

Agenda

Elgin Area Primary Water Supply System

Joint Board of Management

3rd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management

June 6, 2024, 5:00 PM

Committee Room #5

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

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

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

Pages

1. Call to Order

- 1.1 Disclosures of Pecuniary Interest

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5. Deferred Matters/Additional Business

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October 3, 2024

December 5, 2024

7. Adjournment

Elgin Area Primary Water Supply System Report

2nd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management
March 7, 2024

Attendance: Meeting held on Thursday, March 7, 2024, commencing at 5:00 PM.

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

ALSO PRESENT: B. Haklander and A. Henry

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 Thursday, December 7, 2023

HERBERT AND ADZIJA

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 7, 2023, **BE NOTED AND FILED. CARRIED**

Motion Passed

3. Consent Items

3.1 Quarterly Compliance Report (4th Quarter 2023: October - December)

PETERS AND ADIJZA

That, on the recommendation of the Chief Administrative Officer, the report dated March 7, 2024, with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System, for October to December 2023, **BE RECEIVED. CARRIED**

Motion Passed

3.2 Environmental Management System and Quality Management System

PETERS AND ADIJZA

That, on the recommendation of the Chief Administrative Officer, the report dated March 7, 2024, with respect to the Environmental Management System and Quality Management System, **BE RECEIVED. CARRIED**

Motion Passed

3.3 Quarterly Operating Financial Status - 4th Quarter 2023

PETERS AND ADIJZA

That, on the recommendation of the Chief Administrative Officer, the report dated March 7, 2024, with respect to the Quarterly Operating Financial Status of the Elgin Area Primary Water Supply System for the 4th Quarter of 2023, **BE RECEIVED. CARRIED**

Motion Passed

3.4 Capital Status Report

PETERS AND ADIJZA

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to the Capital Status Report for the Elgin Area Primary Water Supply System:

- a) projects EA4095 WTP Interior Renovations, EA4192 Flocc Tank Influent, EA4114-21 and EA4114-22 Annual Maintenance **BE CLOSED**, with surplus funding in the approximate amount of \$296,606 being released to the Reserve Funds;
- b) project EA3013 Plant Reservoir Drain Repairs **BE CLOSED** with the remaining budgets being transferred to EA4183 UV Replacement to have a final budget of \$9,109,360, to consolidate costs and mitigate duplicate expenses; and,
- c) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

4. Items for Discussion

4.1 Naming of Property and Buildings Policy

PELOZA AND STEVENSON

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to amendments and revisions to the Naming of Property and Buildings Policy for the Elgin Area Water Supply System:

- a) the proposed Naming of Property and Buildings Policy By-law 10-2024, as appended to the above-noted staff report, **BE APPROVED**; and,
- b) the above-noted staff report **BE RECEIVED. CARRIED**

Motion Passed

Additional Votes:

PETERS AND BARBOUR

Motion to approve the Second Reading of By-law 10-2024.

Motion Passed

HERBERT AND PELOZA

Motion to approve the Third Reading and Enactment of By-law No. 10-2024.

Motion Passed

4.2 New Connection Policy

PELOZA AND STEVENSON

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to amendments and revisions to the New Connection Policy for the Elgin Area Water Supply System:

- a) the proposed New Connection Policy By-law 9-2024, as appended to the above-noted staff report, **BE APPROVED**; and,

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

Motion Passed

Additional Votes:

PETERS AND BARBOUR

Motion to approve the Second Reading of By-law No. 9-2024.

Motion Passed

HERBERT AND PELOZA

Motion to approve the Third Reading and Enactment of By-law No. 9-2024.

Motion Passed

4.3 Telecommunications and Tower Policy

PELOZA AND STEVENSON

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to amendments and revisions to the Telecommunications and Tower Policy for the Elgin Area Water Supply System:

a) the proposed Telecommunications and Tower Policy By-law 11-2024, as appended to the above-noted staff report, **BE APPROVED**; and,

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

Motion Passed

Additional Votes:

PETERS AND BARBOUR

Motion to approve the Second Reading of By-law No. 11-2024.

Motion Passed

HERBERT AND PELOZA

Motion to approve the Third Reading and Enactment of By-law No. 11-2024.

Motion Passed

4.4 Grants and Donations Policy

PELOZA AND STEVENSON

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to amendments and revisions to the Grants and Donations Policy for the Elgin Area Water Supply System:

- a) the proposed Grants and Donations Policy By-law 12-2024, as appended to the above-noted staff report, **BE APPROVED**; and,
- b) the above-noted staff report **BE RECEIVED. CARRIED**

Motion Passed

Additional Votes:

PETERS AND BARBOUR

Motion to approve the Second Reading of By-law No. 12-2024.

Motion Passed

HERBERT AND PELOZA

Motion to approve the Third Reading and Enactment of By-law No. 12-2024.

Motion Passed

4.5 Fees and Charges

PETERS AND BARBOUR

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to amendments and revisions to the Fees and Charges Policy for the Elgin Area Water Supply System:

- a) the proposed Fees and Charges Policy By-law 8-2024, as appended to the above-noted staff report, **BE APPROVED**; and,
- b) the above-noted staff report **BE RECEIVED. CARRIED**

Motion Passed

Additional Votes:

STEVENSON AND HERBERT

Motion to approve the Second Reading of By-law No. 8-2024.

Motion Passed

PELOZA AND STEVENSON

Motion to approve the Third Reading and Enactment of By-law No. 8-2024.

Motion Passed

4.6 Elgin Area Primary Water Supply System Master Plan - Consultant Award (EA2019-24)

PELOZA AND STEVENSON

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 7, 2024, related to the Elgin Area Primary Water Supply System Master Plan Consultant Award (EA2019-24):

- a) the proposal from AECOM Canada Ltd. for the Master Plan, in the amount of \$199,523.50, including contingency (excluding HST), **BE ACCEPTED**, having submitted a proposal which meets the Request for Proposal requirements and was evaluated by Board staff to provide the best value;
- b) a budget increase of \$25,000.00, **BE APPROVED**, based on AECOM's proposal, for a total approved budget of \$225,000;
- c) the Chair and Chief Administrative Officer **BE AUTHORIZED** to execute a consulting services agreement with AECOM to undertake the Master Plan; and,
- d) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

5. Deferred Matters/Additional Business

None.

6. Next Meeting Date

7. Adjournment

The meeting adjourned at 5:33 PM.

Board of Management Report

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

Overview:

- There was one adverse water quality incidents (AWQI) reported by the operating authority during this quarter.
- There are no new or proposed regulatory changes which might have a significant impact on the system.
- The 2023 regulatory reporting required under O.Reg. 170/03 was completed by the specified deadlines.

Recommendation

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

Previous and Related Reports

June 6, 2024 Ministry of the Environment, Conservation and Parks Inspection Report

Background

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

Discussion

Regulatory Issues

Recent Regulatory Changes: At the time of drafting this report, there are no new regulatory changes for this reporting period which may significantly impact the Elgin Area Primary Water Supply System (EAPWSS).

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

Quarterly Water Quality Reports: The [Water Quality Quarterly Report](#) for the period of January 1 – March 31, 2024 was completed by the operating authority, and is posted on the Water Systems' website for public information.

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

Adverse Water Quality Incidents (AWQI): There was one (1) AWQI reported by the operating authority during this quarter.

An AWQI was reported on January 29, 2024, due to a warning generated by the online CT Calculator within the Supervisory Control and Data Acquisition (SCADA) computer system, which continuously verifies disinfection requirements are being met by the water treatment plant. The failure warning was the result of a short duration filtered water turbidity spike. Further investigation found that it was not a true disinfection failure, rather it was the result of a programming limitation within the CT Calculator. The operating authority completed a Corrective Action Form (CAF) to review the incident and action items have been identified. A future upgrade is planned for the CT Calculator as part of the Ultraviolet (UV) disinfection system replacement project that is currently underway.

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 28th of each year. The 2023 Annual Report summarized water quality, capital project and maintenance project 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 2023 Annual Report was forwarded to the member municipalities on February 14, 2024. The [2023 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 31st 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 the water system’s contracted operating authority, the Ontario Clean Water Agency (OCWA). The 2023 Compliance Report (Summary Report for Municipalities) was forwarded to the Board members and member municipalities of the EAPWSS as required on March 21, 2024. The [2023 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: The annual inspection by the Ministry of the Environment, Conservation and Parks (MECP) was conducted on January 11, 2024. The final inspection report was received from the Ministry Inspector on March 6, 2024, and is the subject of a separate report to the Board. The final inspection rating for the EAPWSS was 100%.

Contractual Issues

ARTICLE 3, “Operation and Maintenance of the Facilities – General”: Board staff informally meets with OCWA on a monthly basis to discuss operations and maintenance related issues, and formally on a quarterly basis to review contractual performance. The 2024 first quarter Contract Report was received from OCWA on April 30, 2024, and was scheduled to be discussed at the quarterly administration meeting between Board staff and OCWA on May 9, 2024. Copies of the monthly Operations and Maintenance Reports, and quarterly Contract Reports are available at the Board’s Administration Office in London upon request.

Conclusion

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

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

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

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

Board of Management Report

Subject: Environmental Management System and Quality Management System

Overview:

- This report provides a summary of Environmental Management System (EMS) and Quality Management System (QMS) activities that took place during the first quarter of 2024 (Q1).
- A Management Review meeting was held on March 05, 2024. The meeting minutes are attached to this report as [Appendix A](#).
- An internal Environmental Compliance Audit (Safe Drinking Water Act and Regulations) was conducted on March 14, 2024. The Internal Audit Summary Report is included as [Appendix B](#).

Recommendation

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

Background

Environmental Management System (EMS)

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

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

Quality Management System (QMS)

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

The *Safe Drinking Water Act, 2002* (SDWA) and the water system's Municipal Drinking Water License (MDWL) require that an accredited Operating Authority be in operational charge of the drinking water system. To become accredited, the Operating Authority

must implement and maintain a QMS, which includes an Operational Plan meeting the requirements of the DWQMS and must undergo yearly external audits.

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

Discussion

Management Review

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

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

A Management Review meeting was held on March 05, 2024. The meeting minutes are included as [Appendix A](#) for the information of the Board of Management.

Internal Audits

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

An internal Environmental Compliance Audit (Safe Drinking Water Act and Regulations) was conducted on March 14, 2024. There were no non-conformances and one (1)

opportunity for improvement identified. The Internal Audit Summary Report is included as [Appendix B](#).

External Audits

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

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

Corrective and Preventive Actions

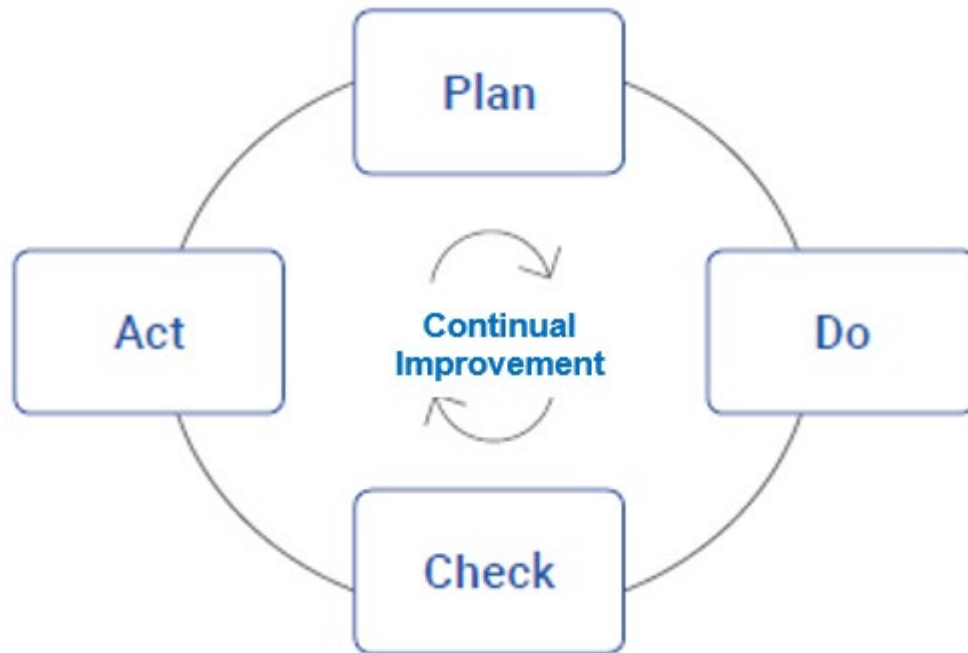
For the EMS/QMS to be effective on an on-going basis, an organization must have a systematic method for identifying actual and potential non-conformities, making corrections, and undertaking corrective and preventive actions, preferably identifying, and preventing problems before they occur. The Internal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

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

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

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

Figure 1: Plan-Do-Check-Act Continual Improvement Process



Six (6) additional approved action items have been added to the EMS/QMS action item tracking system during Q1. The new action items were added as a result of a bylaw complaint related exterior lighting at the WTP (noting that the action items were internal only, no action was required from bylaw enforcement) and a Corrective Action Form (CAF) relating to the Elgin CT Calculator.

As of May 13, 2024, there are currently sixteen (16) open action items in the EAPWSS tracking system. All action items are prioritized and addressed using a risk-based approach, and deadlines established given reasonable timeframes and resources that are available. The Board of Management staff are pleased with the performance of the corrective and preventive action process and have no concerns with the number of open action items.

Conclusion

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

Prepared by: Jennifer Levitt
Compliance Coordinator

Erin McLeod, CET
Quality Assurance & Compliance Manager

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

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

Attachments: [Appendix A](#) – Management Review Meeting Minutes (March 05, 2024)
[Appendix B](#) – Internal Environmental Compliance Audit Summary Report – Safe Drinking Water Act and Regulations (March 14, 2024)

Appendix A: Management Review Meeting Minutes (March 05, 2024)

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

Date: March 05, 2024

Time: 1:00pm

Location: Virtual – Microsoft Teams

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

Regrets: -

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

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

1. Review and Approval of Previous Meeting Minutes (December 14, 2023)

The minutes from the previous meeting (December 14, 2023) are posted to SharePoint. Minutes circulated to comment. No concerns noted and documents are approved.

2. 2023-2024 MECP Inspection - LHPWSS

MECP inspection rating of 99.35%. There was one (1) non-compliance related to logbooks.

Internal Corrective Action Form (CAF) completed to identify any additional action items. Root cause was identified as a violation of a requirement or procedure.

Non-compliance has been addressed.

3. 2023-2024 MECP Inspection - EAPWSS

Final Elgin MECP Inspection report received on March 06, 2024. Received a 100% rating. The report has no non-compliances and no best management

practices identified.

4. Raw Water Supply & Drinking Water Quality Trends

Trends are updated once per year and include 5-year Water Quality trends. Refer to agenda package for detailed information.

Huron Trend Highlights:

- Over 2 years' worth of data collected for dissolved oxygen now, starting to see a seasonal trend.
- The average raw water temperature for December 2023 was above 5 degrees Celsius. Warmer than typical.
- pH did not drop to typical winter low.
- Treated water free chlorine – trend line is increasing. Chlorine Mantra system (new control loop) went into service October 2023 and this is expected to optimize chlorine. This has been added as a note to trending graphs (March 06, 2024).
- Treated water turbidity – trend line is increasing. Filter performance is in line. There may be sediment in the suction conduit. Will continue to monitor.
- Treated water pH – trend line is low and moving towards 8.0 (target is 8.1 at Arva Reservoir). **OCWA comment** – Flow changes may affect plant pH.
- Haloacetic Acids (HAAs) – no concerns, considered normal
- Trihalomethanes (THMs) – no concerns, considered normal
- **RWS Comment** – When Oneida First Nations joins the system there may be elevated THM trends, will continue to monitor.

Elgin Trend Highlights:

- The average raw water temperature for December 2023 was above 5 degrees Celsius. Warmer than typical.
- Treated water pH - very consistent (targeting 7.5)
- Fluoride - trending downwards over past few years. Flow based dosing project is ongoing - may see optimization of dosing once complete.
- Chlorine - no concerns
- HAAs - no concerns, considered normal
- THMs - no concerns, considered normal

The April 15, 2019 decommissioning date for 'Pipeline A' has been added to the Elgin chlorine trend.

OCWA Comment – We experienced an El Niño type winter and warmer, drier conditions. Keep monitoring lake levels, they may be lower. We may see more ‘roll-over’ events related to shallower lake levels and warmer temperatures. This may result in seasonal impacts to treatment.

The Lake Erie Harmful Algal Bloom (HAB) 2023 seasonal assessment was discussed, and it is noted that blooms are now starting earlier in the season.

5. Deviations from Critical Control Point Limits and Response Actions

Elgin

For 2023 there was a total of 34 WaterTrax alerts. This is significantly lower when compared to the last 5 years. At present, there are no parameters that appear to be of nuisance or reoccurring. No significant concerns or alert setpoint adjustments required at this time.

OCWA comment – When Filter 2 was out of service, did not see alerts and mixing issues. Typically see settled water cl2 levels mixing issues if either filter 3 or filter 4 is out of service. Refer this note to Stantec for the Water Quality Facility Plan (noting poor mixing).

OCWA comment – Re: chlorine rotameters and piping, it was noted that there is a long run to the south side vs north side of the settled water conduit. May impact chlorine dosing.

Huron

For 2023 there was a total of 16 alerts. There were 7 alerts related to low free chlorine on filtered water. This is due to PAC dosing consuming chlorine. No significant concerns or alert setpoint adjustments required at this time.

Refer to agenda package for information.

6. Adequacy of Resources

Adequacy of Resources (LHPWSS & EAPWSS)

Staffing:

All RWS positions are currently filled. Recruitment is in process for an additional Technologist II for the capital programs area. Limited applications are being received for technologist positions. Newly graduated technologists are in high demand. RWS may offer 8-month term coop positions for Fanshawe College students starting September 2024 (with Board approval). RWS is also planning to add a technician in 2024.

OCWA is currently recruiting a new Regional Hub Manager. Depending on the candidate this person may require orientation & training on the programs in place at Huron and Elgin. Blair Tully will be available to provide initial transition and support. OCWA negotiated increased wage compensation packages for operations and maintenance staff, which benefits staff retention. An Operator Growth Strategy has been put in place this year to attract and retain talent.

Training:

No concerns at this time. OCWA staff has completed the required training for 2023.

Inspection & Audit Results:

For the 2023-2024 inspection period, there was an improved inspection rating from the previous reporting period:

- LHPWSS had 1 non-compliance with an inspection rating 99.35%
- EAPWSS final inspection report is pending, but there were no non-compliances identified in the draft report which indicates a 100% rating.

Over the past year both systems had successful internal and external audits, particularly the ISO14001: 2015 external re-certification audits (Sep./Oct. 2023) with no non-conformities identified.

Overall, the management systems and associated compliance programs are working well and being adequately supported. The management systems continue to identify issues and seek opportunities for improvement.

The number of open action items is a reflection of the adequacy of resources. This will be an area of focus in 2024.

Water volumes:

In 2023 each Elgin and Huron sold less than budgeted volumes to the municipalities. Approx. 1% less for Huron and 1.5% less for Elgin. No immediate concerns, as total revenue is still reasonably close to the projected volumes used for budget development. Note that the budget volumes differ slightly from the contractual volumes in the Service Agreement.

There is development underway in St. Thomas/Elgin County that may have high water demand, but the full impacts are still unknown. Board staff continue to monitor the long-term implications. The 2024 Master Water Plan Updates for each system are in progress (study procurement) and will consider growth and development in the region.

City of London is considering asking for changes to the Elgin Agreement which regulates their taking of water from the Elgin system. May see a request for an increase of London's taking of water from Elgin system order to better balance supply from the Southeast Reservoir (which services industrial areas south of Hwy 401). Elgin's Pumping Strategy and Energy Strategy are to be considered as part of the Master Water Plan.

Supply Chain:

The previous issues with the availability of electronic chips, cards, etc. seems to have returned to normal. We are now seeing typical lead times again (weeks to months).

Supplier turnaround time of shop drawings is still an issue, especially with the Elgin backwash pump project. This is an industry wide issue. However, this has now resulted in an opportunity to tender the Elgin UV and backwash pump upgrade projects together, which may be attractive to larger firms and result in lower fees (both engineering and construction).

From OCWA's perspective the overall supply chain and particularly chemical costs are much more stable than what was seen during the pandemic. Some industries are reporting a shortage of qualified trades persons. Overall, chemical costs are more in line with what was seen in the past (no large increases); however, a few chemicals may be slightly higher and further review is needed. Residuals trucking for Huron (contract renewal) has increased 70% from the last agreement and internal OCWA discussions are underway.

Capital projects:

RWS is continually reviewing the capital investment program, looking at constructability and timeframes. Status of projects and type of projects are becoming more balanced compared to recent years.

Elgin is going to be busier with projects starting later this year (UV and backwash upgrade project) but indications at this time are that it will be manageable.

We have caught up on a backlog of projects but there are still almost 100 open projects. The capital programs group has a new target of completing projects within 5 years of the funding year, recognizing that larger projects will take longer. Some processes remain slower post-covid, particularly with procurement and irregular results are a risk (delays the process).

Lack of availability of support staff remains a challenge. The industry is very busy, so it is difficult to get engineering consultants interested in our projects. The overall pool of firms has gone down as firms are getting bought up. There are both pros & cons to using the same reoccurring firms. Tendering projects together may generate more interest in both engineering and construction.

At this time resources for the capital programs are adequate, but everyone is pushing as hard as they can. Ultimately it depends on the level of service we want to offer, with higher expectations requiring more resources (e.g., full-time site supervision; H&S

management). Our engineering and technical complement must reflect the level of service we want to provide.

OCWA comment – The new industrial development in St. Thomas area may further affect the availability of resources (i.e., availability of skilled trades persons).

Expenses: We have been managing expenses, with adequate contributions to reserves. In future, our expenses might be further challenged, but we will know better once we get into the 2025 budget cycle. The Financial Plan that was approved last year indicates everything is okay in the short term.

Conclusion:

In the immediate timeframe we have adequate resources to support the EMS/QMS, despite some challenges noted above. In the longer term we may be hard pressed to continue to perform at a high level without additional resources. There are longer term implications for our capital program.

7. Communications, Complaints, and Consumer Feedback

LHPWSS

There was one (1) complaint/concern documented in the Monthly Operations Reports (February 2023 – January 2024).

- June 2023 - Bayfield resident notified Operator-in-charge (OIC) of no water pressure in their home. The issue was forwarded to the OCWA Bluewater team as the operating authority of that system.

Top Management decision: If a complaint is received that is not related to the primary system, we will continue to document it and then refer the consumer to their billing municipality accordingly. The tracking remains helpful for customer support, continual improvement trends and public engagement.

EAPWSS

There were several complaints/concerns documented in the Monthly Operations Reports (February 2023 – January 2024).

- November 2023 – Taste and odour complaints received from the City of St. Thomas distribution system. OCWA placed the PAC dosing system back in service and completed supplementary sampling for external lab analysis. Taste and Odour complaints also received from London, Southwold, Aylmer and Malahide.
- December 2023 – Taste and odour complaints received from St. Thomas. (Continued event from previous month).

Other:

- January 2024 – Lighting complaint forwarded to RWS from Municipality of Central Elgin.

General

February 14, 2024 – Cybersecurity memo received from MECP to bring awareness to a recent series of cyber-attacks to multiple water plants across the United States. Attackers are actively targeting and compromising Israeli-made Unitronics Vision Series programmable logic controllers (PLCs). MECP requested that any system using these PLCs take action to mitigate malicious activity such as implementing multifactor authentication, changing passwords to strong and unique ones, and checking PLCs for default passwords. All system owners are encouraged to review and update their cyber security measures.

OCWA comment – A name search was conducted for ‘Unitronics’ in the maintenance management system (Maximo) and nothing was found in the system. It is important to note that plant process PLCs are all North American (Allen-Bradley or Rockwell). The PLCs in question could be imbedded into proprietary equipment, in our case this would be a small package unit for a specific piece of equipment.

8. Staff Suggestions

LHPWSS & EAPWSS

Received twenty-two (22) staff suggestions. There is a high level of staff engagement for continual improvement ideas.

Top management decision to hold a separate meeting to vet through staff suggestions for future discussion / potential assignment. Staff agreed with this approach and suggested Microsoft Planner as a tracking tool be implemented.

ACTION ITEM: Discuss the scope and end objective for each suggestion. Then determine whether the items should go through our risk & business case process or require a separate investigation. Responsibility: Erin McLeod. Deadline: April 30, 2024.

9. Compliance Obligations Update

Health Canada:

Guidelines for Canadian drinking water quality: Antimony

Source: Health Canada

Date Posted/Notice Received: February 16, 2024

Comments Due: N/A

Summary:

A maximum acceptable concentration (MAC) of 0.006 mg/L (6 µg/L) is established for total antimony in drinking water. This is unchanged from the previous document.

Potential Impacts:

None anticipated. This is consistent with the current MAC in Ontario.

Recent samples (2022 – 2024) for antimony in Elgin WTP treated water were non-detect (<0.0006 mg/L).

Recent samples (2022-2024) for antimony in Huron WTP treated water were non-detect (<0.0006 mg/L).

Expert panel meeting on the health effects of fluoride in drinking water: Summary report

Source: Health Canada

Date Posted/Notice Received: February 15, 2024

Comments Due: N/A

Summary:

“Health Canada is in the early stages of reviewing the Guidelines for Canadian Drinking Water Quality for fluoride. That review includes assessing new scientific studies on potential health effects associated with exposure to fluoride.”

To support the upcoming review Health Canada engaged six experts to consider scientific evidence and make recommendations, including those to consider in deriving a health-based value for fluoride in drinking water. The expert panel reached consensus on answers to several key questions that will guide the development of a health-based value for fluoride in drinking water.

Ontario Consultation:

Proposal: New regulation to focus municipal environmental assessment requirements

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

Date Posted: February 16, 2024

Comments Due: March 17, 2024

Summary:

MECP is proposing to revoke the Municipal Class EA (MCEA) and make a new regulation under the *Environmental Assessment Act* that will identify which municipal infrastructure projects are subject to a streamlined Environmental Assessment (EA) process and the process that must be followed. The new regulation will be referred to as the Municipal Project Assessment Process (MPAP).

The intent is to make a streamlined EA regulation for municipal infrastructure for higher risk projects (i.e., the more complex water, sewage, and shoreline/in-water works projects led by municipalities). For water treatment facilities, proposed projects that would be subject to the new regulation include constructing a new drinking water

treatment plant or expanding an existing drinking water treatment plant beyond existing rated capacity.

All projects that are currently subject to Schedule B in the MCEA will be exempted under the new regulation. Essentially, only current MCEA Schedule C projects will be subject to the new regulation. The process will be able to be completed in 6 months (rather than 1 year+ which is the current duration of a typical municipal Class EA). Comments from First Nations and MECP will be of interest for this proposal.

Potential Impacts:

- Currently under review.
- The Master Plans will continue as planned. Most of the projects to be identified will likely be pre-approved (A, A+ or B), and not require completion of the municipal Class EA. Indigenous consultation will be an important part of this Master Plan, and was clearly outlined in the scope of work.
- There were no Class EAs on the immediate horizon for us, so no other concerns at this time.
- In the case of a major plant expansion beyond the current rated capacity, and/or a new/change in intake location, a Schedule C Class EA would be required and the existing/proposed Municipal Class EA is anticipated to be similar/equivalent (to the proposed, streamlined process) and could be achieved in about half the time.

RWS comment - Only Part 2 Orders that can be issued are related to First Nations. It is not clear how Species at Risk (SAR) will be adequately addressed/protected. It seems environmentally sensitive areas can be ignored as long as there is compensation. MEA just published Ministry's publications on the matter.

10. Status of Action Items from Previous Management Reviews

Refer to agenda package for list of action items.

11. Action Items Identified Between Reviews

Refer to agenda package for more information.

- LHPWSS Corrective Action Form (CAF) – MECP Inspection Non-compliance (Jan. 9, 2024)
- EAPWSS Complaint Form – Lighting Complaint (Jan. 10, 2024)
- EAPWSS Corrective Action Form – Elgin CT Calculator (Jan. 17, 2024)

OCWA comment – It should be noted that open CAF items also relate to adequacy of resources (agenda item #6). Will try to reduce the number of open actions on CAF tracking system.

OCWA comment – Related to Elgin CAF Reference #777 (review chemical storage tanks and standardize measurements) requesting to extend completion date deadline to end of 2024. The scope of the action items should also be revisited/clarified (e.g. signage etc.)

Top Management approved a deadline extension for Elgin action item #777 to December 31, 2024 with an additional request to further clarify the scope of the project (re: signage, documentation, SCADA screens, etc.).

12. Environmental Compliance Internal Audits:

- Transportation of Dangerous Goods (EAPWSS) – Dec. 14, 2023
No OFI's or Non conformances identified as part of the audit.
- Transportation of Dangerous Goods (LHPWSS) – Dec. 6, 2023
No OFI's or Non conformances identified as part of the audit.

13. Intertek Certification Marks

SAI global was bought out by Intertek and this resulted in a new ISO 14001 logo.

Top Management decision to remove the logo from the letterheads for now and address what will go on signage as part of separate item (rebranding initiative).

ACTION Item: OCWA - white sticker to be placed over ISO 14001 logo on signage before September 2023.

14. New Business

RWS comment – In a recent case involving a former Ontario nuclear plant operator, the Security of Information Act was breached. Confidential information was leaked and the former employee is being charged. RWS is following story for outcome.

RWS comment – Discussion at utility management conference (CAD and US) about lowering free chlorine residuals that are carried in transmission systems. General discussion to be had in the future. RWS was in discussion with US EPA, Health Canada, US and CAD Management and Operation staff about value of keeping high chlorine residuals in distribution systems when the purpose is secondary disinfection and degradation measurements are changing.

End of Meeting

Appendix B: Internal Environmental Compliance Audit - Safe Drinking Water Act and Regulations (March 14, 2024)

Audit Purpose:

The purpose of the remote audit was to assess fulfillment of compliance obligations with applicable legislative requirements (e.g., regulations, bylaws). Internal compliance audits promote continual improvement in the EAPWSS.

Non-conformances and opportunities for improvement are listed below.

Auditor Qualifications:

- Jennifer Levitt has completed an ISO 14001:2015 Internal Auditor training course and is deemed competent to complete auditing of management systems.

Methodology:

The remote desktop audit was conducted for the EAPWSS facilities which are operated by Ontario Clean Water Agency (OCWA), the contracted Operating Authority. The audit checklist was generated using Nimonik Environmental Criteria Software. The audit reviewed how well legislative requirements are integrated into the EAPWSS and to ensure effective fulfillment of compliance obligations. This audit focused on the period between August 14, 2019 through March 14, 2024.

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

Findings:

The following is a summary of the audit findings, including non-conformances and opportunities for improvement.

Definitions:

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

Interviews Conducted:

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

Summary of Findings

Non-Conformances (NCs)

No NCs were identified as part of the internal audit.

Opportunities for Improvement (OFIs)

OFI #1 (Section 18 of Safe Drinking Water Act 2002 SO2002, c32)

There was one (1) Adverse Water Quality Incident (AWQI) reported for the audit period which occurred on January 27, 2024 (AWQI# 164418). OCWA advised the Operator misread the January 28, 2024 - 'Daily CT Summary Report'. On January 29, 2024, the CT Calculator misread was discovered by the Operations & Compliance Team Lead during the once-weekly review of the data and the issue was then reported to Management and Interested Parties.

Consider the suitability of the 'Daily CT Summary Report', as audit evidence suggests it is difficult to interpret.

Board of Management Report

Subject: Quarterly Operating Financial Status – 1st Quarter 2024

Overview:

- This report shows the current fiscal year's 1st quarter in comparison to its Budgeted amount and the previous year's same time period.

Recommendation

That the Board of Management for the Elgin Area Water Supply System receive this report regarding the Operating Financial Status Report for the period of January 1 to March 31, 2024, noting that this report is unaudited and subject to adjustments including the preparation of the financial statements and completion of the annual audit.

Previous and Related Reports

Quarterly Operating Financial Status – 4th Quarter 2023

Background

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

A high-level summary of incurred expenses and revenues for the water supply system is attached to this report as Appendix A for the first quarter 2024 (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.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London. Expenditures have increased from the same period in 2023 due to an increase in contracted costs.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The reported energy cost was marginally higher than the same period of the previous year due to increased volumes and market expenses.
- Salaries, wages, and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2023 are attributed to annual salary adjustments, vacancies, and additional staff added in the 2023 budget.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, bank charges and interest, and office supplies. While the reported expenditures may be adjusted as part of the year-end process, accounting for 2023 and 2024 pre-payments and other cost accounting adjustments, the costs to date are mostly higher than 2023 due to higher bank charges due to increased interest rates.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers, and office equipment for administrative staff. First quarter 2024 expenditures are currently higher than 2023 largely due to higher charges and additional travel requirements.
- 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 2023 is largely attributed to higher insurance premiums, and a special drainage assessment fee.

- Debt Principal and Interest payments occur twice per year; in the first and third quarter. The first quarter 2024 shows the debt principal payments for the entire year.
- Contributions to the Reserve Funds occur at the end of the fiscal year (fourth quarter) as part of the year-end process and in preparation for the year-end audit, where the actual contributions are the total remaining revenue in excess of expenditures. Accordingly, the amount of the anticipated contribution will be adjusted to reflect the additional revenue and expenses incurred and may be subject to further adjustment as a result of the completion of the year-end financial statements and audit.

Prepared by: Archana Gagnier
Budget and Finance Analyst

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

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

Attachments: Operating Financial Status Summary – 1st Quarter 2024

Quarterly Financial Summary Report

Elgin Area Water Supply system
1st Quarter 2024 (January 1 to March 31)

(\$,000's)

	Approved 2024 Budget	Q1 - 2024	2024 Year to Date	Year To Date Variance	2023 Year To Date
Total Revenue	16,218	4,078	4,078	12,140	3,585
<u>Expenditures:</u>					
Contracted Operating Services	5,167	1,292	1,292	3,875	1,361
Contracted Administrative Services	175	63	63	112	43
Electricity	1,075	255	255	820	235
Salaries, Wages, Benefits	1,247	193	193	1,054	161
Administration and Other Expenditures	598	248	248	350	238
Vehicles and Equipment	123	36	36	87	14
Purchased Services & Professional Fees	1,058	375	375	683	298
Debt Principle Payments	1,209	1,201	1,201	8	1,176
Interest on Long-Term Debt	85	54	54	31	67
Contributions to Reserve Funds	5,480	0	0	5,480	231
Total Expenditures	16,217	3,717	3,717	12,500	3,824

Board of Management Report

Subject: Water System Operation - Contract Status Update

Overview:

- The current Service Agreement with the operating authority is in effect for the term of January 1, 2023, to December 31, 2027.
- In 2023, the operating authority achieved the contractual requirements related to employee retention and received the associated incentive payment of \$30,000.
- In 2023, the operating authority achieved the contractual requirements associated with the performance incentive payment and received the full amount of \$100,000.
- In 2023, the treated water volume was slightly lower than the projected range resulting in an adjustment to the service fee.

Recommendation

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

Previous and Related Reports

June 1, 2023	Water System Operation – Contract Status Update
June 2, 2022	Water System Operation – Contract Status Update
October 7, 2021	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), acting 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 additional five-year optional extensions.

In 2017 an Amending Agreement was executed to extend the term. The Amending Agreement took effect on July 1, 2017, and the term ended 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 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 is 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 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 2023, 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 2023 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 several exceptions. In 2023 there were several instances where the filtered water turbidity on filter #3 was higher than the required contractual performance criteria. Due to an ongoing repair of filter #2 that was happening at the time, and the likelihood of a similar failure happening in filter #3, the filter performance criteria for filter #3 was temporarily waived until the repairs were completed. A repair on filter #3 is scheduled for Q2 2024.

There were several detection events for geosmin in the treated water in September 2023. Geosmin is an organic compound that can cause taste and odour issues. Board staff took into consideration that there is a lag time in receiving the lab reports from the external lab. During the operator's onsite daily lab tests, no taste and odour was detected in treated water. Therefore, deductions to the incentive payment were not applied. Each lab detect was individually assessed, with the conclusion that the incentive payment should not be impacted. This assessment was made at the sole discretion of the EAPWSS and may not be construed as precedent for future evaluations and assessments.

It is important to note that all regulatory water quality requirements were met during these 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 2023, the actual volume for the EAPWSS was 94.67% of the projected volume. This was outside the accepted range therefore an adjustment to the service fee was required. The reduction in volume was deemed to impact OCWA's actual chemical

costs and residuals disposal costs. This resulted in a total credit adjustment of \$3,644.00, paid by OCWA to the Board.

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, CET
Quality Assurance & Compliance Manager

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

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

Board of Management Report

Subject: 2023 Audited Financial Statements and Auditors Report

Overview:

- The Independent Auditors' Report confirms that the 2023 financial statements provided represent the financial position of the Elgin Area Water Supply System in accordance with the Canadian Public Sector Accounting Standards.

Recommendation

That the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE AND ACCEPT** the 2023 Audited Financial Statements and Independent Auditors' 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 J. Henry, P.Eng.,
Director, Regional Water

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

Attachments: Independent Auditors' Report
2023 Audited Financial Statements, Elgin Area Water Supply System

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Financial Statements of

**ELGIN AREA PRIMARY WATER SUPPLY
SYSTEM**

And Independent Auditors' Report thereon

December 31, 2023

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, 2023
- the statement of operations and accumulated surplus for the year then ended
- the statement of changes in net financial assets 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, 2023, and its results of operations, its changes in net financial assets 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.

Emphasis of Matter – Comparative Information

We draw attention to Note 3 to the financial statements, which explains that certain comparative information presented for the year ending December 31, 2022 has been restated.

Note 3 explains the reason for the restatement and also explains the adjustments that were applied to restate certain comparative information.

Our opinion is not modified in respect of this matter.

Other Matter – Comparative Information

As part of our audit of the financial statements for the year ended December 31, 2023, we also audited the adjustments that were applied to restate certain comparative information presented for the year ended December 31, 2022. In our opinion, such adjustments are appropriate and have been properly applied.

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.

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- 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

May 31, 2024

DRAFT**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Financial Position****December 31, 2023, with comparative information for 2022**

	2023	2022
		(Restated - note 2)
Financial assets		
Due from the Corporation of the City of London (note 4)	\$ 19,616,763	\$ 15,645,242
Trade and other receivables	711,924	712,820
Loan receivable (note 5)	108,902	130,271
Total financial assets	20,437,589	16,488,333
Financial liabilities		
Accounts payable and accrued liabilities	1,700,865	821,275
Accrued interest on long-term debt	34,238	42,647
Long-term debt (note 6)	4,164,888	5,333,202
Asset retirement obligation (note 7)	664,058	629,041
Total financial liabilities	6,564,049	6,826,165
Net financial assets	13,873,540	9,662,168
Non-financial assets		
Tangible capital assets (note 8)	61,557,059	62,713,804
Prepaid expenses	256,291	230,053
Total non-financial assets	61,813,350	62,943,857
Commitments (note 11)		
Accumulated Surplus (note 9)	\$ 75,686,890	\$ 72,606,025

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

DRAFT**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Operations****Year ended December 31, 2023, with comparative information for 2022**

	Budget	2023	2022
	(note 12)		(Restated - note 2)
Revenues			
User charges	\$ 15,647,811	\$ 15,422,481	\$ 15,024,168
Investment income	202,000	464,067	249,206
Other	25,189	32,570	29,700
Total revenues	15,875,000	15,919,118	15,303,074
Expenses			
Salaries, wages and fringe benefits	1,061,436	1,062,772	928,768
Materials and supplies	7,833,749	7,183,651	6,842,875
Contracted services	664,974	649,218	831,377
Rents and financial expenses	112,000	109,913	81,320
Interest on long-term debt (note 6)	120,708	120,709	180,877
Amortization of tangible capital assets (note 8)	3,540,674	3,540,674	3,589,352
Administrative charges to the Corporation of the City of London	184,598	171,316	168,785
Total expenses	13,518,139	12,838,253	12,623,354
Annual surplus	2,356,861	3,080,865	2,679,720
Accumulated surplus, beginning of year (note 9)	72,606,025	72,606,025	70,276,264
Adjustment on adoption of the asset retirement obligation standard (note 3)	-	-	(349,959)
Accumulated surplus, end of year (note 9)	\$ 74,962,886	\$ 75,686,890	\$ 72,606,025

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

DRAFT**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Statement of Change in Net Financial Assets****Year ended December 31, 2023, with comparative information for 2022**

	Budget	2023	2022
	(note 12)		(Restated - note 2)
Annual surplus	\$ 2,356,861	\$ 3,080,865	\$ 2,679,720
Acquisition of tangible capital assets	(10,447,026)	(2,383,929)	(1,672,932)
Amortization of tangible capital assets	3,540,674	3,540,674	3,589,352
	(4,549,491)	4,237,610	4,596,140
Change in prepaid expenses	-	(26,238)	(37,060)
Change in net financial assets	(4,549,491)	4,211,372	4,559,080
Net financial assets, beginning of year	9,662,168	9,662,168	5,732,098
Adjustment on adoption of the asset retirement obligation standard (note 3)	-	-	(629,010)
Net financial assets, end of year	\$ 5,112,677	\$ 13,873,540	\$ 9,662,168

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

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

Year ended December 31, 2023, with comparative information for 2022

	2023	2022
		(Restated - note 2)
Cash provided by (used in)		
Operating activities		
Annual surplus	\$ 3,080,865	\$ 2,679,720
Items not involving cash		
Amortization of tangible capital assets	3,540,674	3,589,352
Amortization of debenture discount	7,810	15,178
Accretion expense	-	31
Change in non-cash assets and liabilities		
Due from the Corporation of the City of London	(3,971,521)	(2,171,252)
Prepaid expenses	(26,238)	(37,060)
Trade and other receivables	896	46,514
Accounts payable and accrued liabilities	879,590	(133,354)
Accrued interest on long-term debt	(8,409)	(17,351)
Asset retirement obligation	35,018	-
Net change in cash from operating activities	3,538,685	3,971,778
Capital activities		
Purchase of tangible capital assets	(2,383,929)	(1,672,932)
Net change in cash from capital activities	(2,383,929)	(1,672,932)
Financing activities		
Long-term debt repayments	(1,176,125)	(2,323,163)
Loan receivable	21,369	24,317
Net change in cash from financing activities	(1,154,756)	(2,298,846)
Net change in cash flows and cash, end of year	\$ -	\$ -

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, 2023****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:

Municipality	Members	Votes
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, 2023

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) Asset Retirement Obligation

An asset retirement obligation (ARO) is recognized when, at the financial reporting date, all of the following criteria are met:

- There is a legal obligation to incur retirement costs in relation to a tangible capital asset;
- The past transaction or event giving rise to the liability has occurred;
- It is expected that future economic benefits will be given up; and
- A reasonable estimate of the amount can be made.

The following liabilities have been recognized based on estimated future expenses:

- Removal of asbestos in various buildings owned by the Entity. The Occupational Health and Safety Act states the demolition of a building, all or in part, can be done only when asbestos-containing material that may be disturbed during the work, has been removed.
- Removal of underground fuel and oil storage tanks and related piping. The Technical Standards and Safety Authority (TSSA) states in both its Liquid Fuels Handling Code and the Fuel and Oil Code that an underground storage tank and its piping must be removed when it has been out of service for 2 years or more.
- Removal of leasehold improvements where requested by the landlord. A lease may have a Base-Building clause that states that leasehold improvements are to be removed at the end of a lease at the request of the landlord and at the expense of the Entity.

(c) 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.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

2. Significant Accounting Policies (continued)

(c) Non-financial Assets (continued)

(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:

Asset	Useful Life - Years
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.

(d) 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.

(e) 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.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**Notes to Financial Statements (continued)****Year ended December 31, 2023****2. Significant Accounting Policies (continued)****(f) Financial Instruments**

Financial instruments are classified in one of the following categories: (i) fair value; (ii) cost or amortized cost. The Entity determines the classification of its financial instruments at initial recognition.

Unsecured debentures and other long-term debt are initially recorded at fair value and subsequently measured at amortized cost using the effective interest rate method. Transaction costs related to the issuance of long-term debt are capitalized and amortized over the term of the debt.

Other financial instruments, including cash and cash equivalents, trade accounts receivable, loans receivable, accounts payable and accrued liabilities, are initially recorded at their fair value and are subsequently measured at cost, net of any provisions for impairment.

The following table provides the carrying amount information of the Entity's financial instruments by category.

Financial Instruments	Measurement Method
Due from the Corporation of the City of London	Cost
Trade and other receivables	Cost
Other loans receivable	Amortized Cost
Accounts payable and accrued liabilities	Cost
Accrued interest on long-term debt	Cost
Long-term debt	Amortized Cost

Upon standard implementation, amortized cost will be measured using the effective interest rate method, as opposed to the straight-line method.

Fair value category: The Entity manages and reports performance for groups of financial assets on a fair-value basis. Investments traded in an active market are reflected at fair value as at the reporting date. Sales and purchases of investments are recorded on the trade date. Transaction costs related to the acquisition of investments are recorded as an expense. Unrealized gains and losses on financial assets are recognized in the Statement of Remeasurement Gains and Losses until such time that the financial asset is derecognized due to disposal or impairment. At the time of derecognition, the related realized gains and losses are recognized in the Statement of Operations and related balances reverses from the Statement of Remeasurement Gains and Losses. A statement of Remeasurement Gains and Losses has not been included as there are no material matters to report therein.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

2. Significant Accounting Policies (continued)

(f) Financial Instruments (continued)

The fair value of a financial instrument is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act. The fair value of a financial instrument on initial recognition is the transaction price at the trade date, which is the fair value of the consideration given or received. After initial recognition, the fair values of financial instruments that are quoted in active markets are based on bid prices for financial assets held and offer prices for financial liabilities. When independent prices are not available, fair values are determined by using valuation techniques that refer to observable market data. These include comparisons with similar instruments where market observable prices exist, discounted cash flow analysis, option pricing models and other valuation techniques commonly used by market participants.

Amortized cost category: Amounts are measured using the effective interest rate method. The effective interest method is a method of calculating the amortized cost of a financial asset or financial liability (or a group of financial assets or financial liabilities) and of allocating the interest income or interest expense over the relevant period, based on the effective interest rate. It is applied to financial assets or financial liabilities that are not in the fair value category.

Cost category: Amounts are measured at cost less any amount for valuation allowance. Valuation allowances are made when collection is in doubt.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

All financial assets are assessed for impairment on an annual basis. When a decline is determined to be other than temporary, the amount of the loss is reported in the statement of operations and any unrealized gain is adjusted through the statement of remeasurement gains and losses.

When the asset is sold, the unrealized gains and losses previously recognized in the statement of remeasurement gains and losses are reversed and recognized in the statement of operations.

A statement of remeasurement gains and losses has not been included as there are no matters to report therein.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

2. Significant Accounting Policies (continued)**(g) Loans Receivable**

Loans receivable are recorded at the lower of amortized cost and the net recoverable value when the risk of loss exists. Recoverability is reviewed annually, and a valuation allowance is recorded when recoverability is impaired. A loan receivable is written off when it is no longer recoverable. Recoveries of loans receivable previously written off are recognized in the year received. Changes in the valuation of loans receivables are recognized in the statement of operations and accumulated surplus. Interest is accrued on loans receivable to the extent it is deemed collectable.

When the terms associated with a loan are considered concessionary such that all or a part of the loan is a grant, the Entity will expense the grant portion of the transaction in the statement of operations and accumulated surplus at the time the loan is made.

(h) Foreign Currency Translation

Monetary assets and liabilities denominated in foreign currencies are translated at the prevailing rates of exchange at the year-end date. Revenue and expenses are translated at the exchange rate prevailing on the transaction date. Realized and unrealized exchange gains and losses are included in the statement of operations.

(i) 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.

The Entity's implementation of PS3280 Asset Retirement Obligations has resulted in the requirement for management to make estimates regarding the expected retirement costs, as well as the timing and duration of these retirement costs.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

2. Significant Accounting Policies (continued)

(j) 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.

(k) 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.

(l) 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.

(m) 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.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

2. Significant Accounting Policies (continued)

(n) Future Accounting Pronouncements

These standards and amendments were not yet effective for the year ended December 31, 2023, and have therefore not been applied in preparing these financial statements. Management is currently assessing the impact of the following accounting standards updates on the future financial statements.

(i) Revenue

PS 3400, Revenue, establishes a single framework to categorize revenues to enhance the consistency of revenue recognition and its measurement. This standard is effective for fiscal years beginning on or after April 1, 2023 (the Entity's December 31, 2024 year-end).

(ii) Public Sector Guideline 8 Purchased Intangible

Public Sector Guideline 8 Purchased Intangible, allows public sector entities to recognize intangible purchased through an exchange transaction. This guideline is effective for fiscal years beginning on or after April 1, 2023 (the Entity's December 31, 2024 year-end).

(iii) Public Private Partnerships

PS 3160, Public Private Partnerships (P3s), provides specific guidance on the accounting and reporting for public private partnerships between public and private sector entities where the public sector entity procures infrastructure using a private sector partner. This standard is effective for fiscal years beginning on or after April 1, 2023 (the Entity's December 31, 2024 year-end).

3. Change in Accounting Policies - Adoption of New Accounting Standards

The Entity adopted the following standards concurrently, beginning January 1, 2023:

(a) PS 1201, Financial Statement Presentation

PS 1201, Financial Statement Presentation replaces PS 1200 Financial Statement presentation. This standard establishes general reporting principles and standards for the disclosure of information in government financial statements. The standard introduces the Statement of Remeasurement Gains and Losses separate from the Statement of Operations. Requirements in PS 2601 Foreign Currency Translation, PS 3450 Financial Instruments, and PS 3041 Portfolio Investments, which are required to be adopted at the same time, can give rise to the presentation of gains and losses as remeasurement gains and losses.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**Notes to Financial Statements (continued)****Year ended December 31, 2023**

3. Change in Accounting Policies - Adoption of New Accounting Standards (continued)**(b) PS 3041, Portfolio Investments**

PS 3041, Portfolio Investments replaces PS 3040 Portfolio Investments. The standard provides guidance on accounting for, and presentation and disclosure of, portfolio investments to conform to PS 3450 Financial Instruments. The distinction between temporary and portfolio investments has been removed in the new standard, and upon adoption, PS 3030 Temporary Investments no longer applies.

(c) PS 3450, Financial Instruments and PS 2601, Foreign Currency Translation

The Entity adopted PS 3450 Financial Instruments and PS 2601 Foreign Currency Translation standards prospectively from the date of adoption. The new standards provide comprehensive requirements for the recognition, measurement, presentation and disclosure of financial instruments and foreign currency transactions.

Under PS 3450, all financial instruments, including derivatives, are included on the statement of financial position, and are measured at either fair value or amortized cost based on characteristics of the instrument and the Entity's accounting policy choices. (see note 2, Significant accounting policies). Unrealized gains and losses arising from changes in fair value are presented in the Statement of Remeasurement Gains and Losses.

These above standards were adopted prospectively. There was no impact to the Entity as a result of the adoption of the above standards.

(d) PS 3280, Asset Retirement Obligations

The Entity adopted PS 3280 Asset Retirement Obligations (ARO). The new accounting standard addresses the reporting of legal obligations associated with the retirement of certain tangible capital assets by public sector entities. The standard was adopted on the modified retrospective basis at the date of adoption, with the restatement of comparative information. Under the modified retrospective method, the discount rate and assumptions used on initial recognition are those as of the date of adoption of the standard.

On January 1, 2023:

The Entity recognized an asset retirement obligation relating to various buildings owned by the Entity that contain asbestos. The liability was measured as of the date of purchase of the buildings, when the liability was assumed. The buildings have an expected useful life of 40 years, which has not been revised.

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

3. Change in Accounting Policies - Adoption of New Accounting Standards (continued)

(d) PS 3280, Asset Retirement Obligations (continued)

The Entity recognized an asset retirement obligation relating to underground fuel and oil storage tanks owned by the Entity that must be removed up to 2 years after the end of their useful lives. The liability was measured as of the date of the tanks were installed, when the liability was assumed. The tanks have an expected useful life of 10 years, which has not been revised.

The Entity recognized an asset retirement obligation relating to the potential of a landlord requesting removal of leasehold improvements at the end of a lease. The liability was measured as of the date the leasehold improvements were installed or when the lease began, which is when the liability was assumed. Leasehold improvement assets have an expected useful life of 7 years, which has not been revised.

As a result of applying this accounting standard, an asset retirement obligation of \$664,058 (2022 - \$629,041) was recognized as a liability in the Statement of Financial Position. These obligations represent estimated retirement costs for the Entity owned buildings and building improvements and machinery and equipment. The adoption of this standard was applied to the comparative period as follows:

2022	As previously reported	Adjustments	As restated
Statement of Financial Position			
Tangible capital assets	\$ 62,453,643	\$ 260,161	\$ 62,713,804
Asset retirement obligation	-	629,041	629,041
Accumulated surplus	72,974,905	(368,880)	72,606,025
Statement of Change in Net Financial Assets			
Adjustment for asset retirement obligation	-	(629,010)	(629,010)
Adjustment for asset retirement obligation - accretion	-	(31)	(31)
Statement of Operations			
Rents and financial expenses	81,289	31	81,320
Amortization of tangible capital assets	3,570,463	18,889	3,589,352
Surplus for the year	\$ 2,698,640	\$ (18,920)	\$ 2,679,720

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ELGIN AREA PRIMARY WATER SUPPLY SYSTEM

Notes to Financial Statements (continued)

Year ended December 31, 2023

4. 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.

5. Loan Receivable

	2023	2022
Buy-in Charge Loan - Municipality of Dutton Dunwich	\$ 108,902	\$ 130,271
Interest Earned on Loan at prime rate less 1.53%	\$ 6,631	\$ 3,683

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, \$21,369 was received as payment on the loan. This loan is paid quarterly and will mature in December 2027.

DRAFT**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Notes to Financial Statements (continued)****Year ended December 31, 2023****6. Long-term Debt**

Long-term debt is stated as follows:

	2023	2022
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 2.20% to 2.70% (2022 - 1.95% to 2.70%), maturing March 2026.	\$ 2,251,149	\$ 2,971,630
at rates ranging from 2.20% to 2.85% (2022 - 2.00% to 2.85%), maturing March 2027.	1,936,288	2,391,931
Total long-term debt	4,187,437	5,363,561
Less: Unamortized debenture discount	(22,549)	(30,359)
Net long-term debt	\$ 4,164,888	\$ 5,333,202

The long-term debt repayment schedule is as follows:

2024	\$ 1,201,240
2025	1,227,616
2026	1,255,362
2027	503,219
Total	\$ 4,187,437

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

	2023	2022
Interest on long-term debt	\$ 112,899	\$ 165,699
Amortization of debenture discount	7,810	15,178
	\$ 120,709	\$ 180,877

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

7. Asset Retirement Obligation

The Entity's Asset retirement obligation consists of several obligations as follows:

(a) Asbestos removal:

The Entity owns and operates various buildings that are known or are assumed to contain asbestos, which represents a health hazard upon demolition of the building. There is a legal obligation to remove the asbestos before these buildings are demolished. Following the adoption of PS3280, the Entity recognized an obligation relating to 6 buildings that contain or are suspected to contain asbestos material, of which, none have been fully amortized at January 1, 2023. Each building has an estimated useful life of 40 years.

Key assumptions in determining the liability at December 31, 2023 for asbestos removal and disposal are as follows:

- Timing of settlement - it is unknown when the buildings will be demolished
- Undiscounted liability for asbestos removal - \$534,881
- Discount rate - Due to the unknown timing of retirement, no discount rate was used when estimating the costs
- Estimated time required for retirement activities - at time of demolition only

(b) Removal of underground fuel and oil storage tanks:

The Entity owns various underground fuel and oil storage tanks that have to be removed at the end of their lives. The tanks became a part of the pooled equipment asset for the year in which they were installed. Following the adoption of PS3280, the Entity recognized an obligation relating to 1 underground tank, which has been fully amortized at January 1, 2023. Each tank has an estimated useful life of 20 years.

Key assumptions in determining the liability at December 31, 2023 for tank removal are as follows:

- Timing of settlement - it is unknown when the tanks will be removed
- Undiscounted liability for tank removals - \$125,000
- Discount rate - Due to the unknown timing of retirement, no discount rate was used when estimating the costs
- Estimated time required for retirement activities - at time of removal only

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM

Notes to Financial Statements (continued)

Year ended December 31, 2023

7. Asset Retirement Obligation (continued)

(c) Removal of leasehold improvements when requested by landlord at the end of a lease:

The Entity has entered into leases with these that contains a Base Building clause that states that the landlord has the right, at the Entity's expense, to request the removal of leasehold improvements at the end of the lease. Following the adoption of PS3280, the Entity recognized an obligation relating to 1 lease, which has associated leasehold improvement assets that were not fully amortized at January 1, 2023. Leasehold improvements have an estimated useful life of 7 years.

Key assumptions in determining the liability at December 31, 2023 for leasehold improvement removals are as follows:

- Timing of settlement - the lease end date of 2034
- Undiscounted liability for leasehold improvement removals - \$3,566
- Inflation rate - 2.00%
- Discount rate - 3.50%
- Estimated time required for retirement activities - at time of removal only

All assets, including their increased costs from asset retirement obligation, are depreciated using the straight-line amortization method.

The transition and recognition of asset retirement obligations involved an accompanying increase to the related buildings, equipment (tanks) and leasehold improvement capital assets and the restatement of comparative figures.

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ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

7. Asset Retirement Obligation (continued)

Changes to the asset retirement obligation in the year are as follows:

	Asbestos removal	Removal of underground fuel and oil storage tanks	Removal of leasehold improvements	Balance at December 31, 2023
2023				
Opening balance	\$ 501,364	\$ 125,000	\$ 2,677	\$ 629,041
Accretion expense	-	-	-	-
Change in estimate	36,690	-	1,500	38,190
Liability settled during period	(3,173)	-	-	(3,173)
Closing Balance	\$ 534,881	\$ 125,000	\$ 4,177	\$ 664,058

	Asbestos removal	Removal of underground fuel and oil storage tanks	Removal of leasehold improvements	Balance at December 31, 2022
2022				
Opening balance	\$ -	\$ -	\$ -	\$ -
Adjustment on adoption of asset retirement obligation (note 3)	501,364	125,000	2,677	629,041
Closing Balance	\$ 501,364	\$ 125,000	\$ 2,677	\$ 629,041

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ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

8. Tangible Capital Assets

Cost	Balance at December 31, 2022	Additions	Disposals	Balance at December 31, 2023
	(Restated - note 2)			
Land	\$ 1,251,559	\$ -	\$ -	1,251,559
Buildings and building improvements	32,397,274	866,839	5,200	33,258,913
Machinery and equipment	32,305,413	1,610,185	1,256,165	32,659,433
Vehicles	11,527	-	-	11,527
Water infrastructure	25,653,491	-	-	25,653,491
Computers	416,075	56,590	237,870	234,795
Assets under construction	1,141,234	914,808	1,064,493	991,549
Total	\$ 93,176,573	\$ 3,448,422	\$ 2,563,728	\$ 94,061,267

Accumulated Amortization	Balance at December 31, 2022	Amortization Expense	Amortization Disposal	Balance at December 31, 2023
	(Restated - note 2)			
Land	\$ -	\$ -	\$ -	-
Buildings and building improvements	10,749,378	1,078,854	5,200	11,823,032
Machinery and equipment	13,364,283	1,827,793	1,256,165	13,935,911
Vehicles	9,060	1,646	-	10,706
Water infrastructure	6,055,525	524,167	-	6,579,692
Computers	284,523	108,214	237,870	154,867
Assets under construction	-	-	-	-
Total	\$ 30,462,769	\$ 3,540,674	\$ 1,499,235	\$ 32,504,208

	Net Book Value December 31, 2022	Net Book Value December 31, 2023
	(Restated - note 2)	
Land	\$ 1,251,559	\$ 1,251,559
Buildings and building improvements	21,647,896	21,435,881
Machinery and equipment	18,941,130	18,723,522
Vehicles	2,467	821
Water infrastructure	19,597,966	19,073,799
Computers	131,552	79,928
Assets under construction	1,141,234	991,549
Total	\$ 62,713,804	\$ 61,557,059

DRAFT

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

8. Tangible Capital Assets (continued)

Cost	Balance at December 31, 2021	Adjustment relating to ARO	Additions	Disposals	Balance at December 31, 2022
		(note 7)			(Restated - note 2)
Land	\$ 1,251,559	\$ -	\$ -	\$ -	\$ 1,251,559
Buildings and building improvements	31,384,548	503,133	509,593	-	32,397,274
Machinery and equipment	32,199,576	125,000	509,554	528,717	32,305,413
Vehicles	11,527	-	-	-	11,527
Water infrastructure	25,654,691	-	-	1,200	25,653,491
Computers	406,549	-	9,526	-	416,075
Assets under construction	496,975	-	794,891	150,632	1,141,234
Total	\$ 91,405,425	\$ 628,133	\$ 1,823,564	\$ 680,549	\$ 93,176,573

Accumulated Amortization	Balance at December 31, 2021	Adjustment relating to ARO	Amortization Expense	Amortization Disposal	Balance at December 31, 2022
		(note 7)			(Restated - note 2)
Land	\$ -	\$ -	\$ -	\$ -	\$ -
Buildings and building improvements	9,447,314	283,605	1,018,459	-	10,749,378
Machinery and equipment	11,919,662	84,367	1,888,971	528,717	13,364,283
Vehicles	7,414	-	1,646	-	9,060
Water infrastructure	5,532,519	-	524,206	1,200	6,055,525
Computers	147,342	-	137,181	-	284,523
Assets under construction	-	-	-	-	-
Total	\$ 27,054,251	\$ 367,972	\$ 3,570,463	\$ 529,917	\$ 30,462,769

	Net Book Value December 31, 2021	Net Book Value December 31, 2022
		(Restated - note 2)
Land	\$ 1,251,559	\$ 1,251,559
Buildings and building improvements	21,937,234	21,647,896
Machinery and equipment	20,279,914	18,941,130
Vehicles	4,113	2,467
Water infrastructure	20,122,172	19,597,966
Computers	259,207	131,552
Assets under construction	496,975	1,141,234
Total	\$ 64,351,174	\$ 62,713,804

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**Notes to Financial Statements (continued)****Year ended December 31, 2023****8. Tangible Capital Assets (continued)****(a) Assets Under Construction**

Assets under construction with a cost of **\$991,548** (2022 - \$1,141,234) 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 no write-downs in tangible capital assets during the year (2022 - \$nil).

9. Accumulated Surplus

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

	2023	2022
		(Restated - note 2)
Surplus		
Invested in tangible capital assets	\$ 56,819,307	\$ 56,843,619
Reserve funds set aside for specific purpose by the Entity		
Infrastructure renewal - water operations	18,867,583	15,762,406
	\$ 75,686,890	\$ 72,606,025

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements (continued)
Year ended December 31, 2023

10. Financial Instruments and Risk Management

The Entity's activities expose it to credit risk and liquidity risk.

(a) Credit Risk

Credit risk is the risk of financial loss if a counterparty fails to honour its contractual obligation.

The Entity is also subject to credit risk with respect to loans and trade accounts receivables. The Entity manages credit risk by engaging with recognized, credit worthy third parties. The Entity has no significant concentration of credit risk with any one individual customer. There were no changes in exposures to credit risk during the year. The outstanding amounts related to financial instruments are presented in the table below.

	Current	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Government receivables	\$614,072	\$ -	\$ -	\$ -	\$ -	\$614,072
Other account receivables	3,790	-	-	-	-	3,790
Total	617,862	-	-	-	-	617,862
Net receivable	\$617,862	\$ -	\$ -	\$ -	\$ -	\$617,862

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
Loans and long-term receivables	\$ 22,266	\$ 48,495	\$ 38,141	\$ -	\$ 108,902
Total	\$ 22,266	\$ 48,495	\$ 38,141	\$ -	\$ 108,902

ELGIN AREA PRIMARY WATER SUPPLY SYSTEM**Notes to Financial Statements (continued)****Year ended December 31, 2023****10. Financial Instruments and Risk Management (continued)****(b) Liquidity Risk**

The Entity is also exposed to liquidity risk with respect to accounts payable and accrued liabilities. Most accounts payable and accrued liabilities are expected to be settled in thirty days. The maturities of other financial liabilities are provided in the notes to financial statements related to those liabilities. There have been no significant changes in the exposure to risk or policies, procedures, or methods to measure risk. The outstanding amounts related to financial instruments at year-end are presented in the table below.

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
Accounts payable and accrued liabilities	\$ 1,786,695	\$ -	\$ -	\$ -	\$ 1,786,695
Total	\$ 1,786,695	\$ -	\$ -	\$ -	\$ 1,786,695

11. Commitments

The Entity has \$2,492,590 (2022 - \$2,044,329) in outstanding commitments remaining on facilities and infrastructure contracts as at December 31, 2023.

These amounts represent uncompleted portions of contracts, as at December 31, 2023, on major projects. The majority of payments on these outstanding commitments will be made in the next three (3) to five (5) years.

DRAFT**ELGIN AREA PRIMARY WATER SUPPLY SYSTEM****Notes to Financial Statements (continued)****Year ended December 31, 2023****12. Budget Data**

Budget data presented in these financial statements are based upon the 2023 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.

	Budget
Revenues	
User charges	\$ 15,647,811
Municipal revenue - other	31,189
Total revenues	15,679,000
Expenses	
Personnel costs	1,043,436
Administrative expenses	37,250
Financial expenses - other	426,900
Financial expenses - interest and discount on long-term debt	120,708
Financial expenses - debt principal repayments	1,176,125
Financial expenses - transfers to reserves and reserve funds	4,723,384
Purchased services	1,179,150
Material and supplies	6,709,699
Furniture and equipment	77,750
Other expenses	184,598
Total expenses	15,679,000
Net surplus as per budget	-
PSAB reporting requirements	
Transfers to reserves and reserve funds	4,723,384
Debt principal repayments	1,176,125
Capital expenses not resulting in capital assets	(197,974)
Amortization	(3,540,674)
Reserve fund interest earned	196,000
Net PSAB budget surplus as per financial statements	\$ 2,356,861

Board of Management Report

Subject: 2024 State of the Infrastructure & Levels of Service

Overview:

- Reported annually, the state of the infrastructure is a high-level snapshot of the asset management condition and performance profiles of our various assets and the year-over-year change.
- Levels of service represent the utility's actual service delivery performance compared to targets; first presented in 2023.
- Changes in our asset management profiles and/or gaps identified in meeting a level of service could indicate an investment opportunity or a priority for further action.

Recommendation

That the Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report with regard to the 2024 State of the Infrastructure & Levels of Service for information.

Previous and Related Reports

Oct 7, 2021 Asset Management Policy and Asset Management Plan Update
Mar 3, 2022 Asset Management Plan – Levels of Service Framework
Jun 2, 2022 Elgin Area Treatment and Transmission Assets – State of the Infrastructure Report
Oct 6, 2022 2022 Asset Management Plan Update Project Completion
Jan 13, 2023 EA4194 Elgin Area Water Treatment Plant Asset Condition Assessment
Jun 1, 2023 Asset Management – 2023 State of the Infrastructure Report
Jun 1, 2023 Asset Management – 2023 Levels of Service Report

Background

State of the infrastructure (SOTI) and levels of service (LOS) are components of the Elgin Area Primary Water Supply System's (EAPWSS) asset management program. It is an annual snapshot of the state of the utility's assets and the assets' success in delivering the service. This report is intended to keep the Board informed of the asset management profiles of the water system.

First implemented in 2022 as part of the asset management plan update, this is the second full year of SOTI and LOS asset reporting under our current asset management program. Board staff continuously work to improve the quality of and confidence in our asset data. The information contained in this report represents the utility's asset management data up to the year-end 2023.

State of the infrastructure and levels of service reporting is in alignment with and supports the guiding principles and key outcomes as established through our Asset Management Policy.

Discussion

State of the Infrastructure

The utility has over 4,440 individual and grouped assets documented and categorized across the water systems ten process areas:

- Raw Water Handling
- Pre-Treatment
- Filtration, Disinfection & High Lift Pumping
- General Site, Building Services, Fleet & Security
- Primary Power
- Residuals Management
- Primary Pipelines & Chambers
- Surge Control
- Reservoir & Pumping Station
- Digital Technology*

Since the 2023 SOTI report, a net gain of 292 assets were put into service through a combination of operation & maintenance activities, capital construction projects, and reclassifying existing assets within the utility's asset inventory.

The following asset management profiles are outlined in this report with the respective Asset Cards (by process area) and attached in **Appendix A**:

- Asset Replacement Value
- Asset Condition
- Asset Performance
- Asset Risk
- Asset Remaining Useful Life

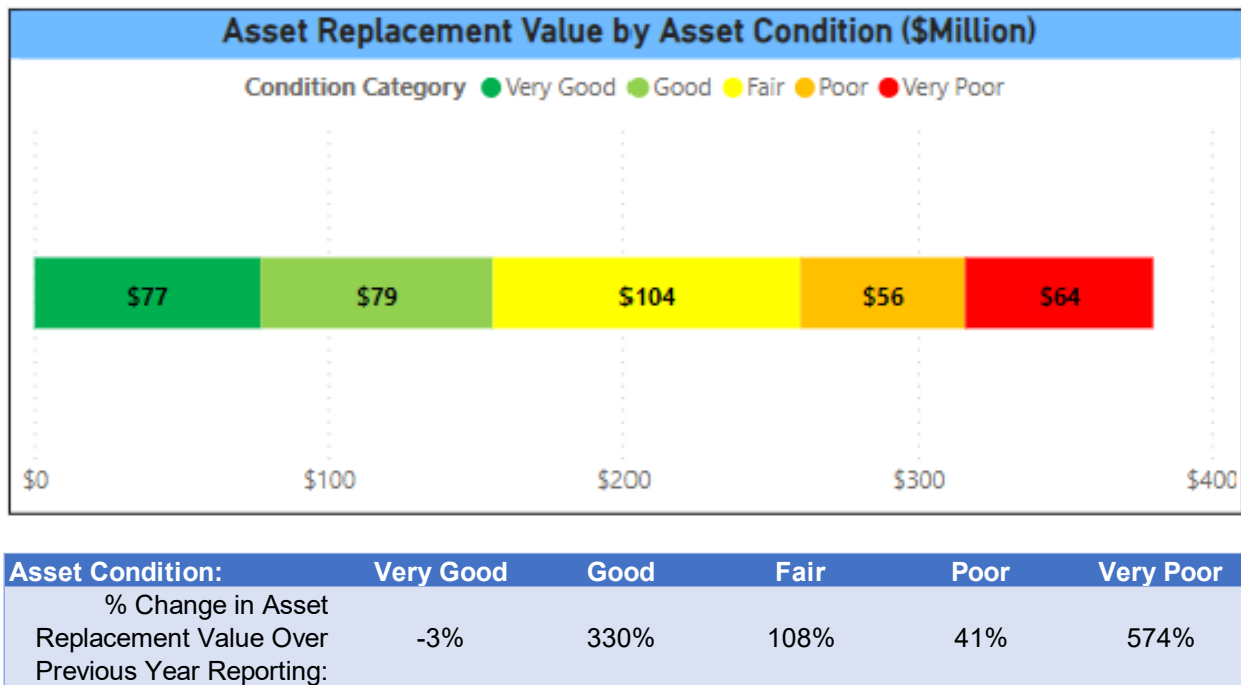
** Where indicated in the discussion below, due to the unique nature of digital technology assets they have been separated out from the other process areas for the purposes of this state of the infrastructure reporting.*

The overall assessment of the state of the infrastructure is a consideration of all these factors. A lower rating in any one factor does not necessarily denote the imminent failure of the asset or system, increasing risk due to poor operational practices, or ineffective investment strategies.

Asset Replacement Value

Across all process areas the utility has an estimated asset replacement value of approximately \$380 million in 2024 dollars compared to \$197 million reported in the 2023 SOTI report, an increase of 93%.

Overall, the utility has a 2024 asset replacement value profile as follows:



This value represents the theoretical projected cost of like-for-like replacement of our water treatment and transmission assets. This increase in valuation is the combined result of several factors including:

- Factoring in the total replacement value of assets (including construction, etc.) as opposed to considering only the cost of the assets themselves.
- Correcting historically under-valued asset pricing.
- Application of Consumer Price Index (CPI) adjustment to 2024 dollars.
- Correcting inaccurate historical year-over-year CPI assumptions.

Asset Condition

One of the key recommendations of the Asset Management Plan was to update our condition assessment information which supports our Asset Management Policy key outcome involving building a future-ready utility that is data rich and knowledge rich.

In 2023 the utility retained the services of a qualified firm to complete a visual condition assessment of process assets at the water treatment plant. That assignment resulted in over 1,300 assets being inspected and having their condition verified and updated in our computerized maintenance management system and asset registry. Figure ES-1 below is a representation of the findings of that condition assessment. Notably, of the 606 assets previously deemed to be in poor or very poor condition based on age, only 43 assets maintained that condition rating following visual inspection.

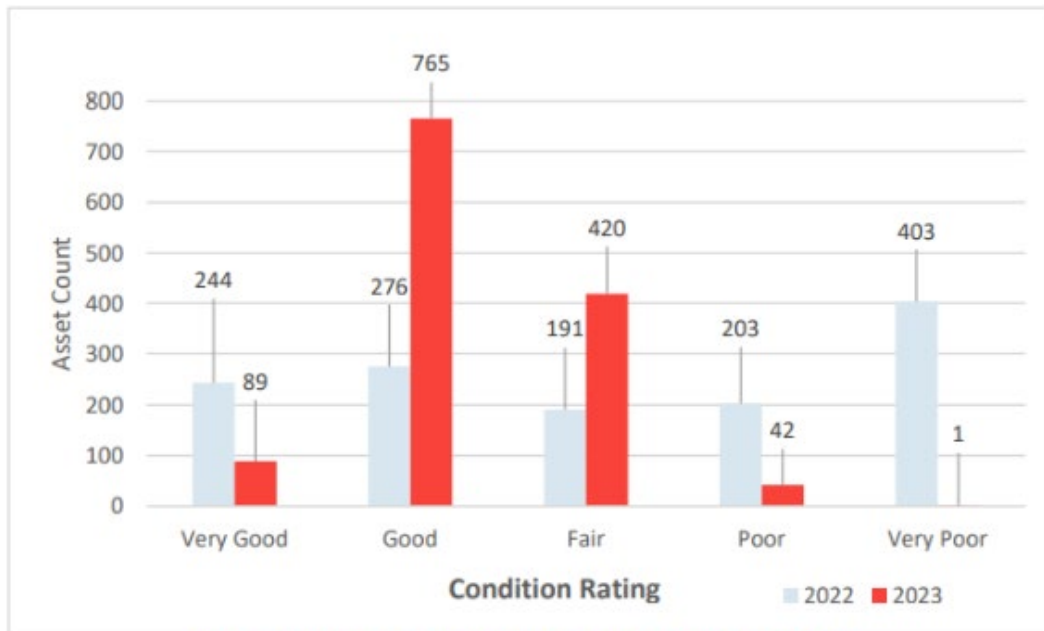
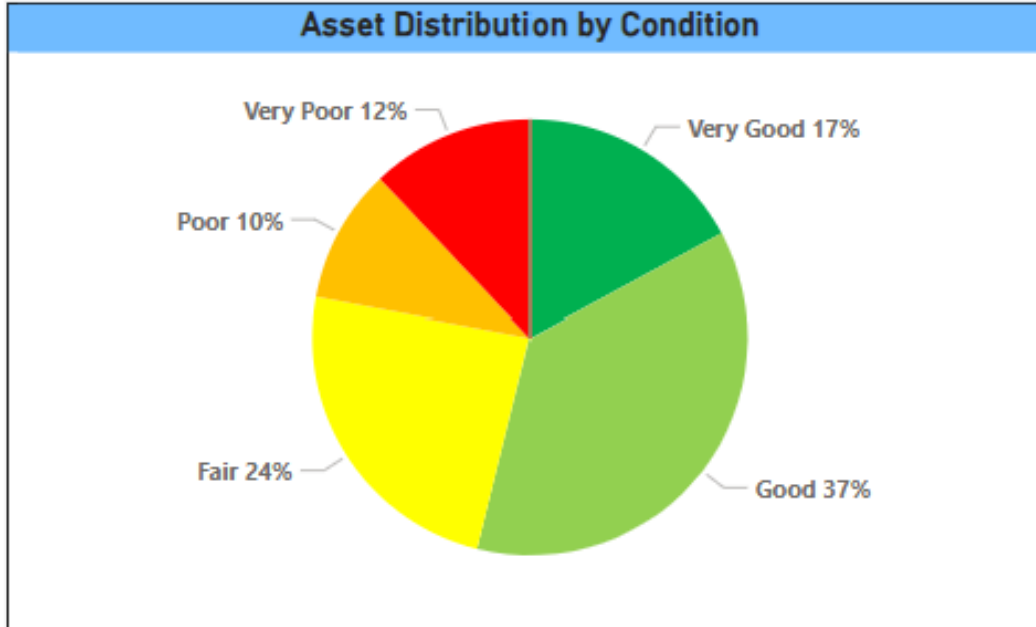


Figure ES-1 - Asset Count Distribution by Condition Rating

Consistent with prior year SOTI reporting, where assets have no current condition assessment information, age-based straight-line deterioration methodology continues to be utilized for determining asset condition. Straight-line deterioration is most useful when an asset's condition is assumed to deteriorate uniformly over time.

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. Each asset has been assigned a condition score of either 1 – Very Good, 2 – Good, 3 – Fair, 4 – Poor, or 5 – Very Poor. Overall, the utility's assets have an average condition score of 2.63, or Fairly-Good, an improvement of 7% over the 2023 state of the infrastructure report.

Overall, the utility has a 2024 asset condition profile as follows:



Asset Condition:	Very Good	Good	Fair	Poor	Very Poor
Asset Condition					
Distribution Change Over Previous Year Reporting:	-9%	11%	12%	-6%	-9%

The updated condition assessment data resulted in year-over-year changes in the asset condition distribution. Collectively 78% of the utility's assets are rated fair or better. For the remaining 22% of assets rated poor or very poor, this is a reduction of 15% from the prior year's reporting. Although over a fifth of the utility's assets are in these condition categories it is important to note that as further outlined in the performance section below, collectively the treatment and transmission assets continue to perform at a high-level despite any age-related risks.

Digital technology assets have an average condition score of 3.91 or Fairly-Poor. This higher condition score reflects the combination of using age-based straight-line deterioration to determine condition and the fact that digital assets have shorter expected useful lives than process related assets. As noted under performance, these digital assets continue to perform adequately.

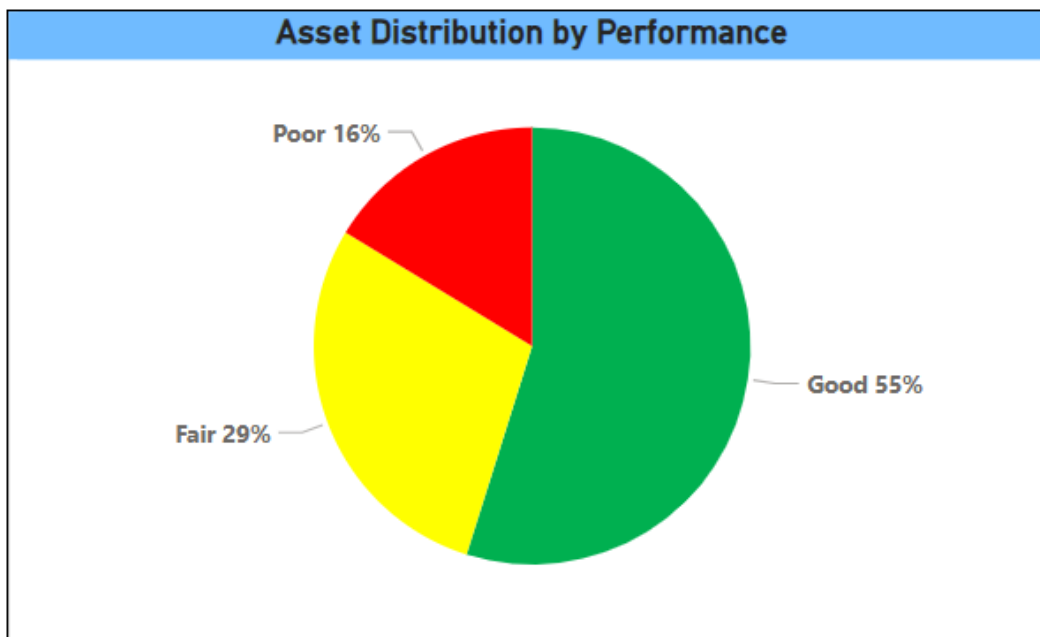
As our asset management program continues to advance and mature, asset condition data will be further refined as data limitations are addressed and data confidence increases. The Asset Management Plan recommends that updated visual condition assessments be performed for the utility's assets to further inform on their condition. Board staff will continue to seek opportunities, synergies, and priorities for completing

such visual condition assessments and incorporating the updated condition data into our asset management program.

Asset Performance

Asset performance is a measure of how well an asset is performing in meeting its desired operational function, and is assessed independently of other factors (e.g., age-related risks). The contracted operator, the Ontario Clean Water Agency (OCWA), using their corporate and collective knowledge, experience, and history with the utility, reports on asset performance as part of their annual asset report. Assets have been assigned a performance rating of 1 – Good, 3 – Fair, or 5 – Poor. Collectively the utility’s assets have an average performance rating of 2.2 or Fairly-Good; consistent with the performance measured for the 2023 SOTI report.

Overall, the utility has a 2024 asset performance profile as follows:



Asset Condition:	Good	Fair	Poor
Asset Performance			
Distribution Change Over Previous Year Reporting:	0%	-1%	1%

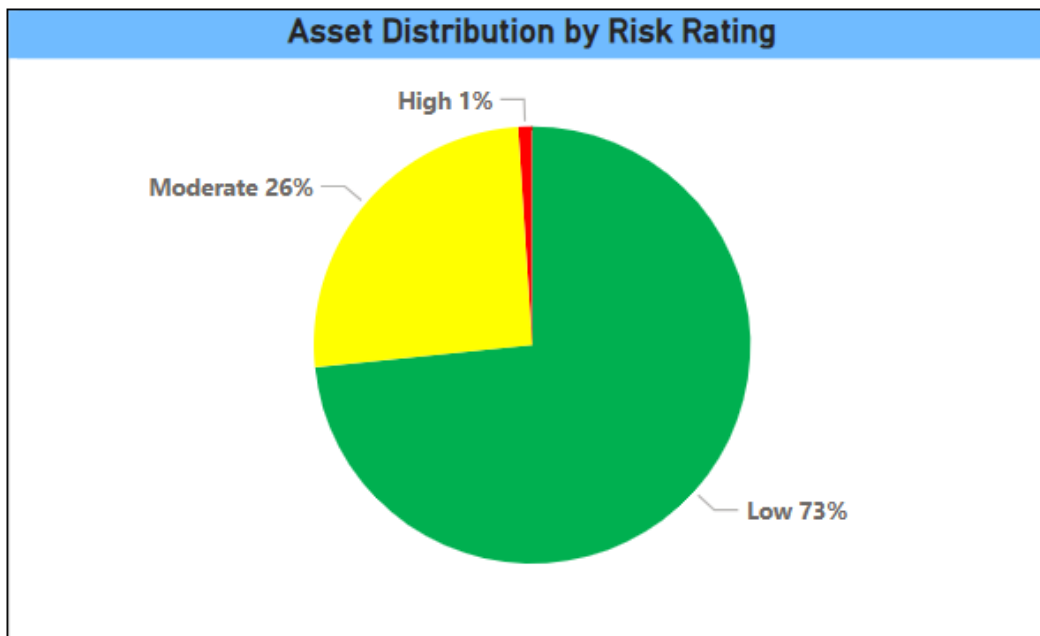
Digital technology asset performance has not been quantified; presently under our asset management program, by their nature, digital technology assets are considered either performing or not performing.

Another key recommendation of the Asset Management Plan is to increase performance data collection. While reporting on asset performance is under the purview of the utility's contracted operator, Board staff will continue to engage and work with the operator to support asset performance data collection.

Asset Risk

Risk is a factor of the likelihood of asset failure (limiting the ability of the asset to deliver the service) and the resulting consequence. Likelihood considers asset condition, performance, and climate change impacts, where consequence considers the severity of the impact and the importance of the asset. By separating condition and performance as two distinct factors, there is an opportunity to consider assets in poor condition that may still be performing well, as well as assets in good condition that may not be reliable. Assets can have a maximum risk rating of twenty-five and are split into three risk zones, High Risk (risk ratings greater than 16), Moderate Risk (risk ratings of 9 to 16), and Low Risk (risk ratings less than 9). Collectively the utility's assets have an average risk rating of 7.6 or low, a reduction of 2% over the prior year SOTI reporting. There are 901 assets within the moderate risk zone and 34 in the high-risk zone.

Overall, the utility has a 2024 asset risk profile as follows:



Asset Condition:	Low	Moderate	High
Asset Risk Rating			
Distribution Change Over Previous Year Reporting:	2%	2%	-4%

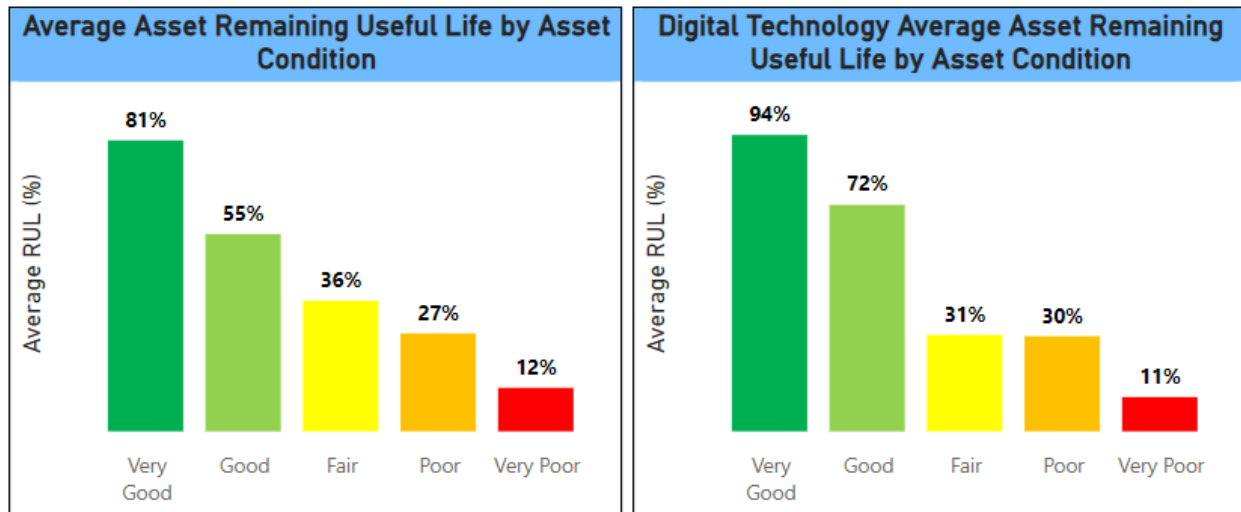
Asset Condition:	Very Good	Good	Fair	Poor	Very Poor
Average Risk Score by Asset Condition:	4.5	6.9	8.8	9.4	10.5
% Change Over Previous Year Reporting:	-2%	12%	21%	-7%	-12%

Of the digital technology assets, 577 are in fair or better condition with an average risk score of 7.9 or low. The remaining 407 assets in the poor or very poor condition category have an average risk score of 12.5 or moderate. There are only two digital technology assets in the high-risk zone.

Asset Remaining Useful Life

An asset's remaining useful life is determined by subtracting the asset age from the asset's expected useful life. Asset age is based on the original asset install date, or, where an asset is known to have been rehabilitated since original installation, the age is adjusted accordingly. Asset remaining useful life (RUL) is expressed as a percentage of the assets expected useful life, averaged across all assets within the same condition category.

Overall, the utility has a 2024 asset remaining useful life profile as follows:



Levels of Service

There are a couple key recommendations in the Asset Management Plan around our levels of service (LOS) including operationalizing our level of service (LOS) framework and increasing the level of service data collection. The utility's level of service framework has established measures and targets across three parameters that reflect the objectives that the utility strives to achieve:

- Quality
- Availability/Reliability
- Environmental Acceptability

Each parameter has a defined set of Customer and Technical levels of service and their respective target metric. A Customer LOS is defined as what service the customer receives while a Technical LOS is defined as what service the utility delivers. Across the three LOS framework parameters the utility has established thirteen (13) customers and thirty-two (32) technical levels of service.

The purpose of setting targets for LOS is to clearly define the objectives of the utility in the provision of treated drinking water to the benefiting municipalities. Levels of service are the service performance targets for the utility and are used in the utility's decision-making process for operational activities and asset investments. These targets are measured on a regular basis, where any gaps identified in being able to meet a level of service could become a priority for action.

Since the 2022 endorsement of both the LOS framework and the Asset Management Plan, Board staff have developed a level of service monitoring program that actively tracks and reports on eighteen (18) of the established technical LOS. Data on the 'outstanding' technical LOS metrics is presently being collected through various means, the data simply has not been formally rolled-up into our level of service monitoring and reporting program to date.

The Elgin Area Primary Water Supply System customer and technical LOS framework and results reporting is attached to this report in **Appendix B**.

It is important to note that data collected and reported for the purposes of this level of service monitoring program is solely related to the utility's asset management program. The level of service data is not intended for or representative of any legislated compliance or other regulatory reporting.

Conclusion

This state of the infrastructure report provides the utility's updated asset profiles for asset replacement value, condition, performance, risk, and remaining useful life. It represents improved data accuracy through ongoing data reconciliation, implementing findings from condition assessments, and updated asset costing. We continue to operationalize our levels of service framework and monitoring program with new measures and metrics being incorporated into our tracking and reporting.

Overall, Board staff are contented with the state of the utility's assets, our asset management profiles, and our ability to meet our level of service objectives.

Board staff will continue to utilize data from our asset management program, including the updated asset profiles and supporting data, to inform planning of future investment and operation and maintenance initiatives, with an eye to improving asset condition & performance, reducing asset risk, extending asset useful life, and maintaining/enhancing the utility's levels of service.

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

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

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

Attachments: Appendix A – Process Area Asset Cards
Appendix B – Level of Service Framework

APPENDIX A – Process Area Asset Cards

- Overall (excluding digital technology assets)
- Raw Water Handling
- Pre-Treatment
- Filtration, Disinfection & High Lift Pumping
- General Site, Building Services, Fleet & Security
- Primary Power
- Residuals Management
- Primary Pipelines & Chambers
- Surge Control
- Reservoir & Pumping Station
- Digital Technology



Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

3458

Asset Count

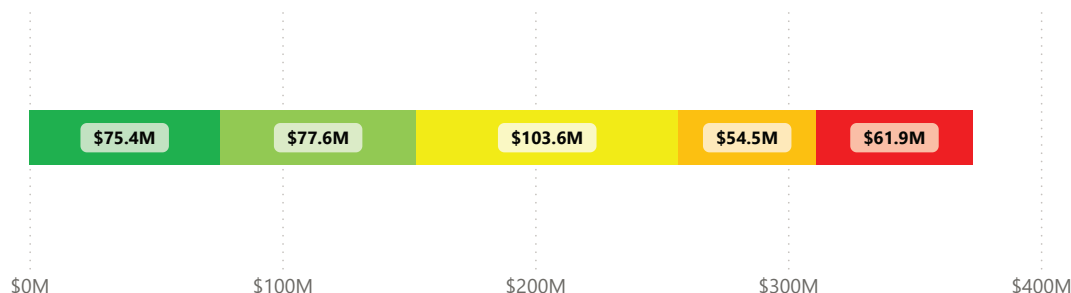
\$373.1M

Total Replacement Value (\$2024)

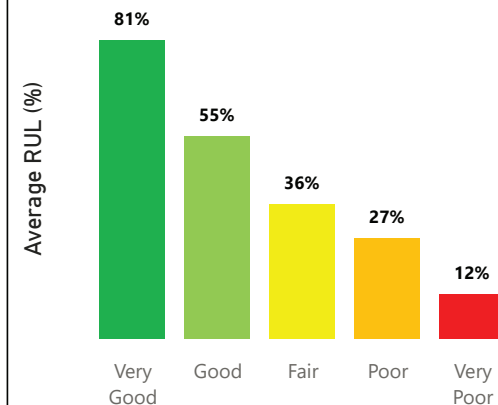
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

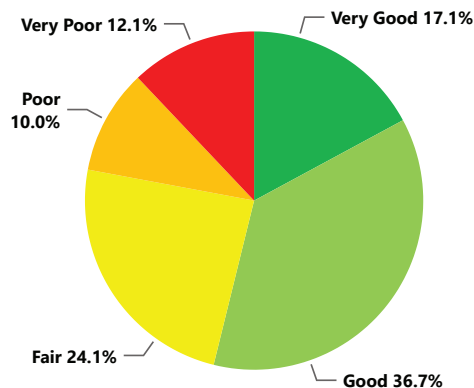
Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



% Remaining Useful Life by Asset Condition



Asset Condition Profile



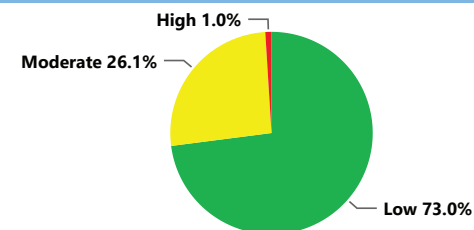
2.63

Average Condition Score

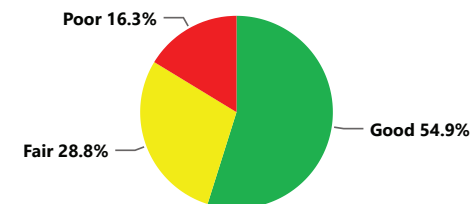
7.61

Average Risk Score

Asset Risk Profile



Asset Performance Profile



1006

Incidences of O&M Intervention

2.23

Average Performance Score



Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

236

Asset Count

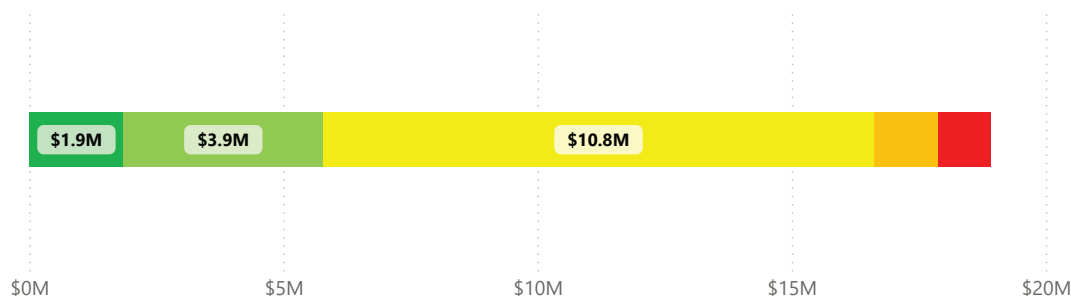
\$18.9M

Total Replacement Value (\$2024)

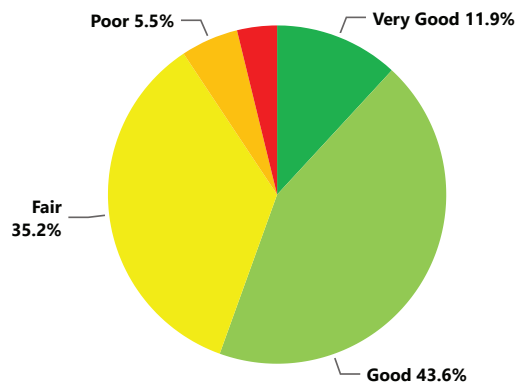
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



Asset Condition Profile



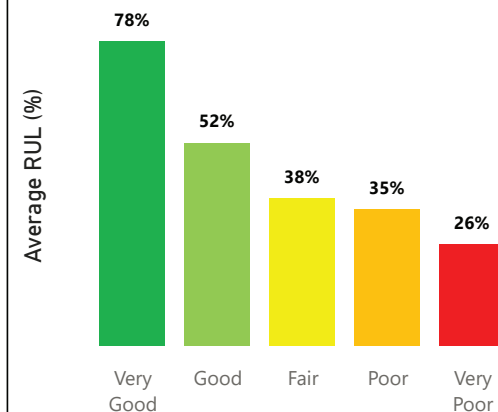
2.46

Average Condition Score

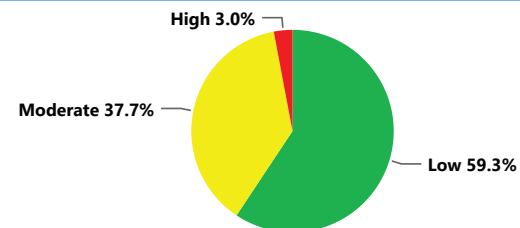
8.63

Average Risk Score

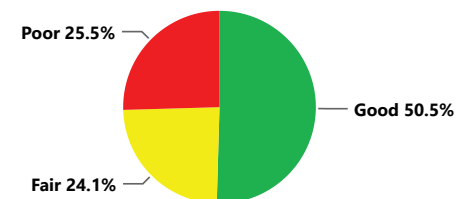
% Remaining Useful Life by Asset Condition



Asset Risk Profile



Asset Performance Profile





Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

223

Asset Count

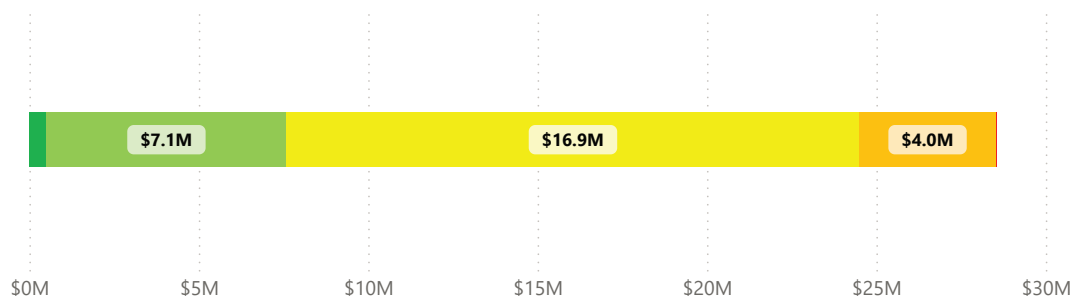
\$28.5M

Total Replacement Value (\$2024)

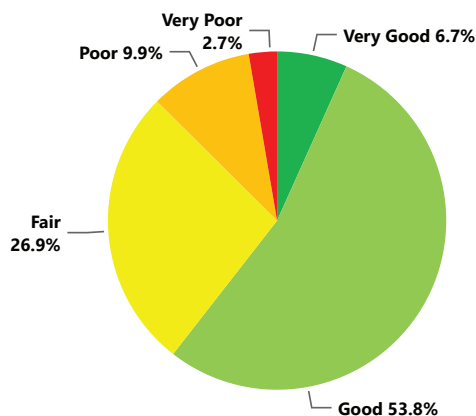
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



Asset Condition Profile



2.48

Average Condition Score

10.39

Average Risk Score

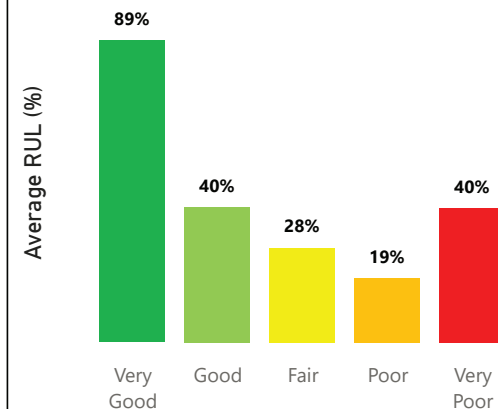
122

Incidences of O&M Intervention

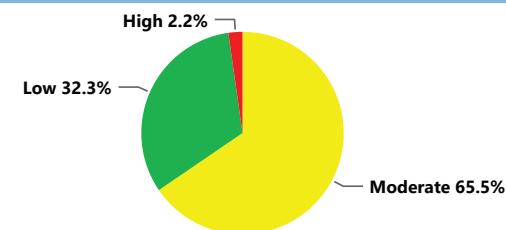
2.82

Average Performance Score

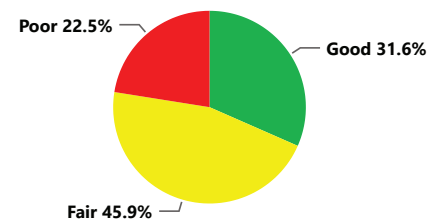
% Remaining Useful Life by Asset Condition



Asset Risk Profile



Asset Performance Profile





Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

625

Asset Count

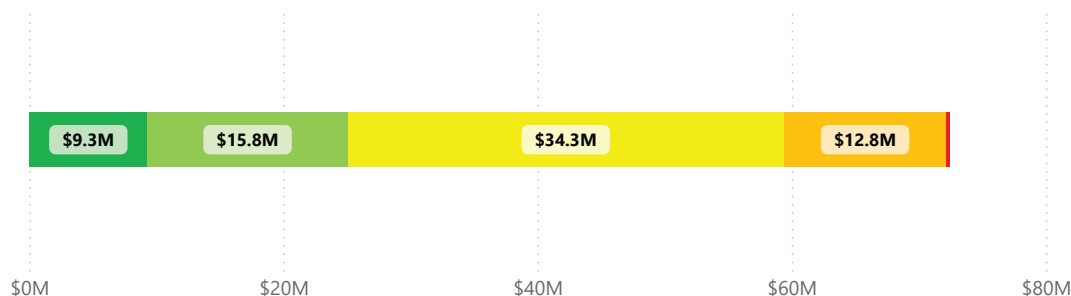
\$72.4M

Total Replacement Value (\$2024)

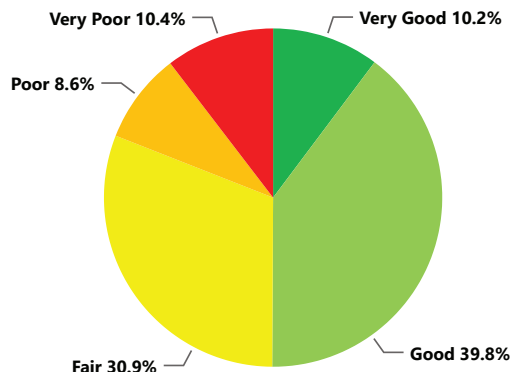
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



Asset Condition Profile



2.69

Average Condition Score

9.79

Average Risk Score

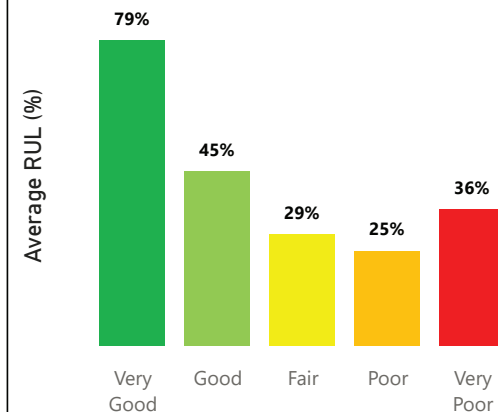
199

Incidences of O&M Intervention

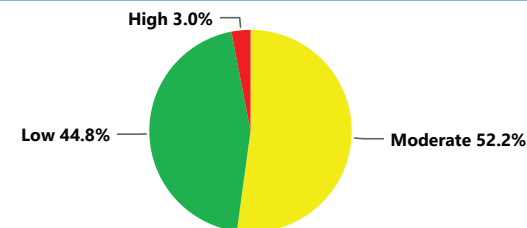
2.65

Average Performance Score

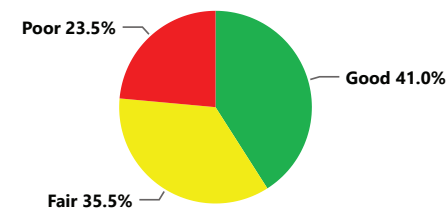
% Remaining Useful Life by Asset Condition



Asset Risk Profile



Asset Performance Profile





Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

721

Asset Count

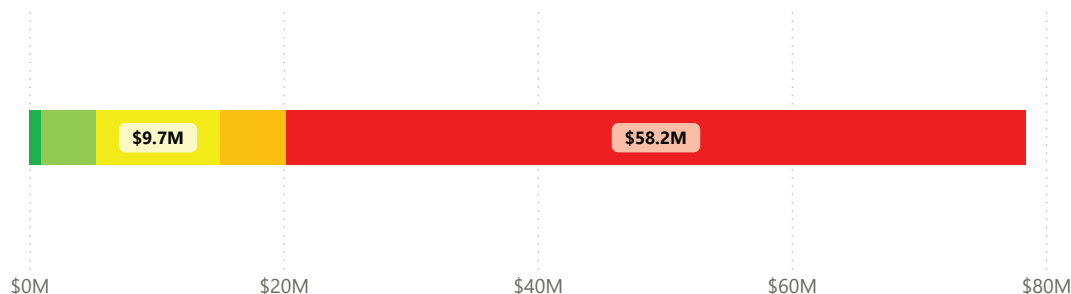
\$78.4M

Total Replacement Value (\$2024)

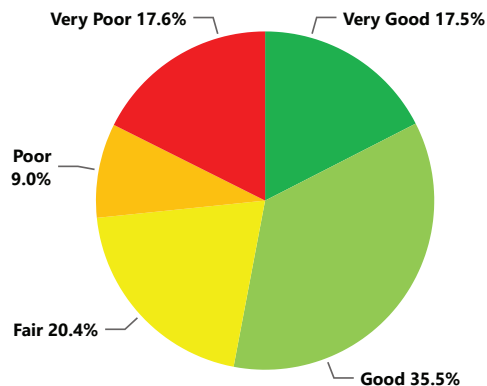
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



Asset Condition Profile



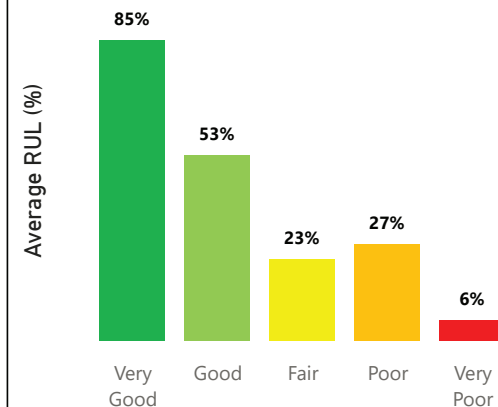
2.74

Average Condition Score

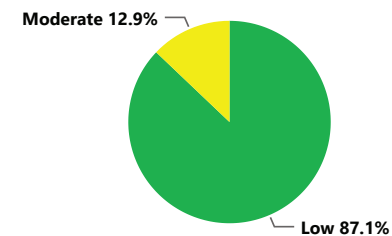
6.84

Average Risk Score

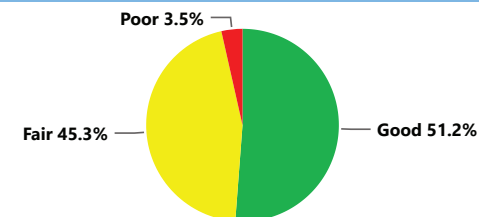
% Remaining Useful Life by Asset Condition



Asset Risk Profile



Asset Performance Profile



241

Incidences of O&M Intervention

2.05

Average Performance Score

Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

68

Asset Count

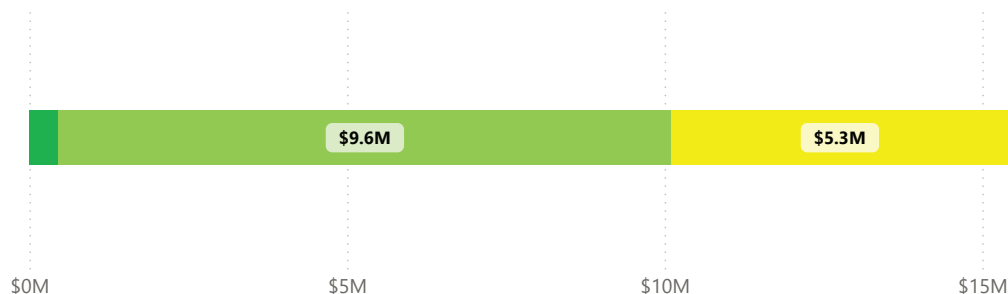
\$15.5M

Total Replacement Value (\$2024)

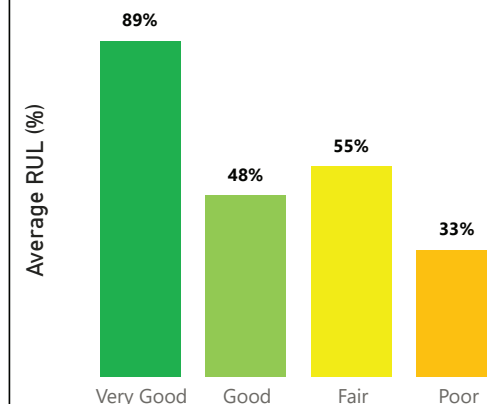
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

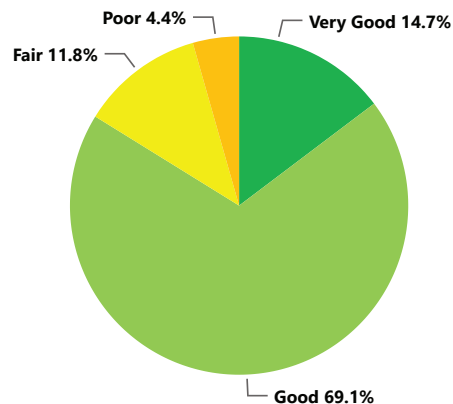
Condition Category ● Very Good ● Good ● Fair ● Poor



% Remaining Useful Life by Asset Condition



Asset Condition Profile



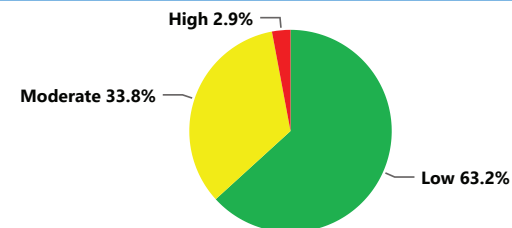
2.06

Average Condition Score

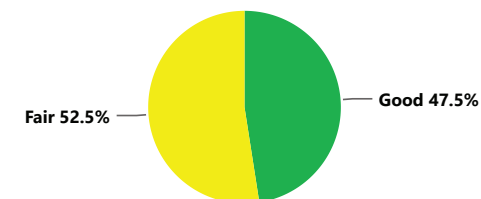
8.39

Average Risk Score

Asset Risk Profile



Asset Performance Profile



20

Incidences of O&M Intervention

2.05

Average Performance Score



Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

884

Asset Count

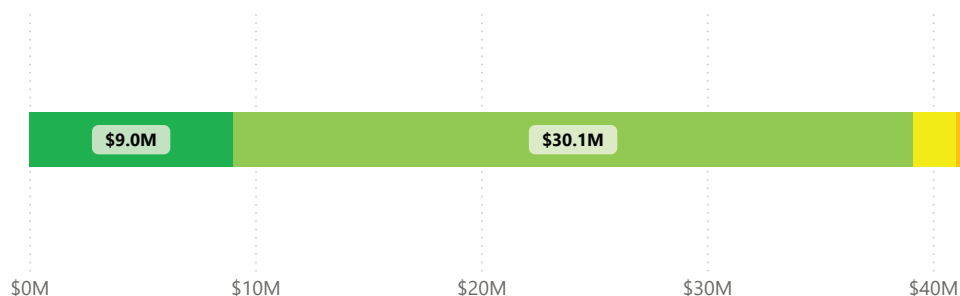
\$41.3M

Total Replacement Value (\$2024)

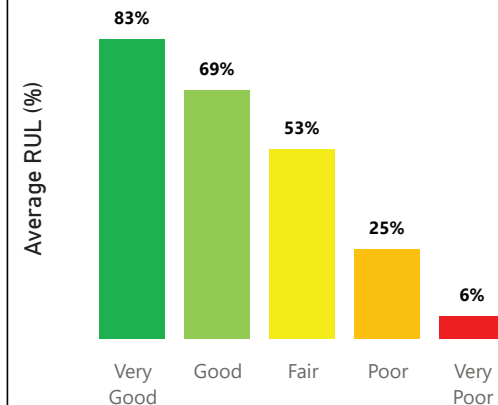
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

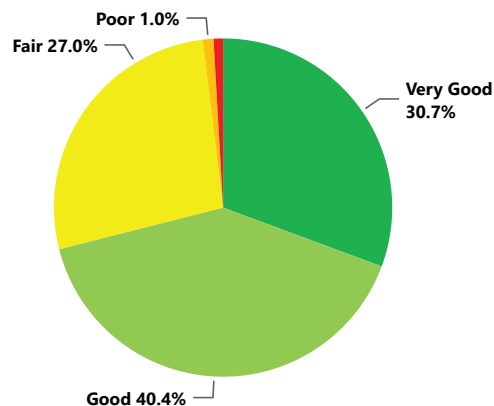
Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



% Remaining Useful Life by Asset Condition



Asset Condition Profile



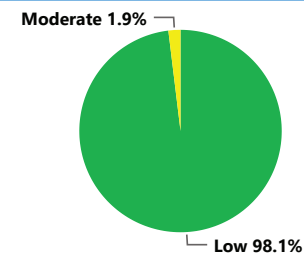
2.01

Average Condition Score

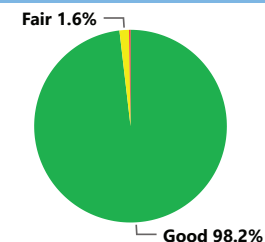
5.58

Average Risk Score

Asset Risk Profile



Asset Performance Profile



261

Incidences of O&M Intervention

1.04

Average Performance Score



Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

310

Asset Count

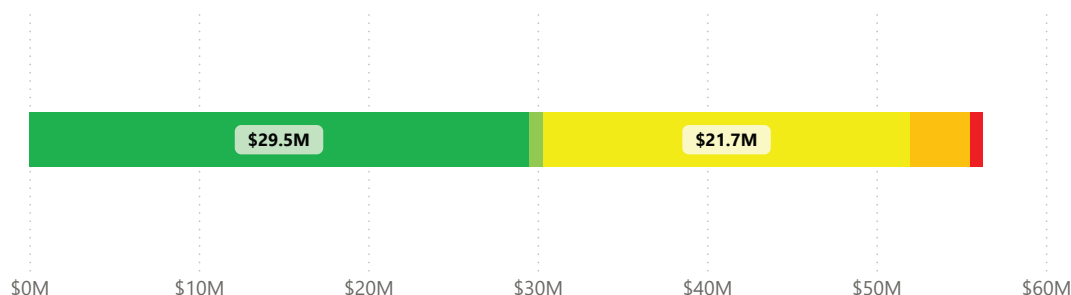
\$56.3M

Total Replacement Value (\$2024)

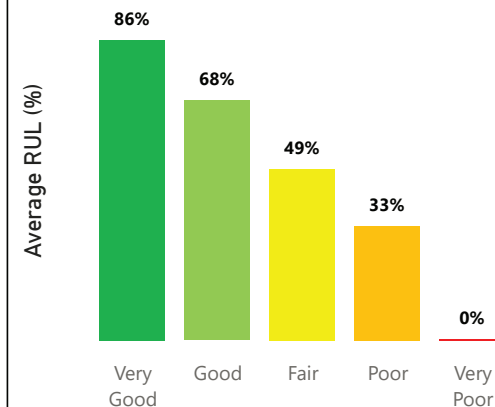
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

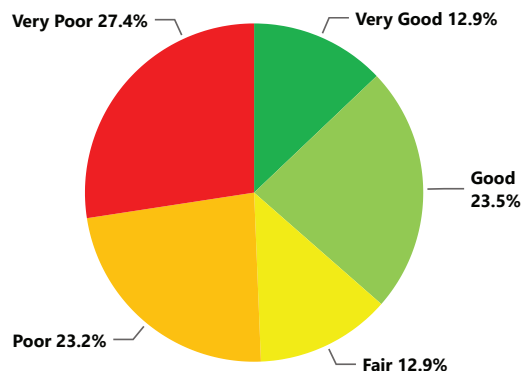
Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



% Remaining Useful Life by Asset Condition



Asset Condition Profile



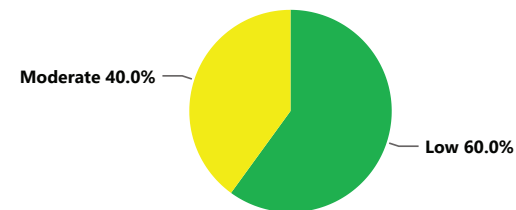
3.29

Average Condition Score

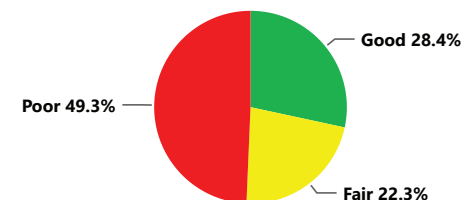
7.65

Average Risk Score

Asset Risk Profile



Asset Performance Profile





Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

125

Asset Count

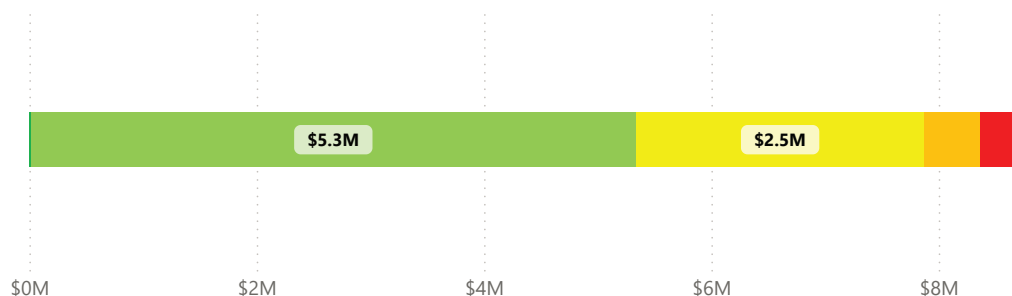
\$8.7M

Total Replacement Value (\$2024)

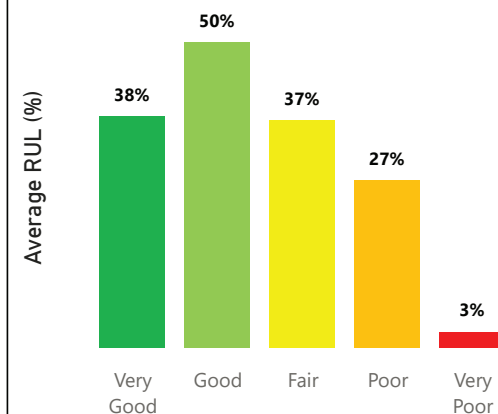
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

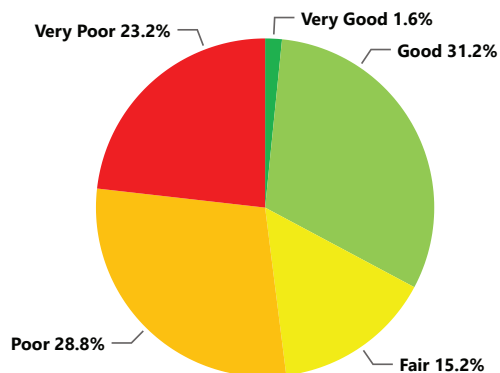
Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



% Remaining Useful Life by Asset Condition



Asset Condition Profile



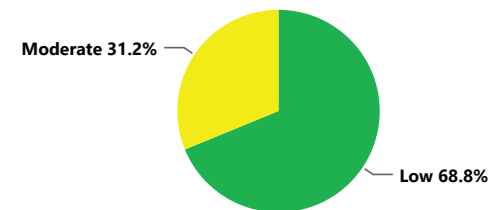
3.41

Average Condition Score

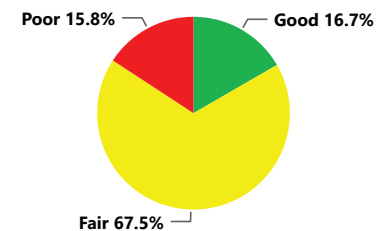
9.24

Average Risk Score

Asset Risk Profile



Asset Performance Profile



21

Incidences of O&M Intervention

2.98

Average Performance Score



Process Area

Raw Water Handling

Pre-Treatment

Filtration, Disinfection, and HLP

General Site, Building Services, F...

Primary Power

Residuals Management

Primary - Pipelines and Chambers

Surge Control

Primary - Reservoir and Pumping...

266

Asset Count

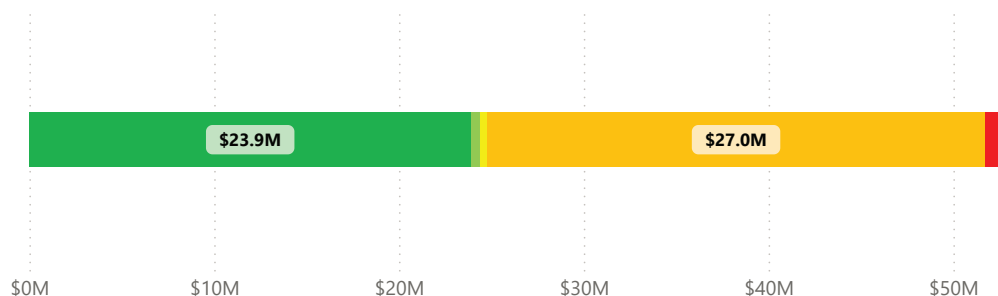
\$53.0M

Total Replacement Value (\$2024)

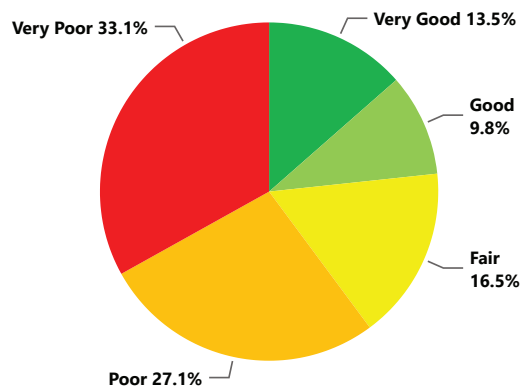
2024 State of the Infrastructure Asset Card

Total Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



Asset Condition Profile



3.56

Average Condition Score

7.06

Average Risk Score

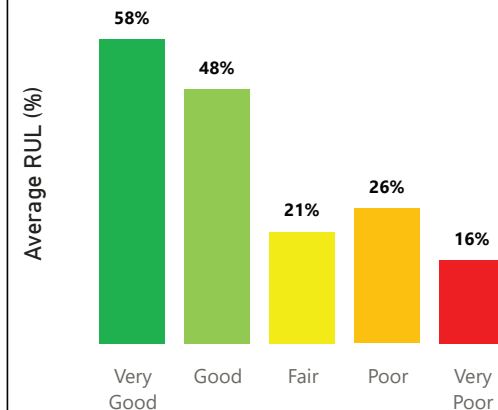
56

Incidences of O&M Intervention

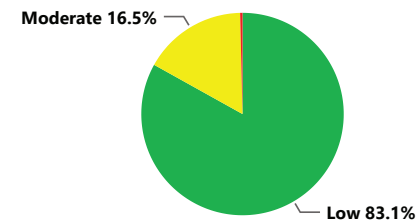
3.39

Average Performance Score

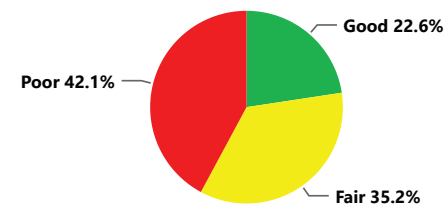
% Remaining Useful Life by Asset Condition



Asset Risk Profile



Asset Performance Profile



Process Area

Digital Technology

984

Asset Count

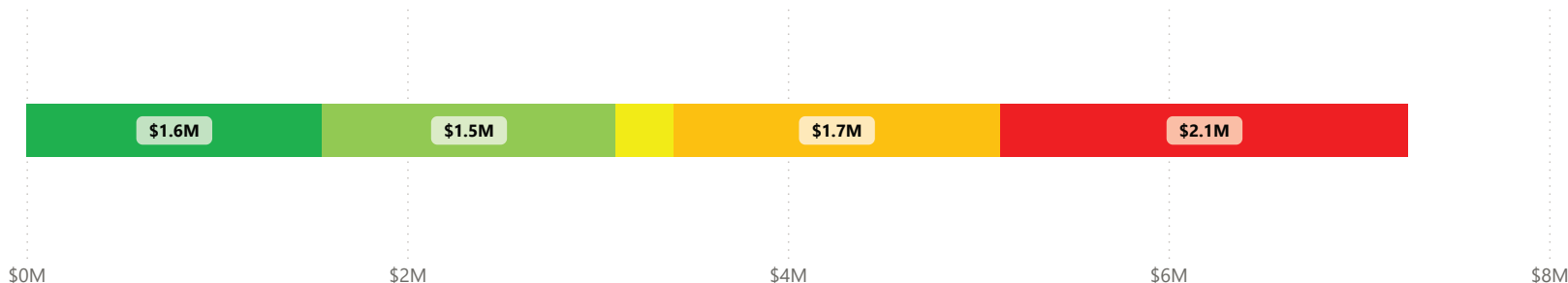
\$7.3M

Total Replacement Value (\$2024)

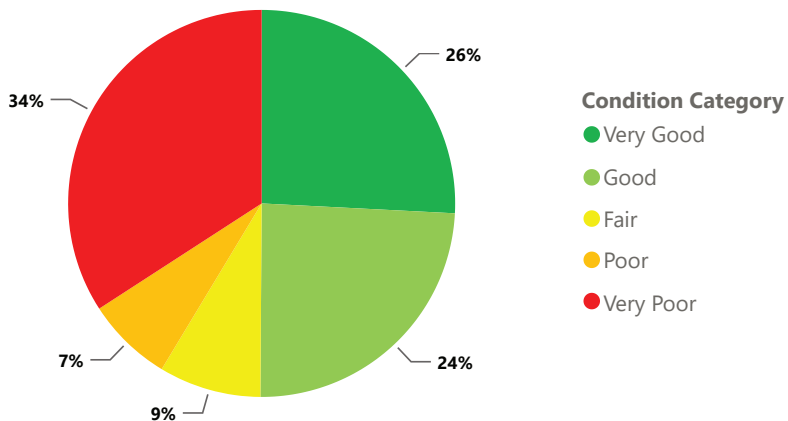
2024 State of the Infrastructure Asset Card

Replacement Value by Asset Condition

Condition Category ● Very Good ● Good ● Fair ● Poor ● Very Poor



% Assets by Asset Condition



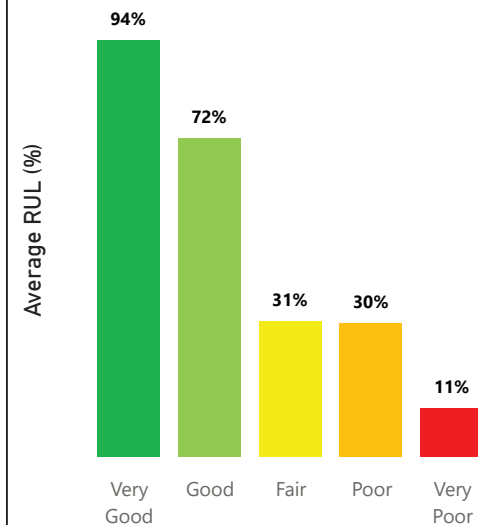
3.91

Average
Condition Score

11.22

Average Risk
Score

% Remaining Useful Life by Asset Condition



APPENDIX B – Level of Service Framework

Data collected and reported for the purpose of this level of service monitoring program is solely related to the utility's asset management program. The level of service data is not intended for or representative of any legislated compliance or other regulatory reporting.

Quality

Objective	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
Provide drinking water quality that meets or is superior to regulatory requirements	Meet target of no adverse water quality incidents	# of adverse water quality incidents	0	0	0	Y	
	Satisfy MECP regulatory compliance requirements	# of non-compliances identified in MECP inspection reports	0	1	0	Y	
		MECP Inspection score	100%	97%	100%	Y	

Objective	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
	Satisfy Superior Water Performance Criteria	# of superior water performance criteria met (Schedule B)	10 of 10	8 of 10 (96.8%)	8 of 10 (92.5%)	N	Missed parameter for filtered water turbidity (filter 2 repair) and Geosmin (overall assets delivered on 92.5% of the superior water performance criteria metrics)

Availability/Reliability

Objective(s)	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
Water Production is Resilient	Assets operate with % reserve capacity	Peak hour production < rated capacity + emergency strategic allowance by %	Less Than 100%	69.9%	70.3%	Y	
				78.3%	78.9%	Y	

Environmental Acceptability

Objective(s)	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
Minimize water system impacts on the environment	Environmental sustainability best practices	Energy intensity (ekWh/m3)	= < baseline (TBD)	0.729	0.728	N/A	Ongoing data collection for LOS baseline
		Energy efficiency (kWh/m3)	= < baseline (TBD)	0.608	0.602	N/A	Ongoing data collection for LOS baseline
		Total GHG emissions (Energy Use Only)	= < baseline (TBD)	1.191M	1.189M	N/A	Ongoing data collection for LOS baseline
		Backup generator use (planned vs. unplanned)	100%	80.6%	68.1%	N	Power outages beyond control of utility
		Chemical efficiency (kg chemicals/m3 treated)	= < baseline (TBD)	0.067	0.069	N/A	Ongoing data collection for LOS baseline

Objective(s)	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
		% Non-Revenue Water Loss (treated water leaving plant vs. water billed)	5% or less	2.6%	2.3%	Y	
		% Process Water Loss (compare treated water leaving plant with raw water coming into plant)	5% or less	2.7%	2.1%	Y	
	Meet other regulatory compliance requirements	Chlorine residual in discharge water (meet allowable)	100%	92%	100%	Y	
		TSS Discharge (meet allowable)	100%	100%	100%	Y	

Objective(s)	Customer Level of Service	Technical Level of Service	Target	2022	2023	LOS Target Achieved?	Notation
		# of reportable spills to Spills Action Centre	0	2	2	N	RMF and surge tank assets
		Solids landfilled from Residuals Management Facility (kg solids landfilled/ML)	= < baseline (TBD)	167	172	N/A	Ongoing data collection for LOS baseline
		# of non-compliance in permit to take water reports	0	0	0	Y	

Board of Management Report

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

Overview:

- The ability to backfeed the Elgin Area Water Supply System from the Lake Huron Water Supply System through the City of London provides the utility with an additional measure of redundancy in an emergency.
- An engineering analysis was completed to understand the theoretical volume of supply and duration of supply for a backfeed scenario and provided recommendations to better facilitate the backfeed operation and minimize risk.
- Through this exercise, limitations associated with the reliance of the backfeed as an emergency measure for the utility are presented for consideration.

Recommendation

That the Board of Management for the Elgin Area Water Supply System **RECEIVE** this report regarding the backfeed of the Elgin Area Water Supply System from the Lake Huron Water Supply System through the City of London for information.

Previous and Related Reports

None

Background

The Lake Huron and Elgin Area Water Supply Systems combined supply water to fifteen (15) municipalities within the region and each water system has a dedicated water treatment plant that are approximately one hundred kilometres apart. As both systems provide the City of London with potable water, they are indirectly interconnected through the City's distribution system. Moreover, the City of London is geographically at a higher elevation than the Elgin Area Water Supply System, which provides the opportunity for system redundancy by delivering water from Lake Huron Water Supply System through the City of London water distribution system to Elgin Area Water Supply System in the event of an emergency.

The ability to backfeed provides an additional layer of redundancy for the utility beyond its regional-level storage as part of the regional system; however, backfeeding water to the system is operationally intensive for City of London and the Elgin Area Water Supply System's contracted operations staff and is at the goodwill of London who has no contractual requirement to do so. In addition, the supply of water to the Elgin Area Water Supply System from the Lake Huron Water Supply System can only be

undertaken during an emergency, as determined by the regional water system, as it is considered an intra-basin transfer and restricted by Ontario legislation and international agreements. Presently, the ability to backfeed is included in the utility's risk mitigation strategies and emergency response plans.

In 2015, there was a need to take the Elgin Area Water Treatment Plant offline for a short period of time to repair a leak in the filtered water channel at the Elgin water treatment plant. During this time, the system was backfed from the City of London distribution system. This was done by allowing water to flow from the City of London's water distribution system, through the Elgin-Middlesex Pumping Station discharge header and the bypass line that interconnects the pump station's discharge header and the suction header in order to fill the terminal reservoir owned and operated by the Elgin Area Water Supply System. The reservoir fed the transmission pipeline while the plant was offline by gravity. During the backfeed operation, excessive pipe shaking on the bypass pipeline occurred within the pump station building. It was necessary to manually throttle the flow through the bypass pipeline and the associated pressure reducing valve to reduce the vibration, but there remains operational concerns for a long duration operation should it ever be necessary in the future.

Board staff retained AECOM to analyze the backfeed operation by reviewing the infrastructure involved, document a backfeed test to confirm the operational activities, undertake hydraulic modeling of the backfeed scenario to determine the theoretical volume and duration of supply, and identify any limitations to the backfeed supply via the City of London's distribution system.

The findings and recommendations of the analysis are discussed below.

Discussion

On January 27, 2020, a backfeed test was completed for a period of three hours to confirm operational activities at Elgin-Middlesex Pumping Station. From the test conducted, it was determined that a good steady-state operating condition at Elgin-Middlesex Pumping Station for backfeeding from the Lake Huron Water Supply System through the City of London to the Elgin-Middlesex Pumping Station was at a flow rate of approximately 350 L/s. Flows more than this amount resulted in excess pipe shaking, cavitation within the control valves, and significant noise from various appurtenances.

Upon completion of the test, a hydraulic model was used to determine the theoretical water supply volumes that could be provided under various backfeed scenarios and the associated duration relative to current and future projected water demands. In a backfeed scenario, the City of London would solely have water supplied from the Lake Huron Water Supply System and no flow would be required from Elgin-Middlesex Pumping Station to the City of London. Without backfeed from the City of London and

with the Elgin terminal reservoir full, there is water storage for approximately two days of supply to the Elgin municipalities within the system under average conditions.

It is important to note that the Elgin terminal reservoir is a regional-level storage facility used to balance flow rates at the water treatment plant and ensure that water treatment rates occur in a stable and steady state. The reservoir does not allocate capacity to benefiting municipalities and is not operated with designated fire reserves or emergency reserves as a municipal reservoir would in accordance with provincial guidelines. Accordingly, municipal water systems are required to address any emergency and fire reserves within their respective distribution system.

With an additional flow of 350 L/s, the analysis undertaken determined that the average day supply to the municipalities, excluding London, can be met for a period of one week; however, as growth and water demands increase within the region, further modifications at Elgin-Middlesex Pumping Station would be required to accommodate backfeed flows.

The following recommendations were included in the consultant's report based on the infrastructure review, testing and modeling work conducted:

1. Update the Standard Operating Procedure for the backfeed operation and engage operations staff to become more familiarized with the operation and possible improvements that could be implemented to simplify it.
2. Exercise and test equipment involved with the backfeed operation on a regular basis to ensure the equipment can be operated as intended.
3. Review the implications of the backfeed operation with the municipal water distribution systems that would be involved, including:
 - a. Co-ordinate with the City of London to discuss operational impacts on City of London facilities should the Elgin Area Water Treatment Plant need to be offline in an urgent or critical emergency. Short-term and long-term scenarios should be discussed and how the City's Southeast Pressure Zone will be managed, if there are critical large water-taking (industrial) customers in that area and what their anticipated demands would be during an emergency backfeed operation.
 - b. Review the implications of a backfeed operation from a water supply point of view of Lake Huron Water Supply System. Depending upon the desired level of redundancy and capabilities of the system, a backfeed operation may warrant actions on that system to compensate.
 - c. Review the implications of a backfeed operation with the St. Thomas Area Secondary Water Supply System and Aylmer Area Secondary Water Supply System to ensure other operational activities are considered, as well as review alternative backfeed operations with these systems.

- d. Review the implications of a backfeed operation with Central Elgin. It is understood that Port Stanley is considering the installation of a booster pump station to alleviate pressure concerns to fill their tower, which would be necessary if the water treatment plant is offline.
 - e. Review the implications of a backfeed operation with Port Burwell Area Secondary Water Supply System. While theoretically, based on the information available for the analysis, the supply to Port Burwell can be done, it is recommended that testing this specific scenario be undertaken to confirm.
4. Review and confirm the level of service objectives for a backfeed operation during an emergency. While the backfeed components can allow sufficient flow to handle average day supply (excluding London), future growth will warrant upgrades to infrastructure and controls necessary for the continued effectiveness of the backfeed operation in the future.

The ability to backfeed the regional water system from the City of London distribution system provides an additional measure of operational response to an emergency beyond the regional storage in the terminal reservoir. This ability provides operational flexibility for critical events that affect the Elgin water treatment plant, including extended shutdowns of the water treatment plant for emergencies and maintenance and repair activities. Each of the member municipalities are responsible to provide and meet distribution system needs, including the maintenance of adequate chlorine residuals, distribution system pressures, and water storage for equalization, emergency, and fire purposes.

The assessment of regional water storage relative to future demand is a key component of the Master Plan that is currently underway. Although the ability to backfeed the Elgin Area Water System may be viewed as an opportunity to defer regional storage expansion, given that the scenario is operationally intensive for City of London and the EAPWSS operations staff and is at the goodwill of London who has no contractual requirement to do so, it is the recommendation of Board staff that regional storage requirements be established independent of the backfeed operation. In addition, continued supply from the Lake Huron Water Supply System to the Elgin Area Water System is considered an intra-basin transfer and not permissible by Ontario legislation under normal operating conditions, except in the case of an emergency.

The deferral of capital works is not considered an emergency under any circumstances.

Board staff will review the long-term ability and viability for emergency Backfeed options once the Master Water Plan is completed later this year.

Conclusion

The ability to backfeed the Elgin Area Water Supply System from the Lake Huron Water Supply System through the City of London provides additional operational redundancy during an emergency beyond the utilization of regional storage in the system. The engineering analysis that was completed to review the infrastructure, test, and model the backfeed operation, provides recommendations to further support this operation. Given that there is no contractual requirement for the City of London to provide the backfeed during an emergency, regional storage requirements will continue to be considered in long-term plans, independent of the backfeed operation.

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

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

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

Board of Management Report

Subject: Ministry of the Environment, Conservation and Parks
Inspection Report

Overview:

- The annual Ministry inspection indicated that all legislative requirements were met during the inspection period.
- The final inspection report did not identify any non-compliances or best management practices.
- The final inspection rating was 100%.

Recommendation

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

Background

The Ministry of the Environment, Conservation and Parks (MECP) conducts an inspection of the Elgin Area Primary Water Supply System (EAPWSS) annually. The objective of the inspection is to determine the compliance of the drinking water system with specified requirements under the *Safe Drinking Water Act* and associated regulations, as well as licences and permits issued by the MECP. An inspection report is issued by the MECP which outlines any non-compliances as well as recommended best management practices for the water system's consideration.

Violations identified within an inspection report, if any, have been evaluated by the MECP based on the potential and degree of risk to consumers. Any identified violations are monitored for compliance with the minimum standards for drinking water in Ontario as set forth under the *Safe Drinking Water Act* and associated regulations. Where risk is deemed to be high and/or compliance is an ongoing concern, violations are forwarded to the Ministry's Investigation and Enforcement Branch by the Ministry Inspector.

Discussion

Inspection Findings

The MECP conducted an unannounced "detailed" physical inspection of the EAPWSS on January 11, 2024. The final inspection report was issued by the MECP on March 6, 2024. The inspection covered the period from November 1, 2022 through December 31, 2023.

The final inspection report issued by the MECP contained an inspection rating of 100% for the inspection period. There were no non-compliances or best management practices (BMP) identified by the Ministry Inspector. No actions are required by either the operating authority or the owner.

Due to the length of the Ministry's final inspection report, this Board report contains a summary only for the general information of the Board. Copies of the complete inspection report as issued by the MECP are available from the Regional Water Supply office in London upon request.

It is noted for the Board's information and reference that these annual inspection reports were previously posted to the water systems' website for ease of public access. Unfortunately, the Inspection Report issued by the MECP does not comply with the *Accessibility for Ontarians with Disabilities Act*. As a result, previous inspection reports have been removed from the water systems' website. This and future annual inspection reports issued by the Ministry will only be made available upon request until such time as the Ministry makes the document compliant with the Act.

Risk Rating

The MECP applies a risk rating methodology to establish an annual inspection rating. Any non-compliance identified in the inspection report is evaluated based on the potential to compromise the delivery of safe drinking water to the public. For example, a "failure to document" may have a relatively low risk to the consumer, whereas a "failure to disinfect" would have a relatively high risk. The primary goal of this type of assessment is to encourage ongoing improvement and to establish a way to measure improvement, which is weighted by the severity of the risk. A low inspection rating does not necessarily mean that drinking water is unsafe, but rather it is an indication of the degree to which there is room for improvement with respect to a drinking water system's operation and related administrative activities.

This methodology of risk assessment and rating has been used consistently by the MECP since the 2008-2009 inspection period, and therefore can serve as a comparative measure both provincially and specifically to the EAPWSS since that time. The methodology utilized for annual inspections is reviewed by the MECP every three years. If changes occur in the application of the methodology and risk ratings, ratings from one three-year period may be slightly inconsistent with another.

The following table outlines inspection ratings for the EAPWSS over the last five years:

Inspection Year	Final Inspection Rating	# of Non-compliances	Type of Inspection	Operating Authority
2019-2020	97.11%	1	Detailed	OCWA
2020-2021	100.00%	0	Focused	OCWA
2021-2022	100.00%	0	Focused	OCWA
2022-2023	97.01%	1	Focused	OCWA
2023-2024	100.00%	0	Detailed	OCWA

Correspondence and Communications

Prior to issuing the final inspection report, the Ministry Inspector issued a draft copy to the operating authority, providing the opportunity to comment or request clarification on the findings. The operating authority provided Board staff with a copy of the draft report for review and comment. Given that there were no non-compliances or best management practices identified, no formal comments were submitted.

Conclusion

The MECP inspection report has indicated that the requirements of applicable legislation were met by the EAPWSS for this inspection period. Board staff will continue to discuss any inspection findings with the MECP Regional Office to ensure that inspection findings are consistent, appropriate and relevant to the EAPWSS.

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