

# 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 5, 2023, 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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**6. Upcoming Meeting Dates**

December 7, 2023

March 7, 2024

June 6, 2024

October 3, 2024

December 5, 2024

**7. Adjournment**

# Elgin Area Primary Water Supply System Report

3rd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management  
June 1, 2023

Attendance: Meeting held on Thursday, June 1, 2023, commencing at 5:00 PM.

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

ALSO PRESENT: A. Henry, M. McKillop 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 2, 2023

BARBOUR AND HERBERT

That the minutes of the 2nd meeting of the Elgin Area Primary Water Supply System Joint Board of Management, from the meeting held on March 2, 2023, **BE NOTED AND FILED. CARRIED**

**Motion Passed**

## 3. Consent Items

### 3.1 Quarterly Compliance Report (1st Quarter 2023: January - March)

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System, for January to March 2023, **BE RECEIVED. CARRIED**

**Motion Passed**

3.2 Environmental Management System and Quality Management System

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to Environmental Management System and Quality Management System, **BE RECEIVED. CARRIED**

**Motion Passed**

3.3 Quarterly Operating Financial Status - 1st Quarter 2023

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to the Quarterly Operating Financial Status of the Elgin Area Primary Water Supply System for the 1st Quarter of 2023, **BE RECEIVED. CARRIED**

**Motion Passed**

3.4 Water System Operation - Contract Status Update

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to the Water System Operation Contract Status Update, **BE RECEIVED. CARRIED**

**Motion Passed**

3.5 Asset Management - 2023 State of the Infrastructure Report

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to Asset Management and the 2023 State of the Infrastructure, **BE RECEIVED. CARRIED**

**Motion Passed**

3.6 Asset Management - 2023 Levels of Service Report

LOVELAND AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to Asset Management and the 2023 Levels of Service, **BE RECEIVED. CARRIED**

**Motion Passed**

**4. Items for Discussion**

4.1 Public Access and Tour Policy

ADZIJA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the Public Access and Tour Policy, as appended to the report dated June 1, 2023, **BE ENDORSED. CARRIED**

**Motion Passed**

4.2 Environmental and Quality Policy - Climate Change Update

LOVELAND AND PELOZA

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated June 1, 2023, related to the Environmental and Quality Policy and Climate Change Update:

- a) the above-noted report **BE RECEIVED**; and,
- b) the updated Environmental and Quality Policy, as appended to the above-noted report, **BE ENDORSED. CARRIED**

**Motion Passed**

4.3 2022 Audited Financial Statements and Auditors Report

HERBERT AND ADZIJA

That, on the recommendation of the Chief Administrative Officer, the 2022 Audited Financial Statements and Independent Auditors' Report for the Elgin Area Primary Water Supply System, as appended to the report dated June 1, 2023, **BE RECEIVED AND ACCEPTED. CARRIED**

**Motion Passed**

4.4 Ministry of the Environment, Conservation and Parks Inspection Report  
HERBERT AND PETERS

That, on the recommendation of the Chief Administrative Officer, the report dated June 1, 2023, with respect to the Ministry of the Environment, Conservation and Parks Inspection Report, **BE RECEIVED. CARRIED**

**Motion Passed**

4.5 EA4183 Elgin Water Treatment Plant UV Pre-Selection and Pre-Purchase  
- Single Source  
PELOZA AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated June 1, 2023, related to the UV Replacement Project (EA4183):

- a) the quotation from Trojan Technologies, for the purchase of a UV disinfection system, as a single source procurement, for a total value of \$670,313.60, including contingency (excluding HST), **BE ACCEPTED** in accordance with Sections 4.13.4 (d) and (e) of the Procurement of Goods and Services and Disposal of Assets Policy;
- b) the Board Chair and the Chief Administrative Officer **BE AUTHORIZED** to execute any contract or purchasing documents associated with the quotation; and,
- c) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

4.6 St. Thomas Industrial Development Area  
LOVELAND AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated June 1, 2023, related to the St. Thomas Industrial Development Area:

- a) the proposed new connection requested by the City of St. Thomas at the Elgin terminal reservoir site **BE APPROVED**;

b) the Water Supply Agreement with the City of St. Thomas, substantially in the form as appended to the above-noted report, **BE APPROVED**;

c) the Licence of Occupancy Agreement with the City of St. Thomas for the proposed occupancy of a portion of the water system's terminal reservoir property located at 490 South Edgeware Road in the City of St. Thomas, **BE APPROVED**;

d) the Board Chair and the Chief Administrative Officer **BE AUTHORIZED** to execute the Water Supply Agreement and the Licence of Occupancy Agreement with the City of St. Thomas; and,

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

**Motion Passed**

**5. Deferred Matters/Additional Business**

None.

**6. Next Meeting Date**

October 5, 2023

**7. Adjournment**

The meeting adjourned at 5:44 PM.

## Board of Management Report

**Subject: Quarterly Compliance Report (2<sup>nd</sup> Quarter 2023: 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 regional water 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, 2023 was completed by the operating authority, and is posted on the Water Systems' website for public information.

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

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

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

### **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 2023 second quarter Contract Report was received from OCWA on July 27, 2023, and was discussed at the quarterly administration meeting between Board staff and OCWA on August 16, 2023. 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 2023 (Q2).
- A Management Review meeting was held on June 07, 2023. The meeting minutes are attached to this report as [Appendix A](#).
- An EMS internal audit was conducted on May 17-19, 2023, 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 on June 08 and 09, 2023 to verify conformance with the Ontario Drinking Water Quality Management Standard (DWQMS). A DWQMS Internal Audit Summary Report is included as [Appendix C](#).

## 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 October 2020 and was recommended for registration to the ISO 14001:2015 standard for a three-year period (ending in Feb. 2024).

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

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 07, 2023. 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 to verify conformance with the ISO 14001:2015 EMS was conducted on May 17-19, 2023. An EMS Internal Audit Summary Report is included as [Appendix B](#) for the information of the Board of Management.

A QMS internal audit to verify conformance with the Ontario DWQMS was conducted on June 08 and 09, 2023. A DWQMS Internal Audit Summary Report is included as [Appendix C](#) for the information of the Board of Management.

## **External Audits**

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

There were no external audits conducted in Q2, 2023.

## **Corrective and Preventive Actions**

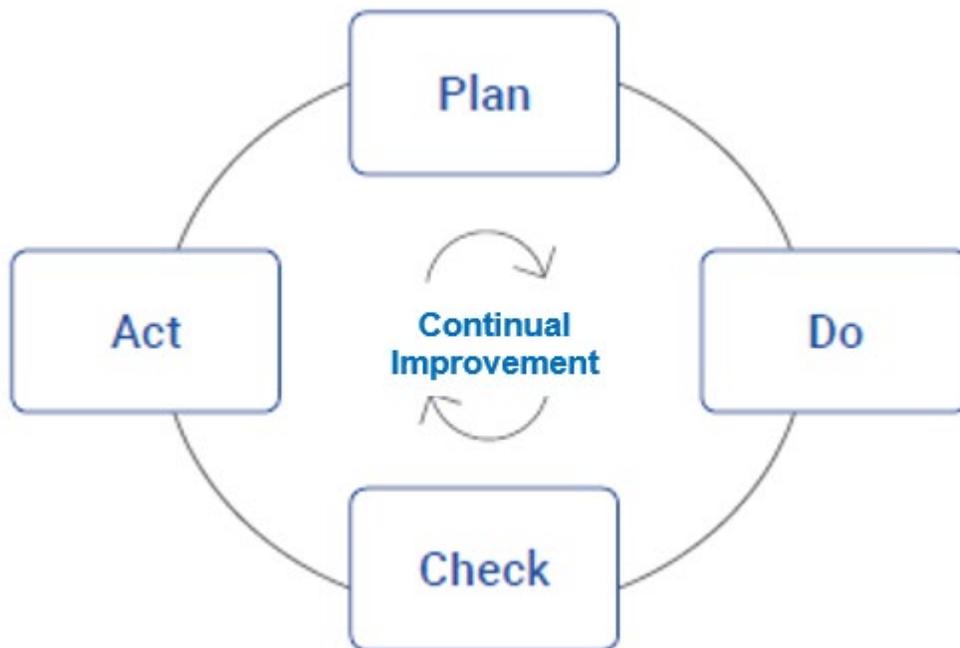
For the EMS/QMS to be effective on an on-going basis, an organization must have a systematic method for identifying actual and potential non-conformities, making corrections, and undertaking corrective and preventive actions, preferably identifying, and preventing problems before they occur. The Internal 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



The following summarizes the thirty (30) new approved action items that have been added to the EMS/QMS action item tracking system during Q2:

- Eighteen (18) new action items were added as a result of the ISO 14001:2015 EMS Internal Audit;
- One (1) new action item was added as a result of the Management Review meeting on June 07, 2023; and
- Eleven (11) new action items were added as a result of the DWQMS internal audit.

As of September 21, 2023, there are currently nineteen (19) 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 7, 2023)  
[Appendix B](#) – EMS Internal Audit Summary Report (dated May 28, 2023)  
[Appendix C](#) – DWQMS Internal Audit Summary Report (June 08 and 09, 2023)

## **Appendix A: Management Review Meeting Minutes (June 07, 2023)**

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

**Date:** June 07, 2023

**Time:** 1:00pm

**Location:** Virtual – Microsoft Teams

**Attendees:** Andrew Henry (RWS), Erin McLeod (RWS), Jennifer Levitt (RWS), Allison McCann (OCWA), Matt Bender (OCWA), Randy Lieber (OCWA), Greg Henderson (OCWA)

**Regrets:** Denny Rodrigues (OCWA),

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

### **-----Meeting Notes-----**

#### **Review and Approval of Previous Meeting Minutes (Mar. 7, 2023)**

The minutes from the previous meeting (Mar. 7, 2023) are posted to SharePoint. Minutes circulated to comment. No concerns noted and documents are approved.

#### **1. Results of Board Meetings (EAPWSS & LHPWSS) - June 1, 2023**

##### **Huron Board Meeting (June 1, 2023)**

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information.
- Environmental & Quality Policy – Climate Change Update Report: The report was received for information. The Board endorsed the updated Policy.

##### **Elgin Board Meeting (June 1, 2023)**

- Quarterly Compliance Report: The report was received for information.
- EMS/QMS Report: The report was received for information. General discussion on the lake temperature trend and the subsequent long-term implications of climate change, algal bloom projections for this season, nitrate, and phosphorus run-off from the US, and per- and polyfluoroalkyl substances (PFAS) as an emerging issue.

- Environmental & Quality Policy – Climate Change Update Report: The report was received for information. The Board endorsed the updated Policy.

## **2. Environmental & Quality Policy (EAPWSS & LHPWSS)**

The Environmental & Quality Policy's for the EAPWSS and LHPWSS have been updated to include a commitment to climate change mitigation and adaptation. Both documents are signed and dated June 01, 2023.

## **3. Environmental Objectives (EAPWSS & LHPWSS)**

At the January 2023 Board meeting the 5-year trends were discussed and the Environmental Objectives were approved.

### **EAPWSS - Objective #1 – Electricity**

- Capital projects – no significant status updates
- Remote Stations (EMPS) – we have started compiling the electricity consumption data to establish a baseline

### **EAPWSS - Objective #2 - Chemicals**

- Capital projects – no significant status updates

### **LHPWSS - Objective #1 - Electricity**

- Capital projects – no significant status updates
- Remote Stations (McGillivray, EHPS, KMBPS) – we have started compiling the electricity consumption data to establish baselines

**Matt - Comment** - Substantial work has been done on the energy strategy for the WTP including the pumping strategy.

### **LHPWSS - Objective #2 - Chemicals**

- Capital projects – no significant status updates
- Remote Stations (EHPS, KMBPS) – no significant status updates

### **LHPWSS - Objective #3 – Process Water**

- Capital projects - no significant status updates
- Monitoring – Preliminary results indicate there are impacts to filter performance including increased backwashes due to head loss

**Matt – Comment** – The OCWA Process and optimization team has been engaged to perform an assessment.

**Erin – Comment** – Still waiting on Stantec’s final Water Quality Facility Plan report which may include recommendations for the backwash programming.

**4. EMS Monitoring and Measurement Results (EAPWSS & LHPWSS) - 2021 Energy Reporting**

Deferred to next meeting.

**5. EMS Internal Audit Report (LHPWSS)**

No non-conformities were noted during the audit however, thirteen (13) Opportunities for Improvement (OFIs) were identified. See the report entitled *‘ISO 14001:2015 Environmental management systems Internal Audit Report’*, dated May 28, 2023, for detailed information. All OFI’s have been added to the action item tracking spreadsheet and have been assigned to the appropriate person for completion.

**6. EMS Internal Audit Report (EAPWSS)**

One non-conformity was noted during the internal audit related to TSSA requiring the fuel distributor to inspect the underground fuel storage tank once every ten years, and the GenCare Hazard Report dated November 16, 2021, identified sixteen (16) deficiencies that were required to be addressed. A discussion included root cause analysis and corrective actions. Refer to the tracking spreadsheet for details.

Sixteen (16) Opportunities for Improvement were also identified.

See the report entitled *‘ISO 14001:2015 Environmental management systems Internal Audit Report’*, dated May 28, 2023, for detailed information. The NC and OFI’s have been added to the action item tracking spreadsheet and have been assigned to the appropriate person for completion.

**7. Compliance Obligations Update**

**Health Canada – Recent Publications:**

[Guidelines for Canadian Drinking Water Quality: Guideline Technical Document - Boron](#) (March 2023)

**Ontario – Consultation and Regulatory Decision Notices:**

**[Decision: Broader Public Sector Energy Reporting and Conservation and Demand Management Plans](#)**

**Source:** Ministry of Energy

**Date Posted/Notice Received:** March 21, 2023

**Comments Due:** N/A

**Summary:**

Public sector organizations are required to report their annual energy use to the Ministry of Energy. The previously existing regulation (O.Reg. 507/18) was revoked and replaced with a new regulation, O.Reg. 25/23: Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans. O. Reg 25/23 took force on Feb. 23, 2023. The policy intent and many of the provisions of the former energy reporting regulation remain in place. Key changes in the new regulation include:

- Streamlined reporting and tracking of energy use by moving reporting to the new Energy Star Portfolio Manager® electronic reporting system.
- Phased in the energy consumption and greenhouse emissions reporting periods.
- Updated prescriptive elements of the regulation.

**Potential Impacts:** None anticipated. It has been confirmed with the Ministry of Energy that while reporting for water & sewage treatment plants is mandatory, reporting for water & sewage pumping stations remains voluntary.

**Other Consultations:**

**[Public Consultation: 2022-2026 Draft Lake Huron Lakewide Action and Management Plan](#)**

**Source:** Member agencies of the Lake Huron Partnership (led by the governments of Canada and US)

**Date Posted/Notice Received:** March 13, 2023

**Comments Due:** May 13, 2023

**Summary:**

The 2012 Great Lakes Water Quality Agreement commits Canada and the US to prepare and issue a Lakewide Action and Management Plan (LAMP) for each of the five Great Lakes every five years on a rotational basis.

The draft 2022-2026 LAMP for Lake Huron identifies key priorities and guides the coordination of binational environmental protection and restoration activities aimed at preserving and protecting Lake Huron's water quality and ecosystem health.

The draft report indicates that overall, Lake Huron is considered to be in 'Fair' condition. The lake ecosystem is relatively healthy, but Lake Huron is not in 'Fair' condition in all aspects. The status of Lake Huron as a source of safe, high quality drinking water is listed as 'Good'. The major threats to Lake Huron include chemical contaminants, invasive species, nutrient pollution, and the degradation

of habitat. Significant impacts due to climate change are being observed in the Lake Huron ecosystem and are projected to continue in the future. The report identifies 52 actions that will be undertaken to address priority environmental threats to water quality and the ecosystem health of Lake Huron. **Potential Impacts:** None anticipated.

**[Pre-Consultation: Development of the 2024-2028 Lake Erie Lakewide Action and Management Plan](#)**

**Source:** Member agencies of the Lake Erie Partnership (led by the governments of Canada and US)

**Date Posted/Notice Received:** March 13, 2023

**Comments Due:** April 17, 2023

**Summary:**

Lake Erie Partnership has begun to develop the 2024-2028 Lake Erie LAMP, which is scheduled for completion by the end of 2023. Interested parties were given an opportunity to provide input to the plan at an early stage, specifically regarding environmental conditions, issues, or concerns about Lake Erie that should be considered in the development of the Lake Erie LAMP, and any suggestions on actions or approaches that could be taken to address them. A draft Lake Erie LAMP will be made available for comment later this year.

**Potential Impacts:** None anticipated.

**8. LHPWSS Adverse Water Quality Incident (AWQI) – Feb. 21, 2023**

A June Board Report outlined the February 21, 2023, AWQI. A brief summary is as follows:

OCWA took one filter out of service to complete a maintenance activity. Upon completion of the maintenance activity, as OCWA was preparing to place the filter back into service, they discovered an issue with the filter effluent valve which resulted in flow unintentionally passing through the filter. At the same time the filter turbidimeter was experiencing a signal fault, resulting in a failure to continuously monitor the filter effluent turbidity as required by regulation. The failure to continuously monitor is a non-compliance and was subsequently reported as an AWQI. A corrective action form was completed with all action items being added to the action item tracking sheet.

**9. Corrective Action Forms (LHPWSS)**

There have been a few incidents since last meeting, but they have been reviewed and captured on Corrective Action Forms and the action item tracking system also documenting root cause analysis. 90-day verification/effectiveness checks are still being conducted.

- March 7, 2023 - Hydraulic leak on chlorine delivery truck

- March 16, 2023 - Hydraulic leak on sump pump
- April 12, 2023 - East discharge header valve failure

See associated Corrective Action Form tracking spreadsheet for more information.

**10. QMS - Effectiveness of the Risk Assessment Process (EAPWSS & LHPWSS)**

**Allison – Comment** - April 2023 meeting took place to cross-reference and compare the EMS Aspects Assessment & QMS Risk Assessment. As a result of the review an update is in process for generators, spill containment, Residuals Management Facility (RMF), and the service water systems.

**11. QMS Operational Plan Currency, Content and Updates (EAPWSS & LHPWSS)**

**Allison – Comment** - Updating Operational Plans, version 16.0 for EAPWSS, version 15.0 for LHPWSS. There were no changes other than updating the raw water characteristics for 2022.

**12. Results of Emergency Response Testing (EAPWSS & LHPWSS)**

**Allison – comment** - Completed for the year, both EAPWSS and LHPWSS. Elgin testing included power failure, and chlorine gas leak. Huron testing included power failure, and AWQI. The Feb. 2023 AWQI was used as a full scale test.

**Erin – Comment** - Of note was a fire drill at Huron (May 2023). It was reported that Security heard the fire alarm, but there are still some ‘dead areas’ around the plant as some contractors did not hear alarm. Test record should be documented.

**Randy – Comment** - issue is likely with the speakers, better system required. Contractors not responding need to be identified. Muster points may need to be reviewed for sites, and procedures should be updated accordingly.

**Matt – Comment** - Capital recommendation required for 2024.

**Allison – Comment** - Received feedback from Chris regarding the fire drill. It was noted that when the announcement was made there was no direction given on what muster point to meet at. This caused confusion amongst staff on which muster point to meet at. Muster point will clearly be identified during the next fire drill.

**ACTION ITEM:** Andrew Henry to have Lisa to follow up with Randy on fire test. Deadline: June 9, 2023.

**13. Overall Decision on the Suitability, Adequacy and Effectiveness of the Management Systems (EAPWSS & LHPWSS)**

Discussion took place on the management systems as a whole, reflecting back over the past year. Top management confirmed that the management systems continue to be suitable, adequate, and effective. The management systems are capable of meeting expected outcomes. The following observations support this conclusion.

Internal audits continue to identify issues, including non-conformances, and recommend opportunities for improvement. During the May 2023 EMS internal audits, the consultant (Acclaims Environmental) specifically highlighted two management system processes as being excellent: the management of change process, and OCWA's onboarding program for new staff. Staff commitment and a culture of continual improvement were also positive findings highlighted in these recent audit reports.

There is evidence of continual improvement with regard to meeting environmental objectives and targets. Recently completed and planned capital projects are anticipated to continue the improvement and optimization. Continual improvement is evident in the maintenance program (Maximo), maintenance system, and Asset Management System which recently won an award.

The management systems and staff have the support of RWS and OCWA leadership. Top management noted that the Water Boards have provided both direct and indirect comments that they are pleased with our management systems, the consistency and effectiveness of it. Top management also noted they are impressed with the continual improvement, that action items get addressed, and that we are looking at efficiencies and effectiveness.

#### **14. Other Business**

##### **15a. Asset Management System - Award**

The Lake Huron & Elgin Area Water Supply Systems and Dillon Consulting were awarded the [Tereo Innovator Award](#) by the Canadian Network of Asset Managers (CNAM) at their national conference on May 3, 2023 for their recent updated and adopted Asset Management Plan (AMP). This award recognizes demonstrated and innovative business performance through the adoption of asset management tools and techniques. Congratulations to RWS and OCWA staff who participated in making the asset management framework such a success.

##### **15. PFAS – Research Project Update**

The City of London informed RWS that a local manufacturing company had conducted laboratory analysis for PFAS on their site. One of the samples collected and analyzed was reported to be from City of London tap water sample. Greenway Laboratory sent us the analytical laboratory results. Requirements / findings of the test are limited and unknown. **ACTION ITEM:** Erin McLeod to follow up on the notification to inquire on findings, standards etc. for the laboratory results. Deadline: June 15, 2023.

The LHPWSS and EAPWSS are participating in a PFAS initiative research project in partnership with University of Waterloo. Sampling may begin later this year, but standards and methodologies are yet to be developed.

**16a. Incident Management System (IMS) Update**

**Andrew – Comment** - A consultant will be assisting in updating the IMS, including orientation training for RWS staff and OCWA management/leads (as needed). GEM (Goodyear Emergency Management) Consulting (Perron Goodyear) will be assisting Lisa McVittie in the review, amendments and roll-out. This may impact emergency response plans, operational procedures, and incident reviews.

\*\*\*End of Meeting\*\*\*

**Next Meeting – September 14, 2023 – 1:00 pm**

## **Appendix B: EMS Internal Audit Summary Report (dated May 28, 2023)**

### **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.

Non-conformances and opportunities for improvement are listed below.

### **Auditor Qualifications:**

- Brigitte Roth (Acclaims Environmental Inc.) is a certified auditor with the Environmental Careers Organization of Canada (ECO Canada); and
- Jennifer Levitt of Regional Water Supply was a member of the internal audit team and is a certified ISO 14001:2015 Internal Auditor.

### **Methodology:**

The EMS internal audit was conducted in accordance with ISO 19011:2018 – Guidelines for auditing management systems and was comprised of a conformance review of the EAPWSS facilities and limited to the operation of the water supply system by the contracted operating authority, Ontario Clean Water Agency (OCWA), since the last EMS internal audit conducted on April 25 to 28, 2022. This audit focused on the period between April 29, 2022 and May 19, 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 ISO 14001:2015 Environmental management systems standard. 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.

### **Definitions:**

- A non-conformance (NC) is a non-fulfilment of a requirement.
- An Opportunity for Improvement (OFI) describes a requirement that can be more effectively addressed.

- An observation is a comment or remark provided to share the conditions found on the day of the audit, typically related to an “out of scope” finding.

#### **Areas Visited:**

- Elgin Water Treatment Plant (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:**

- Matt Bender, Regional Manager – OCWA
- Andrew Henry, Director – Regional Water Supply
- Randy Lieber, Senior Operations Manager – OCWA
- Erin McLeod, Quality Assurance & Compliance Manager – Regional Water Supply
- Allison McCann, Safety, Process and Compliance (SPC) Manager, QMS Representative - OCWA
- Corey Regier, Lead Maintenance & Distribution - OCWA
- Denny Rodrigues, Senior Operations Manager, Overall Responsible Operator – OCWA

### **Summary of Findings**

#### **Positive Findings**

##### Commitment:

- Staff interviewed were knowledgeable about their processes and programs and their roles’ impacts on achieving the commitments included in the EMS Policy.
- All staff interviewed felt they had the support from management and resources they needed to carry out their jobs well.

##### Culture of Continual Improvement:

- Consistently throughout the audit, improvements were noted with regards to achieving environmental objectives and targets.
- Corrective actions implemented to address system issues are verified as effective on an ongoing basis to prevent recurrence.
- All opportunities for improvement identified in the previous internal and external audits have been verified as completed or are in progress.

### **Non-Conformances (NCs)**

NC#1: TSSA requires the fuel distributor to inspect the underground fuel storage tank once every ten years, and the GenCare Hazard Report dated November 16, 2021 identified 16 deficiencies that were required to be addressed within 90 days.

- During the internal audit, confirmed the 10-year TSSA inspection was missed, and deficiencies identified in the GenCare report have not been fully addressed.

### **Opportunities for Improvement (OFIs)**

Seventeen (17) OFIs were identified as part of the internal audit and are outlined below.

#### **Leadership (s.5.1)**

OFI#1: Consider adding a definition to Regional Manager regarding General Manager references.

#### **Environmental Aspects (s.6.1.2)**

OFI#2: Consider updating the environmental aspects & impacts to reflect current objectives (re: objective #3 process water).

#### **Compliance Obligations (s.6.1.3)**

OFI#3: The links for the Environmental Registry of Ontario and CEPA Environmental Registry (in EA-ADMIN-600) should be updated to reflect current websites.

OFI#4: Consider controlling the EDITCH (Chlorine Residual / Valve House Dechlor) work order form and updating the work order instruction to reflect the actual process.

OFI#5: Consider establishing a work order for underground fuel tanks and diesel generators regarding their 10-year TSSA inspections to ensure these inspections are occurring as required.

OFI#6: Consider confirming availability of SDS's for products in use at all sites.

OFI#7: Consider identifying empty drums' storage areas and labelling spare storage containers.

#### **Competence (s.7.2)**

OFI#8: Through the service agreement process, opportunity to confirm (as applicable) required government approvals & certifications (e.g., ODS Certification for HVAC technicians, TDG Certification for drivers and haulers, OWWA Cross Connection Control Specialist designation for backflow devices, ECA waste mgmt. system, ECA waste disposal sites).

**Awareness (s.7.3)**

OFI#9: Consider updating the procedure for vendor communications regarding standard provisions and link to documented information available online (e.g., policy statements re: Environmental & Quality and AMP, etc.).

**Control of Documented Information (s.7.5.3)**

OFI#10: Consider including in EA-ADMIN-200's Appendix "A": the MECP approvals (e.g., MDWL, DWWP, PTTW's, ECA's, etc.) and related DWWP records (e.g., Form 1's, 2's, 3's and evidence of AWWA (American Water Works Association) disinfection standard requirements being met prior to placing infrastructure into service).

**Operational Planning & Control (s.8.1)**

OFI#11: Opportunity was identified to confirm the requirements for EMPS boilers' exemptions (from TSSA inspections).

OFI#12: The molybdenum reagent for the monitoring of boilers should be ordered to ensure required entries in boilers' logbooks.

OFI#13: Consider reviewing the Essential Supplies & Services List to reflect the new alum tank capacities and instruction when the new re-order point (or reference to the SOP).

OFI#14: Consider confirming locations of the following at all sites along with their preventive inspection & maintenance programs:

- floor drains and where they lead
- oil / water interceptors and work orders
- spill containment "normal conditions" and inspection / maintenance activities
- opportunity to also update the aspects / impacts to reflect this updated information

OFI#15: Consider scheduling and conducting regular shoreline inspections to ensure preventive and mitigative measures continue to be effective.

**Emergency Preparedness & Response (s.8.2)**

OFI#16: As there was an extended power outage for the EAPWSS on Feb. 23, 2023, an opportunity was identified to complete an emergency test record (EF-ECP-1) by OCWA, and host debrief with staff and complete after action report.

**OFI / Staff Suggestion**

OFI#17: Consider reviewing the SBS chemical storage and air ventilation at Elgin RMF.

## **Appendix C: DWQMS Internal Audit Summary Report (June 08 & 09, 2023)**

### **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 14 and 16, 2022.

*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.

- An observation is a comment or remark provided to share the conditions found on the day of the audit, typically related to an “out of scope” finding.

#### **Areas Visited:**

- Elgin Water Treatment Plant (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:**

- Matt Bender - 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
- Wally Friesen - Operator
- Erin McLeod - Quality Assurance & Compliance Manager, RWS

#### **Summary of Findings**

##### **Positive Findings**

- QMS Representative is very competent on the role and responsibilities.
- 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., filter #2 repairs, security camera upgrades, roofing repairs).
- Best Management Practices were developed as a result of a chlorine gas leak at EMPS

##### **Non-Conformances (NCs)**

No non-conformities were noted during the internal audit.

## **Opportunities for Improvement (OFIs)**

Eleven (11) OFIs were identified as part of the internal audit and are outlined below.

### **Element 5 – Document and Records Control**

OFI#1: ECP-2 Emergency Contact & Essential Suppliers & Services document v.32.0 is not up to date with City of London ‘on call’ contacts. At least one ‘on call’ contact number is no longer in service. Recent staffing changes also included Asset Maintenance Specialist, RWS – EIT, RWS - Senior Technologist.

OFI#2: Several Environmental Management System (EMS) / QMS documents in the WTP lunchroom were observed to be out of date.

### **Element 8 - Risk Assessment Outcomes**

OFI#3: Consider the following clarifications for the QMS Risk Assessment:

- Consider IT Business Systems - Cybersecurity measures. At present only the City of London’s systems is documented, with no reference to OCWA corporate business systems.
- Cybersecurity - SCADA has a ‘high-risk’ scoring of 9. Consider documenting a rationale as to why it is not a Critical Control Point given the high threshold value.
- Consider recognizing the draft ‘Diesel Fuel Risk Management Plan’ in the QMS Risk Assessment as a control for the diesel fuel underground storage tank.

### **Element 10 - Competencies**

OFI#4: Consider the need for EF-ADMIN-1400 Training requirements as OCWA maintains an independent training matrix. Ensure that fire extinguisher training is added to OCWA’s matrix.

### **Element 11 - Personnel Coverage**

OFI#5: Confirm the location of the master shift schedule, as documented in EA-ADMIN-2600 Personnel Coverage. During the audit, a shift schedule was observed in the WTP lunchroom versus the Control Room. Consider whether the electronic version is the master copy.

### **Element 12 - Communications**

OFI#6: Consider revising EF-ADMIN-1000 Complaints form to direct residential consumer inquires / complaints to the billing municipality.

OFI#7: Consider reviewing the necessity / relevance of which EMS/QMS documents are posted in the lunchroom as per EA-ADMIN-500 Communications procedure.

### **Element 13 - Essential Supplies and Services**

OFI#8: Consider updating the ECP-2 Emergency Contact & Essential Suppliers & Services List regarding references to the chemical delivery binder which was reported to have been eliminated.

OFI#9: Consider updating the Section 5.3 (sign in logbook with security), and Section 5.11 (weighing each cylinder) of the EA-PROC-600 Chlorine Gas Delivery (Tonners) document.

### **Element 14 - Review and Provision of Infrastructure**

OFI#10: Review 'out of service low lift chlorine booster pump' (written on control room white board) in relation to Project No. EA4137 'Low Lift Service Water Connection'.

### **Element 17 - Measurement and Recording Equipment Calibration and Maintenance**

OFI#11: Confirm status of Asset Number 000500105 at EMPS. During the audit, the asset was observed to be labelled 'Alum#2' which is not related to operations at EMPS.

## **Board of Management Report**

**Subject: Quarterly Operating Financial Status – 2<sup>nd</sup> Quarter 2023**

**Overview:**

- This report shows the current fiscal year’s 2<sup>nd</sup> 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, 2023, 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**

Quarterly Operating Financial Status – 1<sup>st</sup> Quarter 2023

### **Background**

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

A high-level summary of incurred expenses and revenues for the water supply system is attached to this report as Appendix A for the second quarter 2023 (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. The total accumulated operating costs over the year (unaudited) is higher than the same period in 2022 and is reflective of contractual increases in service agreements with the operating authority and other contracted services.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The water system is currently tracking approximately \$77,000 less than the previous year despite higher volumes pumped.
- Salaries, wages, and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2022 are attributed to annual salary adjustments, and new staff hired.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, office supplies and property taxes. The total costs incurred for the year are within budget.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers, and office equipment for administrative staff. Costs are higher than 2022 due to increases in contracted computer maintenance.
- Purchased Services and Professional Fees relates to allowances for ad hoc professional consulting and legal services, office lease, telephone charges, network and SCADA maintenance, printing services, and pipeline locate costs. The increased cost when compared to the same period in 2022 is attributed to increased insurance costs.
- Debt Principal and Interest payments occur in the first quarter. The principal payments for the entire year are completed.

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

**Prepared by:** Archana Gagnier  
Budget and Finance Analyst

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

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

**Attachments:** Operating Financial Status Summary – 2<sup>nd</sup> Quarter 2023

## Quarterly Financial Summary Report

Elgin Area Water Supply system  
2nd Quarter 2023 (April 1 to June 30)

(\$,000's)

	Approved 2023 Budget	Q2 - 2023	2023 Year to Date	Year To Date Variance	2022 Year To Date
<b>Total Revenue</b>	<b>15,679</b>	3,939	7,528	8,151	6,343
<u>Expenditures:</u>					
Contracted Operating Services	5,658	1,170	2,527	3,131	2,158
Contracted Administrative Services	185	43	86	99	91
Electricity	1,050	232	386	664	463
Salaries, Wages, Benefits	1,043	270	430	613	406
Administration and Other Expenditures	554	35	273	281	287
Vehicles and Equipment	115	34	47	68	25
Purchased Services & Professional Fees	1,035	135	432	603	335
Debt Principle Payments	1,184	0	1,176	8	1,153
Interest on Long-Term Debt	133	18	85	48	99
Contributions to Reserve Funds	4,723	0	231	4,492	231
<b>Total Expenditures</b>	<b>15,679</b>	<b>1,937</b>	<b>5,673</b>	<b>10,006</b>	<b>5,248</b>

## Board of Management Report

**Subject: Capital Status Report**

### Overview:

- This report shows the current fiscal year's status of all capital projects.
- Four capital projects are recommended to be closed with surplus funding in the approximate amount of \$52,435 released to the Reserve Funds.
- Three capital projects related to the Elgin-Middlesex Pump Station building and building-related assets are recommended to be combined under one project for the convenience of project management.

### Recommendation

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

- a) The Board **CLOSE** projects **EA3014** Low Lift Pump 2&3 Replacement, **EA4020** Financial Plan Update, **EA4161** Evaluate Pre-treatment, and **EA4185** Construction Site Trailer Pad with surplus funding in the approximate amount of **\$52,435** released to the Reserve Funds;
- b) The Board **COMBINE** projects: **EA3025** EMPS HVAC Replacement, **EA3026** Motor Control Centre Replacement, and **EA4197** EMPS Roof Replacement under one project (**EA3025**) with a combined budget of **\$1,025,000** to consolidate costs and mitigate duplicate expenses; and,
- c) The Board **RECEIVE** this report for information.

### Previous and Related Reports

Capital Status Report – March 2023

### 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
EA2172	Terminal Reservoir Isolation Valve Replacement	\$185,000	\$167,867	Warranty period
EA3010	IT Asset Replacement Program	\$431,000	\$209,259	Project ongoing
EA3013	Plant Reservoir Drain Repairs	\$200,000	\$40,640	Project ongoing
EA3017	Exterior WTP Building Seals	\$60,000	\$33,564	Project ongoing
EA3018	Cyber Intrusion Detection System	\$10,000	\$0	Project ongoing
EA3020	Roof Replacement	\$625,000	\$311,268	Project ongoing
EA3025	EMPS HVAC Replacement	\$375,000	\$0	Project ongoing
EA3026	EMPS Motor Control Centre Replacement	\$300,000	\$0	Project ongoing
EA4022	Security Upgrades	\$925,000	\$579,609	Project ongoing
EA4039	Record Drawings & Documents	\$255,000	\$176,083	Ongoing annual project
EA4095	WTP Interior Renovations	\$581,500	\$360,794	Ongoing multi-year project
EA4114-21	Annual Maintenance (2021)	\$100,000	\$80,498	Annual program
EA4114-22	Annual Maintenance (2022)	\$100,000	\$37,867	Annual program

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA4114-23	Annual Maintenance (2023)	\$100,000	\$0	Annual program
EA4129	Server Room Fire Suppression	\$30,000	\$0	Project to be initiated
EA4132	Alum Storage Tanks	\$825,000	\$721,615	Project ongoing
EA4135	Hydraulic/Transient Model Update & Monitoring Study	\$92,000	\$52,655	Project ongoing
EA4137	Low Lift Service Water Connection	\$750,000	\$138,524	Ongoing multi-year project
EA4138	Parking Lot Asphalt Resurfacing	\$125,000	\$0	Project ongoing
EA4152	PLC Replacements	\$40,000	\$0	Project ongoing
EA4153	Filter Backwash Upgrades	\$2,459,000	\$94,186	Project ongoing
EA4156	High Lift Pump Replacement	\$4,851,000	\$2,832,661	Project ongoing
EA4162	Crop Yield Monitoring – 2013 Pipeline Twinning	\$661,000	\$252,976	Ongoing multi-year project
EA4166	SCADA/PLC – Software Review and Upgrade	\$500,000	\$36,131	Project ongoing
EA4172	Dedicated Raw Water Sample Line	\$90,000	\$0	Project ongoing
EA4175	Pilot – Unchlorinated Filtration	\$25,000	\$0	Project ongoing
EA4176	Plant Drain Chlorine Sample Line	\$80,000	\$60,741	Project ongoing
EA4177	Railings and guarding	\$300,000	\$270,792	Ongoing multi-year project

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA4180	Filter Capacity Evaluation	\$37,000	\$0	Project ongoing
EA4183	UV Replacement	\$8,950,000	\$112,863	Project ongoing
EA4184	Water Quality Facility Plan	\$290,000	\$88,972	Project ongoing
EA4186	Sodium Hydroxide Assessment Study	\$30,000	\$27,132	Project ongoing
EA4188	Lighting/Breaker Panel Replacement	\$100,000	\$83,461	Project ongoing
EA4189	RMF Mixing Pump Replacement	\$100,000	\$10,939	Project ongoing
EA4190	RMF Total Chlorine Residual Compliance	\$50,000	\$0	On Hold
EA4191	Roof Drain Replacements	\$50,000	\$39,662	Warranty period
EA4192	Flocc Tank Influent Distribution Upgrades	\$100,000	\$82,189	Warranty period
EA4193	Standby Generator TSSA	\$290,000	\$24,033	Project ongoing
EA4194	Asset Condition Field Assessment	\$85,000	\$44,168	Project ongoing
EA4195	Electric Vehicle Charging Stations	\$10,000	\$0	Project ongoing
EA4196	St. Thomas Meter Replacement	\$150,000	\$0	Project ongoing
EA4197	EMPS - Roof Replacement	\$350,000	\$0	Project ongoing
EA4198	Elgin Filter Emergency Repairs	\$608,000	\$0	Project ongoing
EA4199	Office Expansion	\$100,000	\$0	Project ongoing
<b>TOTAL</b>		<b>\$26,375,500</b>	<b>\$6,971,149</b>	

**2.a) Completed Projects – Release Surplus to Reserve Funds \$52,435**

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
EA3014	LLP 2&3 Replacement Study	\$50,000	\$25,267	Project complete
EA4020	Financial Plan Update 2021	\$50,000	\$44,264	Project complete
EA4161	Evaluate Pre-Treatment Hydraulics	\$50,000	\$43,384	Project complete
EA4185	Construction Site Trailer Pad	\$25,000	\$9,650	Project complete
<b>TOTAL</b>		<b>\$175,000</b>	<b>\$122,565</b>	

**2.b) Completed Projects – Reduce Authorized Debt**

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
<b>TOTAL</b>		<b>\$ 0</b>	<b>\$ 0</b>	

**3. Completed Projects – Additional Funding Required**

PROJECT NO.	PROJECT	APPROVED BUDGET	EXPENDED TO DATE *	STATUS
<b>TOTAL</b>		<b>\$ 0</b>	<b>\$ 0</b>	

\* Expended as of August 31, 2023

**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

## Board of Management Report

**Subject:** 2024 Operating and Capital Budgets

### Overview:

- The proposed 2024 Operating and Capital budgets are consistent with the Financial Plan approved by the Board in March 2023.
- The proposed water rate for 2024 is 99.87 cents per cubic meter; a 3.5 percent increase in the rate charged in 2023 to benefiting municipalities.
- Cost projections presented in the 2024 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 2024 may be subject to change once the Master Water Plan is updated and completed, currently anticipated by early 2025.

### Recommendation

That the following actions be taken by the Board of Management for the Elgin Area Water Supply System with regard to the 2024 Operating and Capital Budgets:

- a) The Board **APPROVE** the 2024 Operating Budget in the total amount of \$16,218 as attached to this report.
- b) The Board **APPROVE** the 2024 Capital Budget in the total amount of \$2,850,000 as attached to this report.
- c) The Board **RECEIVE** the 2025 to 2033 Capital Forecast for information.
- d) The Board **APPROVE** the 2024 rate for water of \$0.9987 per cubic meter; and,
- e) The Board **RECEIVE** the 2022 to 2028 Flow and Financial Analysis for information.

### Previous and Related Reports

None

## Discussion

### 2024 Water Rate

It is proposed in this budget that the water rate for the wholesale of water to the benefiting municipalities be set at \$0.9987 per cubic meter (99.87¢ per cubic meter). In responding to regulatory, operational and inflationary pressures, this proposed 2024 rate represents a 3.5% increase from the current rate.

The rate proposed for the 2024 budget is consistent the projected rate increase previously reported to the Board in the Financial Plan approved in March 2024.

### 2024 Budget Volume

Projecting for the current rate of population and water demand growth within the benefiting municipalities, as well as anticipated impacts of continued water conservation, the proposed 2024 treated water volume included in the budget of 15.985 million cubic meters represents a negligible change compared with the 2023 approved budgeted volume, and approximately 2.14% lower than the anticipated 2023 actual supplied volumes.

Approved 2023 budget volume	15,986,060 m <sup>3</sup>
Anticipated 2023 year-end volume	15,619,729 m <sup>3</sup>
Proposed 2024 budget volume	15,985,500 m <sup>3</sup>

A conservative estimate of volume was utilized for the 2024 budget due to revised long-term projected consumption 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 will be reviewed again during revisions to the Master Water Plan, proposed to be undertaken in 2024, and compared to the long-term growth projections for each municipality.

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

### **St. Thomas Industrial Development Area**

At the time of drafting this report, there was insufficient information available relating to the construction of the newly announced industrial development site in the northeast area of the City of St. Thomas. Based on preliminary information provided by the City of St. Thomas, the proposed battery plant is not anticipated to start production until 2027 and the projected average day and maximum day consumption for the development area has yet to be quantified.

Notwithstanding, the theoretical consumption at full plant production (three operating shifts with cooling water) has been suggested to be as much as 13 million litres per day, or approximately 20% of the Elgin water treatment plant's total production capacity. As it is unlikely that cooling water would be continuously supplied using treated drinking water, the actual consumption is anticipated to be significantly less. At this time, Board staff are unable to quantify the impact of the development area on the projections contained within this budget and corresponding report. The Master Water Plan proposed for 2024 will undertake an assessment of anticipated consumption for the planning period, including any anticipated implications of the development area.

### **Operating Costs**

The two single largest 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. The 2024 budgeted direct operating costs are approximately \$6.242 million, reflecting a 6.9% net decrease compared to the 2023 budget. Energy saving initiatives, including the installation of new high lift pumps, have significantly contributed to the energy management strategy.

Of the \$6.242 million, energy currently comprises approximately 17.2% of operating expenditures.

The Service Fee currently paid to the Board's contracted operating authority, the Ontario Clean Water Agency (OCWA), is comprised of a set fee for service (reflecting labour, material and chemical costs, etc.) paid by the Board for the operation, maintenance and repair of the water treatment facilities, including the recently constructed Residuals Management Facility. 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.

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 2024 Capital Budget and forecasted capital plan continues to incorporate energy efficiency projects and opportunities, where feasible, with further energy efficiency projects to be considered in future.

### **Administration and Other Expenses**

The Administration and Other Expenditures projected for the 2024 budget of approximately \$3.2 million represents a \$247 thousand net increase over the 2023 budget amount. This net increase is due to numerous changes to the water supply system, summarized as follows:

- Management & Administrative Personnel: projections for personnel costs have been adjusted as a result of increases reflective of Collective Agreements and cost of living increases. The budget also includes the addition of two positions (½ FTE's shared with the Lake Huron Water System); an IT Hardware Technician shared with the Lake Huron Water System) to address the increased workload associated with ongoing maintenance, repair and upgrades to computer networks across the region, and an additional Technologist-II to address longstanding resource needs related to capital program management.
- Increased fees charge by the City of London for various services and support.
- Increases to the Board's property, cyber insurance, Directors & Officers insurance, property insurance, and general liability insurance.
- The increased costs to Information Technology due to cyber security measures, implemented technology, and IT/OT asset replacements.
- 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).

Staff are in the process of updating the Water Quality Facility Plan, expected to be completed in late 2023, which will outline recommended process efficiency improvements and treatment challenges which may restrict process efficacy in future. Further leveraging in-house resources and the partnerships with the Natural Sciences and Research Council of Canada (NSERC) Industrial Research Chairs at the

universities of Waterloo and Toronto allow staff to reduce the apportionment of costs without impacting the optimization program.

An update to the Water Quality Facility Plan will incorporate recent assessments related to treatment capacity, impacts of Climate Change and adaptive capacity, and unit process treatment efficacy and efficiency.

## **Proposed 2024 Capital Budget**

The proposed 2024 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.

### **Financial Plan and 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, asset performance, and operational assessments provided by our contracted operating authority. The recommended projects identified in the 2002 Asset Management Plan, along with the growth-related projects identified in the 2020 Master Water Plan and other previously undertaken studies which were available at that time.

In the development of the 2024 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 the identification of project interdependencies. The business case process is linked with our 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 or support projected increases in water demands,
- 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.

It is important to note that the anticipated projects in the first five-year planning period outlined in the 2022 Asset Management Plan tend to be based on risk mitigation addressing condition and/or performance, while projects in the remaining 25+ years tend to be systemic or age-related in nature. In addition, the financial information presented in the 2022 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) experienced by the water supply system.

The Financial Plan is utilized to incorporate the needs identified in not only the Asset Management Plan, but also the Master Water Plan (growth study) and other planning studies undertaken by the system, as well as the evolving operational and administrative needs of the system, to better leverage and predict the financial requirements and implications to the system. During the development of the annual budget, the projections in the 2023 Financial Plan are measured and adjusted according to actual conditions, which will consequently affect the capital plan in each fiscal year.

The projected capital plan (2025 to 2033) includes an allocation for anticipated systemic but unspecified asset investments starting in 2025 (identified as “*AMP Investments*”). This reflects the age-related projections included in the approved 2022 Asset Management Plan. As condition, performance, and risk assessments are completed, business cases will be 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 purposes only, these “AMP Investments” placeholders are included in the capital projections beyond the proposed budget.

An updated Master Water Plan is proposed in the 2024 Capital budget and will be incorporated in future updates to the Financial Plan

## **2023 Capital Plan**

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 (utilization of reserves established by current users versus debt incurred and paid by future users) has yet to be fully quantified and will be addressed in future Master Water Plan and Financial Plan studies.

While there are no significant growth-related expenditures within the current budget forecast period (e.g., plant expansion or pipeline twinning), the results of the Master Water Plan proposed to be undertaken in 2024 is likely to have an impact on the long-term financial requirements to address growth-related projects. This may include such projects as the expansion of the terminal reservoir near St. Thomas or partial expansion of pre-treatment processes to address growth in the region and, potentially, the St. Thomas Industrial Development Area.

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

### **Lifecycle Projects (Maintain Level of Service)**

Proposed projects in the 2023 Capital Budget which primarily address maintaining the system's level of service are:

- Hydraulic/Transient Model Update
- EMPS Asset Management Plan Update
- Roof Drain Replacements
- Low Lift Sluice Gate Replacement
- Service Water Study

In addition to the above-noted capital projects, the 2024 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 (CPI), 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 2024 Capital Budget for which the primary driver is service improvement are:

- Master Water Plan Update
- Security Upgrades
- Railing and Guarding
- Asset Condition Field Assessment
- Climate Change Resiliency Assessment
- IT Asset Replacement Program
- Back Wash Pump Replacement
- Electric Vehicle Charging Stations
- Sodium Hydroxide System Rehabilitation

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

**EMPS Building and Building-Related Assets**

The Elgin-Middlesex Pump Station at the Elgin Terminal Reservoir 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 born by the occupants.

**Capital Forecast**

Several capital projects are projected beyond the 2024 Capital Budget year, which will have an impact on the financial forecast and future water rates for the water system.

Some of these capital projects were anticipated in previous budget forecasts and are now inclusive of the approved Asset Management Plan and Financial Plan. As previously noted, staff undertake a business case assessment for each project to confirm the costs, timing, and priority of the project, consistent with our Customer Level of Service framework and Risk Mitigation strategy.

## **Flow and Financial Analysis**

Included in the budget package is a projection of annual volumes and finances beyond 2024 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 2024 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 2024 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 2024 budget. This water rate projection, however, may be subject to change and revision as the update to the Master Water Plan is completed in early 2025.

### **Reserve Funds**

Conceptually, the Asset Replacement Reserve is required to provide a stable funding source 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 ending 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.

The Emergency Reserve Fund is intended to fund unplanned and unanticipated emergency-related projects such as pipeline failures, tank ruptures and treatment process failures. In accordance with the Board's direction, the target balance of the Emergency Reserve Fund is established at \$2 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)

A new debenture is anticipated to be required for the proposed UV Disinfection System (EA4183), currently estimated to be in the order of \$4 million in debt in 2025. The financial forecast provided in this budget includes an estimate of principal and interest payments for this debenture, with payments starting in 2026.

### **Acknowledgement**

The preparation of the 2024 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 – 2024 Capital Project Summary  
2024 Operating & Capital Budgets, and Nine-Year Capital Forecast

## Appendix A: 2024 Capital Project Summary

### **Lifecycle Projects** (*Maintain Level of Service*)

EA4135 Hydraulic/Transient Model Update & Transient Monitoring: The hydraulic model that was completed after the new high lift pumps were installed at the water treatment plant in 2021 included several recommendations for improvement. The tasks included in this project include model validation, additional scenarios, and extended period simulation to inform the proposed 2024 Master Water Plan Update and be able to respond to future demands that will accompany the industrial growth in the region.

EA4191 Roof Drain Replacements (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. This project proposes to replace drains throughout the facility over a four-year period that started in 2022.

Service Water Study: Most of the existing service water system is original to the plant, with some sections being replaced (piecemeal), as an operational project/priority. There are concerns with service water supply to certain process areas, including site hydrants. This project is to conduct a review of the overall service water system to ensure adequacy for each process area and ultimately lead to upgrades as required.

Low Lift Sluice Gate Replacement: The main sluice gate isolating Lake Erie from the low lift pumping station is original to plant construction and is leaking. Multiple efforts to repair the gate to a useable state but were unsuccessful. The project is to replace the sluice gate with a modern equivalent.

Elgin Middlesex Pumping Station (EMPS) – Asset Management Plan (AMP) Update: The current EMPS asset management plan was completed in 2020; this project is for the 5-year update to this AMP. In addition to the 5-year cyclical update to the AMP, the findings of the updated AMP regarding asset replacement values and mid-life and lifecycle interventions costs will be used to establish the tenant rental rates for the next Joint Occupancy and Use Agreement period (effective January 2026).

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

EA3010 IT Asset Replacement Program (multi-year project): This project address outdated IT security and operating platforms used by the water supply system. The proposed 2024 phase of the project looks to complete the upgrades and migration to the new network platform.

EA4022 Security Upgrades (multi-year program): The previously completed Security Audit and Threat Risk Vulnerability Assessment provided policy, resource, and site-

specific recommendations to mitigate security and safety risks at all facilities. The project proposed is a multi-year allowance to undertake security-related modifications to all facilities, based on the criticality assessment and recommendations of the security specialist.

EA4153 Backwash Pump Replacement: The existing backwash pumps are original to the plant's construction at the facility currently do not meet the required flow rates to adequately wash the new filtration systems and require replacement. The additional budget requested in 2024 is a result of construction cost escalation and additional electrical upgrades determined through the detailed design.

EA4177 Railings and Guarding (multi-year program): A previous inspection by the Ministry of Labour has identified several of the water treatment facility's railings and guards which do not comply with current safety standards. This project proposes to replace the rails and guarding within the facility over a six-year period with the final year of the program completed in 2024.

EA4186 Sodium Hydroxide System Rehabilitation: The existing sodium hydroxide system was implemented to adjust the treated water pH to a more natural level which is less corrosive within the distribution systems. The existing system is found to have significant buildup of calcium and minerals at the point of dosing into the treated water. This project proposes to remove the build-up and modify the existing dosing system to improve system performance, reduce the deposition and buildup of material within the transmission pipeline, and facilitate long-term maintenance.

EA4194 Asset Condition Field Assessment (multi-year program): One of the key outcomes of the Asset Management Policy is to build a future-ready utility that is data rich as well as knowledge rich. A corporate asset information strategy must be developed to ensure accessibility to a fully integrated asset data registry to support good governance and leverage operational efficiencies. The integrated asset data registry has been implemented through our computerized maintenance management system (Maximo); however, asset condition data gaps remain on key infrastructure assets. Presently the independently and field-verified asset condition information is out of date having last been completed in 2013. Originally conceived as a three-year project, the consultant for the initial 2023 submitted a technical and fee proposal which allowed the project to focus on and complete assessment of those critical assets at the water treatment plant. This additional 2024 project budget will focus on completing a condition assessment for remote facility/station assets and it is expected we will be able to complete this project one-year earlier than planned.

EA4195 Electric Vehicle Charging Stations: This project is to install electric vehicle charging stations at the water treatment plant based on anticipated needs and utilize potential grant funding opportunities as may be available.

Master Water Plan Update: As a requirement of the Transfer Order for the Elgin Area Primary Water Supply System, this project is required every five years and is focused on reviewing and establishing long-term annual volume projections and growth-related capital projects required to support the long-term needs of the regional water system and its benefiting municipalities.

Climate Change Resiliency Assessment: The Asset Management Plan previously endorsed by the board included a recommendation to undertake a climate change 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 extreme weather events pose 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.



**Elgin Area**

Primary Water Supply System

**2024 Operating and Capital Budgets  
and Nine Year Capital Forecast**

**October 5, 2023**

# Elgin Area Primary Water Supply System 2024 Budget

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**Elgin Area Primary Water Supply System  
2024 Budget  
Revenue and Expenditure Summary  
(\$000's)**

	2023 Approved Budget	2024 Proposed Budget	Incr (Decr) Over 2022	% Budget Incr (Decr)	2023 Year End Projection
<b>Revenues:</b>					
Volume Revenues <sup>(1)</sup>	15,426	15,965	539	3.5%	15,072
EMPS Occupancy	222	222	0	0%	222
Other Revenues	31	31	0	0.0%	36
<b>Total Revenues</b>	<b>\$ 15,679</b>	<b>\$ 16,218</b>	<b>\$ 539</b>	<b>3.4%</b>	<b>\$ 15,331</b>
<b>Expenditures:</b>					
Operating Costs <sup>(2)</sup>	6,708	6,242	(466)	(6.9)%	6,003
Administration and Other Expenditures	2,951	3,201	250	8.5%	2,956
Debt Principal Repayments <sup>(3)</sup>	1,176	1,201	25	2.1%	1,176
Interest on Long Term Debt <sup>(3)</sup>	121	93	(28)	(23.1)%	121
Contribution to Reserve Funds	4,723	5,480	757	16.0%	5,076
<b>Total Expenditures</b>	<b>\$ 15,679</b>	<b>\$ 16,218</b>	<b>\$ 539</b>	<b>3.4%</b>	<b>\$ 15,331</b>

\*subject to rounding

**Notes:**

(1) A budgeted volume projection increase is anticipated in 2023 (from 15,650,500 m3 in 2022 to 15,986,000 m3 in 2023). Rates per m3 are proposed to increase by 2.5%.

(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 page 10 for more information on debt.

**Elgin Area Primary Water Supply System  
2024 Budget  
Administration & Other Expenditures  
(\$000's)**

	2023 Approved Budget	2024 Proposed Budget	Incr (Decr) Over 2022	% Budget Incr (Decr)	2023 Year End Projection
Management & Administrative Personnel	1,043	1,247	204	19.5%	1,051
Support and Overhead Costs <sup>(1)</sup>	185	175	(10)	(4.9)%	170
Payment in Lieu of Taxes	407	410	3	0.8%	398
Insurance (Director & Officers, General Liability)	392	423	31	8.0%	405
Financial/Office Expenses <sup>(2)</sup>	190	217	27	14.5%	183
Information Technology Maintenance & Fees <sup>(3)</sup>	276	219	(57)	(20.6)%	154
Process Optimization	75	75	0	0.0%	60
Purchased Services (Legal, Consulting, Locates, etc.)	384	433	49	13.3%	379
<b>Total Administration &amp; Other Expenditures</b>	<b>\$ 2,951</b>	<b>\$ 3,200</b>	<b>\$ 247</b>	<b>8.4%</b>	<b>\$ 2,800</b>

\* 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  
2024 Capital Plan with Forecast for 2025 to 2033  
(\$000's)**

#	Description	Project Total	Prior Years Budget	2023 Approved Budget	2024 Proposed Budget	Forecast				
						2025	2026	2027	2028	2029 to 2033
EA1026	RW Office Expansion & Renovation	200	200							
EA2019 xx	Master Plan Update	485	135		200					150
EA3010	IT Asset Replacement Program	1,706	431		40	425	225	25	120	440
EA3011	Plant Interior Person Door Replacement	60	60							
EA3012	Interior LED Lighting Upgrades	75	75							
EA3013	Plant Reservoir Drain Repairs	200	100	100						
EA3016	Safety Showers Upgrade	60	60							
EA3017	Exterior WTP Building Seals	60	60							
EA3020	Roof Replacement	625	325	300						
EA4020	Financial Plan Update 2021	150	50				50			50
EA4022	Security Upgrades	1,225	675	250	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 <sup>(1)</sup>	1,800	700	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	550	200						
EA4138	Parking Lot Asphalt Resurfacing	125	50	75						
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	125	50						
EA4172	Dedicated Raw Water Sample Line	90	90							
EA4177	Railings and Guarding	350	250	50	50					
EA4183	UV Replacement	8,950	500	8,450						
EA4184	Water Quality Facility Plan	590	290					300		
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	50	50						
EA4189	RMF Mixing Pump Replacement	100	100							
EA4190	RMF Total Chlorine Residual Compliance	50	50							
EA4191	Roof Drain Replacements	100	25	25	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					

**Elgin Area Primary Water Supply System  
2024 Budget  
2024 Capital Plan with Forecast for 2025 to 2033  
(\$000's)**

#	Description	Project Total	Prior Years Budget	2023 Approved Budget	2024 Proposed Budget	Forecast				
						2025	2026	2027	2028	2029 to 2033
EA4195	Electric Vehicle Charging Stations	60		10	50					
EA4196	St. Thomas Meter Replacement	150		150						
EA4198	Elgin Filter Emergency Repairs	608		608						
EA4199	Office Expansion	100		100						
	Asset Management Plan Update						150			150
	Low Lift Pump Replacements						25	3,460	3,110	
	Service Water Study				120					
	Climate Change Resiliency Assessment				120	120	50	50		
	Low Lift Sluice Gate Replacement				350					
	Operations & Maintenance Procurement Services					250				
	AMP Investments - Plant (allowance for planning)	16,052				2,313	1,735	1,038	1,038	9,929
	AMP Investments - Transmission (allowance for planning)	8,748				867	867	867	867	5,280
<b>Elgin Capital Subtotal</b>		<b>\$ 50,767</b>	<b>\$ 10,194</b>	<b>\$ 10,603</b>	<b>\$ 2,850</b>	<b>\$ 4,250</b>	<b>\$ 3,802</b>	<b>\$ 6,340</b>	<b>\$ 5,435</b>	<b>\$ 16,499</b>

#	Description	Project Total	Prior Years Budget	2023 Approved Budget	2024 Proposed Budget	Forecast				
						2025	2026	2027	2028	2029 to 2033
EA3025	EMPS - HVAC Replacement	375		375						
EA3026	EMPS - MCC Replacement	300		300						
EA4197	EMPS - Roof Replacement	350		350						
	AMP Investments - EMPS Building (allowance for planning)				140			200		2,050
<b>EMPS Capital Subtotal</b>		<b>\$ 1,025</b>	<b>\$ -</b>	<b>\$ 1,025</b>	<b>\$ 140</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 200</b>	<b>\$ -</b>	<b>\$ 2,050</b>

<b>Total Capital &amp; Forecast</b>		<b>\$ 51,792</b>	<b>\$ 10,194</b>	<b>\$ 11,628</b>	<b>\$ 2,990</b>	<b>\$ 4,250</b>	<b>\$ 3,802</b>	<b>\$ 6,540</b>	<b>\$ 5,435</b>	<b>\$ 18,549</b>
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\* subject to rounding

**Notes:**

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

**Elgin Area Primary Water Supply System  
2024 Budget  
Capital Plan Sources of Financing  
(\$000's)**

Funding Source	2023 Approved Budget	2024 Proposed Budget	2025	2026	2027	2028
Asset Replacement Reserve Fund	3,494	1,231	3,771	3,458	4,266	3,790
Capital Reserve Fund	2,501	1,619	479	344	2,074	1,645
Emergency Reserve Fund	608	-	-	-	-	-
EMPS Building Reserve Fund	1,025	140	-	-	200	-
Debenture	4,000	-	-	-	-	-
Other Sources of Financing	-	-	-	-	-	-
<b>Total Capital Funding</b>	<b>\$ 11,628</b>	<b>\$ 2,990</b>	<b>\$ 4,250</b>	<b>\$ 3,802</b>	<b>\$ 6,540</b>	<b>\$ 5,435</b>

\* 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 <sup>(1)</sup>	Actual	Projected					
	2022	2023	2024	2025	2026	2027	2028
Reserve Fund Opening Balance	6,647	7,401	3,058	3,913	3,810	3,808	3,850
<b>Sources:</b>							
Current Year Operating	1,900	3,000	1,900	3,453	3,246	4,101	3,701
Other Revenues - Inter-fund Repayment <sup>(4)</sup>		-	118	140	136	133	129
Transfer from Capital Reserve							
Net Interest Earnings - 2.0% <sup>(2)</sup>	105	104	68	75	74	75	76
<b>Total Sources</b>	<b>\$ 8,652</b>	<b>\$ 10,505</b>	<b>\$ 5,144</b>	<b>\$ 7,581</b>	<b>\$ 7,266</b>	<b>\$ 8,116</b>	<b>\$ 7,756</b>
<b>Uses:</b>							
Total Lifecycle Capital Projects	1,252	3,494	1,231	3,771	3,458	4,266	3,790
Less: Other Funding Sources	-	-	-	-	-	-	-
Less: Debenture Requirement							
Miscellaneous Transfers/Expenditures							
Less: Inter-fund Loan <sup>(4)</sup>		600	-	-	-	-	-
Net Current Year Fund Draws <sup>(3)</sup>	1,252	4,094	1,231	3,771	3,458	4,266	3,790
Prior Years Capital Expenditures <sup>(3)</sup>		3,353					
<b>Total Uses</b>	<b>\$ 1,252</b>	<b>\$ 7,447</b>	<b>\$ 1,231</b>	<b>\$ 3,771</b>	<b>\$ 3,458</b>	<b>\$ 4,266</b>	<b>\$ 3,790</b>
<b>Reserve Fund Ending Balance</b>	<b>\$ 7,401</b>	<b>\$ 3,058</b>	<b>\$ 3,913</b>	<b>\$ 3,810</b>	<b>\$ 3,808</b>	<b>\$ 3,850</b>	<b>\$ 3,966</b>

\* 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 <sup>(1)</sup>	Actual	Projected					
	2022	2023	2024	2025	2026	2027	2028
Reserve Fund Opening Balance	6,014	7,259	893	1,878	2,191	3,009	2,892
<b>Sources:</b>							
Current Year Operating	2,056	1,492	2,549	724	1,082	1,870	2,125
Dutton Buy-In <sup>(5)</sup>	28	28	28	28	28	29	30
Net Interest Earnings - 2.0% <sup>(2)</sup>	101	81	27	40	51	58	63
<b>Total Sources</b>	<b>\$ 8,199</b>	<b>\$ 8,860</b>	<b>\$ 3,497</b>	<b>\$ 2,670</b>	<b>\$ 3,352</b>	<b>\$ 4,966</b>	<b>\$ 5,110</b>
<b>Uses:</b>							
Total System Improvement & Growth Projects	940	6,501	1,619	479	344	2,074	1,645
Less: Other Funding Sources	-	-	-	-	-	-	-
Less: Debenture Requirement <sup>(4)</sup>		(4,000)					
Less: Additional Capital Drawdowns							
Net Current Year Fund Draws <sup>(3)</sup>	940	2,501	1,619	479	344	2,074	1,645
Prior Years Capital Expenditures <sup>(3)</sup>		5,466					
<b>Total Uses</b>	<b>\$ 940</b>	<b>\$ 7,967</b>	<b>\$ 1,619</b>	<b>\$ 479</b>	<b>\$ 344</b>	<b>\$ 2,074</b>	<b>\$ 1,645</b>
<b>Reserve Fund Ending Balance</b>	<b>\$ 7,259</b>	<b>\$ 893</b>	<b>\$ 1,878</b>	<b>\$ 2,191</b>	<b>\$ 3,009</b>	<b>\$ 2,892</b>	<b>\$ 3,465</b>

\* 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) Debenture required for the replacement of the UV Disinfection system and upgrades (EA4183)
- (5) 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 <sup>(1)</sup>	Actual	Projected					
	2022	2023	2024	2025	2026	2027	2028
Reserve Fund Opening Balance	854	869	272	1,085	1,410	1,943	1,982
<b>Sources:</b>							
Current Year Operating	-	-	800	300	500	-	-
Net Interest Earnings - 2.0% <sup>(2)</sup>	15	11	13	25	33	39	40
<b>Total Sources</b>	<b>\$ 869</b>	<b>\$ 880</b>	<b>\$ 1,085</b>	<b>\$ 1,410</b>	<b>\$ 1,943</b>	<b>\$ 1,982</b>	<b>\$ 2,022</b>
<b>Uses:</b>							
Current Year Capital Expenditures							
Prior Years Capital Expenditures		608					
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 608</b>	<b>\$ -</b>				
<b>Reserve Fund Ending Balance</b>	<b>\$ 869</b>	<b>\$ 272</b>	<b>\$ 1,085</b>	<b>\$ 1,410</b>	<b>\$ 1,943</b>	<b>\$ 1,982</b>	<b>\$ 2,022</b>

\* 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 <sup>(1)</sup>	Actual 2022	Projected					
		2023	2024	2025	2026	2027	2028
Reserve Fund Opening Balance	-	234	43	17	109	207	108
<b>Sources:</b>							
Current Year Operating	231	231	231	231	231	231	231
Other Revenues - Inter-fund Loan <sup>(4)</sup>		600	-	-	-	-	-
Net Interest Earnings - 2.0% <sup>(2)</sup>	3	3	1	1	3	3	3
<b>Total Sources</b>	<b>\$ 234</b>	<b>\$ 1,068</b>	<b>\$ 275</b>	<b>\$ 249</b>	<b>\$ 343</b>	<b>\$ 441</b>	<b>\$ 342</b>
<b>Uses:</b>							
Total EMPS Projects		1,025	140	-	-	200	-
Less: Other Funding Sources							
Less: Debenture Requirement							
Less: Additional Capital Drawdowns							
Net Current Year Fund Draws <sup>(3)</sup>	-	1,025	140	-	-	200	-
Prior Years Capital Expenditures <sup>(3)</sup>							
Miscellaneous Transfers/Expenditures							
Inter-fund Loan Repayments - Asset							
Replacement Reserve Fund <sup>(4)</sup>		-	118	140	136	133	129
Principal		-	100	125	125	125	125
Interest		-	18	15	11	8	4
Inter-fund Loan Repayments - New Capital							
Reserve Fund <sup>(4)</sup>							
Principal							
Interest							
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 1,025</b>	<b>\$ 258</b>	<b>\$ 140</b>	<b>\$ 136</b>	<b>\$ 333</b>	<b>\$ 129</b>
<b>Reserve Fund Ending Balance</b>	<b>\$ 234</b>	<b>\$ 43</b>	<b>\$ 17</b>	<b>\$ 109</b>	<b>\$ 207</b>	<b>\$ 108</b>	<b>\$ 214</b>

\* 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			
	2022	2023	2023 (Projected)	2024	2025	2026	2027	2028
Rate Increase <sup>(1)</sup>	4%	2.5%	2.5%	3.5%	3.5%	3.5%	3.5%	3.0%
Total Flow m <sup>3</sup>	15,723,813	15,986,060	15,619,729	15,985,500	15,954,662	15,962,331	15,970,007	15,977,692
Total Water Rate \$/m <sup>3</sup>	0.9414	0.9649	0.9649	0.9987	1.0337	1.0699	1.1073	1.1405
Flow Volume Revenues	14,802	15,426	15,072	15,965	16,492	17,079	17,683	18,223
Other Revenue	272	253	258	253	253	253	253	253
<b>Total Revenue</b>	<b>\$ 15,074</b>	<b>\$ 15,679</b>	<b>\$ 15,330</b>	<b>\$ 16,218</b>	<b>\$ 16,745</b>	<b>\$ 17,332</b>	<b>\$ 17,936</b>	<b>\$ 18,476</b>
Operating Costs <sup>(2)</sup>	5,905	6,708	6,003	6,242	6,684	6,858	7,019	7,630
Administrative Expenses	2,479	2,951	2,956	3,201	3,503	3,590	3,679	3,773
Debt Servicing Costs <sup>(3)</sup>	2,504	1,297	1,297	1,294	1,849	1,825	1,035	1,015
<b>Total Operating &amp; Administrative Expenses</b>	<b>\$ 10,888</b>	<b>\$ 10,956</b>	<b>\$ 10,256</b>	<b>\$ 10,737</b>	<b>\$ 12,036</b>	<b>\$ 12,273</b>	<b>\$ 11,733</b>	<b>\$ 12,418</b>
Asset Replacement Reserve Fund Contributions	1,900	3,000	3,000	1,900	3,453	3,246	4,101	3,701
Capital Reserve Fund Contributions	2,056	1,492	1,845	2,549	724	1,082	1,870	2,125
Emergency Reserve Fund Contributions	-	-	-	800	300	500	-	-
Other Contributions:								
EMPS Building Reserve Fund Contributions	231	231	231	231	231	231	231	231
<b>Total Expenses</b>	<b>\$ 15,074</b>	<b>\$ 15,679</b>	<b>\$ 15,332</b>	<b>\$ 16,218</b>	<b>\$ 16,745</b>	<b>\$ 17,332</b>	<b>\$ 17,936</b>	<b>\$ 18,476</b>

\* 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).
- New debenture anticipated in 2024 for UV Disinfection System (EA4183), with payments starting in 2025.
- Rates noted above could change depending upon market conditions at the time of debt issuance.

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Website: www.malahide.ca



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September 26, 2023

Elgin Area Primary Water Supply System  
Attn: Board of Management

**Sent via email:**      **Steven Hillier, Chair**                      [shillier@london.ca](mailto:shillier@london.ca)  
                                 **Pete Barour, Vice-Chair**                      [pbarbour@town.aylmer.on.ca](mailto:pbarbour@town.aylmer.on.ca)  
                                 **Primary Board General Email**                      [general@huronelginwater.ca](mailto:general@huronelginwater.ca)

**RE: Questions from Aylmer Area Secondary Water Supply System (AASWSS) and Port Burwell Area Secondary Water Supply System's (PBASWSS) Joint Boards of Management regarding the proposed St. Thomas industrial development**

The following resolutions were passed on September 6, 2023, by the Joint Boards of Management for the Aylmer and Port Burwell Area Secondary Water Supply Systems:

THAT staff of the administering municipality issue correspondence on behalf of the Aylmer Area Secondary Water Supply System Joint Board of Management to the primary water board outlining the questions and concerns that the board has with the proposed industrial development.

THAT staff of the administering municipality issue correspondence on behalf of the Port Burwell Area Secondary Water Supply System Joint Board of Management to the primary water board outlining the questions and concerns that the board has with the proposed industrial development.

In accordance with those resolutions, the following questions and concerns have been compiled by the administering municipality on behalf of these two water systems:

- What is the anticipated volume required to service the proposed Volkswagen Plant/ Industrial Development?
- Is there sufficient capacity for water treatment and pumping operations (low lift, high lift, reservoirs, distribution system) at the Elgin Area Water Treatment Plant and within the Primary Water Supply System?
- Will this proposed industrial development be serviced by EMPS? If so, is there sufficient capacity at EMPS?
- What precautionary measures are being put in place by the Elgin Area Primary Water Supply System to protect the transmission mains within the easement south of the EMPS?

- It is noted that the AASWSS's 450mm transmission main is located within the aforementioned easement. As such, the AASWSS requests that the Primary Board provide a copy of the easement documentation.
- Will the proposed connection at EMPS impact the EMPS Asset Investment Plan resulting in future rate increases to the tenants of the pumping station?
- How will future rent costs be apportioned to the members if a new user is added to the system?
- Will this require a revision to the current Joint Occupancy and Use Agreement to ensure increased costs are not borne by the AASWSS?
- What capacity remains within the Elgin Area WTP/RWS for existing members?
- What capacity remains within the EMPS for each existing member?
- How are the aforementioned capacities determined?
- What are the anticipated impacts on the overall system rates? Has a rate study been completed?
- Will the proposed industrial development (St. Thomas) be utilizing the water storage within the existing EMPS reservoir? Has it been determined if there will be any impacts to the existing customers?
- Does St. Thomas intend to initiate an allocation study and review process with the member municipalities to address the potential concerns?
- Will the Primary Board require such a review to ensure the potential allocation changes do not adversely impact other municipal partners?
- As stakeholders, the PBASWSS and AASWSS note that many concerns may be avoided altogether with improved correspondence and communication from the Elgin Area Primary Water Supply System and the City of St Thomas.

The Joint Board's of Management for the PBASWSS and AASWSS respectfully request that the Elgin Area Primary Water Supply System Board of Management provide written response to each of these questions and concerns.

Sincerely,

Township of Malahide  
Administering Municipality for the PBASWSS and AASWSS

Cc: AASWSS Joint Board of Management Members  
PBASWSS Joint Board of Management Members