standard, periodic "internal" audits are performed by the Board's administration to ensure continued compliance with legislated, contractual, and other requirements, as well as conformance with the ISO 14001 EMS standard and DWQMS standard. Internal audits also ensure that the ongoing operation of the EAPWSS conforms to the EMS and QMS as implemented. As required by the standards, internal audits are performed a minimum of once every calendar year.

A QMS internal audit was conducted on October 20-21, 2021. An internal audit summary report is included as [Appendix B](#) for the information of the Board.

External Audits

Annual surveillance audits (third-party external audits) are conducted for both the EMS and QMS, with a recertification audit taking place every third year. The external registrar for both the EMS and QMS is currently SAI Global. External audits review all aspects of the EMS or QMS, including the scope and results of internal audits, subsequent management reviews, and corrective action processes.

A QMS external audit was conducted on November 2, 2021. The external audit results will be included in a future report to the Board.

An EMS external audit was conducted on November 4-5, 2021. The external audit results will be included in a future report to the Board.

Corrective and Preventive Actions

For the EMS/QMS to be effective on an on-going basis, an organization must have a systematic method for identifying actual and potential non-conformities, making corrections and taking corrective and preventive actions, preferably preventing problems before they occur. The Internal Audit process and Management Review are the two main drivers for proactively identifying potential problems and opportunities for improvement for the EAPWSS and implementing corrective actions. Preventive actions may originate from identified opportunities for improvement as part of an audit, but also staff suggestions and discussions with management.

It is important to note that action items should not be construed as **compliance failures**, but rather an action to be undertaken which will improve the EAPWSS's overall performance.

Action items are the result of the "Plan-Do-Check-Act" continual improvement process. The identification of action items is a critical component of continual improvement and an essential element of management systems. The identification of action items should be seen as a positive element, as this drives continual improvement.

A key concept of Plan-Do-Check-Act is that it does not require nor expect 100% conformance but promotes an environment of continual improvement by identifying shortfalls, implementing corrective and preventive measures, and setting objectives and targets for improvement. Figure 1 outlines the general process.

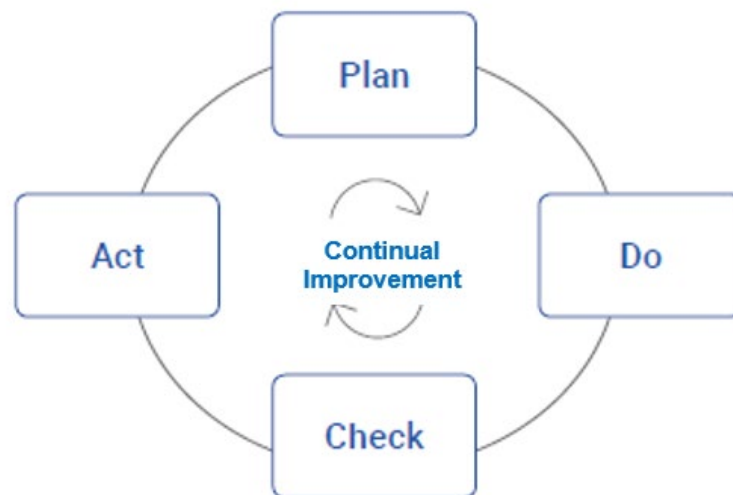


Figure 1: Plan-Do-Check-Act improvement process

Since the last report to the Board, the following summarizes new action items that have been added to the EMS/QMS action item tracking system:

- Two (2) new action items were added as a result of the corrective action process for a backwash tank overflow incident.
- One (1) new action item was added as a result of the corrective action process for a small chemical spill.

As of October 28, 2021, there are currently eleven (11) open action items in the system. Action items are prioritized and addressed using a risk-based approach, and deadlines established given reasonable timeframes and resources that are available. Board staff are pleased with the performance of the corrective and preventive action process and have no concerns with the number of open action items.

CONCLUSION

The Internal Audits and frequent Management Review meetings continue to effectively identify system deficiencies. The EMS/QMS for the EAPWSS continues to be suitable, adequate and effective. Activities by OCWA continue to address the need for change, and the management systems are being revised and refined as required.

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Attachments: [Appendix A](#) – Management Review Meeting Minutes (September 22, 2021)
[Appendix B](#) – QMS Internal Audit Report (October 20-21, 2021)

APPENDIX A: MANAGEMENT REVIEW MEETING MINUTES (SEPTEMBER 22, 2021)

Lake Huron & Elgin Area Primary Water Supply Systems EMS/QMS Management Review

Date: September 22, 2021

Time: 1:00pm

Location: Virtual – Microsoft Teams

Attendees: Andrew Henry (RWS), Erin McLeod (RWS), Blair Tully (OCWA), Denny Rodrigues (OCWA), Simon Flanagan (OCWA), Greg Henderson (OCWA), Randy Lieber (OCWA)

N.B.: Management Review meetings are held in a combined format for both the Lake Huron Primary Water Supply System (LHPWSS) and the Elgin Area Primary Water Supply System (EAPWSS).

-----Meeting Notes-----

1. Review and Approval of Previous Minutes (LHPWSS & EAPWSS)

The minutes from the previous meeting (June 23, 2021) are posted to SharePoint. The minutes were approved.

2. Changes in External and Internal Issues (LHPWSS & EAPWSS)

A revised table was circulated identifying updated information for review. Discussion ensued and Top Management approved suggested changes and additions to be incorporated.

- OCWA's 5 year term extension (2023-2027) has been added
- Updates on the 2019 and 2020 employee retention incentive payments were provided
- Updates on the 2020 year end volumes were provided, with predictions that the 2021 volumes will be within the projected range
- Upcoming Asset Management Plan customer level of service workshops were noted
- All public tours have been suspended indefinitely due to the pandemic
- EAPWSS: A Climate Change Vulnerability Assessment was completed, in partnership with the Lake Erie Source Protection Region
- LHPWSS: Project #LH1425 (Beach Chamber Erosion Control) was completed, to address changing environmental conditions, high water levels and shoreline erosion
- EAPWSS: for the water demand line item, it was noted that there is leakage through a valve at the EMPS which impacts the St. Thomas Secondary System, however year end volume targets are based on treated water leaving the WTP
- Under political issues, there was a change in U.S. government this year. From an environmental perspective there is increasing awareness and willingness to act. The recent Canadian federal election is not anticipated to have any impacts on the systems.
- EAPWSS: Under changing environmental conditions, the shoreline survey has been added

- EAPWSS: Under changing environmental conditions, thermal inversions and low dissolved oxygen events could start happening more frequently, with the events of Sept. 2021 being the most severe experienced to date. This may impact chemical consumption.
- LHPWSS: Also experiencing more storm events this year, including tornado warnings.
- LHPWSS: Under aging infrastructure the High Lift Pump Project and Coagulation Upgrade Project were noted as projects anticipated to improve the electricity and chemical consumption

3. Changes in the Needs and Expectations of Interested Parties (LHPWSS & EAPWSS)

A revised table was circulated identifying updated information for review. Discussion ensued and Top Management approved suggested changes and additions to be incorporated.

- The contract negotiations with OCWA for a 5-year term extension (2023-2027) were noted
- Reference to O.Reg. 75/20 were removed as this regulation was revoked by the Ministry
- LHPWSS: Site Security contractor (Paladin) was added as a separate interested party
- LHPWSS: there have been an increased number of requests for access across the beach property by contractors working for neighbours, related to private property erosion control projects

4. Changes in Significant Environmental Impacts (LHPWSS & EAPWSS)

- The overall 5-year trends indicate that electricity demand is continuing to decrease at both WTPs.
- Natural gas consumption has stabilized at Elgin WTP but continues to increase at the Huron WTP. Natural gas optimization may be considered in future environmental objectives and targets.
- Process water used and non-revenue water continue to be two (2) key performance indicators that are tracked.
- There are some anomalies with the non-revenue water that are currently being investigated (e.g. LHPWSS: London meters at Arva PS; EAPWSS: St. Thomas Secondary meter at EMPS).
- LHPWSS: OCWA is investigating and optimizing process water use where possible. Examples were noted where water runs continuously: filtered water sample taps; pre-chlorine line that feeds the low lift; sample taps at Exeter-Hensall and McGillivray Pumping Stations. OCWA is shutting lines off where possible to save process water used. OCWA may be able to quantify these savings through metering or other methods.
- EAPWSS: OCWA shut down the WTP during some peak electricity periods this summer, which limits energy impact.
- LHPWSS: Notification was received from South Huron that the current RMF residuals disposal location will no longer be available as of Jan. 1, 2022; this will create increased trucking mileage to a new disposal location.

5. Changes in Risks and Opportunities (LHPWSS & EAPWSS)

- EAPWSS Opportunity – Security Upgrades: Security enhancements are in progress (cameras, site security)
- LHPWSS Risk - Beach Chamber Erosion Control Project: There has been an increase in requests for access across the LHPWSS beach property by contractors (working for neighbours on various private erosion protection projects), and municipalities. This needs to be coordinated with any planned maintenance work related to the intake, beach chamber or erosion control structure, which would be impeded by the contractors/municipalities use of the access. RWS should develop a formal process for permitting these crossings.
- LHPWSS Opportunity – Bluewater Highway Property Demolition: Now that the building is gone, there is an opportunity to relocate the access to the park area from the shared location near the WTP to the existing driveway entrance off the provincial highway at 71111 Bluewater Highway (former building location). This will provide better separation between park and WTP activities, improves security, and accommodates space needs for future capital upgrades.
- LHPWSS Opportunity – Security Camera Upgrade Project: Previously there were 6 cameras on site and now there will be 20+ cameras. The coverage over more locations increases security, also provides operational and emergency response benefits such as better detection of equipment failure (e.g. smoke), fire, etc.
- EAPWSS & LHPWSS Opportunity – OCWA is investigating the implementation and use of electric vehicle charging stations. RWS has prepared two Oct. 7, 2021 Board Reports on this subject.
- LHPWSS Risk/Opportunity – A liquid polymer is currently used in the RMF. There is a supply chain risk with this chemical, but also an opportunity to investigate the use of different polymers once the residuals disposal site changes.
- LHPWSS Opportunity – The Class EA for the disinfection and storage upgrades is currently in progress. The process includes a review of environmental impacts.
- EAPWSS & LHPWSS Risk – Changing environmental conditions. Recent shoreline erosion events are impacting infrastructure. At the EAPWSS lake turnover events and low dissolved oxygen events are impacting source water quality and the ability to treat the water. Chemical consumption dramatically increases during these events.
- EAPWSS & LHPWSS Opportunity – OCWA and RWS are moving forward with a research study on per- and polyfluoroalkyl substances (PFAS) trends in drinking water.
- EAPWSS & LHPWSS Opportunity – At both the Huron and Elgin plants, OCWA is developing an internal energy and optimization working group supported by OCWA corporate services.
- EAPWSS & LHPWSS Opportunity – OCWA corporate is developing a rigorous review and debriefing program for any sites receiving MECP non-compliances, orders, or annual inspection ratings below 93%.
- EAPWSS & LHPWSS Opportunity – OCWA is transitioning to electronic logbooks in 2021.
- EAPWSS & LHPWSS Opportunity – OCWA is looking at potential high school co-op placements. This raises awareness of environmental career choices.

6. Climate Change Vulnerability Assessment Tool (EAPWSS)

The Climate Change Vulnerability Assessment Tool was developed by Conservation Ontario in 2018 to assess well and surface water intake sensitivities and vulnerabilities due to climate change. The EAPWSS was approached by the Lake Erie Source Protection Region to undertake the assessment.

The results of the Climate Change Vulnerability Assessment Tool concluded that the Elgin Area Water Supply System intake and area are susceptible to climate change impacts. The high rating suggests that water quality of the drinking water source will be impacted by climate change.

The tool also demonstrated the water system has a low vulnerability, due to the high adaptive capacity and resilience to climate change impacts. The high adaptive capacity can be attributed to the ability to rely on the LHPWSS in the event of an emergency, as well as existing policies and management procedures, such as the EMS/QMS.

Staff recommendations are identified as result of the tool and include actions by EAPWSS, actions by the municipality, actions by the Source Protection Region.

A full report on this topic will be presented at the upcoming October 7, 2021 EAPWSS Board Meeting.

Regional Water intends to use the tool to also evaluate the LHPWSS. The QMS Risk Assessment will be reviewed to see if there are linkages to the assessment tool.

7. Corrective Action Forms (LHPWSS & EAPWSS)

The following incidents have been documented and reviewed using Corrective Action Forms (CAFs):

- LHPWSS – Incident of Adverse Drinking Water Test; Filter #6 Turbidity Event (July 13, 2021)
- LHPWSS – Gore Road PRV Failure (June 23, 2021)
- EAPWSS - RMF Backwash Tank Overflow (Aug. 16, 2021))

Corrective action items associated with each of these events were approved and have been added to the tracking sheet.

The following incidents are currently under review and will be documented on CAFs. Any action items identified will be added to the tracking sheet.

- EAPWSS – Small Alum Spill (Sept. 10, 2021)
- LHPWSS – Coagulation incident (Aug. 26, 2021)

8. Communications, Complaints, Consumer Feedback (LHPWSS & EAPWSS)

April 29, 2021 - U.S. Senate Passes Water Infrastructure Package

The U.S. Senate passed a bipartisan package of wastewater, stormwater, drinking water, and water reuse infrastructure funding. The bill, known as the [Drinking Water and Wastewater Infrastructure Act of 2021, S. 914](#), seeks to reauthorize many core federal water infrastructure funding programs. The bill also includes several new programs that will help communities address pressing water infrastructure challenges. This is noted because actions on the US side of the Great Lakes can have overall impacts (positive or negative) on EAPWSS & LHPWSS source water.

March 31, 2021 - Best Management Practices Summit for Water & Wastewater Utilities; Emerging Contaminants – What municipalities need to know about PFAS

The webinar included a discussion on the different types of emerging contaminants and to be aware of them, including Per- and polyfluoroalkyl substances (PFAS) in source water. The different kinds of PFAS were discussed. The two of concern are PFOA and PFOS, which can cause health effects in very low concentrations.

The Government of Canada is considering activities that would address PFAS as a class and a [Notice of Intent to address the broad class of PFAS](#) was published in the Canada Gazette, Part I: Vol. 155 No. 17 – April 24, 2021.

Notes:

- SGS has been contacted to obtain information and pricing on PFAS sampling.
- OCWA has approached the LHPWSS & EAPWSS for participation in a research study with NSERC.

Sept. 2021 - SAI Global has been bought out by another company, Intertek. MECP provided notification earlier this year and they are anticipating a seamless transition in the DWQMS Accreditation Program.

Communications, Complaints, Consumer Feedback (EAPWSS)

January 11, 2021 (Consumer Complaint) – Resident of Aylmer complained about pH fluctuations. Operations staff reviewed internal lab results and SCADA data. Samples from the Aylmer and St. Thomas systems were collected and analyzed, as well as samples from the residence. The Town of Aylmer was also contacted, they reviewed their records and reported no elevated pH readings.

March 16, 2021 (Consumer Complaint) - Complaint received 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 29, 2021 (Spill in Source Water - Communication) – External communications received

from a Port Stanley resident as well as the Kettle Creek Conservation Authority regarding a small hydrocarbon spill in Port Stanley harbor. The spill had been reported to SAC. OCWA investigated and continued to monitor source water for potential impacts. None observed. A Complaint Form (EF-ADMIN-1000) was completed to document the communications.

May 31, 2021 (Spill in Source Water - Communication) - External communications received from the Kettle Creek Conservation Authority regarding a small spill of an oily substance in Port Stanley harbors. The spill had been reported to SAC. OCWA investigated and continued to monitor source water for potential impacts. None observed. A Complaint Form (EF-ADMIN-1000) was initiated to document the communications.

July 2021 (Spill in Source Water – Communication) – External communications received from Elgin County re: an environmental discharge to a creek which eventually discharges to Kettle Creek. KCCA was notified and requested the notification to the EAPWSS.

[It was generally noted that in 2021 there have been an increased number of reports of spills in source water. This is attributed to increased population in Port Stanley, increased public access, and increased awareness of environmental aspects and potential impacts to drinking water.]

Sep. 2021 (Customer Complaints) – Colour and/or odour complaints received from several municipalities (City of St. Thomas, City of London, and Municipality of Central Elgin) during the raw water manganese event. Complaint Forms (EF-ADMIN-1000) were initiated to document the communications. During this water quality event there were inquiries from several member municipalities re: communications messaging to the public, to ensure consistent messaging. OCWA was providing daily email status updates to customers.

Communications, Complaints, Consumer Feedback (LHPWSS)

Dec. 12, 2020 (Consumer Complaint) – Complaint from a citizen over the drainage, standing water etc. around a chamber which was a water quality concern. OCWA responded and documented the details on a Complaint Form (LF-ADMIN-1000).

March 26, 2021 (Noise complaint) – Noise complaint received from a neighbour regarding excessive loud beeping of the main security gate. Operations modified the setpoints to eliminate the noise.

September 2021: OCWA received communications from South Huron notifying them as of Jan. 1, 2022 the RMF residuals will no longer be accepted at the current disposal location. OCWA is investigating alternatives.

9. Action Items Identified between Reviews - Management of Change (LHPWSS & EAPWSS)

LHPWSS: The following changes were reviewed and documented on Management of Change checklists. All action items have been added to the tracking sheet.

- South Clearwell Repair Project – 0 action items
- Security Camera Upgrade Project – 0 action items
- Beach Chamber Erosion Control – 2 action items
- Bluewater Highway Property Demolition – 0 action items

EAPWSS: No Management of Change checklists have been completed since the last meeting.

10. Best Management Practices (LHPWSS & EAPWSS)

The continual improvement requirement of the DWQMS is that there be a review and consideration of the applicable best management practices, including any published by the MECP on www.ontario.ca/drinkingwater. There are currently no best management practices published on the MECP website. The LHPWSS & EAPWSS continue to identify best management practices through the other means documented in the Corrective & Preventive Action Procedures.

11. Compliance Obligations Update (LHPWSS & EAPWSS)

[Guideline technical document for public consultation - Dimethoate and omethoate in drinking water](#)

Source: Health Canada

Date Posted/Notice Received: June 21, 2021

Comments Due: August 18, 2021

Summary:

Dimethoate is a broad-spectrum pesticide. Canadians can be exposed through diet, occupational exposure, and to a lesser extent from drinking water. The existing guideline on dimethoate, developed in 1986, established a maximum acceptable concentration (MAC) of 0.02 mg/L (20 µg/L). The document proposes to retain a MAC of 0.02 mg/L (20 µg/L) for dimethoate in drinking water.

Omethoate can be formed during treatment of water containing dimethoate. The sum of the detected concentrations of dimethoate and omethoate must not exceed the MAC for dimethoate.

Potential Impacts: None anticipated. The current Ontario MAC is also 0.02 mg/L. All test results for dimethoate in treated water were non-detect for both the EAPWSS & LHPWSS from 2015-present.

[Director's Directions: Minimum Requirements for Operational Plans \(Decision Notice\)](#)

Source: Ministry of the Environment, Conservation and Parks (MECP)

Date Posted/Notice Received: May 11, 2021

Comments Due: N/A

Summary: MECP has updated the Director's Directions in order to reflect current practice in municipal residential drinking water systems and improvements in technology that have occurred since the directions were published in 2007.

Drinking water systems have until April 1, 2022 to make any updates (if necessary) to QMS Operational Plans.

Potential Impacts: None anticipated. Minor administrative amendments were made to the QMS Operational Plans as a result of the update. The website has been updated to reflect that copies of the QMS Operational Plan are available upon request.

[Technical Bulletin: Requirements when Making Changes to Supervisory Control and Data Acquisition Systems \(SCADA\)](#)

Source: MECP

Date Posted/Notice Received: June 1, 2021

Comments Due: N/A

Summary: MECP has release a new technical bulletin that provides high-level information about what is and is not required by MECP when making changes to a SCADA system in a municipal residential drinking water system. The examples included in the bulletin are intended to help owners and operators identify the types of changes that may be considered repair and maintenance that are not subject to approval requirements under the Act, or an alteration to the system that is pre-authorized by conditions in Schedule B of the Drinking Water Works Permit (DWWP).

Potential Impacts: None anticipated. The EAPWSS & LHPWSS will continue to follow the requirements of the DWWP and document minor modifications on Form 2 records where required.

[Decision Notice: Modifications to Environmental Activity and Sector Registry \(EASR\) requirements and exemptions for low risk short-term water taking activities](#)

Source: MECP

Date Posted/Notice Received: April 19, 2021

Comments Due: N/A

Summary: The ministry is moving forward with amending regulations made under the Environmental Protection Act and the Ontario Water Resources Act to streamline permissions for certain low risk short-term water taking activities. These amendments align approval requirements with the activity's level of risk, while maintaining environmental oversight. Effective July 1, 2021, eligibility requirements for the EASR for water takings will be expanded for construction site dewatering, road construction, and certain pumping tests. For more details see [O. Reg. 63/16](#) and [O. Reg. 387/04](#).

Potential Impacts: None anticipated.

[Measurement Canada water meter consultations](#)

Source: Gov. of Canada - Measurement Canada

Date Posted/Notice Received: September 12, 2021 (CERCN Newsletter)

Comments Due: September 30, 2021



Elgin Area

Primary Water Supply System

Report No.: EA-2021-04-02

Report Page: 13 of 17

Meeting Date: December 2, 2021

File No.:

Summary: The government is consulting with water meter manufacturers, water distribution utilities and water meter end users to obtain data on current water measurement approaches to support and promote water conservation through increased accurate measurement of water use.

Potential Impacts: None anticipated.

12. Status of Action Items (LHPWSS & EAPWSS)

A summary of all open action items as documented on the action item tracking spreadsheet was circulated for review.

- The LHPWSS currently has 21 open action items.
- The EAPWSS currently has 12 open action items.

Next Meeting: TBD (December 2021)

APPENDIX B: QMS INTERNAL AUDIT REPORT (OCTOBER 20-21, 2021)



Quality Management System (QMS) Internal Audit

Audit Dates: October 20-21, 2021

Auditor: Erin McLeod, Quality Assurance & Compliance
Manager, Regional Water

Audit Purpose:

The purpose of the audit was to verify conformance with the Ontario Drinking Water Quality Management Standard (DWQMS) Version 2.0 for the Elgin Area Primary Water Supply System (EAPWSS). Internal audits ensure the QMS is being continually improved.

Non-conformances and opportunities for improvement are listed below.

Auditor Qualifications:

Erin McLeod has completed a training course in DWQMS Internal Auditing. The training certificate is attached in Appendix B.

Methodology:

The Internal Audit was conducted as outlined in QMS Procedure EA-ADMIN-1200 (Internal Audit) and was comprised of a conformance review of the facilities and limited to the operation of the water supply system by the contracted operating authority, Ontario Clean Water Agency (OCWA), since the last Internal Audit conducted July 14-17, 2020.

Note: The audit was conducted through a review of a sampling of documents, limited interviews and observations by the auditor to demonstrate conformance with the DWQMS. The review and audit should not be construed as a complete and comprehensive review of all aspects/risks and all documents.

Findings:

The following is a summary of the audit findings, including non-conformances and opportunities for improvement. The detailed audit checklist is attached for further information.

- Appendix A: EF-ADMIN-1201 QMS Audit Checklist (Erin McLeod)

Definitions:

- A non-conformance (NC) is a non-fulfilment of a requirement.
- An opportunity for improvement (OFI) describes a requirement that can be more effectively addressed.
- An observation is a comment or remark provided to share the conditions found on the day of the audit, typically related to an “out of scope” finding.

Areas Visited:

- Elgin Water Treatment Plant, 43665 Dexter Line, Central Elgin
- EMPS Valve House and Terminal Reservoir, 490 South Edgeware Road, Central Elgin

Interviews Conducted:

- Denny Rodrigues – Safety, Process and Compliance (SPC) Manager, OCWA
- Simon Flanagan – Senior Operations Manager, OCWA
- Glenn McEown – Team Lead, Operations & Compliance, OCWA
- Blair Tully – General Manager, OCWA
- Samantha Trask – Operator, OCWA

Summary of Findings

Positive Findings

- Evidence of continual improvement throughout the facilities. Capital project upgrades, CMMS upgrade to Maximo, and planned upcoming projects both capital and business related were evident.

Non-Conformances (NCs)

None

Opportunities for Improvement (OFIs)

Element 2 (QMS Policy)

- OFI #1: Consider the access and availability of the Policy. The Policy is no longer available on the huronelginwater.ca website, only available upon request.

Element 5 (Document & Records Control)

- OFI #2: Consider identifying the location and record retention period for the Monthly Operations, Maintenance and Quality Reports, and associated meeting minutes, in

Appendix A of EA-ADMIN-200 (Document & Records Control Procedure). These reports and meeting minutes are QMS records as referenced in EA-ADMIN-2000.

Element 6 (Drinking-Water System)

- OFI #3: Consider that “operational challenges” section of the QMS Operational Plan does not mention several current challenges noted by staff. Examples: Manganese and lake turnover events; starting/stopping of chemical systems during pump changes; and ability to operate WTP in a steady state.

Element 7 (Risk Assessment)

- OFI #4: Items that are listed in the QMS Operational Plan, or otherwise noted as threats or operational challenges, have not been considered in the Risk Assessment.
 - SCADA communications failures (e.g. loss of communications between the WTP and remote sites).
 - Starting/stopping chemical systems during pump changes; and operating the WTP in a steady state.

Element 8 (Risk Assessment Outcomes)

- OFI #5: The QMS Risk Assessment & Outcomes table references a number of Standard Operating Procedures (SOPs). Not all SOPs referenced are available in the EMS/QMS SharePoint library. Examples: Harmful Algal Bloom (HAB) monitoring SOP, Loss of SCADA control SOP, Plan drain flush SOP.
- OFI #6: Consider that Section 5.0 of Procedure EA-CCP-2000 (Chlorination Control) does not have any references to the online CT calculator programmed into SCADA, which is a control and operator tool.

Element 13 (Essential Supplies & Services)

- OFI #7: Consider that not all chemicals have a back-up supplier identified. Examples: Sodium hypochlorite, dechlorination chemicals, powder activated carbon (PAC), Residuals Management Facility (RMF) polymer.
- OFI #8: Consider that there are new contacts and a new procedure for SCADA control system repair/troubleshooting. There is a new SCADA on-call procedure in which RWS staff (Control Systems Coordinator, or Information Security Supervisor) are contacted

first. The Rockwell 24/7 monitoring service has been cancelled. There is now a Parts Management Agreement (PMA) with Rockwell.

- OFI #9: Consider that there is a name change for the back-up lab service provider. Maxxam is now Bureau Veritas.

Element 15 (Infrastructure Maintenance, Rehabilitation and Renewal)

- OFI #10: Consider completing a Management of Change checklist for the new CMMS (Maximo) to ensure training requirements, procedural updates etc. are captured.

Element 16 (Sampling, Testing and Monitoring)

- OFI #11: EF-ADMIN-2054 (Weekly Distribution Sample Sheet) records are not being filled out consistently. There are blank cells in a sampling of the records.

Element 17 (Measurement and Recording Equipment Calibration and Maintenance)

- OFI #12: The filter turbidimeters had expired Hach external calibration stickers on the instruments.
- OFI #13: The Station 6 Temperature instrument (Asset ID # 0000066258) was overdue for annual calibration. There was an incomplete work order for this in Maximo.

Observations:

- Health & Safety: Eye wash solution in the RMF control room first aid kit was expired.

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Quarterly Operating Financial Status – 3rd Quarter 2021

RECOMMENDATION

That this report regarding the Quarterly Operating Financial Status of the Elgin Area Water Supply System be **RECEIVED** by the Board of Management for information; it being noted that the financial information presented in this report is unaudited and subject to adjustments including the preparation of the financial statements and completion of the annual audit.

BACKGROUND

At the request of the Board of Management, a Financial Status Report is provided on a quarterly basis for information. The financial status provides a high-level overview of incurred expenditures and revenues on a cash-flow basis and is compared to the approved operating budget of the water supply system. All expenditures and revenues provided in this Financial Status Report are unaudited and may include accrued and/or unaccrued expenses from a previous or future fiscal year.

A high-level summary of incurred expenses and revenues for the water supply system is attached to this report as Appendix A for the third quarter 2021 (July 1 to September 30) as well as a comparative accumulation of expensed for the year to date.

Note: The reported expenditures and revenues may be subject to adjustments, including but not limited to the preparation of financial statements and completion of the annual audit.

DISCUSSION

For the information and reference of the Board, the following highlights of the attached summary provides a brief explanation of notable deviations from the approved budget and/or clarifications of the financial summary:

- Contracted Operating Services in the summary report reflects the total direct operating costs of the contracted operation of the water treatment and transmission system, as well as other related contracted services. The total accumulated operating costs over the year (unaudited) is higher than the same period in 2020 and is reflective of contractual increases in service agreements with the operating authority and other contracted services.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The water system is currently tracking approximately \$227,000 lower than the previous year largely due energy savings resulting from the installation of the new high lift pumps at the water treatment plant and other energy-saving programs implemented.
- Salaries, wages and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2020 are attributed to annual salary adjustments, staff vacancies, and additional costs as a result of the pandemic. In addition, the 2020 YTD amount shown is understated as the onset of the pandemic delayed accounting entries related to salaries, wages and benefits.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, office supplies and property taxes. While the reported expenditures will be adjusted as part of the year-end process, accounting for 2022 pre-payments and other cost accounting adjustments, the costs to date are higher than the same period in 2020 largely due to property tax adjustments.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers and office equipment for administrative staff. Additional costs in 2021 were incurred related to replacement of computer equipment, as well as travel and vehicles due to the pandemic.
- Purchased Services and Professional Fees largely relates to allowances for ad hoc professional consulting and legal services, office lease, telephone charges, network and SCADA maintenance, printing services, and pipeline locate costs. The increased cost when compared to the same period in 2020 is largely attributed to increased computer and network maintenance costs and a significant increase in insurance premiums for the regional water system.

- Debt Principle and Interest payments occur twice per year; in the first and third quarter.
- Contributions to the Reserve Funds occur at the end of the fiscal year as part of the year-end audit preparation process, where the actual contributions are the total remaining revenue in excess of expenditures. Accordingly, the amount of the anticipated contribution is currently adjusted to reflect the additional revenue and expenses incurred and may be subject to further adjustment as a result of the completion of the year-end financial statements and audit.

Prepared by: Archana Gagnier
Budget and Finance Analyst

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water Supply

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Attachments: Operating Financial Status Summary – 3rd Quarter 2021

Quarterly Financial Summary Report

Elgin Area Water Supply System

3rd Quarter 2021 (July 1 to September 30)

(\$,000's)

	Approved 2021 Budget	Q3-2021	2021 Year to Date	% Year to Date	Year To Date Variance	2020 Year To Date
Total Revenue	13,987	3,745	9,525	68.1%	4,462	9,350
<u>Expenditures:</u>						
Contracted Operating Services	4,274	1,115	3,192	74.7%	1,082	3,116
Contracted Administrative Services	180	45	135	75.0%	45	126
Electricity	1,150	283	704	61.2%	446	931
Salaries, Wages, Benefits	741	252	545	73.5%	196	478
Administration and Other Expenditures	252	192	406	161.1%	-154	160
Vehicles and Equipment	46	4	35	76.1%	11	18
Purchased Services & Professional Fees	452	202	463	102.4%	-11	368
Debt Principle Payments	2,288	1,142	2,273	99.3%	15	2,224
Interest on Long-Term Debt	243	115	242	99.6%	1	305
Contributions to Reserve Funds	4,361	7	21	0.5%	4,340	14
Total Expenditures	13,987	3,357	8,015	57.3%	5,971	7,741

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: 2021 and 2022 Meeting Schedule – Revised

RECOMMENDATION

That the Board of Management for the Elgin Area Primary Water Supply System **APPROVE** the revised meeting schedule for the Board of Management for 2022.

PREVIOUS AND RELATED REPORTS

June 4, 2020	2021 and 2022 Meeting Schedule
January 31, 2019	2019 and 2020 Meeting Schedule
December 1, 2016	2017 and 2018 Meeting Schedule - Revised
October 16, 2016	2017 and 2018 Meeting Schedule

BACKGROUND

The Board of Management for the Elgin Area Primary Water Supply System regularly meets on the first Thursday of March, June, October and December. Rather than meeting in September (consistent with a meeting every three months) the budget report is issued in September, thirty days in advance of the October meeting, to allow for a comprehensive review period by the Board Members.

In the year of a municipal election, the meeting which would normally be held in December is deferred to at least mid-January in the following year to allow for each newly elected municipal council to recommend the proposed appointments of members and alternates to the Board.

DISCUSSION

The following meeting dates for 2022 were previously approved by the Board at the June 4, 2020 meeting:

March 3, 2022
June 2, 2022
October 6, 2022
December 1, 2022
January 19, 2023

Given that the municipal election will be held in October 2022, and typically the inaugural meetings of the respective Councils will not take place until early December, Municipal Councils will not have the opportunity to affirm the appointment(s) to the Board of Management until at least mid-December. Past practice for the Board has been to defer the meeting which would typically be held in December to the following January to allow Councils to confirm appointments

Accordingly, the previously approved meeting of December 1, 2022 was included in error, and is recommended by staff to be cancelled.

The recommended revised meeting schedule for the Board is as follows:

March 3, 2022

June 2, 2022

October 6, 2022

January 19, 2023*

* *The municipal election being held in October 2022 requires the meeting that would normally be held in December 2022 to be scheduled in mid- to late-January 2023.*

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Contracted Security Services – Contract Award

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken by the Board of Management for the Elgin Area Water Supply System:

- a) The Board of Management for the Elgin Area Water Supply System receive this report for information; and,
- b) The Board of Management for the Elgin Area Water Supply System **ACCEPT** the proposal from Paladin Security Group Limited and **AUTHORIZE** the Chair and Chief Administrative Officer to execute an agreement for contracted security services at an annual cost of \$262,713 per year for a three-year term.

BACKGROUND

A comprehensive security audit and threat risk vulnerability assessment was last completed in 2017, which outlined substantive vulnerabilities and security –related risks throughout the water supply system. The Security Audit received and approved by the Board in closed session at its meeting on June 8, 2017.

The approved Security Audit included a significant number of recommended physical improvements at the water treatment facilities, as well as the pump stations, reservoirs, and control stations throughout the transmission system in order to address the safety and security of operational staff, the public, and the security of the water supply to benefiting municipalities in the region.

Starting with the 2018 Capital Budget, the Board of Management approved the establishment of capital project EA4022 Security Upgrades, funded over multiple years, to address the recommendations of the 2017 Security Audit and Threat Risk Vulnerability Assessment report. In addition, the audit report included specific recommendations related to security services and policies necessary for the safety and security of the regional water system.

DISCUSSION

A detailed Request for Proposal was prepared and advertised on October 4, 2021, and two security companies submitted bids for consideration by the closing date of October 22, 2021. The estimate of the contract, prior to the proposal closing, was \$350,000.00 per year.

Board staff reviewed and evaluated the proposals in accordance with the Request for Proposal documents. The financial information from only the proposals which passed the technical evaluation were opened.

The proposals received are summarized as follows:

Security Company	Qualifications	Price*
Paladin Security Group LTD	Pass	\$ 262, 713
Neptune Security Services Ince	Fail	n/a

** excluding HST and annual price escalations*

Based on this evaluation the proposal from Paladin Security Group Ltd. was deemed to have a best value and was selected by Board staff as the preferred proponent. The Request for Proposal process was undertaken with assistance provided by the Purchasing Division of the City of London and complies with the procurement policy of the Board as well as conforms with the City of London procurement policy (used as a guide).

CONCLUSION

The 2017 Audit Report included specific recommendations related to security services necessary for the safety and security of the regional water system. The Request for Proposals process undertaken for security services at the water treatment plant will address security and safety-related shortfalls identified in the audit.

The recommended proponent, Paladin Security Group Ltd., meets all qualifications required from the Request for Proposals process for the three-year contract term.

Prepared by: Lisa McVittie, Security Manager

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Security Upgrades – Tender Award

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Elgin Area Primary Water Supply System EA4022 Security Upgrades project:

- a) The Board of Management for the Elgin Area Primary Water Supply system **ACCEPT** the bid from Paladin Technologies Inc. at an estimated cost of \$242,631.51 (excluding HST) for the installation and integration of security cameras and access control systems at the Elgin Area water treatment plant;
- b) The Board of Management for the Elgin Area Primary Water Supply system **INCREASE** the approved budget for EA4022 by \$75,000 for a total approved budget amount of \$575,000, it being noted that the additional funds are provided from the Capital Reserve; and,
- c) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

PREVIOUS AND RELATED REPORTS

March 5, 2020 (Confidential Report) Security Upgrades

June 8, 2017 (Confidential Report) Security and TRV Assessment

BACKGROUND

At the June 8, 2017 meeting, the Board received and approved the consultant's report detailing the result of the security audit and threat risk vulnerability assessment for the Elgin Area Water Supply System. The report also detailed various recommendations, including significant upgrades and investments at the water treatment plant and satellite facilities for the regional water system.

Starting with the 2018 Capital Budget, the Board of Management approved a multi-year investment strategy to address the recommendations outlined in the Security Audit, with projected additional investments in each year until 2022.

The existing camera system is nearly twenty years old, prone to periodic failures and insufficient to adequately monitor the water treatment plant property.

DISCUSSION

Callidus Engineering was retained in February 2021 to undertake an assessment of the existing camera system at the water treatment plant and make recommendations to address issues identified in the security audit. Following the completion of the assessment, a tender was prepared and issued on August 26, 2021 for the installation and integration of a new security camera system and card access system.

Three qualified contractors submitted compliant bids on the closing date of September 28, 2021

summarized as follows:

Contractor	Tender Price (excluding HST)
Paladin Technologies Inc.	\$242,631.51
Metrobit Inc.	\$418,791.08
Dielco Electric Ltd.	\$422,800.00

The submitted tenders were evaluated by Callidus Engineering and Board staff to ensure compliance with tender submission requirements. On this basis, the bid submitted by Paladin Technologies Inc. in the amount of \$242,631.51 (excluding HST) was accepted.

PROJECT FINANCIAL SUMMARY

This project is a multi-year infrastructure investment, starting in 2018, to address existing and proposed modifications and installation of security-related assets at the water treatment plant and facilities throughout the region. It is anticipated that additional funds will be added project budget in the Capital Budgets for 2022 and 2023 to address the remaining needs identified in the security audit.

The following table provides a high-level summary of projected and incurred expenditures to date for the project:

Expenditure	Projected*	Incurred
Engineering	\$ 41,467.22	\$ 18,699.42
Construction	\$ 130,095.10	\$ 127,376.24
Camera Installation	\$ 380,999.57	\$ 0
Additional Services	\$ 5,186.05	\$ 5,186.05
Total	\$557,747.94	\$151,261.71

Approved Budget	\$ 500,000
Projected Variance	(\$ 57,747.94)

* Projected expenditures exclude the scope of future capital investments to be included in the 2022 and 2023 Capital Budgets

CONCLUSION

The installation and integration of new security cameras and card access systems at the water treatment plant critical to the appropriate and adequate monitoring of the water treatment plant property and the safety of staff. The proposed systems meet the needs identified in the security audit and is required with the deployment of contracted security services at the end of this year.

The bid submitted by Paladin Technologies Inc. Services meet the specifications and requirements of the tender issued in September 2021.

Prepared by: Lisa McVittie, Security Manager

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

To: Chair and Members, Board of Management
Elgin Area Primary Water Supply System

From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Subject: Elgin-Middlesex Pump Station Ownership Reconciliation

RECOMMENDATION

That the Board of Management for the Elgin Area Primary Water Supply System take the following actions:

- a) The Board of Management for the Elgin Area Water Supply System **AUTHORIZE** the Board Chair and Chief Administrative Officer to execute a Joint Occupancy and Use Agreement with the City of London, the St. Thomas Secondary Water System and the Aylmer Secondary Water System, substantially in the form attached, regarding the ownership of the common pumping station building and related building services at the Elgin Terminal Reservoir site; and,
- b) The Board of Management for the Elgin Area Water Supply System **AUTHORIZE** the establishment of a dedicated reserve fund for the EMPS Building and building-related assets, whereby the Annual Rate charged to the beneficiaries of the EMPS Building in accordance with the Joint Occupancy and Use Agreement is directed to the dedicated reserve and used for the sole purpose of maintaining, repairing and replacing the EMPS building and building-related assets.

PREVIOUS AND RELATED REPORTS

June 7, 2012	Elgin-Middlesex Pumping Station Ownership Reconciliation
March 5, 2015	Elgin-Middlesex Pumping Station Ownership Reconciliation
March 3, 2016	Elgin-Middlesex Pumping Station Ownership Reconciliation
June 6, 2019	Elgin-Middlesex Pumping Station Ownership Reconciliation
December 5, 2019	Elgin-Middlesex Pumping Station Ownership Reconciliation
June 4, 2020	Elgin-Middlesex Pumping Station – Building Asset Management Plan
December 3, 2020	Elgin-Middlesex Pumping Station Ownership Reconciliation

BACKGROUND

The Board of Management for the Elgin Area Primary Water Supply System (EAWSS) was established in November 2000 under a Transfer Order issued by the Minister of the Environment, pursuant to the *Municipal Water and Sewage Transfer Act, 1997*. A similar Transfer Order also established each of the Secondary Water Systems which operated transmission systems from the EAPWSS to specific benefiting municipalities.

At the Elgin Terminal Reservoir Site, the EAPWSS owns and maintains the property, settling pond and valve house that controls the supply of water into the reservoir site, as well as one of the two cells of the reservoir. London has previously agreed that both cells should have been transferred to the EAWSS and was incorrectly listed as part of London's distribution system.

The Transfer Orders also established that each of the London, St. Thomas Secondary, and Aylmer Secondary water systems own and maintains the pumps and associated equipment within the common pump station building on the EAPWSS property. The City of London also has a pneumatic surge control system on the property, which they own and operate. There is also a backup generator and re-chlorination system within the common pump station building which is jointly owned by the St. Thomas Secondary and Aylmer Secondary systems

The Transfer Order was vague and incorrect about the ownership of the pump station building itself and the associated building services, and other components of the terminal reservoir site. While discussions with the four parties have confirmed specific asset ownership and responsibilities related to pump-related equipment and other site elements, the ownership and responsibility of the common pump station building itself had remained unresolved for some time.

At the June 6, 2019 meeting, the Board authorized staff to complete a Licence Agreement with London, Aylmer Secondary Water System and St. Thomas Secondary Water System for their joint occupancy of the Elgin-Middlesex Pump Station, with the assumption that the Elgin Area Water System would own the building and building-related services.

DISCUSSION

Joint Occupancy and Use Agreement

As reported at the December 3, 2020 meeting of the Board of Management for the Elgin Area Water System, a revised draft Joint Occupancy and Use Agreement was negotiated with the City of London, the St. Thomas Area Secondary Water System, and the Aylmer Secondary Water System. At that time, the Board authorized the execution of the agreement as presented at the December 3, 2020 meeting.

The approved agreement was subsequently circulated to each of the City of London, the St. Thomas Area Secondary Water System, and the Aylmer Secondary Water System for their respective approvals and authorizations. While the City of London and the St. Thomas Area Secondary Water Supply System accepted the negotiated agreement, the Board of Management for the Aylmer Secondary Water System rejected the agreement citing the lack of authority by the Board to execute the agreement.

Upon investigation by Elgin Board staff, clarification was provided by the Township of Malahide in that the Aylmer Board rejected the agreement as they strongly felt that the common suction header within the building reasonably ought to be owned by the Elgin Area Water System and not jointly owned by the three building occupants.

The previous version(s) of the draft agreement held that the ownership of the Elgin Area Water System would end at the first isolation valve after the reservoir is it was a confirmed location where the primary water system could maintain control and isolate the pipeline from its subsequent customers. Upon further investigation, it was confirmed that there were isolation valves on the suction header that were not under the control and utilization of the secondary water systems, and the ownership could be clarified as requested by the Aylmer Secondary Water System.

The revised Joint Occupancy and Use agreement amends the previous draft versions such that the Elgin Area Water system owns the common suction header within the EMPS building up to and including the first isolation valve, as well as the intervening pipelines between the suction header and the reservoir.

As the suction header occupies space within the common building, the agreement further amends the estimated percent-occupancy of the building such that 4.0% of the building's occupancy is now allocated to the Elgin Area Water System corresponding to the estimated floor area related to the suction header. Accordingly, the Elgin Area water supply system will become responsible for a contribution to the dedicated reserve fund for the Elgin-Middlesex Pump Station building and building-related assets.

The proposed Joint Use and Occupancy Agreement will be effective January 1, 2022.

Drinking Water Works Permit

Once the agreement is approved and executed by all parties, the Drinking Water Works Permit within the Municipal Drinking Water Licenses for the City of London and the Elgin Area Water System will need to be updated by the Ministry of Environment, Conservation and Parks to reflect the corrections and clarifications of ownerships as agreed by the occupants. No corrections are anticipated for the permits associated with the Aylmer Secondary Water System or the St. Thomas Secondary Water System.

Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water Supply

Recommended by: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer

Attachments: Licence of Occupancy and Use Agreement

Joint Occupancy and Use Agreement Elgin – Middlesex Pumping Station

THIS AGREEMENT made in quadruplicate the ____ day of _____, 2021

BETWEEN:

THE CORPORATION OF THE CITY OF LONDON
(herein after referred to as "**London**")

AND

THE ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM
(herein after referred to as "**St. Thomas**")

AND

THE AYLMER AREA SECONDARY WATER SUPPLY SYSTEM
(herein after referred to as "**Aylmer**")

AND

THE ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
(herein after referred to as "**Elgin**")

(herein after collectively referred to as the "**Parties**")

WHEREAS Elgin owns the property municipally known as 490 South Edgeware Road in the Municipality of Central Elgin (the "**Property**") at which Elgin owns, operates and maintains a terminal reservoir and associated appurtenances of Elgin.

AND WHEREAS Elgin owns and maintains a building on the Property known as the Elgin-Middlesex Pumping Station (the "**EMPS**") that is jointly occupied by London, Aylmer and St. Thomas.

AND WHEREAS London, Aylmer, and St. Thomas jointly occupy the **EMPS** for their operation of pumping stations and associated equipment and appurtenances.

AND WHEREAS Elgin, London, Aylmer, and St. Thomas wish to enter into an Agreement related to the joint occupancy of London, Aylmer, and St. Thomas of the EMPS.

NOW THEREFORE IN CONSIDERATION OF the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the parties agree as follows:

Article 1. INTERPRETATION

Section 1.1 Purpose and Affect

Elgin, London, St. Thomas and Aylmer agree that the scope of this agreement is limited to the occupancy and use of the Property, the Facility and the EMPS, and excludes the provision of operating services by a contracted operating authority, or the operation of water works by any of the Parties.

Section 1.2 Definitions

- “Annual Rate” means the cost per square metre of occupancy charged to each of London, Aylmer, and St. Thomas for their respective occupancy of the Elgin-Middlesex Pumping Station.
- “Aylmer” means the Aylmer Area Secondary Water Supply System, supplying water to the Township of Malahide, The Municipality of Central Elgin, and the Town of Aylmer
- “Business Day” means a day other than any holiday as defined in the Interpretation Act (Ontario) and Boxing Day.
- “CMMS” means the Computerized Maintenance Management System owned and utilized by Elgin, and having given authorization for the use of the CMMS for the purposes of tracking work and activities undertaken for the benefit of the EMPS at no cost or liability to Elgin.
- “Elgin” means the Elgin Area Primary Water Supply System
- “EMPS” means the building which contain the pumps and associated equipment of London, Aylmer, and St. Thomas. For clarity, this includes the original pumping station building constructed in about 1967 and the building addition constructed in 1996 and the associated building services, but excludes the Surge Control Building owned by London and the Storage Building jointly owned by Aylmer and St. Thomas.
- “Facility” means the EMPS building, the Surge Control Building owned by London, the Storage Building jointly owned by Aylmer and St. Thomas, the meter chamber owned by St. Thomas, and any building-related services including the sanitary septic system, the HVAC system, and the electrical system.
- “London” means the Corporation of the City of London
- “Property” means the property owned by Elgin located in the Municipality of Central Elgin, municipally known as 490 South Edgeware Road.
- “RWS” means the Regional Water Supply Division of the City of London, seconded to report to and administer Elgin on behalf of the Board of Management for the Elgin Area Primary Water Supply System.

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- “SCADA” means the Supervisory Control and Data Acquisition System. Elgin has authorized the routing of control code from the Aylmer SCADA at the EMPS, the London SCADA at EMPS, and St. Thomas SCADA at EMPS for the purposes and benefit of remote operation of the EMPS from Elgin’s water treatment plant at no cost or liability to Elgin.
- “St. Thomas” means the St. Thomas Secondary Water Supply System, supplying water to the city of St. Thomas, the Municipality of Central Elgin, the Township of Southwold, and the Municipality of Dutton Dunwich.
- "Uncontrollable Circumstance" means any event or condition which materially alters the rights and obligations of the Parties under this Agreement, or the management, operation or maintenance of the Facility, or the EMPS, which is beyond the reasonable control of or could not reasonably be anticipated by the Party relying thereon as justification for a delay in or non-performance of any obligation of such Party pursuant to this Agreement and shall include but not be limited to:
- i. an act of God, landslide, lightning, earthquake, hurricane, flood, tornado or other natural disaster, fire, explosion, acts of public enemy, terrorism, war, blockade, sabotage, insurrection, riot or public disturbance;
 - ii. an order of any court, administrative or governmental agency of competent jurisdiction which has not been made as a result directly or indirectly of the actions or inaction of Elgin, London, St. Thomas, and/or Aylmer. This specific provision shall be construed strictly against the Party seeking to so rely to excuse non-performance or delay;
 - iii. a Change of Laws. This specific provision be construed strictly against the Party seeking to so rely to excuse non-performance or delay;
 - iv. loss or inability to obtain service from a utility;
 - v. provided, however, that a failure by a Party to perform its obligations under this Agreement arising from or related to such Party's insufficient cash flow or its economic or financial condition generally, shall not constitute an Uncontrollable Circumstance

Section 1.3 Term, Amendment and Termination

The Parties agree that this agreement has an effective date of January 1, 2022 and, subject to amendment or termination in accordance with this Section, this Agreement shall continue indefinitely.

This Agreement may be amended from time to time by mutual agreement of the Parties. No amendments to this Agreement shall be effective unless in writing and signed by all Parties to this Agreement.

Any Party shall have the right to terminate this Agreement. The terminating Party shall provide twelve (12) months written Notice of Termination to the Parties pursuant to [Section 9.9](#) of this Agreement.

Section 1.4 Identification of Sole Ownership – Elgin

The Parties acknowledge that Elgin is the sole owner of the Property, the two cells of the reservoir on the Property, the valve house on the Property, the swab-catch and settling pond on the Property, the overflow and drain from the reservoir, the site drainage and runoff, the associated piping and appurtenances associated with the transmission pipeline to the Property, and the EMPS and associated building-related services on the Property but excluding the pumps and related equipment owned and operated by London, Aylmer, and St. Thomas.

In addition, the Parties acknowledge that Elgin owns:

- the water meter on the discharge piping after the pumps at the Facility that is associated with St. Thomas;
- the water meter on the discharge piping after the pumps at the Facility that is associated with Aylmer;
- the water meter on the discharge piping after the surge tanks in the Surge Control Building that is associated with London;
- the discharge piping from the reservoir outlet and the suction header up to and including the first isolation valve on the suction header within the EMPS;
- The driveway, perimeter fence, and landscaping of the Property;
- The 25m (approximate) communications tower;
- The electrical substation supplying power to the Facility;
- The EMPS building-related services including septic system, HVAC, overhead crane, and exterior lighting

The Parties further acknowledge that Elgin does not own, in whole or in part, and has no obligations, except where specifically identified within this Agreement, with respect to assets identified as solely or jointly owned by London, St. Thomas or Aylmer, including but not limited to the Surge Control Building and related assets owned by London, and the Storage Building jointly owned by Aylmer and St. Thomas that was previously used for the storage of diesel fuel for the backup generator.

For greater clarity, the assets on the Property which are owned by Elgin are identified in [Schedule A](#) of this Agreement.

Section 1.5 Identification of Sole Ownership – London

The Parties acknowledge that London is the sole owner of the pumps generally referred to as #4, #5, and #6, including their associated electrical systems, controls and appurtenances, the transmission pipeline from the discharge header of London's pumps in the EMPS to London's water distribution system, and the Surge Control Building including all equipment within the building, except the water meter owned by Elgin.

For greater clarity, the assets on the Property which are owned by London are identified in [Schedule A](#) of this Agreement, and the assets within the Facility which are owned by London are identified in [Schedule B](#) of this Agreement.

Section 1.6 Identification of Sole Ownership – St. Thomas

The Parties acknowledge that St. Thomas is the sole owner of the pumps generally referred to as #1, #2, and #3, including their associated electrical systems, controls and appurtenances, and the transmission pipeline from the discharge header of St. Thomas' pumps in the EMPS to St. Thomas's water transmission system, except the water meter owned by Elgin.

For greater clarity, the assets on the Property which are owned by St. Thomas are identified in [Schedule A](#) of this Agreement, and the assets within the EMPS which are owned by St. Thomas are identified in [Schedule B](#) of this Agreement.

Section 1.7 Identification of Sole Ownership – Aylmer

The Parties acknowledge that Aylmer is the sole owner of the pumps generally referred to as #7, and #8, including their associated controls and appurtenances, and the transmission pipeline from the EMPS to Aylmer's water transmission system, except the water meter owned by Elgin.

For greater clarity, the assets on the Property which are owned by Aylmer are identified in [Schedule A](#) of this Agreement, and the assets within the EMPS which are owned by Aylmer are identified in [Schedule B](#) of this Agreement.

Section 1.8 Identification of Joint Ownership

1. *Rechlorination System*

The Parties acknowledge that Aylmer and St. Thomas jointly own a rechlorination system within the EMPS, including associated electrical systems, controls and appurtenances, which benefit Aylmer and St. Thomas.

2. *Backup Generator*

The Parties acknowledge that Aylmer and St. Thomas jointly own a backup generator within the EMPS, including associated electrical systems, controls, fuel storage tank, and appurtenances, which benefit Aylmer and St. Thomas.

3. *Diesel Fuel Storage Tank*

The Parties acknowledge that Aylmer and St. Thomas jointly own an above-ground diesel fuel storage tank located outside the EMPS for the Backup Generator, which benefit Aylmer and St. Thomas.

4. *Storage Building*

The Parties acknowledge that Aylmer and St. Thomas jointly own the building which formerly contained an above-ground fuel storage tank. The fuel storage tank was previously decommissioned and removed by Aylmer and St. Thomas, and the fuel tank replaced with an above-ground storage tank located exterior to the EMPS. The building is currently used for storage of materials and equipment associated with Aylmer and/or St. Thomas.

For greater clarity, the assets on the Property which are jointly owned by London, St. Thomas and/or Aylmer are identified in [Schedule A](#) of this Agreement, and the assets within the Facility which are jointly owned by London, St. Thomas, and/or Aylmer are identified in [Schedule B](#) of this Agreement.

Article 2. Operation and Maintenance of the Terminal Reservoir and Property

Section 2.1 Site Security

London, Aylmer, and St. Thomas acknowledge and agree that the Property, the Facility, and the EMPS (as applicable) will be secured by Elgin's master key and/or access control system. Monitoring of the site security, including any existing door-switches and motion sensors, will be undertaken by Elgin.

Elgin agrees to allow unrestricted access by London, Aylmer, and St. Thomas to the Facility and the EMPS, including the Operating Authority of London, Aylmer, and St. Thomas, subject to reasonable security protocols implemented by Elgin.

The Parties agree that unrestricted access is not granted to London, Aylmer, and St. Thomas to the two cells of the reservoir on the Property, the valve house on the Property, the swab-catch and settling pond on the Property, the overflow and drain from the reservoir, the associated piping and appurtenances associated with the transmission pipeline to the Property.

Section 2.2 Property Maintenance

Further to [Section 1.4](#), Elgin is responsible for maintaining the Property including snow removal, pavement maintenance, perimeter fencing, grass cutting and landscaping.

Section 2.3 Property Taxes

Elgin is responsible for paying Property Taxes, or payments in lieu of taxes, to the municipality with respect to the Property and Facility.

Article 3. Operation and Maintenance of the Elgin-Middlesex Pumping Station and the Facility

Section 3.1 Maintenance and Repair of the EMPS Building and Building-Related Assets

Elgin shall be responsible for the maintenance and repair of the EMPS building and building-related assets, including the building HVAC, exterior building lighting, septic system, and electrical substation and excluding the motor control centres and related electrical systems associated with London, Aylmer and St. Thomas.

Section 3.2 Maintenance and Repair of Pumps and Associated Equipment

Notwithstanding [Section 2.1](#), London, Aylmer, and St. Thomas shall each be responsible for maintaining and repairing all assets related to their respective pumps and associated equipment.

Section 3.3 Maintenance and Repair of Jointly Owned Assets

Prior to undertaking the maintenance or repair of jointly owned assets, the joint owners of the asset shall agree in writing to the apportionment of all related costs associated with the repair. [Schedule C](#) of this Agreement may be used as a guide with regard to the apportionment of costs.

Section 3.4 Supervisory Control and Data Acquisition

London, Aylmer, and St. Thomas are each responsible for their respective SCADA systems, including but not limited to the programmable logic controllers (PLC) and human-machine interface (HMI), or other similar control-related equipment, at the EMPS.

If London, Aylmer, and St. Thomas use the same operating authority for the operation of the EMPS that is used by Elgin, Elgin hereby consents to allowing the remote operation of the EMPS to be routed through Elgin's SCADA system and remotely controlled at the Elgin water treatment plant. London, Aylmer and St. Thomas further agree that any routed controls through Elgin's SCADA system shall comply with the network security requirements of Elgin, and any cost associated with adding, maintaining, modifying, or deleting the control routing and associated programming will be at the cost of London, Aylmer, and St. Thomas.

Section 3.5 Computerized Maintenance Management System

If London, Aylmer, and St. Thomas use the same operating authority for the operation of the EMPS that is used by Elgin, Elgin hereby consents to allowing the use of Elgin's CMMS for managing and maintaining the work records associated with the EMPS. The utilization of Elgin's CMMS will be at no cost to London, Aylmer, and St. Thomas.

Notwithstanding the forgoing, any cost associated with the addition of assets, modification of asset data or work schedule, or exportation of data related to assets owned or jointly owned by London, Aylmer and/or St. Thomas, including costs associated with licencing and using Elgin's CMMS, shall be at the cost of London, Aylmer, and St. Thomas.

Section 3.6 Coordination of Operating Authority

London, Aylmer, St. Thomas, and Elgin agree to coordinate the activities of the respective operating authorities for work undertaken at the EMPS, the Facility, and the Property.

Section 3.7 Payment of Operating Expenses

London, Aylmer, and St. Thomas authorize and delegate to the RWS the authority to approve, pay, and recover the regular, reoccurring operational costs incurred with respect to the operation of the EMPS. For further clarity, RWS shall undertake payment of the following regular reoccurring operating expenses on behalf of London, Aylmer, and St. Thomas:

- If the operating authority used by London, Aylmer, and St. Thomas is the same as the operating authority of Elgin, the monthly Service Fee from the operating authority for the operation of the EMPS and the Facility on behalf of London, Aylmer, and St. Thomas
- Electricity
- Natural Gas

All other fees and charges will be paid by London, Aylmer and/or St. Thomas for materials, services and supplies related to the Facility and the EMPS.

In lieu of Elgin paying and providing other services under this Agreement, London, Aylmer, and St. Thomas agree that Elgin will not be allocated costs associated with electricity. London, Aylmer and St. Thomas are not obligated to pay for other operating expenses associated with the remainder of the Property and Facility, including but not limited to property maintenance and payment of property taxes.

Section 3.8 Allocation of Operating Expenses

On a monthly basis, RWS will invoice to London, Aylmer, and St. Thomas for the regular reoccurring operational expenses paid by RWS on behalf of London, Aylmer, and St. Thomas as authorized in [Section 3.7](#). The regular reoccurring operational expenses shall be apportioned to each of London, Aylmer, and St. Thomas proportionate to the respective occupancy and/or material utilization.

For greater clarity, the allocation of common operating expenditures which have been authorized for payment are outlined in [Schedule C](#) of this Agreement.

Section 3.9 Payment for Occupancy

1. Annual Rate Charged for Occupancy

On or before January 1, 2022 and by January 1st every 5 years thereafter, Elgin will notify each of London, Aylmer, and St. Thomas the Annual Rate charged to each of London, Aylmer and St. Thomas for their respective occupancy of the EMPS.

2. Dedicated Reserve Fund

Revenue from the Annual Rate charged to each of London, Aylmer, and St. Thomas will be placed in a dedicated Reserve Fund which will be used as a source of finance for maintenance, repairs and the renewal of the EMPS building and building-related assets. The dedicated Reserve Fund shall not be used for any other purpose than the maintenance, repair and renewal of the EMPS building and building-related assets, which may include principle and interest payments for debentures and/or intra-Fund loans issued for this purpose.

3. Asset Management Plan

Starting in 2020 and every five-years thereafter, Elgin will update the Asset Management Plan which will form the basis of establishing the long-term financial requirements for the maintenance, repairs and renewal of the EMPS building and building-related assets. The Annual Rate set by Elgin shall be sufficient to ensure the long-term financial requirements necessary are available in the dedicated Reserve Fund for the EMPS.

Article 4. Undertaking Repairs and Capital Investments

Section 4.1 Repairs to Sole-Owned Assets

Where a Party is the sole owner or has the sole care and control of an asset, that respective Party is responsible for any Repair of any asset beyond that which may be included in a service agreement with a contracted operating authority, including the cost of the Repair. That Party is responsible for the coordination of the operating authority and any contractor utilized for the Repair, with the activities undertaken by the other Parties.

Section 4.2 Repairs to Jointly Owned Assets

Where an asset is jointly owned, the Parties which jointly own the asset are collectively responsible for any Repair of the jointly owned asset, beyond that which may be included in a service agreement with a contracted operating authority. The Parties which jointly owned the asset are collectively responsible for the coordination of the operating authority and any contractor utilized for the Repair, with the activities undertaken by the other Parties.

Section 4.3 Capital Improvements

The Parties are separately entitled to undertake capital improvements at the Facility, including the replacement of existing assets or the construction and installation of new assets, subject to [Section 7.1](#) and [Section 7.2](#) of this agreement. The capital improvement is the sole responsibility of the Party, including but not limited to financing, project management, project coordination with other Parties, permits and approvals.

If a capital improvement will be jointly owned by two or more of the Parties, the Parties must agree in writing, prior to undertaking the project, the allocation of the anticipated costs.

The Parties are not entitled to remove, replace, alter, or otherwise modify any asset to which they are not the sole owner without the express written permission of the asset's owner or joint owners.

Article 5. Representations, Warranties and Covenants

Section 5.1 Representations, Warranties and Covenants of Elgin

1. Authority to Contract.

Elgin warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.

2. Provision of Information.

Elgin shall use reasonable care to prepare and supply to St. Thomas, London, and/or Aylmer, for the benefit of itself or themselves of any report or information required hereunder.

3. Skilled Personnel.

Elgin represents and warrants to St. Thomas, London, and Aylmer that they have, and any employee or other person that they may retain to help perform services hereunder, will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.

4. Construction and Maintenance.

Elgin covenants and agrees to construct, repair, maintain, and keep in a good state of repair and in accordance with any good engineering practice and applicable law, certificates of approval, licence and/or permits, all equipment and water works that belong to or are under the care and control of Elgin at the Facility and on the Property.

5. Access.

Elgin covenants and agrees to allow unrestricted access to London, Aylmer, and St. Thomas to the Property and the Facility in accordance with [Section 2.1](#) of this Agreement.

Section 5.2 Representations, Warranties and Covenants of London

1. Authority to Contract.

London warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.

2. Provision of Information.

London shall use reasonable care to prepare and supply to Elgin, Aylmer, and/or St. Thomas, for the benefit of itself or themselves of any report or information required hereunder.

3. Skilled Personnel.

London represents and warrants to Elgin, Aylmer, and St. Thomas that they have, and any employee or other person that they may retain to help perform services hereunder, will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.

4. Construction and Maintenance.

London covenants and agrees to construct, repair, maintain, and keep in a good state of repair and in accordance with any good engineering practice and applicable law, certificates of approval, licence and/or permits, all equipment and water works that belong to or are under the care and control of London at the Facility.

5. Use of the Property.

London covenants and agrees to not utilize the Property without the express written permission of Elgin, except where permitted to by this Agreement.

Section 5.3 Representations, Warranties and Covenants of Aylmer

1. Authority to Contract.

Aylmer warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.

2. Provision of Information.

Aylmer shall use reasonable care to prepare and supply to Elgin, London, and/or St. Thomas, for the benefit of itself or themselves of any report or information required hereunder.

3. Skilled Personnel.

Aylmer represents and warrants to Elgin, London, and St. Thomas that they have, and any employee or other person that they may retain to help perform services hereunder, will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.

4. *Construction and Maintenance.*

Aylmer covenants and agrees to construct, repair, maintain, and keep in a good state of repair and in accordance with any good engineering practice and applicable law, certificates of approval, licence and/or permits, all equipment and water works that belong to or are under the care and control of Aylmer at the Facility.

5. *Use of the Property.*

Aylmer covenants and agrees to not utilize the Property without the express written permission of Elgin, except where permitted to by this Agreement.

Section 5.4 Representations, Warranties and Covenants of St. Thomas

1. *Authority to Contract.*

St. Thomas warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.

2. *Provision of Information.*

St. Thomas shall use reasonable care to prepare and supply to Elgin, London, and/or Aylmer, for the benefit of itself or themselves of any report or information required hereunder.

3. *Skilled Personnel.*

St. Thomas represents and warrants to Elgin, London, and Aylmer that they have, and any employee or other person that they may retain to help perform services hereunder, will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.

4. *Construction and Maintenance.*

St. Thomas covenants and agrees to construct, repair, maintain, and keep in a good state of repair and in accordance with any good engineering practice and applicable law, certificates of approval, licence and/or permits, all equipment and water works that belong to or are under the care and control of St. Thomas at the Facility.

5. *Use of the Property.*

St. Thomas covenants and agrees to not utilize the Property without the express written permission of Elgin, except where permitted to by this Agreement.

Article 6. Liability, Indemnity, and Insurance

Section 6.1 Indemnification of London, Aylmer, and St. Thomas by Elgin

Elgin shall indemnify and hold London, Aylmer, and St. Thomas, their employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property, which is caused by or directly attributable to the negligent or wrongful act of Elgin, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of Elgin.

Section 6.2 Indemnification of Elgin, Aylmer, and St. Thomas by London

London shall indemnify and hold Elgin, Aylmer and St. Thomas, their employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property, which is caused by or directly attributable to the negligent or wrongful act of London, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of London.

Section 6.3 Indemnification of Elgin, London, and St. Thomas by Aylmer

Aylmer shall indemnify and hold London, Elgin and St. Thomas, their employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property, which is caused by or directly attributable to the negligent or wrongful act of Aylmer, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of Aylmer.

Section 6.4 Indemnification of Elgin, London, and Aylmer by St. Thomas

St. Thomas shall indemnify and hold London, Aylmer and Elgin, their employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property, which is caused by or directly attributable to the negligent or wrongful act of St. Thomas, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of St. Thomas.

Section 6.5 Waiver of Consequential Damages

In no event shall the Parties be liable to each other, and each party specifically waives as against the other, any and all claims for consequential, incidental, indirect, special or punitive damages resulting in any way from performance or non-performance of this Agreement, whether such damages are characterized as arising under breach of contract or warranty, tort (including negligence), fault, strict liability, indemnity, or other theory of legal liability.

Section 6.6 Uncontrollable Circumstances

In the event that performance of this Agreement in the reasonable opinion of a Party is made impossible by reason of an Uncontrollable Circumstance, and if a Party seeks to rely on the occurrence of an act, event or condition as an Uncontrollable Circumstance as grounds for not performing its obligations under this Agreement, then the Party relying on such act, event or condition shall:

1. Provide prompt notice to the other Party of the occurrence of the act, event or condition as soon as reasonably practicable after the Party first knew of such occurrence and give an estimation of its expected duration and the probable impact on the performance of its obligations hereunder,
2. Exercise all reasonable efforts to continue to perform its obligations hereunder,
3. In accordance with this Agreement, as expeditiously as reasonably practicable take action to correct or cure the act, event or condition preventing its performance,
4. Exercise all reasonable efforts to mitigate or limit damages to the other Party, and
5. Provide prompt notice to the other Party of the cessation of the act, event or condition giving rise to its inability *to perform*,

Except as expressly provided under the terms of this Agreement, no Party to this Agreement shall be liable to the other Parties for any loss, damage, delay, default, or failure to perform any obligation to the extent it results from an Uncontrollable Circumstance. The occurrence of an Uncontrollable Circumstance shall not excuse or delay the performance of a Party's obligation to pay monies previously accrued and owing under this Agreement, or to perform any obligation hereunder not affected by the occurrence of the Uncontrollable Circumstance.

Article 7. Changes and Amendments to the Agreement

Section 7.1 New Equipment and Processes

Where a capital improvement is undertaken by London, Aylmer and/or St. Thomas in the EMPS that results in a change in their respective occupancy of the EMPS or Facility, or results in a change in their consumption of natural gas or electricity, the [Schedule C](#) of this agreement shall be reviewed and if necessary revised with respect to the allocation of costs based on occupancy and/or utilization.

Any amendments or changes to [Schedule C](#) shall be agreed upon in writing by the Parties.

Section 7.2 New Buildings or Building Additions

Buildings or other permanent structures shall not be extended or added to the Property by London, Aylmer, and/or St. Thomas without the express written permission of Elgin.

Section 7.3 Material Changes to the Agreement

A Party must provide Notice to the other Parties upon the initiation of a project or undertaking which may materially affect the allocation of costs, and/or coordination of operational responsibilities, and/or ownership or joint ownership of assets.

Any Party may request that the Agreement and/or Schedules be reviewed by the Parties upon significant changes to processes and equipment at the Facility that materially affect the allocation of costs, and/or coordination of operational responsibilities, and/or ownership or joint ownership of assets.

Section 7.4 Renegotiation of the Agreement

Any Party can give Notice to the other Parties requesting a review and renegotiate the terms and conditions of the Agreement at any time. The Notice must include, at a minimum: (1) identification of proposed changes to the process/equipment, (2) anticipated impact on the agreement, and (3) proposed changes/amendments to the agreement.

A Notice of request to review and amend the Agreement and/or Schedules must be submitted to the Parties in writing. The Parties agree to meet within a reasonable timeframe to discuss proposed amendments to the Agreement and/or Schedules.

All Parties must respond in writing to the notifying Party within 14 days of the Notice, specifying their acceptance of the proposed changes or the timeframe for which the negotiations are to take place.

All changes or amendments to this Agreement must be rendered in writing.

Article 8. Health and Safety

Section 8.1 Asbestos

Elgin will maintain and update at least annually an asbestos inventory of the EMPS, and provide an updated inventory to each of London, Aylmer and St. Thomas. Elgin is responsible for the maintenance, repair and abatement, if and as applicable, of asbestos containing materials that is associated with the EMPS building and building-related assets.

London, Aylmer, and St. Thomas will immediately notify Elgin of any damage observed to asbestos containing substances related to construction or operational activities undertaken by London, Aylmer and/or St. Thomas.

Each of London, Aylmer, and St. Thomas are responsible for the maintenance, repair and abatement, if and as applicable, of asbestos containing materials associated with their pumps and associated equipment.

Section 8.2 Notification of Designated Substances

Elgin, London, Aylmer, and St. Thomas acknowledge and agree that each of Elgin, London, Aylmer, and St. Thomas, individually, are each responsible for the notification of designated substances to the Parties, their operating authority, and any contractor undertaking a Repair or Capital Investment on their behalf at the EMPS and the Facility.

Article 9. General Provisions

Section 9.1 Dispute Resolution.

If a dispute arises between the parties, the parties agree that the Dispute Resolution Process outlined in [Schedule D](#) shall be used.

Section 9.2 Applicable Law.

This Agreement and its interpretation shall be governed by the laws of the Province of Ontario.

Section 9.3 Headings.

The headings and captions appearing in this Agreement have been inserted for convenience of reference only and in no way define, limit or enlarge the scope or meaning of this Agreement or any provision hereof.

Section 9.4 Entire Agreement.

This Agreement constitutes the entire agreement between the parties hereto and supersedes all previous or contemporaneous communications, representations or agreements. No oral agreement or conversation with any officer, agent or employee of Elgin, London, Aylmer and/or St. Thomas, either before or after the execution of this Agreement, shall affect or modify any of its terms or obligations herein contained.

Section 9.5 Enurement and Assignment.

This Agreement shall enure to the benefit of and be binding upon the Parties and their respective successors and assigns.

Section 9.6 Survival.

Wherever this Agreement contains an express obligation by one or more Parties to indemnify any other Party, such obligation to indemnify shall survive the completion or termination of this Agreement and continue in full force and effect.

Section 9.7 Severability.

Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to that jurisdiction, be ineffective to the extent of such prohibition or unenforceability and shall be severed from the balance of this Agreement, all without affecting the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.

Section 9.8 Waiver.

The failure on the part of either party to enforce its rights as to any provision of this Agreement shall not be construed as a waiver of its rights to enforce such provision in the future.

Section 9.9 Notices.

1. Delivery Mode and Address.

Any Notice required to be or may be given or made by one of the parties hereto to the other, it shall be in writing and shall be delivered in person, transmitted by facsimile, transmitted by e-mail, or similar means of recorded electronic communication, or sent by ordinary or registered mail to the respective addresses of the parties hereto:

If to Elgin:

The Elgin Area Primary Water Supply System
235 North Centre Road, Suite 200
London, Ontario N5X 4E7

Attention: Director – Regional Water
Phone: (519) 930.3505 ext.1355
Facsimile: (519) 474.0451
eMail: GENERAL@HuronElginWater.CA
and copied to: AHENRY@HuronElginWater.CA

If to London:

The Corporation of the City of London
300 Dufferin Avenue
London, ONT N6A 4L9

Attention: Kelly Scherr, Deputy City Manager – Environment & Infrastructure
Phone: (519) 661-2489, ext. 2391
Facsimile: (519) 661-2354
eMail: KSCHERR@LONDON.CA

If to Aylmer:

The Aylmer Area Secondary Water Supply System
c/o The Corporation of the Township of Malahide
87 John Street South
Aylmer, ONT N5H 2C3

Attention: Chief Administrative Officer / Clerk
Phone: 519-773-5344 ext.225
Facsimile: 519-773-5334
eMail: MALAHIDE@MALAHIDE.CA

If to St. Thomas:

The St. Thomas Area Secondary Water Supply System
c/o the Corporation of the City of St. Thomas
PO Box 520, 545 Talbot Street
St. Thomas, ONT N5P 3V7

Attention: Justin Lawrence, City Engineer
Phone: (519) 631-1680 x.4165
eMail: JLAWRENCE@STTHOMAS.CA

2. Time of Delivery.

Any such Notice shall be deemed to have been given and received on the day on which it was delivered or transmitted (or, if such day is not a Business Day, on the next following Business Day), or if mailed, on the third Business Day following the date of mailing; provided, however, that if at the time of mailing or within three Business Days thereafter there is or occurs a labour dispute or other events which might reasonably be expected to disrupt the delivery of document by mail, any notice hereunder shall be delivered or transmitted by means of recorded electronic communications as aforesaid.

Section 9.10 Counterparts: Electronic Copies

This Agreement may be executed by two or more counterparts, each of which shall be deemed an original instrument and all of which together shall constitute a single instrument. Execution and delivery of this Agreement by electronic or email exchange bearing the copies of a party's signature shall constitute a valid and binding execution and delivery of this Agreement by such party. Such electronic copies shall constitute enforceable original documents.

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**Joint Use and Occupancy Agreement
Elgin – Middlesex Pumping Station**

IN WITNESS WHEREOF Elgin, London, St. Thomas and Aylmer have caused this Agreement to be executed by the affixing of their proper seals attested by the signature of the proper persons duly authorized in that behalf.

THE ELGIN AREA PRIMARY WATER SUPPLY SYSTEM

_____	_____
Chair	Chief Administrative Officer
_____	_____
Date	Date

THE CORPORATION OF THE CITY OF LONDON

_____	_____
Mayor	Clerk
_____	_____
Date	Date

THE AYLMER AREA SECONDARY WATER SUPPLY SYSTEM

_____	_____
Mayor, Township of Malahide	CAO/Clerk, Township of Malahide
_____	_____
Date	Date

THE ST. THOMAS AREA SECONDARY WATER SUPPLY SYSTEM

Chair, St. Thomas Area Secondary
Water Supply System Joint Board of
Management

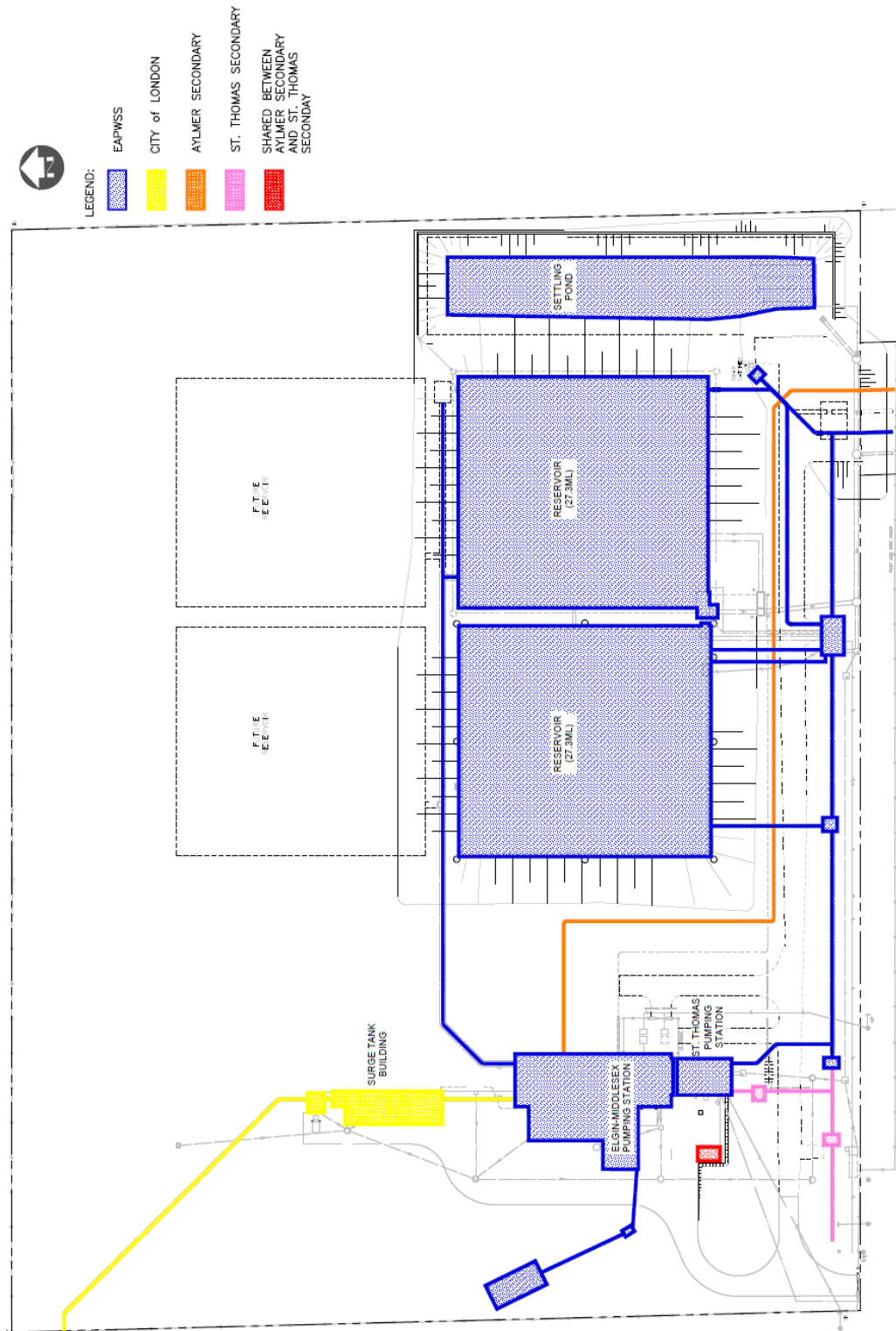
Date

Co-Chair, St. Thomas Area Secondary
Water Supply System Joint Board of
Management

Date

SCHEDULE A

ELGIN-MIDDLESEX PUMPING STATION AND TERMINAL RESERVOIR PROPERTY



SCHEDULE B

ELGIN MIDDLESEX PUMPING STATION – GROUND & BASEMENT LEVELS



SCHEDULE C

ALLOCATION OF COSTS AND EXPENDITURES

Beneficiary by Area:

Where expenditures are agreed to be allocated by area of occupancy or shared occupancy, the following table, in whole or in part, shall be used for calculating the proportionate allocation of cost where appropriate:

LOCATION	LONDON (m ²)	ST. THOMAS (m ²)	AYLMER (m ²)	ELGIN (m ²)	TOTAL (m ²)
Common Hallways, Loading Bay, and Lobbies	50.8 (33.3%)	50.7 (33.3%)	50.7 (33.3%)	n/a	152.2
Chlorine Room	n/a	36.7 (50%)	36.6 (50%)	n/a	73.3
Backup Generator Room	n/a	31.1 (50%)	31.1 (50%)	n/a	62.2
Control Room	3.5 (33.3%)	3.5 (33.3%)	3.5 (33.3%)	n/a	10.5
Electrical Room(s)	67.0 (32.7%)	71.0 (34.6%)	67.0 (32.7%)	n/a	205.0
Mechanical Room	13.3 (33.3%)	13.2 (33.3%)	13.3 (33.5%)	n/a	39.8
Pump Room(s) – ground level	432.2 (67.8%)	113.2 (17.8%)	91.7 (14.4%)	n/a	637.1
Pump Room(s) – Basement level	385.8 (54.7%)	160.4 (22.7%)	85.0 (12.0%)	74.5 (10.6%)	705.7
SUBTOTAL EMPS	952.6 (50.5%)	479.8 (25.4%)	378.9 (20.0%)	74.5 (4.0%)	1885.8
Surge Control Building	261.3 (100%)	n/a	n/a	n/a	261.3
Former Fuel Storage Building	n/a	13.0 (50%)	13.0 (50%)	n/a	26.0
TOTAL	1213.9 (55.9%)	492.8 (22.7%)	391.9 (18.0%)	74.5 (3.4%)	2173.1

Joint Use and Occupancy Agreement

Elgin – Middlesex Pumping Station

Operating Expenditures:

Regularly occurring operating expenditures include the service fee payable to a common operating authority contracted to operate and maintain the Elgin-Middlesex Pumping Station on behalf of London, St. Thomas and Aylmer. In addition, common operational costs such as electricity, natural gas, chemicals and fuel are to be divided between the benefiting partners as follows:

EXPENSE	LONDON	ST. THOMAS	AYLMER
Operating Service Fee ¹	69.5%	20.0%	10.5%
Electricity	<i>Electrical cost allocation estimated in proportion to the pump run-times, adjusted for pump size (horsepower), on a monthly basis.²</i>		
Natural Gas (heating) ³	58.0%	23.7%	18.3%
Other Chemicals	n/a	n/a	n/a
Diesel Fuel	n/a	50.0%	50.0%
Chlorine ⁴	n/a	64.5%	35.5%

Repairs and Capital Expenditures – Single Beneficiary:

Capital expenditures and repairs excluded from the service agreement with the operating authority are the responsibility of the party that owns the asset. Where the expenditure is excluded from the service agreement with the operating authority, the party that owns the asset is responsible for all costs associated with the repair or capital investment.

Repairs and Capital Expenditures – Multiple Beneficiary:

Capital expenditures and repairs excluded from the service agreement with the operating authority are the responsibility of the Parties that jointly own the asset. Where the expenditure is excluded from the service agreement with the operating authority, the Parties that jointly own the asset are responsible for all costs associated with the repair or capital investment.

Prior to the repair or capital investment being undertaken, the Parties that jointly own the asset are to agree in writing with respect to project management, budget, and allocation of costs.

¹ Value derived from the estimated volume proportion (5-year average)

² Algorithm used for the allocation of electrical costs on a monthly basis should be adjusted if sub-metering is installed by the Parties.

³ Calculation based on proportion of area of occupancy

⁴ Value derived from the estimated volume proportion (5-year average) between Aylmer and St. Thomas

SCHEDULE D

DISPUTE RESOLUTION PROCESS

In the event of a controversy or dispute between the Parties arising out of or in connection with this Agreement or regarding the interpretation of the provisions thereof, the following process will be followed:

1. The Party alleging a controversy or dispute (the “Disputing Party”) must notify the other Party (the “Recipient Party”) or other Parties (the “Recipient Parties”) in writing of such dispute or controversy (“Dispute Notice”) and specify the particulars of such dispute or controversy in the Dispute Notice.
2. Upon receipt of a Dispute Notice by the Recipient Party(s), the Recipient Party(s) and the Disputing Party must mutually consult in good faith in an attempt to settle amicably and in the spirit of cooperation any such controversy or dispute.
3. If on the date which is fourteen (14) days after the Recipient Party’s receipt of the Dispute Notice the Disputing Party and the Recipient Party(s) have not amicably settled the matter(s) set out in the Dispute Notice then the matter(s) shall be referred to a single arbitrator whose decision shall be final and binding. If the Parties cannot agree on the arbitrator, either party may apply under Section 10 of the Ontario Arbitrations Act for the Court to select an Arbitrator.