

Agenda

Elgin Area Primary Water Supply System Joint Board of Management

4th Meeting of the Elgin Area Primary Water Supply System Joint Board of Management

October 3, 2024, 5:00 PM

Committee Room #5

The Elgin Area Water Supply System and its benefiting municipalities are situated on the traditional lands of the Anishinaabek(Uh-nish-in-ah-bek), Haudenosaunee(Ho-den-no-show-nee), Lūnaapéewak(Len-ah-pay-wuk) and Attawandaron (Add-a-won-da-run) peoples.

We honour and respect the history, languages and culture of the diverse Indigenous people who call this territory home.

This region is currently home to many First Nations, Inuit and Métis people today and we are grateful to have the opportunity to live and work in this territory.

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1. Call to Order	
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6. Upcoming Meeting Dates

December 5, 2024

March 6, 2025

June 5, 2025

October 2, 2025

7. Adjournment

Elgin Area Primary Water Supply System Report

3rd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management
June 6, 2024

Attendance: Meeting held on Thursday, June 6, 2024, commencing at 5:00 PM.

PRESENT: S. Hillier (Chair); J. Adzija, P. Barbour, J. Herbert, E. Pelozza, S. Peters and J. Bunn (Committee Clerk)

ALSO PRESENT: B. Haklander, 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 2nd Meeting held on Thursday, March 7, 2024

BARBER AND PETERS

That the minutes of the 2nd meeting of the Elgin Area Primary Water Supply System Joint Board of Management, from the meeting held on June 6, 2024, **BE NOTED AND FILED. CARRIED**

Motion Passed

3. Consent Items

3.1 Quarterly Compliance Report (1st Quarter 2024: January - March)

PELOZZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System, from January to March 2024, **BE RECEIVED. CARRIED**

Motion Passed

- 3.2 Environmental Management System and Quality Management System
PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the Environmental Management System and Quality Management System, **BE RECEIVED. CARRIED**

Motion Passed

- 3.3 Quarterly Operating Financial Status - 1st Quarter 2024
PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the Quarterly Operating Financial Status of the Elgin Area Primary Water Supply System for the 1st Quarter of 2024, **BE RECEIVED. CARRIED**

Motion Passed

- 3.4 Water System Operation - Contract Status Update
PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the Water System Operation Contract Status Update, **BE RECEIVED. CARRIED**

Motion Passed

- 3.5 2023 Audited Financial Statements and Auditors Report
PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the 2023 Audited Financial Statements and Independent Auditor's Report for the Elgin Area Primary Water Supply System, as appended to the report dated June 6, 2024, **BE RECEIVED AND ACCEPTED. CARRIED**

Motion Passed

4. Items for Discussion

4.1 2024 State of the Infrastructure and Levels of Service

PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the 2024 State of the Infrastructure and Levels of Service, **BE RECEIVED. CARRIED**

Motion Passed

4.2 Backfeed of the Elgin Area Water Supply System from the Lake Huron Water Supply System through the City of London

PETERS AND ADZIJA

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the Backfeed of the Elgin Area Water Supply System from the Lake Huron Water Supply System through the City of London, **BE RECEIVED. CARRIED**

Motion Passed

4.3 Ministry of the Environment, Conservation and Parks Inspection Report

ADZIJA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the report dated June 6, 2024, with respect to the Ministry of the Environment, Conservation and Parks Inspection Report, **BE RECEIVED. CARRIED**

Motion Passed

5. Deferred Matters/Additional Business

None.

6. Next Meeting Date

October 3, 2024

7. Adjournment

The meeting adjourned at 5:48 PM.

Board of Management Report

Subject: Quarterly Compliance Report (2nd Quarter 2024: April - June)

Overview:

- There were no adverse water quality incidents (AWQI) reported during this quarter.
- There are no new or proposed regulatory changes which might have a significant impact on the system.

Recommendation

That the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

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 is it 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 Elgin Area Primary Water Supply System (EAPWSS).

New Environmental Registry of Ontario (ERO) Postings: At the time of drafting this report, there were no new 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 April 1 – June 30, 2024 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 the external laboratory during this quarter.

Compliance Inspections: There were no compliance inspections conducted during the reporting period.

Energy Reporting: Under the *Electricity Act*, O.Reg. 25/23 requires public agencies to report annually on their energy consumption and greenhouse gas emissions (GHG). Public agencies must also prepare Energy Conservation and Demand Management (CDM) Plans and update them every five (5) years. The most recent update was due on July 1, 2024. The [Energy CDM Plan](#) was prepared as required and is posted on the Water Systems' website for public information. The update of the Energy CDM Plan provided the opportunity to conduct a review of progress made over the past five (5) years and consider planned activities for the next 5-year period as it relates to energy conservation and demand management measures. Compared to the 2017 baseline year, the electricity intensity (energy consumption per million litres of treated water), total natural gas consumption and total GHG emissions have all decreased at the Elgin Area Water Treatment Plant (WTP). Additional projects and optimization opportunities are currently in progress or planned, which should contribute additional energy conservation and demand reductions over the next five (5) years.

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 2024 second quarter Contract Report was received from OCWA on July 30, 2024, and was discussed at the quarterly administration meeting between Board staff and OCWA on August 8, 2024. Copies of the monthly Operations and Maintenance Reports, and quarterly Contract Reports are available at the Board's Administration Office in London upon request.

Conclusion

Board staff will continue to review new and proposed legislation for potential impacts to the EAPWSS. Board staff will continue to meet with the operating authority on a regular basis to discuss regulatory and contractual compliance issues, and ensure any non-compliances are addressed in a timely manner.

Prepared by: Erin McLeod, CET
Quality Assurance & Compliance Manager

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

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

Board of Management Report

Subject: Environmental Management System and Quality Management System

Overview:

- This report provides a summary of Environmental Management System (EMS) and Quality Management System (QMS) activities that took place during the second quarter of 2024 (Q2).
- A Management Review meeting was held on June 11, 2024. The meeting minutes are attached to this report as [Appendix A](#).
- An EMS internal audit was conducted on April 16 to 29, 2024, to verify conformance with the ISO 14001:2015 EMS. An EMS Internal Audit Summary Report is included as [Appendix B](#).
- A QMS internal audit was conducted from June 03 to June 04, 2024, to verify conformance with the Ontario Drinking Water Quality Management Standard (DWQMS). A DWQMS Internal Audit Summary Report is included as [Appendix C](#).
- An Internal Environmental Compliance Audit (Fire Protection and Prevention Act, Occupational Health and Safety-Boilers and Pressure Vessels, Workplace Materials Information System) was conducted on April 04, 2024. An Internal Audit Summary Report is included as [Appendix D](#).

Recommendation

That the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report 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 September 2023 and was recommended for registration to the ISO 14001:2015 standard for a three-year period.

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)

The existing EMS has been integrated with a QMS that meets the requirements of the province's Drinking Water Quality Management Standard, 2017 (DWQMS). The combined EMS/QMS is maintained by the contracted Operating Authority.

The *Safe Drinking Water Act, 2002* (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. To become accredited, the Operating Authority must implement and maintain a QMS, which includes an Operational Plan meeting the requirements of the DWQMS and must undergo yearly external audits.

OCWA successfully received full scope DWQMS re-accreditation in January 2023 and is currently accredited for the three-year period ending in 2026.

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 Board's management team 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.

To carry out more effective Management Review meetings, the Board of Management'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 June 11, 2024. The meeting minutes are included as [Appendix A](#) for the information of the Board of Management.

Internal Audits

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

An EMS internal audit was conducted on April 16 to 29, 2024, to verify conformance with the ISO 14001:2015 EMS. There were no non-conformances and thirteen (13) opportunities for improvement identified. An EMS Internal Audit Summary Report is included as [Appendix B](#).

A QMS internal audit was conducted from June 03 to June 04, 2024, to verify conformance with the Ontario Drinking Water Quality Management Standard (DWQMS). There was one (1) non-conformance and three (3) opportunities for improvement identified. A DWQMS Internal Audit Summary Report is included as [Appendix C](#).

An internal Environmental Compliance Audit (Fire Protection and Prevention Act, Occupational Health and Safety-Boilers and Pressure Vessels, Workplace Materials Information System) was conducted on April 04, 2024. There was one (1) non-conformance identified. The Internal Audit Summary Report is included as [Appendix D](#).

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 Intertek. 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.

There were no external audits conducted in the second quarter of 2024.

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 undertaking corrective and preventive actions, preferably identifying, and preventing problems before they occur. The Internal Audit process and Management Review are the two main drivers for proactively identifying potential problems, opportunities for improvement and for the implementation of corrective actions for the EAPWSS. Preventive actions may originate from identified opportunities

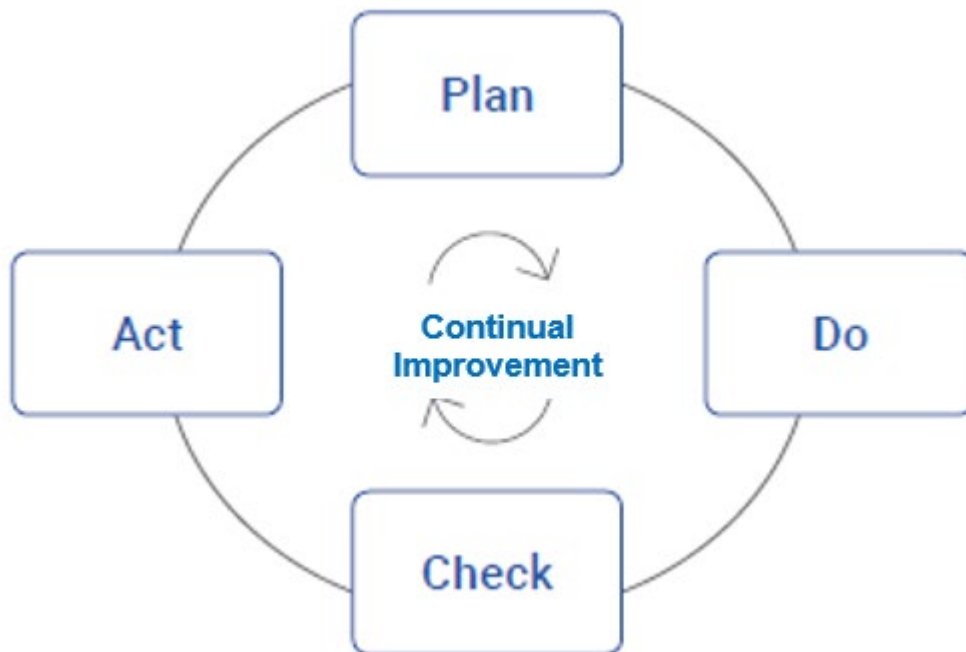
for improvement as part of an audit, but also staff suggestions and discussions with management.

It is important to note that the action items should not be construed as compliance failures, but rather an action to be undertaken which will improve the EAPWSS 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 the Plan-Do-Check-Act continual improvement process (Figure 1) 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: Plan-Do-Check-Act Continual Improvement Process



Fourteen (14) additional approved action items have been added to the EMS/QMS action item tracking system during Q2. The new action items were added resulting from the EMS Internal Audit and the Internal Environmental Compliance Audit.

As of September 16, 2024, there are currently nine (9) open action items in the EAPWSS tracking system. All action items are prioritized and addressed using a risk-

based approach, and deadlines established given reasonable timeframes and resources that are available. The Board of Management 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 and manage 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: Jennifer Levitt
Compliance Coordinator

Erin McLeod, CET
Quality Assurance & Compliance Manager

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

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

Attachments: [Appendix A](#) – Management Review Meeting Minutes (June 11, 2024)
[Appendix B](#) – EMS Internal Audit Summary Report (April 16 to 29, 2024)
[Appendix C](#) – DWQMS Internal Audit Summary Report (June 03 to 04, 2024)
[Appendix D](#) - Internal Environmental Compliance Audit Summary Report - Fire Protection and Prevention Act, OHS-Boilers and Pressure Vessels, WHMIS (April 04, 2024)

Appendix A: Management Review Meeting Minutes (June 11, 2024)

Date: June 11, 2024

Time: 1:00pm

Location: Virtual – Microsoft Teams

Attendees: Andrew Henry (RWS), Erin McLeod (RWS), Jennifer Levitt (RWS), Blair Tully (OCWA), Allison McCann (OCWA), Greg Henderson (OCWA), Denny Rodrigues (OCWA), Randy Lieber (OCWA), Jackie Muller (OCWA), Courtney Miller (OCWA)

Regrets: -

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 Meeting Minutes (March 05, 2024)

The minutes from the previous meeting (March 05, 2024) are posted to SharePoint. Minutes circulated to comment. No concerns noted and documents are approved.

2. Results of Board Meetings

Huron Board Meeting (March 7, 2024)

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information. The Board noted the continuous improvement and good work being done within the organization, with congratulations to the team.
- MECP Inspection Report: The report was received for information. The non-compliance re: logbooks was discussed, including potential for reoccurrence. Board staff is satisfied that corrective and preventive action were completed and monitoring for effectiveness continues.

Elgin Board Meeting (March 7, 2024)

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information.

Huron Board Meeting (June 6, 2024)

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information. There was general discussion on water temperature and the impacts of climate change, and water demand and impacts of growth to the region.

Elgin Board Meeting (June 6, 2024)

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information. There was general discussion on supply chain issues in relation to capital projects, water temperature, harmful algal blooms (HABs), impacts of climate change, nitrate runoff into Lake Erie, water demand and impacts of growth to the region.
- MECP Inspection Report: The report was received for information.

RWS comment: Boards are happy with Management System approach and activities. Seeing impacts of improved operational performance.

3. Environmental & Quality Policy

Last year, a minor update was made to both LHPWSS and EAPWSS policies to add climate change, mitigation and adaptation, the policy was signed 01 June 2023.

No recommended updates at this time however a decision was made to have current OCWA Top Management (J.Muller) sign polices/update signature block.

RWS comment: fine to resign, shows it was reviewed and signifies ongoing commitment

OCWA comment: no issues, happy to review and resign

For future consideration: alignment with a health and safety management system, commitment to capacity and availability of supply, water as a human right.

See agenda package for copies of LHPWSS and EAPWSS policies.

4. Compliance Obligations Update

[Addition of Climate Change Considerations to Management System Standards](#)

Source: ISO

Date Posted/Notice Received: February 22, 2024

Comments Due: N/A

Summary: Two (2) new statements of text are being added to a number of existing management systems standards, including ISO 14001:2015, to address the need to consider the effect of climate change on the ability to achieve the intended results of the management system. Under element 4.1 (Understanding the organization and its

context) the organization shall determine whether climate change is a relevant issue. Under element 4.2 (Understanding the needs and expectations of interested parties) it is noted that relevant interested parties can have requirements related to climate change.

Potential Impacts: No major impacts anticipated. Changing environmental conditions and climate change, and the associated impacts, is already noted as a relevant external issue in the EMS documentation related to element 4.1 (Table of Internal and External Issues). The management system documentation will be reviewed and updated in advance of the next scheduled management review meeting.

Health Canada: [Consultation: Guidelines for Canadian drinking water quality: Operational parameters](#)

Source: Health Canada

Date Posted/Notice Received: March 8, 2024

Comments Due: May 31, 2024 (Closed)

Summary: “This guideline technical document outlines the evaluation of the available information on calcium, magnesium, hardness, chloride, sulphate, total dissolved solids (TDS) and hydrogen sulphide with the intent of updating the guideline value for these operational parameters in drinking water.”

Potential Impacts: None anticipated. The aesthetic objectives (AO) identified are consistent with the current Ontario guidelines.

No concerns regarding the summary table provided in the meeting package. Refer to agenda package for Health Canada Operational Parameters (chart).

RWS comment: Received new Municipal Drinking Water License (MDWL) for Huron system. New obligations will be imposed. A meeting will be scheduled to discuss.

5. Incidents of Adverse Drinking Water Tests

LHPWSS - No Adverse Water Quality Incidents (AWQI) since June 2023.

EAPWSS – One AWQI reported in January 2024. This was discussed in the March 2024 Management Review meeting, but this only noted a Corrective Action Form was completed. The non-conformance was related to a limitation in the CT calculator regarding filter effluent turbidity. The full corrective action form was complete and action items were identified.

Refer to agenda package for AWQI Elgin -2024 01 27 Elgin CT Calculator CAF Form.

6. Environmental Objectives, Targets & Programs

EAPWSS Objective #1 – Electricity, Objective #2 – Chemicals

- Electricity – In 2023 the target was lowered. Seasonal trends observed, more efficient in summer, less efficient in fall/winter months due to the operation of the Residuals Management Facility (RMF). In the future, we would like to compare electricity efficiency to equipment run times.

OCWA comment: Summer of 2023 electricity may be a little higher as there were 3 filters online. It was slightly more challenging to ‘load shed’ during high peak electricity times. This may have impacted 2023 data. Summer of 2024 may also have the same situation as 3 filters are currently running.

- Chemicals – Seasonal trends observed. Once the Water Quality Facility Plan is received it may identify a few optimization opportunities to make a difference in the future. A Powdered Activated Carbon (PAC) study may be recommended in future.

EAPWSS Environmental Program - No significant changes. Note at remote stations we have started to look at electricity / natural gas data and have begun to trend information to look for opportunities. May present data in September 2024.

LHPWSS Objective #1 – Electricity, Objective #2 – Chemicals, Objective #3 – Process Water

- Electricity – Spring 2023 seeing a significant reduction, likely attributed to the High Lift Pump project. High Lift pumps were fully commissioned in 2022 and the operational strategy was implemented in 2023.

OCWA comment: Innovations Process Optimization Team (IPOT) has helped with pumping strategy as well. The information collected has been helpful in shaping the pumping strategy which has resulted in positive benefits. OCWA was able to mitigate 3 out of 5 peak days last year, the goal is to mitigate all 5 days this year.

RWS comment: Should see significant changes for volumes for both systems in 2027 or 2028 as far as supplies to municipalities. These are related to large industrial and institutional developments (e.g., Maple Leaf Foods in London, Yarmouth Yards in St. Thomas, industrial site at the old Ford Plant, redevelopment of the former psychiatric hospital in St. Thomas).

- Chemicals – No clear seasonal trend. Once the Water Quality Facility Plan is received, new optimization opportunities/projects may contribute to efficiencies.

OCWA comment: Last year, overdosing PAC compared to previous years due to geosmin hits in fall may have been attributed to this. New coagulation system may optimize chemicals more. The chlorine control system was online in October 2023. May be starting to see effects of climate change over last two years. The water temperature stayed warmer in winter which brings higher turbidity due to lack of ice cover.

- Process Water – Before 2023 typically 3 to 4% for process water use, and as of 2023 we are down below 3% for process water use. This is a clear improvement, which is likely attributed to the filter backwash project. RWS is preparing an application for submission to the OWWA Water Efficiency Committee for an annual award. **Post meeting note:** A savings of \$87,000 per year are estimated as a result of the project.

LHPWSS Environmental Program - No significant updates.
Refer to agenda package for charts related to the following:

- EAPWSS Objective #1 – Electricity, Objective #2 – Chemicals
- EAPWSS Environmental Program
- LHPWSS Objective #1 – Electricity, Objective #2 – Chemicals, Objective #3 – Process Water
- LHPWSS Environmental Program

7. Environmental Compliance Internal Audits

- SDWA and Regulations – LHPWSS (Jan. 15, 2024) – Three (3) non-compliances (NC) and no opportunities for improvement (OFI) were identified as part of the audit.
- SDWA and Regulations – EAPWSS (Mar. 14, 2024) – No NC's and one (1) OFI was identified as part of the audit.
- Boilers, Pressure Vessels, WHMIS, Fire Protection and Prevention – EAPWSS (Apr. 4, 2024) – No OFI's and one (1) NC was identified as part of the audit. The NC relates to a supplier label (or workplace label) not being affixed to a chemical bulk tank or the door leading into the dedicated storage area. Consideration should be given to assessing bulk tanks for labels that meets the Hazardous Products Regulations (Canada) labelling requirements for that hazardous product.

- **Discussion RWS and OCWA:** The regulation was difficult to interpret, may need Specialist input. There are inconsistencies with tanks, some have labels, some do not. OCWA corporate recommended contacting the supplier and having them provide supplier labels to place on the tanks. At a minimum, all bulk tanks on site should be reviewed and a consistent labelling approach should be applied to all. Agreed to revise the NC to an OFI. Audit report and CAF tracking system to be revised/updated. Same will apply to LHPWSS.

Refer to audit packing for further details.

8. EMS Internal Audit – EAPWSS (April 22 & 24, 2024)

No non-conformances (NC) and thirteen (13) opportunities for improvement (OFI) were reported as part of the EMS Internal Audit. Refer to agenda package for details.

9. EMS Internal Audit – LHPWSS (May 13-15, 2024)

Three (3) NC and fifteen (15) opportunities for improvement were reported as part of the EMS Internal Audit. Refer to agenda package for details.

10. EMS – Monitoring and Measurement Results

Refer to agenda package for data tables/trends charts related to the following:

- Elgin Area WTP - Summary of Energy Consumption and Greenhouse Gas (GHG) Emissions Reporting (2018-2023)
- Elgin Area WTP - Total Electricity Consumption (kWh)
- Elgin Area WTP - Electricity Intensity (kWh/ML)
- Elgin Area WTP - Total Natural Gas (m3)
- Elgin Area WTP - Greenhouse Gas Emissions (kg)
- Huron WTP - Summary of Energy Consumption and Greenhouse Gas (GHG) Emissions Reporting (2018-2023)
- Huron WTP - Total Electricity Consumption (kWh)
- Huron WTP - Electricity Intensity (kWh/ML)
- Huron WTP - Total Natural Gas (m3)
- Huron WTP - Greenhouse Gas Emissions (kg)

OCWA comment: The overall trends for natural gas consumption, electricity intensity and greenhouse gas emissions show great accomplishments by everyone. This involves capital investment and OCWA's operational team for taking on new systems and optimizing them over the years to get the best benefit.

RWS comment: Five-year Energy Conservation and Demand Management Plan will be presented to the Board in October 2024.

11. Effectiveness of the DWQMS Risk Assessment Process

LHPWSS

- June 8, 2023 – OCWA completed Annual Review. High water level added under possible hazard to shoreline erosion. Added new hazards: disinfection after repair performed after maintenance activities/repairs or construction, RMF polymer system, RMF trucking, plant drain, fire and explosion. Reviewed floc-walking beam scoring after rehabilitation project completion, with no change.
- August 30, 2023 – OCWA reviewed and updated from Internal Audit findings. Added in section regarding operating authority (OA) business IT system program and protections in place. Reviewed pipeline distribution section – added transmission main and auxiliary pipeline, added to review drawings for isolation points, follow Ontario water main disinfection procedure.
- QMS assessment deemed to be effective.

EAPWSS

- September 5, 2023 – OCWA met with Regional Hub Manager (RHM) and Senior Operation Manager (SOM) and reviewed higher scoring activities or process steps during capital recommendations 2024 review meeting. Changes made: added score to shoreline erosion as the total was missing, decreased score on plant drain blockage or failure. Due to frequent maintenance activities sand build up in the plant drain is under control.
- September 11, 2023 – OCWA reviewed and updated from DWQMS Audit OFI's. Added Diesel Fuel Risk Management Plan as an existing control measure for the diesel fuel underground storage tank.
- April 23, 2024 – OCWA completed annual review of QMS Risk Assessment. Added in service water lines as identified in management of change form (low lift project)
- QMS assessment deemed to be effective.

RWS comment - Insurance provider asks for the rate of shoreline erosion on an annual basis. An Elgin shoreline survey has been completed by Stantec. Note, in one area (toe of slope) we lost 27 meters (over 3 years). We see significant changes between the 'toe of the slope and the top of the bluff.' More erosion on the east side.

Note a 3-year OCWA work order is in place to monitor erosion.

12. Results of Emergency Response Testing

LHPWSS – In 2024 OCWA staff completed a tabletop review of HMC-1 (Report AWQI) and HMC-2 (Equipment Failure Catastrophic).

EAPWSS – OCWA plans to review the “Additional Demand for Water Fire Fighting” procedure at the next monthly staff meeting.

13. QMS Operational Plan Currency, Content and Updates

Operational Plans updated for the following:

- LHPWSS – Added the Town of Zurich (distribution system). Updated 2023 Water Quality characteristics. Added J.Muller as Regional Manager.
- EAPWSS – Updated 2023 Water Quality characteristics. Added J.Muller as Regional Manager.

Discussion to re-sign Commitment and Endorsement – update operational plan for both facilities.

RWS comment: As Operational Plans have been updated, A.Henry and J.Muller will need to resign. **OCWA** – agreed.

14. Changes that Could Affect the QMS

Harmful Algae Bloom (HAB) – [National Centers for Coastal Ocean Science \(NOOCS\) – Western Lake Erie HAB Early Season Projection](#) – Expect a moderate to larger-than-moderate summer HAB on Lake Erie. The final seasonal forecast will be out for the end of June 2024.

Per- and polyfluoroalkyl substances (PFAS) - could also have impacts in future. Both water systems are participating in a research study with the University of Waterloo but the results have not been published yet.

RWS comment: 3M facility via the City of London shared data on PFAS monitoring at their site in London. City of London tap water was tested. There was trace PFAS detected.

The Climate Change Resilience Study is being completed this year, and it will provide more information on the subject matter.

15. Overall Decision on the Suitability, Adequacy and Effectiveness of the EMS/QMS

General discussion on the management systems as a whole, reflecting back over the past year. Noted items:

- Driving continual improvement
- Unprecedented number of capital project recommendations for 2025
- Environmental objectives are being met (electricity consumption, chemical consumption, process water use)
- Audit programs are successfully identifying NCs and OFIs
- Support of OCWA and RWS leadership

RWS comment: Board as a whole and individual are pleased with performance of Management Systems. Starting to gain more international attention in the approach in how continual improvement is embraced and incorporated in the management systems, practices, and policies.

OCWA comment: Large number of staff suggestions showing significant engagement.

All in agreement that the EMS/QMS continue to be suitable, adequate and effective.

16. Action Items Identified Between Reviews

EAPWSS & LHPWSS - Management of Change (hazardous waste management portal).

LHPWSS - Contingency Plan Review/Test (Fire Drill)

17. New Business

RWS comment: Province of Ontario is proposing to eliminate the municipal Class Environmental Assessment process in favour of implementing a Municipal Project Assessment Process (MPAP) similar to the process previously implemented for transportation projects. There will be an accelerated environmental assessment program, and staff have some concern that identification of requirements for capital projects might get missed. Need to look at internal processes to make sure everything is still captured.

OCWA comment: Significant time has been invested into the transition and support of the new OCWA Regional Manager.

Appendix B: EMS Internal Audit Summary Report (April 16-29, 2024)

Audit Purpose:

The purpose of the audit was to verify conformance with the ISO 14001:2015 Environmental Management Systems standard for the Elgin Area Primary Water Supply System (EAPWSS). Internal audits ensure the EMS is being continually improved.

Auditor Qualifications:

Jennifer Levitt (Lead Auditor) has completed an ISO 14001:2015 Internal Auditor training course and is deemed competent to complete EMS auditing. Erin McLeod has completed an ISO 14001:2015 Internal Auditor Training course. See Certificates in Appendix C.

Methodology:

The Internal Audit was conducted as outlined in procedure EA-ADMIN-1200 Internal Audit of the EMS. The internal audit 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 May 15-19, 2023.

Note: The audit was conducted through a review of a sampling of documents, limited interviews and observations by the auditors to demonstrate conformance with the ISO 14001:2015 Environmental Management Systems standard. 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 positive findings and opportunities for improvement. There were no non-conformances identified during this audit. The detailed audit checklists are attached for further information.

- Appendix A: EF-ADMIN-1200 EMS Audit Checklist (McLeod)
- Appendix B: EF-ADMIN-1200 EMS Audit Checklist (J.Levitt)

Definitions:

- A non-compliance (NC) is a non-fulfilment of a regulatory requirement.
- An opportunity for improvement (OFI) describes a regulatory requirement that can be more effectively addressed.

Sites Visited:

- Elgin-Middlesex Pumping Station and Terminal Reservoir
- Elgin Area Water Treatment Plant

Interviews Conducted:

- A.McCann – Safety, Process and Compliance Manager, OCWA
- J.Muller – Top Management, OCWA
- G.Henderson – Senior Operations Manager, OCWA
- D.Locker – Operator, OCWA
- G.McEown – Team Lead, Operations & Compliance, OCWA
- A.Henry – Top Management, RWS

Summary of Findings

Positive Findings

Continual improvement was evident on the tour. Infrastructure improvement projects were recently completed or underway, including but not limited to, the standby generator TSSA repair project, low lift service water connection project, and security upgrades (cameras, card readers, fencing, lighting upgrades).

Top management and staff interviewed provided clear evidence of their commitment to the EMS and had various suggestions for continual improvement opportunities (e.g., related to electricity and chemical usage monitoring/trending).

Previous Management Review Meeting Minutes demonstrates cohesive communication between all parties through discussions that emphasize continual improvement efforts and completion of OFI's identified in previous EMS Audits.

Opportunities for Improvement (OFIs)

5.3 Organization Roles, Responsibilities and Authorities

OFI #1 – There is an opportunity for the new OCWA Regional Manager to further refine knowledge of Operating Authority (OA) Top Management leadership requirements as it applies to ISO 14001:2015.

6.1.1 Actions to Address Risks and Opportunities

OFI #2 – There is an opportunity to review the status of documented oil/gas wells and water monitoring wells on/near the property and consider assessing this on the aspects & impacts assessment.

6.1.3 Compliance Obligations

OFI #3 – There is an opportunity to update the links for the ‘Safe Drinking Water and Fluoride Monitoring Protocol, 2018’ to reflect current website and most recent version (February 2019).

6.1.4 Planning Action

OFI #4 – Consider adding potential water / soil contamination (PAHs, VOCs, hydrocarbons, dioxins, metals) as an environmental impact of Fire/Explosion onsite.

7.2 Competence

OFI #5 – Trojan UV was onsite April 22, 2024. Unable to confirm if trained/certified/licensed/qualified persons are conducting work at EAPWSS as Statement of Qualifications (SOQ) was not available from OCWA Corporate. There is an opportunity to confirm Contractors/Supplier/Vendor etc. qualifications through obtained SOQs during procurement.

7.5.3 Control of Documented Information

OFI #6 – Consider updating document EA-ADMIN-200 to remove hard copy (HC) reference of QMS Operational Plan and EMS Manual in the Control Room. Note – this was corrected during the internal audit.

8.1 Operational Planning and Control

OFI #7 – An EF-ADMIN-2301 Project Checklist was not completed for the SCADA & PLC software review and upgrade (major project). There is an opportunity to complete this checklist.

OFI #8 – Although the ‘Standby generator Technical Standards & Safety Authority (TSSA) fuel system upgrades’ project was deemed a major project an EF-ADMIN-700 Management of Change Checklist was not completed. There is an opportunity to complete the checklist.

OFI #9 – Two (2) EF-ADMIN-700 Management of Changes Checklists (dated September 26, 2023, for the Elgin Security upgrade, and dated September 21, 2023 for the hazardous waste reporting portal transition) were uploaded to SharePoint but the corresponding action items were not entered into the Corrective Action Form (CAF) Tracking System. There is an opportunity to upload items to the CAF Tracking System.

OFI #10 – A waste manifest was not completed to document UV bulbs (containing mercury) were removed from site and transported to Trojan. Consideration should be given to updating the EA-PROC-200 ‘Waste Management Completion’ to outline how to handle this type of waste. Consideration should also be given to obtaining a record from Trojan.

OFI #11 – For used filter media disposal, consider updating EA-PROC-100 ‘Storage Handling Disposal of Hazardous and Liquid Industrial Wastes’ procedure as it is not clear on what records/documents are required (e.g., waste manifest). Also consider obtaining a record from the receiving landfill.

9.1.2 Evaluation of Compliance

OFI #12 – Consider documenting the most recent Ministry of the Environment, Conservation and Parks (MECP) Inspection as an external compliance audit on the Legal Register.

OFI #13 – On the Audit Schedule, consider prioritizing the overdue items for upcoming compliance audits.

Non-Conformances

No non-conformances were identified as part of the internal audit.

Appendix C: DWQMS Internal Audit Summary Report (June 03 & 04, 2024)

Audit Purpose:

The purpose of the Quality Management System (QMS) Internal 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:

Jennifer Levitt completed the training course in DWQMS Internal Auditing. The Internal Auditor 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 June 08 and 09, 2023.

Note: The internal audit was conducted through a review of a sampling of documents, limited interviews, and observations by the auditors to demonstrate conformance with the DWQMS. The review and internal 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.

- Appendix A: EF-ADMIN-1201 QMS Audit Checklist (Jennifer Levitt)

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.

Areas Visited:

- Elgin Water Treatment Plant (WTP), 43665 Dexter Line, Central Elgin, Ontario
- Elgin-Middlesex Pumping Station (EMPS) - Valve House and Terminal Reservoir, 490 South Edgeware Road, Central Elgin, Ontario

Interviews Conducted:

- Jackie Muller - Regional Manager, OCWA
- Greg Henderson - Senior Operations Manager, Overall Responsible Operator, OCWA
- Allison McCann - Safety, Process and Compliance (SPC) Manager, QMS Representative, OCWA
- Glenn McEown - Team Lead, Operations & Compliance, OCWA
- Matt Colbridge - Operator
- Erin McLeod - Quality Assurance & Compliance Manager, RWS

Summary of Findings

Positive Findings

- Staff interviewed were engaged, knowledgeable, and provided thorough explanations about the work they were doing.
- Effective communication occurs between operators and maintenance staff which allows for a transfer of knowledge.
- All calibration records / training records requested were readily available and / or scheduled as required.
- Continual improvement projects were underway (e.g., standby generator TSSA repairs, roof drain replacements).

Non-Conformances (NCs)

One (1) NC was identified as part of the internal audit and is outlined below.

Element 18 – Emergency Management

NC#1 - A review of a major taste and odour that occurred in November-December 2023 was not completed within one month as required by ECP-1 (Emergency Management).

Opportunities for Improvement (OFIs)

Three (3) OFIs were identified as part of the internal audit and are outlined below.

Element 5 – Document and Records Control

OFI#1: Safety Data Sheets (SDS) are kept in the laboratory. EA-ADMIN-200 Document and Records Control notes SDS are located at the 'Right to Know Station'. This area

could not be identified during the audit. Note this will be resolved once online SDS are implemented.

OFI#2: Documents & Record Control (EA-ADMIN-200) – In ‘Appendix A - Type of Document/Record’ consider including the actual document number (e.g., EF-ADMIN-2050) instead of only the name of document (e.g., Daily Round sheets).

Element 8 - Risk Assessment Outcomes

OFI#3: QMS Risk Assessment & Outcomes – Consider reservoir leaks and generator failure to start as ‘Hazardous Events’.

Appendix D: Internal Environmental Compliance Audit - Fire Protection and Prevention Act, Occupational Health and Safety-Boilers and Pressure Vessels, Workplace Materials Information System (April 04, 2024)

Audit Purpose:

The purpose of the audit was to verify compliance with relevant environmental legislation and other compliance obligations at the Elgin Area Primary Water Supply System (EAPWSS). Internal audits ensure the progress and activity of the Environmental Management System (EMS) is tracked.

Auditor Qualifications:

Jennifer Levitt has completed an ISO 14001:2015 Internal Auditor training course and an Environmental Compliance 101 course and is deemed competent to complete environmental compliance auditing (see Certificate in Appendix A).

Methodology:

The internal audit was conducted as outlined in Procedure EA-ADMIN-1600 (Compliance) as detailed in the EMS Manual. The audit checklist was generated using Nimonik Environmental Criteria software which is attached as Appendix B of this report.

The audit was comprised of a desktop environmental compliance review of the EAPWSS and a facility meeting. The audit was 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 December 10, 2020.

Note: The audit was conducted through a review of a sampling of documents, limited interviews and observations by the auditor to demonstrate compliance obligations are being met as outlined in the EMS. The review and audit should not be construed as a complete and comprehensive review of all aspects and all documents.

The following items had criteria in the Nimonik Environmental Health & Safety Auditor Software:

- Fire Protection and Prevention Act, 1997 SO1997, c4;
- Workplace Hazardous Materials Information System (WHMIS) O.Reg.860 under Occupational Health and Safety Act RSO1990, cO.1; and

- Boilers and Pressure Vessels O.Reg.220/01 under Technical Standards and Safety Act, 2000 SO2000, c16.

Interviews Conducted:

- Allison McCann - Safety, Process & Compliance Manager, OCWA
- Erin McLeod - Quality Assurance & Compliance Manager, RWS

Areas Visited:

- Elgin Water Treatment Plant, 43665 Dexter Line, Central Elgin

FINDINGS

The following is a summary of the findings including non-compliance issues and opportunities for improvement for the EAPWSS.

Definitions:

- A non-compliance (NC) is a non-fulfilment of a regulatory requirement.
- An opportunity for improvement (OFI) describes a regulatory requirement that can be more effectively addressed.

Non-Conformances

NC#1 - Section 8(7) of Workplace Hazardous Materials Information System (WHMIS) O.Reg.860 under Occupational Health and Safety Act RSO1990, cO.1.

A supplier label (or workplace label) was not observed on the fluorosilicic acid bulk tank or the door leading into the dedicated storage area. Consideration should be given to assessing bulk tanks for labels that meets the Hazardous Products Regulations (Canada) labelling requirements for that hazardous product.

Board of Management Report

Subject: Quarterly Operating Financial Status – 2nd Quarter 2024

Overview:

- This report shows the current fiscal year's 2nd quarter in comparison to its Budgeted amount and the previous year's same time period.

Recommendation

That the Board of Management for the Elgin Area Water Supply System receive this report regarding the Operating Financial Status Report for the period of April 1 to June 30, 2024, noting that this report is unaudited and subject to adjustments including the preparation of the financial statements and completion of the annual audit.

Previous and Related Reports

June 6, 2024 Quarterly Operating Financial Status – 1st Quarter 2024

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 expenses from a previous fiscal year and/or unaccrued expenses related to a 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 second quarter 2024 (April 1 to June 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 corrections and entries required for 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.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London. Expenditures have increased from the same period in 2023 due to an increase in contracted costs.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The reported energy cost was marginally higher than the same period of the previous year due to increased volumes and market expenses.
- Salaries, wages, and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2023 are attributed to annual salary adjustments, vacancies, and additional staff added in the 2023 budget.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, bank charges and interest, and office supplies. The costs to date are mostly higher than 2023 due to higher rental charges for increased office space.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers, and office equipment for administrative staff. 2024 expenditures are currently higher than 2023 largely due to higher contract charges and additional travel requirements.
- Purchased Services and Professional Fees largely relate to allowances for ad hoc professional consulting and legal services, security services, telephone charges, network, and SCADA (Supervisory Control and Data Acquisition) maintenance, printing services, and pipeline locate costs. The increased cost when compared to the same period in 2023 is largely attributed to higher insurance premiums, and a special drainage assessment fee.

- Debt Principal 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 (fourth quarter) as part of the year-end process and in preparation for the year-end audit, where the actual contributions are the total remaining revenue in excess of expenditures. Accordingly, the amount of the anticipated contribution will be 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 J. Henry, P.Eng.,
Director, Regional Water

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

Attachments: Operating Financial Status Summary – 2nd Quarter 2024

Quarterly Financial Summary Report

Elgin Area Water Supply system
2nd Quarter 2024 (April 1 to June 30)

(\$,000's)

	Approved 2024 Budget	Q2 - 2024	2024 Year to Date	Year To Date Variance	2023 Year To Date
Total Revenue	16,218	3,905	7,978	8,240	7,528
<u>Expenditures:</u>					
Contracted Operating Services	5,167	1,321	2,608	2,559	2,527
Contracted Administrative Services	175	47	95	80	86
Electricity	1,075	237	408	667	386
Salaries, Wages, Benefits	1,247	305	498	749	430
Administration and Other Expenditures	598	52	285	313	273
Vehicles and Equipment	123	27	62	61	47
Purchased Services & Professional Fees	1,058	121	469	589	432
Debt Principle Payments	1,209	0	1,201	8	1,176
Interest on Long-Term Debt	85	0	54	31	85
Contributions to Reserve Funds	5,480	231	231	5,249	231
Total Expenditures	16,217	2,341	5,911	10,306	5,673

Board of Management Report

Subject: Capital Status Report

Overview:

- This report shows the status of all capital projects for the current fiscal year.
- Five capital projects are recommended to be closed with surplus funding in the approximate amount of **\$2,400,320** released to the Reserve Funds.

Recommendation

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Elgin Area Primary Water Supply System take the following actions regarding capital projects:

- a) The Board **CLOSE** projects **EA2172** Terminal Reservoir Isolation, **EA4156** High Lift Pump Replacement, **EA4162** Crop Yield Monitoring and **EA4188** Lighting/Breaker Panel Replacement, with surplus funding in the approximate amount of **\$2,429,151** released to the Reserve Funds.
- b) The Board **CLOSE** project **EA3020** Roof Replacement with additional funding in the approximate amount of **\$28,831** be drawn from the Reserve Funds.
- c) The Board **RECEIVE** this report for information.

Previous and Related Reports

March 7, 2024 Capital Status Report

Background

The Capital Project Status Report, for the Board's information, provides a brief overview of the status of current capital projects for the Elgin Area Primary Water Supply System. This report is provided for the general information of the Board.

The status report is divided into four categories of projects, namely:

- 1. Ongoing Projects:** This section provides a summary list of all projects which are funded by the Board through the Capital Budget, and which are currently in-progress. Board funded projects are typically for the replacement or upgrade of existing assets, the construction of new assets, or engineering studies and assessments, as approved by the Board.

Under the terms of the Service Agreement with the contracted operating authority, the Board is also required to pay for some maintenance/repair activities. The benchmark used in the operating contract is that if the value of the material and any contracted labour is over \$30,000 (indexed annually to inflation from the start of the contract), the project is considered Capital Maintenance and the contracted operating authority would fund the first \$30,000 (indexed), with the balance funded by the Board. Accordingly, the Board maintains an annual “fund” within the Board’s capital budget to pay for these projects as they arise.

2. a) Completed Projects - Release Surplus to Reserve Funds: This section provides a summary list of all projects which are presently completed and do not require additional funds from that budgeted. Should the Board approve the closure of the listed projects, it is the recommendation of staff to release the surplus funds, if any, to the appropriate Reserve Fund.

b) Completed Projects – Reduce Authorized Debt: In the case where the project is funded through the issuance of a debenture, should the Board approve the closure of the listed project it is the recommendation of staff to reduce the previously authorized but unissued debt for the project(s).

3. Completed Projects - Additional Funding Required: This section provides a summary list of all projects which are presently completed but require additional funds from that originally approved by the Board. Should the Board approve the closure of the listed projects, it is the recommendation of staff to provide the required additional funding from the Board’s Reserve Fund.

Discussion

For the information and reference of the Board, the following is the Capital Project Status Summary:

1. Ongoing Capital Projects

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA2019-24	Master Water Plan Update	\$225,000	\$5,520	Ongoing
EA3010	IT Asset Replacement Program	\$471,000	\$278,681	Ongoing
EA3017	Exterior WTP Building Seals	\$60,000	\$33,564	Ongoing
EA3018	Cyber Intrusion Detection System	\$10,000	\$0	Ongoing

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA3025	EMPS HVAC Replacement	\$1,025,000	\$0	On hold
EA4022	Security Upgrades	\$1,025,000	\$707,043	Ongoing
EA4039	Record Drawings & Documents	\$255,000	\$178,225	Ongoing
EA4114-23	Annual Maintenance (2023)	\$100,000	\$30,357	Ongoing
EA4114-24	Annual Maintenance (2024)	\$100,000	\$17,337	Ongoing
EA4129	Server Room Fire Suppression	\$30,000	\$3,836	Ongoing
EA4132	Alum Storage Tanks	\$825,000	\$725,412	Warranty period
EA4135	Hydraulic/Transient Model Update & Monitoring Study	\$237,000	\$82,123	Ongoing
EA4137	Low Lift Service Water Connection	\$750,000	\$701,940	Warranty period
EA4138	Parking Lot Asphalt Resurfacing	\$125,000	\$10,430	On hold
EA4152	PLC Replacements	\$40,000	\$29,437	Ongoing
EA4153	Backwash Pump Replacement	\$3,859,000	\$151,225	Ongoing
EA4166	SCADA/PLC – Software Review and Upgrade	\$500,000	\$402,864	Ongoing
EA4172	Dedicated Raw Water Sample Line	\$90,000	\$9,080	Ongoing
EA4175	Pilot – Unchlorinated Filtration	\$25,000	\$0	Ongoing
EA4176	Plant Drain Chlorine Sample Line	\$80,000	\$60,741	Ongoing
EA4177	Railings and guarding	\$350,000	\$322,763	Warranty period

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA4180	Filter Capacity Evaluation	\$37,000	\$554	Ongoing
EA4183	UV Replacement	\$9,109,360	\$949,509	Ongoing
EA4184	Water Quality Facility Plan	\$290,000	\$135,834	Ongoing
EA4186	Sodium Hydroxide Assessment Study	\$130,000	\$39,878	Ongoing
EA4189	RMF Mixing Pump Replacement	\$100,000	\$82,345	Warranty period
EA4190	RMF Total Chlorine Residual Compliance	\$50,000	\$0	On hold
EA4191	Roof Drain Replacements	\$75,000	\$65,455	Ongoing
EA4193	Standby Generator TSSA	\$290,000	\$220,650	Ongoing
EA4194	Asset Condition Field Assessment	\$135,000	\$71,162	Ongoing
EA4195	Electric Vehicle Charging Stations	\$60,000	\$0	Ongoing
EA4196	St. Thomas Meter Replacement	\$150,000	\$48,532	Ongoing
EA4198	Elgin Filter Emergency Repairs	\$608,000	\$465,235	Ongoing
EA4199	Office Expansion	\$100,000	\$56,321	Ongoing
EA4200	Service Water Study	\$120,000	\$0	Ongoing
EA4201	Climate Change Resiliency Assessment	\$120,000	\$0	Ongoing
EA4202	Low Lift Sluice Gate	\$350,000	\$0	Ongoing
EA4203	EMPS – Asset Management Plan Update	\$140,000	\$0	On hold
TOTAL		\$22,046,360	\$5,886,053	

2.a) Completed Projects – Release Surplus to Reserve Funds \$2,429,151

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA2172	Terminal Reservoir Isolation	\$185,000	\$167,867	Completed
EA4156	High Lift Pump Replacement	\$4,851,000	\$2,849,941	Completed
EA4162	Crop Yield Monitoring	\$661,000	\$266,580	Completed
EA4188	Lighting/Breaker Panel Replacement	\$100,000	\$83,461	Completed
TOTAL		\$5,797,000	\$3,367,849	

2.b) Completed Projects – Reduce Authorized Debt

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
TOTAL		\$ 0	\$ 0	

3. Completed Projects – Additional Funding Required (\$28,831)

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA3020	Roof Replacement	\$625,000	\$653,831	Completed
TOTAL		\$625,000	\$653,831	

* Expended as of August 31, 2024

Prepared by: Archana Gagnier
Budget and Finance Analyst

Submitted by: Billy Haklander, P. Eng., LL.M
Senior Manager, Capital Programs

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



Ron Kingswood



Ron Kingswood

HAWK CLIFF BANDING STATION

Established 1969



HAWK CLIFF
RAPTOR BANDERS

1

BANDING STATION



2

MIST NETS

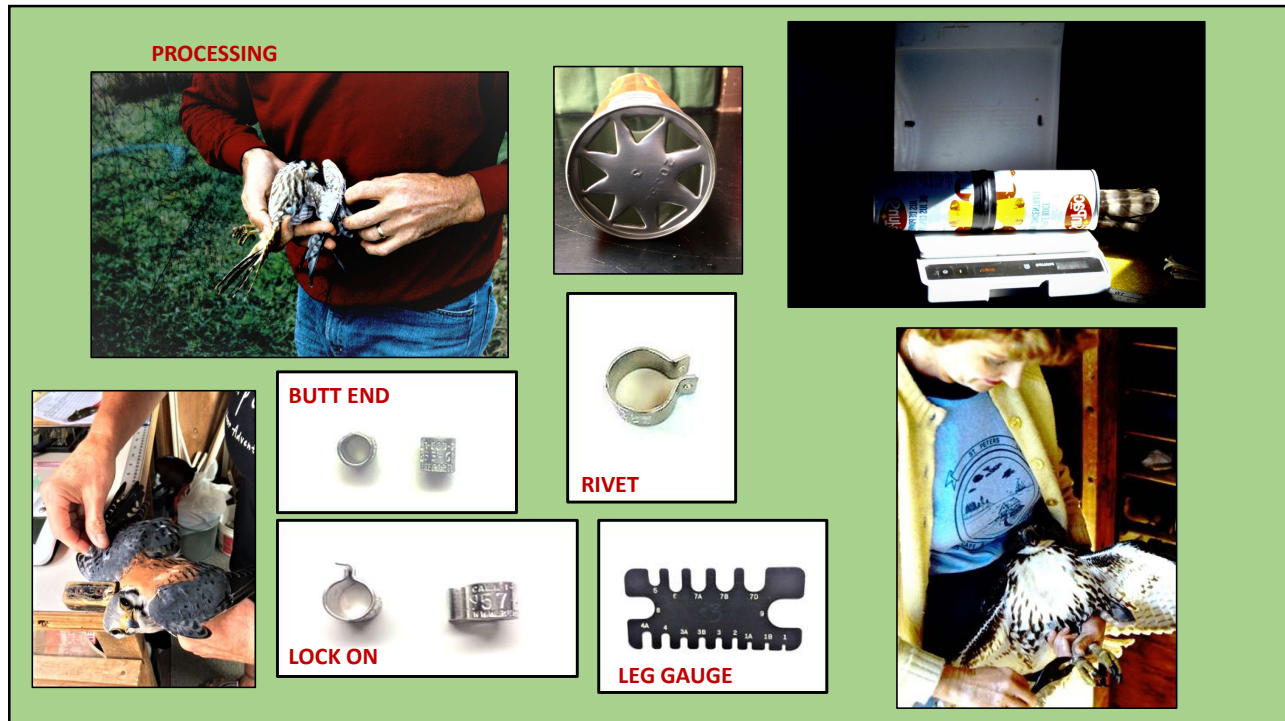


3

CAPTURES



4



5

RECORDING

Band # 1947 Band Series 23461 Station # 3 20 19

Size TA 23461 23480

Hawk Cliff Raptor Banding Record

#	Date	Band #	Species	Age	Sex	Wing Cord	Weight	Rec. Time	Banders	Remarks
✓	Nov 5	1947-23461	Redtail	HY	U	370	785	12:02	CC	
✓	Nov 7	23462				377	878	11:52		
✓		23463				365	960	13:05		
✓	Nov 8	23464				355	881	9:56		
✓		23465				382	857	10:54		
✓	Nov 11	23466				357	795	12:31		
✓		23467				368	765	13:26		
✓	Nov 12	23468				354	697	9:54		
✓		23469				356	729	11:06		
✓		23470				358	870	11:40		
✓		23471				350	788	12:16		
✓		23472				345	751	14:26		
✓	Nov 15	23473				350	752	10:49		
✓		23474				340	675	13:37		
✓	Nov 16	23475				356	814	9:23		
✓		23476				345	728	10:03		
✓		23477				349	674	10:36		
✓		23478				353	716	11:46		
✓		23479				375	705	13:57		
✓	Nov 20	23480				343	777	10:48		

6

SUBMISSION TO CWS

Bandit - [Bandit App]
 File Edit View Format Records Help
 13 / 39390 Found (Sorted)
 Show All New Record Delete Record Find Sort
 Layout: Bands View As: Preview
 You are in Banding Module

Record	Locat	Banding Date	Band Number	Species	Age	Sex	Wing Chord	Bird Weight	Capture Time	Bander ID	Disp.	Bird Status	How Aged	How Sexed	Errors	Tail Length	Feather sample ta
S 5		12/14/2004	0745-76749	NOHA	SY	F	387	600	11:55:00	JL	1	300	PL	WL			O Y O N
S	BL4	09/12/2016	0874-10466	MERL	HY	F	210	238	09:38:00	CF	1	300	PL	WL	Age/Sex unlikely on		Y O N
S	BW	06/08/2019	0928-06101	GHOW	AHY	U	365	1560	10:00:00	ed	1	700	PL				O Y O N
S	3	11/02/2008	1177-33303	RTHA	HY	U	385	1203	12:35:00	CC	1	300	PL				O Y O N
S	3	11/06/2008	1177-33304	RTHA	SY	U	355	934	11:55:00	CC	1	300	PL				O Y O N
S	3	09/10/2006	1333-29594	SSHA	HY	F	203	167	07:35:00	CC	1	300	PL	WL			O Y O N
S	3	09/10/2006	1333-29595	SSHA	HY	F	198	139	13:30:00	CC	1	300	PL	WL			O Y O N
S	3	09/10/2006	1333-29596	SSHA	HY	F	198	168	14:25:00	CC	1	300	PL	WL			O Y O N
S	3	09/10/2006	1333-29597	SSHA	HY	F	202	169	14:40:00	CC	1	300	PL	WL			O Y O N
S	3	09/11/2006	1333-29598	SSHA	HY	F	205	178	09:00:00	CC	1	300	PL	WL			O Y O N
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S	1	09/16/2011	1623-26817	SSHA	HY	F	179	102	10:00:00	BH	1	300	PL	WL			O Y O N
S	1	09/16/2011	1623-26818	SSHA	HY	F	185	101	11:45:00	BH	1	300	PL	WL			O Y O N

Showing: Filtered Records Filter By: Prefix 1643 Suffix Range 04201 04500 Used Submitted Filter Show All
 Fill Down By: Species Age Sex Banding Date Disposition Bird Status How Aged How Sexed Location Bander ID Fill Down
 Band Record Pipe Version: 1M074576749NOHA(3310)3005PL5[WL]5[20041214]11:55:00[1030][387]600[00:00:00]

7

REPORT FROM BIRD BANDING OFFICE

Page: 1 Report to Bander 02/02/2019
 Reporting Period: from 01/26/2019 to 02/01/2019

Permit 10305 OBBA-HAWK CLIFF RAPTOR BANDING
 C/O CYRIL CROCKER

Banding Information										Encounter Information									
Reported Band#	Band Date	Reg	Lat	Lon	Dir	Aou	A	S	Stat	Date	Reg	Lat	Lon	Dir	How	Who	PC	Rpt	Finder Info
1272-07043	10/03/2011	668	424	0810	0	SSHA	2-4		300	02/01/2019	242	323	0932	0	60	21	04	07	JOHN MADDEN, e-mail: [redacted]
										1.7 mi E from HAUGHTON, BOSSIER, PARISH, LOUISIANA, USA									
1387-30720	11/01/1998	668	424	0810	0	RTHA	2-0		300	01/28/2019	668	440	0794	0	66	23	07	07	NIGEL SHAW, e-mail: [redacted]
										3.1 mi NW from BEETON, ONTARIO, CANADA									

Total Records Listed for Bander: 2

Hit by motor vehicle or found dead along roadside.

Recaptured at another banding site.

8

ACCIPITERS

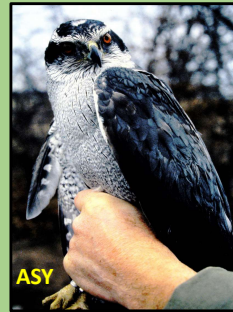
SHARP-SHINNED HAWK



COOPERS HAWK



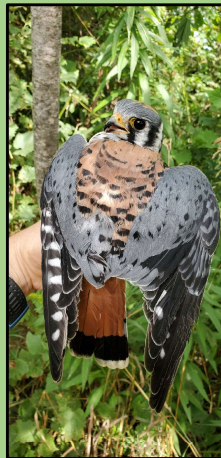
NORTHERN GOSHAWK



9

FALCONS

AMERICAN KESTREL



MERLIN



Banded by CWS in Hull, PQ- 07/1977
09/1977 Recaptured at Hawk Cliff

PEREGRINE FALCON



10

BUTEOS

BROAD-WINGED HAWK



HY

ROUGH-LEGGED HAWK



HY

RED-SHOULDERED HAWK



HY



HY

ADULT



ADULT

ADULT



ADULT

11

EAGLES

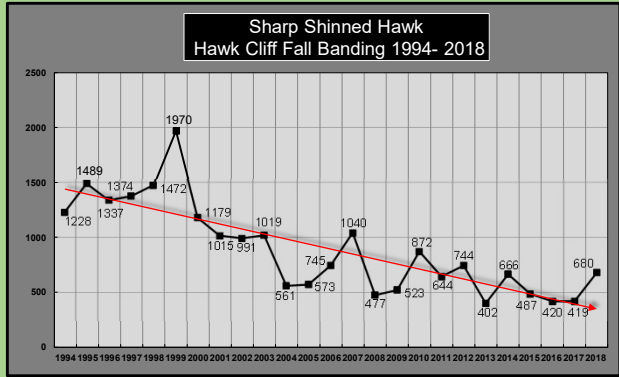
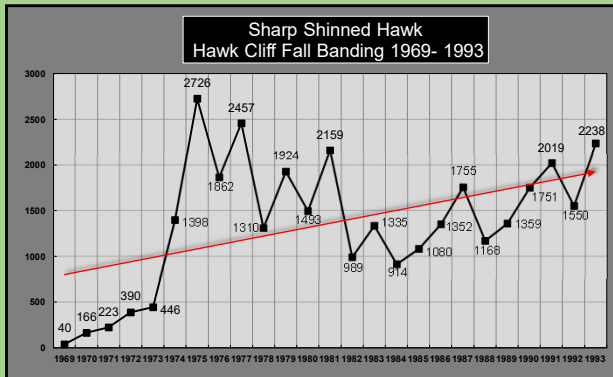






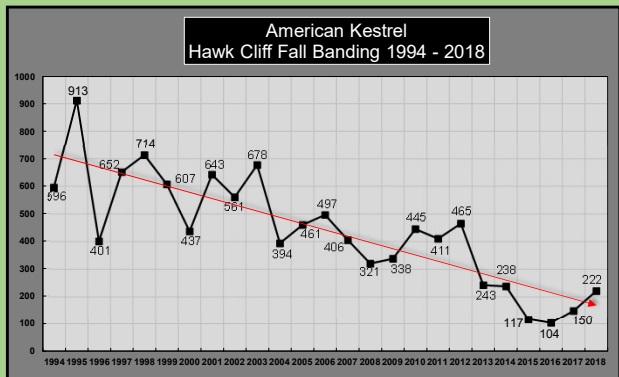
12

BANDING TRENDS



13

BANDING TRENDS



14

PROJECTS

BIRDS CANADA OISEAUX CANADA

Motus
Wildlife Tracking System

Similarly, Swanson's thrushes tagged in the tropical forests of Colombia to understand how different levels of fat deposits affect their departure timing have also provided information about the species' northbound migration across the Caribbean, the Gulf of Mexico and beyond.

15

PROJECTS

Flat Fly

Cappillaria

Avian Influenza

16

Board of Management Report

Subject: 2025 Operating and Capital Budgets

Overview:

- The proposed 2025 Operating and Capital budgets are consistent with the Financial Plan approved by the Board in March 2023.
- The proposed water rate for 2025 is 1.0337 dollars (\$1.0337) per cubic meter; a 3.5 percent increase in the rate charged in 2024 to benefiting municipalities.
- Cost projections presented in the 2025 budget include the anticipated operating costs for the water utility within the current term with the contracted operating authority, the Ontario Clean Water Agency, which ends December 31, 2027.
- Projected financial requirements beyond 2025 may be subject to change once the Master Water Plan is updated and completed, currently anticipated by mid-2025.

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 with regard to the 2025 Operating and Capital Budgets:

- a) The Board **APPROVE** the 2025 Operating Budget in the total amount of \$16,729,982 as attached to this report;
- b) The Board **APPROVE** the 2025 Capital Budget in the total amount of \$3,296,000 as attached to this report;
- c) The Board **APPROVE** the 2025 rate for water of \$1.0337 per cubic meter;
- d) The Board **RECEIVE** the 2026 to 2034 Capital Forecast for information; and,
- e) The Board **RECEIVE** the 2023 to 2029 Flow and Financial Analysis for information.

Previous and Related Reports

None

Discussion

2025 Water Rate

It is proposed in this budget that the water rate for the wholesale of water to the benefiting municipalities be set at \$1.0337 per cubic meter. In responding to regulatory, operational, and inflationary pressures, this proposed 2025 rate represents a 3.5% increase from the current rate charged in 2024.

The rate proposed for the 2025 budget is consistent the projected rate increase previously reported to the Board in the Financial Plan approved in March 2023.

2025 Budget Volume

Projecting for the current rate of population and water demand growth within the benefiting municipalities, as well as anticipated impacts of development, industry and water conservation, the proposed 2025 treated water volume included in the budget of 15.94 million cubic meters represents a negligible change compared with the 2024 approved budgeted volume, and approximately 0.7% higher than the anticipated 2024 actual supplied volumes by year-end.

Approved 2024 budget volume	15,986,060 m ³
Anticipated 2024 year-end volume	15,828,647 m ³
Proposed 2025 budget volume	15,940,500 m ³

A conservative estimate of volume was utilized for the 2025 budget due to current supply patterns in Elgin County and remains reflective of long-term system consumption patterns throughout the region. The City of London continues to take the minimum contracted block-volume of water daily of approximately 22.7 million litres.

Water demand projections and anticipated capital works are reviewed annually as part of the budget development process to ensure capital investments are appropriately coordinated and timed. The long-term volume projections are being reviewed as part of the ongoing to the water system’s Master Plan, which is to be completed by mid- 2025. These revised projections from the Master Water Plan will include the supply to the Yarmouth Yards industrial development lands in St. Thomas anticipated starting in 2028, as well as other development and growth within Elgin County.

Further, the regional water system’s business case process promotes a risk mitigation and level of service strategy which further encourages the appropriate timing of necessary projects and investments.

Development Areas

At the time of drafting this report, preliminary information provided by the City of St. Thomas related to the construction of the industrial development site, now publicly referred to as “Yarmouth Yards”, was incorporated into the short-term projections included in the proposed budget. Based on this preliminary information, the proposed battery plant and associated support businesses are not anticipated to start production until late-2027 or early 2028, and the projected average day and maximum day consumption for the development area has yet to be fully quantified.

The Master Water Plan currently being undertaken will undertake a detailed assessment of anticipated consumption for the 35+ year planning period, including any anticipated implications of the Yarmouth Yards development, as well as other possible development areas in Elgin County such as the former Ford Talbotville plant, former CN rail yard and former psychiatric hospital lands.

Operating Costs

The two largest individual operating costs for the water supply system are the contract costs for the operation and maintenance of the water supply system, and the purchase of electricity for the system. The 2025 budgeted operating costs are approximately \$6.577 million, reflecting a 5.4% net increase compared to the 2024 budget, and includes \$1 million in anticipated energy costs. Energy saving initiatives, including the installation of new high lift pumps, have significantly contributed to the energy management strategy for the regional water system.

Of the \$6.577 million, energy currently comprises approximately 15.2% of operating expenditures, which is a 2% decrease from 2024.

The Service Fee currently paid to the Board’s contracted operating authority, the Ontario Clean Water Agency (OCWA), consists of general operating costs such as labour, material, natural gas, chemicals, and other maintenance and repair services. As electricity can be highly variable on a year-over-year basis, the risk of market volatility has summarily been assumed by the Board and mitigated through the Board’s energy procurement strategy, as well as conservation and efficiency programs implemented in partnership with the Board’s contracted operating authority.

The Board has previously received and accepted an energy, conservation and pump optimization study report which reviewed possible cost saving and efficiency measures related to the procurement and usage of electrical energy and the associated pumping strategy for the system. The proposed 2025 Capital Budget and forecasted capital plan continues to incorporate energy efficiency projects and other opportunities, where feasible, with further energy efficiency projects to be considered in the future and evaluated using the water system’s business case process.

Administration and Other Expenses

The Administration and Other Expenditures projected for the 2025 budget of approximately \$3.703 million represents a \$503 thousand net increase over the 2024 budget amount. This net increase is due to numerous changes to the water supply system, including:

- Management & Administrative Personnel: projections for personnel costs have been adjusted as a result of increases reflective of Collective Agreements and cost of living. The budget also includes the addition of seven new positions (½ FTE's each shared with the Lake Huron Water System) to address the increased workload due to business needs and undertaking of duties previously purchased from the City of London and third-party vendors;
- Decreased fees charged by the City of London for numerous services and support due to the assumption of administrative support services from the City of London;
- Increases to the Board's property, cyber insurance, Directors & Officers insurance, and general liability insurance policies;
- The increased costs to Information Technology due to implemented cyber security measures, network technology, and replacement of IT/OT assets; and,
- Increased cost of leased office space.

Process Optimization

Efforts continue related to process optimization to improve treatment and transmission system performance, efficiency, and effectiveness with the intention of lowering long-term costs of operation and optimize future capital investments. In addition, process optimization has the added potential to increase treatment capacity without the corresponding potentially significant cost of construction of new treatment processes (i.e., expanding the treatment plant).

The Water Quality Facility Plan, detailed in a separate report before the Board, outlines recommended process efficiency improvements and treatment challenges which may restrict process efficacy in future. Leveraging in-house resources and the use of partnerships with the Natural Sciences and Research Council of Canada (NSERC) Industrial Research Chairs at the universities of Waterloo and Toronto have allowed staff to reduce the associated operational costs without impacting the optimization program.

Administrative Staffing Plan

Since the issuance of the Transfer Order by the province of Ontario which created the Board and transferred ownership from the province, the City of London has provided specified administrative support services to the regional water systems on a fee for

service basis. The scope of the services provided largely relate to support related to financial services, procurement, information technology, risk & insurance management, and human resource management.

The terms of the services provided have never been clearly defined, and Board staff have been in discussions with the City of London to clearly define a corresponding Service Level Agreement. While services such as human resource management and the utilization of the city's financial information management system continue to be part of the core services provided by the city to the Board, the Service Level Agreement discussions have identified several areas in which improvements can be made through the Board's assumption of the responsibilities.

In that regard, as well as addressing the increasing workload related to the water system's capital program, the 2025 budget includes the addition of the following positions:

Finance – To ensure the timely management of payables and receivables, as well as the efficient and effective procurement of goods and services for the regional water system, a Manager of Finance and Procurement, a Procurement Specialist, and a Support Clerk are being added to the existing complement of staff. Along with the existing Budget and Finance Analyst, this group will be responsible for the management of financial services for the Board. Support services will continue to be provided by the City of London in relation to the use of the city's financial management system, debenture management, and reserve fund management.

Capital Programs – In order to effectively manage the long-term capital programs for the water system, a Senior Technologist is being added to the existing complement of staff. This position is in addition to the existing positions including two engineers, two technologists, one senior technologist, and engineer-in-training, and an asset management coordinator, as well as an engineering intern student that supports the process optimization program. This group is led by a Senior Manager of Capital Programs.

Business Operations – consolidating the management and administration of operational related activities, a Senior Manager of Business Operations is being added to the existing complement of staff. This position will be focused on the overall management of operational activities including quality assurance and compliance, the coordination of various contracted services, SCADA control systems, information technology and network operations, as well as security and emergency management. To support this business area, a Health and Safety Specialist and a SCADA Supervisor are also being added to the existing complement.

As cybersecurity and control systems become more complex, and require detailed oversight and coordination, the SCADA Supervisor is necessary to ensure that the control systems utilized by the water supply system remain robust and secure.

The proposed Health and Safety Specialist is critical to address gaps in the existing health and safety program for the regional water system. While much of the core health and safety requirements related to the employment of Board staff are provided through the City of London, program specific requirements outside of the city's purview and related to contractor safety management and the coordination of the health and safety requirements of the regional water system with the various contracted services need to be robust and well coordinated.

For the Board's information and reference, it is important to note that all staff positions are shared with the Lake Huron Water Supply System, including the corresponding costs. Changes in staff complement are reflected as a ½ full-time-equivalent (FTE) position for each Board within the respective operating budget.

Proposed 2025 Capital Budget

The proposed 2025 Capital Budget incorporates several projects to address capital improvements and critical reinvestment in the water supply system's assets, as well as regulatory requirements, ongoing and proposed Board initiatives. Project specific summaries are provided in [Appendix A](#) of this report for the Board's information.

In the development of the 2025 Capital Budget, a business case is created for each project which outlines the scope of the issue that needs to be addressed, options which can reasonably be considered, capital and operating cost estimates and implications, and the identification of project interdependencies. The business case process is linked with the water system's Customer Level of Service framework and Risk Mitigation strategy to better prioritize and direct funds in a more strategic fashion and in consideration of financial constraints which may be experienced.

Within this framework, a proposed capital project may be "lifecycle" in nature and required to maintain an existing level of service, and/or a "service improvement" investment which may address elements like:

- Enhancement to the level of service (including safety and security, energy efficiency improvements, system resiliency, and working conditions);
- Support of system growth, including the supply to new communities, or support projected increases in water demands to serviced communities;
- Address regulatory changes; and/or,
- Increase efficiency.

The level of capital investment will vary from year-to-year, most especially for projects related to system growth or supporting increasing water consumption. The Asset Replacement Reserve is used for lifecycle projects (maintain Level of Service), while the New Capital Reserve is used for system improvements (enhance Level of Service). A given project, in principle, may address multiple elements within the Level of Service framework (end-of-life replacement, improve energy efficiency, and/or address health & safety, regulatory, performance, etc.), and therefore may require the utilization of both the Asset Replacement Reserve (lifecycle) and the New Capital Reserve (service improvement and growth) as sources of funding.

Lifecycle Projects (Maintain Level of Service)

Proposed projects in the 2025 Capital Budget which primarily address maintaining the system's level of service are:

- IT Asset Replacement Program
- Roof Drain Replacements
- Sample Line Replacement Program
- Terminal Storage Reservoir Cell 1 Upgrades
- Plant Front Entrance Steps Replacement
- RMF Sodium Bisulphite Room Exhaust Upgrades
- Plant MCC Component Upgrades
- Operations & Maintenance Procurement Advisory Services
- PLC Replacements
- Low Lift Discharge Valve Replacements
- High Lift Garage Door Replacement
- Low Lift Instrument Panel Replacement
- Plant Tanks & Channels Concrete Repairs
- Taste & Odour Management Optimization
- Transmission System Precipitate Investigation

In addition to the above-noted capital projects, the 2025 Capital Budget includes EA4114 Annual Maintenance which funds, in part, maintenance and repair projects undertaken by the contracted operating authority, the Ontario Clean Water Agency.

All maintenance and repairs of the system's assets are the obligation of the contracted operating authority to undertake in accordance with the Service Agreement. For activities of maintenance and repair where the value of the material and any contracted specialty services exceed \$30,000 (adjusted annually by the Consumer Price Index), the Board is responsible for the value of the work more than the \$30,000 (as adjusted).

To facilitate this work, the Capital Budget includes an Annual Maintenance project which is utilized to fund this contractual obligation of the Board.

Service Improvement Projects (Enhanced Level of Service, Regulatory Changes, Efficiency)

Proposed projects in the 2025 Capital Budget for which the primary driver is service improvement are:

- Security Upgrades
- Climate Change Resiliency Assessment
- Plant Wi-Fi Upgrade & Replacement
- Division Vehicle
- Fruit Ridge Surge Facility Health and Safety Equipment Upgrades
- RMF Tank Mixing Study
- PAC Dosing Strategy Optimization

A summary of each of the projects is provided in [Appendix A](#) of this report.

Asset Management Plan

The Asset Management Plan approved by the Board in 2022, in part, provides an assessment of anticipated capital projects based on asset condition assessments and asset performance, as well as operational assessments provided by our contracted operating authority.

It is important to note that the anticipated projects in the first five-year planning period outlined in the Asset Management Plan tend to be based on risk mitigation addressing condition and/or performance, while projects in the remaining 25+ years of the Plan tend to be systemic or age-related in nature. In addition, the financial information presented in the Asset Management Plan is considered an “unconstrained” financial projection; meaning, without consideration of such things as other operational needs and financial constraints (e.g., borrowing capacity) that may be experienced by the water supply system.

Financial Plan

The Financial Plan is utilized to incorporate the needs identified in the Asset Management Plan, the Master Water Plan (growth management study), and other planning studies undertaken by the utility, as well as the evolving operational and administrative needs of the system. The Financial Plan is used to better leverage and predict the financial requirements and consequential implications to the system. During the development of the annual budget, the projections in the approved 2023 Financial Plan are measured and adjusted according to actual conditions, which will consequently affect the capital plan in each fiscal year.

The approved 2023 Financial Plan recommends an average target year-end balance for the Asset Replacement Reserve in the order of \$4.0 million. Although the actual investment and rate of commitment may vary year to year, the current capital plan maintains the long-term average investment rate as outlined in the approved Asset Management Plan and Financial Plan.

In contrast, the New Capital Reserve is intended to grow significantly over time to provide a sufficient base for funding of large growth-related projects in future. The balance of generational investment equity (i.e., utilization of reserve funds established by current users versus debt incurred and paid by future users) has yet to be fully quantified and may be addressed in future Master Water Plan and Financial Plan studies.

Within the forecast period, the Capital Plan currently anticipates the expansion of the Terminal Reservoir by 2034 to balance plant flow requirements in support of the increased supply to St. Thomas for the Yarmouth Yards industrial area. The Master Water Plan, currently being updated and anticipated to be completed by mid-2025, is anticipated to have an impact on the long-term financial requirements to address growth-related projects and confirm the timing of needed investments. This may include such projects as the expansion of treatment plant and processes to address growth in the region and, likely, the St. Thomas Industrial Development Area.

Staff continue to be satisfied that the issue of generational equity can be addressed within a reasonable timeframe.

EMPS Building and Building-Related Assets

The Elgin-Middlesex Pump Station at the Elgin Terminal Reservoir property houses the pumps, piping, control systems, pressure surge controls and associated piping related secondary pumping systems for the City of London, the St. Thomas Secondary Water System, and the Aylmer Secondary Water System. The Elgin Board previously agreed to own and maintain the common building and building-related assets and entered into a long-term Joint Use and Occupancy Agreement with the secondary water systems and the City of London.

The agreement confirms the ownership and responsibilities related to the occupancy and use of the common building and, among other things, establishes a fee for occupancy on a square meter basis. The annual fee collected provides an annual contribution to a dedicated reserve fund which is now utilized by the Elgin Area Water System for the maintenance and repair of the building and building-related assets. All capital projects directly related to the Elgin-Middlesex Pump Station building and building-related assets are now specifically identified in the capital plan and the corresponding dedicated reserve fund identified in the Sources of Finance for the Capital Budget.

The cost of operating the pumps and associated equipment of the secondary water systems continues to be borne by the occupants.

Capital Plan & Forecast

Several capital projects are projected beyond the 2025 Capital Budget year, which will have an impact on the financial forecast and future water rates for the water system. As previously noted, staff undertake a business case assessment for each project in support of budget approval to confirm the costs, timing, and priority of the project, consistent with our Customer Level of Service framework and Risk Mitigation strategy.

The projected capital plan (2026 to 2034) includes an allocation for anticipated systemic-related but unspecified asset investments starting in 2026 (identified as “*AMP Investments*”). This reflects the age-related projections previously included in the approved 2022 Asset Management Plan. As condition, performance, and risk assessments are completed, business cases are undertaken to identify and prioritize the expenditures and replace these “*AMP Investments*” allocations in the long-term plan. For the time being, and for planning purposed only, these “*AMP Investments*” placeholders are included in the capital projections beyond the proposed budget to accommodate likely future investments and impacts to the corresponding Reserve Funds.

The projected capital plan (2026 to 2034) also includes an allocation for anticipated systemic but unspecified asset investments starting in 2026 (identified as “*Future Projects*”). This includes projects related to improving process efficiency and projects to address treatment challenges which may restrict process efficacy in future as recommended in the 2024 Water Quality Facility Plan that is detailed in a separate report before the Board. Business cases for these specific projects will be completed for the purposes of Budget approval to identify and prioritize the expenditures and replace these “*Future Projects*” allocations in the long-term capital plan. For the time being, and for planning purposed only, these “*Future Projects*” placeholders are included in the capital projections beyond the proposed budget to accommodate likely future investments and impacts to the corresponding Reserve Funds.

Flow and Financial Analysis

Included in the budget package is a projection of annual volumes and finances beyond 2025 and provides a summary analysis of one option for rate increases and the use of debt (if any) where a debenture is identified in the Reserve Fund Continuity Schedules. This projection has incorporated the principles and recommendations from the approved Financial Plan but has been adjusted to reflect the current anticipated volume projections and corresponding revenues.

The projected operating expenses beyond 2025 utilizes the contracted operating costs of the amended operating agreement with the Ontario Clean Water Agency. The projected operating expenses further assumes that the future cost of operating the system is consistent with the current operating agreement which ends on December 31, 2027. Significant changes in contracted operating costs that may occur after January 1, 2028, including the cost and availability of chemicals and consumables for the water treatment processes, may have a considerable impact on future operating costs.

In addition, energy expenditures projected beyond 2025 have assumed a reasonable escalation of costs, tied to the anticipated annual volumes projected and consequential savings from various efficiency-related investments. At this time, the water system is well positioned to mitigate energy related risks and take advantage of cost savings where available.

As identified in the approved 2023 Financial Plan, staff are projecting a 3.5% annual increase in the rate beyond the 2025 budget to 2027, and 3.0% thereafter. This water rate projection, however, may be subject to change and revision as the update to the Master Water Plan is completed by mid-2025.

Reserve Funds

Conceptually, the Asset Replacement Reserve is required to provide a stable source of funding for capital programs designed to replace, maintain, and extend the life of existing assets to their full potential. Accordingly, the contribution to the Asset Replacement Reserve fund year-over-year should be relatively consistent and match the projected lifecycle needs of the system. On average and over the long-term, the Asset Replacement Reserve balance should be in the order of \$4.0 million to ensure a consistent funding source.

Conversely, the New Capital Reserve Fund is intended for growth-related capital programs and various system and performance improvement initiatives. As these programs tend to be periodic in nature, the reserve fund balance in the New Capital Reserve may significantly increase or significantly decrease in any given year depending on the timing of the programs undertaken and scope of the investments.

The Emergency Reserve Fund is intended to fund unplanned and unanticipated emergency-related projects such as pipeline failures, tank ruptures, shoreline erosion and treatment process failures. In accordance with the Board's direction, the target balance of the Emergency Reserve Fund is established at \$2.0 million, wherein contributions will be discontinued when the Emergency Reserve Fund balance reaches the target value.

Debentures

There are several debentures previously approved by the Board and issued by the City of London on the water system's behalf, are nearing the end of their term within the current forecast period. These debentures are:

- Debt authorized in 2011 for the Residuals Management Facility (EA4023) in the amount of \$19 million was partially issued in 2016 (\$7 million) with payments beginning in September 2016 (2.3% for a 10-year term) and a further debt issuance in 2017 (\$4.5 million) with payments beginning in September 2017 (2.48% for a 10-year term).

Acknowledgement

The preparation of the 2025 Operating and Capital budgets were undertaken by the Regional Water Division staff, with the assistance by the City of London Financial Services.

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

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

Attachments: Appendix A – 2025 Capital Project Summary
2025 Operating & Capital Budgets, and Nine-Year Capital Forecast

Appendix A: 2025 Proposed Capital Project Summaries

Lifecycle Projects (Maintain Level of Service)

EA3010 IT Asset Replacement Program (multi-year program): This project addresses outdated IT security and operating platforms used by the water supply system. The 2025 phase of the project will continue to provide upgrades and migrations to the network platform but also increase security and further segregate the plant's networks to provide additional isolation to meet cybersecurity best practices. Reliability and redundancy will also be improved with the addition of high availability concepts and failover methods in the replacement design.

EA4152 PLC Replacements (multi-year program): Programmable Logic Controllers (PLCs) control and monitor vital plant equipment. Many of the existing controllers and supporting hardware are no longer supported and require replacement. The bulk of the project is to replace the PLCs associated with electrical switchgear and generators that have reached the end of their useful life. The specialized nature of these controllers and control system makes it difficult to seek local support and source spare parts in case of a catastrophic failure. PLCs are critical to the operation of all power systems at the plant could possibly result in an unplanned plant shutdown for an extended period if not replaced in a timely fashion.

EA4191 Roof Drain Replacement (multi-year program): The cast iron drains throughout the facility are original to plant construction and are starting to show signs of blockage and leakage due to the extent of corrosion and age-related deterioration. This project will replace drains throughout the facility over a five-year period with 2025 anticipated to be the final year of the program.

Sample Line Replacement Program (multi-year program): The galvanized pipe and copper sample lines throughout the plant are prone to leaking and corrosion deterioration and reaching the end of their useful life. This project will replace the sample lines throughout the facility over a four-year period starting in 2025.

Low Lift Discharge Valve Replacements: This project is required to replace the discharge valves on the low lift pumps that are showing signs of failure and are at the end of their useful life. Continued degradation and significant leaking will result in their eventual failure that would render the low lift pumps inoperable.

Terminal Storage Reservoir Cell 1 Upgrades (multi-year project): The membrane on top of the terminal storage reservoir is at the end of its useful life and there is inadequate drainage on top of the reservoir. The turf above the reservoir continues to show evidence of ground settling and water pooling. This project is to undertake a detailed engineering condition assessment of the membrane and drainage system and provide design recommendations to restore or replace the membrane and drainage system as required.

High Lift Garage Door Replacement: This project is required to replace the garage door in the high lift pump area as it is no longer repairable and has reached the end of its useful life.

Plant Front Entrance Steps Replacement: This project is required to replace the front entrance steps of the plant that are original to plant construction and showing signs of significant deterioration. The entrance steps are integral to the building structure and support the plant ventilation exhaust from the main air handling units.

Low Lift Instrument Panel Replacement: This project is required to replace the instrumentation panels in the low lift building which have reached the end of their useful life in accordance with current standards and best practices.

Plant Tanks & Channels Concrete Repairs (multi-year project): The tanks and channels in the water treatment plant are reached over half of their expected useful life. This project is to undertake a detailed engineering condition assessment of the tanks and channels and provide recommendations and strategy for rehabilitation, if and as required.

RMF Sodium Bisulphite Room Exhaust Upgrades: This project is required to address health and safety concerns related to the atmospheric conditions within the RMF sodium bisulphite chemical handling and storage room by making modifications to the louver and exhaust system in the room.

Taste & Odour Management Optimization: The objective of this study is to improve monitoring of raw water quality and risks associated with taste and odour-causing raw water parameters at the plant intake and low lift station of the water treatment plant potentially utilizing online instrumentation. The study will also improve the water system's understanding of taste and odour risks due to increasing manganese in the raw water and will make corresponding recommend treatment alternatives to address taste and odour issues.

Plant MCC Component Upgrades: The motor control centres (MCC) are a central component located in the electrical room for where motors for the plants pumping systems are controlled. Several components of the MCCs are discontinued products and the software associated with the components is no longer supported. If the

components were to fail, the remote monitoring and control of the equipment would be lost, resulting in an unplanned shutdown for an extended period. This project is to undertake the planned replacement of these components and associated software with supported products.

Transmission System Precipitate Investigation: Calcite precipitate build-up was identified within the distribution header of the treatment plant as well as in the first chamber at the edge of the property related to the sodium hydroxide pH adjustment system. This investigation proposed is to complete an inspection of the transmission system to assess the extent of the precipitate that could lead to reduced valve function and a reduction in pipe capacity and provide recommendations for removal.

Operations & Maintenance Procurement Advisory Services: The existing agreement for the contracted operation and maintenance of the water supply system expires on December 31, 2027. Pursuant to the Board's direction, this project provides legal, financial, and technical advisory services for the procurement of the next Operations and Maintenance Services contract that would begin in 2028. For the size and scope of the contracted operations, a corresponding public procurement process would typically take a minimum of eighteen months to complete.

Service Improvement Projects (Enhanced Level of Service, Regulatory Changes, Efficiency)

EA4022 Security Upgrades (multi-year program): The Security Audit and Threat Risk Vulnerability Assessment completed in 2017, provided policy, resource, and site-specific recommendations to mitigate security and safety risks at all facilities. The Security Upgrades project is a multi-year program to undertake security-related modifications to all facilities, based on the criticality assessment and recommendations of the security specialist.

Climate Change Resiliency Assessment: The Asset Management Plan previously endorsed by the Board included a recommendation to undertake a climate change resiliency assessment on a site-specific basis using relevant guidelines and standards. This multi-year project is to examine opportunities for climate change adaptation and mitigation approaches that are not yet realized in response to the threat of extreme weather events and other consequential impacts of climate change posed to the plant and remote sites and/or their operation.

These risks and hazards must be understood so that they can be mitigated and adapted through future planning and improvement initiatives in keeping within the Environmental and Quality Policy previously approved by the Board and the associated Climate Change Mitigation and Adaptation commitments therein, as well as provincially mandated climate change risk assessments.

Plant Wi-Fi Upgrade & Replacement: The Wi-Fi network at the plant is failing and is at the end of its useful life. This project is to replace and upgrade the Wi-Fi network to support current and future needs to ensure that current gaps in communications around the plant, such as critical health and safety alerts and announcements, may be communicated successfully.

Fruit Ridge Surge Facility Health and Safety Equipment Upgrades: This project is required to upgrade the health and safety related equipment at the Fruit Ridge Surge Facility to meet current regulations.

RMF Tank Mixing Study: There is approximately four to six feet of accumulation of sediment within the tanks in the RMF which presents challenges for maintenance staff when undertaking a full clean-out for tank inspection. This study is to review the current mixing system and provide recommendations to improve mixing within the tank and prevent premature settlement.

PAC Dosing Strategy Optimization: Currently the powdered activated carbon (PAC) dosing system is not optimized with respect to existing raw water quality conditions in order to proactively mitigate taste and odour issues related to variable raw water quality event on Lake Erie. This study is to review the current strategy and provide recommendations for improvement.

Division Vehicle: The Regional Water Division provides administrative services and management oversight on behalf of the Board. The division currently has three “pool” vehicles shared between nineteen staff. When a vehicle is not available, staff utilize their personal vehicles and are reimbursed for mileage in accordance with the City of London’s and Board policies. Given the number of initiatives and capital programs managed by staff, this has resulted in significant annual expenditures for mileage reimbursement. The acquisition of a fourth vehicle will result in an overall reduction in vehicle/mileage related expenses.



Elgin Area

Primary Water Supply System

**2025 Operating and Capital Budgets
and Nine Year Capital Forecast**

October 3, 2024

Elgin Area Primary Water Supply System 2025 Budget

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**Elgin Area Primary Water Supply System
2025 Budget
Revenue and Expenditure Summary
(\$000's)**

	2024 Approved Budget	2025 Proposed Budget	Incr (Decr)	% Budget Incr (Decr)	2024 Year End Projection
Revenues:					
Volume Revenues ⁽¹⁾	15,965	16,477	512	3.2%	15,808
EMPS Occupancy	222	222	0	0.0%	222
Other Revenues	31	31	0	0.0%	41
Total Revenues	16,218	16,730	512	3.2%	16,071
Expenditures:					
Operating Costs ⁽²⁾	6,242	6,577	335	5.4%	6,366
Administration and Other Expenditures	3,201	3,703	502	15.7%	2,923
Debt Principal Repayments ⁽³⁾	1,201	1,228	27	2.2%	1,201
Interest on Long Term Debt ⁽³⁾	93	222	129	138.7%	93
Contribution to Reserve Funds	5,480	5,001	(479)	-8.7%	5,490
Total Expenditures	16,218	16,730	513	3.2%	16,073

* subject to rounding

Notes:

(1) See the Flow and Financial Analysis Summary for details on volumes, rates and revenues.

(2) Part of the operating costs are direct to the Elgin Area system (i.e. electricity), while all other costs are fixed to the annual operating costs in the bid price from the Ontario Clean Water Agency and other contracted services.

(3) Refer to Flow and Financial Analysis Summary for more information on debt.

**Elgin Area Primary Water Supply System
2025 Budget
Administration & Other Expenditures
(\$000's)**

	2024 Approved Budget	2025 Proposed Budget	Incr (Decr)	% Budget Incr (Decr)	2024 Year End Projection
Management & Administrative Personnel	1,247	1,695	448	35.9%	996
Support and Overhead Costs ⁽¹⁾	175	116	(59)	-33.7%	175
Payment in Lieu of Taxes	410	425	15	3.7%	415
Insurance (Director & Officers, General Liability)	423	485	62	14.7%	449
Financial/Office Expenses ⁽²⁾	217	260	43	19.8%	238
Information Technology Maintenance & Fees ⁽³⁾	219	221	2		219
Process Optimization	75	75	0	0.0%	75
Purchased Services (Legal, Consulting, Locates, etc.)	433	425	(8)	-1.8%	347
Total Administration & Other Expenditures	3,201	3,703	503	15.7%	2,914

* subject to rounding

Notes:

(1) Support and Overhead Costs reflect the costs charged by the Administering Municipality for various administrative functions (e.g. Finance, Purchasing, Human Resources, Risk Management, etc.).

(2) Financial/Office Expenses include administrative expenses such as leased space, training/seminars/conventions, computer leasing, and sampling and research initiatives.

(3) Costs and charges related to computers, software, network communications, and SCADA system maintenance including plant instrumentation

**Elgin Area Primary Water Supply System
2024 Budget
2025 Capital Plan with Forecast for 2026 to 2034
(\$000's)**

#	Description	Project Total	Prior Years Budget	2024 Approved Budget	2025 Proposed Budget	Forecast				
						2026	2027	2028	2029	2030 to 2034
EA1026	RW Office Expansion & Renovation	200	200							
EA2019-24	Master Plan Update	485	135	200					150	
EA3010	IT Asset Replacement Program	1,776	431	40	100	100	100	120	40	845
EA3011	Plant Interior Person Door Replacement	60	60							
EA3012	Interior LED Lighting Upgrades	75	75							
EA3013	Plant Reservoir Drain Repairs	200	200							
EA3016	Safety Showers Upgrade	60	60							
EA3017	Exterior WTP Building Seals	60	60							
EA3020	Roof Replacement	625	625							
EA4020	Financial Plan Update 2021	50	50							
EA4022	Security Upgrades	1,225	925	100	100	100				
EA4039	Record Drawings & Documents	255	255							
EA4068	Pipeline 'A' Rehabilitation & Recommissioning					50	500	500	200	
EA4073	Plant Instrumentation	577	577							
EA4114 xx	Annual Maintenance ⁽¹⁾	1,900	800	100	100	100	100	100	100	500
EA4132	Alum Storage Tanks	825	825							
EA4135	Hydraulic/Transient Model Update & Transient Monitoring	237	92	145						
EA4136	Service Water Piping Replacement	75	75							
EA4137	LL Service Water Connection	750	750							
EA4138	Parking Lot Asphalt Resurfacing	125	125							
EA4152	PLC Replacements	840	40		275	275	250			
EA4153	Back Wash Pump Replacement	3,859	2,459	1,400						
EA4166	SCADA/PLC - Software Review/Upgrade	500	500							
EA4171	Backwash Drain Valve Actuators	175	175							
EA4172	Dedicated Raw Water Sample Line	90	90							
EA4177	Railings and Guarding	350	300	50						
EA4183	UV & Backwash Pump Replacements	8,950	8,950							
EA4184	Water Quality Facility Plan	840	290				300			250
EA4185	Construction Site Trailer Pad & Electrical Pedestal	25	25							
EA4186	Sodium Hydroxide Assessment Study	130	30	100						
EA4187	EMPS - Utility Pole Replacement	15	15							
EA4188	Lighting/Breaker Panel Replacement	100	100							
EA4189	RMF Mixing Pump Replacement	100	100							
EA4190	RMF Total Chlorine Residual Compliance	50	50							
EA4191	Roof Drain Replacements	100	50	25	25					
EA4192	Flocc Tank Influent Distribution Upgrades	100	100							
EA4193	Elgin Standby Generator TSSA Repairs	290	290							
EA4194	Asset Condition Field Assessment	135	85	50						
EA4195	Electric Vehicle Charging Stations	60	10	50						
EA4196	St. Thomas Meter Replacement	150	150							
EA4198	Elgin Filter Emergency Repairs	608	608							

**Elgin Area Primary Water Supply System
2024 Budget
2025 Capital Plan with Forecast for 2026 to 2034
(\$000's)**

#	Description	Project Total	Prior Years Budget	2024 Approved Budget	2025 Proposed Budget	Forecast				
						2026	2027	2028	2029	2030 to 2034
EA4199	Office Expansion	100	100							
EA4200	Service Water Study			120						
EA4201	Climate Change Resiliency Assessment			120	120	50	50			
EA4202	Low Lift Sluice Gate Replacement			350						
EA4204	Financial Plan Update					50				50
<i>Proposed</i>	Plant Wi-Fi Upgrade & Replacement				620					
<i>Proposed</i>	Sample Line Replacement Program				35	30	30	30		
<i>Proposed</i>	Low Lift Discharge Valve Replacements				490					
<i>Proposed</i>	Terminal Storage Reservoir Cell 1 Upgrades				100	4,900				
<i>Proposed</i>	High Lift Garage Door Replacement				50					
<i>Proposed</i>	Plant Front Entrance Steps Replacement				50					
<i>Proposed</i>	Fruit Ridge Surge Facility Health and Safety Equipment Upgrades				70					
<i>Proposed</i>	Low Lift Instrument Panel Replacement				40					
<i>Proposed</i>	Plant Tanks & Channels Concrete Repairs				45					
<i>Proposed</i>	RMF Tank Mixing Study				35					
<i>Proposed</i>	RMF Sodium Bisulphite Room Exhaust Upgrades				35					
<i>Proposed</i>	PAC Dosing Strategy Optimization				65					
<i>Proposed</i>	Taste & Odour Management Optimization				245	275				
<i>Proposed</i>	Plant MCC Component Upgrades				400					
<i>Proposed</i>	Transmission System Precipitate Investigation				25					
<i>Proposed</i>	Operations & Maintenance Procurement Advisory Services				250					
<i>Proposed</i>	Division Vehicle				21					
<i>Proposed</i>	Elgin Terminal Reservoir Expansion									40,500
	Future Projects (<i>allowance for planning purposes</i>)	7,474				175	3,644	3,251	154	250
	AMP Investments (<i>allowance for planning purposes</i>)	16,538				1,735	1,038	1,038	1,161	11,566
Elgin Capital Subtotal		\$ 51,139	\$ 20,837	\$ 2,850	\$ 3,296	\$ 7,840	\$ 6,012	\$ 5,039	\$ 1,805	\$ 53,961

**Elgin Area Primary Water Supply System
2024 Budget
2025 Capital Plan with Forecast for 2026 to 2034
(\$000's)**

#	Description	Project Total	Prior Years Budget	2024 Approved Budget	2025 Proposed Budget	Forecast				
						2026	2027	2028	2029	2030 to 2034
EA3025	EMPS - HVAC Replacement	375	375							
EA3026	EMPS - MCC Replacement	300	300							
EA4197	EMPS - Roof Replacement	350	350							
EA4203	EMPS - Asset Management Plan Update			140						
EMPS Capital Subtotal		\$ 1,025	\$ 1,025	\$ 140	\$ -	\$ -	\$ -	\$ -		\$ -
Total Capital & Forecast		\$ 52,164	\$ 21,862	\$ 2,990	\$ 3,296	\$ 7,840	\$ 6,012	\$ 5,039	\$ 1,805	\$ 53,961

* subject to rounding

Notes:

(1) Capital account for Board contributions to maintenance projects undertaken by the operating authority.

**Elgin Area Primary Water Supply System
2025 Budget
Capital Plan Sources of Financing
(\$000's)**

Funding Source	2024 Approved Budget	2025 Proposed Budget	2026	2027	2028	2029
Asset Replacement Reserve Fund	1,231	2,395	7,534	5,550	4,949	1,663
Capital Reserve Fund	1,619	901	306	463	90	143
Emergency Reserve Fund	-	-	-	-	-	-
EMPS Building Reserve Fund	140	-	-	-	-	-
Debenture	-	-	-	-	-	-
Other Sources of Financing	-	-	-	-	-	-
Total Capital Funding	\$ 2,990	\$ 3,296	\$ 7,840	\$ 6,012	\$ 5,039	\$ 1,805

* subject to rounding

Elgin Area Primary Water Supply System
2024 Budget
Asset Replacement Reserve Fund Analysis and Continuity Schedule
(\$000's)

Asset Replacement Reserve Fund ⁽¹⁾	Actual	Approved Budget	Projected				
	2023	2024	2025	2026	2027	2028	2029
Reserve Fund Opening Balance	7,401	9,159	4,026	6,298	4,117	4,092	4,095
Sources:							
Current Year Operating	3,000	1,900	4,470	5,044	5,098	4,389	1,000
Other Revenues - Inter-fund Repayment ⁽⁴⁾	-	-	-	-	-	-	-
Transfer from Capital Reserve							
Net Interest Earnings ⁽²⁾	177	226	197	309	426	563	659
Total Sources	\$ 10,578	\$ 11,285	\$ 8,693	\$ 11,651	\$ 9,641	\$ 9,044	\$ 5,754
Uses:							
Total Lifecycle Capital Projects	1,419	1,231	2,395	7,534	5,550	4,949	1,663
Less: Other Funding Sources	-	-	-	-	-	-	-
Less: Debenture Requirement							
Miscellaneous Transfers/Expenditures							
Less: Inter-fund Loan ⁽⁴⁾		-	-	-	-	-	-
Net Current Year Fund Draws ⁽³⁾	1,419	1,231	2,395	7,534	5,550	4,949	1,663
Prior Years Capital Expenditures ⁽³⁾		6,028					
Total Uses	\$ 1,419	\$ 7,259	\$ 2,395	\$ 7,534	\$ 5,550	\$ 4,949	\$ 1,663
Reserve Fund Ending Balance	\$ 9,159	\$ 4,026	\$ 6,298	\$ 4,117	\$ 4,092	\$ 4,095	\$ 4,091

* subject to rounding

Notes:

- (1) The Asset Replacement Reserve Fund was established to fund projects of a lifecycle nature to maintain existing levels of service and has an average annual target ending balance of \$4.0M.
- (2) Projected net interest earnings based on an average rate of anticipated sources and uses of funds.
- (3) Drawdowns are based on full/committed capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.
- (4) Inter-fund lending between reserve funds to temporarily finance capital cash flow deficiencies. Inter-fund repayments include principal and interest.

**Elgin Area Primary Water Supply System
2024 Budget
New Capital Reserve Fund Analysis and Continuity Schedule
(\$000's)**

Capital Reserve Fund ⁽¹⁾	Actual	Approved Budget	Projected				
	2023	2024	2025	2026	2027	2028	2029
Reserve Fund Opening Balance	7,259	8,805	2,668	1,893	1,860	3,739	7,310
Sources:							
Current Year Operating	2,005	2,549	-	126	2,150	3,400	7,768
Dutton Buy-In ⁽⁴⁾	28	28	28	28	28	28	28
Net Interest Earnings ⁽²⁾	188	197	98	119	164	233	373
Total Sources	\$ 9,480	\$ 11,579	\$ 2,794	\$ 2,166	\$ 4,202	\$ 7,400	\$ 15,479
Uses:							
Total System Improvement & Growth Projects	675	1,619	901	306	463	90	143
Less: Other Funding Sources	-	-	-	-	-	-	-
Less: Debenture Requirement							
Less: Additional Capital Drawdowns							
Net Current Year Fund Draws ⁽³⁾	675	1,619	901	306	463	90	143
Prior Years Capital Expenditures		7,292					
Total Uses	\$ 675	\$ 8,911	\$ 901	\$ 306	\$ 463	\$ 90	\$ 143
Reserve Fund Ending Balance	\$ 8,805	\$ 2,668	\$ 1,893	\$ 1,860	\$ 3,739	\$ 7,310	\$ 15,337

* subject to rounding

Notes:

- (1) The New Capital Reserve Fund was established to fund projects related to system growth, enhancing levels of service, or address issues which are regulatory or safety in nature.
- (2) Projected net interest earnings based on an average rate of anticipated sources and uses of funds.
- (3) Drawdowns are based on full/committed capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.
- (4) Payment of Buy-In Charge by the Municipality of Dutton-Dunwich per agreement

**Elgin Area Primary Water Supply System
2024 Budget
Emergency Reserve Fund Analysis and Continuity Schedule
(\$000's)**

Emergency Reserve Fund ⁽¹⁾	Actual	Approved Budget	Projected				
	2023	2024	2025	2026	2027	2028	2029
Reserve Fund Opening Balance	869	426	1,109	1,453	1,763	2,034	2,107
Sources:							
Current Year Operating	-	800	300	250	200	-	-
Net Interest Earnings ⁽²⁾	22	26	44	60	71	73	75
Total Sources	\$ 891	\$ 1,252	\$ 1,453	\$ 1,763	\$ 2,034	\$ 2,107	\$ 2,182
Uses:							
Current Year Capital Expenditures							
Prior Years Capital Expenditures	465	143					
Total Uses	\$ 465	\$ 143	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Fund Ending Balance	\$ 426	\$ 1,109	\$ 1,453	\$ 1,763	\$ 2,034	\$ 2,107	\$ 2,182

* subject to rounding

Notes:

(1) The Emergency Reserve Fund was established to fund projects that arise on an emergency basis. This funding is to be in place outside of the Capital and Asset Replacement Reserve Funds and their defining guidelines. Contributions will stop once the reserve fund balance reaches \$2.0 million.

(2) Projected net interest earnings based on an average rate of anticipated sources and uses of funds.

Elgin Area Primary Water Supply System
2024 Budget
EMPS Building Reserve Fund Analysis and Continuity Schedule
(\$000's)

EMPS Building Reserve Fund ⁽¹⁾	Actual	Approved Budget	Projected				
	2023	2024	2025	2026	2027	2028	2029
Reserve Fund Opening Balance	234	478	580	818	34	278	526
Sources:							
Current Year Operating	231	231	231	231	231	231	231
Other Revenues - Inter-fund Loan ⁽⁴⁾			-	-	-	-	-
Net Interest Earnings ⁽²⁾	13	11	7	10	13	17	21
Total Sources	\$ 478	\$ 720	\$ 818	\$ 1,059	\$ 278	\$ 526	\$ 778
Uses:							
Total EMPS Projects	-	140	-	-	-	-	-
Less: Other Funding Sources							
Less: Debenture Requirement							
Less: Additional Capital Drawdowns							
Net Current Year Fund Draws ⁽³⁾	-	140	-	-	-	-	-
Prior Years Capital Expenditures ⁽³⁾				1025			
Miscellaneous Transfers/Expenditures							
Inter-fund Loan Repayments - Asset							
Replacement Reserve Fund ⁽⁴⁾	-	-	-	-	-	-	-
Principal	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-
Inter-fund Loan Repayments - New Capital							
Reserve Fund ⁽⁴⁾	-	-	-	-	-	-	-
Principal	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-
Total Uses	\$ -	\$ 140	\$ -	\$ 1,025	\$ -	\$ -	\$ -
Reserve Fund Ending Balance	\$ 478	\$ 580	\$ 818	\$ 34	\$ 278	\$ 526	\$ 778

* subject to rounding

Notes:

- (1) The EMPS Building Reserve Fund was established to fund capital costs strictly associated with the Elgin-Middlesex Pumping Station. Current year operating contributions are solely related to occupancy fees charged to the benefiting systems.
- (2) Projected net interest earnings based on an average rate of anticipated sources and uses of funds.
- (3) Drawdowns are based on full/committed capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.
- (4) Inter-fund lending between reserve funds to temporarily finance capital cash flow deficiencies. Inter-fund repayments include principal and interest.

**Elgin Area Primary Water Supply System
Flow and Financial Analysis Summary
(\$000's)**

Factors	Actual	Approved Budget		Proposed Budget	Projected			
	2023	2024	2024 (Projected)	2025	2026	2027	2028	2029
Rate Increase ⁽¹⁾	2.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.0%
Total Flow m ³	15,753,377	15,986,060	15,828,647	15,940,500	16,231,979	17,028,042	17,351,072	17,674,110
Total Water Rate \$/m ³	0.9649	0.9987	0.9987	1.0337	1.0698	1.1074	1.1460	1.1804
Flow Volume Revenues	15,200	15,965	15,808	16,477	17,365	18,856	19,885	20,863
Other Revenue	310	253	263	253	253	253	253	253
Total Revenue	\$ 15,510	\$ 16,218	\$ 16,071	\$ 16,730	\$ 17,618	\$ 19,109	\$ 20,138	\$ 21,116
Operating Costs ⁽²⁾	6,167	6,242	6,366	6,577	6,747	6,906	7,513	7,513
Administrative Expenses	2,811	3,201	2,923	3,703	3,795	3,890	3,989	3,988
Debt Servicing Costs ⁽³⁾	1,297	1,294	1,294	1,449	1,425	635	615	615
Total Operating & Administrative Expenses	\$ 10,275	\$ 10,737	\$ 10,583	\$ 11,729	\$ 11,967	\$ 11,431	\$ 12,117	\$ 12,116
Asset Replacement Reserve Fund Contributions	3,000	1,900	1,900	4,470	5,044	5,098	4,389	1,000
Capital Reserve Fund Contributions	2,005	2,549	2,559	-	126	2,150	3,400	7,768
Emergency Reserve Fund Contributions	-	800	800	300	250	200	-	-
Other Contributions:								
EMPS Building Reserve Fund Contributions	231	231	231	231	231	231	231	231
Total Expenses	\$ 15,510	\$ 16,218	\$ 16,073	\$ 16,730	\$ 17,618	\$ 19,109	\$ 20,138	\$ 21,116

* subject to rounding

Notes:

(1) Percent rate increases recommended are consistent with the approved Financial Plan which provide for prudent financial planning to accommodate inflation, new capital requirements, and adequate reserve fund balances.

(2) Operating expense projections reflect annual inflationary increases and anticipated adjustments in accordance with the service agreement with the contracted operating authority.

(3) Debentures:

- Debt authorized (2011) for the Residuals Management Plant (EA4023) in the amount of \$19 million with partial issuance in 2016 (\$7M) and payments beginning Sept/16 (all-in rate of 2.3% for a 10 year term), further debt issuance in 2017 in the amount of \$4.5M and payments beginning in Sept/17 (all-in rate of 2.48% for a 10 year term).

Board of Management Report

Subject: Rules of Order and Procedure Bylaw

Overview:

- The Board of Management for the Elgin Area Water Supply System adopted By-law N^o. 1 on March 9, 1999; a by-law relating generally to the conduct of the affairs of the Board of Management and the procedure governing the calling, place and proceedings of its meetings.
- By-Law N^o. 1 was amended on December 12, 2002, to alternate the election of the Board Chair and Board Vice-Chair between the Members appointed by London and the Members appointed by non-London municipalities and for a one-year term.
- By-Law N^o. 1, as amended, was further amended on December 8, 2005, to establish a two-year term for the position of Board Chair and Vice-Chair.
- The proposed By-law N^o. 13-2024 for the *Rules of Order and Procedure* of the Board of Management for the Elgin Area Water Supply System will replace By-Law N^o. 1, consolidating the nature of the previous amendments, and providing specific clarity to the proceedings of the Board of Management, consistent with *Bourinot's Rules of Order* and the requirements of the Municipal Act, 2001, as amended.

Recommendation

That the Board of Management for the Elgin Area Water Supply System take the following actions with regard to the Rules of Order and Procedure by-law for the Elgin Area Water Supply System:

1. The Board of Management for the Elgin Area Primary Water Supply System **APPROVE** the Rules of Order and Procedure by-law, as attached to this report; and,
2. The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

Previous and Related Reports

None

Background

Section 238(2) of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, requires that “every municipality and local board shall pass a procedure by-law for governing the calling, place and proceedings of meetings”. Section 238 of the *Municipal Act, 2001*, generally outlines the minimum requirements of the by-law.

On March 9, 1999, the Board of Management for the Elgin Area Water Supply System adopted By-Law N^o 1, “A by-law law relating generally to the conduct of the affairs of the Board of Management and the procedure governing the calling, place and proceedings of its meetings” (1999 Procedure By-Law). By-law N^o 1 was amended on December 12, 2002, alternating the election of the Board Chair and Board Vice-Chair between a Member appointed to the Board by the City of London, and a Member appointed to the Board by a non-London municipality. On December 8, 2005, By-law N^o 1 was further amended to establish a two-year term of the Board Chair and Board Vice-Chair.

Discussion

Section 238 of the *Municipal Act, 2001*, S.O. 2001, c.25, specifies that a local board shall pass a procedure by-law for governing the calling, place and proceedings of meetings. For the purposes of meeting the obligations of the Board of Management for the Elgin Area Water Supply System (Elgin Board), and consistent with the advice received from the Board’s solicitor, the Elgin Board is considered to be a local board pursuant to the *Municipal Act, 2001*.

Section 238 of the *Municipal Act, 2001*, further requires that the procedure by-law shall provide specific information, including:

- if a member can participate electronically in a meeting, and the effect of electronic participation is used in determining quorum as well as participation in both open and closed meetings;
- provision of public notice; and,
- the locations of meetings.

The proposed by-law, appended to this report for the consideration of the Board, replaces the 1999 Procedure By-Law in its entirety. Corresponding by-laws of several of the benefiting municipalities of the Elgin Area Water Supply System, including the City of London, were used as a guide in drafting the proposed by-law, as well as *Bourinot’s Rules of Order*.

Changes from the Existing By-law

The proposed by-law establishes clear guidelines and procedures for the rules of order and conduct of business by the Board. In addition, general changes from existing practices include:

- Clear direction and procedures relating to the participation of Members and Alternate Members by electronic means.
- Consolidating and clarifying the election of the Chair and the Vice-Chair, and the positions being held for a two-year term.
- Clarification of establishing a meeting schedule and the location of the meetings of the Board.
- Clarification of the Board agenda and proceedings of Board meetings.
- Establishing deadlines for agenda materials and added agenda items.
- Establishing the commencement, proceeding and rules of debate and conduct at Board meetings.
- Establishing rules relating to the request for, and appearance by, delegations.
- Establishing rules related to communications and petitions.
- Establishing rules of conduct for the public at Board meetings.
- Clarifying the conduct and proceedings of by-laws, including the ability to use confirming by-laws.

Committees of the Board

In addition to the above noted general changes from the existing by-law, the proposed by-law also establishes the ability of the Board to create advisory committees and appoint Board Members, Alternate Members and members of the public to the committee. The advisory committee(s), if established by the Board, would serve a term not longer than the term of the Board and limit the activities of the advisory committee to the scope established by a Term of Reference approved by the Board.

The proposed by-law allows the formation of a Standing Committee(s) only through the amendment of the by-law. There are no Standing Committees established by the proposed by-law.

Quorum

The existing procedure by-law specifies that quorum shall be four (4) Members. The existing makeup of the Board consists of seven (7) Members appointed by the benefiting municipalities. In order to better manage future circumstances if more communities join the regional water system and appointments to the Board are expanded, it is the recommendation of staff that quorum be changed to a majority of Members that constitutes the Board.

Conclusion

The proposed by-law “to provide for the Rules of Order and Procedure for the Joint Board of Management of the Lake Huron Primary Water Supply System”, as appended to this report, meets the obligations and requirements of the *Municipal Act, 2001*. On the recommendation of the Chief Administrative Officer, the proposed by-law is recommended to be adopted by the Board.

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

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

Attachments: By-Law 13-2024 Rules of Order and Procedure

By-Law No. 13 - 2024

A by-law to provide for the **RULES OF ORDER AND PROCEDURE** for the Joint Board of Management of the Elgin Area Primary Water Supply System.

The Joint Board of Management for the Elgin Area Primary Water Supply System enacts as follows:

Part I – General Provisions

1 DEFINITIONS

In this by-law and all other by-laws and resolutions of the Board, unless the context otherwise requires:

“Acting-Member” shall mean an Alternate Member who is acting in the absence, refusal or inability of a Member appointed by the same municipality in accordance with the Appointment of Members and Alternate Members by-law, and may vote in the absence, refusal or inability of the Member.

“Administering Municipality” shall mean the Corporation of the City of London, and as defined in Transfer Order #W1/1998 Elgin Area Primary Water Supply System issued by the Minister of the Environment and dated effective November 29, 2000.

“Advisory Committee” shall mean a committee appointed by the Board to provide recommendations, advice and information to the Board but has no delegated powers and authority.

“Alternate Member” shall mean an appointed alternate member of the Joint Board of Management who may act in the absence, refusal or inability of a Member appointed by the same municipality in accordance with the Appointment of Members and Alternate Members by-law, but otherwise cannot vote if the appointed Member is present. For the purpose of this by-law, an Alternate Member acting in the absence, refusal or inability of an appointed Member shall be referred to specifically as the **“Acting-Member”**.

“Board” shall mean the Joint Board of Management for the Regional Water System.

“Board Chair” (and **“Chair”**) shall mean the person elected among the Members of the Board to be the head of the Board and to preside over the meetings of the Board, in accordance with this by-law.

“Board Secretary” shall mean the person, appointed by the Chief Administrative Officer, responsible for the efficient and compliant operation of Board meetings in accordance with this by-law.

“Chief Administrative Officer” and **“CAO”** shall mean the person appointed in accordance with the *Appointment of Chief Administrative Officer By-Law*, or their designate.

“Closed Session” shall mean a meeting of the Board, or portion thereof, which is not open to the public, held in accordance with section 239 of the *Municipal Act, 2001*.

“Confirmatory By-law” shall mean a by-law passed at the conclusion of the Board meeting, confirming the actions of the Board taken at that meeting and any previous meetings which did not have a confirmatory by-law, in respect of each resolution and other actions taken, so that every decision of the Board at that meeting shall have the same force and effect as if each and every one of them had been the subject-matter of a separately enacted by-law.

“Deferred Matter” shall mean any matter of which the Board has directed future debate or consideration by the Board.

“Director” shall mean the person holding the title of Director - Regional Water, or similar title, hired and appointed by the Administering Municipality and seconded to head the administration of the Regional Water System on behalf of and under the direction of the Chief Administrative Officer and the Board.

“Electronic Meeting Participation” shall mean the participation of a Board Member and/or an Alternate Member remotely, via electronic means, who shall have the same rights, privileges and responsibilities as if the Member or Alternate Member was in physical attendance.

“Emergency” shall mean a natural or human caused event or circumstance causing, or imminently threatening to cause, loss of life, injury to person or property, human suffering or financial loss, or is beyond the reasonable capabilities of the services, personnel, equipment, and facilities of the Regional Water System.

“Emergent Motion” shall mean a motion which must be made on an emergent basis at a Board meeting, as any delay in bringing the motion before the Board would result in irreparable harm or loss to the Regional Water System.

“Head of the Board” shall mean the Chair (Board Chair), or their designate, of the Regional Water System.

“Majority” shall mean, for the purpose of voting, more than half of the votes cast by those Members and Acting-Members present at the meeting.

“Meeting” shall mean any regular meeting, special meeting or other meetings of the Board, where:

1. A quorum of Members is present; and,
2. Members discuss or otherwise deal with any matter in a way that materially advances the business or decision-making of the Board.

“Member” shall mean a Member of the Joint Board of Management appointed by a municipality in accordance with the Appointment of Members and Alternate Members By-law and having voting rights on the Board.

“Motion” shall mean a proposal by a Member for the consideration of the Board that is moved by a Member or Acting-Member and seconded by another Member or Acting-Member.

“Notice of Motion” shall mean a notice of motion provided to the Board Secretary, in writing, by a Member or Acting-Member, requesting the inclusion of a Motion on a future agenda of a meeting of the Board in accordance with [section 11](#) of this by-law.

“Pecuniary Interest” shall mean a direct or indirect financial interest within the meaning of the *Municipal Conflict of Interest Act, R.S.O. 1990, Chapter M.50*, as amended.

“Point of Order” shall mean a question by a Member or Acting-Member with respect to any rules or practices of the Board or conduct of the meeting.

“Point of Privilege” shall mean a question affecting the rights or privileges of the Board collectively or the position and conduct of Members and/or Alternate Members where the Chair is asked to immediately consider and take action to remedy a situation negatively affecting the rights or privileges of the Members and Alternate Members as a whole, despite other pending business currently before the Board.

“Public Notice” shall mean, unless indicated otherwise within this by-law or a Public Notice by-law duly enacted by the Board, a notice to the public posted on the website of the Regional Water Supply System for at least a one-week period.

“Published” shall mean the provision of documents in print and/or electronic formats.

“Regional Water System” shall mean the Elgin Area Water Supply system as defined in Transfer Order #W1/1998 Elgin Area Primary Water Supply System issued by the Minister of the Environment and dated effective November 29, 2000.

“Vice-Chair” shall mean the person elected among the Members of the Board to be the head of the Board in the absence of the Chair, and to preside over the meetings of the Board in the absence, inability or refusal of the Chair, in accordance with this by-law.

2 GENERAL

2.1 Rules And Regulations – observed at all times

The rules and regulations contained in this by-law shall be observed in all proceedings of the Board.

2.1.1 Rules And Regulations – suspended

Any rules or regulations contained in this by-law may be suspended for a Board meeting, except for those rules or regulations that are set out by legislation, with the

consent of at least two-thirds of the Members and Acting-Members present at the meeting where [section 5.3](#) (Quorum) of this by-law has been met.

2.2 Parliamentary Procedure

Those proceedings of the Board not specifically governed by the provisions of this by-law shall be regulated in accordance with generally accepted parliamentary procedure contained in *Bourinot's Rules of Order*. In a circumstance where *Bourinot's Rules of Order* is silent, the Council Procedure By-law of the Corporation of the City of London may be used as a guide.

2.3 Election of the Chair and Vice-Chair

The Chair and the Vice-Chair of the Board shall be elected by the Board from the appointed Members and shall serve a two-year term ending on December 1st of the second year.

2.3.1 Election of the Chair – procedure

At the first meeting of the Board at the beginning of each two-year term, as the first order of business following the confirmation of Quorum in accordance with [section 5.3](#) of this By-law and the Call to Order by the Board Secretary, the Board Secretary shall receive nominations for the position of Board Chair (Chair) from the Members and Acting-Members present at the meeting. Nominees must be a Member of the Board and nominations for the position of Board Chair are not amendable or debatable. The appointment shall be by majority vote of the Members and Acting-Members present at the meeting and the appointed Chair must accept the position before taking the Chair.

2.3.2 Election of the Vice-Chair - procedure

The election of the Vice-Chair will be presided by the Chair. As the second order of business following the election and acceptance of the Chair, the Chair shall receive nominations for the position of Vice-Chair from the Members and Acting-Members present at the meeting. Nominees must be a Member of the Board and nominations for the position of Vice-Chair are not amendable or debatable.

2.3.3 Election of the Vice-Chair – deferral

The election of the Vice-Chair may be deferred to the next regular meeting of the Board if the nominee is not present at the meeting, or if there are no nominations received by the Chair.

2.3.4 Election of the Chair and Vice-Chair – alternating terms

Beginning at the Inaugural Meeting of the Board following the regular municipal election, the Chair shall be elected from the Members appointed by the City of London, and the Vice-Chair shall be elected from the Members appointed by the municipalities excluding than the City of London and shall serve a term of two years. At the last meeting of the Board in the second year of the term of the Board, the Chair shall be elected from the Members appointed by the municipalities excluding the City of London, and the Vice-Chair shall be elected from the Members appointed by the City of London, and shall

serve a term of two years until the Inaugural Meeting of the Board following the next regular municipal election.

2.4 Absence of the Chair

In the absence of the Chair, or if they refuse to act or if the office is vacant, the Vice-Chair shall carry out the duties and/or act in place of the Chair, and while so acting, the Vice-Chair shall have all the rights, powers and authority of the Chair.

2.5 Absence of the Vice-Chair

In the event that the Vice-Chair is unable, for any reason, to act in the place and stead of the Chair, the Board shall at a public meeting appoint an Acting Vice-Chair to act in the place and stead of the Chair and while so acting, shall have rights, powers and authority of the Chair.

2.5.1 Absence of the Chair and Vice-Chair – emergency

In the event of an Emergency and at such a time that the Chair and Vice-Chair are unable, for any reason, to act as head of the Board, the Chief Administrative Officer shall act as head of the Board until such time as an emergency meeting of the Board can be held in accordance with [sections 4.5](#) and [4.6](#) of this by-law whereat the appointment of the Chair and Vice-Chair may be addressed by the Board in accordance with [sections 2.3](#), [2.4](#) and [2.5](#), as applicable.

2.6 Meeting Location

All meetings of the Board shall be held at a location as determined by the Chief Administrative Officer in consultation with the Chair, at a location that is accessible to the public, and subject to the provision of Public Notice of the meeting location.

3 SCHEDULE OF MEETINGS

3.1 Annual Schedule of Meetings

By January 31st of each calendar year, the Chief Administrative Officer shall submit a proposed schedule of the upcoming meetings for the consideration and approval of the Board.

3.1.1 Annual Schedule of Meetings – multiple years

Notwithstanding the generality of [section 3.1](#), the Board may, in its sole discretion, consider and approve a schedule of upcoming meetings over more than one calendar year provided that the proposed schedule does not exceed the first Thursday of December of a calendar year in which a municipal election is held.

3.2 Annual Schedule of Meetings – guidelines

When recommending the annual schedule of meetings:

1. Following a regular municipal election, the inaugural Meeting of the Board shall be held at a date and time chosen by the Chief Administrative Officer, but no earlier than the second Thursday of January immediately following the regular municipal election.
2. As a general guideline, and subject to Board approval as outlined in [section 3.1](#), regular meetings of the Board shall be held on the first Thursday of March, June, October and December of each calendar year.
3. Unless otherwise decided by the Board, regular meetings of the Board shall be held:
 - a. In accordance with the approved annual schedule noted in [section 3.1](#) above; and,
 - b. Commencing at 5:00 PM.
4. Provisions and consideration shall be given for meetings to deliberate and adopt the annual operating and capital budgets on the first Thursday of October of each calendar year.

3.3 Special Meeting – called by Chair

The Chair may, at any time, call a special or emergency meeting of the Board.

3.4 Special Meeting – called by the Chief Administrative Officer

Upon receipt of a petition signed by a majority of the Members and Acting-Members of the whole of the Board, the Chief Administration Officer shall call a special meeting for the purpose mentioned in the petition.

4 NOTICE OF MEETING

4.1 Agenda – deemed notice

The issuance of the agenda shall be considered as having provided adequate notice of regular meetings, except for meetings held on a day or at a time other than as provided for by this by-law. Notwithstanding the foregoing, the date, time and location of all meetings shall be posted on the Regional Water System's website at least seven days before the hour appointed for the regular meeting, or at least 24 hours before the hour appointed for an emergency meeting or special meeting.

4.2 Agenda – delivered in advance

The agenda for regular meetings shall be delivered by courier or sent by mail to the residence or place of business of each Member and Alternate Member, or sent electronically to each Member and Alternate Member, so as to receive the agenda no later than seven days before the hour appointed for the meeting.

4.2.1 Added Agenda

An added report, correspondence or Notice of Motion may be added to the agenda provided that the revised agenda is circulated at least 48 hours before the hour appointed for the meeting.

4.3 Agenda - special meeting

Notice of special meetings called in accordance with [sections 3.3](#) and [3.4](#) of this by-law shall be delivered by courier or sent by mail to the residence or place of business of each Member and Alternate Member, or sent electronically to each Member and Alternate Member, so as to be received no later than 24 hours before the hour appointed for the special meeting.

4.4 Special Meeting – specified business

No business except the business dealing directly with the purpose mentioned in the notice shall be transacted at any special meeting.

4.5 Emergency – notice not required

Notwithstanding any other provision of this by-law, an emergency meeting may be held, without written notice, to deal with circumstances related to an Emergency, provided that a reasonable attempt has been made by the Chief Administrative Officer, or the Board Secretary, or their designate, to notify the Members and Alternate Members about the meeting as soon as reasonably possible and in the most expedient manner available.

4.6 Emergency – specified business

No business except business dealing directly with the Emergency shall be transacted at the emergency meeting.

4.7 Agenda – notice not received

Lack of receipt of a notice or receipt of the agenda by a Member or by an Alternate Member or by the public shall not affect the validity of the meeting or any action taken thereat.

4.8 Postponement of Meeting – emergency

The Chair may, when an Emergency arises, postpone a regular meeting of the Board for not more than 30 days and to such a date and time determined by the Chair and the Chief Administrative Officer. The Chief Administrative Officer, or the Board Secretary, or their designate, shall give notice of a special meeting to deal with the postponed matters in accordance with [section 4.2](#) and [4.3](#) of this by-law.

4.9 Postponement of Meeting – notice

Upon the postponement of a meeting by the Chair in accordance with [section 4.8](#) of this by-law, the Chief Administrative Officer, or the Board Secretary or their designate, shall make reasonable attempt to notify the Members and Alternate Members of the postponement as soon as reasonably possible and in the most expedient manner available. A notice of postponement shall be posted on the Regional Water System's website as soon as reasonably practical.

5 MEETINGS

5.1 Meetings – open to public

Except as otherwise provided by section 239 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, all meetings shall be open to the public.

5.2 Meetings – not closed during vote

Except as provided in section 239 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, a Board meeting shall not be closed to the public during the taking of a vote.

5.2.1 Meetings – vote in closed session

A meeting may be closed to the public during the taking of a vote if (a) section 239 of the *Municipal Act, 2001*, S.O. 2001, permit or require the meeting to be closed to the public, and (b) the vote is for a procedural matter or for giving direction or instruction to officers, employees or agents of the Regional Water System, or persons retained by or under a contract with the Regional Water System or Board.

5.3 Quorum

A quorum shall be a majority of the Members constituting the Board, including any Acting-Members.

5.3.1 Quorum – electronic participation

Members and Acting-Members participating by electronic means shall be included in establishing quorum.

5.4 Call to Order – quorum present

As soon after the hour fixed for a Board meeting as a quorum is present, the meeting shall be called to order by the Chair.

5.5 Adjournment – quorum not present

If there is no quorum present within thirty (30) minutes after the time appointed for the meeting, the Board shall stand adjourned until the date and time of the next regular or special meeting, and the Board Secretary shall record the names of the Members and Alternate Members present upon such adjournment.

5.6 Meetings – electronic participation

A Board meeting may include electronic participation of Members and/or Alternate Members, subject to the following:

1. Each Member and Alternate Member participating in such a meeting is able to hear all other participating Members and Alternate Members.
2. A Member or Alternate Member requesting to participate electronically shall be required to provide the Board Secretary with a minimum of 24 hours' notice.
3. The administration of electronic participation shall be at the discretion of the Chief Administrative Officer, recognizing that technology and requirements may vary from time-to-time.
4. Individual rules of debate and conduct at meetings, as included in [section 9](#) of this by-law, may be suspended or amended, as required, to facilitate electronic participation in meetings.

5.6.1 Meetings – confirmation of electronic participation

The Chair, or the Vice-Chair in the absence of the Chair, shall confirm that each Member and Alternate Member participating by electronic means is able to hear all other participating Members and Alternate Members at STAGE 1 (Call to Order), as identified in [section 6.1](#) of this by-law.

PART 2 – Board

6 BOARD AGENDA

6.1 Composition

The Board Secretary shall prepare the Board agenda for all regular meetings consisting of the following:

- I. Call to Order
- II. Indigenous Territorial Acknowledgement
- III. Disclosure of Pecuniary Interest
- IV. Recognitions and Comments from the Chair
- V. Adoption of Minutes of the Previous Meeting(s)
- VI. Communications and Petitions
- VII. Motions of Which Notice is Given
- VIII. Reports and Added Reports
 - a. Recommended Items for Consent
 - b. Recommended Items for Discussion
- IX. Deferred Matters
- X. Additional Business and Enquiries
- XI. Emergent Motions
- XII. By-Laws
- XIII. Closed Session
- XIV. Upcoming Meeting Dates
- XV. Adjournment

6.2 Deadline – material inclusion

The deadline for receipt of material by the Board Secretary to be included in the regular Board agenda shall be 9:00AM on the first business day of the week prior to the Board meeting.

6.3 Deadline – added material

The deadline for receipt of added materials by the Board Secretary for addition to the regular Board agenda shall be 9:00AM two business days prior to the Board meeting.

6.4 Order of Business - exception

The business of each Board meeting shall be taken up in the order in which it stands on the Board agenda, unless otherwise decided by a two-thirds majority vote of the

Members and Acting-Members present. A Motion changing the order of business shall not be amendable or debatable.

7 COMMENCEMENT OF BOARD MEETINGS

7.1 Chair – preside all meetings

The Board Chair (Chair), if present, shall preside at all Board meetings.

7.2 Chair – absence

In the absence of the Chair, and on condition that [section 5.3](#) (Quorum) has been met, the Vice-Chair shall call the meeting to order fifteen (15) minutes after the hour appointed for the meeting and the Vice-Chair shall preside during the meeting until the arrival of the Chair.

7.3 Chair and Vice-Chair – absence

In the absence of the Chair and the Vice-Chair, and on condition that [section 5.3](#) (Quorum) has been met, the Board Secretary shall call the meeting to order fifteen (15) minutes after the hour appointed for the meeting and the Members and Acting-Members present shall appoint a Member to preside at the meeting or until the arrival of the Chair or Vice-Chair.

7.4 Members and Alternate Members – vote

Both the Member(s) and the Alternate Member(s) appointed to the Board by a municipality may attend and participate in a Board meeting, including meetings that are closed to the public, but only the Member(s) and Acting-Member(s), if present and not having declared a pecuniary interest, may vote on any matter.

7.4.1 Acting-Members – vote

An Alternate Member who was appointed by the same municipality may vote in the absence, refusal, recusal or inability to vote of a Member in the capacity as the Acting-Member.

8 DISCLOSURES OF PECUNIARY INTEREST

8.1 Pecuniary Interest – disclosure

If a Member or Alternate Member has any pecuniary interest, direct or indirect, in any matter in which the Board is concerned and if they are present at a meeting in which the said matter is the subject of consideration, then the Member or Alternate Member shall disclose their interest at STAGE 3 (Disclosure of Pecuniary Interest), as identified in [section 6.1](#) of this by-law, and they shall recuse themselves and not take part in the consideration or discussion of the said matter nor shall they vote on any Motion in regard to the said matter.

8.1.1 Pecuniary Interest – Acting-Member

If an Alternate Member who was appointed by the same municipality as the recused member is present, the Alternate Member may vote as the Acting-Member and in place of the recused Member provided that the Alternate Member (Acting-Member) does not have a pecuniary interest in the said matter.

8.2 Non-compliance

The failure of one or more Members, Acting-Members or Alternate Members to comply with [section 8.1](#) of this by-law shall not affect the validity of the Board meeting in regard to the said matter.

8.3 Disclosure – quorum

Notwithstanding the provisions of [section 8.1](#) of this by-law, when a majority of the Members and Acting-Members present at a meeting have disclosed an interest in accordance with [section 8.1](#) of this by-law and *the Municipal Conflict of Interest Act, R.S.O. 1990, c. M.50*, as may be amended from time to time, the remaining number of Members and Acting-Members shall be deemed to constitute a quorum, provided such number is not less than two.

9 RULES OF DEBATE AND CONDUCT AT BOARD MEETINGS

9.1 Order – decorum

The Chair shall preside over the conduct of the meeting, including the preservation of good order and decorum, ruling on points of order and deciding all questions relating to the orderly procedure of the meeting, subject to an appeal to the Board.

9.2 Chair – speaking on a motion

The Chair may answer questions and make comments in a general way without leaving the Chair, but if they wish to make a Motion or speak on a Motion taking a definite position and endeavouring to persuade the Board to support that position, then they shall first leave the Chair.

9.3 Chair - leaving the Chair and member designated

If the Chair desires to leave the Chair for the purpose of taking part in the debate or for any other reason, they shall designate another Member or Alternate Member to fill their place until they resume the Chair.

9.4 Speaking – recognition by Chair

Before a Member or Alternate Member may speak to any matter, they shall first be recognized by the Chair.

9.5 Speaking – order

When two or more Members or Alternate Members indicate simultaneously that they wish to speak, the Chair shall name the Member or Alternate Member who is to speak first and any subsequent order thereafter.

9.6 Speaking – question and clarification

Prior to making and consideration of a Motion, the Chair shall afford the Members and Alternate Members present at the meeting the opportunity to ask questions or request clarifications related to information presented within a report or matters included in the Board agenda.

9.6.1 Speaking – question and clarification limitation

When a Member or Alternate Member is asking questions or requesting clarifications related to information presented within a report, they shall confine their remarks to the content of the report and any related matter and when speaking shall be limited to a maximum of five (5) minutes, unless otherwise decided by a majority vote of the Members and Acting-Members present. A Member or Alternate Member's speaking time shall not include any time required for a response to a question posed by a Member or Alternate Member.

9.7 Speaking – limitation

When a Member or Alternate Member is speaking to a Motion, they shall confine their remarks to the Motion and when speaking shall be limited to a maximum of five (5) minutes, unless otherwise decided by a majority vote of the Members and Acting-Members present. A Member or Alternate Member's speaking time shall not include any time required for a response to a question posed by a Member or Alternate Member.

9.8 Motion – questions before vote

When a Motion is under debate, a Member or Alternate Member may ask a concisely worded question of another Member or Alternate Member, or of the appropriate staff through the Chair, prior to the Motion being put to a vote by the Chair in accordance with [section 12.3](#) of this by-law.

9.9 Motion – read at any time

Any Member or Alternate Member may require the Motion under debate to be read by the Board Secretary at any time during the debate on the Motion but shall not interrupt a Member or Alternate Member who is speaking.

9.10 Disruption – prohibited

A Member or Alternate Member shall not disrupt the Board or the meeting by any disorderly department, including conduct contrary to the Code of Conduct established by the Board.

9.11 Offensive Language

A Member or Alternate Member shall not use profane or offensive words or insulting expressions.

9.12 Interruption – exception

A Member or Alternate Member shall not interrupt a Member or Alternate Member who is speaking, except to raise a Point of Order or a Point of Privilege.

10 POINTS OF PRIVILEGE / POINTS OF ORDER

10.1 Rights and Privileges – integrity questioned

If a Member or Alternate Member believes that their rights, privileges or integrity or those of the Members and Alternate-Members collectively have been prejudicially affected, they shall ask leave of the Chair to raise a Point of Privilege which shall take precedence over all other matters, but they shall not be permitted to enter into any argument or introduce any Motion related to the Point of Privilege.

10.2 Administration – integrity questioned

When a Member or Alternate Member considers that the integrity of a member of the Regional Water System's administration has been impugned or questioned, the Chair shall permit the Chief Administrative Officer, or their designate, if they choose to do so, to make a statement to the Board.

10.3 Rule of Procedure – violation

When a Member or Alternate Member desires to call attention to a violation of the rules or practices of procedure, they shall ask leave of the Chair to raise a Point of Order and after leave is granted, they shall state the Point of Order to the Chair succinctly and the Chair shall then decide upon the Point of Order and advise the Members and Alternate Members of their decision.

10.4 Rule of Procedure – appeal

Unless a Member or Alternate Member immediately appeals the Chair's decision to the Board, the decision of the Chair shall be final.

If the decision of the Chair is appealed to the Board by the Member or Alternate Member, then the question “Shall the ruling of the Chair be sustained?” shall be put immediately without debate and its result shall be final.

10.5 Rule of Procedure - Call to Order

When the Chair calls a Member or Alternate Member to order, that Member or Alternate Member shall not speak again to the matter under discussion without the permission of the Chair until the Point of Order is dealt with, unless to appeal the ruling of the Chair.

11 MOTIONS

11.1 Notice of Motion – filed with the Board Secretary

Notices of Motions filed with the Board Secretary shall be directed by the Board Secretary to the next regular meeting of the Board.

11.2 Notice of Motion – urgent

Notwithstanding the provisions of [section 11.1](#) of this by-law, when a Member or Alternate Member submitting a Notice of Motion to the Board Secretary within the deadline prescribed in [section 6.2](#) or [6.3](#) of this by-law indicates in writing to the Board Secretary that the Notice of Motion is a question of urgency, the Board Secretary shall include the Notice of Motion in the agenda at STAGE VII (Motions of Which Notice is Given) as identified in [section 6.1](#) of this by-law.

11.3 Notice of Motion – consideration conditions

Notices of Motion included in the agenda at STAGE VII (Motions of Which Notice is Given), as identified in [section 6.1](#) of this by-law, shall only be considered by the Board when a majority of the Members and Alternate Members present have given leave for the introduction of such a Motion.

11.4 Motion for Giving Leave

Motions for giving leave shall be put to a vote immediately without amendment or debate.

11.5 Motion – seconded before debate

Motions shall be seconded before being debated or put to a vote.

11.6 Motion – withdrawal

Every Motion shall be deemed to be in the possession of the Board for debate after it is accepted by the Chair, but may, with the permission of the Board, be withdrawn at the joint request of the mover and seconder at any time before the Motion is disposed of.

11.7 Motion Under Debate – other motions

When a Motion is under debate, no other Motion shall be in order except a Motion:

1. to adjourn;
2. to table;
3. to put the question (to close the debate)
4. to postpone;
5. to refer; or,
6. to amend.

11.8 Motion to Adjourn

A Motion to adjourn shall:

1. not be amended;
2. not be debated;
3. not include qualifications or additional statements; and,
4. always be in order, except when a Member or Alternate member is speaking or the Members and Acting-Members are voting or when made in a closed session.

11.9 Motion to Adjourn – rejected

When a Motion to adjourn has been decided in the negative, no further Motion to adjourn shall be made until after some subsequent proceeding has taken place.

11.10 Adjournment – maximum permissible

The Board shall always adjourn at 11:00PM if in session at that hour, unless otherwise decided before that hour by a two-thirds vote of the Members and Acting-Members present at the meeting.

11.11 Motion to Proceed Beyond 11:00PM – qualifications

A Motion to proceed beyond the hour of 11:00PM shall:

1. not be amended;
2. not be debated; and,
3. always be in order, except when a Member or Alternate Member is speaking or the Members and Acting-Members are voting.

11.12 Motion to Table – qualifications

A Motion to table shall:

1. not be amended;
2. not be debated;
3. apply to the main Motion and any amendments thereto under debate at the time when the Motion to table was made; and,
4. not include qualifications or additional statements.

11.13 Motion to Table – procedure

Notwithstanding the provisions of [sections 11.1](#) and [11.2](#) of this by-law, if a Motion to table is decided in the affirmative by a majority vote of the Members and Acting-Members present at the meeting, then the main Motion and any amendments thereto shall be removed from the Board’s consideration until such time as a Notice of Motion to lift the matter from the table is filed with the Board Secretary within the deadline prescribed in [section 6.2](#) of this by-law and is included in the agenda at STAGE IX (Deferred Matters), as identified in [section 6.1](#) of this by-law.

11.14 Motion to Put The Question – qualifications

A Motion to put the question (to close the debate) shall:

1. not be amended;
2. not be debated;
3. apply to the Motion or amendment under debate at the time when the Motion to put the question is made;
4. be moved using the words “that the question now be put” and the mover and the seconder shall not be permitted to speak to the Motion to put the question; and,
5. not be permitted either when a Motion or an amendment on the floor involves the approval of an expenditure by the Board that is \$1,000,000 or greater.

11.15 Motion to Put The Question – procedure

If a Motion to put the question is decided in the affirmative by a two-thirds vote of the Members and Acting-Members present at the meeting, then the preceding Motion or amendment shall be voted on immediately without further debate or comment.

11.16 Motion to Postpone – qualifications

A Motion to postpone a matter to a certain time shall:

1. be open to debate;
2. be amendable; and,
3. preclude amendment and debate of the preceding Motion, unless the Motion to postpone to a certain time is resolved in the negative, in which case the preceding Motion shall be open to debate and amendment.

11.17 Motion to Refer – qualifications

A Motion to refer a matter under consideration to the Regional Water System's administration, or elsewhere, shall:

1. be open to debate
2. be amendable; and,
3. preclude amendment or debate of the preceding Motion, unless the Motion to refer is resolved in the negative, in which case the preceding Motion shall be open to debate and amendment.

11.18 Motion to Amend – qualifications

A Motion to amend shall:

1. be open to debate;
2. not propose a direct negative to the main Motion; and,
3. be relevant to the main Motion.

11.19 Motion to Amend – main motion - one at a time

Only one Motion to amend the main Motion shall be allowed at one time.

11.20 Motion to amend – amendment – one at a time

Only one Motion to amend a Motion to amend the main Motion shall be allowed at one time.

12 VOTING

12.1 Voting Order

Voting on the main Motion and amending Motions shall be conducted in the following order:

1. A Motion to amend a Motion to amend the main Motion;
2. A Motion (as amended or not) to amend the main Motion; and,
3. The main Motion (as amended or not).

12.2 Propositions – divided – voted on separately

When the Motion under consideration contains distinct propositions, upon the request of any Member or Acting-Member and provided a recorded vote has not been called for, the vote on each proposition shall be taken separately.

12.3 Motion to vote – immediately – after all have spoken

A Motion shall be put to a vote by the Chair immediately after all Members and Alternate Members desiring to speak on the Motion have spoken in accordance with [section 9.8](#) of this by-law.

12.4 Speaking – after motion – before vote announced

After a Motion is put to a vote by the Chair, no Member or Alternate Member shall speak on that Motion, nor shall any other Motion be made until after the result of the vote is announced by the Chair.

12.5 Mandatory Vote – all members

Every Member and Acting-Member present shall vote on every Motion unless the Member or Acting-Member indicates a conflict of interest, in which case the Member or Acting Member shall recuse themselves from the vote.

12.5.1 Mandatory Vote – Acting-Member

Where a Member has recused themselves in relation to a matter or Motion, an Alternate Member appointed by the same municipality may vote on the Motion, in their capacity as Acting-Member, and in place of the Member.

12.6 No Vote – deemed negative

Notwithstanding the provisions of [sections 12.5](#) and [12.5.1](#) of this by-law, every Member or Acting-Member who is not recused from voting by reason of a declared conflict of interest, shall be deemed to be voting against the Motion if they decline or abstain from voting.

12.7 Secret Voting on Motion – prohibited

The manner of determining the decision of the Board on a Motion shall not be by secret ballot or by any other method of secret voting.

12.8 Putting the Question to Vote – qualifications

When putting the question to vote, the Chair shall first ask for those in favour of its adoption to raise their hands and then ask for those opposed to its adoption to raise their hands.

12.8.1 Putting the Question to Vote – electronic meeting

Where a meeting of the Board includes the participation of a Member or Acting-Member by electronic means, the Member or Acting-Member must clearly indicate their raised hand, as required by [section 12.8](#) of this by-law, in full view of the camera and visible to all those attending the meeting.

12.9 Results Announced

The Chair shall announce the result of every vote.

12.10 Result Disagreement – objection immediate – retaken

If a Member or Alternate Member disagrees with the number of votes for and/or against a Motion as announced by the Chair, they may object immediately to the Chair's declaration and, with the consent of the Board, the vote shall be retaken.

12.11 Tie Vote – deemed negative

When there is a tie vote on any Motion, it shall be deemed to have been decided in the negative.

12.12 Recorded Vote – required

A recorded vote shall be taken on a Motion when called for by any Member or Acting-Member, or when required by applicable law.

12.13 Recorded Vote – called before or after vote

A Member or Acting-Member may call for a recorded vote immediately prior to the taking of the vote.

12.14 Recorded Vote – names entered into the minutes

When a recorded vote is taken, the names of those who voted for and those who voted against the Motion shall be entered into the minutes.

12.15 Voting – number of Members

In any vote required by applicable law of the whole Board, the number of Members constituting the Board shall be determined by excluding:

- (a) The number of Members or Acting-Members who are present at the meeting but who are excluded from voting by reason of the *Municipal Conflict of Interest Act, R.S. A. 1990, c.M.50*, and,
- (b) the number of seats that are vacant on the Board due to the lack of appointment in accordance with the Appointment of Board Members and Alternate Members By-law.

12.16 Voting – simultaneous

In those instances where a recorded vote is not being taken, all Members and Acting-Members shall vote simultaneously when the Chair calls for those voting for a Motion and/or calls for those voting against a Motion.

13 RECONSIDERATION BY BOARD

13.1 Reconsideration – legally binding commitments

No Motion to reconsider a decided matter of the Board shall be in order when the original Motion has been implemented resulting in a legally binding commitment that is in place on the date that a Motion to reconsider is to be debated.

13.2 Reconsideration – decided matter of Board – same meeting

A Motion to reconsider a decided matter of the Board at the same meeting at which the original Motion was decided shall be introduced at STAGE XI (Emergent Motions) of the Board agenda, as outlined in [section 6.1](#) of this by-law, unless the Chair determines there was a clear misunderstanding of the question that was put, in which case a Motion for reconsideration shall be introduced immediately after the original vote was taken.

13.3 Reconsideration – decided matter of Board – subsequent meeting

A Motion to reconsider a decided matter of the Board at a meeting subsequent to the meeting at which the original Motion was decided shall require a Notice of Motion submitted in accordance with [section 11](#) of this by-law, and shall be introduced at STAGE VII (Motions of Which Notice is Given) of the Board agenda, unless the Motion to reconsider comes forward to the Board through a report submitted by the Chief Administrative Officer or Director.

13.4 Reconsideration – decided matter of Board – introduction

A Motion to reconsider a decided matter of the Board must be made by a Member or Acting-Member who voted with the majority on the original Motion.

13.5 Reconsideration – decided matter of Board – only once

No Motion to reconsider a decided matter of the Board shall be made more than once in the twelve-month period from the date the matter was decided, unless a regular election has occurred following the decision.

13.6 Reconsideration – decided matter of Board – 2/3 vote

A Motion to reconsider a decided matter of the Board shall require the approval of at least two-thirds of the whole Board.

13.7 Affirmative Vote – original matter

If a Motion to reconsider is decided in the affirmative at a meeting, then consideration of the original matter shall become the next order of business.

13.8 Debate Prohibited – statement of reason permitted

No debate on a Motion to reconsider a decided matter shall be permitted; however, the mover of a Motion to reconsider may provide a brief and concise statement outlining the reasons for proposing such reconsideration.

14 DELEGATIONS

14.1 Appearance – where required

No person shall be permitted to appear before the Board except where required by applicable law, where there is a special recognition which has been approved by the Chair, or when a request for appearance has been submitted to the Chief Administrative Officer, or their designate, and approved by the Chair. A request to appear submitted to the Chief Administrative Officer, or their designate, must include the reason for the request, the name of the delegate wishing to appear, and scope of the delegation being given to the Board.

14.2 Chief Administrative Officer and Director or their designates

Notwithstanding the provisions of [section 14.1](#) of this by-law, the Chief Administrative Officer and the Director, or their designates, shall be permitted to address the Board in accordance with [section 9.8](#) of this by-law.

14.3 Chief Administrative Officer – authority

Notwithstanding the provisions of [sections 14.1](#) and [14.2](#) of this by-law, the Chief Administrative Officer shall be permitted to address the Board in accordance with the by-law which establishes the position of the Chief Administrative Officer.

15 CLOSED SESSION

15.1 Chair

Whenever a majority of the Members and Acting-Members vote that the Board should convene in closed session, the Chair shall continue to preside and maintain order during the closed session portion of the Board meeting.

15.2 Board in Closed Session – matters

The Board shall consider, in closed session, all matters contained in the closed session reports included in the proceedings of the Board meeting, unless otherwise decided by a majority vote of the Members and Acting-Members present.

15.3 Meeting in Closed Session – decided by majority vote

Any part of a Board meeting may be held in closed session if the Board decides by a majority vote of the Members and Acting-Members present to consider matters in accordance with [section 5.1](#) and [section 5.2](#) of this by-law.

15.4 Motion to rise and report – non-debatable

A Motion shall be made during the closed session of the Board to rise and report in public session of the Board and shall be decided without debate.

15.5 Report of Proceedings

The proceedings of the closed session portion of a Board meeting shall be reported by a Member or Acting-Member other than the Chair, and a Member or Acting-Member of the Board shall be selected by the Chair to present the report of the closed session of the Board in public session of the Board.

15.6 Report of Recommendations Adopted

The report and recommendations of the Board referred to in [section 15.5](#) of this by-law may be adopted and confirmed by the Board in a single Motion.

15.7 Request to Vote Separately – requirements

A Member or Acting-Member may request, prior to the adoption of the report and recommendations of the Board referred to in [section 15.5](#) of this by-law, that a

recommendation be voted on separately, and such a request shall not require the introduction of a Motion.

15.8 Meeting in Closed Session – electronic participation

Any part of a meeting held in closed session shall allow for electronic meeting participation by Members and Alternate Members, including during a declared Emergency.

16 COMMUNICATIONS AND PETITIONS

16.1 Presentation of Information – legibly written and signed

Every communication or petition intended for presentation to the Board shall be legibly written or printed and shall be signed by at least one person giving their printed name and address.

16.2 Listed in Agenda – with similar matters

The Board Secretary shall list in the agenda only those communications and petitions which pertain to matters contained in the reports and other communications listed in the agenda.

16.3 Matters not Pertinent

Every communication or petition which does not pertain to a matter in the agenda shall be introduced under STAGE VI (Communications and Petitions) as outlined in [Section 6.1](#) of this by-law.

16.4 Referral

A communication or petition introduced under STAGE VI (Communications and Petitions) may be referred to the Chief Administrative Officer or Director, or another party, as directed by the Board.

16.5 Language – obscene, defamatory

Notwithstanding the provisions of [sections 16.2](#) and [16.3](#) of this by-law, communications or petitions containing obscene or defamatory language shall not be listed in the agenda.

16.6 Distribution of Materials

No person, other than the Board Secretary, the Chief Administrative Officer, or the Director shall place on the desks of the Members and Alternate Members, or otherwise distribute to Members and Alternate Members, any material whatsoever before or during a meeting of the Board.

17 PUBLIC AT BOARD MEETINGS

17.1 Public – conduct

Members of the public in attendance at Board meetings shall conduct themselves with proper decorum at all times in order to ensure a safe and respectful meeting environment.

17.2 Public – electronic devices

Members of the public in attendance at Board meetings shall ensure that all electronic devices are set to silent mode and no device shall be used to disrupt the Board meeting.

17.3 Public – disorderly conduct

Any person who is not conducting themselves in a manner as set out in [section 17.1](#) or [17.2](#) of this by-law shall be asked by the Chair to do so. If that person continues to conduct themselves in a manner contrary to [section 17.1](#) or [section 17.2](#) of this by-law, then that person shall be removed from the meeting.

17.4 Public – removal

Notwithstanding [section 17.3](#) of this by-law, in the event a member of the public is conducting themselves in a manner which poses a threat to the personal safety of themselves or others in attendance at the meeting, they shall be removed from the meeting, without warning.

17.5 Suspension of Meeting – order restored

The Chair may, at their discretion, unilaterally suspend the meeting of the Board until order is restored.

17.6 Public – declared emergency

The room and location where the Board meeting is held may be restricted from public attendance for a meeting during a declared Emergency, when it has been deemed in the public interest to do so. Meetings will continue to be provided to the public using electronic means, where it is reasonably possible to do so.

18 ENQUIRIES

18.1 Regional Water System – business

Enquiries during a Board meeting relating to any matter connected with the business of the Regional Water System may be made by Members or Alternate Members to the Chair or, through the Chair, to another Member, Alternate Member, the Chief

Administrative Officer or to the Director at STAGE X (Additional Business and Enquiries), as identified in [section 6.1](#) of this by-law.

18.2 Argument – opinions and debate

When an enquiry is made in accordance with [section 18.1](#) of this by-law, no argument, opinion or facts shall be stated by the Member, except so far as may be necessary to explain the enquiry, and no debate shall be permitted with respect to the enquiry.

18.3 Answer – response and debate

When a Member or Alternate Member provides a response to an enquiry, they shall not debate the matter to which the enquiry refers.

18.4 Enquiry – direction

A Member or Acting-Member who wishes to make a Motion as a result of an enquiry must first seek leave in accordance with [section 11.4](#) of this by-law.

19 EMERGENT BUSINESS

19.1 Emergent – congratulatory or condolatory matters

Business that is not part of the agenda shall not be considered by the Board unless it is of an emergent, congratulatory or condolatory nature.

19.2 Introduction – 2/3 vote

Members or Alternate Members shall introduce matters described in [section 19.1](#) of this by-law at STAGE XI (Emergent Motions), as identified in [section 6.1](#) of this by-law, but in order for such matters to be introduced two-thirds of the Members and Acting-Members present shall give leave for the introduction of such matters in accordance with [section 11.4](#) of this by-law.

19.3 Motion to Introduce – not amenable or debatable

Motions to give leave for the introduction of such matters shall not be amendable or debatable.

20 UNFINISHED BUSINESS

20.1 Unfinished Business – repeated until disposed of

Items on the agenda which have not been disposed of by the Board shall be repeated in each subsequent agenda until disposed of by the Board.

21 ENACTMENT OF BY-LAWS

21.1 Published With Agenda

By-laws shall be published with the agenda for the meeting at which they are to be read.

21.2 Distributed with Added Communications – majority vote

Notwithstanding the provisions of [section 21.1](#) of this by-law, a Motion to introduce those by-laws arising from Added Reports or Added Communications shall be decided by a majority vote of the Members and Acting-Members present prior to such by-laws being read.

21.3 Three Readings - enactment

Every by-law shall receive three (3) separate readings before being enacted by the Board.

21.4 Three Readings – at the same meeting

Unless otherwise provided by applicable law, every by-law may receive all three (3) readings at the same meeting of the Board.

21.5 First and Third Reading – no amendment or debate

Motions for the first and third readings of by-laws shall not be amendable or debatable.

21.6 Second Reading – amenable and debatable

Amendments and debate on the content of by-laws shall be in order after a Motion for the second reading of the by-laws has been duly made and seconded.

21.7 Confirming By-law – proceedings

The proceedings at every regular meeting or special meeting of the Board may be confirmed by one or more by-laws so that every decision of the Board at that meeting and every resolution passed thereat shall have the same force and effect as if each and every decision and resolution had been the subject matter of a separate by-law duly enacted.

21.8 Confirming By-law – no amendment or debate

Notwithstanding the provisions of [section 21.6](#) of this by-law, confirming by-laws shall not be amendable or debatable.

21.9 By-laws Signed

Every by-law enacted by the Board shall be signed by the Chair or Acting Chair and the Board Secretary and shall show the dates of the three readings by the Board.

PART 3 – Committees

22 STANDING COMMITTEES

22.1 Standing Committee – establishing

A Standing Committee may only be established by the Board by amending this by-law.

23 ADVISORY COMMITTEES

23.1 Advisory Committee – establishing

The Board may establish an advisory committee by separate by-law for the purpose of providing recommendations, advice and information to the Board related to a specific topic or issue to be considered by the Board.

23.2 Advisory Committee – mandate

The by-law establishing an advisory committee must include a mandate which clearly and succinctly outlines the scope and issues to be addressed by the advisory committee. The advisory committee may not consider or address any issue beyond the matters outlined in the advisory committee's mandate.

23.3 Advisory Committee – term

The by-law establishing the advisory committee must include a term which shall not exceed the term of the Board.

23.4 Advisory Committee – Chair

The Board shall appoint a Member or Alternate Member to act as the Chair of the advisory committee.

23.5 Advisory Committee – Vice-Chair

At the discretion of the Board, the Board may appoint a Member or Alternate Member to act as the Vice-Chair of the advisory committee.

23.6 Advisory Committee – appointments

The Board may appoint Members, Alternate Members, and members of the public to the advisory committee.

23.7 Advisory Committee – ex officio member

The Board Chair shall be an ex officio member of the advisory committee and may participate as any other member of the advisory committee.

23.8 Advisory Committee – meeting schedule

The Chair of the advisory committee or, in the absence of the Chair of the advisory committee, the Vice-Chair of the advisory committee shall establish a meeting schedule for the advisory committee.

23.9 Advisory Committee – meeting location

The Chair of the advisory committee or, in the absence of the Chair of the advisory committee, the Vice-Chair of the advisory committee shall establish a location for each meeting of the advisory committee which may include a meeting by electronic means.

23.10 Advisory Committee – public participation

All meetings of the advisory committee shall be open to the public, unless the mandate of the meeting or the mandate of the advisory committee is related to a matter of which the advisory committee may hold a closed meeting under section 239 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended.

23.11 Advisory Committee – report to Board

Minutes of the proceedings of the advisory committee meetings shall not be kept, but the summary proceedings shall be recorded in the form of a report by the advisory committee and shall be presented to the Board by the advisory committee Chair in STAGE VIII (Reports and Added Reports) as identified in [section 6.1](#) of this by-law. The report of the advisory committee shall include the names of the advisory committee members, and the date(s) and location(s) upon which the advisory committee met.

23.12 Advisory Committee – recommendations, advice and information by consensus

Recommendations, advice and information provided in accordance with [section 23.11](#) by the advisory committee shall be by consensus of the advisory committee members as determined by the advisory committee Chair.

23.13 Advisory Committee – remuneration

Appointed members of the advisory committee shall not receive remuneration.

23.14 Advisory Committee – dissolved

When an advisory committee has completed its work in accordance with its mandate and has made its report to the Board, or the term of the advisory committee has been reached, or the term of the Board has been reached, the advisory committee shall be deemed to be dissolved.

PART 4 – Repeal and Enactment

24 Severability, Repeal and Enactment

24.1 Severability

Should any section, sub-section, clause or paragraph or provision of this by-law be declared by a Court to be invalid, the same shall not affect the validity of this by-law as a whole or any part thereof, other than the provisions so declared to be invalid.

24.2 Previous By-laws

By-law No. 1, as enacted on March 9, 1999, and all of its amendments are hereby repealed.

24.3 Effective Date

This by-law shall come into force and take effect on October 4, 2024.

Passed in Open Session of the Board on October 3, 2024.

S. Hillier, Chair

J. Bunn, Board Secretary

First Reading – October 3, 2024

Second Reading – October 3, 2024

Third Reading – October 3, 2024

Board of Management Report

Subject: Public Notice Policy

Overview:

- The proposed policy regarding the provision of notices to the public and interested parties meets the requirements of the Municipal Act, 2001, as amended.
- At a minimum, public notices related to statutory obligations, including the Municipal Act, will be posted on the water system’s website for a minimum of two weeks prior to the date of the Board meeting at which the matter will be discussed.

Recommendation

That the Board of Management for the Elgin Area Water Supply System take the following actions with regard to the Public Notice policy for the Elgin Area Water Supply System:

1. The Board of Management for the Elgin Area Primary Water Supply System **ENDORSE** the Public Notice policy, as attached to this report; and,
2. The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

Previous and Related Reports

None

Background

Section 270 of the *Municipal Act, 2001, S.O. 2001, c.25*, specifies the adoption and maintenance of policies with respect to, among other things, “the circumstances in which the municipality shall provide notice to the public and, if notice is to be provided, the form, manner and times notice shall be given.

Discussion

Section 270 of the *Municipal Act, 2001, S.O. 2001, c.25*, outlines the minimum requirements for municipalities and local boards to adopt policies, including a policy for notifications to the public. For the purposes of meeting the obligations of the Board of Management for the Elgin Area Water Supply System (Elgin Board), and consistent with the advice received from the Board’s solicitor, the Elgin Board is considered to be a local board pursuant to the *Municipal Act, 2001*.

Using similar policies adopted by the benefiting municipalities of the Elgin Area Water Supply System as a guide, the proposed policy provides a general framework for the provision of notice in relation to applicable statutory requirements, as well as with specific regard to the following sections of the *Municipal Act, 2001*:

- Section 217: (Passing or amending a by-law to change the composition of the Board)
- Section 238(2): (Enacting a Procedure By-law)
- Section 291: Adopting all or part of a budget
- Section 391: Passing or amending a by-law establishing a fee or charge

The framework of the policy may also be used as an administrative guide for other non-statutory public notices, if and as appropriate. At a minimum, the framework of the policy requires that notices are posted on the water system's website for a minimum of two weeks prior to the date and time of the meeting when the matter will be discussed by the Board. The framework also provides, where appropriate, that notices are circulated to interested parties which may include the benefiting municipalities.

The proposed policy related to the provision of notice, as appended to this report, meets the obligations and requirements of the *Municipal Act, 2001*.

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

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

Attachments: Public Notice Policy



Public Notice Policy

Approved: October 3, 2024

Last Revised:

Legislative History:

Last Reviewed Date:

Policy Lead: Director, Regional Water

1 Purpose

The purpose of this policy is to meet the requirements under Section 270(1)(4) of the Municipal Act, 2021, S.O. 2021, c.25 (the "Municipal Act") which requires the adoption of a policy with respect to circumstances in which notice to the public is provided and if notice is to be provided, the form, manner and times notice shall be given.

2 Applicability

It is the policy of Elgin that the Board of Management shall apply to instances where the Board is required to give notice to the public under the Municipal Act or any other legislation or by-law unless the Board directs other forms of notice that the Board considers adequate for specific matters.

Statutory notice to the public under the Municipal Act, other legislation or by-law will be completed in accordance with this policy as well as any prescribed notice content, signage or mailing requirements.

Nothing in this policy prevents the Chief Administrative Officer, the Director, or their designate from using additional methods of notice that, in the opinion of the Chief Administrative Officer, the Director, or their designate, are more effective or providing a longer notice period. Further, nothing in this policy prevents the Chief Administrative Officer, the Director, or their designate, from using the public notification methods contained in this policy for matters not otherwise required under this policy.

This policy does not apply to public relations materials including advertising, posters, brochures or event program advertisements.

3 Definitions

Benefiting Members – shall mean the municipalities, communities, and/or settlements which receives treated potable drinking water from Elgin pursuant to Transfer Order Elgin Area #W1/1998 dated effective November 29, 2000, and any Water Supply Agreement with Elgin. **Benefiting Member** shall mean the singular of Benefiting Members.

Board of Management (and Board) – shall mean the Board of Management for the Elgin Area Primary Water Supply System as established under the *Municipal Water and Sewage Systems Transfer Act, 1997* and pursuant to Transfer Order Elgin Area #W1/1998 dated effective November 29, 2000.

Chief Administrative Officer – shall mean the Chief Administrative Officer for the Elgin Area Water Supply System as appointed

Director – shall mean the Director of Regional Water for the Elgin Area Primary Water Supply System, or their designate.

Elgin – shall mean the Elgin Area Primary Water Supply System as established under the *Municipal Water and Sewage Systems Transfer Act, 1997* and pursuant to Transfer Order Elgin Area #W1/1998 dated effective November 29, 2000.

Procedure By-law – shall mean the Rules of Order and Procedure By-law that the Board follows to adopt by-laws, pass resolutions, and conducts business.

Website – shall mean the official website of Elgin at <https://HuronElginWater.ca>

4 The Policy

4.1 Policy Statement

The purpose of this policy is to set out public notice provisions for matters affecting the public that are prescribed by legislation or deemed to warrant public notice.

4.2 Responsibilities

4.2.1 The Project Lead shall:

- a) Prepare a Public Notice Document providing all necessary details regarding the matter.
- b) Provide the Public Notice Document to the Director, or their designate, for approval to post on the Elgin website.
- c) Provide hard copies of Director approved Public Notice Document to Elgin's Manager of Operations for distribution and posting at Elgin facilities, if applicable.
- d) Provide the Director approved Public Notice Document to other interested community partners, including but not limited to Benefiting Members, as may be appropriate.

4.2.2 The Director, or their designate, shall:

- a) Confirm the applicability and completeness of the Public Notice Document.
- b) Approve Elgin's Administrative Assistant, or their designate, to post the Public Notice Document in the Public Notice section on Elgin's website.
- c) If applicable, approve Elgin's Administrative Assistant, or their designate, to post the Public Notice Document on Elgin's social media page(s).

4.3 Statutory Notice

- 4.3.1 Where Elgin is required to give notice to the public under a provision of any legislation or regulation, the notice shall be given in accordance with the legislation or regulation.
- 4.3.2 Where a legislated notice requirement under an Act or Regulation must be provided but there are no suitable printed newspapers that meet the definition of a Newspaper under the Legislation Act or other applicable legislation (being a document in printed form, published at regular intervals of a week or less, is circulated to the general public and consists primarily of news of current events of general interest), notice shall be given in the form and manner set out in Section 4.5 of this policy as well as any prescribed notice content set out in the relevant legislation.
- 4.3.3 Where a legislated notice requirement under an Act or Regulation must be provided but the legislation is ambiguous with regard to the method of notice, notice shall be given in the form and manner set out in Section 4.5 of this policy as well as any prescribed notice content set out in the relevant legislation.
- 4.3.4 In the event of a conflict between the notice provisions of this policy and any other by-law or policy, the by-law or policy that, in the opinion of the Director, prescribes more effective notice provisions shall prevail.
- 4.3.5 Notice of schedule of meetings of the Board, either regular or special, shall be in accordance with the Rules of Order and Procedure By-Law.

4.4 Other Notice to the Public

Elgin will give notice to the public as set out in Section 4.5 of this policy for the following matters:

Municipal Act Section	Action
217	Passing or amending a by-law to change the composition of the Board
238(2)	Enacting a Procedure By-Law
291	Adopting all or part of a budget
391	Passing or amending a by-law establishing a fee or charge

4.5 Process for Providing Notice

Where notice to the public is to be given in accordance with this policy:

- 4.5.1 Notice to the public shall be posted on the “Public Notices” page of Elgin’s website for at least the two-week period immediately preceding the meeting of the Board at which the matter will be considered, and an opportunity is provided for interested parties to speak to or submit correspondence regarding the matter.
- 4.5.2 Notice to the public given under this section is sufficient even if there are times during the two-week period that Elgin’s website is not accessible.
- 4.5.3 Notice to the public will also be sent to other interested parties, which may include a Benefiting Member, as determined by the Project Lead.
- 4.5.4 Unless otherwise prescribed, notice to the public given under this section shall contain the following information:
 - a) A general description of the matter;
 - b) The relevant section of the Municipal Act and/or other act or regulations, if applicable;
 - c) The date, time and place of the meeting at which the matter will be considered;
 - d) Where the matter relates to specific lands, sufficient information regarding the location such as the municipal address, legal description or map;
 - e) Contact information and deadlines for submitting written comments or registering as a delegation;
 - f) Contact information for obtaining more information or clarification on the matter; and,
 - g) Contact information for obtaining the notice in an accessible manner.
- 4.5.5 A Public Notice Document must provide exactly the same information as a “Public Notices” page posting, and vice-versa; however, the form or appearance may differ.
- 4.5.6 If a matter for which notice was given under this policy is deferred, continued, or otherwise delayed to a future meeting, no further notice is required provided a public statement is made at the meeting advising the matter will be considered at a future meeting, specified in the statement.
- 4.5.7 Where notice is required to advise the public of the Board’s intent to pass or of the passage of a by-law, such notice shall be posted on the “Public Notices” page of Elgin’s website for the time period as required by legislation.

5 Monitoring and Evaluation

This policy is reviewed by the Director or designate at least every three years to ensure its effectiveness and compliance with legislation and current business processes, or as required based on legislative changes.

The Director is authorized to make minor or housekeeping amendments to this policy, as required.

Board of Management Report

Subject: Water Quality Facility Plan Update

Overview:

- This report provides a summary of the results of the Water Quality Facility Plan Update.

Recommendation

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Elgin Area Water Supply System take the following actions with regard to the Water Quality Facility Plan Update:

1. The Board **ENDORSE** the Water Quality Facility Plan Update; and
2. The Board **RECEIVE** this report for information.

Previous and Related Reports

March 5, 2015	Water Quality Facility Plan
June 2, 2022	Water Quality Facility Plan – Consulting Award

Background

In 2015, Board Staff undertook the initial Water Quality Facility Plan (the “Plan”) study to better understand the Elgin Area Water Treatment Plant’s capacity and to identify process areas that would benefit from optimization, changes to existing operating procedures and capital investment.

From the 2015 Plan, recommendations were made based on desktop, bench scale, and full-scale studies. One key recommendation from the 2015 Plan was to undertake studies on a periodic basis to reassess the plant’s performance.

Discussion

The update to the Water Quality Facility Plan was undertaken by Stantec Consulting Ltd (Stantec) with input from Board Staff and representatives from the contracted operating authority through a series of studies, workshops, meetings, site visits and review. The Plan was undertaken as a recommendation from the previous 2015 Plan to assess the treatment capacity and performance of the unit treatment processes, evaluate the efficiency and effectiveness of the process with regards to current regulations and best practices, and recommend optimization and/or capital works projects to best meet future

water quality and production capacity objectives. The Plan develops a roadmap for improvements to risks identified in the treatment process at the plant by conducting detailed analysis of each unit process through desktop, bench scale and full-scale studies.

The approach taken by Stantec to identify risks was to review recommendations that were developed through four (4) technical memorandums, as follows:

1. Treatment Requirements
2. Review of Existing Performance of Elgin Area Water Treatment Plant
3. Investigative Studies
4. Risk Review

Each risk identified was evaluated by scoring its risk associated with likelihood of occurring, consequence to water quality and plant production capacity, environmental impacts, and social impacts and public perception.

From each risk, opportunities to mitigate the risk were identified. In some cases, one opportunity may mitigate more than one risk, or a risk may be mitigated by more than one opportunity. Once the opportunities were developed, the opportunity was prioritized based on risk the opportunity addressed by assigning it the associated risk score. This method was used for all opportunities which generated the project implementation plan for the next five (5) plus years and in the longer term.

In the short-term, opportunities to optimize the current pre-chlorination system and a study to optimize the polymer to improve settled water quality were recommended to be undertaken within the next year. A small project to relocate the sedimentation turbidity sample line has also been recommended to improve optimization strategies in future projects. These projects have small budget requirements but would benefit the plant by offsetting large capital investments by continuing to be able to use existing processes and assets.

The project implementation plan may be found in the Executive Summary of the Plan and is attached to this report in [Appendix A](#). The conclusion from the full-scale capacity study was that the plant successfully ran for the trial at the existing rated capacity. This finding concluded that no large capital investments would be required in the immediate future to accommodate the growth in the Elgin Area Primary Water Supply service area. Some projects recommended within the next one to five years with larger estimated budgets include provisions to maintain existing capacity with improvements to the existing treatment system or the construction of new treatment systems. The study portion of these projects will determine the preferred alternatives.

Larger capital investments are recommended by the Plan in the longer term to go beyond the existing rated capacity that may be required to meet the growth in the

region. The timing of these investments will be determined by the ongoing Master Water Plan Updates currently anticipated to be completed mid-2025 and ultimately a business case assessment for each project in support of budget approval to confirm the costs, timing, and priority of the project, consistent with our Customer Level of Service framework and Risk Mitigation strategy.

Table E1 of the attached Executive Summary of the Plan in [Appendix A](#), provides details on the project implementation plan. Each of the projects noted over the next five (5) years will include an investigative study to determine if a capital upgrade is required, or if a process optimization strategy would address the risk identified. Also included in the project implementation plan is the recommendation to undertake another update to the Plan in 2030 to reassess the plant’s treatment capacity and performance of the unit treatment processes following the completion of the next Master Water Plan Update and Asset Management Plan Update.

Project Financial Status

EXPENDITURE	FORECAST	INCURRED
Preliminary Design	\$143,221.41	\$135,833.94
Total	\$143,221.41	\$135,833.94
Approved Budget	\$290,000.00	
Budget Surplus / Deficit	\$146,778.59	

Presently, this project is projected to be delivered within budget.

Conclusion

The Water Quality Facility Plan establishes a clear project implementation plan to address risks identified through multiple studies and engagement with Board staff and the contracted operating authority. By using the project implementation plan as a roadmap, Board staff can address the identified risks while remaining cognizant of available capital and staff resources.

Prepared by: Brittany Bryans, P. Eng.,
Environmental Services Engineer

Submitted by: Billy Haklander, P.Eng., LL.M
Senior Manager, Capital Programs

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

Attachments: Appendix A – Elgin Area Water Quality Facility Plan Update –
Executive Summary

Appendix A – Executive Summary

E.1. Introduction

Stantec is pleased to present this Final Report for the Elgin Area Water Treatment Plant (WTP) Water Quality Facility Plan (WQFP) Update to the Regional Water Supply (RWS). The objective of this report is to provide recommendations for opportunities for improvement of the WTP performance in terms of capacity, compliance, and best practices.

Opportunity projects were identified through the previous tasks summarized in the following Technical Memorandums (TMs):

- TM#1A: Treatment Requirements – Elgin Area
- TM#2: Review of Existing Performance of Lake Huron and Elgin Area Water Treatment Plants
- TM#3: Investigative Studies
- TM#4: Risk Review

E. 1.1. Process Overview

The Elgin Area WTP is a conventional WTP with a rated capacity of 91 million liters per day (MLD) that is supplied by Lake Erie and operates pre-chlorination, screening, pH-adjusted coagulation, flocculation, sedimentation with seasonal powdered activated carbon (PAC), filtration by dual-media sand and anthracite filtration, UV disinfection, and chlorination.

E.2. Key Findings

The key issues of focus for this WQFP update for the Elgin Area WTP were as follows:

- Manganese, and taste and odour. The WTP is susceptible to taste and odour (T&O) events that can be associated with seasonal elevated manganese, low dissolved oxygen (DO), elevated organics (and decreased UV transmittance [UVT]), and a risk of harmful algal blooms (HABs) that can introduce regulated cyanotoxin compounds (i.e., microcystins or MC-LR). There is an opportunity to improve upon the frequency and instrumentation used for monitoring these respective event water quality parameters to inform operational adjustments to optimize treatment. Additionally, treatment barriers to mitigate manganese and T&O events can be explored.
- Cyanotoxins. Desktop studies included a review of cyanotoxin risk at Elgin Area WTP which found that while microcystins is a potential risk in the Lake Erie water

supply, the existing WTP processes are expected to provide acceptable management of microcystins within the maximum acceptable concentration (MAC), and further, the existing processes could be optimized in the event of a significant harmful algal bloom (HAB) to provide additional mitigation of microcystins.

- Pre-chlorination. During a previous raw water manganese event, the intake chlorination system was suspected of under-dosing which is believed to be related to a programming set-point which is not optimized.
- Powdered activated carbon. The WTP operates powdered activated carbon (PAC) as a barrier to T&O events and cyanotoxins, though PAC dosing is not optimized.
- Coagulation optimization. The pre-treatment processes require continuous addition of a coagulant, adjustments to coagulant dosing in response to raw water quality events, and the addition of a polymer to optimize treatment performance particularly during raw water events. The approach to coagulant dosing (i.e., “coagulant dosing map”), could be optimized with respect to raw water organics and online monitoring for organic water quality parameters (such as UV transmittance, which is a surrogate measure for organics in water samples).
- Polymer upgrades. Investigative studies including bench-scale jar-testing did not find that the current polymer provides a measurable improvement to treatment performance.
- Settled water quality sampling. The sampling point for settled water turbidity sampling has a different design on the North Train than on the South Train, which can result in a discrepancy in the data collected for either train of the pre-treatment process. It is noted that settled water quality is not a regulated parameter, though accurate monitoring at this location is critical to inform optimization of upstream and downstream treatment processes.
- Filter-to-waste. Filter-to-waste is not an existing process at the WTP, and an opportunity exists to optimize the backwash sequence with an extended terminal sub-fluidization wash (ETSW) step in the absence of filter-to-waste, and/or install filter-to-waste piping in the future.

One (1) full-scale capacity test was performed (i.e., stress test). Routine particle charge monitoring was performed during the full-scale testing to maintain optimal coagulant dosing. Filter run times and Unit Filter Run Volume (UFRV) performance were well above values for a well-optimized facility. During full-scale testing, a raw water turbidity event occurred where the raw water turbidity increased substantially to >800 NTU, and

turbidity increased to >5 NTU in the clarification process upstream of filtration. The filtration process was able to manage this event and maintain filter effluent water quality in compliance well within regulatory criteria and maintain acceptable filter run times without an impact on filtration head-loss. These findings suggest that the filtration process is a critical barrier for particle removal at the Elgin Area WTP, and an opportunity exists to optimize the clarification process at the plant particularly for managing raw water quality events and repeated “stress testing” could be performed in cold water conditions to verify the improvements from subsequent clarifier changes and upgrades.

For primary disinfection, the WTP currently operates pre-chlorination upstream of filtration as well as UV disinfection and there is interest in conducting an un-chlorinated filter study to minimize the potential for the formation of chlorination disinfection by-products (DBPs) upstream of filtration.

Finally, there is interest in exploring the potential benefits to WTP optimization through the construction of a Pilot-Plant and a study to explore the feasibility of this opportunity is warranted.

E.3. Opportunity Projects

E.3.1 Methodology

Opportunity projects were prioritized based on the risk rankings for the issues associated with the list of opportunities. The Opportunities were developed by identifying practical options in terms of studies, the development of Standard Operating Procedures (SOPs) (e.g., operational changes), and capital upgrades that could mitigate risks based on best practices, guidance documents, and Stantec experience at similar facilities.

In many cases, the following was true:

- A particular risk may be mitigated by more than one alternative / opportunity.
- A particular alternative / opportunity may be expected to mitigate more than one risk.

The issues and risks identified over the course of the previous four WQFP Update Project TMs were consolidated to generate a list of opportunities for improvement for the Elgin Area WTP. Opportunities identified were divided into short-term and long-term opportunities, as discussed herein.

E.3.1. Short-Term Opportunities

The following short-term opportunities are expected to require minor effort and low-cost. These opportunities are recommended to be implemented as soon as possible (e.g., in

late 2024 or early 2025) with assistance from operations and Supervisory Control and Data Acquisition (SCADA) programming where applicable. It is understood that some of these projects are currently underway. Further details are provided in Section 3.1.1 and Appendix D of the Water Quality Facility Plan.

- A. Optimize Pre-Chlorination: Review pre-chlorination set-points and update SOP for seasonal management of manganese and T&O events.
- B. Polymer Optimization Study: Identify alternative flocculant-aid / sedimentation-aid polymer to enhance settled water turbidity and is compatible with existing polymer make-up and dosing system.
- C. Relocate Sedimentation Stream Turbidity Sample Location: Improve the consistency of sampling points for settled water quality between the North and South process streams.

E.3.2. Long-Term Opportunities

A total of sixteen (16) long-term opportunity projects were identified for RWS to continuously work towards optimization at the Elgin Area WTP.

Workplans

Work plans for each opportunity were developed and include the following details:

- Problem statement
- Objective of the opportunity
- Priority
- Process unit addressed by the opportunity
- Expected benefits as a result of implementation of the opportunity
- Associated risk issues that the opportunity addresses
- Scope of work for the opportunity
- Estimated duration of the opportunity project
- Level “D” (-30% / +50%) cost estimates

Implementation Plan

The implementation plan was developed by allocating two to three projects per year with considerations for project duration, prioritization, staging of studies ahead of capital works, and minimizing overlap of major capital work in similar process areas.

A summary of the project opportunities and implementation plan is provided in Table E1.

Table E1. Summary of Opportunity Projects, Estimates, and Implementation Schedule

ID	Project Name	Cost Estimate (\$2024)	Unit Process	Project Type	Year (start)	Duration (months)
OE-1	Optimize T&O Management	\$563,000	Intake	Study / SOP / Capital	2025	10
OE-2	Optimize PAC Dosing Strategy	\$87,000	Clarification	SOP	2025	6
OE-3	Optimize Backwash Sequence	\$45,000	Filtration	SOP	2026	2
OE-4	Coagulant and Polymer Dosing Strategy	\$278,000	Clarification	Study / SOP / Capital	2026	8
OE-5	Additional Cold Water Stress Testing	\$47,000	Clarification	Study	2027	3
OE-6	Unchlorinated Filter Study	\$105,000	Disinfection	Study	2027	12
OE-7	Raw Water Quality Monitoring Program	\$255,000	Intake	SOP / Capital	2028	12
OE-8	Develop Key Performance Indicator (KPI) Dashboard and Reporting	\$293,000	Intake	Capital	2028	16
OE-9	Filter Capacity Evaluation	\$37,000	Filtration	Study	2029	16

ID	Project Name	Cost Estimate (\$2024)	Unit Process	Project Type	Year (start)	Duration (months)
OE-10	Feasibility Study for Clarifier and Filtration Upgrades	\$143,000	Clarification ; Filtration	Study	2029	6
OE-11	Filter to Waste	\$7,100,000	Filtration	Capital	2029	24
OE-12	Pilot Plant Feasibility Study	\$120,000	Intake	Study	2030	6
OE-13	Water Quality Facility Plan (WQFP) Updates	\$210,000	All	Study	2030	24
OE-14	Construct Pilot Plant	\$3,325,000	Intake	Capital	2031	12
OE-15	Filter Capacity Expansion	TBD (\$32,000,000)	Filtration	Capital	2032	36
OE-16	Clarifier Capacity Upgrades	TBD (\$66,000,000)	Clarification	Capital	2034	36

The prioritized individual work plans are presented in Appendix D of the Water Quality Facility Plan.

Annual Budgets

The estimated annual budgets for the proposed optimization projects are presented in Figure E1.

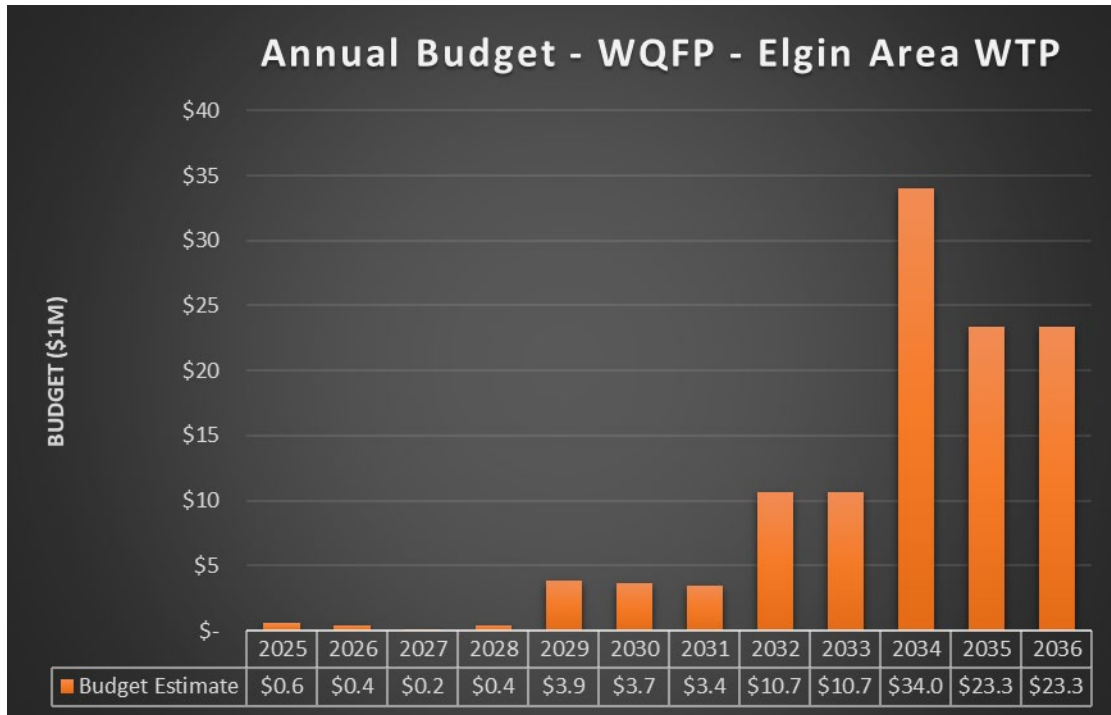


Figure E1. Estimated Budget for Optimization Projects for the Elgin Area WTP

E.4. Summary

In summary, the Elgin Area WTP will benefit from lower-cost projects in the 1-to-5-year horizon to work towards optimization opportunities that are expected to provide good cost-benefit improvements such:

1. Optimize T&O Management
2. Optimize PAC Dosing Strategy
3. Optimize Backwash Sequence
4. Optimize Coagulant and Polymer Dosing Strategy
5. Additional Cold Water Stress Testing
6. Unchlorinated Filter Study
7. Raw Water Quality Monitoring Program

8. Develop Key Performance Indicator (KPI) Dashboard and Reporting
9. Filter Capacity Evaluation
10. Feasibility Study for Clarifier and Filtration Upgrades

Beginning in 2029, it is recommended to initiate a Feasibility Study for Clarifier and Filtration Capacity Expansion Upgrades. It is recommended to advance this timeline should the Master Water Plan demands indicate a potential capacity bottleneck for the Elgin Area WTP sooner than currently anticipated. It is recommended to review the Clarifier and Filtration capacity expansion upgrade options together because it is important that the selected technologies will be compatible. Following this study, the following higher-cost projects are recommended to be implemented into 2034 or alter:

11. Filter-to-waste Upgrades
12. Pilot Plant Feasibility Study
13. Water Quality Facility Plan (WQFP) Update
14. Construct Pilot Plant
15. Filter Capacity Expansion
16. Clarifier Capacity Upgrades