

# Agenda

## Elgin Area Primary Water Supply System

### Joint Board of Management

The 3rd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management  
June 2, 2022, 5:00 PM  
2022 Virtual Meeting - during the COVID-19 Emergency

	Pages
<b>1. Call to Order</b>	
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#### **4. Items for Discussion**

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#### **5. Deferred Matters/Additional Business**

#### **6. Upcoming Meeting Dates**

October 6, 2022

January 19, 2023

#### **7. Adjournment**

# **Elgin Area Primary Water Supply System Report**

The 2nd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management  
March 3, 2022

Attendance: Meeting held remotely on Thursday, March 3, 2021,  
commencing at 5:00 PM.

PRESENT: P. Barbour (Chair), D. Crevits, S. Hillier, R. Monteith, E. Pelosa, S. Peters, M. van Holst and S. Wookey and J. Bunn (Committee Clerk)

ALSO PRESENT: B. Haklander, A. Henry, K. Scherr and J. Walker

## **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 1st Meeting held on December 2, 2021**

WOOKEY AND VAN HOLST

That the minutes of the 1st meeting of the Elgin Area Primary Water Supply System Joint Board of Management, from the meeting held on December 2, 2021, **BE NOTED AND FILED. CARRIED**

**Motion Passed**

## **3. Consent Items**

### **3.1 Quarterly Compliance Report (4th Quarter 2021: October - December)**

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the report dated March 3, 2022, with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System, for October to December 2021, **BE RECEIVED. CARRIED**

**Motion Passed**

3.2 Environmental Management System and Quality Management System

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the report dated March 3, 2022, with respect to the Environmental Management System and Quality Management System for the Elgin Area Primary Water Supply System, **BE RECEIVED. CARRIED**

**Motion Passed**

3.3 Quarterly Operating Financial Status - 4th Quarter 2021

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the report dated March 3, 2022, with respect to the Quarterly Operating Financial Status of the Elgin Area Water Supply System, **BE RECEIVED. CARRIED**

**Motion Passed**

3.4 Capital Status Report

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to Elgin Area Primary Water Supply System Capital Projects:

- a) the above-noted report **BE RECEIVED**;
- b) projects EA4144 Fluoride Lines, EA4147 Generator Multiline Relay and EA4179 Window/Glazing Replacement, **BE CLOSED**, with surplus funding in the approximate amount of \$17,028 being released to the Reserve Funds; and,
- c) projects EA4085 IT Security Upgrades and EA4160 Non-Revenue Meter Replacement, **BE CLOSED**, with additional funding in the approximate amount of \$44,743 being drawn from the Reserve Funds. **CARRIED**

**Motion Passed**

3.5 Ministry of the Environment, Conservation and Parks Inspection Report

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the report dated March 3, 2022, with respect to the Ministry of the Environment, Conservation and Parks (MECP) Annual Inspection, **BE RECEIVED. CARRIED**

**Motion Passed**

3.6 EA4162 Crop Yield Monitoring Program - 2012 Pipeline Twinning Project

PETERS AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the report dated March 3, 2022, with respect to the Crop Yield Monitoring Program associated with the 2012 Pipeline Twinning Project, **BE RECEIVED. CARRIED**

**Motion Passed**

**4. Items for Discussion**

4.1 Alum Tanks Replacement Project (EA4132)

WOOKEY AND MONTEITH

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to Alum Tanks Replacements (EA4132) project:

- a) an increase in the project budget by \$210,000, for a total approved budget of \$825,000, **BE APPROVED**; it being noted that the additional funds will be drawn from the Asset Replacement Reserve Fund; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

4.2 Central Elgin Licence of Occupancy - Port Stanley Pump Station

PELOZA AND PETERS

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to the Central Elgin Licence of Occupancy for the Port Stanley Pump Station:

- a) the request to construct and operate a water pumping station on a portion of the water treatment plant property **BE APPROVED IN PRINCIPLE** by the Board of Management for the Elgin Area Water Supply System, subject to entering into a Licence of Occupancy Agreement with the Municipality of Central Elgin; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

4.3 EA4153 Backwash Pump Replacements Project - Pump Purchase

WOOKEY AND HILLIER

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to the Backwash Pump Replacements Project (EA4153):

- a) the pump fabrication proposal from Directrik Inc. **BE ACCEPTED**;
- b) a Purchase Order to Directrik Inc., **BE ISSUED**, in the amount of \$996,197.40, including contingency (excluding HST), for the pump fabrication associated with the above-noted project; it being noted that upon execution of the subsequent construction contract, the pre-purchase and supply of the backwash pumps will be novated to the general contractor upon the issuance of an acceptable Purchase Order by the general contractor to Directrik Inc.; and,
- c) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

4.4 Standby Generator TSSA Repairs

PELOZA AND WOOKEY

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022,

related to the Elgin Area Primary Water Supply System Standby Generator TSSA Repairs:

- a) the creation of a capital project to repair the existing Standby Generator system, **BE AUTHORIZED**, with an approved budget of \$290,000; it being noted that the Capital Reserve fund will be utilized for the source of funding for the project; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

#### 4.5 Asset Management Plan - Levels of Service Framework

WOOKEY AND HILLIER

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to Asset Management Plan Levels of Service Framework for the Elgin Area Primary Water Supply System:

- a) the Asset Management Levels of Service Framework, as presented in the above-noted report, **BE ENDORSED**; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

**Motion Passed**

### 5. Deferred Matters/Additional Business

#### 5.1 (ADDED) Draft Climate Emergency Action Plan - Water Board Risks - Councillor M. van Holst

WOOKEY AND VAN HOLST

That the Chief Administrative Officer, or designate, **BE DIRECTED** to prepare a report to address the potential disruptions and interruptions to the water supply mentioned in the City of London's Draft Climate Emergency Action Plan. **CARRIED**

**Motion Passed**

### 6. Next Meeting Date

June 2, 2022

**7. Adjournment**

The meeting adjourned at 6:01 PM.



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

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

**Subject:** Quarterly Compliance Report (1<sup>st</sup> Quarter 2022: January - March)

## RECOMMENDATION

That the Quarterly Compliance report with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System **BE RECEIVED** for the information of the Board of Management; it being noted that there were no Adverse Water Quality Incidents reported in the 1<sup>st</sup> quarter of 2022.

## 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 new postings on the ERO that may have an impact on the EAPWSS.

**Regulation Proposal:** [Expanding administrative penalties for environmental contraventions](#)

The Ministry of the Environment, Conservation and Parks (MECP) is proposing regulations that would allow the use of administrative penalties for environmental contraventions. The proposed new framework would provide a single consistent approach for applying penalties across MECP compliance and enforcement activities. Administrative penalties could be issued for contraventions under the *Environmental Protection Act*, *Safe Drinking Water Act*, and *Ontario Water Resources Act*, among others. Provincial Officers will use an “Informed Judgement Matrix” to determine when/how to apply compliance and enforcement tools. The proposed implementation date is July 1, 2022.

**Impacts to the EAPWSS:**

Drinking water system owners, operating authorities, and operators can receive administrative penalties (i.e., financial penalties) for non-compliance. The use of the administrative penalty tool will be guided by the Ministry's compliance policy and will not automatically be applied to all non-compliances. The Ministry will consider health and environmental consequences, and likelihood of compliance including demonstrated willingness to comply and compliance history. Receiving an administrative penalty would impact the drinking water system financially, as well as impact reputation and public confidence; however, if the province's environmental laws are complied with, this should not pose a significant regulatory burden or cost. The province has implemented administrative penalties related to other Acts and Regulations. Notwithstanding, there is a general concern as to its application related to drinking water systems regardless of circumstances which clearly demonstrate ongoing continual improvements and corrective actions implemented.

**Quarterly Water Quality Reports:** The [Water Quality Quarterly Report](#) for the period of January 1 – March 31, 2022 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.

**O.Reg. 170/03, Section 11 "Annual Reports":** Under the Drinking Water Systems Regulation (O.Reg. 170/03), an Annual Report for the EAPWSS is required to be prepared by February 28<sup>th</sup> of each year. The 2021 Annual Report summarized water quality and maintenance information for the calendar year. This report was completed by Ontario Clean Water Agency (OCWA), the contracted operating authority for the EAPWSS. Although the report is no longer required to be submitted to the Ministry of the Environment, Conservation and Parks (MECP), the EAPWSS is required to provide copies of the report to drinking water systems that obtain water from this system. The 2021 Annual Report was forwarded to the member municipalities on February 22, 2022. The [2021 Annual Report](#) has been posted on the Water Systems' website for public information.

**O.Reg. 170/03, Section 22 “Summary Reports for Municipalities”:** Under the Drinking Water Systems Regulation (O.Reg. 170/03) a summary report is required by March 31<sup>st</sup> of each year which:

- Lists the requirements of the Act, the regulations, the system’s approval, and any order that the system failed to meet at any time during the period covered by the report, and the duration of the failure. For each failure referred to, a description of the measures that were taken to correct the failure is required.
- In order to allow the system’s owner to “assess the capability of the system to meet existing and planned uses of the system”, provide a summary of the quantities and flow rates of the water supplied, including monthly average and maximum daily flows and daily instantaneous peak flow rates, with a comparison to the systems rated capacity.

This report was also completed by OCWA. The 2021 Compliance Report (Summary Report for Municipalities) was forwarded to the Board members and member municipalities of the EAPWSS as required on March 24, 2022. The [2021 Compliance Report](#) has been posted on the Water Systems’ website for public information. All Compliance Reports are available for viewing at the Elgin Area Water Treatment Plant and at the Board’s Administration Office in London. Copies of all reports are available to the public upon request and free of charge as required by O.Reg. 170/03.

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

**Notice of Compliance Violation:** On March 10, 2022, EAPWSS received an email notice from MECP informing that a discrepancy had been flagged by the Ontario Hazardous Waste Information Network (HWIN) system indicating a potential violation of O. Reg. 347 (General – Waste Management).

Staff followed up with both the local MECP office and HWIN to obtain further information. In 2020, there was one date in which hazardous waste (i.e., waste oil) was shipped from the Elgin Area Water Treatment Plant without the appropriate waste class being registered in the corresponding HWIN account. This caused the HWIN system to flag the EAPWSS as shipping out an unregistered waste class.

Investigation determined that the waste hauler had incorrectly assigned the waste oil shipment to the EAPWSS generator number instead of OCWA’s generator number for this site. The waste class was not properly registered because it had been assigned to the incorrect account. This discrepancy was previously identified in an Environmental Management System (EMS) internal audit conducted in 2021. Corrective action had already been implemented and this item was resolved before the Notice was received from the MECP. Corrective action included reviewing the hazardous waste disposal process, making procedure updates where required, and staff training. Since appropriate corrective action had already been taken, no further action was required.

## **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 2022 first quarter Contract Report was received from OCWA on April 28, 2022, and was scheduled to be discussed at the quarterly administration meeting between Board staff and OCWA on May 12, 2022. Copies of the monthly Operations and Maintenance Reports, and quarterly Contract Reports are available at the Board’s Administration Office in London upon request.

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

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

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

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

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

**Subject:** Environmental Management System and Quality Management System

## **RECOMMENDATION**

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

## **BACKGROUND**

### **Environmental Management System (EMS)**

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

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

### **Quality Management System (QMS)**

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

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

## **DISCUSSION**

### **Management Review**

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

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

A Management Review meeting was held on April 1, 2022. The meeting minutes are included as [Appendix A](#) for the information of the Board.

### **Internal Audits**

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

The EMS Internal Audit was completed April 25 and 28, 2022.

The DWQMS Internal Audit is scheduled for June 14 and 16, 2022.

The results of these audits will be discussed at the next Management Review Meeting (scheduled for June 22, 2022) and included in the next reporting period.

### **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 during the reporting period.

### **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 and opportunities for improvement for the EAPWSS and implementing corrective actions. Preventive actions may originate from identified opportunities for improvement as part of an audit, but also staff suggestions and discussions with management.

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

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

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

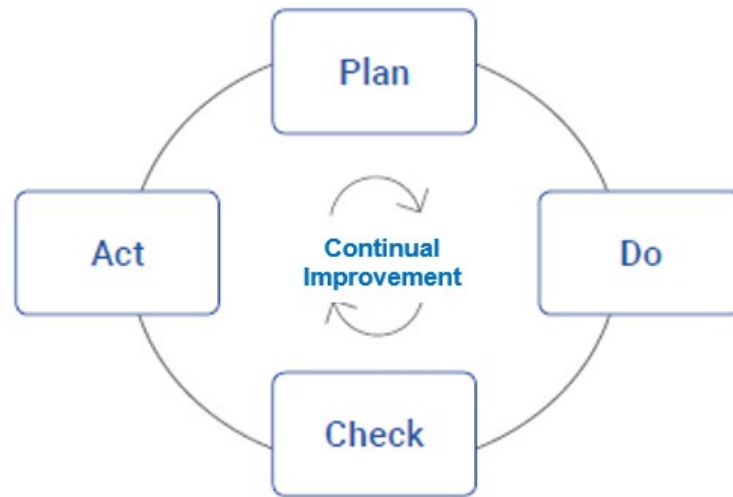


Figure 1: Plan-Do-Check-Act improvement process

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

- Five (5) new action items were added as a result of the management of change process for the Elgin-Middlesex Pumping Station (EMPS) ownership clarification
- Five (5) new action items were added as a result of the corrective action process for a Residuals Management Facility (RMF) total residual chlorine exceedance
- Three (3) new action items were added as a result of the management of change process for the 5 Year extension of the Operating Contract with OCWA (2023-2027)
- Three (3) new action items were added as a result of the management of change process for the new Elgin Municipal Drinking Water License (Issue #9, dated February 11, 2022) and Drinking Water Works Permit (Issue #6, dated February 11, 2022)
- One (1) new action item was added as a result of the Management Review and the inclusion of cyber security/cyber attack as a hazardous event in the QMS Risk Assessment.
- One (1) new action item was added as the result of a required regulatory change to the QMS Operational Plan.

As of May 16, 2022, there are currently thirty-one (31) open action items in the system. Action items are prioritized and addressed using a risk-based approach, and deadlines established given reasonable timeframes and resources that are available. Board staff are pleased with the performance of the corrective and preventive action process and have no concerns with the number of open action items.



## CONCLUSION

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

**Prepared by:** Erin McLeod, Quality Assurance & Compliance Manager, with the assistance of Allison McGuckin, Compliance Coordinator

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

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

**Attachments:** [Appendix A](#) – Management Review Meeting Minutes (April 1, 2022)

## **APPENDIX A: MANAGEMENT REVIEW MEETING MINUTES (APRIL 1, 2022)**

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

**Date:** April 1, 2022

**Time:** 1:00pm

**Location:** Virtual – Microsoft Teams

**Attendees:** Andrew Henry (RWS), Erin McLeod (RWS), Allison McGuckin (RWS), Blair Tully (OCWA), Denny Rodrigues (OCWA), Simon Flanagan (OCWA), Greg Henderson (OCWA)

**Regrets:** Randy Lieber (OCWA)

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

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

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

The minutes from the previous meeting (January 25, 2022) are posted to SharePoint. The minutes were approved. No concerns

#### **2. Results of the Board Meetings (March 3, 2022)**

##### **Huron Board Meeting**

- EMS/QMS Report
- Quarterly Compliance Report
- MECP Inspection Report

Each of these reports were received for information.

It was noted that the 100% MECP inspection rating and successful audit results brings confidence to the Board members and the public that our systems are well run and place an importance on quality.

A Board report was put forward approving the connection of Oneida Nation of the Thames to the LHPWSS.

##### **Elgin Board Meeting**

- EMS/QMS Report
- Quarterly Compliance Report
- MECP Inspection Report

Each of these reports were received for information.

### **3. Raw Water Supply and Drinking Water Quality Trends (LHPWSS & EAPWSS)**

The 5-year Drinking Water Quality Trends were reviewed and discussed (Jan 2017-Feb 2022). There are strong correlations for the Lake Huron WTP (Water Treatment Plant) trends but very few notable correlations for Elgin WTP likely due to the large fluctuations in turbidity from the source water.

There were no concerns that required operational modifications at this time.

Additional trends to include in the next annual review:

- pH correlations at Arva Terminal Reservoir
- Dissolved Oxygen trending for Lake Huron WTP
- Dissolved Oxygen and raw temperature relationship for Elgin WTP
- Raw Temperature with HAA's and THM's for Lake Huron WTP and Elgin WTP

#### **a.) Lake Erie Harmful Algal Bloom 2021 Seasonal Assessment published by the National Oceanic and Atmospheric Administration (NOAA)**

The Lake Erie Harmful Algal Bloom 2021 Seasonal Assessment was received November 1, 2021 identifying the algal bloom of 2021 as moderately severe and lasting longer than typical seasons. This is likely due to persistent warm water temperature which was confirmed by the trends at the EAPWSS and the Great Lakes Water Levels and Temperatures as published by the Environmental Protection Agency (EPA).

#### **b.) Great Lakes Water Levels and Temperatures (EPA)**

The EPA released a publication that summarized the Great Lakes Water Levels and Temperatures. Key points provided:

- Since 1995 the average surface water temperatures have increased for each of the Great Lakes. This has been noted in the raw water trends at EAPWSS and LHPWSS.
- This information correlates with the Lake Erie Harmful Algal Bloom Seasonal Assessments from the NOAA. Warmer temperatures are related to more algae blooms and the blooms lasting longer into the season.

### **4. Deviations from Critical Control Point Limits and Response Actions (LHPWSS & EAPWSS)**

Reviewed the WaterTrax alert summary for 2021. Detailed summary including response actions is included in the meeting package for review.

- Lake Huron WTP had 17 alerts in 2021
- Elgin WTP had 173 alerts in 2021 however, 137 of these alerts were linked to a known raw water event that occurred in September 2021.

## **5. Adequacy of Resources (LHPWSS & EAPWSS)**

### **Inspection & Audit Results:**

For the past 2 inspection periods, both systems received 100% MECP inspection ratings. Both systems also had successful internal and external audits. This shows the management systems and associated compliance programs are working well and being supported.

### **Staffing:**

All RWS staff positions are currently filled, no vacancies.

OCWA staffing: Huron is at full complement; Elgin has one operator vacancy (which is in addition to the normal complement) and an administrative vacancy (temporary).

In general, staff vacancies for both RWS and OCWA are typically filled quickly. OCWA has applicants applying for jobs, however they are seeing some qualification gaps.

The co-op program is going to be reinstated with OCWA.

OCWA is seeing some changes in the availability of trained staff (e.g., electricians, millwrights) due to wages. It is an ongoing challenge, and they are looking for solutions.

### **Training:**

No concerns at this time. Many training providers transitioned to e-learning. More online training takes place now, which could lose some value for operators (where hands-on activities would otherwise be more useful).

### **Pandemic:**

Through the pandemic we continue to adapt and adopt new ways of working.

Discussed concerns about supply chain, chemical availability etc. OCWA is still receiving notices on chemical availability. There are still some shortages and alum costs have increased. There are long lead times on certain parts and materials. Instrumentation I/O cards have been difficult to obtain for capital projects. No major impacts to current water quality monitoring instrumentation at this time, more of an issue for new installations (capital/construction projects). Lab supplies have a long lead time.

### **Water volumes:**

For the past 2 years the primary systems have sold higher than budgeted volumes to the municipalities. The budget volumes differ slightly from the contractual volumes in the Service Agreement. Huron volumes are higher than targeted, with good revenue. Elgin volumes are on target or slightly below, with adequate revenue.

### **Capital projects:**

RWS is revisiting the capital investment program, looking at constructability and timeframes. Projects were scaled back the past few years due to covid, and are now being redistributed. There is general concern about overworking staff or lack of availability of support staff, in all areas (RWS, OCWA, consultants, contractors). Some projects are more/less operationally invasive than others.

Based on the discussion Top Management confirmed that in the immediate timeframe there are adequate resources to support the EMS/QMS. They will be considering our long term ability to support operations and capital projects.

## **6. Relevant Communications from Interested Parties (EAPWSS)**

### **a.) MECP Notice of Violation – Hazardous Waste Shipment (Elgin) - March 15, 2022**

The Hazardous Waste Information Network (HWIN) compliance violation was issued due to unregistered hazardous waste leaving the Elgin WTP in 2020. Staff followed up with MECP and HWIN to confirm details and it was determined that waste oil left the Elgin WTP incorrectly assigned to RWS's generator number instead of OCWA's generator number, and therefore the waste class was not registered as required. This event was previously identified in an internal audit in 2021 and was resolved before the Notice of Violation was received. No further action is required.

### **b.) Port Stanley Hydrocarbon Spill – December 28, 2021**

Kettle Creek Conservation Authority alerted OCWA to a hydrocarbon sheen on the water in Port Stanley harbour. The MECP inspected the area and there was no source identified and no action required. There was no evidence that this event had any effect on the Elgin WTP. There was media interest in this event.

## **7. Staff Suggestions (LHPWSS & EAPWSS)**

Top Management noted there were no staff suggestions to discuss that pertained to QMS/EMS. Staff is aware they can bring suggestions to management at any time, however the majority of suggestions are for remedial work and health and safety, not QMS/EMS.

## **8. Compliance Obligations Updates (LHPWSS & EAPWSS)**

### **Expanding administrative penalties for environmental contraventions**

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

**Date Posted/Notice Received:** January 27, 2022

**Comments Due:** Extended to March 28, 2022

#### **Summary:**

MECP is proposing regulations that would allow the use of administrative penalties for environmental contraventions. The proposed new framework would provide a single consistent approach for applying penalties across MECP compliance and enforcement activities.

Administrative penalties could be issued for contraventions under the *Environmental Protection Act*, *Safe Drinking Water Act*, and *Ontario Water Resources Act*, among others.

Provincial Officers will use an "Informed Judgement Matrix" to determine

when/how to apply compliance and enforcement tools.

**Potential Impacts:**

Penalties will not impose any new regulatory burden or costs on organizations who follow the province's environmental laws.

Penalty reductions (up to 35%) can be requested for preventive and mitigative measures, and having an audited EMS (5% reduction).

**Minister's Annual Report on Drinking Water (2021)**

**Source:** MECP

**Date Posted/Notice Received:** December 23, 2021

**Comments Due:** N/A

**Summary:**

The report provides an overview of MECP programs, policies and initiatives to protect drinking water in Ontario.

The report highlights that MECP will be working collaboratively with partners like Health Canada on new approaches to address emerging threats to drinking water quality like pesticides, synthetic chemicals, and fire-fighting foams.

The report acknowledges that most Ontario drinking water standards are based on Health Canada guidelines and are reviewed on a regular basis to ensure that they reflect new information when it becomes available.

**Potential Impacts:** It was noted in the report that MECP is proposing to amend the "List of Potential

Hazardous Events" referenced in the DWQMS to include cyber security/cyberattacks among the matters that are to be considered in municipalities' risk assessments.

**Action Item:** Cyber security/cyber attack is not listed as a specific hazardous event on the current QMS Risk Assessments. Determine where and how this issue is best integrated into the current management systems, including the Incident Management System (IMS) Risk Register. Assigned to: Erin McLeod, Rich Aycock, Denny Rodrigues. Deadline: August 31, 2022

**Guideline Technical Document – 2,4-Dichlorophenoxyacetic Acid (2,4-D)**

**Source:** Health Canada

**Date Posted/Notice Received:** February 4, 2022

**Comments Due:** N/A

**Summary:**

The maximum acceptable concentration (MAC) for 2,4-dichlorophenoxyacetic acid (2,4-D) in drinking water is set at 0.10 mg/L (100 µg/L). 2,4-D is an herbicide used mainly to control broadleaf weeds.

**Potential Impacts:**

None anticipated. The MAC for 2,4-D in Ontario is also 0.10 mg/L. There are no detects for 2,4-D in treated water for either the LHPWSS or EAPWSS.

**Withdrawal of select guidelines for Canadian drinking water quality**

**Source:** Health Canada

**Date Posted/Notice Received:** January 28, 2022

**Comments Due:** N/A

**Summary:**

Health Canada recently posted notice that it is withdrawing the existing Guidelines for Canadian Drinking Water Quality (GCDWQ) for 17 chemical substances, including 13 pesticides. It was determined that the GCDWQ are no longer required since these contaminants are unlikely to be found in Canadian drinking water at levels that may pose a risk to human health.

**Potential Impacts:**

The withdrawal of a guideline removes the need or obligation of provinces and territories to routinely monitor for the given contaminant, thus allowing Canadian jurisdictions to focus their efforts on contaminants that continue to be a concern for human health.

Staff confirmed that all of the parameters Health Canada is withdrawing are currently listed in O.Reg. 169 with maximum acceptable concentrations (MAC).

**Guidance on Monitoring the Biological Stability of Drinking Water in Distribution Systems**

**Source:** Health Canada

**Date Posted/Notice Received:** February 25, 2022

**Comments Due:** N/A

**Summary:**

“The intent of this document is to provide responsible authorities, such as municipalities and water system operators, with an overview of: 1) causes of microbial water quality deterioration in the distribution system; 2) monitoring tools that can be used to assess biological stability; and 3) distribution system management strategies. Although the primary focus of this document is on the component of the distribution system that carries water to buildings, there is a brief discussion of premise plumbing. It is acknowledged that a water utility's responsibility does not generally include plumbing systems.”

This guidance replaces the Guidance on the Use of Heterotrophic Plate Counts in Canadian Drinking Water Supplies (Health Canada, 2012).

**Potential Impacts:** None anticipated.

**Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Bromoxynil**

**Source:** Health Canada

**Date Posted/Notice Received:** March 4, 2022

**Comments Due:** N/A

**Summary:** The maximum acceptable concentration (MAC) for bromoxynil in drinking water has been set at 0.03 mg/L (30 µg/L). Bromoxynil is a herbicide used to control broadleaf weeds in food and feed crops

**Potential Impacts:** None anticipated. The current Ontario MAC for bromoxynil is still 0.005 mg/L. Test results for bromoxynil in treated water are non-detect for both the EAPWSS and LHPWSS.

**Guideline Technical Document: 4-Chloro-2-methylphenoxyacetic Acid (MCPA) in Drinking Water**

**Source:** Health Canada

**Date Posted/Notice Received:** March 18, 2022

**Comments Due:** N/A

**Summary:**

A maximum acceptable concentration (MAC) of 0.35 mg/L (350 µg/L) is established for MCPA in drinking water. This is higher than the previous guideline. MCPA is a herbicide, registered in Canada for use on agricultural sites, fine turf and lawns, in forestry and at industrial sites.

**Potential Impacts:** None. The current MAC in Ontario is 0.1 mg/L. All MCPA results for the past 6 years were non-detect for both EAPWSS and LHPWSS.

**MECP Director's Directions: Minimum Requirements for QMS Operational Plans**

There was one additional action item provided. The MECP Director's Directions requires the completion of a Schedule C Form and for it to be included in the QMS Operational Plan. This action item was assigned to Denny Rodrigues with a deadline of April 1, 2022. Top Management approved this action item to be included in the action item tracking spreadsheet.

**9. Management of Change (LHPWSS & EAPWSS)**

The following Management of Change Forms were completed:

- a. LHPWSS North Clearwell Project
- b. LHPWSS High Lift Pump Project
- c. EAPWSS Municipal Drinking Water Licence
- d. EAPWSS and LHPWSS 5 Year Extension of Operating Contract (Huron & Elgin)

All action items identified on the completed Forms have been added to the appropriate action item tracking spreadsheet.

The following Management of Change Forms are outstanding:

- a. EAPWSS and LHPWSS E-Logbooks
- b. EAPWSS and LHPWSS Computerized Maintenance Management System (CMMS) change to Maximo
- c. LHPWSS residuals disposal
  - i. Effective January 1, 2022, the residuals are going to South Huron Landfill
- d. EMPS Ownership Clarification



Top Management was informed of the above Management of Change Forms which are currently in draft. Action items identified will be added to the appropriate action item tracking spreadsheet.

#### **10. Corrective Action Forms (LHPWSS & EAPWSS)**

The following Corrective Action Forms (CAFs) were completed:

- a. LHPWSS- Loss of Alum Incident (Feb 7, 2022)
- b. EAPWSS – Residuals Management Facility (RMF) Total Residual Chlorine Exceedance (Feb 22, 2022)

All action items identified on the CAFs have been added to the appropriate action item tracking spreadsheet.

#### **11. Status of Action Items (LHPWSS & EAPWSS)**

The summary of open/outstanding action items was provided in the meeting package. There was a brief discussion with Top Management and any required changes are to be communicated to the RWS Compliance Coordinator to complete.

#### **12. Other Business (LHPWSS & EAPWSS)**

1. RWS has appointed a new Capital Programs Manager and there are some expected modifications occurring in the contract/contractor management program related to standardized project management templates and health and safety management. There are anticipated impacts on QMS/EMS procedures including outlining contractor QMS/EMS requirements during the tender process.

OCWA plans on maintaining their current process.

2. The MECP is considering changes to the Conservation Authorities Act. The MECP released a proposal on January 26, 2022 with the opportunity to comment by February 25, 2022. The regulation remains in phase 2 and has not been formalized at this time. The MECP is going to be modifying the language to allow Conservation Authorities to apply levies against Municipalities. It is not clear at this time if this will affect EAPWSS and LHPWSS or create implications to QMS/EMS. Waiting on formal communication.

3. OCWA has appointed a new CEO and President - Alicia Fraser. No change required to QMS/EMS.

**Next Meeting:** June 22, 2022

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

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

**Subject:** Quarterly Operating Financial Status – 1<sup>st</sup> Quarter 2022

### RECOMMENDATION

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

### BACKGROUND

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

A high-level summary of incurred expenses and revenues for the water supply system is attached to this report as Appendix A for the first quarter 2022 (January 1 to March 31) 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 2021 and is reflective of contractual increases in service agreements with the operating authority and other contracted services. In the comparative period in 2021, the payment of an invoice was delayed and reported in the second quarter, artificially making the payables look lower than normal.
- 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 reported energy cost was higher than the same period of the previous year largely due to the timing of the energy invoices received for the system. Energy savings resulting from the installation of the new high lift pumps at the water treatment plant and other energy-saving programs implemented have significantly contributed to the overall reduction in energy consumption for the system.
- Salaries, wages, and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2021 are attributed to annual salary adjustments, previous staff vacancies, additional costs as a result of the pandemic, and additional staff added in the 2022 budget.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, and office supplies. While the reported expenditures may be adjusted as part of the year-end process, accounting for 2022 and 2023 pre-payments and other cost accounting adjustments, the costs to date marginally higher than 2021 due to increased material, supply, and rental costs, as well as the timing of the payment of property taxes between the first and second quarter. In addition, the accounting of some computer software and services was changed and moved from “Vehicles and Equipment”.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers, and office equipment for administrative staff. First quarter 2022 expenditures are currently lower than 2021 largely due to a change in accounting and moving of some costs to “Administration and Other Expenses”.

- Purchased Services and Professional Fees largely relate to allowances for ad hoc professional consulting and legal services, security services, office lease, telephone charges, network and SCADA (Supervisory Control and Data Acquisition) maintenance, printing services, and pipeline locate costs. The increased cost when compared to the same period in 2021 is largely attributed to higher insurance premiums, and additional legal costs incurred by the water system related to the High-Pressure event as well as discussions related to the Joint Municipal Services Board and Municipal Services Corporation under the Municipal Act.
- Debt Principle and Interest payments occur twice per year; in the first and third quarter.
- Contributions to the Reserve Funds occur at the end of the fiscal year (fourth quarter) as part of the year-end process and in preparation for the year-end audit, where the actual contributions are the total remaining revenue in excess of expenditures. Accordingly, the amount of the anticipated contribution will be adjusted to reflect the additional revenue and expenses incurred and may be subject to further adjustment as a result of the completion of the year-end financial statements and audit.

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

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

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

**Attachments:** Operating Financial Status Summary – 1<sup>st</sup> Quarter 2022

## Quarterly Financial Summary Report

Elgin Area Water Supply system  
1st Quarter 2022 (January 1 to March 31)  
(\$,000's)

	Approved 2022 Budget	Q1 - 2022	2022 Year to Date	Year To Date Variance	2021 Year To Date
<b>Total Revenue</b>	<b>14,765</b>	2,519	2,519	12,246	2,105
<u>Expenditures:</u>					
Contracted Operating Services	4,684	1,010	1,010	3,674	652
Contracted Administrative Services	183	46	46	137	45
Electricity	1,050	186	186	864	98
Salaries, Wages, Benefits	961	145	145	816	173
Administration and Other Expenditures	522	224	224	298	113
Vehicles and Equipment	74	11	11	63	27
Purchased Services & Professional Fees	996	235	235	761	135
Debt Principle Payments	2,338	1,153	1,153	1,185	1,131
Interest on Long-Term Debt	186	97	97	89	126
Contributions to Reserve Funds	3,771	0	0	3,771	0
<b>Total Expenditures</b>	<b>14,765</b>	<b>3,107</b>	<b>3,107</b>	<b>11,658</b>	<b>2,500</b>

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

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

**Subject:** Elgin Area Treatment and Transmission Assets – State of the Infrastructure Report

### RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information regarding the state of the infrastructure of Elgin Area treatment and transmission assets.

### PREVIOUS AND RELATED REPORTS

December 3, 2020 Asset Management Maturity Assessment and Roadmap

March 4, 2021 Asset Management – Roadmap and Plan Update

October 7, 2021 Asset Management Policy and Asset Management Plan Update

March 3, 2022 Asset Management Plan – Levels of Service Framework

### BACKGROUND

At the March 4, 2021 Board meeting, Board staff reported on the finalization of the Asset Management Maturity Assessment and Roadmap (AM Roadmap) and the Board authorized the execution of a consulting services agreement for the completion of the Asset Management Plan update. Further, a key recommendation of the AM Roadmap was the development of an Asset Management Policy, which the Board subsequently approved at its meeting on October 7, 2021.

As part of the Asset Management Plan (AMP) update, a section on the current state of our treatment and transmission infrastructure was developed. The state of the infrastructure (SOTI) report is a high-level snapshot of the condition of our various assets by process area, providing insight into the overall status of the utility, and is a tool to help inform the ongoing maintenance and future investment planning and decision making.

The guiding principles from the Asset Management Policy as related to the SOTI report include:

**Long-Term Sustainability and Resiliency:** Planning for the long-term, while integrating social, environmental, and financial considerations and constraints.

**Fiscal Responsibility and Asset Management Decision-Making:** Making the best use of available funds to deliver services.

**Transparency:** Making infrastructure decisions using an open and transparent process, the utility shall be data-driven and evidence-based.

## DISCUSSION

Being the initial State of the Infrastructure (SOTI) report, the information contained herein represents the baseline status of our water treatment and transmission assets as obtained through the ongoing Asset Management Plan (AMP) process. Going forward, it is the intention of Board staff to present SOTI reports to the Board on an annual basis, providing an incremental snapshot each year on improvements gained and areas where greater focus may be required. Those future reports are envisioned to be expanded to include our levels of service report card (performance compared to targets) and the identification of barriers to optimal performance (asset risk) to provide an overall assessment of the state of our infrastructure.

The following topics are discussed in this initial SOTI report and are further illustrated in the Charts in **Appendix A** attached to this report:

- Asset condition
- Asset performance
- Asset remaining useful life
- Asset replacement value

Where known, we will identify limitations in the asset data evaluation and indicate our planned approach to improve the quality, accuracy, and reliability of our asset data.

The utility has a combination of over 3,100 individual and grouped assets registered within the asset registry, which are assessed and categorized across ten process areas. The overall assessment of the state of the infrastructure is based on all four of these indicators, in combination. A lower rating in any one factor does not necessarily denote the imminent failure of the system. risks due to poor operational practices, or ineffective investment strategies.

### Asset Condition

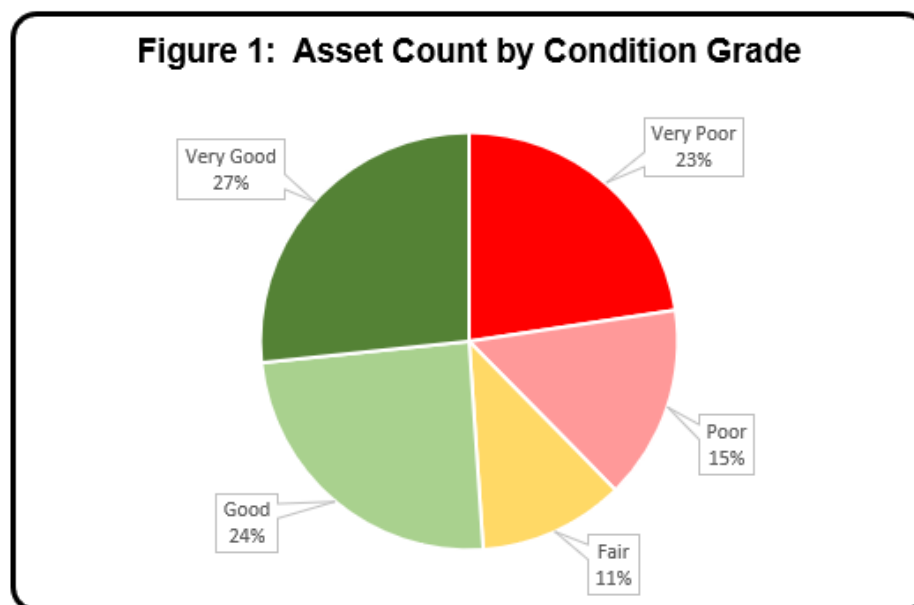
For the purposes of asset condition evaluation, the straight-line deterioration method was utilized for this initial report. Straight-line deterioration is most useful when an asset's condition is assumed to deteriorate uniformly over time.

For this state of the infrastructure assessment the following condition rating scale was used to determine our age-related condition grades:

Table 1: Asset Condition Ratings based on Straight-Line Deterioration				
Remaining Useful Life			Condition Rating	Condition Grade
80%	-	100%	1	Very Good
60%	-	80%	2	Good
40%	-	60%	3	Fair
20%	-	40%	4	Poor
0%	-	20%	5	Very Poor

It is important to note that age-based asset condition assessment is an indicator of risk, and not the ability of the asset to function as intended. An asset that is 50 years old but generally lasts 100 years is expected to be in “fair” condition. In future, this assessment will be further refined as data limitations are addressed and information obtained from the newly implemented Computerized Maintenance Management System is further integrated into the assessment process.

When assessed on an overall basis, the utility has a 2022 asset condition profile as follows:



*Asset condition grading is presented by process area in Chart 1 of Appendix A*

The summarized age-related assessment in Figure 1 indicates that 23% of the assets are considered “Very Poor”; however, this is solely based on the assets having less than 20% of their expected useful life remaining. This can be typical for a utility of our age when based on



age-related condition assessments. In addition, an assumption which can also skew this “very poor condition count is historical installation records, where in the absence of detailed records we need to assume that the asset is original to the plant construction. As demonstrated in the performance section below, collectively the treatment and transmission assets continue to perform at a high level despite age-related risks.

**Data Limitation:** In the absence of recent visual condition and accurate quantifiable assessments of the assets, age-based desktop evaluations are a common practice for asset replacement forecasting, but this is an estimate of the current condition and might not reflect an asset’s actual condition. Properly operated and well-maintained assets can have a higher asset condition grade than the age-based scoring might suggest.

### Asset Performance

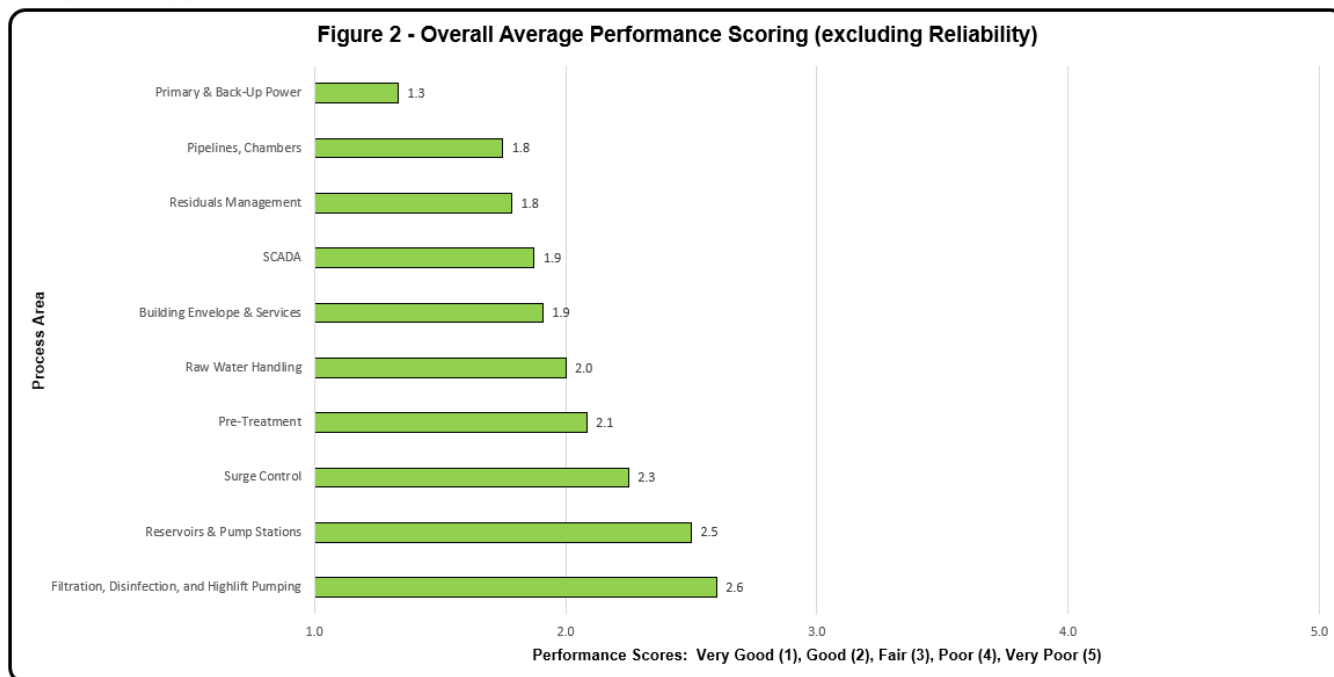
Asset performance is a measure of how well an asset is performing as part of its current operational function, and is assessed independently of other factors (e.g. age-related risks). Performance can be observed through both the contracted operating authority’s operating and maintenance (O&M) activities (qualitative), and/or measured with meters, sensors, testing, etc. (quantitative).

In preparing this SOTI report, Board and the Ontario Clean Water Agency (OCWA) staff undertook a workshop to discuss our various asset groups and process systems and established qualitative performance grades for the various processes and systems based on our collective knowledge, experience, and history with the EAPWSS (Elgin Area Primary Water Supply System). The three performance categories considered, with scoring assigned on a 1 (Very Good) to 5 (Very Poor) scale, were as follows:

1. **Reliability\*** – Frequency and duration of systems being out of service and unavailable for operational use
2. **O&M Intervention Requirement** – Frequency of intervention to facilitate asset repairs & replacements
3. **Performance Insight** – Observed performance of the process system’s collective assets

*\* The Reliability category scored 100% across each process area and has been omitted from the qualitative performance grade presented in this report as it was not a distinguishing performance metric.*

The Reliability scores reflect the redundancy and current excess capacity built into the utility’s treatment and transmission process assets. Should redundancy and/or excess capacity diminish with increased future demand, reliability scoring may be affected. Overall, based on our qualitative assessment of the performance categories our collective system assets are performing in the upper Fair to Very Good range.



*Asset performance scoring is presented by process area and performance category in Chart 2 of Appendix A*

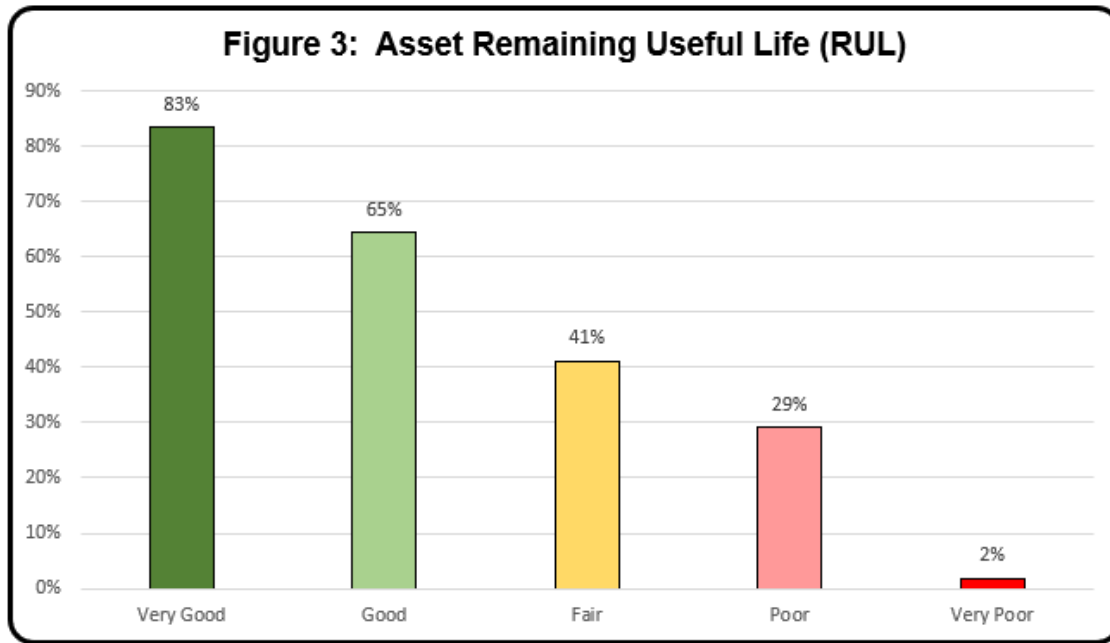
**Data Limitation:** To date, a documented system-wide asset performance scoring program (qualitative and quantitative) has not been developed or implemented. Currently the water system tracks regulatory and permit requirements, undertakes asset testing on an as-needed basis, and uses anecdotal accounts (qualitative observations) from operations and maintenance staff to understand how the system is performing.

### Asset Remaining Useful Life

An asset's remaining useful life is determined by subtracting the asset age from the asset expected useful life. Asset age is based on the asset installation date; and where an asset is known to have been rehabilitated since original installation the age is adjusted accordingly. The expected useful life of various assets is taken from values established through the AMP update.

Asset remaining useful life (RUL) as illustrated in Figure 3 reflects the average of all assets within the respective condition grades (see Table 1) and is expressed as a percent of the number of years of an assets expected useful life. These RUL percentages will continuously fluctuate over time as assets age (decrease in condition), are renewed, replaced, or rehabilitated (increase in condition), and/or have their condition reevaluated as part of a design report, study, or assessment.

Overall, the utility has a 2022 asset remaining useful life profile based on asset condition as follows:



*Asset remaining useful life is presented by process area in Chart 3 of Appendix A*

Data Limitation: Asset age is dependent on reliable and accurate historical installation records being available, as well as a clear understanding of how renewals and reinvestments extend useful life. Where no installation date for an asset has been documented, the asset age was assumed to be consistent with the plant's original construction. While this assumption may be reasonably correct (at least in part), but for those assets which it is not the asset age would be incorrect and thus can mis-represent and skew the data accordingly.

### Asset Replacement Value

Overall, the utility has a 2022 asset replacement value of approximately \$185 million compared to \$149 million estimated in 2016.

Asset replacement value is the total dollar value of our assets based on the estimated asset replacement costs in current dollars. For the AMP update purposes these values have been established by inflating the 2016 AMP replacement values to 2022 dollars utilizing the Bank of Canada inflation calculator. Current pandemic-related market conditions were not included in the assessment. Where an asset is new or has been replaced since the 2016 AMP, the current estimated replacement cost has been applied.

Our asset replacement value profile based on asset condition is as follows:

<b>Table 2: Asset Valuation (2022 Dollars)</b>					
<b>Asset Condition:</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>
<b>Asset Value (\$M):</b>	\$76.3	\$15.5	\$55.5	\$30.4	\$7.0

Asset valuation is presented by process area in Charts 4a & 4b of Appendix A

Data Limitation: Applying year-over-year annual inflation (Consumer Price Index) to historical dollar values is an accepted practice for macro-level assessments; however, given the specific nature of our utility and assets, this may not accurately reflect the true cost of the assets if they were to be procured and/or constructed in the current market. Any number of real-time societal and market variables such as financial, technology, raw materials and resource availability, location, fuel, labour, etc. can result in fluctuations in actual market prices.

#### Managing and Mitigating our Data Limitations

Managing and mitigating data limitations is integral to maintaining a current asset registry and ensuring the accuracy and reliability of our asset data. High-quality, current, accurate, and reliable asset data is key to investment planning and decision making.

Key Outcome #2 from 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 planned approach by Board staff to managing and mitigating asset information data limitations includes but is not limited to the following:

1. Develop a program(s) to independently and periodically field-verify asset conditions and establish current replacement costs;
2. Implement enhancements to the computerized maintenance management system to track and document relevant asset data; and,
3. Develop an asset performance scoring program in conjunction with OCWA and begin to track performance.

## CONCLUSION

This initial state of the infrastructure report provides the baseline condition, performance, remaining useful life, and current replacement value of our treatment and transmission assets based on the findings of the ongoing 2022 Asset Management Plan update.

Year-over-year changes to the state of the infrastructure are anticipated to be reported annually and future reports are envisioned to be expanded to include system highlights, funding considerations, our levels of service report card (performance compared to targets), and barriers to operational performance (asset risk) which, collectively, is intended to present the overall state of our infrastructure for the water system. The objective of state of the infrastructure reporting is to inform and support investment planning and decision making.

While data limitations have been identified through the Asset Management Plan update, Board staff endeavor to implement measures to manage and mitigate those limitations and improve the accuracy and reliability of our asset information data.

This report was prepared with the assistance of Dillon Consulting Limited.

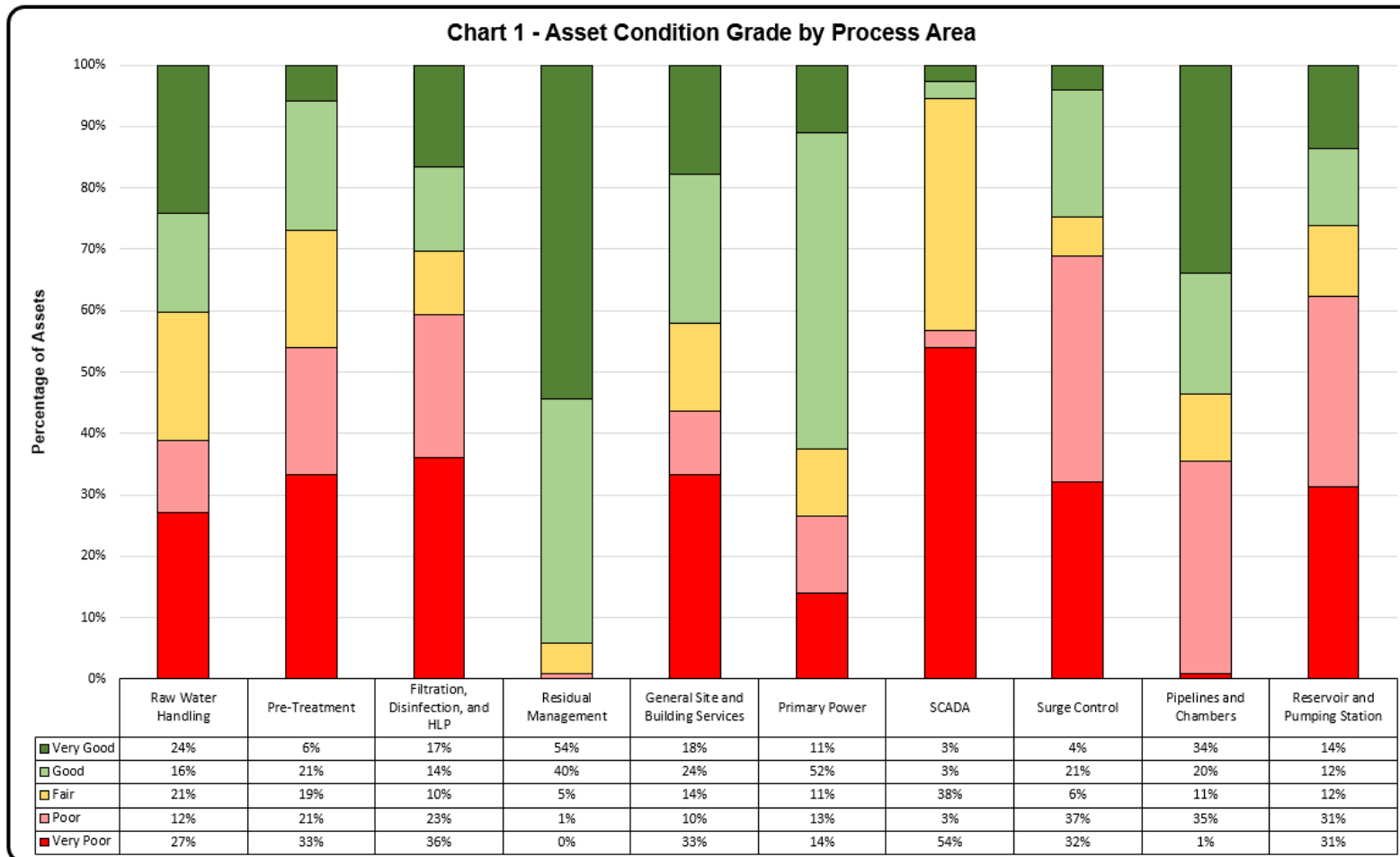
**Prepared by:** Ryan Armstrong, C.E.T.  
Asset Management Coordinator

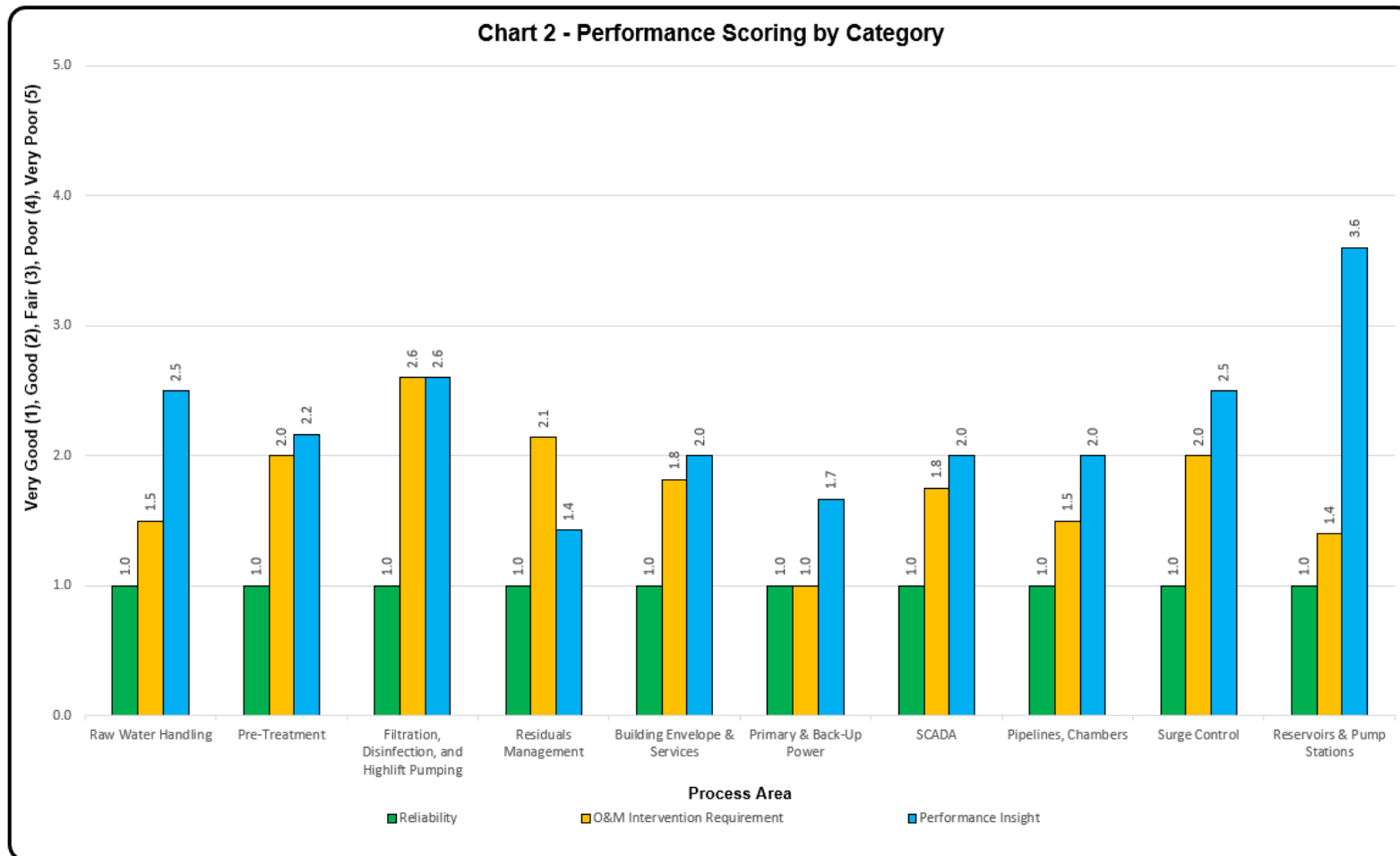
**Submitted by:** Billy Haklander, P. Eng. LL.M.  
Capital Programs Manager

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

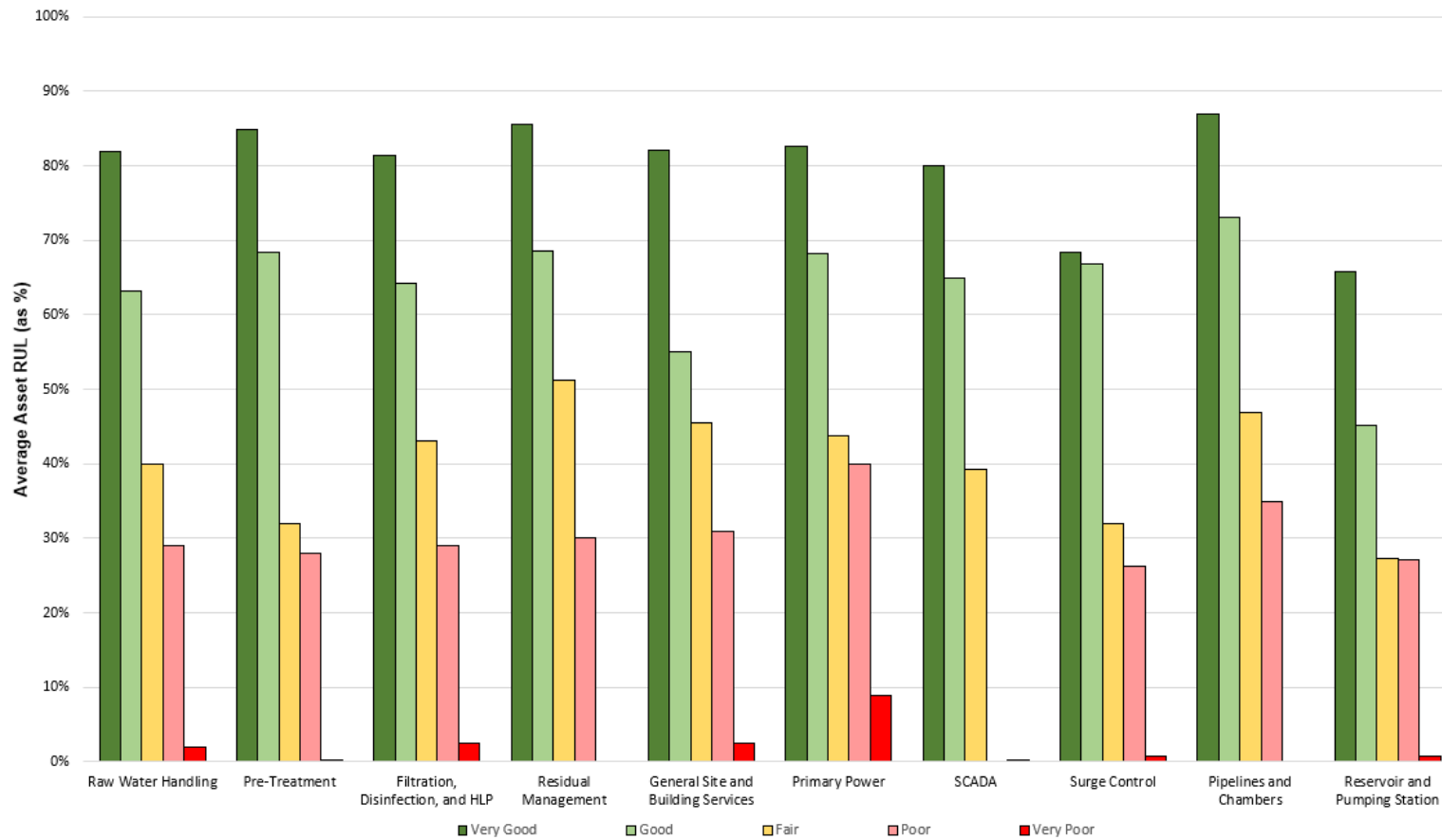
**Attachments:** Appendix A – State of the Infrastructure Charts by Process Area

## APPENDIX A: STATE OF THE INFRASTRUCTURE CHARTS BY PROCESS AREA



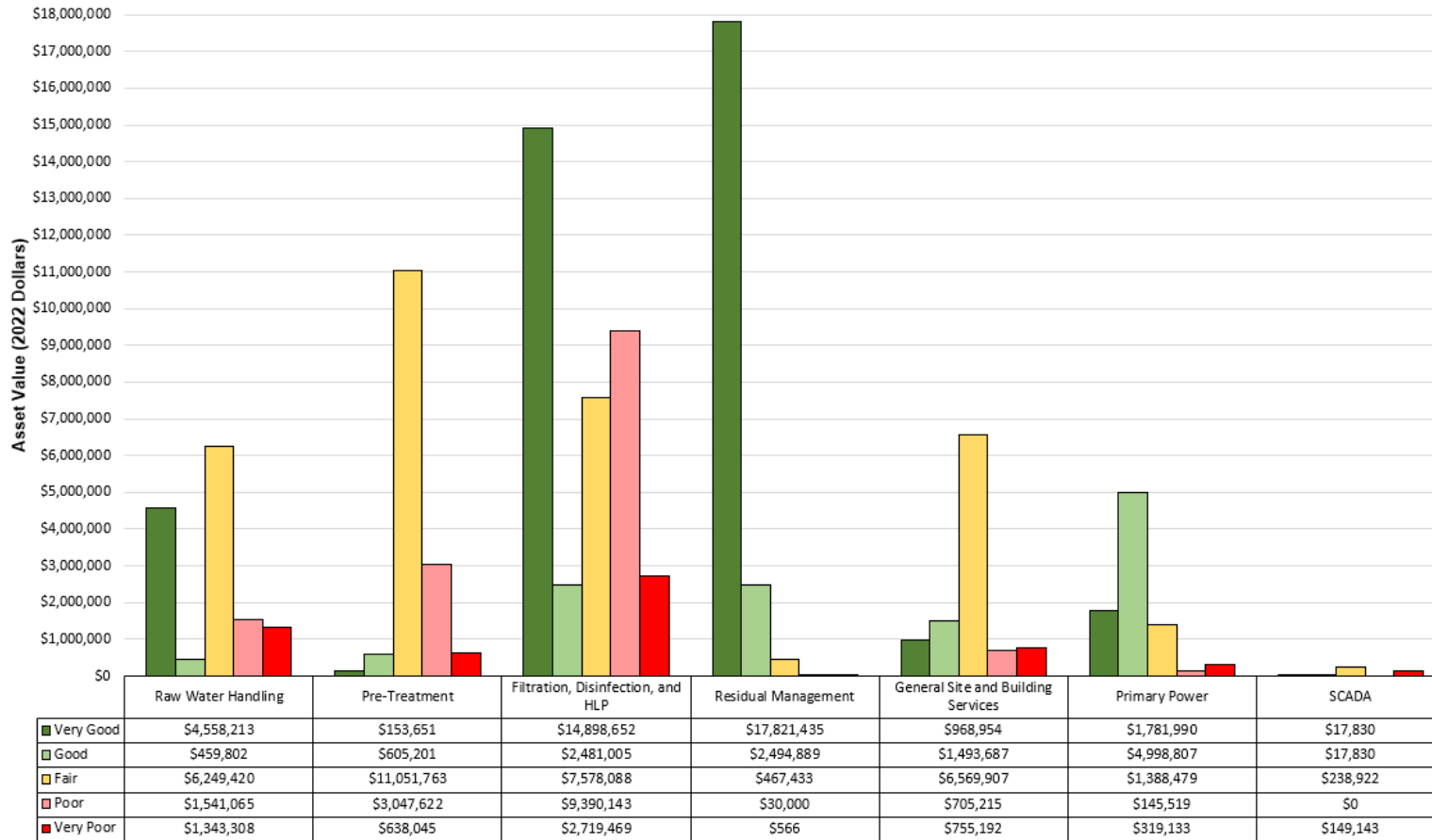


**Chart 3 - Average Asset Remaining Useful Life (RUL)**

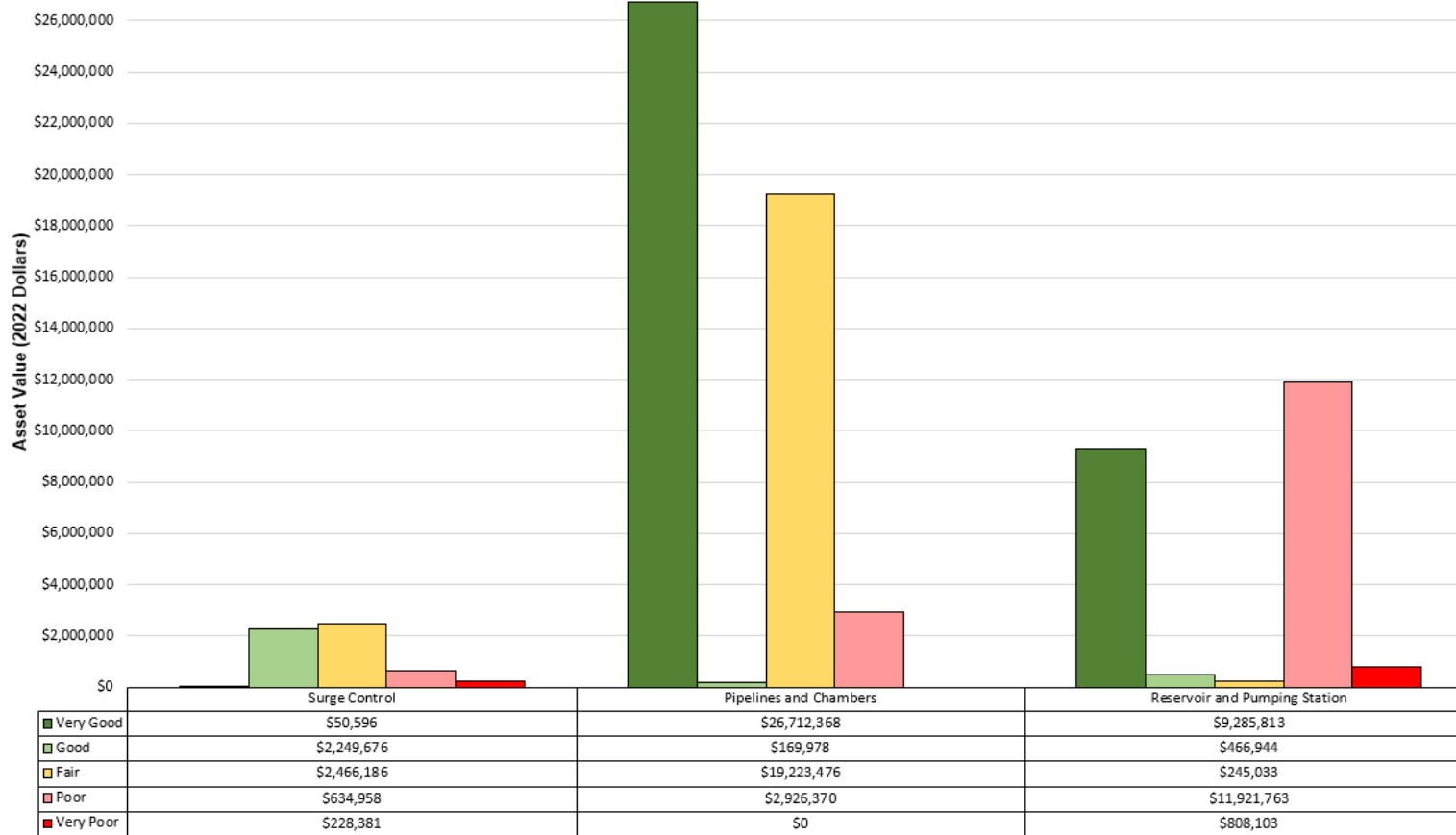




**Chart 4a - Collective Asset Valuation by Asset Condition (Treatment Assets)**



**Chart 4b - Collective Asset Valuation by Asset Condition (Transmission Assets)**



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

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

**Subject:** 2021 Audited Financial Statement and Auditors Report

### RECOMMENDATION

That the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE AND ACCEPT** the 2021 Audited Financial Statement and Auditor's Report for the Elgin Area Primary Water Supply System.

### DISCUSSION

On an annual basis, the finances and financial statements for the Elgin Area Primary Water Supply System are audited by a financial auditor, acquired in partnership with the City of London in its capacity as Administering Municipality for the water system. The draft audited financial statements have been provided to the benefiting municipalities, as well as the reconciled volumes supplied to each municipality, to allow the municipalities to complete their respective financial audits and statements.

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

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

**Attachments:** 2021 Audited Financial Statements, Elgin Area Water Supply System

## INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Elgin Area Primary Water Supply System

### ***Opinion***

We have audited the financial statements of Elgin Area Primary Water Supply System (the "Entity"), which comprise:

- the statement of financial position as at December 31, 2021
- the statement of operations and accumulated surplus for the year then ended
- the statement of changes in net financial assets (debt) for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at December 31, 2021, and its results of operations, its changes in net financial assets (debt) and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

### ***Basis for Opinion***

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "Auditors' Responsibilities for the Audit of the Financial Statements" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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

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

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

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

## ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants, Licensed Public Accountants

London, Canada

Date

Financial Statements of

**ELGIN AREA PRIMARY WATER SUPPLY  
SYSTEM**

And Independent Auditors' Report thereon

December 31, 2021

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Statement of Financial Position**  
**December 31, 2021, with comparative information for 2020**

	2021	2020
<b>Financial assets</b>		
Due from the Corporation of the City of London (note 3)	\$ 13,473,990	\$ 10,030,838
Trade and other receivables	759,334	1,117,550
Loan receivable (note 4)	154,588	181,013
<b>Total financial assets</b>	<b>14,387,912</b>	<b>11,329,401</b>
<b>Financial liabilities</b>		
Accounts payable and accrued liabilities	954,628	835,863
Accrued interest on long-term debt	59,998	75,672
Long-term debt (note 5)	7,641,188	9,898,522
<b>Total financial liabilities</b>	<b>8,655,814</b>	<b>10,810,057</b>
<b>Net financial assets</b>	<b>5,732,098</b>	<b>519,344</b>
<b>Non-financial assets</b>		
Tangible capital assets (note 6)	64,351,174	66,840,118
Prepaid expenses	192,993	124,347
<b>Total non-financial assets</b>	<b>64,544,167</b>	<b>66,964,465</b>
<b>Accumulated surplus (note 7)</b>	<b>\$ 70,276,265</b>	<b>\$ 67,483,809</b>

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

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Operations****Year ended December 31, 2021, with comparative information for 2020**

	<b>Budget</b>	<b>2021</b>	<b>2020</b>
	(note 9)		
<b>Revenues</b>			
User charges	\$ 13,977,000	\$ <b>14,339,882</b>	\$ 13,807,636
Investment income	85,000	<b>207,725</b>	245,059
Other	531,040	<b>557,466</b>	22,834
<b>Total revenues</b>	<b>14,593,040</b>	<b>15,105,073</b>	<b>14,075,529</b>
<b>Expenses</b>			
Salaries, wages and fringe benefits	754,150	<b>813,024</b>	707,885
Materials and supplies	5,946,100	<b>6,448,934</b>	6,758,652
Contracted services	1,083,462	<b>1,043,618</b>	589,890
Rents and financial expenses	70,800	<b>56,844</b>	68,687
Interest on long-term debt (note 5)	238,563	<b>238,563</b>	291,196
Amortization of tangible capital assets (note 6)	3,531,538	<b>3,531,538</b>	3,487,572
Administrative charges to the Corporation of the City of London	180,100	<b>180,096</b>	170,222
<b>Total expenses</b>	<b>11,804,713</b>	<b>12,312,617</b>	<b>12,074,104</b>
<b>Annual surplus</b>	<b>2,788,327</b>	<b>2,792,456</b>	<b>2,001,425</b>
<b>Accumulated surplus, beginning of year (note 7)</b>	<b>67,483,809</b>	<b>67,483,809</b>	<b>65,482,384</b>
<b>Accumulated surplus, end of year (note 7)</b>	<b>\$ 70,272,136</b>	<b>\$ 70,276,265</b>	<b>\$ 67,483,809</b>

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



**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Change in Net Financial Assets****Year ended December 31, 2021, with comparative information for 2020**

	<b>Budget</b>	<b>2021</b>	<b>2020</b>
Annual surplus	\$ 2,788,327	\$ <b>2,792,456</b>	\$ 2,001,425
Acquisition of tangible capital assets	(717,339)	<b>(1,042,594)</b>	(3,627,900)
Amortization of tangible capital assets	3,531,538	<b>3,531,538</b>	3,487,572
	5,602,526	<b>5,281,400</b>	1,861,097
Change in prepaid expenses	-	<b>(68,646)</b>	(8,261)
<b>Change in net financial assets (debt)</b>	5,602,526	<b>5,212,754</b>	1,852,836
<b>Net financial assets (debt), beginning of year</b>	519,344	<b>519,344</b>	(1,333,492)
<b>Net financial assets, end of year</b>	\$ 6,121,870	\$ <b>5,732,098</b>	\$ 519,344

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

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Cash Flows**

Year ended December 31, 2021, with comparative information for 2020

	2021	2020
<b>Cash provided by (used in)</b>		
<b>Operating activities</b>		
Annual surplus	\$ 2,792,456	\$ 2,001,425
<b>Items not involving cash</b>		
Amortization of tangible capital assets	3,531,538	3,487,572
Amortization of debenture discount	15,178	15,178
<b>Change in non-cash assets and liabilities</b>		
Due from the Corporation of the City of London	(3,443,152)	582,536
Prepaid expenses	(68,646)	(8,261)
Trade and other receivables	358,216	(28,363)
Accounts payable and accrued liabilities	118,765	(210,127)
Accrued interest on long-term debt	(15,674)	(13,611)
<b>Net change in cash from operating activities</b>	<b>3,288,681</b>	<b>5,826,349</b>
<b>Capital activities</b>		
Purchase of tangible capital assets	(1,042,594)	(3,627,900)
<b>Net change in cash from capital activities</b>	<b>(1,042,594)</b>	<b>(3,627,900)</b>
<b>Financing activities</b>		
Long-term debt repayments	(2,272,512)	(2,223,979)
Loan receivable	26,425	25,530
<b>Net change in cash from financing activities</b>	<b>(2,246,087)</b>	<b>(2,198,449)</b>
<b>Net change in cash flows and cash, end of year</b>	<b>\$ -</b>	<b>\$ -</b>

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

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements**  
**Year ended December 31, 2021**

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**1. Nature of Reporting Entity**

The Ontario Water Resources Commission (the "Commission") of the Province of Ontario constructed, owned and operated a water treatment plant on Lake Erie and pipeline to the City of St. Thomas and the Ford Talbotville Assembly Plant on or about 1967. The Ministry of the Environment (the "Ministry") was created in about 1973 and assumed all operations and activities of the Commission. In or about 1991, operational related activities (water and wastewater systems) of the Ministry were transferred to the Ontario Clean Water Agency, a Crown corporation of the Province of Ontario. In accordance with agreements with the associated municipalities, the Ministry extended pipelines to the present communities of Port Burwell, Port Stanley, and Southwold, and in 1996 to the City of London and the Town of Aylmer.

In accordance with the *Municipal Water and Sewage Systems Transfer Act*, 1997, the final Transfer Order for Elgin Area Primary Water Supply System (the "Entity") was effective on November 29, 2000.

Under the transfer order, the works, properties and all assets, liabilities, rights and obligations of the system were transferred jointly to The Corporation of the City of London, The Corporation of the Town of Aylmer, The Corporation of the Municipality of Bayham, The Corporation of the Municipality of Central Elgin, The Corporation of the Township of Malahide, The Corporation of the Township of Southwold and The Corporation of the City of St. Thomas. The Corporation of the City of London (the "Corporation") was named as the administering municipality. The Corporation of the Municipality of Dutton Dunwich joined the joint board of management in 2018. The appointment and voting structure was approved in the December 2019 board meeting.

The transfer order established a joint board of management to govern the management of the water supply system. The joint board of management is comprised of seven members appointed by the respective councils of participating municipalities. The Board composition is as follows:

<b>Municipality</b>	<b>Members</b>	<b>Votes</b>
The Corporation of the City of London	3	3
The Corporation of the City of St. Thomas	2	2
The Corporations of the Township of Southwold and the Municipality of Central Elgin and the Municipality of Dutton Dunwich (acting jointly)	1	1
The Corporations of the Municipality of Bayham, Township of Malahide and Town of Aylmer (acting jointly)	1	1

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

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**2. Significant Accounting Policies**

The financial statements of the Entity are prepared by management in accordance with Canadian generally accepted accounting principles as defined in the CPA Canada Public Sector Handbook - Accounting. Significant accounting policies are as follows:

**(a) Accrual Accounting**

Sources of financing and expenses are reported on the accrual basis of accounting.

**(b) Non-financial Assets**

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

**(i) Tangible capital assets**

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

<b>Asset</b>	<b>Useful Life - Years</b>
Buildings and building improvements	15 – 40
Vehicles	5 – 15
Machinery and equipment	7 – 20
Water infrastructure	10 – 60
Computers	3

Annual amortization is charged in the year of acquisition and in the year of disposal using the half year rule. Assets under construction are not amortized until the asset is available for productive use.

**(ii) Interest Capitalization**

The interest costs associated with the acquisition or construction of a tangible capital asset are not capitalized.

**(c) Revenue Recognition**

The Entity recognizes revenue when water is drawn by each customer, collection of the relevant receivable is probable, persuasive evidence of an arrangement exists and the sales price is fixed or determinable.

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

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**2. Significant Accounting Policies (continued)**

**(d) Government Transfers**

Government transfer payments to the Entity are recognized in the financial statements in the year in which the payment is authorized and the events giving rise to the transfer occur, performance criteria are met, and a reasonable estimate of the amount can be made. Funding that is stipulated to be used for specific purposes is only recognized as revenue in the fiscal year that the related expenses are incurred or services performance. If funding is received for which the related expenses have not yet been incurred or services performed, these amounts are recorded as a liability at year end.

**(e) Use of Estimates**

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Significant items subject to such estimates and assumptions include the valuation allowances for receivables and useful lives assigned to tangible capital assets.

Actual results could differ from those estimates.

**(f) Budget Figures**

Budget figures have been provided for comparison purposes. Given differences between the budgeting model and generally accepted accounting principles established by the Public Sector Accounting Board ("PSAB"), certain budgeted amounts have been reclassified to reflect the presentation adopted under PSAB.

**(g) Liability for Contaminated Sites**

Under PS 3260, liability for contaminated sites are defined as the result of contamination being introduced in air, soil, water or sediment of a chemical, organic, or radioactive material or live organism that exceeds an environmental standard. This Standard relates to sites that are not in productive use and sites in productive use where an unexpected event resulted in contamination.

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

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**2. Significant Accounting Policies (continued)**

**(h) Related Party Disclosures**

Related parties exist when one party has the ability to control or has shared control over another party. Individuals that are key management personnel or close family members may also be related parties.

Disclosure is made when the transactions or events between related parties occur at a value different from what would have been recorded if they were not related and the transactions could have a material financial impact on the consolidated financial statements.

**(i) Inter-entity Transactions**

Transactions between related parties are recorded at carrying amounts with the exception of the following:

- Transactions in the normal course of business are recorded at exchange amount.
- Transactions with fair value consideration are recorded at exchange amount.
- Transfer of an asset or liability at nominal or no consideration is recorded by the provider at carrying amount and the recipient has the choice of either carrying amount or fair value.
- Cost allocations are reported using the exchange amount and revenues and expenses are reported on a gross basis.
- Unallocated costs for the provision of goods or services maybe recorded by the provider at cost, fair value or another amount dictated by policy, accountability structure or budget practice.

**3. Due from the Corporation of the City of London**

As the Administering Municipality, the Corporation manages the daily operations of the Entity. The Corporation maintains a separate general ledger on behalf of the Entity. All funds are paid and received through the Corporation's bank account and held for use by the Entity.

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

**4. Loan Receivable**

	2021	2020
Buy-in Charge Loan - Municipality of Dutton Dunwich	\$ 154,588	\$ 181,013
Interest Earned on Loan at prime rate less 1.53%	\$ 1,576	\$ 2,470

Effective January 1, 2018, the Municipality of Dutton Dunwich entered into a four-party water supply agreement with the Township of Southwold, the St. Thomas Secondary Water Supply System, and the Elgin Area Water Primary Supply System resulting in a buy-in charge of \$252,000. Dutton Dunwich has requested and the Entity has consented to payment of this buy-in charge over a 10 year term bearing interest on the outstanding amount. During the year, \$26,425 was received as payment on the loan. This loan is paid quarterly and will mature in December 2027.

**5. Long-term Debt**

Long-term debt is stated as follows:

	2021	2020
Long-term debt assumed by the Corporation of the City of London, as Administering Municipality, on behalf of the Elgin Area Primary Water Supply System, with semi-annual interest payments:		
at rates ranging from 3.05% to 3.20% (2020 - 2.90% to 3.20%), maturing September 2022.	\$ 1,170,450	\$ 2,312,400
at rates ranging from 1.70% to 2.70% (2020 - 1.50% to 2.70%), maturing March 2026.	3,677,592	4,369,296
at rates ranging from 1.80% to 2.85% (2020 - 1.55% to 2.85%), maturing March 2027.	2,838,682	3,277,540
<b>Total long-term debt</b>	<b>7,686,724</b>	<b>9,959,236</b>
Less: Unamortized debenture discount	(45,536)	(60,714)
<b>Net long-term debt</b>	<b>\$ 7,641,188</b>	<b>\$ 9,898,522</b>

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

**5. Long-term Debt (continued)**

The long-term debt repayment schedule is as follows:

2022	\$ 2,323,163
2023	1,176,125
2024	1,201,240
2025	1,227,615
2026	1,255,362
2027 and beyond	503,219
<b>Total</b>	<b>\$ 7,686,724</b>

Total interest charges for the year for long-term debt, which are included in the statement of operations, are as follows:

	<b>2021</b>	<b>2020</b>
Interest on long-term debt	\$ 223,385	\$ 276,018
Amortization of debenture discount	15,178	15,178
	<b>\$ 238,563</b>	<b>\$ 291,196</b>



**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

**6. Tangible Capital Assets**

<b>Cost</b>	<b>Balance at December 31, 2020</b>	<b>Additions</b>	<b>Disposals</b>	<b>Balance at December 31, 2021</b>
Land	\$ 1,251,559	\$ -	\$ -	\$ 1,251,559
Buildings and building improvements	30,962,096	459,544	37,092	<b>31,384,548</b>
Machinery and equipment	32,130,137	463,235	393,796	<b>32,199,576</b>
Vehicles	11,527	-	-	<b>11,527</b>
Water infrastructure	25,699,667	-	44,976	<b>25,654,691</b>
Computers	327,602	168,679	89,732	<b>406,549</b>
Assets under construction	545,839	187,703	236,567	<b>496,975</b>
<b>Total</b>	<b>\$ 90,928,427</b>	<b>\$ 1,279,161</b>	<b>\$ 802,163</b>	<b>\$ 91,405,425</b>

<b>Accumulated Amortization</b>	<b>Balance at December 31, 2020</b>	<b>Amortization Expense</b>	<b>Amortization Disposals</b>	<b>Balance at December 31, 2021</b>
Land	\$ -	\$ -	\$ -	\$ -
Buildings and building improvements	8,494,944	989,462	37,092	<b>9,447,314</b>
Machinery and equipment	10,421,147	1,892,312	393,797	<b>11,919,662</b>
Vehicles	5,768	1,646	-	<b>7,414</b>
Water infrastructure	5,051,762	525,733	44,976	<b>5,532,519</b>
Computers	114,688	122,385	89,731	<b>147,342</b>
Assets under construction	-	-	-	-
<b>Total</b>	<b>\$ 24,088,309</b>	<b>\$ 3,531,538</b>	<b>\$ 565,596</b>	<b>\$ 27,054,251</b>

	<b>Net Book Value December 31, 2020</b>	<b>Net Book Value December 31, 2021</b>
Land	\$ 1,251,559	\$ 1,251,559
Buildings and building improvements	22,467,152	<b>21,937,234</b>
Machinery and equipment	21,708,990	<b>20,279,914</b>
Vehicles	5,759	<b>4,113</b>
Water infrastructure	20,647,905	<b>20,122,172</b>
Computers	212,914	<b>259,207</b>
Assets under construction	545,839	<b>496,975</b>
<b>Total</b>	<b>\$ 66,840,118</b>	<b>\$ 64,351,174</b>

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

**6. Tangible Capital Assets (continued)**

**(a) Assets Under Construction**

Assets under construction with a cost of **\$496,975** (2020 - \$545,839) have not been amortized. Amortization of these assets will commence when the asset is available for productive use.

**(b) Tangible Capital Assets Disclosed at Nominal Values**

Where an estimate of fair value could not be made, the tangible capital asset was recognized at a nominal value. Land is the only category where nominal values were assigned.

**(c) Write-down of Tangible Capital Assets**

There were **\$nil** write-downs in tangible capital assets during the year (2020 - \$nil).

**7. Accumulated Surplus**

Accumulated surplus consists of individual fund surplus and reserve funds as follows:

	2021	2020
<b>Surplus</b>		
Invested in tangible capital assets	\$ 56,761,115	\$ 56,975,226
<b>Reserve funds set aside for specific purpose by the Entity</b>		
Infrastructure renewal - water operations	13,515,150	10,508,583
	<b>\$ 70,276,265</b>	<b>\$ 67,483,809</b>

**8. Financial Instruments**

- (a) The carrying values of Due from the Corporation of the City of London, Trade accounts receivable and Accounts payable and accrued liabilities approximate their fair values due to the relatively short periods to maturity of the instruments.

The fair value of Long-term debt approximates its carrying value as interest rates are similar to current market rates of interest available to the Entity.

- (b) Financial Risks

The Entity is not exposed to any significant interest, foreign currency or credit risks arising from its financial instruments.

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

**9. Budget Data**

Budget data presented in these financial statements are based upon the 2021 operating budget approved by the joint board of management. Adjustments to budgeted values were required to provide comparative budget values based on the full accrual basis of accounting. The chart below reconciles the approved budget with the budget figures as presented in these financial statements.

	<b>Budget</b>
<b>Revenues</b>	
User charges	\$ 13,977,000
Municipal revenue - other	10,000
<b>Total revenues</b>	<b>13,987,000</b>
<b>Expenses</b>	
Personnel costs	740,900
Administrative expenses	35,850
Financial expenses - other	235,000
Financial expenses - interest and discount on long-term debt	238,564
Financial expenses - debt principal repayments	2,272,512
Financial expenses - transfers to reserves and reserve funds	4,360,974
Purchased services	451,600
Material and supplies	5,425,600
Furniture and equipment	45,900
Other expenses	180,100
<b>Total expenses</b>	<b>13,987,000</b>
<b>Net surplus as per budget</b>	<b>-</b>
<b>PSAB reporting requirements</b>	
Transfers to reserves and reserve funds	4,360,974
Debt principal repayments	2,272,512
Capital funding earned	527,040
Capital expenses not resulting in capital assets	(919,661)
Amortization	(3,531,538)
Reserve fund interest earned	79,000
<b>Net PSAB budget surplus as per financial statements</b>	<b>\$ 2,788,327</b>

**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**  
**Notes to Financial Statements (continued)**  
**Year ended December 31, 2021**

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**10. Impact of COVID-19 Pandemic**

Effective March 11, 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization and has had a significant financial, market and social dislocating impact.

At the time of approval of these financial statements, the Entity has experienced the following indicators of financial implications and undertaken the following activities in relation to the COVID-19 pandemic:

- Due to the temporary closure of non-essential business and restrictions in activities, consumption within the municipalities served by the water system has moderately declined
- Lower water demand volumes within the municipalities may result in lower expenditures
- The Regional Water Supply office has remained open but reduced their staffing compliment on premises from March 18, 2020 to the date of the auditors' report based on public health recommendations
- Implemented voluntary working from home strategy in service delivery
- Modifications to shift coverage and work-isolations to minimize risks to operating staff at the water treatment plants

The ultimate duration and magnitude of the COVID-19 pandemic's impact on the Entity's operations and financial position is not known at this time, although to date the impact has not been significant. These impacts could include a decline in future cash flows and changes to the value of assets and liabilities. Though management continues to make best efforts to forecast possible financial scenarios, an estimate of the future financial effect of the pandemic on the Entity is not practicable at this time.

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

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

**Subject:** Water System Operation - Contract Status Update

### RECOMMENDATION

That this report with respect to the status of the contract with the Ontario Clean Water Agency as the contracted operating authority BE RECEIVED for the information of the Elgin Area Primary Water Supply System Board of Management.

### PREVIOUS AND RELATED REPORTS<sup>1</sup>

October 7, 2021	Operations and Maintenance Services Agreement – Negotiation of Term Extension
June 3, 2021	Water System Operation - Contract Status Update
March 4, 2021	Operations and Maintenance Services Agreement – Negotiation of Term Extension
June 4, 2020	Water System Operation - Contract Status Update
June 6, 2019	Water System Operation - Contract Status Update
June 7, 2018	Water System Operation - Contract Status Update
June 8, 2017	Operations and Maintenance Services Agreement – Negotiation of Term Extension

### BACKGROUND

On January 19, 2012, the Board of Management for the Elgin Area Primary Water Supply System (EAPWSS), concurrently and jointly with the Board of Management for the Lake Huron Primary Water Supply System (LHPWSS), awarded the contract for the management, operation, and maintenance of both drinking water systems to the Ontario Clean Water Agency (OCWA). OCWA began operating the EAPWSS on July 1, 2012. The original contract with OCWA was for a five-year term, with a five-year optional extension.

On June 8, 2017, the Board Chair and Chief Administrative Officer (CAO) were authorized by the Board to execute the Operations and Maintenance Service Amending Agreement with OCWA to extend the term of the agreement for the additional five-year period. The Amending

<sup>1</sup> **Previous and Related Reports** listed for the most recent five years. Similar reports are available dating back to January 12, 2012.

Agreement for the second five-year term took effect on July 1, 2017, and the term ends on December 31, 2022. The Amending Agreement allowed for an additional five-year extension at the option of the Board.

On March 4, 2021, the Board authorized staff to negotiate the terms and conditions for a draft term extension agreement with OCWA for the allowable five-year period. On October 7, 2021, the Board approved the Amended and Restated Operations and Maintenance Services Agreement and authorized the Board Chair and the CAO to execute the agreement with OCWA. The Agreement has been executed and will be in effect for the period of January 1, 2023 to December 31, 2027.

## **DISCUSSION**

The service agreement with OCWA contains a considerable number of deliverables. This report does not attempt to cover the status of all deliverables, rather it provides an overview of some of the more notable administrative items.

### **General Contract Deliverables**

Under the service agreement, OCWA is required to provide several regular reports to Board staff, including:

- Monthly Operations and Maintenance Report
- Quarterly Contract Report
- Quarterly Water Quality Report
- Quarterly Financial Report
- Quarterly Health & Safety Activities Report

Board staff and OCWA currently meet monthly to review the day-to-day management, operations, and maintenance activities for the water supply system. The Board's CAO, Director, and the senior management of OCWA also meet quarterly to discuss any financial, contractual compliance and administrative-level issues. All the above noted reports and related meeting minutes are available from the Regional Water Supply office in London upon request.

### **Employee Retention Incentive**

Under the service agreement, OCWA is entitled to receive an annual employee retention incentive payment if all critical staff positions were filled, and staff turnover for these positions was no more than two persons during the calendar year. This incentive was included in the service agreement in order to ensure adequate numbers of critical staff were available and incur minimal turnover, which was a significant issue with the previous contracted operating authority.

In 2021, OCWA achieved these requirements for the EAPWSS and received the \$30,000 employee retention incentive payment.

### **Performance Incentive Payment**

At the end of each contract year, OCWA is entitled to receive a performance incentive payment of up to \$100,000, subject to any deductions outlined in the service agreement. Deductions could result from a number of specified issues, such as providing deficient or late reports, failure to meet emergency response requirements, failure to deal with complaints, failure to meet water quality performance criteria, etc. The performance incentive payment is intended to promote performance superior to minimum regulatory standards and best practices.

In 2021 there were no deductions to the incentive payment. In total OCWA received the full \$100,000 incentive payment for the EAPWSS.

The water quality performance criteria specified within the service agreement was met with two (2) exceptions. During the period September 10-18, 2021, the Elgin Area Water Treatment Plant (WTP) was experiencing a raw water event related to low dissolved oxygen and manganese. As a result of the poor incoming raw water quality, the filter turbidity and treated water turbidity performance criteria were not always met during this period. This raw water event was confirmed to be an “Uncontrollable Circumstance due to Abnormal Raw Water” as defined in section 4.3(d)(iii) of the service agreement. During follow-up review and investigation there was evidence that OCWA used best efforts in dealing with this event. Despite these best efforts, and due to treatment limitations at the WTP, the stringent water quality performance criteria was unable to be met. As such the event did not count against the potable water performance criteria.

A second raw water quality event occurred on October 6-7, 2021. Similarly, the filter turbidity performance criteria was not met for all filters during this period. This was deemed the only water quality performance failure in 2021. Therefore, there were no deductions from the incentive payment as this only applies if there have been two or more water quality performance failures.

It is important to note that all regulatory water quality requirements were met during these two raw water quality events.

### **Service Fee Adjustment**

The service agreement identifies projected annual treated water volumes throughout the contract term, upon which the annual service fee is based. At the end of each contract year, if the actual volume is greater than 105% or less than 95% of the projected volume, an adjustment is made to the service fee (either a credit or additional cost).

In 2021, the actual volume for the EAPWSS was 95.50% of the projected volume. This was within the accepted range therefore no adjustments to the service fee were required.

## CONCLUSION

Board staff will continue to work closely with the operating authority to monitor performance and ensure deliverables under the service agreement. Any contractual issues are discussed at the quarterly operations meetings between OCWA and Board staff.

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

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

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



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

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

**Subject:** Municipal Act – Board Structure

### RECOMMENDATION

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

### PREVIOUS AND RELATED REPORTS

March 5, 2020	Municipal Act – Board Structure
October 4, 2018	Municipal Act – Board Structure
December 1, 2018	Board Structure – Municipal Act
December 10, 2016	(Concurrent Meeting) Corporate Options for the Primary Water Supply System

### BACKGROUND

The ownership of the Elgin Area Primary Water Supply System was transferred from the Province of Ontario and the Board of Management established in 2000 in accordance with the Transfer Order issued by the Minister of the Environment under the Municipal Water and Sewage Systems Transfer Act, 1997. Because of the ambiguity of the Municipal Water and Sewage Systems Transfer Act and the subsequent Order, the legal status of the Board requires further clarification with specific regard to the Municipal Act and in relation to the collective powers of the benefitting municipalities of the water system.

Workshops were previously held with the benefitting municipalities in 2018 and 2020 which broadly outlined options to establish a Municipal Services Corporation or Municipal Services Board under the Municipal Act and largely focus on the legal implications related to risks/liabilities, as well as potential consequential financial implications to the municipalities. The workshops were co-hosted with the Lake Huron water supply system as the general information related to both systems

A Steering Committee was established with representatives from all fifteen municipalities benefiting from both the Lake Huron Water Supply System and the Elgin Area Water Supply System to review and address specific concerns and issues brought forward by the municipalities, as well as explore specific elements related to establishing the water systems as a Joint Municipal Services Board or a Municipal Services Corporation, as well as the legal and financial implications if the legal status of the existing Board is not addressed (i.e. “do nothing”).

## **DISCUSSION**

Between January 2021 and April 2022, the Steering Committee met on ten occasions to discuss details of the legal risks and issues that are recommended to be addressed through establishing the Board as either a Joint Municipal Services Board or a Municipal Services Corporation under the Municipal Act. The intent of the discussion was to determine if there was consensus among the benefiting municipalities of the Elgin Area Water Supply System in undertaking specific negotiations for an agreement with the objective of ensuring the legal status of the water system with certainty.

The Steering Committee's discussions ranged in topics from a review of the current legal ambiguities to the legal risks and liabilities to the municipalities with the current structure as well as implications of establishing either a Joint Municipal Services Board or Municipal Services Corporation. Without having details of a specific legal structure proposed for the water system, the financial implications of the three options (do nothing, Joint Municipal Services Board, or Municipal Corporation) were generally discussed.

In addition to the legal and financial risks and liabilities, potential additional opportunities were generally discussed including the opportunity for the municipalities to specifically clarify (and limit) the scope of service(s) of the water system, as well as enhancing the appointment process of Board Members and the overall structure of the Board of Management.

No specific structure or alteration was recommended to the Steering Committee; however, the intent of the discussions was to provide enough information to municipal representatives to afford them with a sense of whether they wished to proceed with specific negotiations to establish an agreement, and if they had a preferred direction.

As of April 20, 2022, the date of the most recent meeting of the Committee, the majority of municipalities benefiting from the Elgin Area Water System had expressed that they preferred to "do nothing" and keep the existing arrangement for the Elgin Area Water System and did not wish to pursue further discussions at this time. In doing so, the municipalities have accepted the current legal risks and liabilities of the existing legal ambiguity.

## **CONCLUSION**

The municipalities benefitting from the Elgin Area Water Supply System have indicated a preference to not alter the existing legal structure of the Elgin Area Water Supply System and its Board of Management at this time, and accept the risks associated with the legal ambiguity of the water system as established under the Municipal Water and Sewage Systems Act, 1997. Board staff will no longer pursue this issue with the Elgin benefiting municipalities until such time as the municipalities express a desire to reopen this issue and discuss it further.

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

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

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

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

**Subject:** Video Surveillance Policy

## RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Elgin Area Water Supply System **APPROVE** the Video Surveillance Policy as presented in this report.

## BACKGROUND

The Elgin Area Water Supply System has had closed circuit television cameras since before the transfer of ownership in 2000 from the province of Ontario. As part of the security upgrades and address risks identified in the (year) Security Audit, the CCTV system was recently replaced with a modern camera and monitoring system.

## DISCUSSION

In order to ensure public transparency and meet the obligations of the *Municipal Freedom of Information and Protection of Privacy Act*, the adoption of a video surveillance policy is necessary to clearly articulate the purpose and use of the system and identify clear responsibilities for the utilization of the system and monitoring of the surveillance program.

In consultation with the water system's solicitor, the Video Surveillance Policy attached to this report is recommended for approval by the Board of Management. Key elements of the policy are:

- Purpose:** The purpose of the CCTV surveillance system must be clear and may not be used for other purposes. In the case of the Elgin Area Water Supply System, the purpose of the surveillance program is to ensure the safety of staff and visitors, and for site security related to the treatment and supply of drinking water to the benefiting municipalities. Images and related information captured but the surveillance system may only be used for this purpose, as well as investigations and prosecutions under applicable law. Images and related information may not be used for the other unrelated purposes, such as disciplinary actions, that is not related to the purpose of the surveillance program.
- Access:** Access to the video surveillance system is restricted. Specific cameras may be utilized for operational purposes; however, access to recorded images is restricted to only authorized persons and only for purposes outlined in the

**Policy.** Stored images and recordings are encrypted and secured to prevent unauthorized access or copying.

**Notification:** Appropriate signage is located throughout the facility being monitored. Contact information is posted at a prominent location and on the water system's website, allowing the related parties to contact and obtain information on our surveillance program.

**Privacy:** The monitoring system and surveillance program is limited to respect a person's reasonable expectation to privacy. Image displays and recorded images are electronically restricted from recording images in nearby residential dwellings or any building not on the water system's property.

**Reporting:** The Board will receive periodic reports related to any disclosure and release of video images, including the purpose for which the images were disclosed.

The use of the video monitoring system and the Video Surveillance Policy will be periodically audited for compliance, including compliance with applicable law as amended.

## CONCLUSION

The proposed Video Surveillance Policy is recommended by Board staff for approval and adoption by regional water system to ensure compliance with the *Municipal Freedom of Information and Protection of Privacy Act*. The adoption of the policy also serves to publicly acknowledge the use of the camera system and an individual's right to reasonable privacy.

**Prepared by:** Lisa McVittie  
Manager, Regional Water Security

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

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

**Attachments:** Draft Video Surveillance Policy



## Closed Circuit Television Surveillance Policy

### 1. Introduction

- 1.1 The Elgin Area Water Supply System and its Board of Management ("Regional Water Supply") recognizes the need to strike a balance between an individual's right to privacy and the duty to promote and maintain a safe and secure environment for staff and visitors.
- 1.2 The use of closed-circuit television surveillance systems ("CCTV") results in the collection of personal information in the form of images and records of the conduct of individuals.
- 1.3 CCTV is used for the purposes ensuring the safety of staff and visitors to the Elgin Area Water Supply System, and site security related to drinking water treatment, drinking water transmission, drinking water storage, and drinking water distribution and related activities.
- 1.4 CCTV systems are employed by Regional Water Supply to record unlawful conduct and breaches of law. Information obtained from CCTV systems may also be used as an aid in an investigation.
- 1.5 The Regional Water Supply's monitoring of CCTV systems and the recording and use of images is in accordance with this policy, the *Municipal Freedom of Information and Protection of Privacy Act* ("MFIPPA"), and other applicable provincial legislation.

### 2. Purpose

- 2.1 The purpose of this policy is to:
  - 2.1.1 Regulate the installation and monitoring of CCTV systems and the recording of images on all properties owned and/or leased by Regional Water Supply including those properties that may be occupied by a contracted Operating Authority.
  - 2.1.2 Regulate the access and use of recordings by authorized persons.

- 2.1.3 Enhance public and staff safety in areas where safety and security may be at risk.
- 2.1.4 Prevent and deter crime, thereby protecting the supply of drinking water to benefiting municipalities and reducing the cost and impact of crime to the communities.
- 2.1.5 Protection of individuals including Regional Water Supply staff, visitors, and employees of the Operating Authority.
- 2.1.6 Protection of Regional Water Supply owned property and buildings, including building perimeters, entrances and exits, lobbies and corridors, receiving docks, critical control areas, hazardous areas and storage areas.
- 2.1.7 Identify criminal activity and dangerous events.
- 2.1.8 Identify suspects and assist in investigations and prosecutions.
- 2.1.9 Improve the allocation and deployment of security resources.
- 2.1.10 Verification of alarms and status of access control systems.
- 2.1.11 Monitor parking lots, including access and egress control.
- 2.1.12 Monitor the safety and security of operational areas of the water treatment plant and related facilities

### **3. Scope**

- 3.1 This program applies to all CCTV camera monitoring and camera recordings.
- 3.2 For the purpose of this policy, the environment monitored includes all Regional Water Supply lands and buildings, both at the water treatment facilities and any related off-site locations that are occupied in full or part including but not limited to pumping stations, monitoring stations, and reservoirs. This may include rented or leased properties by the Regional Water Supply.
- 3.3 The existence of this policy does not imply or guarantee that CCTV systems will be monitored in real time, or that all properties are monitored continuously.
- 3.4 All existing uses of video monitoring and recordings shall be brought into compliance with this policy within 12 months of the approval of this policy by the Board of Management.

#### 4. Definitions

- 4.1 **CCTV** – closed circuit television
- 4.2 **Camera** – a device that converts images into electrical signals for television transmission, video recording, or digital storage
- 4.3 **Designated Managers** – a manager of Regional Water Supply or the Operating Authority that has been authorized by the Security Manager to view CCTV recordings
- 4.4 **MFIPPA** – the *Municipal Freedom of Information and Protection of Privacy Act*
- 4.5 **Monitoring** – having access to view live video footage.
- 4.6 **Security Services** – The contracted Security guards and related security services.
- 4.7 **Security Manager** – The designated manager employed by Regional Water Supply having the responsibility for the security of the water system.
- 4.8 **Operating Authority** – The contracted operating authority for the Elgin Area Water Supply System
- 4.9 **RWS** – The Elgin Area Water Supply System (“Regional Water Supply”) including its Board of Management.

#### 5. Responsibilities

- 5.1 The Security Manager is responsible for the CCTV program, including ensuring proprietary CCTV systems comply with the terms and conditions of this policy.

##### 5.2 Security Services will:

- 5.2.1 Monitor all CCTV cameras and maintain a suitable monitoring station in a controlled, secured area with access restricted to only authorized persons.
- 5.2.2 Security Staff will log all incidents, Failures of equipment, and Technicians deployed to repair equipment.
- 5.2.3 Security Services will notify the Security Manager if they receive any requests for video searches, copies of video recordings, or to review any footage.
- 5.2.4 Security Services will view video surveillance in a professional, ethical and legal manner.



### **5.3 The Security Manager will:**

- 5.3.1 Ensure the appropriate installation, maintenance, utilization, and replacement of CCTV systems.
- 5.3.2 Ensure all CCTV cameras are recording all monitored activity.
- 5.3.3 Ensure the safe, secure and encrypted storage of all CCTV recordings.
- 5.3.4 Conduct a documented operational audit of the CCTV program at least annually which shall include an evaluation of the video surveillance program.
- 5.3.5 Ensure that cameras are electronically restricted from focusing through windows of a residential dwelling or any building not on RWS property where an individual has a reasonable expectation of privacy.
- 5.3.6 Ensure that all authorized persons who access recordings log all activities relating to such access, including the time and purpose, description of the circumstances justifying the disclosure, the amount of footage involved, the name, title and agency to whom the footage is being disclosed, the legal authority for the disclosure, the means used to disclose the footage and whether the footage will be returned or securely destroyed after use. and that a logbook will be maintained for this purpose.
- 5.3.7 Ensure that all persons who are involved in the installation, servicing, maintaining, monitoring, and recording of CCTV systems have signed an agreement regarding their duties and responsibilities under this policy and MFIPPA, including an undertaking that they will maintain confidentiality, both during and after their relationship with RWS ends ("Non-Disclosure Agreement").
- 5.3.8 Take all reasonable efforts to ensure the security of records in the control or custody of the Security Manager and ensure the safe and secure disposal of such records. Old storage devices will be disposed of in accordance with the applicable technology asset disposal processes, ensuring personal information is erased prior to disposal and cannot be retrieved or reconstructed. Disposal methods may include shredding, burning, or erasing depending on the type of storage device.

- 5.3.9 Ensure that all electronic recordings are kept in a secured location within a controlled-access area. The electronic storage of the recordings shall be controlled and restricted to be only accessible by authorized persons.
- 5.3.10 Ensure that appropriate signage is in place at all entrances to RWS Facilities advising of the use of CCTV cameras in clear, language-neutral graphical depiction of the use of video surveillance and providing contact information for the person responsible for the program is identified at each facility. This information will also be available on the RWS website.
- 5.3.11 Ensure all Security Services personnel monitoring the CCTV cameras are appropriately trained and supervised in the responsible use of cameras and recording equipment.
- 5.3.12 Manage the secure storage and tracking of all images including copied data recordings required for investigative/or evidence purposes.
- 5.3.13 Be responsible for the management and administration of the RWS CCTV systems, reporting annually to the Director of RWS.
- 5.3.14 Be responsible for the disclosure of all images.

## **6. Policy**

### **6.1 Installation**

- 6.1.1 All CCTV and related device installations must be approved by the Security Manager
- 6.1.2 CCTV cameras may be installed in publicly accessible areas of the RWS facilities, including parking lots, open outdoor areas, and walkways.
- 6.1.3 CCTV cameras may not be installed in areas where there is a reasonable expectation of privacy, including washrooms, locker rooms, change rooms and private offices.

### **6.2 Monitoring**

- 6.2.1 All video monitoring locations will be approved by the Director of Regional Water Supply.
- 6.2.2 Video monitoring shall be conducted in a professional, ethical, and legal manner by Security Services who have signed a Non-Disclosure Agreement.

- 6.2.3 The Operating Authority may be granted access by the Security Manager to view and monitor specific CCTV for operational purposes in order to maintain a safe and secure environment.
- 6.2.4 Security Services personnel involved in monitoring will be appropriately trained and supervised in the lawful and responsible use of this technology and this Policy.
- 6.2.5 Monitoring shall be limited to uses that do not violate a person's reasonable expectation to privacy.

### **6.3 Securing and Retaining Image**

- 6.3.1 Recordings which have not been retained for investigation, law enforcement, public safety purposes or property insurance claims will be deleted after fourteen (14) days unless an extension is authorized by the Security Manager.
- 6.3.2 Copies of recordings shall be controlled by the Security Manager, shall be recorded in the logbook by Security Services and shall only be made for authorized investigative and/or evidence purposes.
- 6.3.3 Recordings used for investigation, law enforcement or public safety purposes will be destroyed in a secure manner after one (1) year from the time they were used or following the court proceeding and the expiry of any relevant appeal period, whichever occurs later.

### **6.4 Disclosure of Images**

- 6.4.1 Information obtained through video monitoring shall be used exclusively for security and law enforcement purposes, except as outlined in clause 6.4.3 and in accordance with MFIPPA
- 6.4.2 No attempt shall be made to alter any part of a recording
- 6.4.3 Video recordings will not be shown or provided to anyone other than the Security Manager, except in the following circumstances:
  - 6.4.3.1 Law enforcement agencies for the purpose of an investigation or enforcement.
  - 6.4.3.2 To assist to aid an investigation from which a proceeding is likely to result.

- 6.4.3.3 To comply with a request made under the *Municipal Freedom of Information and Protection of Privacy Act* by the person whose identity has been recorded and who shall have the right to access such information unless an exemption under MFIPPA applies.
- 6.4.3.4 Other reasonable circumstances limited to the purpose for which the video surveillance was obtained or compiled or for a consistent purpose as approved by the Security Manager.
- 6.4.4 Video recordings from CCTV system may be viewed by Designated Managers provided the following:
  - 6.4.4.1 The Designated Manager and the purpose of the viewing is authorized by the Security Manager.
  - 6.4.4.2 The viewing is conducted in a professional, ethical, and legal manner.
  - 6.4.4.3 A signed Non-Disclosure Agreement is on file with Security Manager.
  - 6.4.4.4 Appropriate training and supervision in the responsible use of this technology is provided.
  - 6.4.4.5 Viewing is limited to uses that do not violate a person's reasonable expectation to privacy.
- 6.4.5 Disclosure of video recordings to third parties will only be made in accordance with the purpose(s) for which the system was installed, and will be limited to:
  - 6.4.5.1 Police and other law enforcement agencies, where the images recorded could assist in a specific criminal enquiry, public safety investigation and/or the prevention of terrorism and disorder.
  - 6.4.5.2 People whose images have been recorded and retained unless an exemption under MFIPPA applies.
  - 6.4.5.3 In exceptional cases, to assist in the identification of a victim, witness, or perpetrator in relation to a criminal incident.

## **1. Non-Compliance with this Policy**

- 1.1 Any non-compliance of this policy or unauthorized access to video recordings by individuals or third-party suppliers shall be reported to the Security Manager. The Security Manager will review all reports of non-compliance and advise the Director of RWS to determine the appropriate resolution.

## **2. Reporting**

- 2.1 The Security Manager shall report to the Board of Management at least annually all incidents where a recording has been viewed or copies have been provided to Designated Managers, law enforcement agencies, prosecution agencies, relevant legal representatives, criminal or other investigations as outlined in this Policy.
- 2.2 The report, at a minimum, shall include the date of the disclosure, a description of the circumstances justifying the disclosure, the amount of footage involved, the name, title and agency to whom the footage is being disclosed, and the legal authority for the disclosure.

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

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

**Subject:** EA4183 Elgin Water Treatment Plant UV Replacement – Consultant Award

### RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Elgin Water Treatment Plant Ultraviolet Disinfection System Replacement (EA4183) project:

- a) The Board of Management for the Elgin Area Primary Water Supply System **ACCEPT** the proposal from AECOM Canada Ltd. for the completion of the engineering design for the Elgin Water Treatment Plant Ultraviolet Disinfection System Replacement in the amount of \$429,390.50, including contingency and excluding HST, having submitted a proposal which meets the Request for Proposal requirements and evaluated as having the best value;
- b) The Board of Management for the Elgin Area Primary Water Supply System **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with AECOM Canada Ltd. for the completion of the design for the Elgin Water Treatment Plant Ultraviolet Disinfection System Replacement project; and
- c) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

### PREVIOUS AND RELATED REPORTS

October 7, 2021      2022 Operating and Capital Budgets

### BACKGROUND

The existing Elgin water treatment plant ultraviolet (UV) disinfection system is at the end of its useful service life and requires replacement. The existing system is a first-generation reactor system, utilizing old and inefficient controllers. Systems on the market today are now much more energy efficient and significantly improved controls.

A study was completed in 2020 to evaluate alternatives for renewal and/or replacement of the existing UV system. The preferred solution was identified as the replacement of the existing UV system with a new system consisting of two new reactors in a new building and eliminate the individual reactors on each filter effluent discharge pipe.

## DISCUSSION

In January 2022, Board staff released a Request for Qualification (RFQUAL-2022-011) for consulting engineering services for the design of the Elgin Water Treatment Plant UV system. Three (3) firms provided RQUAL submissions and each of these firms were evaluated by Board staff and found to be qualified to move to the subsequent Request for Proposal phase.

In March 2022, Board staff released a Request for Proposal (RFP-2022-81) to the three (3) pre-qualified firms through the bids&tenders procurement portal. Each of the three (3) pre-qualified firms provided proposal submissions by the closing date of April 20, 2022. The proposals were reviewed by Board staff and evaluated against the requirements identified in the RFP document. The technical proposal submissions from all three consultants were ranked and deemed qualified to have their respective financial proposals considered. Based on the evaluation team scoring and evaluation, the proposal provided by AECOM Canada Ltd. was deemed to offer the best value to the Board and is therefore recommended for an award by Board staff.

The procurement process utilized met the requirements of the Board's Procurement Bylaw, as well as the City of London's procurement policy (used as a guide).

The cost proposal from AECOM Canada Ltd. for their consulting fees associated with this design assignment includes detailed design services, contractor pre-qualification, equipment pre-selection/pre-purchase, and tendering services. There are also provisional items associated with the project for which a budget would also need to be carried, including a geotechnical investigation, Stage 1 Archaeological Assessment, and topographical survey. The total project budget including provisional items, has an upset limit of \$429,390.50, including contingency but excluding HST.

This design phase budget is consistent with Board staff expectations for this assignment and is within the budget for project EA4183, as approved in the 2022 capital budget. The anticipated value for the construction of this project will be included in the proposed 2023 capital budget submitted to the Board for consideration later this year.

Consulting engineer contract administration and construction supervision fees will be subject to a future separate proposal submission solicited by Board staff in conjunction with the construction tendering phase of the Elgin Water Treatment Plant UV project.

## CONCLUSION

As set-out in the Request for Proposal issued in March 2022, AECOM Canada Ltd., was deemed to provide the best value to the Board and staff recommend that the Board accept their proposal and execute a consulting services agreement with them for the design of the Elgin Water Treatment Plant UV System (EA4183).

**Prepared by:** Marcy McKillop, P.Eng., Environmental Services Engineer

**Submitted by:** Billy Haklander, P. Eng., LL.M  
Capital Programs Manager, Regional Water Supply

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



**To:** Chair and Members, Board of Management  
Lake Huron Primary Water Supply System

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

**Subject:** EA4137 Elgin Water Treatment Plant Low Lift Pumping Station Service Water Connection

### RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Low Lift Pumping Station Service Water Connection (EA4137) project:

- a) The Board of Management for the Elgin Area Water Supply system **EXTEND** the existing engineering assignment with GM Blue Plan Engineering for additional design services based on an approved scope of work at an estimated cost of \$11,550, including contingency, excluding HST;
- b) The Lake Huron Primary Water Supply System Board of Management **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with GM Blue Plan Engineering for the completion the Low Lift Pumping Station Service Water Connection for the Lake Huron Primary Water Supply System; and,
- c) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report for information.

### PREVIOUS AND RELATED REPORTS

October 7, 2021      2022 Operating and Capital Budgets

### BACKGROUND

The majority of existing service water pipeline between the Elgin Water Treatment Plant and the Low Lift Pumping Station building was previously replaced to address longstanding issues with flow restrictions and poor pipeline condition. A small section of the pipeline was not replaced as the final configuration of the pipeline in relation to the recent construction of Residuals Management Facility (RMF) was unknown at the time. With the completion of the RMF, the remaining section is to be replaced with a new connection into the low lift building, the addition of a pressure reducing valve, improvements to controls, and the installation of related appurtenances will improve overall pipeline performance and resiliency.

## DISCUSSION

### *Design*

The design of this service water connection was originally prepared in 2018 by GM Blue Plan Engineering; however, the completion of the project was subsequently put on hold due to anticipated conflicts with other scheduled projects. The design was updated in 2022, and the scope of the design was expanded to include flow monitoring and associated upgrades to the service water system controls, along with the addition of conduit needed for communications.

The additional engineering fees total \$11,550 for this scope change, excluding HST, which increases GM Blue Plan Engineering's overall maximum upset limit for this assignment to \$115,720, excluding HST. Board staff recommend that the Board execute an engineering agreement with GM Blue Plan Engineering to address the design, tendering and construction administration phases of this assignment.

### *Tendering*

The tender for construction (RFT#22-006) was issued on April 25, 2022, with a required validity period of 45 days following the submission date of May 12, 2022. Only one contractor submitted a bid on the closing date. This is considered an irregular bid as per Section 8.10 of the City of London's Procurement of Goods and Services Policy (used as a guide).

While this type of tender would typically result in at least three or more submitted bids from qualified contractors, there are a number of factors which may have contributed to receiving only one bid, including:

- During the tender period, there were announcements of strike action by two trade unions in the construction industry severely impacting the ability for various general contractors to provide a bid with certainty.
- Current market conditions driven by supply chain challenges and pandemic-related cost escalations have significantly impacted infrastructure projects. Market volatilities have affected material costs, delivery timelines and caused various shortages and challenges.
- Given the volatility of the market, contractors are reluctant to accept the risks associated with long validity periods (the period between when the bid is submitted and the project is awarded) as there may be significant increases in the cost of parts, materials and supplies. Contractors continue to push for shorter validity periods and, in the current market condition, would prefer validity periods of not more than a few days.

This project is not critical from a timing perspective and not specifically tied to other anticipated works. This project can be retendered at a later date to obtain more competitive pricing when risks related to labour shortages and supply chain challenges may be reduced.

Accordingly, Board staff chose to cancel this tender. The one bid received was kept sealed and unopened and Board staff intend to retender this project in early 2023.

The procurement process undertaken for this tender met the requirements of the Board's Procurement Bylaw, as well as the City of London's procurement policy (*used as a guide*). The proposed 2023 Capital Budget later this year will address the revised capital budget for this project.

### PROJECT FINANCIAL STATUS

The following is a summary of projected and incurred expenditures to date for the project:

<b>Expenditure</b>	<b>Projected</b>	<b>Incurred</b>
Engineering, Construction Supervision and Contract Administration	\$ 116,965	\$ 38,344
Construction	\$ 500,000	\$ 0
Additional Services	\$	\$ 0
<b>Total</b>	<b>\$ 616,965</b>	<b>\$ 38,344</b>

<b>Approved Budget</b>	<b>\$ 550,000</b>
<b>Projected Variance</b>	<b>\$ - 66,965</b>

*\*The shortfall in approved budget for the proposed Elgin Low Lift Pumping Station Service Water Connection project will be addressed as part of the 2023 budget process.*

## CONCLUSION

Board staff have cancelled the Low Lift Pumping Station Service Water Connection construction tender as only receiving one bid which is considered irregular bid under City of London's Procurement of Goods and Services Policy which is used as a guide. Board staff intend on re-tendering this project in early 2023. Board staff also recommend that the Board execute an engineering assignment with GM Blue Plan Engineering to address proposed work, including the design scope changes, associated with the project.

**Prepared by:** Marcy McKillop, P.Eng.,  
Environmental Services Engineer

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

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

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

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

**Subject:** EA4184 Water Quality Facility Plan Update – Consultant Award

### RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Water Quality Facility Plan Update (EA4184) project:

- a) The Board of Management for the Elgin Area Primary Water Supply System **ACCEPT** the proposal from Stantec Consulting Limited for the Water Quality Facility Plan Update in the amount of \$143,658.90, including contingency, excluding HST;
- b) The Elgin Area Primary Water Supply System Board of Management **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with Stantec Consulting Limited for the completion of the Water Quality Facility Plan Update for the Elgin Area Primary Water Supply System; and,
- c) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report regarding the status of the Water Quality Facility Plan for information.

### PREVIOUS AND RELATED REPORTS

October 7, 2021      2022 Operating & Capital Budgets

### BACKGROUND

Several projects and studies recommended by the 2015 Water Quality Facility Plan (WQFP) have been completed, including but not limited to a polymer system update, the re-construction of filters and underdrains, and the addition of new backwash turbidity meters for improved treatment process performance and efficiencies. These changes influence the water quality capacity of the water treatment plant and therefore an update to the 2015 WQFP was included in the 2022 budget to evaluate the overall treatment capacity and treatment efficacy.

An updated WQFP will assess the treatment systems under current conditions to determine potential risks and performance improvement opportunities. A capacity test will be included to assess the current treatment capacity and treatment process performance for typical and adverse water conditions. From the plan update, recommendations for sampling programs, studies, capital upgrades and/or operational changes are anticipated and will be developed to improve water treatment efficiency and effectiveness. Each recommendation will also outline a staged workplan, including cost estimates and scopes of work.

The update will also include a review of the current system with regards to the existing treatment process and how it will handle emerging contaminants, new and future regulations, and projected future operating conditions. Jar testing and bench scale testing of coagulants and polymers are included as part of this estimated cost. As the Residual Management Facility at the plant was not yet in operation during the 2015 WQFP, this update will also include a review of the Residual Management Facility for process optimization opportunities.

This study is coordinated with the Water Quality Facility Plan Update for the Lake Huron Primary Water Supply system, so to provide the respective Water Boards with a treatment-related strategic plan for both plants over the planning horizon.

## DISCUSSION

In accordance with the procurement policy of the Board, as well as the City of London's Procurement of Goods and Services Policy (*used as a guide*), Board staff with the assistance of the Purchasing Department of the City of London issued a Request for Qualification (RFQ #2022-004) for the Water Quality Facility Plan Updates project in January 2022. Four submissions were received by the February 9<sup>th</sup> deadline and were reviewed by Board staff.

In March 2022, Board staff issued a Request for Proposal (RFP #2022-114) to the top three consultants from the RFQ stage. Proposals were received on April 21, 2022, from all invited consultants and reviewed by Board staff.

Upon completion of the technical and financial evaluations, the proponent with the highest score demonstrating their ability to fully meet the project requirements as outlined in the RFP documentation was Stantec Consulting Ltd.

The budget for this project has been approved by the Board at \$270,000. Stantec Consulting Ltd.'s fee estimate associated with this assignment is \$143,658.90, excluding HST, based on their current work plan. It is therefore anticipated that the total cost for this project will remain below the approved budget.

## CONCLUSION

The update to the Water Quality Facility Plan will provide Board Staff with a detailed report on the status of the Elgin Water Treatment Plant and Residual Management processes and overall performance. It will also provide recommendations and framework to prioritize the timing for sampling programs, studies, capital upgrades and/or operational modifications or changes will be developed to improve water treatment efficiency and effectiveness to be performed over a 10-year planning horizon. The Water Quality Facility Plan is to be updated on a 5-year basis to provide Board Staff with updates on plant performance and treatment capacity as supply conditions change.

In accordance with the procurement policy of the Board, as well as the City of London's Procurement of Goods and Services Policy (*used as a guide*), Board staff recommends that the Board accept Stantec Consulting Ltd.'s proposal to undertake the Water Quality Facility Plan Update.

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

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

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

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

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

**Subject:** 2022 Capital Budget Supplementary Approval – EMPS Building-Related Assets

## **RECOMMENDATION**

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Elgin Area Water Supply System approve the following capital projects related to the Elgin-Middlesex Pump Station building and building-related assets; it being noted that the EMPS Reserve Fund will be used as the source of funding:

- a) EMPS Boiler Replacement (\$15,000)
- b) EMPS HVAC Replacement (\$25,000)
- c) EMPS MCC Replacement (\$50,000)

## **PREVIOUS AND RELATED REPORTS**

October 7, 2021      2022 Operating and Capital Budgets

## **BACKGROUND**

On October 7, 2021, the Board of Management for the Elgin Area Water Supply System approved the 2022 Operating and Capital Budgets for the regional water system. As the discussions and negotiations pertaining to the Joint Occupancy and Use Agreement for the Elgin-Middlesex Pump Station (EMPS) on the regional water system's terminal reservoir property had yet to be concluded, identified investments in the EMPS building and building-related assets were specifically excluded from the approved budget.

The Joint Occupancy and Use Agreement for the Elgin-Middlesex Pump Station was completed and approved by the Board of Management at the December 2, 2021 meeting of the Board. The Agreement clarified ownership of assets at the terminal reservoir site including that the EMPS building, and building-related assets are now confirmed to be owned by the regional water system.

## **DISCUSSION**

### **EMPS Dedicated Reserve Fund**

With the execution of the Joint Use and Occupancy Agreement for the Elgin-Middlesex Pump Station, effective January 1, 2022, the Elgin Area Water System is responsible for the maintenance and repair of the EMPS building and building-related assets. To this end, a



dedicated Reserve Fund for the building and building-related assets has been established which will be used for capital investments for the building and building-related assets only.

The City of London, the Aylmer Secondary Water Supply System, and the St. Thomas Area Secondary Water Supply System (secondary water systems) continue to be solely responsible for operating, maintaining, repairing and the replacement of their respective equipment occupying the Board's property. The Joint Use and Occupancy Agreement includes an annual charge to the three secondary water systems, on a per square meter of occupancy basis, which forms the contribution to the dedicated Reserve Fund.

### **2022 Capital Budget Amendment – EMPS Building and Building-Related Assets**

The report for the 2022 Operating and Capital Budgets for the Elgin Area Water Supply System, presented at the October 7, 2021 meeting, included a discussion on anticipated Capital investments for the EMPS building and building-related assets. These projects were excluded from the approved budget, pending completion of the Joint Use and Occupancy Agreement with the secondary water systems.

With the completion of negotiations and execution of the Joint Use and Occupancy Agreement with the secondary water systems, the following Capital projects are recommended for the Board's consideration and approval to be included in the 2022 Capital Budget:

#### **Lifecycle Project (Maintain Levels of Service)**

**EMPS Boiler Replacement** – The EMPS building-related assets include two boilers used for building heat. One boiler required immediate replacement at an estimated cost of \$15,000.

**EMPS HVAC Replacement** – The EMPS building-related assets include several roof-mounted air handling units and air conditioners used for building ventilation and cooling. These units are nearing thirty years old and experience frequent failures and are recommended for replacement. The engineering work is proposed to be undertaken starting in 2022, with subsequent construction to be coordinated with the pending roof repairs. The required engineering assessment and design is estimated at \$25,000.

**EMPS MCC Replacement** – The EMPS building-related assets include the high-voltage panels used for primary distribution and switching, as well as general lighting and power systems for building automation and support systems. The switchgear for the primary electrical systems requires replacement in order to maintain dependable electrical services for the building and building-related assets, as well as the feeds to the electrical systems of the secondary water systems. The switchgear and electrical controls used for the secondary water systems' pumps and pump related assets remain the responsibility of the secondary water systems and are not included in this project. The engineering assessment and design work is proposed to be initiated in 2022 at an estimated cost of \$50,000, with subsequent construction in future years.

The Source of Funding for the three identified projects listed above will be the EMPS Reserve Fund.

The anticipated EMPS Reserve Fund Analysis and Continuity Schedule for the EMPS building and building-related assets is attached to this report as Appendix A for the Board's reference. An updated continuity schedule will be presented to the Board starting in the 2023 Capital and Operating Budget reports presented at the meeting on October 6, 2022.

## **CONCLUSION**

Three capital projects related to the EMPS building and building-related assets were identified in the 2022 Capital Budget, presented to the Board in October 2021, but were not funded as the Joint Occupancy and Use Agreement for the facility had yet to be finalized. With the execution of the agreement in 2022, the projects related to the EMPS boiler replacement, the HVAC replacement and MCC replacement are recommended to proceed.

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

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

**Attachments:** Appendix A – EMPS Reserve Fund Analysis and Continuity Schedule

**APPENDIX A – EMPS RESERVE FUND ANALYSIS AND CONTINUITY SCHEDULE**

<b>EMPS Reserve Fund <sup>1</sup></b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Opening Balance	\$ 0	\$ 143,244	\$ 27,921
Sources:			
Current Year Operating	230,935	230,935	230,935
Net Interest Earnings @ 1.0%	2,309	3,742	2, 589
<b>Total Sources</b>	<b>\$ 233,244</b>	<b>\$ 377,921</b>	<b>\$ 261,445</b>
Uses:			
Improvement Projects	90,000	350,000	600,000
Less: Other Funding Sources			
Less: Debenture Requirement <sup>2</sup>			(350,000)
Less: Additional Drawdowns			
<b>Total Uses</b>	<b>\$ 90,000</b>	<b>\$ 350,000</b>	<b>\$ 250,000</b>
Ending Balance	\$ 143,244	\$ 27,921	\$11,445

<sup>1</sup> Reserve Fund was established to fund projects related to the maintenance and repair of the Elgin-Middlesex Pump Station building and building-related assets

<sup>2</sup> Inter-Reserve Fund borrowing anticipated in 2024 to fund short-term shortfall and repaid in subsequent years.

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

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

**Subject:** EA4186 Sodium Hydroxide Assessment Study – Contract Award

### RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Elgin Area Water Supply System Sodium Hydroxide Assessment Study (EA4186) project:

- a) The Board of Management for the Elgin Area Primary Water Supply System **ACCEPT** the proposal from R.V. Anderson Associates Ltd. for undertaking the Sodium Hydroxide Assessment Study in the amount of \$26,775.00, excluding HST;
- b) The Elgin Area Water Supply System Board of Management **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with R.V. Anderson Associates Ltd. for the completion of a Sodium Hydroxide Assessment Study for the Elgin Area Water Supply System; and,
- c) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report regarding the status of the Sodium Hydroxide Assessment Study for information.

### PREVIOUS AND RELATED REPORTS

October 7, 2021                      2022 Operating and Capital Budgets

### BACKGROUND

The sodium hydroxide system was constructed and commissioned in 2012 to adjust the pH of the treated water supplied to benefiting municipalities. During a routine inspection of the distribution pipeline and valve chambers in 2013/2014, precipitate buildup was discovered within the pipeline and was affecting the operation of the valves on the transmission pipeline.

Subsequently, the accumulation of precipitate increased within the pipeline, valves, and discharge headers at the water treatment plant. Plant operations staff reported that isolation valves the then newly constructed 900mm transmission pipeline were not fully operable due to precipitate deposits within the valves. As a result of the noted precipitate, in May 2014, the pH target was reduced from 7.8 to 7.5 in an attempt reduce or eliminate the accumulation concerns.

Unfortunately, the reduction in the target pH did not eliminate the precipitation buildup and in 2020 Pure Technologies was retained to perform pipe camera inspections within the discharge headers at the Elgin Area water treatment plant.

An image from December 2021 showing the degree of buildup in the plant's discharge header at the injection point is shown in Appendix A, attached to this report, for illustration purposes.

The purpose of the inspections was to observe and quantify the degree of accumulation of precipitate at and near the sodium hydroxide injection ports on each of the discharge headers over a period of time. Periodic camera inspections were undertaken over a two-year period and the observed accumulation was measured and recorded. Over that two-year observation period, there was an increase in the amount of precipitate buildup of 14 mm in the west discharge header and 15 mm in the east discharge header.

In addition to the precipitate challenges, the sodium hydroxide injection point is near the sampling location used for the plant discharge chlorine analyzers. It has been noted that when the operator changes the high lift duty pump, fluctuations in the readings from the chlorine analyzers occur, which are likely affected by the change in pH, and occasionally cause the plant to automatically shut down.

## **DISCUSSION**

In response to the above operational challenges and observed conditions, in March 2022 Board staff invited R.V. Anderson Associates Ltd. to submit a proposal to further review the challenges caused by the sodium hydroxide system and provide recommendations to mitigate the operational challenges. The proposal from R.V. Anderson Associates was received on April 8, 2022, and subsequently reviewed by Board staff. The proposal was confirmed to have met the requirements of the project.

The budget for this project has been approved by the Board at \$30,000. R.V. Anderson Associates Ltd.'s fee estimate associated with this assignment is \$26,775, excluding HST, based on their current work plan. It is therefore anticipated that the total cost for this project will remain below budget. Board staff recommends that the Board accept R.V. Anderson Associates Ltd.'s proposal to undertake the Sodium Hydroxide Assessment Study.

The procurement process utilized met the requirements of the Board's Procurement Bylaw, as well as the City of London's procurement policy (used as a guide).

## CONCLUSION

The Sodium Hydroxide Assessment Study will identify the cause of the precipitation issues within the discharge header and valve chamber at the Elgin Area Water Treatment Plant. The report will include an engineering solution for reducing the precipitation while maintaining effective pH adjustment control within the distribution system.

In accordance with the procurement policy of the Board, as well as the City of London's Procurement of Goods and Services Policy (*used as a guide*), Board staff recommends that the Board accept R.V. Anderson Associates Ltd.'s proposal to undertake the Sodium Hydroxide Assessment Study.

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

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

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

**APPENDIX A:**



December 2021: Looking downstream from the sodium hydroxide injection showing the precipitate accumulation in west discharge header