

Agenda

Elgin Area Primary Water Supply System Joint Board of Management

4th Meeting of the Elgin Area Primary Water Supply System Joint Board of Management
October 7, 2021, 5:00 PM
2021 Virtual Meeting - during the COVID-19 Emergency

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December 2, 2021

March 3, 2022

June 2, 2022

7. Adjournment

Elgin Area Primary Water Supply System Report

3rd Meeting of the Elgin Area Primary Water Supply System Joint Board of Management
June 3, 2021

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

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

ALSO PRESENT: A. Henry and K. Scherr

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Adoption of Minutes

2.1 Minutes of the 2nd Meeting held on March 4, 2021

PETERS AND VAN HOLST

That the minutes of the 2nd meeting of the Elgin Area Primary Water Supply System Joint Board of Management, from the meeting held on March 4, 2021, **BE NOTED AND FILED. CARRIED**

Motion Passed

3. Consent Items

3.1 Quarterly Compliance Report (1st Quarter 2021: January - March)

PELOZA AND WOOKEY

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

Motion Passed

3.2 Environmental Management System and Quality Management System

PELOZA AND WOOKEY

That, on the recommendation of the Chief Administrative Officer, the report dated June 3, 2021, with respect to the Environmental Management System and Quality Management System for the Elgin Area Primary Water Supply System, **BE RECEIVED. CARRIED**

Motion Passed

3.3 Quarterly Operating Financial Status - 1st Quarter 2021

PELOZA AND WOOKEY

That, on the recommendation of the Chief Administrative Officer, the report dated June 3, 2021, with respect to the Quarterly Operating Financial Status of the Elgin Area Water Supply System, **BE RECEIVED. CARRIED**

Motion Passed

3.4 Water System Operation - Contract Status Update

That, on the recommendation of the Chief Administrative Officer, the report dated June 3, 2021, with respect to the status of the contract with the Ontario Clean Water Agency as the contracted operating authority, **BE RECEIVED. CARRIED**

Motion Passed

3.5 2020 Audited Financial Statement and Auditors Report

PELOZA AND WOOKEY

That, on the recommendation of the Chief Administrative Officer, the 2020 Audited Financial Statement for the Elgin Area Primary Water Supply System, as appended to the report dated June 3, 2021, **BE RECEIVED AND ACCEPTED. CARRIED**

Motion Passed

- 3.6 EA4162 Crop Yield Monitoring Program - 2012 Pipeline Twinning Project
PELOZA AND WOOKEY

That, on the recommendation of the Chief Administrative Officer, the report dated June 3, 2021, with respect to the Crop Yield Monitoring Program associated with the 2012 Pipeline Twinning Project, **BE RECEIVED. CARRIED**

Motion Passed

4. Items for Discussion

- 4.1 Financial Plan Update Project - Consulting Award
CREVITS AND HILLIER

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated June 3, 2021 with respect to the Financial Plan Update (EA4020) project:

- a) the proposal from Watson & Associates Economists Ltd., for the Financial Plan Update, **BE ACCEPTED**, in the amount of \$45,000.00, including contingency and excluding HST; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

- 4.2 Locate Service Provider - Contract Award
PETERS AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated June 3, 2021, related to retaining a Locate Service Provider:

- a) the proposal from Utility Marx for the provision of Utility Locate Services **BE ACCEPTED**;
- b) the Board Chair and the Chief Administrative Officer **BE AUTHORIZED** to execute an agreement with Utility Marx for the provision of Utility Service Locates; and,
- c) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

4.3 EA4153 Backwash Pumps Replacement Project - Consulting Award

WOOKEY AND VAN HOLST

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report dated June 3, 2021, related to the Elgin Backwash Pump Replacements (EA4153) project:

- a) the existing engineering assignment with AECOM for engineering design services at an estimated cost of \$158,270.00, including contingency and excluding HST **BE EXTENDED**; and,
- b) the above-noted report **BE RECEIVED. CARRIED**

Motion Passed

5. Deferred Matters/Additional Business

None.

6. Confidential

VAN HOLST AND WOOKEY

That the Elgin Area Primary Water Supply System Board of Management convene, In Closed Session, for the purpose of considering the following:

6.1. Position, Plan, Procedure, Criteria or Instruction for Negotiation Purposes

A matter pertaining to a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board related to the Service Agreement between the Ontario Clean Water Agency and the Elgin Area Primary Water Supply System.

Motion Passed

The Elgin Area Primary Water Supply System Board of Management convened, In Closed Session, from 5:28 PM to 5:55 PM.

7. Next Meeting Date

October 7, 2021

8. Adjournment

The meeting adjourned at 5:57 PM.

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

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

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

RECOMMENDATION

That the Quarterly Compliance report with respect to the general, regulatory and contractual obligations of the Elgin Area Primary Water Supply System **BE RECEIVED** for the information of the Board of Management; it being noted that there were no Adverse Water Quality Incidents reported in the 2nd quarter of 2021.

BACKGROUND

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

DISCUSSION

Regulatory Issues

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

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

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

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



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

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

Contractual Issues

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

Board staff informally meets with OCWA on a monthly basis to discuss operations and maintenance related issues, and formally on a quarterly basis to review contractual performance. The 2021 second quarter Contract Report was received from OCWA on July 29, 2021 and was discussed at the quarterly administration meeting between Board staff and OCWA on August 12, 2021. Copies of the monthly Operations and Maintenance Reports, or quarterly Contract Reports are available at the Board’s Administration Office in London upon request.

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

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

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

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

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

Subject: Environmental Management System and Quality Management System

RECOMMENDATION

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

BACKGROUND

Environmental Management System (EMS)

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

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

Quality Management System (QMS)

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

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

DISCUSSION

Management Review

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

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

A Management Review meeting was held on June 23, 2021. The meeting minutes are attached to this report as [Appendix A](#) for the information of the Board.

Internal Audits

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

There were no internal audits conducted during this reporting period.

External Audits

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

There were no external audits conducted during this reporting period.

Corrective and Preventive Actions

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

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

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

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

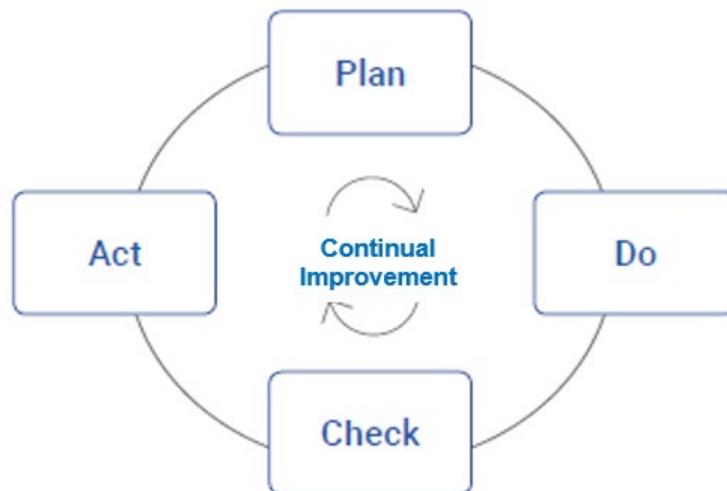


Figure 1: Plan-Do-Check-Act improvement process



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

- Four (4) new action items were added as a result of an EMS Internal Audit performed in April 2021.
- Three (3) new action items were added as a result of the corrective action process for an oil leak on a truck in the RMF.

As of September 3, 2021, there are currently twelve (12) open action items in the system. Action items are prioritized and addressed using a risk-based approach, and deadlines established given reasonable timeframes and resources that are available. Board staff are pleased with the performance of the corrective and preventive action process and have no concerns with the number of open action items.

CONCLUSION

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

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

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

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

Attachments: [Appendix A](#) – Management Review Meeting Minutes (June 23, 2021)

APPENDIX A: MANAGEMENT REVIEW MEETING MINUTES (JUNE 23, 2021)

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

Date: June 23, 2021

Time: 1:00pm

Location: Virtual – Microsoft Teams

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

Regrets: Randy Lieber (OCWA)

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

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

1. Review and Approval of Previous Minutes (LH & EA)

Revision 1 of the minutes from the previous meeting (March 22, 2021) are posted to SharePoint. The minutes were approved.

2. Results of Board Meetings (LH & EA)

Huron Board Meeting (June 3, 2021)

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

Elgin Board Meeting (June 3, 2021)

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

3. Monitoring and Measurement Results – 2019 Energy Reporting (LH & EA)

EAPWSS

In 2019, the total volume, electricity, natural gas, GHG emissions, and energy intensity were all down from the previous year. A reduction in electricity and energy intensity in 2019 may partially be related to the removal of A-Pipeline from service. We may see a further reduction in electricity usage from the new high lift pumps that were installed in 2020.

LHPWSS

In 2019, the total volume, electricity, and energy intensity were down from the previous year. Natural gas and subsequently the GHG emissions were up from the previous year. We should see a further reduction in electricity usage in future with new high lift pumps scheduled to be

For both systems, in future consider incorporating natural gas usage into the environmental objectives and targets.

4. Status of Environmental Objectives and Targets (LH)

The 5-year trends for electricity efficiency and chemical efficiency were reviewed and discussed. Overall, the trends are improving over time. Updates to the environmental programmes were reviewed and discussed.

Additional items to be incorporated into the trend notes:

- In winter 2021 and spring 2021, due to higher raw water turbidity the Huron RMF ran more frequently, which may have contributed to increased electricity usage during that time.
- The south clearwell repairs in spring 2021 could have contributed to electricity usage as more frequent filter backwashes were required during that time.

Additional items to be incorporated into the programme notes:

- The low lift pump motors were replaced in 2020-2021, which now have a higher efficiency rating.
- Recent overhead door replacements (higher efficiency rating and less energy loss).
- The future backwash turbidimeter project should reduce electricity consumption as the backwash pumps will run for a shorter period.
- The ongoing instrumentation and flow meter replacement programs at both Huron and Elgin incorporate newer models and improved technology which allows for more accurate monitoring.

5. Status of Environmental Objectives and Targets (EA)

The 5-year trends for electricity efficiency and chemical efficiency were reviewed and discussed. Overall, the electricity trend is improving over time. The chemical efficiency trend is stable. Residuals Management Facility (RMF) efficiency for the past year was reviewed. Updates to the environmental programmes were reviewed and discussed.

General discussion on the electricity trend:

- In winter 2021 and spring 2021, high electricity usage was noted. This is somewhat unexplained as the new high lift pumps were commissioned in 2020. Staff indicated the trend is unrelated to UV intensity, or other equipment changes.
- Raw water turbidity was lower than the previous year, so increased electricity usage cannot be attributed to additional filter backwashes or additional RMF run time.
- Winter temperatures could be investigated to see if colder temperature caused an increased usage of electric heat.



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Items to be incorporated into the programme notes:

- Recent overhead door replacements (higher efficiency rating and less energy loss). Windows were replaced in the administration building and the roof was replaced.
- Implementation of the HVAC heat pump unit at the low lift. This should reduce service water and associated electricity for mechanical cooling.

6. Internal Audit Results (LH & EA)

EAPWSS Compliance Audit – March 26, 2021

No non-compliances or opportunities for improvement were identified during the audit. There was one observation identified during the audit. The observation was discussed, and it was determined no further action is required at this time.

LHPWSS Compliance Audit – April 6, 2021

No non-compliances or opportunities for improvement were identified during the audit. There were three observations identified during the audit. The observations were discussed, with action items finalized to address them.

EAPWSS Environmental Management System (EMS) Audit – April 16, 2021

One (1) non-conformance and three (3) opportunities for improvement were identified during the audit. The audit findings were discussed, with action items finalized to address them.

LHPWSS Environmental Management System (EMS) Audit – April 22, 2021

Two (2) non-conformances and five (5) opportunities for improvement were identified during the audit. The audit findings were discussed, with action items finalized to address them.

10.

7. Environmental and Quality Policies (LH & EA)

Each of the LHPWSS & EAPWSS Environmental and Quality Policies were reviewed and discussed. The Policies were last revised in 2018. No changes are recommended at this time. There have been no concerns with the Policies during external audits.

An Asset Management Plan update is currently in progress, which will include the creation of a new Asset Management (AM) Policy. In future we may want to consider coordination between the Policies. This should be further reviewed once the AM Policies are finalized.

The Strategic Plan that is currently under development may also have implications, and once finalized should be considered in the next Policy review.

8. Incidents of Adverse Drinking Water Tests (LH & EA)

EAPWSS: No incidents of adverse drinking water quality have been reported since this item was last discussed (June 2020).



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LHPWSS: No incidents of adverse drinking water quality have been reported since this item was last discussed (September 2020).

9. QMS – Effectiveness of the Risk Assessment Process (LH & EA)

The annual review of the QMS Risk Assessments was completed in June 2021. The full 36-month re-assessments are scheduled to be completed in 2022.

LHPWSS

During the annual review, the following were addressed in the update: addition of on-site security; risk assessed for failure of a chemical storage tank; updated the terminology related to Harmful Algal Blooms (HABs) to match the terminology on the Municipal Drinking Water Licence (MDWL).

EAPWSS

During the annual review, the following were addressed in the update: risk assessed for failure of a chemical storage tank; the new plant drain flushing procedure was incorporated as a control for the risk of a plant drain blockage; updated the terminology related to Harmful Algal Blooms (HABs) to match the terminology on the MDWL.

Upcoming changes to be considered next year:

- Addition of on-site security at Elgin
- Security camera upgrade projects at both Huron and Elgin
- Shoreline erosion monitoring program at Elgin
- Modifications to the park entrance and surrounding property changes at Huron

10. QMS Operational Plan Currency, Content & Updates (LH & EA)

The QMS Operational Plans were reviewed and updated in 2021, and top management signed the commitment and endorsement pages. The Plans are now current with the 2020 raw water characteristics incorporated. The other associated procedures (administrative, operational, emergency etc.) are updated on as-needed basis. To address the new Director's Directions (Minimum Requirements for Operational Plans), the MDWL number has been added to the Plans, and the website has been updated to indicate that the Plans are available to the general public upon request.

11. Results of Emergency Response Testing (LH & EA)

For both systems, actual events were used as tests of the emergency response plan.

LHPWSS: A failure of the 6" service line at Arva was used as a test of the procedure for catastrophic equipment failure.

EAPWSS: A loss of SCADA event which occurred in June 2021 was used as a test of the



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procedure for catastrophic equipment failure. An outcome of this review was a recommendation to include a more comprehensive checklist for conducting a manual shutdown of the WTP.

The annual fire drill tests at each WTP are standard reoccurring tests that are generated through work orders in the CMMS.

OCWA now maintains a spreadsheet for tracking the various tests that have occurred. Test records will be documented and uploaded into SharePoint, with any action items added to the tracking sheet.

12. Overall Decision on the Suitability, Adequacy & Effectiveness of the EMS & QMS (LH & EA)

A discussion took place on the management systems as a whole, reflecting back over the past year. Top management confirmed that the management systems continue to be suitable, adequate and effective. The following observations support this conclusion.

Audit results: Internal audits continue to identify issues, including non-conformances, and recommend opportunities for improvement. There were no non-conformances identified during the most recent EMS and QMS external audits. Incremental continual improvement is evident.

MECP Inspection results: The annual MECP Inspection ratings for the 2020-2021 reporting year were 100% for both the LHPWSS & EAPWSS. This is an improvement from the previous reporting year.

Objectives and targets: Overall the trends generally continue to improve for the EMS objectives and targets, particularly for electricity consumption. Planned capital projects are anticipated to continue the improvement and optimization.

System uptime/downtime: There have been no major upsets or unplanned events in the past year that have impacted our ability to supply customers.

Customer Satisfaction: Overall the Board and municipal staff (ie. customers) seem to be satisfied with management system results.

Resources: During COVID-19 there has been a shift in work practices - working remotely; conducting web-based meetings; finding alternate means of communications which we have all adopted; utilization of hybrid options such as conducting portions of internal audit remotely; general system flexibility.

Water quality: No recent AWQIs and the operating authority met all contractual water quality performance criteria in 2020 (i.e. full incentive payment received).



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13. Management of Change (LH & EA)

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

- Site Security
- Coagulation Upgrade Project

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

Top Management noted the following projects that should also be reviewed:

- Huron South Clearwell Repair
- Huron Security Camera Upgrade Project
- Huron Beach Chamber Repair
- Huron HLP Project (future)
- Elgin Security Camera Upgrade Project (future)
- Elgin Site Security (future)

The EMS/QMS Project Coordinators will complete the checklists for their respective projects.

14. Corrective Action Forms (LH & EA)

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

- Huron Alum Chemical Piping Leak (May 16, 2021)
- Huron Alum Chemical Leak – Partial Open Valve (May 19, 2021)
- Elgin RMF Truck Oil Leak (May 17, 2021)

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

15. Compliance Obligations Update (LH & EA)

[Proposed amendments to drinking water operator and water quality analyst certification regulation to address impacts of emergencies](#)

Source: MECP

Date Posted/Notice Received: May 18, 2021

Comments Due: July 2, 2021

Summary: The proposed regulatory changes would give the ministry and drinking water systems the tools they need to act quickly to help ensure the province's drinking water is protected during an emergency, such as providing systems with temporary staffing options, and operators with temporary relief from training and certification requirements.

Potential Impacts: None anticipated.



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[Public Consultation for Guideline Technical Document - Malathion](#)

Source: Health Canada

Date Posted/Notice Received: March 26, 2021

Comments Due: May 26, 2021

Summary: The existing guideline technical document on malathion was developed in 1986, and established a MAC of 0.19 mg/L. This document has been revised to reflect the most recent re-evaluation of malathion. An updated MAC of 0.29 mg/L is proposed for malathion in drinking water.

Potential Impacts: None anticipated. The current MAC in Ontario is 0.19 mg/L. All treated water results from 2015-2021 were non-detect for malathion at both the LHPWSS and EAPWSS.

Update - Hazardous Waste Digital Reporting Service Modernization Project

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

Date Posted/Notice Received: April 13, 2021

Comments Due: N/A

Summary: MECP is transitioning the digital reporting of the Hazardous Waste program to the Resource Productivity and Recovery Authority. The Authority advised the Ministry to extend the launch date of the Hazardous Waste digital reporting service from January 1, 2022 to January 1, 2023. This extension has been approved, and the digital reporting service must now be ready by January 1, 2023. The registration launch date, which was initially anticipated before July 1, 2021, will also be adjusted accordingly in consultation with the Ministry.

Potential Impacts: Opportunity for improved compliance. This new digital reporting service may help resolve some recent administrative issues associated with the paper copies of waste manifests.

[Incident Management System \(IMS\) Guidance Version 2.0](#)

Source: Ministry of the Solicitor General

Date Posted/Notice Received: March 31, 2021

Comments Due: N/A

Summary: The development of IMS 2.0 builds on the standardized organizational structures, functions, processes and terminology of IMS 1.0 and offers guidance on communicating, coordinating and collaborating during an incident response. Although the fundamentals of IMS remain the same, improvements have been made to the guidance document, including flexibility and interoperability, Emergency Operations Centre structures, coordination at all levels, public information management, response escalation structure, and others. The Ministry is in the process of updating training materials.

Potential Impacts: The LHPWSS & EAPWSS Incident Management System must be reviewed and updated, with changes to the guidance being incorporated.

[Decision Notice – Amendments to the Ontario Water Resources Act](#)

Source: MECP

Date Posted/Notice Received: A previous decision notice was updated on March 31, 2021

Comments Due: N/A



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Summary: MECP has updated the decision notice to provide information that the amendments to the Ontario Water Resources Act (OWRA) (the new section 34.0.1) will come into effect on April 1, 2021, along with the other proposed enhancements to Ontario's water taking program (amendments to the Water Taking and Transfer Regulation (O. Reg 387/04) under the OWRA and Ontario Regulation 63/16, Environmental Activity Sector Registry – Water Taking (under the Environmental Protection Act). The April 1, 2021 date coincides with the expiry date of the bottled water moratorium. No other changes were made to the decision notice originally published on December 18, 2020.

Potential Impacts: None anticipated.

[Decision - Updating Ontario's Water Quantity Management Framework](#)

Source: MECP

Date Posted/Notice Received: March 31, 2021

Comments Due: N/A

Summary: MECP is moving forward with enhancements to Ontario's policies, programs and scientific tools for managing water takings to ensure water resources in the province are protected and used sustainably.

Ontario's new water quantity framework is established by amendments to O. Reg. 387/04 and O. Reg. 63/16, which were filed on March 31, 2021 and come into effect on April 1, 2021, to coincide with the expiry of the bottled water moratorium. The government claims that, taken together, the amendments will:

- establish priorities of water use to be considered in water taking decisions;
- replace rules governing permit decisions in high use watersheds with a new, more adaptive area-based approach to manage the cumulative effect of water takings in water quantity-stressed areas; and
- make water taking data more accessible to the public to increase transparency and enhance water management.

Potential Impacts: None anticipated.

[Decision - Proposed Implementation of Updates to Ontario's Water Quantity Management Framework](#)

Source: MECP

Date Posted/Notice Received: March 31, 2021

Comments Due: N/A

Summary: MECP is moving forward with guidance to help enhance the management of water takings in areas where quantity is a concern and where there are competing demands for water. MECP is also revoking the interim guidance on water bottling renewals at the same time that the enhancements to Ontario's water taking program will be put in place on April 1, 2021.

This new guidance is intended to help water permit holders understand the new rules and to assist in the implementation of the new regulatory enhancements to the Water Taking and Transfer regulation to:

- manage water takings in areas where water sustainability is a concern; and
- establish provincial priorities of water use to guide decisions where there are competing demands for water.



Elgin Area

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Potential Impacts: None anticipated.

[New Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health](#)

Source: MECP

Date Posted/Notice Received: May 27, 2021

Comments Due: N/A

Summary: Ontario and Canada have finalized a new agreement to restore, protect and conserve Great Lakes water quality and ecosystem health. The [Canada-Ontario Agreement](#) is effective June 1, 2021.

Potential Impacts: None anticipated.

Other:

The following Health Canada documents were previously reported on and have now been finalized and published:

[Guideline Technical Document - Metribuzin](#)

[Guideline Technical Document – 1,4-Dioxane](#)

The Canada Water Agency's report, "[Toward the Creation of a Canada Water Agency: Public & Stakeholder Engagement – What We Heard](#)," is now available.

The report reflects input from those who provided feedback on the Canada Water Agency Discussion Paper, "Toward the Creation of a Canada Water Agency," available on the consultation website. The feedback will inform the Government of Canada's next steps in implementing the commitment to create a Canada Water Agency. Public and stakeholder consultation is now closed, but Indigenous engagement will continue throughout 2021.

[Regulatory proposals \(Phase 1\) under the Conservation Authorities Act](#)

Source: MECP

Date Posted/Notice Received: May 13, 2021

Comments Due: June 27, 2021

Summary: The Ministry is proposing new regulations to focus Conservation Authorities on their core mandate by prescribing mandatory programs and services they must provide, give municipalities greater control over what Conservation Authority programs and services they will fund, consolidate "Conservation Areas" regulations and to require community advisory boards.

Potential Impacts: None anticipated. It was noted by staff that there will be a second related proposed regulation posted sometime this summer regarding changes to the municipal levy, ability to enter into agreements for non-core functions of the Conservation Authority, etc.

16. Communications, Complaints, Consumer Feedback (LH & EA)

Due to time constraints this item was deferred to the next meeting.

Next Meeting: TBD (September 2021)



Elgin Area

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Report No.: EA-2021-03-03

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File No.:

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

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

Subject: Quarterly Operating Financial Status – 2nd Quarter 2021

RECOMMENDATION

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

BACKGROUND

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

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

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



DISCUSSION

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

- Contracted Operating Services in the summary report reflects the total direct operating costs of the contracted operation of the water treatment and transmission system, as well as other related contracted services. The total accumulated operating costs over the year (unaudited) is higher than the same period in 2020 and is reflective of contractual increases in service agreements with the operating authority and other contracted services.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The water system is currently tracking approximately \$113,000 lower than the previous year largely due COVID-related delays in receiving and payment of invoices. When adjusted, the comparative expense for 2021 is only marginally lower than that of the previous year.
- Salaries, wages and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2020 are attributed to annual salary adjustments, staff vacancies, and marginally lower total staffing costs as a result of the pandemic. In addition, the 2020 YTD amount shown is understated as the onset of the pandemic delayed accounting entries related to salaries, wages and benefits.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, office supplies and property taxes. While the reported expenditures will be adjusted as part of the year-end process, accounting for 2022 pre-payments and other cost accounting adjustments, the costs to date are higher than the same period in 2020, largely due to property tax adjustments.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers and office equipment for administrative staff. Additional costs have been incurred related to replacement of computer equipment, travel and vehicles due to the pandemic.
- Purchased Services and Professional Fees largely relates to allowances for ad hoc professional consulting and legal services, office lease, telephone charges, network and SCADA maintenance, printing services, and pipeline locate costs. The increased cost when compared to the same period in 2020 is largely attributed to increased insurance costs.



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

Prepared by: Archana Gagnier
Budget and Finance Analyst

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

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

Attachments: Operating Financial Status Summary – 1st Quarter 2021

Quarterly Financial Summary Report

Elgin Area Water Supply System
2nd Quarter 2021 (April 1 to June 30)

(\$,000's)

| | Approved 2021 Budget | Q2-2021 | 2021 Year to Date | % Year to Date | Year To Date Variance | 2012 Year To Date |
|--|-------------------------|--------------|----------------------|-------------------|-----------------------------|-------------------------|
| Total Revenue | 13,987 | 3,676 | 5,780 | 41.3% | 8,207 | 5,445 |
| <u>Expenditures:</u> | | | | | | |
| Contracted Operating Services | 4,274 | 1,425 | 2,077 | 48.6% | 2,197 | 2,030 |
| Contracted Administrative Services | 180 | 45 | 90 | 50.0% | 90 | 74 |
| Electricity | 1,150 | 250 | 348 | 30.3% | 802 | 461 |
| Salaries, Wages, Benefits | 741 | 121 | 293 | 39.5% | 448 | 158 |
| Administration and Other Expenditures | 252 | 71 | 189 | 75.0% | 63 | 248 |
| Vehicles and Equipment | 46 | 4 | 31 | 67.4% | 15 | 15 |
| Purchased Services & Professional Fees | 452 | 126 | 261 | 57.7% | 191 | 161 |
| Debt Principle Payments | 2,288 | 0 | 1,131 | 49.4% | 1,157 | 1,110 |
| Interest on Long-Term Debt | 243 | 2 | 128 | 52.7% | 115 | 159 |
| Contributions to Reserve Funds | 4,361 | 0 | 0 | 0.0% | 4,361 | 0 |
| Total Expenditures | 13,987 | 2,044 | 4,547 | 32.5% | 9,439 | 4,417 |

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

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

Subject: Capital Status Report

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken regarding Elgin Area Primary Water Supply System capital projects:

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

DISCUSSION

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

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

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



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

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

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

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

Prepared by: Archana Gagnier, Budget and Finance Analyst

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

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

Attachments: Capital Project Status Summary



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APPENDIX A: CAPITAL PROJECT STATUS SUMMARY

A.1 Ongoing Capital Projects

| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|-------------|--|-----------------|--------------------|------------------------|
| EA1026 | RW Office Expansion & Renovation | \$200,000 | \$0 | Project ongoing |
| EA2172 | Terminal Reservoir Isolation Valve Replacement | \$90,000 | \$35,766 | Project ongoing |
| EA2177 | Asset Management Plan 2021 | \$150,000 | \$22,689 | Project ongoing |
| EA3010 | IT Asset Replacement Program | \$431,000 | \$191,188 | Project ongoing |
| EA3011 | Plant Interior Door Replacement | \$40,000 | \$24,939 | Project ongoing |
| EA3012 | Interior LED Lighting Upgrades | \$75,000 | \$62,603 | Project ongoing |
| EA3013 | Plant Reservoir Drain Repairs | \$100,000 | \$27,064 | Project ongoing |
| EA3014 | LLP 2&3 Replacement Study | \$50,000 | \$16,957 | Project ongoing |
| EA3016 | Safety Showers Replacement | \$60,000 | \$19,315 | Project ongoing |
| EA3017 | Exterior WTP Building Seals | \$40,000 | \$15,572 | Project ongoing |
| EA3018 | Cyber Intrusion Detection System | \$10,000 | \$0 | Project ongoing |
| EA3020 | Roof Replacement | \$175,000 | \$163,457 | Project ongoing |
| EA4020 | Financial Plan Update 2021 | \$50,000 | \$0 | Project ongoing |
| EA4022 | Security Upgrades | \$500,000 | \$185,690 | Project ongoing |
| EA4039 | Record Drawings & Documents | \$255,000 | \$174,045 | Ongoing annual project |



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| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|-------------|---|-----------------|--------------------|----------------------------|
| EA4055 | Pipeline Condition Assessment | \$950,000 | \$631,771 | Project ongoing |
| EA4073 | Plant Instrumentation | \$561,608 | \$583,619 | Ongoing annual project |
| EA4085 | IT Upgrades | \$754,000 | \$798,467 | Project ongoing |
| EA4095 | WTP Interior Renovations | \$581,500 | \$332,541 | Ongoing multi-year project |
| EA4107 | Concrete Crack Injection | \$120,000 | \$80,679 | Project ongoing |
| EA4114-21 | Annual Maintenance (2021) | \$100,000 | \$5,161 | Annual program |
| EA4129 | Server Room Fire Suppression | \$30,000 | \$0 | Project on hold |
| EA4132 | Alum Storage Tanks | \$615,000 | \$273,694 | Project ongoing |
| EA4135 | Hydraulic/Transient Model Update & Monitoring Study | \$92,000 | \$0 | Project ongoing |
| EA4136 | Service Water Piping Replacement | \$50,000 | \$63,104 | Ongoing multi-year project |
| EA4137 | Low Lift Service Water Connection | \$50,000 | \$35,578 | Ongoing multi-year project |
| EA4144 | Fluoride System Renewal | \$30,000 | \$20,891 | Project ongoing |
| EA4147 | Generator Multiline Relay | \$75,000 | \$47,974 | Project ongoing |
| EA4152 | PLC Replacements | \$40,000 | \$0 | Project to be initiated |
| EA4153 | Filter Backwash Upgrades | \$200,000 | \$34,436 | Project on hold |
| EA4156 | High Lift Pump Replacement | \$4,851,000 | \$2,814,844 | Project ongoing |
| EA4160 | Non-Revenue Meter Replacement Program | \$275,000 | \$246,086 | Project ongoing |



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| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|--------------|--|---------------------|--------------------|----------------------------|
| EA4161 | Evaluate Pre-Treatment Hydraulics | \$50,000 | \$39,100 | Project ongoing |
| EA4162 | Crop Yield Monitoring – 2013 Pipeline Twinning | \$661,000 | \$131,860 | Ongoing multi-year project |
| EA4166 | SCADA/PLC – Software Review and Upgrade | \$500,000 | \$4,579 | Project ongoing |
| EA4171 | Backwash Drain Valve Actuator Replacement | \$75,000 | \$66,542 | Project ongoing |
| EA4172 | Dedicated Raw Water Sample Line | \$90,000 | \$0 | Project to be initiated |
| EA4175 | Pilot – Unchlorinated Filtration | \$25,000 | \$0 | Project to be initiated |
| EA4176 | Plant Drain Chlorine Sample Line | \$80,000 | \$42,129 | Project ongoing |
| EA4177 | Railings and Guarding | \$200,000 | \$117,639 | Ongoing multi-year project |
| EA4179 | Window/Glazing Replacement | \$180,000 | \$118,450 | Ongoing multi-year project |
| EA4180 | Filter Capacity Evaluation | \$37,000 | \$0 | Project to be initiated |
| TOTAL | | \$13,499,108 | \$7,428,429 | |



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A.2(a) Completed Projects – Release Surplus to Reserve Funds (\$921)

| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|--------------|--|------------------|--------------------|-------------------|
| EA2170 | Computerized Maintenance Management System | \$120,000 | \$119,528 | Project complete |
| EA4169 | Sluice Gate Repairs | \$50,000 | \$49,551 | Project completed |
| TOTAL | | \$170,000 | \$169,079 | |

A.2(b) Completed Projects – Reduce Authorized Debt

| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|--------------|-----------------------------|---------------------|---------------------|--------------------|
| EA4023 | Residue Management Facility | \$30,200,000 | \$27,863,285 | Project completed. |
| TOTAL | | \$30,200,000 | \$27,863,285 | |

A.3 Completed Projects – Additional Funding Required (\$44,279)

| PROJECT NO. | PROJECT | APPROVED BUDGET | EXPENDED TO DATE * | STATUS |
|--------------|---------------------------|------------------|--------------------|-------------------|
| EA4114-20 | Annual Maintenance (2020) | \$100,000 | \$136,700 | Annual program |
| EA4149 | Low Lift HVAC | \$250,000 | \$257,579 | Project completed |
| TOTAL | | \$350,000 | \$394,279 | |

Notes:

* Expended as of August 31, 2021.



Elgin Area

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Report No.: EA-2021-03-06

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Meeting Date: October 7, 2021

File No.:

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

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

Subject: Climate Change Assessment

RECOMMENDATION

That the following report with respect to the Climate Change Assessment for the Elgin Area Primary Water Supply System **BE RECEIVED** for information.

EXECUTIVE SUMMARY

The Climate Change Vulnerability Assessment Tool was developed by Conservation Ontario in 2018 to assess well and surface water intake sensitivities and vulnerabilities due to climate change. The tool is being considered by the Lake Erie Source Protection Region for recommended use for intakes and wellheads within the Kettle Creek, Long Point, Catfish Creek and Grand River Source Protection Regions. The Elgin Area Primary Water Supply System has the major water intake in the Region and therefore was approached by the Region to undertake the assessment.

The Elgin Area Primary Water Supply System utilized the assessment tool for the intake and area level sensitivities related to climate change. The intake and area level received an overall vulnerability rating of low. This is based on receiving a high overall area level and intake impact rating and a high adaptive capacity rating.

From the assessment tool, draft recommendations for consideration by the Elgin Area Water System, surrounding municipalities and the Source Protection Region have been developed. The draft recommended opportunities for improvements to the overall vulnerability score that the Elgin Area Water System can consider include performing an intake study and a detailed climate change assessment study. Similarly, the draft recommended opportunities for improvements to the municipalities and the Source Protection Region are related to policies affecting agricultural land use and addressing stormwater system capacity challenges.

The tool can also aid in improving existing policies and management practices the Elgin Area Primary Water Supply System has adopted such as the Environmental and Quality Management Systems, the Asset Management Policy and potentially aid in the development of a Climate Action Plan. In addition, the tool can support other activities including the development of capital budgets and plans, process optimization and risk mitigation strategies. With the aid of the tool, the Elgin Area Primary Water Supply System can maintain or potentially improve its resiliency to climate change.



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BACKGROUND

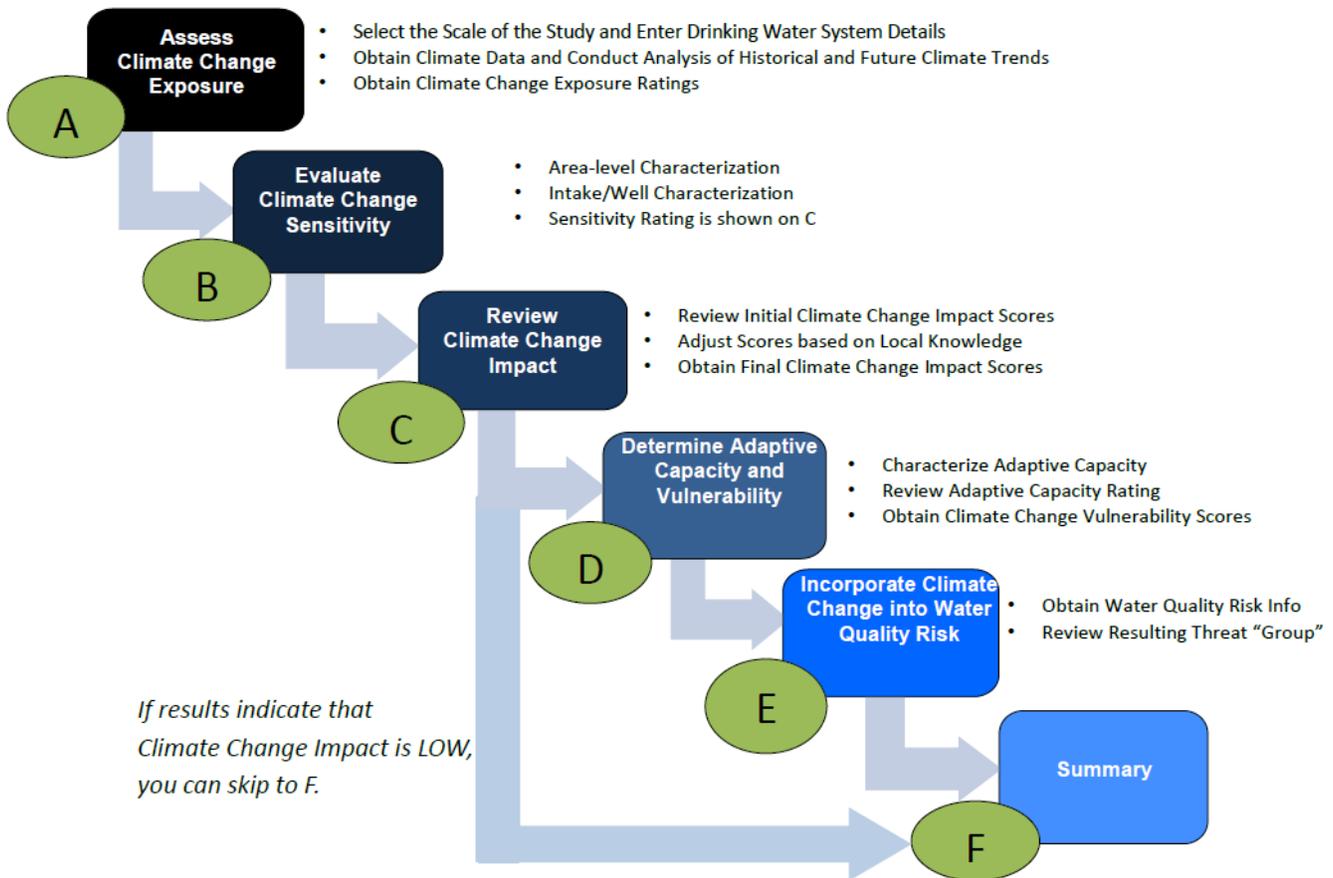
In 2018, Conservation Ontario developed the Climate Change Vulnerability Assessment Tool due to proposed changes to the Director's Technical Rules, under the *Clean Water Act*, to include the consideration of climate change in source water quality risk assessments.

Currently, the Climate Change Vulnerability Assessment Tool (Tool) is being considered within the Lake Erie Source Protection Region. As the Elgin Area Primary Water Supply System (EAWSS) has one of the major water treatment plant intakes in the Region, the EAWSS was approached by the Lake Erie Source Protection Region to test the utilization of the Tool. Prior to being approached by the Lake Erie Source Protection Committee, the EAWSS undertook a review of climate change impacts on the Elgin Area Water Treatment Plant based on historical data and published literature reviews.

The Tool is a Microsoft Excel based application and is one of the first of its kind in Ontario. Its main purpose is to provide science-based guidance to governing bodies on how to assess climate change vulnerabilities to source water quality related to drinking water. The Tool assesses both water supply intake sensitivity and area level sensitivity, as well as adaptive capacity of the system, to identify climate change vulnerabilities that are specific to the area surrounding the drinking water system.

The Tool utilizes a series of worksheets that are linked to assess climate change exposure, evaluate climate change sensitivity at the intake, assess the adaptive capacity and climate change vulnerability of the area and intake, and provides a qualitative climate change vulnerability rating into existing drinking water quality threat risk assessments.

Below is a visual representation of how the Tool works. The Tool integrates the results of Worksheets A through D and provides results in Worksheet E and a summary in Worksheet F.



The results of the Tool are intended to be used in adaptation and risk mitigation strategy planning, capital planning and process optimization. The Tool can also indicate how resilient the system is to climate change risks. This Tool can aid in the evaluation of the current and predicted state of the Elgin Area Water Treatment Plant and intake and identify which components of the system may be most susceptible to climate change. The results will serve to further encourage climate change risk management of drinking water system infrastructure and support local climate change strategies and/or Climate Action Plans.

The Tool can also be manipulated to evaluate how the total adaptive capacity of the system changes if one or more risks identified are reduced or eliminated. Because the Tool covers the entire watershed that influences the vulnerability of the intake, a collaborative approach with the local Source Water Protection Committee and local municipalities will be required to increase climate change adaptive capacity.

DISCUSSION

The Climate Change Vulnerability Assessment Tool was used in July 2021 to evaluate the Elgin Area Primary Water Supply System.

Climate Change Exposure

The use of the Tool confirmed that the intake experiences a high exposure to multiple climate parameters through all seasons annually based on historical and predicted climate trends. The climate parameters that contribute to the high exposure rating are the following:

- minimum / maximum temperatures,
- precipitation,
- heavy precipitation (intensity),
- very hot days, and
- frost-free days.

Area Level Sensitivity

The Elgin Area Primary Water Supply Area had an assessed overall Area Sensitivity of 71%. This means of all attributes assessed, 71% were highly sensitive to climate change. The attributes that had a high sensitivity and where actions could be taken include:

- future percentage of agricultural fields within of the Kettle Creek Source Protection Area for the municipal planning horizon, and
- stormwater system capacity.

Intake Sensitivity

It was found that the Elgin Area Water Supply intake had an overall Intake Sensitivity of 50%. This means of all the attributes assessed, 50% were highly sensitive to climate change. The attributes that had high sensitivity and where actions could be taken include:

- number of intakes, and
- threats to water quality.

Climate Change Impact

The Climate Change Impact assessment provides an overall climate change impact rating for the study area and the intake. The final impact score was 6.9 out of 9.0, or 77%. This gives the system a high rating, qualitatively. This high rating suggests that water quality of the drinking water source will be impacted by climate change.

The Climate Change Impact assessment also generates an overall climate change vulnerability score. The Elgin Area Primary Water Supply System has a low vulnerability score, qualitatively. This low rating can be attributed to the existing high adaptive capacity of the system.



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Adaptive Capacity

Through the use of the Tool, it was found that the Elgin Area Water System had an Adaptive Capacity score of 82%, or a high adaptive capacity. Adaptive capacity is the ability of the system to adjust to climate change or ability to address impacts from climate change. The high adaptive capacity can be attributed to the ability to rely on the Lake Huron Water Supply System in the event of an emergency, as well as existing policies and management procedures, such as the Environmental and Quality Management Systems.

The Threat Activities worksheet also identifies existing threat activities based on the climate change vulnerability rating and aids in determining if any actions may be required to address anticipated climate change impacts on water quality threats. The threat identified through this Tool was the existing handling and storage of fuel at the water treatment plant, which was also identified in the previous Source Protection Plan for the Kettle Creek Source Protection Region. This threat does not require any further action as it has already been addressed through the establishment of a Risk Management Plan.

As stated above, if one or more of the attributes contributing to the high sensitivity scores is addressed, the Tool can be used to determine if the action will contribute to a lower sensitivity score and if so, by how much. This can aid in capital planning to assess qualitative “return on investment” strategies for climate related actions, as well as assist in future management policies and procedures by prioritizing recommended projects and actions. The Tool can also be beneficial to the municipalities as it can identify areas of improvement within the Elgin Area Water System to potentially meet or exceed the water system’s customer level of service targets.

CONCLUSION

From the results of the Climate Change Vulnerability Assessment Tool, it can be concluded that the Elgin Area Water Supply System intake and area are susceptible to climate change impacts. The tool also demonstrated the water system has a high adaptive capacity and resilient to climate change impacts. This can be attributed to the existing policies, and management policies and procedures currently in place.

Although the overall climate change vulnerability score was qualitatively low, the Climate Change Vulnerability Assessment Tool recommended the following attributes to be investigated further in order to lower the area level sensitivity and intake sensitivity, as well as further increase the adaptive capacity:

- Review Source Protection Plan policies related to agricultural land use activities to assess and address the future impacts agricultural land use on the area level sensitivity and overall climate change impact.
- Collaboration with local municipalities to address stormwater system capacity to address area level sensitivity and increase adaptive capacity.



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-06

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- Collaboration with local conservation authorities and source protection regions to develop policies related to existing flood plains and potential flooding impacts due to climate change. This could address climate change impacts on area level sensitivities.
- Perform an Intake Study to potentially address intake sensitivity. This study has been recommended previously in the 2015 Water Quality Facility Plan and this Tool demonstrated support of this study. This could address intake impacts and climate change impact ratings.
- Perform a Climate Change Assessment Study and a review of rainfall intensity-duration-frequency to address potential threats to water quality from increased precipitation and precipitation intensity. This study was also recommended in the 2020 Elgin Area Water Supply System Master Water Plan. This could address intake impact and climate change impact ratings.
- Perform an on-site storage capacity study to address potential increase in water demands in the future. This study was recommended in the 2015 Water Quality Facility Plan and is supported by the Tool. This could increase the adaptive capacity of the Utility.

Next steps in utilizing this Tool include collaborating with area source protection committees and municipalities. This will enable the Elgin Area Water Supply System to better adapt to the potential impacts climate change may have on the system. This includes being able to maintain customer levels of service to the benefiting municipalities by being proactive when it comes to planning for climate change related impacts.

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

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

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



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-08

Report Page: 1 of 3

Meeting Date: October 7, 2021

File No.:

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

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

Subject: Electric Vehicle Charging Stations

RECOMMENDATION

That the Board of Management for the Elgin Area Water Supply System **RECEIVE** this report for information related to the implementation and use of electric vehicle charging stations.

PREVIOUS AND RELATED REPORTS

None

DISCUSSION

Board staff were approached by the Board's contracted operating authority, the Ontario Clean Water Agency (OCWA), with an employee suggestion for implementing electric vehicle charging stations (EV Stations) at the water treatment plant for possible use by staff and the operating authority. The suggestion was forwarded as part of our collective staff engagement to reduce the overall environmental impacts in the operation of the water utility, become resource efficient, and seek opportunities to improve cost-effective performance of the water system.

With the increasing acceptance and reliance of electric vehicles in the broader community and nationally, either hybrid or fully electric, and the rate of progress being made with improvements in the technology in general, it may be worthwhile for the Board to consider the possible future utilization of the technology in the operation of the regional water system.

Many of the benefitting municipalities, including the City of London, have made strides to embrace the technology and incorporate it into the long-term planning for their needs in the area of fleet services. Similarly, OCWA has begun to include electric and hybrid-electric vehicles as part of their deployed fleet.

Natural Resources Canada (NRCan) has recently announced the launch of the Capacity Building stream of the Smart Renewables and Electrification Pathways Program. The Capacity Building stream will enable communities and individuals to participate in the Canadian electricity and energy sector's transition to low-carbon technologies and support equity, diversion and inclusion activities.

While the regional water system will miss the initial application window of this program, it is anticipated that additional applications will be open in early 2022.



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The program by NRCan allows applicants to partner, if desired, with municipalities to provide a broader and collaborative application for electric vehicle charging stations. Initial discussions with the City of London have indicated that they may be open to such an application, potentially including the Board's charging stations (if desired) in a future application package submitted by the city under NRCan's Zero Emission Vehicle Funding program.

Board staff have not approached any of the other benefiting municipalities of the regional water system, but not that there may be a broader interest in a partnership among the other municipalities as staff further investigate and develop a business case.

Considerations

While Board staff nor OCWA have fully investigated the options available under NRCan's program related to electric vehicle charging stations, a preliminary discussion has identified two likely scenarios for their implementation, if approved by the Board:

1. Utility Use Only – an EV Station could be constructed within the secure compound of the water treatment plant. The EV Station would be used to charge fleet vehicles owned and operated by either OCWA or the Board's administrative staff. The operation of the charging station would be restricted through the use of authorized swipe cards or RFID tags on the vehicles. Personal vehicles, whether public or staff-owned, would not have access to the station.
2. Utility and Public Use – an EV Station could be constructed at a convenient location on the water treatment plant property, but outside of the secure compound, and/or at another facility owned and operated by the regional water system. The EV Station would be used to charge fleet vehicles owned and operated by either OCWA or the Board's administrative staff as well as personal vehicles used by the public, including OCWA staff and Board staff. The operation of the charging station would be restricted through the use of authorized swipe cards or RFID tags on the OCWA-owned or Board-owned vehicles, or a charge-per-use for personal vehicles including personal vehicles of OCWA staff or Board staff.

Possible EV Station locations for this option may include the visitor parking area off of Dexter Line (Elgin County Road 24) in front of the main water treatment plant, or near the employee and contractor parking area near the northeast corner of the plant property.

Site security and convenient access to the EV Station are significant issues that will be considered in the development of a business case for this initiative. In addition, there may also be an opportunity to include the EV Stations on the emergency backup generation capacity of the plant, providing the availability of charging electric vehicles during an extended region-wide electrical outage. It is also noted that while the use of EV Stations are generally increasing across the province, the relatively isolated or inconvenient location of the water treatment plant and other facilities may be a limiting factor in its utilization in the short-term.



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Anticipated Operating and Service Impacts

At this stage, there is insufficient information available to fully quantify anticipated operating and service impacts as a result of a possible implementation of an EV Station by the regional water system. Regardless, a qualitative assessment indicates the following possible impacts:

- Support local and regional initiatives related to electric vehicles and related charging stations
- Implement infrastructure which enables the future use of electric vehicles by the Board's operating authority, their staff, and the vehicles used by Board staff
- Cost-effective operation of fleet vehicles used by the Board's operating authority and the fleet vehicles used by Board staff.
- Improved environmental performance in support of the goals and objectives set under the Board's Environmental Management System registered to the ISO 14001:2015 international standard.

Board staff continue to investigate the details of NRCan's programs related to EV Stations, and will develop a business case for this initiative and provide a report to the Board at a future meeting.

CONCLUSION

Board staff are investigating possible opportunities for electric vehicle charging stations and potential partnerships with the water system's benefiting municipalities, including the development of a business case, and a future report will be provided to the Board on options available, timelines and financial implications.

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

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



Elgin Area

Primary Water Supply System

9 September 2021

Board of Management
Elgin Area Water Supply System

**RE: 50th Anniversary of the Elgin Area Water Supply System
Water Treatment Plant**

Board Chair and Members;

As you may be aware, the Elgin Area Water Supply System marks a notable anniversary in 2021; fifty years of supplying treated water to communities in this region of southwest Ontario. Although we're unable to celebrate this 50-year milestone together and in-person, your Regional Water team wanted to mark this occasion by sharing some history and notable accomplishments.

The Elgin Area Water Supply System was originally constructed by the Ontario Water Resources Commission in the late 1960's. The Elgin Area Water System began its supply to the newly built Ford Motor Company of Canada Assembly Plant in Talbotville by 1969, initially providing chlorinated lake water until the water treatment plant was completed in 1971.

At a total cost of over \$14 million, the project was constructed in two phases, the first being the intake, low lift pump station, terminal reservoir and pump station near St. Thomas, and the pipeline between the low lift pump station to the reservoir and terminating at the Ford Assembly plant in Talbotville. The second phase was the construction of the water treatment plant and subsequent connections to the City of St. Thomas and the village of Port Burwell.

By late 1971, the Elgin Area Water Supply System provided fully treated water to the Ford plant, as well as the City of St. Thomas augmenting their supply from the St. Thomas Treatment Plant on Kettle Creek and the McKenzie well. The St. Thomas Treatment Plant and the McKenzie well were decommissioned by late 1991. At that time, the Ontario Water Resources Commission also began the operation of the pipeline to Port Burwell.

Over the course of its operation by the Ontario Water Resources Commission and subsequently by the Ministry of the Environment and then the Ontario Clean Water Agency, the Elgin Area Water Supply System expanded to communities across Elgin County including the village of Port Stanley, Southwold Township and the Town of Aylmer, as well as a portion of the City of London.

The Province of Ontario passed the *Municipal Water and Sewage Systems Transfer Act*, 1997 and the Minister of the Environment issued a Transfer Order effective September 15, 2000, transferring the Elgin Area Water Supply System to its benefiting municipalities and established

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ISO 14001

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a Board of Management responsible for the governance and oversight of the regional water utility. Since that time, the Board of Management has worked diligently and effectively to establish long-term plans for the water system, including an Asset Management Plan which is viewed as a Best Practice and leading example of an integrated management approach for a municipal utility.

The regional water system has also been in the forefront of several provincially significant initiatives including the development of the Drinking Water Quality Management System now required for all municipal water systems and related audit protocols, the update of the Ontario Incident Management System, and the development of Source Protection Planning within the Lake Erie Source Protection Region.

On behalf of the dedicated regional water staff, I would like to take this opportunity to congratulate the Board of Management and, by extension, the benefiting municipalities of the regional water system on its 50th anniversary of full operation. In the intervening years, the system has undergone growth, changes in ownership, and unprecedented changes in the regulatory landscape related to drinking water in Ontario. Throughout the changes, the Elgin Area Water System has been a leader and demonstrated long-term vision in the provision of safe drinking water to Ontarians.

Looking forward, we believe the regional water system will continue to serve the municipalities and their communities well. The foundations of good governance have been laid, supported by prudent planning and fiscal responsibility, to sustainably provide safe drinking water for generations to come.

Best regards,

A handwritten signature in cursive script, appearing to read 'K. Scherr', written in black ink.

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

Attachments: Photos (1966 to 1972)

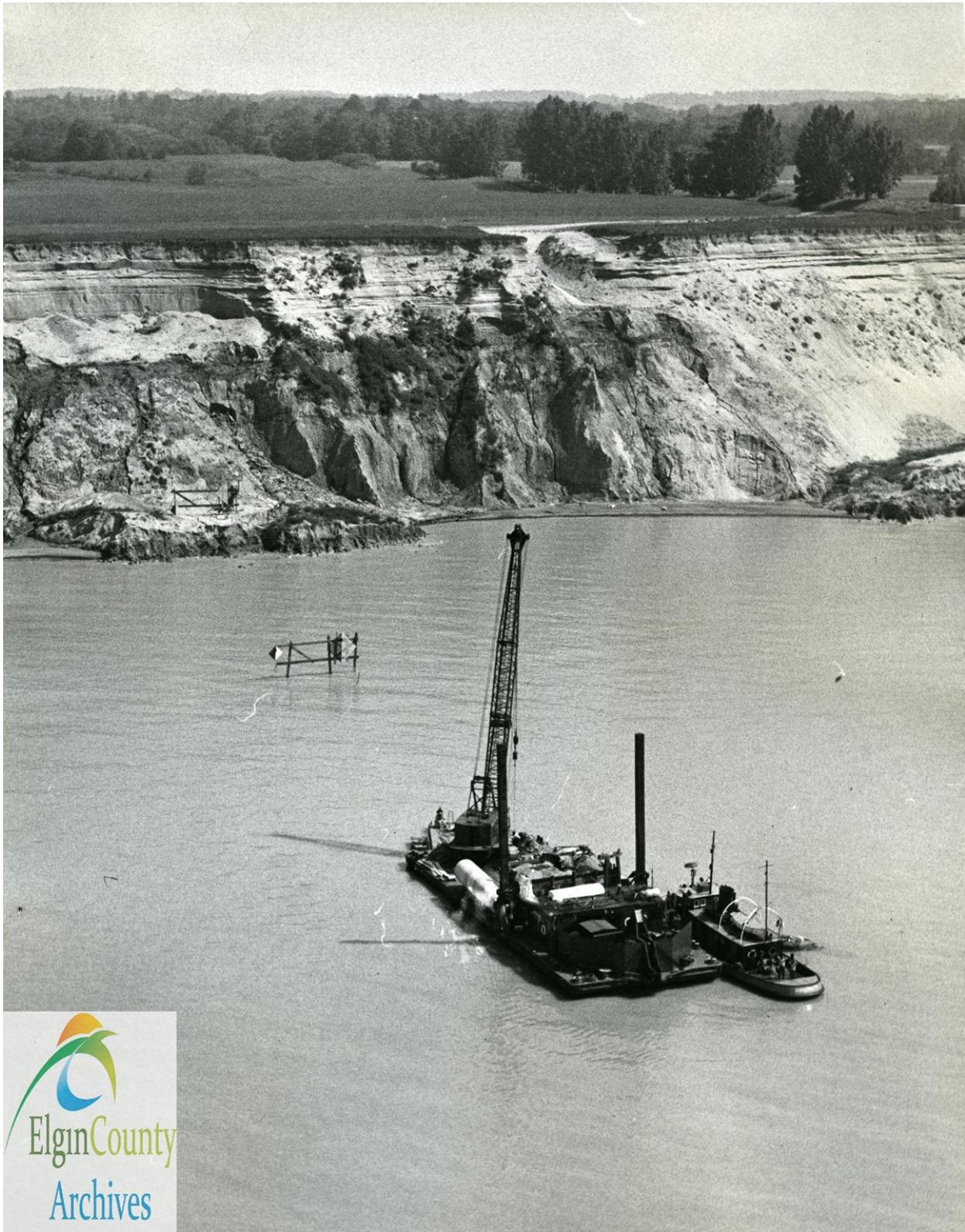


(1966) Positioning the intake structure in Lake Erie before submersion

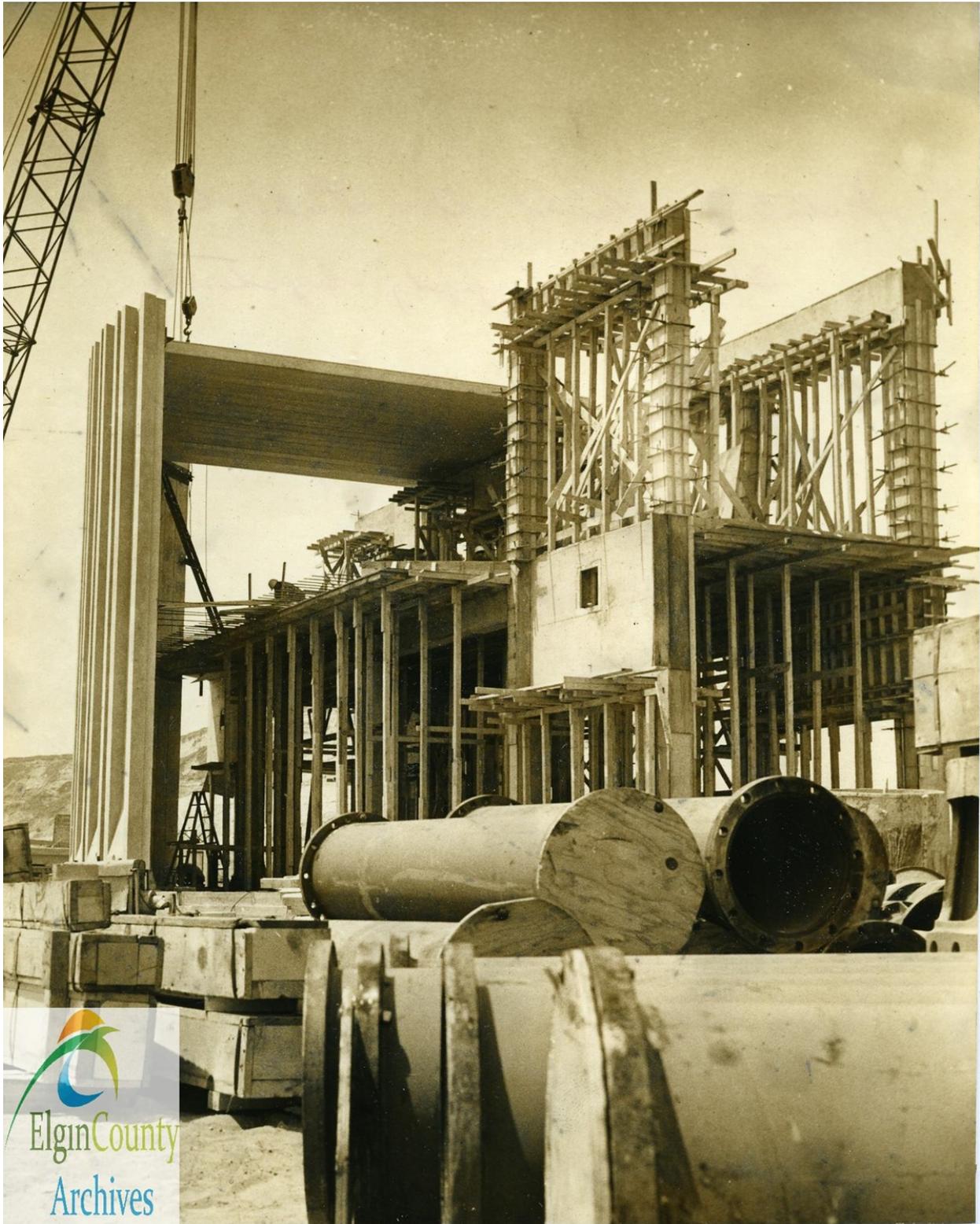


(1966) The first pipe arrives at the water treatment plant for the 60-inch diameter pipeline between the intake crib and the low lift pump station. ~ St. Thomas Times Journal





(1966) Laying intake pipe from the intake crib to the shoreline. ~ St. Thomas Times Journal



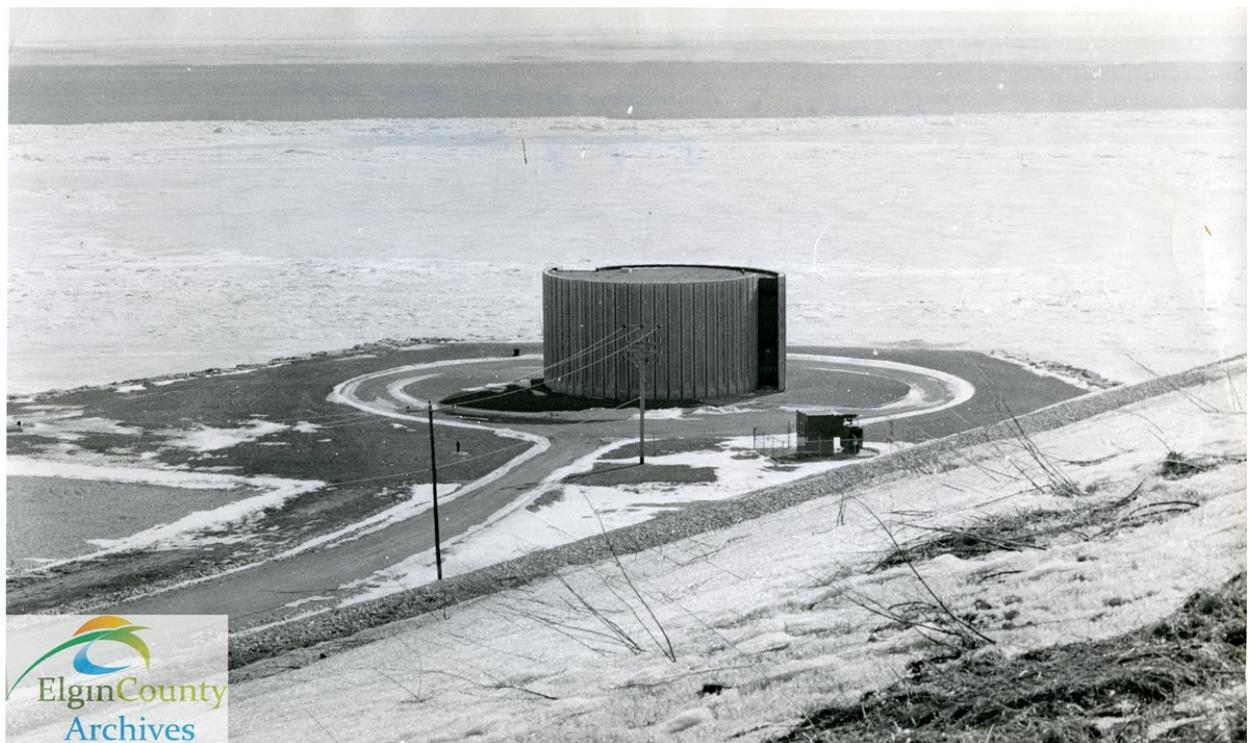
(1967) "A modern design begins to take shape at the intake site of the Lake Erie Water Supply System as exterior and interior walls are installed on the circular low-lift pumping station. With the completion of the unit's substructure, pre-fabricated strips of concrete were being lowered into place yesterday." ~ St. Thomas Times Journal



(1967) "In the midst of high winds and driving snow men and machines continued to move the earth at the site of the Lake Erie water supply system east of Port Stanley. Installation of steel pilings for the base of the low lift pumping station has been carried out and cliffs surrounding the site are still being graded." ~ St. Thomas Times Journal



(1970) W.A. McDougall Ltd. Of London began construction of the water treatment plant in November 1969. ~ St. Thomas Times Journal



(1970) Low lift pumping station at the shoreline of Lake Erie. ~ St. Thomas Times Journal



(1971) Aerial photo of the Elgin Area Water System Treatment complex supplying the Ford Assembly Plant in Talbotville and supplementing supply to the City of St. Thomas. ~ St. Thomas Times Journal)



(December 11, 1971) "It was a big day, Friday, for the Village of Port Burwell, as the community's new water supply system was dedicated at the Legion Hall, with representatives on hand from all over the country, as well as the provincial government. Seen here, preparing for a toast to the new system - with pipeline water - are, from left to right, Elgin MPP Ron McNeil, Port Burwell Reeve Mrs. Mary Blyth, Ontario Water Resources Commission Commissioner Hugh Brown, and Bishop W.J. Hughes, who delivered the invocation." ~St. Thomas Times Journal



(1971) Aerial photo of the low lift pump station on Lake Erie. ~ St. Thomas Times Journal



(July 8, 1972) Official opening ceremony of the Elgin Area Water System treatment plant. Shown next to the original plaque from the (former) St. Thomas water treatment plant on Kettle Creek (1890) and the new dedication plaque for the Elgin Area water system is St. Thomas Mayor Eber Rice (left), Environment Minister James Auld (centre), and Elgin MPP Ronald K. McNeil. ~ St. Thomas Times Journal

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

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

Subject: 2022 Operating and Capital Budgets

RECOMMENDATION

That the following actions be taken by the Board of Management for the Elgin Area Water Supply System with regard to the 2022 Operating and Capital Budgets:

- a) The Board **APPROVE** the 2022 Operating Budget in the total amount of \$14,765,000 as presented.
- b) The Board **APPROVE** the 2022 Capital Budget in the total amount of \$4,524,000 as presented.
- c) The Board **RECEIVE** the 2023 to 2031 Capital Forecast for information.
- d) The Board **APPROVE** the 2022 rate for water of \$0.9414 per cubic meter: and,
- e) The Board **RECEIVE** the 2020 to 2026 Flow and Financial Analysis for information

EXECUTIVE SUMMARY

The proposed operating and capital budgets present a balanced cost and revenue projection for 2022, maintains the principles of the water system's Financial Plan approved in 2016, and is consistent with the projections provided in the 2021 budget. The proposed water rate for 2022 of 94.14 cents (\$0.94149) per cubic meter of water will adequately address capital, operating and administrative requirements as currently projected.

The Financial Plan is a key element in the long-term strategic approach that addresses both infrastructure and operating needs for the utility while ensuring fiscal responsibility to maintain a reliable and sustainable water supply to the benefiting municipalities and consumers.

Cost projections presented in the 2022 budget include the anticipated operating costs for the water utility beyond the current term with the contracted operating authority, the Ontario Clean Water Agency, which end December 31, 2022.

The 2022 Capital Budget builds on the water system's Asset Management Plan approved in 2016 and utilizes the Customer Level of Service framework and Risk Mitigation strategy previously approved by the Board. This includes the utilization of the business case process to better quantify anticipated costs, savings, and service impacts to the water supply system for options considered.



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The projects and initiatives in the 2022 Capital Budget are presented in this report within two primary groupings; Maintain Level of Service (Maintain LOS) projects that serve to ensure that services are provided at the current level of service, and Improved Level of Service (Improved LOS) which address enhancements to levels of service, support growth of the system and increasing water demands, address regulatory changes, or increase efficiency. A proposed capital project may touch, in part, on all these aspects, however they are presented within this report according to their respective primary driver.

No projects are currently included in the proposed 2022 Capital Budget related to the Elgin-Middlesex Pump Station building and building-related assets. While the City of London, the St. Thomas Secondary Water System and the Elgin Area Water System have all accepted the proposed Occupancy Agreement for the building, assuming that the building and building-related assets are owned by the Elgin Area Water System as initially requested by the Aylmer Secondary Water System, the Aylmer Secondary System has yet to approve the agreement and this issue remains unresolved.

The projected future capital expenditures include allocations for anticipated scheduled asset investments outlined in the Asset Management Plan (listed as “AMP Investments”). These are listed for projection purposes and are not associated with specific projects at this time. As the business cases are completed in each category, the AMP Investments will be eliminated in the projections in favour of specific asset improvements and refurbishments.

PROPOSED 2022 OPERATING BUDGET

2022 Water Rate

It is proposed in this budget that the water rate for the wholesale of water to the benefiting municipalities be set at \$0.9414 per cubic meter (94.14¢ per cubic meter). In responding to regulatory, operational and inflationary pressures, this proposed 2022 rate represents a 4% increase from the current rate.

The rate proposed for the 2022 budget is consistent with the projected rate increase previously reported to the Board in the 2021 Budget but deviates from the 2016 Financial Plan which projected a 3% increase. The proposed deviation was determined to be necessary to address needed Reserve funds between 2022 and 2024.



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2022 Budget Volume

Allowing for the current rate of population and minimal water demand growth within the benefiting municipalities, as well as anticipated impacts of continued water conservation, the proposed 2022 water volume included in the budget of 15.650 million cubic meters represents a 1.4% increase compared with the 2021 budgeted volume, and approximately 1.4% lower than the anticipated 2021 actual supplied volumes.

| | |
|----------------------------------|---------------------------|
| Approved 2021 budget volume | 15,441,000 m ³ |
| Anticipated 2021 year-end volume | 15,870,330 m ³ |
| Proposed 2022 volume | 15,650,000 m ³ |

A conservative estimate of volume was utilized for the 2022 budget due to revised long-term projected consumption in Elgin County but remains reflective of long-term system consumption patterns throughout the region. The City of London continues to take the minimum contracted block-volume of water on a daily basis of approximately 22.7 million litres.

Water demand projections and anticipated capital works are reviewed annually as part of the budget development process to ensure capital investments are appropriately coordinated and timed. The long-term volume projections will be reviewed again during future revisions to the Master Water Plan and Asset Management Plan and compared to the long-term growth projections for each municipality. Further, the recently adopted business case process as part of the Asset Management Plan promotes a risk mitigation and level of service strategy which further addresses the appropriate timing of necessary projects.

Operating Costs

The two single largest operating costs for the water supply system are the contract costs for the operation and maintenance of the water supply system, and the purchase of power for the system. The 2022 budgeted operating costs are approximately \$5.734 million, reflecting a 6% net increase compared to the 2021 budget. Energy saving initiatives, including the installation of new high lift pumps, have significantly contributed to the anticipated decrease in energy costs which offset increased contractual operating costs. Of the \$5.734 million, energy currently comprises approximately 18.3% of operating expenditures (down from 21.2% in the 2021 budget).

The Service Fee currently paid to the Board's contracted operating authority, the Ontario Clean Water Agency (OCWA), is comprised of a set fee for service (reflecting labour, material and chemical costs, etc.) paid by the Board, as well as a cost-plus fee for the operation and maintenance of the recently constructed Residuals Management Facility. As electricity can be highly variable on a year-over-year basis, the risk of market volatility has summarily been assumed by the Board and mitigated through the Board's energy procurement strategy, as well as conservation and efficiency programs.



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The Board previously received and accepted an energy, conservation and pump optimization study report which reviewed possible cost saving and efficiency measures related to the procurement and usage of electrical energy and the associated pump strategy for the system. A few efficiency recommendations were received and incorporated into the previous 2016 Asset Management Plan and 2016 Financial Plan, which require the development of a business case to better quantify anticipated costs, savings, and service impacts. The proposed 2022 Capital Budget and forecasted capital plan has begun to incorporate some of the impacts of energy efficiency projects which have been implemented or in progress, with further energy efficiency projects to be considered in future.

Administration and Other Expenses

The Administration and Other Expenditures projected for the 2022 budget of approximately \$2.755 million represents a \$1.06 million net increase over the 2021 budget amount. This net increase is due to numerous changes to the water supply system, summarized as follows:

- Overhead and service costs: the administration charges paid to the City of London for such services as accounts payable/receivable, clerical support, and budget administration was increased to reflect current actual costs to the city. The amount charged by the Administering municipality is approximately proportionate to total expenses and has been adjusted to reflect the costs associated between this water system and the Lake Huron water system.
- Management & Administrative Personnel: projections for personnel costs have been adjusted as a result of increases reflective of Collective Agreements and cost of living increases and approved staff complement.
- Significant increases to the Board's property cyber insurance, Directors & Officers insurance, property insurance, and general liability insurance.
- Leased office space rate increases.
- The increased costs to Information Technology due to cyber security measures, implemented technology, and IT/OT asset replacements.
- The introduction of contracted security services at the facility.

Security Audit

The previously completed and approved Security Audit and Threat Risk Vulnerability Assessment recommended a number of capital and operating investments to the regional water system, including staffing resources. The proposed 2022 Operating Budget includes an allowance for contracted security-related services at the water treatment facility to address risks identified in the audit report.

Process Optimization

Over the next five to ten years, there will be a significant focus on process optimization in order to improve treatment and transmission system performance, efficiency, and effectiveness. This has the added potential to increase treatment capacity without the corresponding construction of new treatment processes (i.e., expanding the treatment plant).



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While staff have undertaken several of the preliminary studies and investigations outlined in the Water Quality Facility Plan completed in 2012, greater efforts are now required to address subsequent findings as well as the optimization strategies outlined in the original 2012 Plan. An update to the Water Quality Facility Plan is proposed in the 2022 Capital Budget, which will incorporate recent assessments related to treatment capacity, impacts of Climate Change and adaptive capacity, and unit process treatment efficacy.

PROPOSED 2022 CAPITAL BUDGET

The proposed 2022 Capital Budget reflects a number of projects to address capital improvements and critical reinvestment in the water supply system's assets, as well as regulatory requirements, ongoing and proposed Board initiatives. Project specific summaries are provided in Appendix A of this report for the Board's information.

Financial Plan and Asset Management Plan

The previous Asset Management Plan and Financial Plan approved by the Board in 2016 provided an assessment of anticipated capital projects, based on condition assessments, operational assessments provided by our contracted operating authority, and previously undertaken studies which were available at that time. In the development of the 2022 Capital Budget, a business case is created for each project which outlines the scope of the issue that needs to be addressed, options, cost estimates, and project dependencies. The business case process is linked with our Customer Level of Service framework and Risk Mitigation strategy in order to better prioritize and direct funds in a more strategic fashion and in consideration of financial constraints which may be experienced.

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

- Enhancement to the level of service (including safety and security);
- Support of system growth or growth in water demands.
- Address regulatory changes; or,
- Increase efficiency.

The level of capital investment will vary from year-to-year, most especially for projects related to system growth or water demand growth. The Asset Replacement Reserve is used for lifecycle projects (maintain LOS), while the Capital Reserve is used for system improvements. A given project, in principle, may address multiple elements within the Customer Level of Service framework (energy efficiency, health & safety, regulatory, performance, etc.), and therefore may require the utilization of both the Asset Replacement Reserve (lifecycle) and the Capital Reserve (service improvement and growth).



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

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

The projected capital plan (2023 to 2031) includes an allocation for anticipated systemic but unspecified asset investments starting in 2023 (identified as “*AMP Investments*”). This reflects the age-related projections included in the previously approved Asset Management Plan. As condition assessments and risk assessments are completed, business cases will be undertaken to identify and prioritize the expenditures and replace these *AMP Investments* allocations in the long-term plan.

2022 Capital Plan

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

In contrast, the Capital Reserve is intended to grow significantly over time to provide a sufficient base for funding large growth-related projects in future. The balance of generational investment equity (utilization of reserves established by current users versus debt incurred and paid by future users) has yet to be fully quantified and will be addressed in future Master Water Plan and Financial Plan studies. While there are no significant growth-related expenditures within the current planning period (e.g., plant expansion), the results of the Asset Management Plan and Financial Plan currently being undertaken, as well as future iterations of the Master Water Plan, are likely to have an impact on the long-term financial requirements to address growth-related projects. Staff continue to be satisfied that the issue of generational equity can be addressed within a reasonable timeframe.



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Lifecycle Projects (Maintain Level of Service)

Proposed projects in the 2022 Capital Budget which primarily address maintaining the system's level of service are:

- Plant Interior Door Replacement
- Roof Replacement
- Service Water Piping Replacement
- Parking Lot Asphalt Resurfacing
- Lighting/Breaker Panel Replacement
- Backwash Drain Valve Actuator Replacement
- Exterior WTP Building Seals
- Plant Instrumentation
- Low Lift Service Water Connection
- EMPS Utility Pole Replacement
- RMF Mixing Pump Replacement
- Roof Drain Replacement

In addition to the above-noted capital projects, the 2022 Capital Budget includes EA4114 Annual Maintenance which funds, in part, maintenance and repair projects undertaken by the contracted operating authority, the Ontario Clean Water Agency. All maintenance and repairs of the system's assets are the obligation of the contracted operating authority to undertake in accordance with the Service Agreement. For activities of maintenance and repair where the value of the material and any contracted specialty service exceed \$30,000 (adjusted annually by CPI), the Board is responsible for the value of the work in excess of the \$30,000 (as adjusted). To facilitate this work, the Capital Budget includes an Annual Maintenance project which is utilized to fund this contractual obligation of the Board.

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

Proposed projects in the 2022 Capital Budget for which the primary driver is service improvement are:

- Security Upgrades
- Railings and Guarding
- Water Quality Facility Plan
- Flocc Tank Influent Distribution Upgrades
- Construction Site Trailer & Electrical Pedestal
- Backwash Pump Replacement
- UV Replacement
- Sodium Hydroxide Assessment Study
- RMF Total Chlorine Residual Compliance

A summary of the capital projects is provided in Appendix A of this report.

EMPS Building and Building-Related Assets

The Elgin-Middlesex Pump Station at the Elgin Terminal Reservoir houses the pumps, piping, control systems, pressure surge controls and associated piping related secondary pumping systems for the City of London, the St. Thomas Secondary Water System, and the Aylmer Secondary Water System. While efforts to correct and clarify the assets ownership at the site has been ongoing for the last several years, the Elgin Board agreed to own and maintain the



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common building and building-related assets as requested by the Aylmer Secondary Water System rather than the original joint ownership (between London, Aylmer Secondary and St. Thomas Secondary) originally proposed. While the Elgin Area Water System, the City of London, and the St. Thomas Secondary Water System have accepted the final draft of the Occupancy Agreement related to the EMPS building and building-related assets, the Aylmer Secondary System has not.

In order to facilitate the long-term systemic approach to the management and maintenance of the EMPS building and building-related assets, staff had prepared an Asset Management Plan which recommended ongoing investments in order to ensure the full life of the building is realized. The Asset Management Plan had assumed that the ownership of the building would be confirmed in 2021 and maintenance and repair activities would be undertaken by the Elgin Area water system starting in 2022. Without the agreement in place, staff have excluded the following previously anticipated expenditures from the 2022 Capital Budget:

- EMPS Boiler Replacement (\$15,000)
- EMPS HVAC Replacement (\$25,000 in 2022 for engineering, and \$350,000 in 2023 for construction)
- EMPS MCC Replacement (\$50,000 in 2022 for engineering and component pre-purchases, and \$250,000 in 2023 for construction)
- EMPS Roof Replacement (\$350,000 in 2022)

CAPITAL FORECAST

A number of capital projects are projected beyond the 2022 Capital Budget year, which will have an impact on the financial forecast and future water rates for the water system. Some of these capital projects were anticipated in previous budget forecasts and are now inclusive of approved Asset Management Plan and Financial Plan. As previously noted, staff undertake a business case assessment for each project to confirm the costs, timing, and priority of the project, consistent with our Customer Level of Service framework and Risk Mitigation strategy.

FLOW AND FINANCIAL ANALYSIS

Included in the budget package is a projection of annual volumes and finances beyond 2022 and provides a summary analysis of one option for rate increases and the use of debt (if any). This projection has incorporated the principles and recommendations from the Financial Plan but has been adjusted to reflect the higher than previously anticipated expenses and projected lower reserve fund ending balances. These projections will be further revised when the Financial Plan, which currently being developed, is finalized and approved by the Board early in 2022.

The projected operating expense in 2023 and beyond assumes that the future cost of operating the system is consistent with the amended operating agreement with the Ontario Clean Water Agency that ends on December 31, 2022. In addition, energy expenditures projected beyond 2022 have assumed a reasonable escalation of costs, tied to the anticipated annual volumes projected and consequential savings from various efficiency-related investments.



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The Flow and Financial Analysis presented in the 2022 Budget currently projects an annual 3% rate increase starting in 2023, consistent with the previously approved Financial Plan. This water rate projection, however, may be subject to change and revision as the update to the Financial Plan is completed in early 2022 which incorporates the updated Master Water Plan, undertaken in 2019, as well as the Asset Management Plan being completed this year.

Reserve Funds

Conceptually, the Asset Replacement Reserve is required to provide a stable funding source for capital programs designed to replace, maintain and extend the life of existing assets to their full potential. Accordingly, the contribution to the Asset Replacement Reserve fund year-over-year should be relatively consistent, on average over the long-term, with minor variations accounted for as the Asset Management Plan is implemented.

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

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

Acknowledgement

The preparation of the 2022 Operating and Capital budgets were undertaken by the Regional Water Supply Division staff, with the assistance of Zeina Nsair and City of London Financial Services.

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

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

Attachments: Appendix A – 2022 Capital Project Summary
2022 Operating and Capital Budgets, and Nine-Year Capital Forecast

APPENDIX A:

Lifecycle Projects (Maintain LOS)

EA3011 – Plant Interior Door Replacement (multi-year program): Due to the damp environment within the water treatment plant, many of the existing metal doors have failed or are showing signs of significant corrosion and deterioration. This project continues the multi-year replacement of interior industrial doors over the next five years, starting in 2020.

EA3017 – Exterior WTP Building Seals (multi-year program): The water treatment plant is mainly comprised of a concrete and steel superstructure with brick facia. A recent condition assessment has determined that the weather seals on the building exterior have significantly deteriorated, are no longer maintainable, and require replacement. This project undertakes to remove and replace the building seals over a three-year period starting in 2020.

EA3020 – Roof Replacement (multi-year program): condition assessment in 2012 identified several rooves at the water treatment plant that needed advanced repairs or replacement. A recently updated assessment confirmed that the chlorine building roof is now in poor condition and requires complete replacement.

EA4073 – Plant Instrumentation (annual program): Much of the plant's online analyzers are beyond their useful life. This program funds a systematic replacement of the water system's online analyzers that are critically necessary to ensure ongoing compliance with regulations and the system's Municipal Drinking Water Licence.

EA4136 – Service Water Piping Replacement (multi-year program): The existing service water piping within the facility is original to plant construction and showing signs of age-related deterioration. This multi-year program continues to replace portions of service water pipes within the facility which are found to be in poor condition.

EA4137 – Low Lift Service Water Connection: The service water pipeline between the water treatment plant to the exterior of the low lift building was previously replaced to address longstanding issues with flow restrictions and poor pipeline condition. A new connection with Pressure Reducing Valve and controls is required to improve overall system performance and resiliency.

EA4138 – Parking Lot Asphalt Resurfacing: The existing laneway and parking area at the water treatment plant has experienced longstanding deterioration due to successive years of construction and age-related wear. This project proposes to rehabilitate the existing asphalt laneway and parking area and address longstanding deficiencies in available parking spaces.

EA4171 – Backwash Drain Valve Actuators (multi-year program): A previous condition assessment has determined that the existing drain valve actuators are failing and require replacement. The actuators were installed twenty-five years ago and no longer supported by the manufacturer.

EMPS Utility Pole Replacement: The poles supporting the primary electrical supply from Hydro One to the substation at the terminal reservoir site have degraded require replacement.

Lighting/Breaker Panel Replacement (multi-year program): The 110v/220v lighting and breaker panels throughout the facility are original to plant construction and subject to periodic failures. The equipment is no longer supported by the manufacturer and spare parts are difficult to acquire. A systemic approach to the replacement of these low voltage panels is recommended.

RMF Mixing Pump Replacement: The existing sludge mixing pump used in the operation of the Residuals Management Facility is subject to a high-degree of wear due to the materials involved and is now being repaired and/or rebuilt every six-months. The solids content of the material has a much higher grit and abrasive material content than what was originally designed for, and a different mixing system is required.

Roof Drain Replacement (multi-year program): The cast iron drains throughout the facility are original to plant construction and are starting to show signs of blockage and leakage due to the extent of corrosion. This project proposes to replace drains throughout the facility over a four-year period starting in 2022.

System Improvement Projects

(Enhance LOS, Growth, Regulatory Changes, Efficiency, etc.)

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

EA4153 – Backwash Pump Replacement: The existing backwash pumps at the facility currently do not meet the required flow rates to adequately wash the new filtration systems and require replacement. The existing pumps are original to the plant's construction.

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

EA4183 – UV Replacement: The existing UV disinfection system at the water treatment plant is at the end of its service life and requires replacement. The existing system is considered "first generation" technology and is energy inefficient. This project proposes to replace the existing UV system with a current energy efficient technology.



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-05

Report Page: 12 of 23

Meeting Date: October 7, 2021

File No.:

EA4184 – Water Quality Facility Plan: The previous Water Quality Facility Plan reviewed the efficiency and efficacy of the various treatment processes and made recommendations for system modifications and additional detailed studies. While several high-priority projects were undertaken over the intervening period, an update to the Plan is required in order to further assess the effectiveness of the previous changes and make further recommendations for process optimization and treatment efficiency.

Construction Site Trailer Pad & Electrical Pedestal: For each major capital project, contractors will bring site trailers for their use as a construction office and storage of equipment and materials. This often requires staff to coordinate a location and allow the contractor to install temporary electrical connections for their trailer. This project proposes the construction of two permanent trailer pads and one permanent electrical pedestal to facilitate ongoing and future construction projects without repetitive temporary work being installed and removed.

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

RMF Total Chlorine Residual Compliance: The Municipal Drinking Water Licence for the water treatment facility has strict compliance criteria related to Total Chlorine Residual discharge limits from the Residuals Management Facility (RMF) to Lake Erie. The RMF has been in operation for nearly five-years and data suggests that meeting these strict criteria has been difficult. This project proposes to undertake a detailed engineering review of the system and make recommendations meet the stringent discharge criteria.

Flocc Tank Influent Distribution Upgrade: Since the commissioning of the Residuals Management Facility, operating staff have been dealing with uneven distribution of settled solids leading to periodic failures of the new scraper system in the settling tank. This project proposes to undertake the installation of flow distribution equipment as recommended following an engineering assessment.



Elgin Area

Primary Water Supply System

**2022 Operating and Capital Budgets
and Nine Year Capital Forecast**

October 7, 2021

Elgin Area Primary Water Supply System 2022 Budget

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**Elgin Area Primary Water Supply System
2022 Budget
Revenue and Expenditure Summary
(\$000's)**

| | 2021 Approved Budget | 2022 Proposed Budget | Incr (Decr) Over 2021 | % Budget Incr (Decr) | 2021 Year End Projection |
|---|----------------------------|----------------------------|--------------------------|----------------------------|--------------------------------|
| Revenues: | | | | | |
| Volume Revenues ⁽¹⁾ | 13,977 | 14,734 | 757 | 5.4% | 14,366 |
| Other Revenues | 10 | 31 | 21 | 210.0% | 18 |
| Total Revenues | \$ 13,987 | \$ 14,765 | \$ 778 | 5.6% | \$ 14,384 |
| Expenditures: | | | | | |
| Operating Costs ⁽²⁾ | 5,423 | 5,734 | 311 | 5.7% | 5,149 |
| Administration and Other Expenditures | 1,691 | 2,756 | 1,065 | 63.0% | 1,888 |
| Debt Principal Repayments ⁽³⁾ | 2,273 | 2,323 | 50 | 2.2% | 2,273 |
| Interest on Long Term Debt ⁽³⁾ | 239 | 181 | -58 | (24.2)% | 239 |
| Contribution to Reserve Funds | 4,361 | 3,771 | -590 | (13.5)% | 4,960 |
| Total Expenditures | \$ 13,987 | \$ 14,765 | \$ 778 | 5.6% | \$ 14,509 |

*subject to rounding

Notes:

(1) A volume increase is anticipated in 2022 (from 15,441,000 m3 in 2021 to 15,650,500 m3 in 2022). Rates per m3 are proposed to increase by 4.0%.

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

(3) Refer to page 9 for more information on debt.

**Elgin Area Primary Water Supply System
2022 Budget
Administration & Other Expenditures
(\$000's)**

| Administration & Other Expenditures | 2021 Approved Budget | 2022 Proposed Budget | Incr (Decr) Over 2021 | % Budget Incr (Decr) | 2021 Year End Projection |
|---|----------------------------|----------------------------|--------------------------|----------------------------|--------------------------------|
| Management & Administrative Personnel | 741 | 961 | 220 | 29.8% | 743 |
| Support and Overhead Costs ⁽¹⁾ | 180 | 183 | 3 | 1.5% | 180 |
| Payment in Lieu of Taxes | 215 | 395 | 180 | 83.7% | 396 |
| Insurance (Director & Officers, General Liability) | 175 | 341 | 166 | 95.1% | 240 |
| Financial/Office Expenses ⁽²⁾ | 220 | 376 | 156 | 70.6% | 199 |
| Information Technology Maintenance | 100 | 105 | 5 | 5.0% | 100 |
| Purchased Services (Legal, Consulting, Locates, etc.) | 60 | 394 | 334 | 563.0% | 30 |
| Total Administration & Other Expenditures | \$ 1,691 | \$ 2,755 | \$ 1,064 | 62.9% | \$ 1,888 |

* subject to rounding

Notes:

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

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

**Elgin Area Primary Water Supply System
2022 Budget
2022 Capital Plan with Forecast for 2023 to 2031
(\$000's)**

| # | Description | Project Total | Prior Years Budget | 2021 Approved Budget | 2022 Proposed Budget | Forecast | | | | |
|----------|---|---------------|--------------------|----------------------|----------------------|----------|-------|------|------|--------------|
| | | | | | | 2023 | 2024 | 2025 | 2026 | 2027 to 2031 |
| EA1026 | RW Office Expansion & Renovation | 200 | | 200 | | | | | | |
| EA2019xx | Master Plan Update | 435 | 135 | | | | 150 | | | 150 |
| EA2177 | Asset Management Plan 2021 | 450 | | 150 | | | | | 150 | 150 |
| EA3010 | IT Asset Replacement Program | 1,123 | 431 | | | 7 | 14 | 295 | 175 | 201 |
| EA3011 | Plant Interior Person Door Replacement | 60 | 20 | 20 | 20 | | | | | |
| EA3012 | Interior LED Lighting Upgrades | 75 | 50 | 25 | | | | | | |
| EA3016 | Safety Showers Upgrade | 60 | 25 | 35 | | | | | | |
| EA3017 | Exterior WTP Building Seals | 60 | 20 | 20 | 20 | | | | | |
| EA3020 | Roof Replacement | 625 | 175 | | 150 | 300 | | | | |
| EA4020 | Financial Plan Update 2021 | 150 | | 50 | | | | | 50 | 50 |
| EA4022 | Security Upgrades | 1,150 | 350 | 150 | 100 | 350 | 200 | | | |
| EA4039 | Record Drawings & Documents | 275 | 255 | | | | 5 | | 5 | 10 |
| EA4068 | Pipeline & Chamber Upgrades | 1,250 | | | | | 1,250 | | | |
| EA4073 | Plant Instrumentation | 832 | 532 | 30 | 15 | 15 | 30 | 30 | 30 | 150 |
| EA4114xx | Annual Maintenance ⁽¹⁾ | 1,600 | 500 | 100 | 100 | 100 | 100 | 100 | 100 | 500 |
| EA4135 | Hydraulic/Transient Model Update & Transient Monitoring | 92 | | 92 | | | | | | |
| EA4136 | Service Water Piping Replacement | 125 | 50 | | 25 | | 25 | | 25 | |
| EA4137 | LL Service Water Connection | 550 | 50 | | 500 | | | | | |
| EA4138 | Parking Lot Asphalt Resurfacing | 50 | | | 50 | | | | | |
| EA4153 | Back Wash Pump Replacement | 2,459 | 200 | | 2,259 | | | | | |
| EA4160 | Non-Revenue Meter Replacement Program | 275 | 225 | 50 | | | | | | |
| EA4166 | SCADA/PLC - Software Review/Upgrade | 500 | | 500 | | | | | | |
| EA4171 | Backwash Drain Valve Actuators | 175 | 25 | 50 | 50 | 50 | | | | |
| EA4172 | Dedicated Raw Water Sample Line | 90 | | 90 | | | | | | |
| EA4177 | Railings and Guarding | 350 | 125 | 75 | 50 | 50 | 50 | | | |
| EA4183 | UV Replacement | 8,950 | | | 500 | 8,450 | | | | |
| EA4184 | Water Quality Facility Plan | 590 | | | 290 | | | | | 300 |
| NEW | Construction Site Trailer Pad & Electrical Pedestal | 25 | | | 25 | | | | | |
| NEW | Sodium Hydroxide Assessment Study | 30 | | | 30 | | | | | |
| NEW | EMPS - Utility Pole Replacement | 15 | | | 15 | | | | | |
| NEW | Lighting/Breaker Panel Replacement | 100 | | | 50 | 50 | | | | |
| NEW | Plant Drain Performance Study | | | | | | | | | |

**Elgin Area Primary Water Supply System
2022 Budget
Capital Plan Sources of Financing
(\$000's)**

| Funding Source | 2021 Approved Budget | 2022 Proposed Budget | 2023 | 2024 | 2025 | 2026 |
|--------------------------------|----------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------|
| Asset Replacement Reserve Fund | 760 | 1,855 | 3,102 | 1,497 | 1,485 | 1,779 |
| Capital Reserve Fund | 877 | 2,669 | 2,295 | 352 | 221 | 248 |
| Emergency Reserve Fund | - | - | - | - | - | - |
| Debenture | - | - | 4,000 | - | - | - |
| Other Sources of Financing | - | - | - | - | - | - |
| Total Capital Funding | \$ 1,637 | \$ 4,524 | \$ 9,397 | \$ 1,849 | \$ 1,706 | \$ 2,026 |

* subject to rounding

**Elgin Area Primary Water Supply System
2022 Budget
Asset Replacement Reserve Fund Analysis and Continuity Schedule
(\$000's)**

| Asset Replacement Reserve Fund ⁽¹⁾ | Actual | Projected | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Reserve Fund Opening Balance | 4,128 | 3,969 | 3,684 | 3,766 | 3,702 | 4,043 | 3,999 |
| Sources: | | | | | | | |
| Current Year Operating | 2,000 | 3,377 | 1,900 | 3,000 | 1,800 | 1,400 | 1,900 |
| Transfer from Capital Reserve | | | | | | | |
| Net Interest Earnings - 1.0% ⁽²⁾ | 85 | 38 | 37 | 37 | 39 | 40 | 41 |
| Total Sources | \$ 6,213 | \$ 7,384 | \$ 5,621 | \$ 6,803 | \$ 5,541 | \$ 5,483 | \$ 5,940 |
| Uses: | | | | | | | |
| Total Lifecycle Capital Projects | 1,816 | 760 | 1,855 | 3,102 | 1,497 | 1,485 | 1,779 |
| Less: Other Funding Sources | | | - | - | - | - | - |
| Less: Debenture Requirement | | | | | | | |
| Less: Additional Capital drawdowns | 428 | | | | | | |
| Net Current Year Fund Draws ⁽³⁾ | 2,244 | 760 | 1,855 | 3,102 | 1,497 | 1,485 | 1,779 |
| Prior Years Capital Expenditures ⁽³⁾ | | 2,940 | | | | | |
| Total Uses | \$ 2,244 | \$ 3,700 | \$ 1,855 | \$ 3,102 | \$ 1,497 | \$ 1,485 | \$ 1,779 |
| Reserve Fund Ending Balance | \$ 3,969 | \$ 3,684 | \$ 3,766 | \$ 3,702 | \$ 4,043 | \$ 3,999 | \$ 4,161 |

* subject to rounding

Notes:

(1) The Asset Replacement Reserve Fund was established to fund projects of a lifecycle nature to maintain existing levels of service and has an average annual target ending balance of \$4.0M.

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

(3) Drawdowns are based on full/committed capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.

**Elgin Area Primary Water Supply System
2022 Budget
Capital Reserve Fund Analysis and Continuity Schedule
(\$000's)**

| Capital Reserve Fund ⁽¹⁾ | Actual | Projected | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Reserve Fund Opening Balance | 6,790 | 5,630 | 3,267 | 2,498 | 2,121 | 4,068 | 7,702 |
| Sources: | | | | | | | |
| Current Year Operating | 1,931 | 1,583 | 1,871 | 1,895 | 2,268 | 3,796 | 3,529 |
| Net Interest Earnings - 1.0% ⁽²⁾ | 136 | 44 | 29 | 23 | 31 | 59 | 93 |
| Total Sources | \$ 8,857 | \$ 7,257 | \$ 5,167 | \$ 4,416 | \$ 4,420 | \$ 7,923 | \$ 11,324 |
| Uses: | | | | | | | |
| Total System Improvement & Growth Projects | 3,227 | 877 | 2,669 | 6,295 | 352 | 221 | 248 |
| Less: Other Funding Sources | | | - | - | - | - | - |
| Less: Debenture Requirement | | | | (4,000) | | | |
| Less: Additional Capital Drawdowns | | | | | | | |
| Net Current Year Fund Draws ⁽³⁾ | 3,227 | 877 | 2,669 | 2,295 | 352 | 221 | 248 |
| Prior Years Capital Expenditures ⁽³⁾ | | 3,113 | | | | | |
| Total Uses | \$ 3,227 | \$ 3,990 | \$ 2,669 | \$ 2,295 | \$ 352 | \$ 221 | \$ 248 |
| Reserve Fund Ending Balance | \$ 5,630 | \$ 3,267 | \$ 2,498 | \$ 2,121 | \$ 4,068 | \$ 7,702 | \$ 11,076 |

* subject to rounding

Notes:

(1) The Capital Reserve Fund was established to fund projects of a growth nature, enhancing levels of service, or address issues which are regulatory or safety in nature.

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

(3) Drawdowns are based on full/committed capital needs and not intended to project the actual cash flow of funds being utilized in a particular year.

**Elgin Area Primary Water Supply System
2022 Budget
Emergency Reserve Fund Analysis and Continuity Schedule
(\$000's)**

| Emergency Maintenance Reserve Fund ⁽¹⁾ | Actual | Projected | | | | | |
|---|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|
| | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Reserve Fund Opening Balance | 889 | 910 | 919 | 928 | 937 | 1,951 | 2,021 |
| Sources: | | | | | | | |
| Current Year Operating | - | - | - | - | 1,000 | 50 | - |
| Net Interest Earnings - 1.0% ⁽²⁾ | 21 | 9 | 9 | 9 | 14 | 20 | 20 |
| Total Sources | \$ 910 | \$ 919 | \$ 928 | \$ 937 | \$ 1,951 | \$ 2,021 | \$ 2,041 |
| Uses: | | | | | | | |
| Current Year Capital Expenditures | | | | | | | |
| Prior Years Capital Expenditures | | | | | | | |
| Total Uses | \$ - | \$ - | \$ - |
| Reserve Fund Ending Balance | \$ 910 | \$ 919 | \$ 928 | \$ 937 | \$ 1,951 | \$ 2,021 | \$ 2,041 |

* subject to rounding

Notes:

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

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

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

| Factors | Actual | Approved | Projected | | | | | |
|--|------------------|------------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| | 2020 | 2021 Budget | 2021 (Projected) | 2022 | 2023 | 2024 | 2025 | 2026 |
| Rate Increase ⁽¹⁾ | 4% | 4% | 4% | 4% | 3% | 3% | 3% | 3% |
| Total Flow m ³ | 15,863,289 | 15,441,000 | 15,870,330 | 15,650,500 | 15,657,865 | 15,665,237 | 15,672,617 | 15,680,004 |
| Total Water Rate \$/m ³ | 0.8704 | 0.9052 | 0.9052 | 0.9414 | 0.9697 | 0.9988 | 1.0287 | 1.0596 |
| Flow Volume Revenues | 13,807 | 13,977 | 14,366 | 14,734 | 15,183 | 15,646 | 16,123 | 16,614 |
| Other Revenue | 452 | 10 | 18 | 31 | 31 | 31 | 31 | 31 |
| Total Revenue | \$ 14,259 | \$ 13,987 | \$ 14,384 | \$ 14,765 | \$ 15,214 | \$ 15,677 | \$ 16,154 | \$ 16,645 |
| Operating Costs (2) | 5,665 | 5,424 | 5,149 | 5,734 | 6,166 | 6,380 | 6,602 | 6,832 |
| Administrative Expenses | 2,176 | 1,691 | 1,888 | 2,756 | 2,856 | 2,935 | 3,017 | 3,103 |
| Debt Servicing Costs | 2,515 | 2,511 | 2,511 | 2,504 | 1,297 | 1,294 | 1,289 | 1,281 |
| Total Operating & Administrative Expenses | \$ 10,356 | \$ 9,626 | \$ 9,548 | \$ 10,994 | \$ 10,319 | \$ 10,609 | \$ 10,908 | \$ 11,216 |
| Asset Replacement Reserve Fund Contributions | 2,000 | 3,377 | 3,377 | 1,900 | 3,000 | 1,800 | 1,400 | 1,900 |
| Capital Reserve Fund Contributions | 1,903 | 984 | 1,458 | 1,871 | 1,895 | 2,268 | 3,796 | 3,529 |
| Emergency Reserve Fund Contributions | - | - | - | - | - | 1,000 | 50 | - |
| Total Expenses | \$ 14,259 | \$ 13,987 | \$ 14,384 | \$ 14,765 | \$ 15,214 | \$ 15,677 | \$ 16,154 | \$ 16,645 |

* subject to rounding

Notes:

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

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

(3) Debenture requirements since ownership transfer:

- Debt authorized (2006) for the Backup Generator (EA4052) in the amount of \$3.5 million with issuance in 2012 and payments beginning in 2013 (all-in rate of 2.8% for a 10 year term).
- Debt authorized (2010) for the Treated Water Transmission Main (EA4024) in the amount of \$7 million with issuance in 2012 and payments beginning in 2013 (all-in rate of 2.8% for a 10 year term).
- Debt authorized (2011) for the Residue Management Plant (EA4023) in the amount of \$19 million with partial issuance in 2016 (\$7M) and payments beginning Sept/16 (all-in rate of 2.3% for a 10 year term), further debt issuance in 2017 in the amount of \$4.5M and payments beginning in Sept/17 (all-in rate of 2.48% for a 10 year term). It is not expected that any further debt will be required for this project.
- Rates noted above could change depending upon market conditions at the time of debt issuance.

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

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

Subject: Operations and Maintenance Services Agreement – Negotiation of Term Extension

RECOMMENDATION

That the Board of Management for the Elgin Area Water Supply System **APPROVE** the Amended and Restated Operations and Maintenance Services Agreement, substantially in the form attached to this report, and **AUTHORIZE** the Board Chair and the Chief Administrative Officer to execute the agreement with the Ontario Clean Water Agency.

PREVIOUS AND RELATED REPORTS

| | |
|------------------|---|
| January 19, 2012 | Water System Operation – Contract Aware (Concurrent Meeting) |
| March 3, 2016 | Operations and Maintenance Services Agreement – Contract Term |
| December 1, 2016 | Operations and Maintenance Services Agreement – Negotiation of Term Extension |
| June 8, 2017 | Operations and Maintenance Services Agreement – Negotiation of Term Extension |
| March 4, 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), 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 the Lake Huron and Elgin Area Water Supply Systems to the Ontario Clean Water Agency. The Ontario Clean Water Agency began operating the regional water system on July 1, 2012 for an initial five-year term, with an allowable five-year term extension at the option of the Board.

At the June 8, 2017 meeting of the Board of Management for the Elgin Area Primary Water Supply System, the Board authorized the execution of the Operation and Maintenance Services Amending Agreement No.1 with the Ontario Clean water Agency for a five-year period, ending December 31, 2022. Pursuant to Section 2.1 of the amended agreement, the



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-07

Report Page: 2 of 119

Meeting Date: October 7, 2021

File No.:

Operations and Maintenance Services Agreement with the Ontario Clean Water Agency may be extended for an additional five-year period at the discretion of the Board.

At the March 4, 2021 meeting of the Board of Management for the Elgin Area Primary Water Supply system, the Board authorized staff to enter into with the Ontario Clean Water Agency to negotiate the terms of an amending agreement to extend the Operations and Maintenance Services Agreement for the additional five-year period allowable within the existing agreement.

DISCUSSION

Board staff began to meet with the Ontario Clean Water Agency (OCWA) starting on April 2, 2021, to discuss the terms and conditions of an amending agreement which would extend the existing Operations and Maintenance Services Agreement for an additional five-year period. The proposed term extension would begin January 1, 2023, and end on December 31, 2027.

While the primary intent of the amending agreement is to extend the operating term for the additional five-year period, it will also offer an opportunity to provide further clarity the existing terms and conditions as well as make specific corrections and account for minor changes in the contract during the previous ten-year period, the amending agreement will also provide the fee schedule for the term extension period. It is not the intention of the amending agreement to make material or significant changes to the terms and conditions of the original Service Agreement.

Amending and Restating Agreement

Rather than a simplified Amending Agreement, which specifically references the original 2012 agreement and the 2017 amendments, it is recommended to enter into an Amending and Restating Agreement. This form of agreement restates the previous original agreement while consolidating the subsequent amendments into one formal document. This approach both clarifies the terms and conditions for the services provided by the Ontario Clean Water Agency as well as identifies the amendments agreed upon with the extension of the term.

Following the substantial completion of discussions with the Ontario Clean Water Agency, the Board's solicitor drafted an Amending and Restating Agreement, attached to this report as Appendix A for the Board's information and reference. For brevity of this report to the Board, Schedule C (Operator's Submission of Qualifications and Proposal) has been omitted as it remains unchanged from the original submission in 2012.

If approved, the Amended and Restated Operations and Maintenance Services Agreement would be effective January 1, 2023, for a five-year period ending December 31, 2027.

Summary of Amendments

The following is a brief and simplified summary of the modifications incorporated into the proposed Amended and Restated Operations and Maintenance Services Agreement with the Ontario Clean Water Agency (OCWA):



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-07

Report Page: 3 of 119

Meeting Date: October 7, 2021

File No.:

Asset Coordinator – To support the implementation and advanced utilization of the new Computerized Maintenance Management System, OCWA has added an additional resource to be shared between the Lake Huron Water Supply System and the Elgin Area Water Supply System. Board staff has reviewed this position, largely in relation to the Water Systems' implementation of Asset Management Planning and long-term efficiency initiatives, and agree that this additional resource is appropriate.

Uncontrollable Circumstance – The definition of an Uncontrollable Circumstance, within the context of the Services Agreement, has been amended to include an event which impacts the manufacture and/or supply of materials, attractables and consumables including significant changes the commodity cost of materials, attractables and consumables of more than 20% in one year. This amendment is intended to address events of global or extra-national significance which fundamentally affects the market conditions upon which the Service Agreement is premised.

Term – The term of the agreement is amended for an additional five-year period, beginning January 1, 2023 and ending on December 31, 2027.

Maintenance and Repairs – the original agreement provided for some relief of financial risk to OCWA as it relates to the obligation of maintenance and repairs. If an incident of maintenance and repair exceeded \$30,000, OCWA would be responsible for paying the first \$30,000 and the Board would pay the remaining. The threshold value of \$30,000 was indexed to the Consumer Price Index and escalated annually after the first year of the agreement (2012). The threshold value in 2021 is currently \$34,613.47. The proposed Amended and Restated Operations and Maintenance Services Agreement readjusts the threshold value to \$30,000 starting on January 1, 2023, and applies CPI annually thereafter.

Computers, networks and SCADA – the agreement further clarifies the responsibilities of OCWA and that of the Board as it relates to computers, computer and communications networks, and the Supervisory Control and Data Acquisition (SCADA) system. Generally speaking, OCWA is responsible for their business-related computers and any connected network used for OCWA's business purposes, as well as field devices connected to SCADA. The Board is responsible for all other computers, computer and communications networks, security systems, and SCADA hardware and software.

Reports – Reporting requirements, particularly those related to monthly operations, asset condition, and business planning has been updated to reflect current requirements in support of the Board's programs and plans.

Security – the agreement further clarifies the roles of OCWA and the Board in supporting site security, cyber security and security-related programs, as well as the maintenance and repair of security-related assets.

Final Condition Survey – The existing Operations and Maintenance Services Agreement required OCWA to undertake a full and comprehensive Final Condition Survey of all assets.



Elgin Area

Primary Water Supply System

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Under the existing term, the Final Condition Survey is to be initiated by the end of 2021 and completed in 2022, allowing the Board to review current conditions and determine if the assets are being returned in as good or better condition than originally provided, normal wear and tear accommodated. The proposed agreement amends the requirement for the Final Condition Survey to begin in 2026 and completed in 2027. The cost of the Final Condition Survey, charged by OCWA and undertaken by a third-party, has been adjusted accordingly.

Capital Improvements – Where the Board requests OCWA to undertake Capital Improvements which are outside of the Operations and Maintenance Services, OCWA is entitled to charge a mark-up of 15% on the first \$10,000, 10% on the amounts between \$10,000 and \$50,000, and 5% on amounts in excess of \$50,000.

Typically, OCWA has historically been requested to undertake minor Capital Improvements, such as the end-of-life replacements of instrumentation (for example) which is often operationally intensive.

Process Optimization – the agreement clarifies that OCWA provides reasonable operational support to the Board's process optimization programs, including studies undertaken by Board staff.

Compensation to Landowners – the agreement clarifies that the Board is responsible for any payments to landowners pursuant to the Pipeline Operations and Maintenance Agreements, executed between the Board and landowners along the primary transmission pipeline, which OCWA is not a party to.

Schedules of the Agreement – Schedule A (Description of the Elgin Area Water Supply System), Schedule B (Potable Water Performance Criteria), and Schedule C (Sampling and Testing Requirements) have been updated to reflect the current conditions and changes to the water supply System. Schedule E (Operations Fee and Initial and Final Condition Survey Cost) has been provided by the Ontario Clean Water Agency. The proposed fee structure was thoroughly reviewed by Board staff and was found to be consistent with expected cost escalations over the previous 10-year period as well as changes to market conditions and supplier costs.



Elgin Area

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CONCLUSION

The Amended and Restated Operations and Maintenance Services Agreement, attached to this report in draft for the information and reference of the Board of Management for the Elgin Area Water Supply System, provides a five-year extension of the operations and maintenance services by the Ontario Clean Water Agency while providing amendments which further clarify terms and condition of the services provided and the obligations of both the Board and the Ontario Clean Water Agency.

The draft Amended and Restated Operations and Maintenance Agreement is recommended by Board staff for approval by the Board, noting that the agreement will be subject to review by the Ministry of Environment, Conservation and Parks and the Treasury Board of Ontario.

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

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

Attachments: Amended and Restated Operations and Maintenance Services Agreement

**THE ELGIN AREA PRIMARY WATER SUPPLY SYSTEM BOARD OF
MANAGEMENT**

– and –

ONTARIO CLEAN WATER AGENCY

(the “Operator”)

**AMENDED AND RESTATED OPERATION AND MAINTENANCE SERVICES
AGREEMENT**

For the delivery of Operation and Maintenance Services related to
The Elgin Area Primary Water Supply System

Dated _____, 2023

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AMENDED AND RESTATED OPERATION AND MAINTENANCE SERVICES AGREEMENT

THIS AMENDED AGREEMENT made as of the _____ of _____, 2023.

BETWEEN:

**THE ELGIN AREA PRIMARY WATER SUPPLY SYSTEM
BOARD OF MANAGEMENT**

(hereinafter called “**Elgin**”)

- and -

ONTARIO CLEAN WATER AGENCY,

a corporation established under the Capital Investment Plan Act,
1993, c. 23 Statutes of Ontario

(hereinafter called the “**Operator**”)

WHEREAS:

1. The Elgin Area Primary Water Supply System is owned by the Elgin Area Primary Water Supply System Board of Management (“Elgin”) pursuant to the Transfer Order dated September 15, 2000 issued by the Ontario Minister of the Environment.
2. Elgin issued a Request for Qualifications with respect to the operations and maintenance of the Facilities on August 2, 2011.
3. In response to the Request for Qualifications, the Operator submitted a Statement of Qualifications to Elgin on September 16, 2011.
4. Elgin issued a Request for Proposals with respect to the operation and maintenance of the Facilities on October 18, 2011.
5. In response to the Request for Proposals, the Operator submitted a Proposal (as defined herein) to Elgin for the operation and maintenance of the Facilities including a computerized maintenance management program and other services. Elgin, at a regular meeting of the Elgin Board on January 19, 2012 by resolution adopted the recommendation that the Proposal of the Operator be accepted.
6. The Operator had represented in its Proposal that it is a capable and experienced corporation, partnership or joint venture, in the business of providing operation and maintenance services for water and wastewater treatment systems.
7. The Operator represented that it has the corporate capacity and authority to enter into the Agreement and that the Operator has obtained all necessary permits, approvals and licences and has met all regulatory and legal requirements necessary to meet its obligations under the Agreement.

8. The Operator understood and hereby expressly agreed that its Proposal, including any representations contained in its Proposal, form part of the Agreement and are binding on the Operator.
9. Elgin and the Operator entered into an Operations and Maintenance Services Agreement (the "**Agreement**") on April 27, 2012 for the delivery of operation and maintenance services related to the Elgin Area Primary Water Supply System for the Term of July 1, 2012 until 11:59 p.m. on June 30, 2017.
10. Elgin and the Operator entered into an Operations and Maintenance Services Amending Agreement No.1 ("**Amending Agreement No.1**") effective June 30, 2017 for the delivery of operation and maintenance services related to the Elgin Area Primary Water Supply System for the Term of July 1, 2017 until 11:59 p.m. on December 31, 2022.
11. Pursuant to Article 1.5 of the Amending Agreement No.1 and Article 2.1 of this Amended Agreement, Elgin and the Operator have agreed to renew the Term of the Agreement for a further five (5) years, subject to the amendments to the Agreement as set out in this Amended and Restated Operations and Maintenance Services (the "**Amended Agreement**").

The foregoing recitals shall form part of this Amended Agreement and shall be binding on the Parties.

NOW THEREFORE THIS AMENDED AGREEMENT WITNESSES that in consideration of the mutual covenants and agreements hereinafter contained, Elgin and the Operator agree as follows:

ARTICLE 1 **INTERPRETATION**

1.1 Definitions.

In this Amended Agreement, including the recitals thereto, the following terms have the following meanings unless the context otherwise requires:

- (a) "**Abnormal Raw Water**" means where the Raw Water contains levels of substances which are present in the Raw Water in sufficiently high concentrations so as to interfere with the processes necessary for the Potable Water to meet Compliance Criteria. The Operator shall demonstrate to Elgin that the substances are in a concentration sufficient so as to cause such interference with the treatment process. Abnormal Raw Water also means where the quantity of Raw Water available from surface water is materially less than the quantity historically available, as determined by a review of the available documentation, provided that reduction in quantity does not result directly or indirectly from the actions or omissions of the Operator;
- (b) "**Adjustment to the Service Fee**" has the meaning assigned in Section 8.4 of this Amended Agreement;

- (c) **"Affiliated Company"** means, with respect to the Operator, any other Person who directly or indirectly controls, is controlled by, or is under direct or indirect common control with, the Operator, and includes any Person in like relation to an Affiliated Company. A Person shall be deemed to control a Person if such Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such Person, whether through ownership of voting securities, by contract or otherwise; and the term "controlled" shall have a similar meaning;
- (d) **"Amended Agreement"** means this agreement and all schedules attached to it as they may be amended, modified, supplemented, restated, or replaced from time to time by mutual agreement of the Parties;
- (e) **"Annual"** means occurring once per calendar year from January 1 to December 31, inclusive;
- (f) **"Annual Asset Report"** has the meaning assigned in subsection 3.7(7) of this Amended Agreement;
- (g) **"Applicable Laws"** is to be broadly interpreted and means, with respect to any Person, property, transaction, event or other matter dealt with or adverted to in this Agreement, any and all statutes, by-laws, regulations, enactments, ordinances, rules, permits, consents, approvals, licences, judgments, orders, judicial decisions, common-law rules, decrees, injunctions, agreements, authorizations, regulations, policies, guidelines, objectives, whether federal, provincial or municipal including, but not limited to all laws relating to occupational health and safety matters, fire prevention and protection, land use planning, environment, Building Code or Workers' Compensation matters, in each case which have the force of law and which relate to the operation and maintenance of water treatment facilities and distribution systems;
- (h) **"Arbitrator"** means the individual or individuals appointed in accordance with the procedure described in Article 17 of this Amended Agreement to determine a matter referred to arbitration hereunder;
- (i) **"Assets"** means the buildings and other permanent fixed assets of the Facilities, and includes all mechanical, electrical and instrumentation equipment that forms part of the Facilities;
- (j) **"Asset Coordinator"** means the person responsible for implementation and operational support of the Computerized Maintenance Management System and the related activities and the coordination between the Operator and Elgin as required for the implementation and operational support of the Computerized Maintenance Management System and the related activities;
- (k) **"Asset Management Program"** has the meaning as described in Section 5.10;
- (l) **"Attractables"** means all pieces of mobile plant, equipment and furniture which are not physically attached to the Facilities and which are required in the current day-to-day operations and maintenance of the Facilities;

- (m) “**Best Efforts**” means, in relation to the performance of an obligation under this Agreement, timely efforts that are sensible and practical in a commercial context and involve the exercise of sound judgment, having regard to relevant circumstances;
- (n) “**Best Practices**” means best Operations and Maintenance and management practices as established in accordance with applicable Canadian water utility or industry standards which a commercially reasonable and prudent operator of the Facilities would follow in similar circumstances, having regard to the objectives and terms of this Agreement;
- (o) “**Board**” means the Board of Management for the Elgin Area Primary Water Supply System comprised of members appointed by the municipalities served by the Elgin Area Primary Water Supply System;
- (p) “**Business Day**” means a day which is not a Saturday, Sunday, legal holiday, or day when the administrative offices of Elgin are closed;
- (q) “**Business Plan**” has the meaning as described in Section 8.5 of this Agreement;
- (r) “**Capital Improvements**” means expenditures, repairs or replacements which are permitted to be capitalized in accordance with generally accepted accounting principles, (including, but not limited to, the roofing, structural elements, exterior wall systems, plumbing and drainage systems, foundations, floors, electrical systems, SCADA and related computer systems, pipes, tanks, valves, pumps and other equipment, and all material and labour related hereto, but excluding office furniture and office equipment, and excluding expenditures made for Routine Maintenance and Repairs and Replacement;
- (s) “**Change of Laws**” means the enactment, adoption, promulgation, modification, repeal or change of any Applicable Laws by any Governmental Authority, including Elgin, which comes into effect after the Start Date and which requires the Operator to provide additional or different services relating to operation or maintenance of the Facilities, or materially affects the costs of operation or maintenance of the Facilities pursuant to this Amended Agreement;
- (t) “**Civil Maintenance Program**” has the meaning assigned in subsection 5.3(1) of this Amended Agreement;
- (u) “**Civil, Structural and Site-Related Assets**” means the permanent fixed assets of the Facilities but shall not include the Mechanical and Electrical Equipment;
- (v) “**Claim**” includes claims, actions, proceedings, causes of action, suits, debts, dues, accounts, bonds, warranties, claims over, indemnities, covenants, contracts, losses (but excluding consequential losses), damages, costs, grievances, executions, judgments, obligations, liabilities (and excluding those relating to or arising out of loss of opportunity or loss of anticipated profit), rights and demands whatsoever, whether actual, pending, contingent or potential, whether in law or in equity, whether express or implied, whether present or future and whether known or unknown;

- (w) **“CMMS”** or **“Computerized Maintenance Management System”** means the computerized maintenance management system described in Section 5.9, with online access available to Elgin for monitoring purposes only, used to schedule and record all Maintenance and Repairs performed on the Facilities and the Equipment and shall include but not be limited to Asset Inventory and Management;
- (x) **“Compliance Criteria”** means all terms, conditions, instructions, concentration limits and maximum permissible values listed or specified in Applicable Laws, including the Municipal Drinking Water Licence. In the event of a conflict or difference between Compliance Criteria, the more stringent and restrictive of the criteria shall apply;
- (y) **“Compliance Failure”** means when the Potable Water exceeds the maximum permissible limits for any Compliance Criteria and shall be determined pursuant to Section 4.4 of this Amended Agreement;
- (z) **“Compliance Report”** has the meaning assigned in subsection 3.7(3) of this Amended Agreement;
- (aa) **“Condition Survey”** means an inspection and review of the Assets;
- (bb) **“Consumables”** means all exhaustible materials used in the day-to-day operation of the Facilities and includes, but is not limited to, chemicals, lubricants, and fuel;
- (cc) **“Consumer Price Index”** or **“CPI”** means the Statistics Canada Consumer Price Index, Not Seasonally Adjusted, All Items (Ontario) as determined by Statistics Canada from time to time during the Term;
- (dd) **“Contract Year”** means the First Contract Year and the Final Contract Year and the period commencing at 12:00 a.m. on January 1 and ending at 11:59 p.m. on the next following December 31st for the other years of the Term;
- (ee) **“Control”** shall have the meaning assigned in the definition of ‘Affiliated Company’ of this Amended Agreement;
- (ff) **“Corrective Maintenance”** means the repair and correction of deficiencies, failures and malfunctions of the Facilities and the components therein to maximize the service life of the Facilities and its components but does not include repair and correction of deficiencies, failures and malfunctions of the Facilities that are a result of the Operator’s inadequate performance or non-performance of the Preventative Maintenance to the Facilities as required in this Amended Agreement;
- (gg) **“Deficiency”** or **“Deficiencies”** means those Assets which have deteriorated, are non-operational, or are unable to substantially perform their design function in respect of the Facilities, or which are reasonably likely to fail and require replacement or which create an immediate material risk to human health and safety or the environment;
- (hh) **“Direct Claim”** has the meaning assigned in subsection 16.4(1)(a) of this Amended Agreement;

- (ii) **“Efficiency Improvement”** has the meaning assigned in Section 7.1 of this Amended Agreement;
- (jj) **“Electricity Cost”** means the cost of electricity used by the Facilities;
- (kk) **“Elgin”** means the Elgin Area Primary Water Supply System;
- (ll) **“Elgin Fault”** means any breach of any Elgin representation or warranty herein set forth, failure, non-performance, non-compliance or any negligent or wilful misconduct by Elgin (whether or not attributable to any officer, member, agent, employee, or contractor, of Elgin) with respect to its obligations under this Amended Agreement, to the extent not attributable to any Uncontrollable Circumstance or negligence or wilful misconduct of the Operator, and which materially and adversely affects the Operator’s rights and obligations or ability to perform under this Amended Agreement;
- (mm) **“Elgin’s Attractables”** has the meaning assigned in subsection 9.4(2) of this Amended Agreement;
- (nn) **“Elgin’s Equipment Replacement”** has the meaning assigned in Section 5.7 of this Amended Agreement;
- (oo) **“Elgin’s Inventory”** has the meaning assigned in Section 9.4 of this Amended Agreement;
- (pp) **“Elgin’s Manager”** means the person designated by Elgin pursuant to subsection 3.7(1)(a) of this Amended Agreement;
- (qq) **“Emergency Situation”** means an occurrence of an incident that results in an interruption of Potable Water supply or impairment of the quality of Potable Water;
- (rr) **“Equipment PM Program”** has the meaning assigned in Section 5.5 of this Amended Agreement;
- (ss) **“Equipment Renewal Program”** means the replacement program which provides for the replacement of specified equipment and systems at the Facilities for the purpose of maintaining a high level of serviceability, reliability and availability of the Facilities, all in accordance with Section 5.10;
- (tt) **“Event of Default”** means the occurrence of any of the following:
 - (i) if Elgin fails to pay any fee, charge or other monetary payment, other than the Service Fee, to the Operator within ninety (90) days of the date upon which such payment is due as provided in this Amended Agreement;
 - (ii) if the Operator fails to operate and maintain the Facilities in accordance with the terms of this Amended Agreement;
 - (iii) if either Party breaches any other representation, warranty, or covenant to this Amended Agreement, where such breach is not cured by the defaulting Party within ninety (90) days of the delivery of notice specifying the breach, or, where

such breach is not capable of cure within such ninety (90) day period, the defaulting Party has in good faith commenced and exerted its Best Efforts to remedy such default within such ninety (90) day period;

- (iv) if the Operator is determined by a court of competent jurisdiction to be in non-compliance with Applicable Laws;
- (v) if the Operator fails to file a Compliance Report or files a deficient Compliance Report with the MOE and/or Elgin within the time specified in the Municipal Drinking Water Licence, or within any extension period granted by the MOE;
- (vi) if, at any time during the Term, the total of all occurrences of the events described in subsection 3.7(10)(c) of this Amended Agreement exceeds a total of five (5);
- (vii) failure to supply Elgin with updated contingency and emergency plans as required by subsection 3.11(a) of this Amended Agreement;
- (viii) if the Operator has caused, contributed to, or is responsible for a Safety Deficiency at the Facilities and/or has failed to correct that Safety Deficiency to the extent caused or contributed to by the Operator, as required hereunder;
- (ix) if Elgin has caused, contributed to, or is responsible for a Safety Deficiency at the Facilities and has failed to correct that Safety Deficiency to the extent caused or contributed to by Elgin;
- (x) a Compliance Failure;
- (xi) failure by the Operator to comply with the Potable Water Performance Criteria as described in subsection 4.3(d) of this Amended Agreement;
- (xii) failure by the Operator to pay the required deductible or self-insured retention under any insurance required by Article 14 in the event of a Claim;
- (xiii) if contrary to Section 3.21 of this Amended Agreement, the Operator employs or hires the service of a subcontractor to assist the Operator in the performance of its obligations under this Amended Agreement without having obtained prior approval from Elgin;
- (xiv) if contrary to Section 5.5 of this Amended Agreement, the Operator fails to first complete the repair in a timely fashion where the Operator disagrees with or disputes Elgin's determination of an Incident of Repairs and Replacement or Corrective Maintenance or whether the Operator's expenditures for an Incident of Repairs and Replacement or Corrective Maintenance have been reasonably incurred; and
- (xv) any other Events of Default as otherwise identified in this Amended Agreement;

but for greater certainty shall not include any of the foregoing events caused by Uncontrollable Circumstances, which include Abnormal Raw Water, or Elgin Fault;

- (uu) **“Extraordinary Event of Default”** has the meaning assigned in Section 10.5 of this Amended Agreement;
- (vv) **“Facilities”** means Elgin’s Water Treatment Plant (“**WTP**”) including the associated reservoirs, Pumping Stations and Feeder mains, all as described in Schedule “A-2” to this Amended Agreement and all buildings and related infrastructure or other physical assets located thereon;
- (ww) **“Feeder mains”** means water mains used to transfer Potable Water from the WTP to, and between, reservoirs and booster pumping stations;
- (xx) **“Final Condition Survey”** has the meaning assigned in subsection 5.2(2) of this Amended Agreement;
- (yy) **“Final Contract Year”** means the period commencing at 12:00 a.m. on January 1, 2027 and ending at 11:59 p.m. on December 31, 2027;
- (zz) **“Final Inventory and Survey”** has the meaning assigned in subsection 5.4(4) of this Amended Agreement;
- (aaa) **“First Contract Year”** means the period commencing 12:00 a.m. on July 1, 2012 and ending at 11:59 p.m. on December 31, 2012;
- (bbb) **“Governmental Authority”** means a federal, provincial or municipal, ministry, agency, department or body having jurisdiction over the Facilities, Elgin, the Operator, their agents, servants, and/or employees in respect of Applicable Laws. The term “Governmental Authority” shall not include Elgin unless otherwise specified herein;
- (ccc) **“Human Rights Code”** is described in Section 3.22 of this Amended Agreement;
- (ddd) **“Incentive Payment”** has the meaning assigned in Section 7.2 of this Amended Agreement;
- (eee) **“Incident of Repairs and Replacement”** has the meaning assigned in subsection 5.6(c) of this Amended Agreement;
- (fff) **“Incident of Repairs and Replacement or Corrective Maintenance”** has the meaning assigned in subsection 5.3(c) of this Amended Agreement;
- (ggg) **“Indemnified Party”** means the Party who is entitled to be indemnified pursuant to Article 16 of this Amended Agreement;
- (hhh) **“Indemnifying Party”** means, in relation to an Indemnified Party, the Party to this Amended Agreement that has agreed to indemnify that Indemnified Party pursuant to Article 16 of this Amended Agreement;

- (iii) **“Initial Condition Survey”** has the meaning assigned in Section 5.2 of this Amended Agreement;
- (jjj) **“Initiating Party”** has the meaning assigned in Section 17.9 of this Amended Agreement;
- (kkk) **“Inventory and Baseline Survey”** has the meaning assigned in subsection 5.4(1)(c) of this Amended Agreement;
- (III) **“Manager”** means the Elgin’s Manager and the Operator’s Manager appointed from time to time during the term of this Amended Agreement pursuant to subsection 3.7(1) of this Amended Agreement or that individual’s official designate and **“Managers”** means both Elgin’s Manager and the Operator’s Manager;
- (mmm) **“Mechanical and Electrical Equipment”** means all mechanical, electrical and instrumentation equipment that forms part of the Facilities;
- (nnn) **“MOE”** and **“MOECC”** means the Ministry of Environment and Climate Change for the Province of Ontario, or Ministry of Environment, Conservation and Parks or succeeding regulatory body;
- (ooo) **“Monthly Operations and Maintenance Report”** has the meaning assigned in subsection 3.7(4) of this Amended Agreement;
- (ppp) **“Municipal Drinking Water Licence”** means the municipal drinking water licences and all amendments thereto, issued by the MOE for the Facilities and all applicable Permits and Licences;
- (qqq) **“Notice of Arbitration”** has the meaning assigned in Section 17.9 of this Amended Agreement;
- (rrr) **“Occupational Health and Safety Act”** is described in Section 3.15 of this Amended Agreement;
- (sss) **“Operating and Maintenance Costs”** means all costs and expenses of managing, operating and maintaining the Facilities incurred by the Operator pursuant to the provisions of this Amended Agreement;
- (ttt) **“Operating Period”** means the period from the Start Date to the earlier of the expiry or termination of this Amended Agreement;
- (uuu) **“Operations Fee”** means the annual price payable as shown in Schedule “E-2” to this Amended Agreement;
- (vvv) **“Operations and Maintenance”** or **“O&M”** means the operations and maintenance services provided pursuant to this Amended Agreement;
- (www) **“Operations and Maintenance Manual”** means the Operations and Maintenance manual described in Section 3.19 of this Amended Agreement;

- (xxx) “**Operational Change**” means an adjustment in routine operating procedures, which does not require prior notification of, or approval from, the MOE or any other Governmental Authority responsible for administration of Applicable Laws;
- (yyy) “**Operator’s Actual Results**” means the actual results of the quality of water for any parameters set out in the Potable Water Performance Criteria;
- (zzz) “**Operator’s Cumulative Monthly Results**” has the meaning assigned in Section 4.3 of this Amended Agreement as it relates to Potable Water;
- (aaaa) “**Operator’s Manager**” means the person employed and designated by the Operator pursuant to subsection 3.7(1)(a) of this Amended Agreement;
- (bbbb) “**Party**” means Elgin or the Operator, as the case may be; and “**Parties**” means both of them;
- (cccc) “**Peak**” means the period of time during any day which is identified from time to time during the Term by the Ontario Energy Board as not being off-Peak;
- (dddd) “**Performance Letter of Credit**” is described in subsection 14.2(1) of this Amended Agreement;
- (eeee) “**Permits and Licences**” means all permits, approvals, registrations and licences required by Applicable Laws in connection with the Operation and Maintenance of the Facilities including but not limited to those which were issued prior to the Start Date;
- (ffff) “**Person**” is to be broadly interpreted and includes an individual, a corporation, a partnership, a trust, an unincorporated organization, the government of a country or any political subdivision thereof, or any Governmental Authority, agency or department of any such government, and the executors, administrators or other legal representatives of an individual in such capacity;
- (gggg) “**Potable Water**” means water meeting the Ontario Drinking Water Standards;
- (hhhh) “**Potable Water Performance Criteria**” means the Potable Water criteria as set out in Schedule “B-2” to this Amended Agreement;
- (iiii) “**Preventative Maintenance**” means routine and repetitive maintenance of the Facilities to maximize the service life of the Facilities as recommended or required by an equipment supplier or manufacturer, the Facilities’ construction contractor, the design consultants or Elgin;
- (jjjj) “**Previous Operator**” means the Operator who was responsible for the management, operation, and maintenance of the Facilities immediately prior to the Start Date;
- (kkkk) “**Prime Rate**” means the annual rate of interest announced from time to time by the Bank of Canada, as being its reference rate then in effect for determining interest rates on Canadian Dollar denominated commercial loans made by a bank in Canada;

- (llll) “**Process Change**” means an adjustment or improvement (including, without limitation, a Capital Improvement) to the major components of the Facilities or an adjustment in routine operating procedures any of which requires prior approval from Elgin and/or MOE or any other Governmental Authority, and does not include an Operational Change;
- (mmmm) “**Project Integration Coordinator**” means the person responsible for operational support and the coordination between the Operator and Elgin, Consultant and General Contractors of capital construction and research and development projects and the related activities;
- (nnnn) “**Proposal**” means the final form of the technical and financial proposal submitted by the Operator to Elgin in response to Elgin’s Request for Proposals dated October 18, 2011, including all Addendums issued by Elgin, to manage, operate and maintain the Facilities and incorporated into this Amended Agreement as set out in Schedule “D” to this Amended Agreement;
- (oooo) “**Pumping Stations**” means the pumping stations which are part of or associated with the Facilities;
- (pppp) “**Quarterly Contract Report**” has the meaning assigned in subsection 3.7(5) of this Amended Agreement;
- (qqqq) “**Quarterly Water Quality Report**” has the meaning assigned in subsection 3.7(6) of this Amended Agreement;
- (rrrr) “**Raw Water**” means the water taken from Lake Erie at the WTP, prior to any treatment process;
- (ssss) “**Repairs and Replacement**” means all non-routine, non-repetitive activities repair or replacement of structures, machinery, equipment or rolling stock required for continuity of operations, safety, and operating performance that are necessary to prevent or correct a failure of any component of the Civil, Structural and Site-Related Assets and the Mechanical and Electrical Equipment and which is not included as part of Preventative Maintenance;
- (tttt) “**Reports**” means the Monthly Operations and Maintenance Report, the Quarterly Contract Report, the Quarterly Water Quality Report, the Annual Asset Report, and the financial reports contemplated by subsection 3.7(8);
- (uuuu) “**Responding Party**” has the meaning assigned in Section 17.9 of this Amended Agreement;
- (vvvv) “**Routine Maintenance**” means Corrective Maintenance or Preventative Maintenance or both;
- (wwww) “**Safety Deficiency**” has the meaning assigned in subsection 3.15(4) of this Amended Agreement;

- (xxxx) “**SCADA**” means the Supervisory Control and Data Acquisition software and hardware and is described in Section 3.12 of this Amended Agreement;
- (yyyy) “**Semi-Annual**” means occurring twice per calendar year from January 1 to December 31, inclusive;
- (zzzz) “**Service Area**” means the geographical area located serviced by Elgin as at January 1, 2023;
- (aaaaa) “**Service Fee**” has the meaning assigned in Section 8.1 of this Amended Agreement and is as set out in Schedule “E-2”;
- (bbbbb) “**Spare Parts**” means all replaceable parts and supplies required for the purpose of maintaining the functionality of plant and equipment at the Facilities. Spare Parts are typically items that are subject to wear and replacement, are maintained in an inventory and are used in Routine Maintenance procedures;
- (ccccc) “**Spare Parts Inventory**” has the meaning assigned in subsection 9.4(4) of this Amended Agreement;
- (dddd) “**Start Date**” means the date on which the Operator was required to assume the day-to-day operation and maintenance of the Facilities, which date was 12:00 a.m., July 1, 2012;
- (eeee) “**Term**” has the meaning assigned in Section 2.1 of this Amended Agreement;
- (ffff) “**Third Party Claim**” has the meaning assigned in subsection 16.4(1) of this Amended Agreement;
- (ggggg) “**Uncontrollable Circumstance**” means any act, event or condition which is beyond the reasonable control of or could not reasonably be anticipated by the Party relying thereon as justification for a delay in, non-compliance with, or non-performance of any obligation of such Party pursuant to this Amended Agreement and shall include but not be limited to the following:
- (i) an act of God, landslide, lightning, earthquake, hurricane, flood, tornado, fire, explosion, pandemics, acts of public enemy, act of terrorism, war, blockade, sabotage, insurrection, riot or public disturbance, or an event which impacts the manufacture and/or supply of materials, attractables and consumables including significant changes the commodity cost of materials attractables and consumables of more than 20% in one year;
 - (ii) an order of any court, administrative or governmental agency of competent jurisdiction which has not been made as a result directly or indirectly of the actions or inaction of the Party against whom such an order is issued. This specific provision shall be construed strictly against the Party seeking to so rely to excuse non-performance or delay;

- (iii) a Change of Laws. This specific provision be construed strictly against the Party seeking to so rely to excuse non-performance or delay;
- (iv) the suspension or termination of any Municipal Drinking Water Licence relating to the Facilities or the operation and maintenance thereof, or the imposition of a term, condition or requirement for the operation and maintenance of the Facilities which is more stringent or burdensome than the terms, conditions or requirements in effect as of the Start Date, to the extent that such occurrence is not the result of wilful or negligent action, error or omission or a lack of reasonable diligence of the Operator or Elgin, whichever is asserting the occurrence, provided however that the contesting in good faith or the failure in good faith to contest any such occurrence shall not be construed as such a wilful or negligent action or lack or reasonable diligence;
- (v) loss or inability to obtain service from a utility other than as a result of the action or inaction of the Party;
- (vi) Abnormal Raw Water,
- (vii) Insufficient supply of Raw Water to meet Water Supply System Potable Water demand;
- (viii) The Water Supply System Potable Water Demand exceeds the design capacity of the Water Supply System or capacity of the Water Supply System as approved by the Municipal Drinking Water Licence; or
- (ix) Vandalism which could not otherwise have been prevented by the proper and necessary security systems required by Section 3.20 of this Amended Agreement.

provided, however, that a failure by a Party to perform its obligations under this Amended Agreement arising from or related to such Party's insufficient cash flow or its economic or financial condition generally, shall not constitute an Uncontrollable Circumstance;

and "**Uncontrollable Circumstances**" means the plural of the foregoing;

- (hhhhh) "**Water Supply System**" means the entire water supply system, and all related infrastructure for the Elgin Area Primary Water Supply System; and
- (iiiiii) "**Water Treatment Plant**" ("**WTP**") means the water treatment plants and the buildings and all related infrastructure located therein as described in Schedule "A-2".

1.2 Schedules.

The following schedules which are attached to this Amended Agreement are incorporated by reference into this Amended Agreement and are deemed to be a part of it:

- Schedule "A-2" — Elgin Area Primary Water Supply System
- Schedule "B-2" — Potable Water Performance Criteria

| | | |
|----------------|-----|--|
| Schedule "C-2" | — | Sampling and Testing Requirements |
| Schedule "D" | --- | Operator's Submission of Qualifications and Proposal |
| Schedule "E-2" | --- | Operations Fee and Initial and Final Condition Survey Cost |

1.3 Entire Agreement.

This Amended Agreement constitutes the entire agreement between the Parties pertaining to the subject matter of this Amended Agreement and supersedes all prior agreements, understandings, negotiations and discussions, whether oral or written. There are no conditions, warranties, representations or other agreements between the Parties in connection with the subject matter of this Amended Agreement (whether oral or written, express or implied, statutory or otherwise) except as specifically set out in this Amended Agreement.

1.4 Priority of Documents.

In the case of any conflict between any of the documents which form part of this Amended Agreement, the provisions of this Amended Agreement will take precedence over the Proposal attached as Schedule "D" to this Amended Agreement.

1.5 Headings.

The provision of a table of contents, the division of this Amended Agreement into articles, sections and subsections and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Amended Agreement. The table of contents does not form part of this Amended Agreement.

1.6 Amendments.

No amendment to this Amended Agreement shall be effective unless in writing and signed by all Parties to this Amended Agreement.

1.7 Number of Days.

Except as expressly stated to the contrary elsewhere herein, in computing the number of days, for the purposes of this Amended Agreement, all days shall be counted including Saturdays, Sundays and legal holidays, provided, however, that if the final day of any period shall fall on a Saturday, Sunday or legal holiday, then the final day shall be deemed to be the next day which is not a Saturday, Sunday or legal holiday.

1.8 Statute and Regulation References.

Any references in this Amended Agreement to any statute, regulation or any section thereof shall, unless otherwise expressly stated, be deemed to be a reference to such statute, regulation or section as amended, restated or re-enacted from time to time.

1.9 References to the Operator.

For the purpose of this Amended Agreement, all references to the Operator shall, unless the context required otherwise, include its directors, officers, employees, agents and contractors.

1.10 References to Currency.

For the purpose of this Amended Agreement, all references to currency or money shall mean Canadian dollars.

1.11 Express Terms.

The express terms herein control and supersede any course of performance or usage of the trade inconsistent with any of the terms herein.

ARTICLE 2 TERM AND COMMENCEMENT DATE

2.1 Term.

The term of this Amended Agreement, as amended, shall commence on January 1, 2023, and shall continue until 11:59 p.m. on December 31, 2027. If Elgin wishes to renew this Amended Agreement it shall provide Operator a minimum of twelve (12) months written notice of its wish to renew this Amended Agreement, and subject to the Parties mutually agreeing to renew this Amended Agreement, this Amended Agreement shall be renewed for a further five (5) year term, unless extended or terminated pursuant to the express provisions of this Amended Agreement (“**Term**”). Whenever there is a reference to the Term in this Amended Agreement, it means the initial Term and also the extended Term where renewed by the Parties unless otherwise terminated in accordance with this Amended Agreement.

ARTICLE 3 OPERATION AND MAINTENANCE OF THE FACILITIES – GENERAL

3.1 Facilities in General.

(1) Description of the Facilities.

- (a) The scope of this Amended Agreement, except where expressly provided, is confined to the operation and maintenance of the Facilities as they are described in Schedule “A-2” to this Amended Agreement.
- (b) If Elgin determines to extend Potable Water service to new communities not currently connected to the Water Supply System and/or outside the Service Area, or if Elgin determines to construct additional Facilities for the Water Supply System, the Operator shall provide a cost estimate within six (6) months prior to the commencement of operations. Upon receipt of the quote, Elgin shall decide whether to accept the cost estimate at its sole discretion.

(2) Use and Possession of the Facilities

All grounds, facilities, equipment, vehicles and documents relating to the Facilities and owned by Elgin or acquired by Elgin shall remain the property of Elgin, except as may otherwise be provided for herein.

- (a) The Operator shall act as an independent contractor or operator to Elgin for the safe, professional and efficient operation and maintenance of the Facilities. The Operator shall use all the Facilities exclusively for the operation and maintenance of the Facilities and will not carry out any other business from the Facilities, without the express written permission of Elgin.
- (b) Elgin may utilize an office at the Elgin WTP Office Building for the exclusive use by Elgin's Manager or other representative. The Operator shall provide all necessary office furniture and telephone, acceptable to Elgin, acting reasonably, for sole use by Elgin's Manager or Elgin's Manager's delegate. The office and equipment shall be provided by the Operator at no cost to Elgin.
- (c) Elgin may maintain a documents room at the Elgin WTP Office Building that will contain all the documentation, drawings, specifications, operations manuals, equipment manuals, plant data, historical data, etc. that is in the possession of Elgin. The Operator will have access to this information by suitable arrangements negotiated by Elgin and the Operator.

(3) Elgin Access to Facilities.

Elgin shall have twenty-four (24) hour per day access to the Facilities. The Operator shall allow unrestricted access to the Facilities to Elgin's Manager or Elgin's Manager's delegate without notice and without restriction. Elgin's Manager or his/her delegate shall not have the right to direct or control the activities of the Operator or its employees. Elgin's Manager and his/her delegate shall comply with all reasonable health and safety procedures of the Operator.

3.2 Operation and Maintenance of the Facilities.

- (a) The Operator shall perform all activities and services for the proper and effective management, operation and maintenance of the Facilities in a cost effective and professional manner as set forth in this Amended Agreement and in accordance with generally accepted principles and practices for water treatment in Ontario, the Municipal Drinking Water Licence, the requirements of the MOE, Elgin policies applicable to the Facilities, and all Applicable Laws.
- (b) Except as otherwise provided in this Amended Agreement, the Operator shall provide or obtain all personnel, materials, services and supplies necessary to manage, operate and maintain the Facilities in the manner required by this Amended Agreement, and in any event to a standard that meets industry standards, including but not limited to:
 - (i) all necessary personnel, materials and services necessary to support the operation and maintenance of the Facilities to the service and performance levels required by this Amended Agreement including but not limited to, the following functions:
 - (A) operations,
 - (B) laboratory testing,
 - (C) obtain and pay for all software required for operation and maintenance of the Facilities excluding the PLC and HMI (SCADA) software, Elgin's

laboratory information management system (currently WaterTrax) and Elgin's own CMMS licence,

- (D) administration,
- (E) human resources,
- (F) training,
- (G) purchasing,
- (H) regulatory compliance and reporting,
- (I) janitorial in accordance with municipal standards and practices including but not limited to the security office and Elgin's office per Section 3.1(2)(b),
- (J) snow removal, grass cutting and maintenance of access roads and laneways to all Facilities,
- (K) annual (at a minimum) exercising and maintenance of all watermains at the Facilities and all transmission watermains;
- (L) flushing of all hydrants twice per year and annual pressure/flow testing and painting of hydrants once every three years,
- (M) maintenance and calibration of meters and instruments,
- (N) inspection and maintenance of backflow preventers,
- (O) inspection and maintenance on lifting devices,
- (P) maintain, registration of Elgin's ISO 14001 Environmental Management System,
- (Q) maintenance of all on-line and bench-scale analyzers,
- (R) inspection and maintenance of generators, including back-up generators located at the WTP,
- (S) inspection and maintenance of radio antennas and fibre optic cables in accordance with the stricter of manufacturer's specifications or industry standards,
- (T) security and security-related programs in accordance with Section 3.10(c) and Section 3.20,
- (U) pipeline corrosion protection monitoring, performed once every five (5) years at dedicated cathodic corrosion monitoring stations, and

- (V) proactive repairs to the transmission pipelines. For the purposes of this subsection, "proactive repairs" shall include, but not be limited to those repairs which are identified as being necessary, or which are being recommended, based upon the data available from the Acoustic Fibre Optic system;
- (ii) all administrative and management personnel and services including Facilities management, human resources, training, accounting and legal services, payroll, purchasing, technical support and information systems;
- (iii) all technical assistance and support related to the operation and maintenance of the Facilities to the performance levels specified and that may be required by Elgin with respect to Municipal Drinking Water Licence applications or disputes;
- (iv) contingency and emergency response plans acceptable to Elgin and a workplace safety program that meets or exceeds provincial standards;
- (v) development of a preventive maintenance and capital improvement program;
- (vi) delivery of frequent and detailed reports to Elgin, in accordance with the terms of this Amended Agreement, that demonstrate compliance and support all future planning;
- (vii) shipping and receiving (and purchasing where applicable) of all materials and supplies related to the operation of the Facilities;
- (viii) payment for all maintenance claims including pipes, transmission breaks, sandblasting and recoating of structures, structural upgrades in accordance with the terms of this Amended Agreement;
- (ix) pay for natural gas at the Facilities;
- (x) testing each generator for a minimum of one (1) hour per month. The Operator shall supply and pay for the fuel for all diesel engines and pumps based on twelve (12) hours of maintenance run time per year per engine and eight (8) hours of emergency run time per year per engine. Additional fuel used for the emergency run time of each generator, and for any run time associated with capital projects undertaken by Elgin will be calculated by the Operator for each generator, and subject to the approval by Elgin acting reasonably, shall be paid by Elgin. Any fuel used for any additional run-time used for generator testing and maintenance is at the cost of the Operator;
- (xi) all materials and supplies including but not limited to, chemicals and fuel, vehicle accessories and supplies, computer hardware and software (including wireless access points, switches, routers, firewalls and related network management for connectivity to the Operator's head office and the internet necessary for the Operator's management and business systems, and not including those relating to the SCADA system and the Owner's computer hardware and software) and all related supplies, office supplies, building and grounds maintenance supplies,

replacement parts, equipment maintenance supplies and spare parts which are required in the day-to-day management, operation and maintenance of the Facilities;

- (xii) all Attractables in excess of Elgin's Attractables which are required in the day-to-day operation and maintenance of the Facilities;
 - (xiii) perform all laboratory sampling, testing and analyses, quality control and quality assurance required by this Amended Agreement, the Municipal Drinking Water Licence and Applicable Laws and shall do so at a frequency and performance level defined therein, and shall include any operational parameter testing required for the management and operation of the WTP;
 - (xiv) all necessary insurance required pursuant to Article 14 of this Amended Agreement;
 - (xv) all required permits, approvals and licences;
 - (xvi) waste handling, transportation and disposal of all chemicals, grit, screenings, scum, oil, and other wastes and residues in licensed solid waste disposal facilities approved by Elgin, including residue transportation and disposal; and
 - (xvii) maintain the Facilities, including the lands upon which the Facilities are located and landscaping to a standard mutually agreed upon by the parties, acting reasonably.
- (c) The Operator shall staff and operate all the Facilities on a continuous twenty-four (24) hours per day, seven (7) days per week throughout the entire Term of this Amended Agreement. The Operator shall provide all necessary staff to operate and maintain the Facilities during all hours of operation. Under no circumstances shall the Operator engage operators working or otherwise employed in connection with the Lake Huron Water Supply System without the express written consent of Elgin.
- (d) Commencing on the Start Date, the Operator shall be responsible for and shall pay all Operating and Maintenance Costs, except as may be otherwise specifically provided herein.

3.3 Testing and Sampling

(1) Procedures.

- (a) The Operator shall, at its own cost, conduct all testing and analyses required by this Amended Agreement, the Municipal Drinking Water Licence, the Ontario Drinking Water Quality Standards and Operational Guidelines as amended from time to time, and Applicable Laws. All testing shall be carried out by an accredited laboratory and the Operator shall provide Elgin with evidence of such accreditation.
- (b) The Operator shall ensure that all sampling and testing programs required to be conducted by the Operator pursuant to this Amended Agreement shall be conducted in accordance

with the testing requirements of the Municipal Drinking Water Licence, Elgin policies applicable to the Facilities, and Applicable Laws.

- (c) The Operator shall deliver in a timely manner and submit such samples for testing to the laboratory to permit the tests required under subsection 3.3(1)(a) above. Elgin may, from time to time, change the types and frequency of samples to be taken. The Operator or Elgin may require an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement if such change in the sampling results in an increase or decrease in the actual Operating and Maintenance costs.
- (d) Elgin reserves the right to review and approve any testing protocol proposed to be used by the Operator to satisfy the Operators obligations under this Amended Agreement.
- (e) The Operator shall ensure that all test results received from the sampling required to be conducted by the Operator pursuant to this Amended Agreement are provided to Elgin on a timely basis, consistent with current industry standards. If the MOE's testing requirements change during the Term of this Amended Agreement, the Parties shall ensure that all sampling and testing required to be conducted by the Parties pursuant to this Amended Agreement comply with all new MOE requirements.
- (f) The Operator shall conduct all additional testing for process and operational control at its own cost as may be required by Applicable Laws or as reasonably determined by the Operator to perform its obligations under this Amended Agreement at its own cost and shall provide such test results to Elgin forthwith upon receipt of a written request by Elgin's Manager.
- (g) Any testing to be conducted by Elgin in addition to the testing required to be conducted pursuant to the terms of this Amended Agreement shall be the sole responsibility and shall be conducted at the sole expense of Elgin. Elgin shall conduct all sampling and testing in accordance with the same requirements indicated in subsection 3.3(1)(b) above. The Operator shall provide all further sampling necessary to allow Elgin to conduct the additional testing at no further cost to Elgin.

(2) Verification of the Operator's Testing Procedures.

- (a) Elgin shall be permitted to, on an annual basis, at its own expense, conduct a review of the Operator's laboratory and testing procedures and confirm the test results produced by the Operator's laboratory. If Elgin's review demonstrates that the results produced by the Operator's laboratory are materially inaccurate, Elgin shall be entitled to require an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement for those costs of its review referable to the inaccuracy of the laboratory's results. The Operator shall, upon receipt of notice from Elgin of material inaccuracy of laboratory results, correct the quality problem at its laboratory immediately.
- (b) In addition to sampling and testing by the Operator, Elgin may at any time elect to take independent samples or obtain split samples from the Operator and to perform tests and analyses in order to assess the Operators sampling and testing procedures and to assess the Operator's compliance with the Municipal Drinking Water Licence. The Operator shall

cooperate fully with any such effort by Elgin and will provide samples and test results promptly at no further cost to Elgin.

3.4 Compliance with Applicable Laws or Change of Laws.

(1) General.

- (a) The Operator shall be knowledgeable of and comply with Applicable Laws.
- (b) Should any procedures or standards set forth in this Amended Agreement conflict with procedures or standards contained in any Applicable Laws, the more stringent procedures or standards shall apply.
- (c) The Operator shall not be in breach of its obligations hereunder if it is prevented from complying with Applicable Laws due to Uncontrollable Circumstances, Elgin Fault, the limits of the capacity of the Facilities, a variation in Raw Water quality or quantity inconsistent with historical seasonal variations or where the Operator has obtained the written consent of Elgin for non-compliance (provided however that such consent of Elgin shall only apply to the specific breach or non-compliance and shall not apply to subsequent breaches by the Operator), and in each case only to the extent the obligations of the Operator are affected by such circumstances as described herein.
- (d) If the Operator is determined by a court of competent jurisdiction, to be in non-compliance with Applicable Laws, then, except when such non-compliance is caused by Uncontrollable Circumstances, any variation in Raw Water quality or quantity inconsistent with historical seasonal variations or Elgin Fault, Elgin may deduct fifty thousand dollars (\$50,000.00) from the Incentive Payment, and such non-compliance shall be an Event of Default.

(2) Process or Operational Changes to Achieve Compliance.

- (a) If at any time during the Term of this Amended Agreement, Process Changes are required to comply with Applicable Laws or either Process Changes or Operational Changes are required to comply with a Change of Laws, then the Operator shall promptly provide Elgin with its recommendations for achieving compliance and an estimate of the impact on Operating and Maintenance Costs for achieving compliance with such Applicable Laws or a Change of Laws. Elgin shall evaluate the Operator's recommendations and shall, within a reasonable period of time, either approve the Operator's recommendations or determine appropriate and necessary Process or Operational Changes to be made and direct the Operator on the appropriate approach to achieving compliance. The Operator shall not claim any Adjustment to the Service Fee for the cost of preparation of its recommendations for achieving compliance.
- (b) Where either Process Changes or Operational Changes are required to achieve compliance with a Change of Laws or, where Elgin directs the Operator to carry out alternative Process Changes to achieve compliance with Applicable Laws, and any of the aforementioned activities causes an increase or decrease in the actual Operating and Maintenance Costs, either Elgin or the Operator may require an Adjustment to the Service Fee in accordance with Section 8.4 of this Amended Agreement.

- (c) The Operator shall make any Operational Changes or Process Changes required to achieve compliance with Applicable Laws at its own expense unless such Operational Changes or Process Changes are required in connection with a Change of Laws.
- (d) If the Operator disputes Elgin's decision to disapprove Operator's recommendation pursuant to subsection 3.4(2)(a), or either the Operator or Elgin disputes a required Adjustment to the Service Fee pursuant to subsection 3.4(2)(a), then the Operator or Elgin, as the case may be, may refer the matter in dispute to dispute resolution pursuant to Article 17 of this Amended Agreement.

(3) Capital Improvements to Achieve Compliance.

- (a) If the Operator considers that Capital Improvements are required to achieve compliance with Applicable Laws or a Change of Laws, then the Operator shall provide to Elgin recommendations on the required Capital Improvements for Elgin's review. A decision whether or not to proceed with such a Capital Improvement shall be in the absolute discretion of Elgin. The Operator is not responsible for paying for any Capital Improvements unless otherwise agreed to in writing by the Operator and Elgin.
- (b) Elgin shall evaluate the Operator's recommendations and shall either approve the Operator's recommendations for Capital Improvements or determine modified or different appropriate and necessary Capital Improvements to achieve compliance.
- (c) A decision on whether or not to proceed with a Capital Improvement, or a Process or Operational Change to achieve Compliance shall be at the sole discretion of Elgin. The Operator shall implement the decision of Elgin following the receipt of express direction from Elgin to do so.
- (d) If, as a result of the implementation of a Capital Improvement or an alternative method to achieve compliance with Applicable Laws or a Change of Laws, there is an increase or decrease in the actual Operating and Maintenance Costs, either Elgin or the Operator may require an Adjustment to the Service Fee in accordance with Section 8.4 of this Amended Agreement.

3.5 Process or Operational Changes Initiated by Operator.

- (a) Process Changes and Operational Changes may be made by the Operator during the course of this Amended Agreement. No Process Change will be made without the prior written consent of Elgin. Operational Changes will be made as a matter of routine practice by the Operator and will not require prior approval by Elgin. However, the Operator shall inform Elgin of any material Operational Changes in its monthly reports to Elgin.
- (b) The Operator shall be responsible for all risks associated with any Process Change proposed and implemented by it, and/or any Operational Changes proposed and implemented by it as part of the operation and maintenance of the Facilities, including, without limitation, the risk of obtaining and complying with all applicable amendments to the Municipal Drinking Water Licence and all Applicable Laws, but excluding all risks associated with Change of Laws or other Uncontrollable Circumstance.

3.6 Operating and Management Policies and Procedures.

(1) Operating and Management Policies.

- (a) The Operator shall prepare operating and management policies and procedures with respect to the day-to-day operations of the Facilities, including quality control and quality assurance procedures. The Operator shall consult with Elgin in the preparation of such operating and management policies and procedures and shall permit Elgin to review and provide comments on them. The operating and management policies and procedures prepared by the Operator pursuant to this subsection shall comply with Elgin policies, where applicable.

3.7 Communications between Elgin and the Operator.

(1) Managers.

- (a) Elgin shall designate one person, Elgin's Manager, to act as their primary liaison and coordinator. The Operator shall at all times employ a person designated as the Operator's Manager, who shall, among his or her other duties, serve as the Operator's liaison with Elgin and who shall be the Operator representative primarily responsible for dealing with Elgin. The Operator shall submit the name of its designated Operator's Manager for the Facilities to Elgin for approval, which approval shall not be unreasonably withheld. Elgin reserve the right to veto any of the Operator's designated Operator's Managers submitted for approval at the sole discretion of Elgin. The Operator shall, where practicable provide Elgin with at least sixty (60) days prior written notice of any change in the Operator's Manager.
- (b) Elgin and the Operator shall also appoint designees to Elgin Manager's position and the Operator's Manager's position to act on behalf of the respective Manager in the respective Manager's absence. Elgin shall also review and approve the Operator's designee for the Operator's Manager, which approval shall not be unreasonably withheld. The Operator shall provide Elgin with at least sixty (60) days prior written notice of any change in the Operator's Manager's designee.
- (c) Elgin reserve to themselves the right to request in writing, upon reasonable notice to the Operator, that the Operator replace the Operator's Manager or designee, or Manager of any individual Facility, and the Operator shall, subject to Applicable Laws, make best efforts comply with such a request from Elgin. Elgin or the Operator may refer any dispute with respect to this subsection to dispute resolution pursuant to Article 17.
- (d) The Managers, or their designees, shall meet and communicate on a regular basis. In particular, the Operator's Manager shall, as timely as reasonably possible, inform Elgin's Manager of all emergencies and the occurrence of all Uncontrollable Circumstances relating to the operation of the Facilities which an independent Operator would be expected to report to an owner under customary and prudent business practices. The Operator, through the Operator's Manager, shall advise Elgin of any and all conditions, events, issues, suggestions, recommendations, and the like relating to the operation and maintenance of the Facilities and which relate to this Amended Agreement, or which

materially affect the safe, professional, and cost efficient operation and maintenance of the Facilities.

- (e) The Operator, through the Operator's Manager, shall advise Elgin of any and all conditions, events, issues, suggestions, recommendations, and the like relating to the operation and maintenance of the Facilities and which relate to this Amended Agreement, or which materially affect the safe, professional, and cost efficient operation and maintenance of the Facilities.
- (f) Elgin's Manager has the authority to ensure that the provisions of this Amended Agreement are faithfully adhered to. The authority of Elgin's Manager shall be limited to providing direction, approval or consent in respect of any matter falling within the provisions of this Amended Agreement, and shall be binding upon Elgin. Elgin's Manager shall not have the authority to provide direction, approval or consent or enter into any agreement for any matter that falls outside of the provisions of this Amended Agreement and any such direction, approval, consent provided or agreement entered into shall not be binding upon Elgin.

(2) Meetings with Elgin.

- (a) The Managers or their delegates shall meet not less than once per month, to discuss and review the management, operation and maintenance of the Facilities, including the Monthly Operations and Maintenance Report. Elgin, in their discretion, may alter the frequency of the meetings to reflect whether or not there is a need to meet. The date and time of the meetings shall be scheduled as agreed upon from time to time by the Managers.
- (b) The Managers or their respective delegates shall meet, at least quarterly, to discuss and review the Quarterly Contract Report, any significant events during the previous quarter, or issues of mutual concern.

(3) Compliance Reports.

- (a) The Operator shall prepare and file with the applicable Governmental Authority all environmental and monitoring reports, except for energy consumption reporting, required by the Municipal Drinking Water Licence, Permits and Licences and Applicable Laws and shall file such reports with Elgin's Manager at least ten (10) Business Days prior to the date such reports are required to be filed by the Municipal Drinking Water Licence, Permits and Licences and Applicable Laws. All Compliance Reports shall be provided to Elgin in electronic format.
- (b) The Operator shall implement a sampling and testing program (for testing that is the Operator's responsibility hereunder) in accordance with the requirements of the Municipal Drinking Water Licence and Applicable Laws and in compliance with subsection 3.3(1) and shall familiarize itself with the testing requirements stipulated by the MOE.

(4) Monthly Operations and Maintenance Report.

The Operator shall compile, maintain and provide to Elgin, within ten (10) Business Days of the end of each calendar month in each Contract Year and no later than three (3) days prior to each monthly meeting with Elgin, a comprehensive monthly operations and maintenance report ("**Monthly Operations and Maintenance Report**"). These reports shall be in a form developed jointly by the Managers, and shall include, but not be limited to, the following information as it applies to the Facilities for the preceding month:

- (a) Raw Water flow including average daily flow, maximum daily flow, and total monthly volume;
- (b) Potable Water flow including average daily flow, maximum daily flow, and total monthly volume;
- (c) Raw Water average turbidity, pH, colour, temperature;
- (d) Potable Water minimum, maximum and average free chlorine residual and total chlorine residual;
- (e) Potable Water maximum and average turbidity;
- (f) Potable Water minimum, maximum and average concentration of fluoride;
- (g) Potable Water average pH;
- (h) Potable Water average concentration of Aluminum;
- (i) Total number of safe and adverse microbiological test results;
- (j) Significant events or failures including any and all events of noncompliance with Applicable Laws or this Amended Agreement;
- (k) Any actions required from Elgin;
- (l) Details of the safety programme and any incidents resulting from an unsafe work practice or accidental mishap;
- (m) Equipment operability including a list of equipment out of service, as well as a detailed list of assets added or removed during the reporting period, including at a minimum the asset ID, description, location, status (new/ operational/decommissioned), and, in the case of a change in status, the date on which the status of the equipment changed;
- (n) Details of any adverse Laboratory analysis relating to Facilities operation;
- (o) Potable water, natural gas, and chemicals usage;
- (p) Staffing utilization, including staffing levels indicating terminations and new hires, hours of support for Capital Improvements by the Operator per Section 6.5(1)(c), and activities of the Operator's Asset Coordinator;

- (q) List of complaints received, action plans and remedies; and where complaints received were determined not to be valid in accordance with Section 3.9, an explanation for such determination;
- (r) Description and status of Facilities operations including a summary of calibrations and compliance items completed;
- (s) Employee training which has been carried out by the Operator;
- (t) a detailed and comprehensive report of all maintenance work performed;
- (u) a summary of the following:
 - (i) work orders scheduled for the period;
 - (ii) unscheduled work orders required during the period;
 - (iii) completed work orders for the period;
 - (iv) incomplete work orders for the period; and
 - (v) a summary of items (i) – (iv) for the year-to-date;
- (v) A summary of information and activities related to the Acoustic Fibre Optic monitoring system, including highlights of areas of concern;
- (w) Deviations from normal operating practices;
- (x) A summary of activities related to the cathodic protection system;
- (y) The private property accessed by the Operator for the purposes of the operation and maintenance of the water system, including a summary of activities performed on such private property as well as such other information necessary to ensure an appropriate accounting by Elgin to the respective landowner;
- (z) A compliance summary for the Residuals Management Facility;
- (aa) A summary of hours where the Water Treatment Plant was online and pumping, versus offline and not pumping. The summary of offline hours shall include scheduled/planned versus unplanned outages;
- (bb) A summary of generator runtime hours;
- (cc) The quantity of dewatered solids from the Residuals Management Facility disposed of and the name and location of the waste disposal facility; and
- (dd) Such other reports as Elgin deems fit to ensure that it has sufficient information to assess the management and operation of the Facilities.

(5) Quarterly Contract Report

The Operator shall compile, maintain and provide to Elgin, within thirty (30) days of the end of September and December of the First Contract Year, within thirty (30) days of the end of each March, June, September and December of each Contract Year that is not the First Contract Year or Final Contract Year, and within thirty (30) days of the end of March and June of the Final Contract Year, comprehensive quarterly contract reports ("**Quarterly Contract Report**"). The Quarterly Contract Report should not be a mere consolidation of the Monthly Operations and Maintenance Reports. The Quarterly Contract Report shall outline and discuss the following:

- (a) Deliverables under this Amended Agreement;
- (b) Financial position;
- (c) Adjustments to Service Fees;
- (d) Proposed adjustments to Service Fees;
- (e) Amendment to the scope of the services to be provided by the Operator;
- (f) Changes to business continuity plans;
- (g) Regulatory and contractual compliance issues including status of any action plans required to correct Compliance Failures;
- (h) Health and safety issues; and
- (i) Any other issues of mutual concern related to this Amended Agreement.

(6) Quarterly Water Quality Report.

The Operator shall compile, maintain and provide to Elgin, within thirty (30) days of the end of September and December of the First Contract Year, within thirty (30) days of the end of each March, June, September and December of each Contract Year which is not the First Contract Year of the Final Contract Year, and within thirty (30) days of the end of March and June of the Final Contract Year, comprehensive quarterly water quality reports ("**Quarterly Water Quality Report**"). The Quarterly Water Quality Report shall only provide the data on treated water quality.

(7) Annual Asset Report.

The Operator shall provide Elgin with a detailed report summarizing the condition of the Civil, Structural and Site-Related Assets and Mechanical and Electrical Equipment, using the Initial Condition Survey as a guide, by April 30 in each Contract Year (the "**Annual Asset Report**"). The Annual Asset Report shall be in a format to be agreed upon by Elgin and shall include, but not be limited to, the following information:

- (i) A general statement and overview of Facility, the equipment condition and performance, including deviations from expected depreciation rates or significant failures of assets. The report should be divided by facility and major process groups;

- (ii) A detailed list of assets in tabular form noting, at a minimum, each asset's initial condition, current condition, age, remaining useful life, efforts by the Operator to extend the useful life, and source of information for the condition assessment. The list of assets shall include a summary of detailed condition surveys and specialized electrical and mechanical equipment condition assessments undertaken, notable changes in assessed conditions of civil, structural and site related asset conditions, and a summary of changes in observed conditions; and
- (iii) Recommendations for capital programs to be undertaken by Elgin, including business cases for each recommendation in a format acceptable by Elgin.

(8) Financial Reports.

- (a) For each quarter of each Contract Year, the Operator shall provide Elgin with a verifiable summary of the Operator's costs for the immediately preceding quarter, in a form and containing the content as mutually agreed upon by the Parties acting reasonably with respect to its management, operation, and maintenance of the Facilities within thirty (30) days of the end of each quarter of the Contract Year. These verifiable summaries shall be provided to Elgin together with the Quarterly Contract Reports; and
- (b) At the end of each Contract Year, the Operator shall provide Elgin with a verifiable summary of the Operator's costs for that Contract Year, in a form and containing the content as mutually agreed upon by the Parties acting reasonably, related to the management, operation and maintenance of each individual WTP and all other Facilities within one hundred and fifty (150) days of the end of each Contract Year.

(9) Deficient or Late Compliance Reports.

- (a) Except when caused by an Uncontrollable Circumstance, if the Operator fails to file a Compliance Report or files a deficient Compliance Report with the MOE and/or Elgin within the time specified in the Municipal Drinking Water Licence, or within any extension period granted by the MOE, the Operator shall pay any fine assessed against either Party by the MOE, provided however the Operator shall have the right to contest any such fine in its name or the name of Elgin upon agreement by Elgin acting reasonably. If Operator's failure to file a Compliance Report resulted from the negligence or non-performance of the Operator's obligations to file said report, Elgin may deduct fifty thousand dollars (\$50,000.00) from the Incentive Payment and, such a failure by the Operator, shall be an Event of Default.

(10) Deficient or Late Reports.

- (a) Except when caused by an Uncontrollable Circumstance, if, during any one Contract Year, the Operator fails to deliver one (1) or more Reports other than a Compliance Report within the prescribed time period, or delivers one or more Reports that, in the opinion of Elgin, are materially deficient or have omitted material information, Elgin may withhold five thousand dollars (\$5,000.00) per month of the monthly payment of the Service Fee payable by Elgin and Elgin shall not pay the amount withheld unless and until the Operator delivers the Report, or corrects the deficiencies identified by Elgin, as the case may be.

- (b) Except when caused by an Uncontrollable Circumstance, if, at any time during the Term, the Operator fails to deliver three (3) or more Reports within the prescribed time period, or delivers three (3) or more Reports that, in the opinion of Elgin, are materially deficient or have omitted material information, Elgin may deduct from the Incentive Payment an amount of fifteen thousand dollars (\$15,000.00).
- (c) If, at any time during the Term, the total of all occurrences of the events described in subsections 3.7(10)(a) and 3.7(10)(b) herein equals to or exceeds a total of five (5) in any Contract Year, then such occurrences shall be an Event of Default.
- (d) The Parties agree that a failure to file a report other than a Compliance Report due to late receipt of sampling, testing or analytical results from a third party where the Operator can reasonably demonstrate to Elgin's Manager that the third party was in default of its contractual obligations to deliver sampling or test results in a timely fashion, and that the Operator used its Best Efforts to obtain such results in a timely fashion, shall not be considered an occurrence under any of the paragraphs in subsection 3.7(10).
- (e) Elgin shall notify the Operator in writing within thirty (30) days after receipt of a Report of any deficiencies in such Report. If written notice is not provided within the time within thirty (30) days after receipt of a Report, such Report shall be considered acceptable and Elgin shall not withhold any amount in respect of such Report.

(11) Inspections and Review of Records and Reports.

The Operator shall permit Elgin and its authorized representatives, during the Term of this Amended Agreement and without unreasonable disruption to the Operator, to:

- (i) examine and electronically monitor and retrieve any and all operating and maintenance records and Reports of the Operator, and make copies of and take extracts from such records and Reports as may be reasonably necessary to ensure compliance by the Operator with the terms of this Amended Agreement; and
- (ii) review any of the records and Reports described in subsection 3.7(11)(i) above.

3.8 Dealings with the MOE.

(1) Communications with the MOE.

- (a) Elgin shall be the primary liaison with the Governmental Authorities and will invite the Operator to attend or participate in such meetings relevant to the Operator's management, operation and maintenance of the Facilities or the Operator's obligations pursuant to this Amended Agreement. Elgin will also keep the Operator informed of such discussions with the MOE relevant to the Operator's obligations.
- (b) The Operator shall not communicate directly with the MOE with the exception of being under a legal obligation to report directly to the MOE or where the Operator has obtained the prior written approval of Elgin's Manager. The Operator shall report forthwith to Elgin regarding any such discussions.

(2) Municipal Drinking Water Licence.

Elgin, as owner of the Facilities, shall continue to be the holder of all the Municipal Drinking Water Licence for all the Facilities and shall be responsible for preparing and filing applications for any new Municipal Drinking Water Licence and/or amendments to existing Municipal Drinking Water Licence. It is the responsibility of both Parties to notify the other Party of any changes or amendments required to the Municipal Drinking Water Licence immediately upon the notifying Party becoming aware of the necessity for such changes or amendments. The Operator shall, upon Elgin's request, provide to Elgin any technical expertise or assistance related to the operation of the facilities in any matters relating to the Municipal Drinking Water Licence for Elgin's Facilities and shall be compensated by Elgin for its reasonable expenses, excluding Operator labour costs and other applicable services, in providing such technical expertise or advice. Any claim by the Operator for compensation pursuant to this subsection may be referred to dispute resolution pursuant to Article 17 by either Party.

(3) Permits and Licences.

The Operator shall prepare and file on a timely basis with the appropriate authorities all applications for Permits and Licences and renewals of Permits and Licences which are required in connection with the management, operation and maintenance of the Facilities, except Municipal Drinking Water Licence and all permits to take water, and provide copies of such applications to Elgin within thirty (30) days of the time the application is filed with the appropriate authority. The Operator shall provide all technical expertise and advice that may be required for an application for a Permit and Licence with respect to the Facilities and shall be compensated by Elgin for its reasonable expenses, excluding Operator labour costs, in providing such technical expertise or advice. Any claim by the Operator for compensation pursuant to this subsection may be referred to dispute resolution pursuant to Article 17 by either Party.

(4) Operator's Ability to Provide Services.

The Operator shall ensure that at all times it maintains the appropriate Permits and Licences to fulfill its obligations pursuant to this Amended Agreement. Such Permits and Licences shall include, but not be limited to, any requirement of a Government Authority imposed on the Operator as a precondition to carrying on business in Ontario or in Canada.

3.9 Complaints.

- (a) The Operator, in addition to meeting the Potable Water Performance Criteria and the Compliance Criteria, shall use its Best Efforts to contain and control the taste and odour of the water and noise emitted from the Facilities and shall take an active role in the community to improve the local residents' understanding of the operation of the Facilities.
- (b) If the Operator or Elgin receives any complaints from Elgin's direct customers in relation to taste and odours or noise generated by the Facilities, or any other matter related to the Facilities, the Party receiving the complaint shall notify the other Party immediately. The Operator shall immediately investigate the complaint for validity. Within three (3) days of the time of the notification of a verifiable and valid complaint the Operator shall prepare and provide to Elgin for approval, its proposed action plan to prevent a re-occurrence of the situation which gave rise to the complaint unless such complaint results from an

Uncontrollable Circumstance or a variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations, in which case subsection 3.9(e) below shall govern. Upon Elgin's approval, acting reasonably, of the Operator's action plan, as may be modified by Elgin, the Operator shall implement the action plan within a time period to be determined by Elgin acting reasonably.

- (c) If the Operator fails to comply with its obligations pursuant to subsection 3.9(b) above, Elgin may, in its discretion, withhold twenty-five thousand dollars (\$25,000.00) of the monthly payment of the Service Fee for the month in which the Operator failed to comply with such obligations which amount shall be paid to the Operator by Elgin upon the Operator, commencing implementation of the action plan as approved by Elgin all as described in subsection 3.9(b) above.
- (d) If the Operator continues its failure to comply with its obligations in subsection 3.9(b) above, such failure shall be considered an Event of Default and Elgin may, deduct twenty-five thousand dollars (\$25,000.00) from the Incentive Payment. The remedy as set out herein is in addition to the rights and remedies of Elgin pursuant to Article 10.
- (e) For complaints resulting from an Uncontrollable Circumstance or a variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations, the Operator shall immediately take all reasonable steps to mitigate the source of the complaint. Within a time period agreed to by the Parties, the Operator shall submit to Elgin, its recommended action plan to rectify the source of the complaint. Upon receiving the Operator's recommended action plan, Elgin shall, as it deems necessary, implement said action plan or a modified or different appropriate action plan, at Elgin's cost, or have the Operator implement such plans as approved by Elgin, with an Adjustment to the Service Fee as necessary and reasonable.

3.10 Interface with Public.

- (a) The Operator shall provide assistance to Elgin in carrying out a program of open houses, school visits, informational pamphlets and promotional material in respect of the Facilities. The Operator shall be required to manage and conduct public education tours of the Facilities as requested or authorized by Elgin. Elgin may, in its discretion, manage and conduct public education tours of the Facilities.
- (b) All other visitors not designated by Elgin shall require Elgin's approval and shall be required to make an appointment with the Operator prior to visiting the Facilities. All public tours must be conducted in accordance with Elgin's Public Tour Policy.
- (c) The Operator shall ensure that access to the Facilities is provided in a safe and responsible manner, including abiding by the security policies and programs of Elgin, and shall provide appropriate training and request all persons given access to the Facilities conform to all occupational health and safety requirements, security requirements and applicable policies and procedures for the Facilities.
- (d) Elgin shall be responsible for all communications with the media. The Operator must obtain Elgin's consent prior to communicating with the media with respect to any aspect of the Facilities or this Amended Agreement.

- (e) The Operator shall assist Elgin, when requested, in any public communications.

3.11 Contingency and Emergency Planning.

- (a) The Operator shall review and update all current contingency and emergency response plans. The Operator shall ensure that any such plan meets all Applicable Laws and are consistent with the standard and policies of Elgin. The contingency and emergency response plans shall be submitted to Elgin for Elgin's approval thirty (30) days prior to the Start Date, and such plans must be fully coordinated with the Elgin's Emergency and Incident Management System. Failure to submit such plan in compliance with this subsection shall be an Event of Default.
- (b) In the event of an Emergency Situation, the Operator must respond within thirty (30) minutes and ensure appropriate staff are available at the Facilities within sixty (60) minutes from the earlier of the occurrence of the Emergency Situation or the reasonable time within which a prudent operator should have known about the Emergency Situation. Elgin may deduct five thousand dollars (\$5,000.00) from the Incentive Payment for each event of non-compliance with the performance requirements of this subsection. Further, in the event of non-compliance by the Operator with the performance requirements of this subsection, Elgin may, upon giving verbal notice to the Operator's Manager, take such action as is reasonably necessary to respond to the Emergency Situation, and the Operator shall pay the reasonable cost of Elgin's response to the Emergency Situation plus a mark-up of five percent (5%).

3.12 SCADA and Computer Network Systems.

- (a) Except as set out herein, the Operator shall operate and maintain the Supervisory Control and Data Acquisition (the "**SCADA**") systems associated with the Facilities. Without limiting the foregoing, the Operator is responsible for:
 - (i) Training of personnel, development of and compliance with service level standards, the operation and maintenance of enhancements to the SCADA systems, including backup systems, and for maintaining and repairing the PLC and HMI hardware;
 - (ii) Field devices up to and including the Input/Output block but not including a network switch, where present;
 - (iii) Maintaining and repairing the Programmable Logic Controller ("**PLC**") and local operator interface components (i.e. PLC cards), excluding the proprietary PLC for the backup generators;
 - (iv) Maintaining and repairing Building Automation Systems ("**BAS**") including sensors, regular software version updates (excluding those items listed in subsection 3.12(b) of this Amending Agreement); and
 - (v) Maintaining and repairing field devices including but not limited to flow meters, analyzers, protective relays, flow switches and sensors.

- (b) Elgin shall be responsible for SCADA programming and maintaining the SCADA, PLC and HMI software and associated coding, and for maintaining the Industrial Data Centre, the virtual and physical servers, including the associated communications network. Without limiting the foregoing, Elgin is responsible for:
 - (i) Managing and maintaining spare parts for PLC's and other critical hardware components related to SCADA;
 - (ii) Maintaining and repairing BAS servers, software and control modules (BAS controllers), including the end-of-life replacement of BAS servicers and controllers; and
 - (iii) End-of-life replacement of PLC hardware and PLC software version upgrades.
- (c) Once the MANTRA chlorine control system is installed, the Operator shall be responsible for the utilization, maintenance and repair of the MANTRA system.
- (d) The Operator is responsible for all computers and computer networks implemented and used for the purposes of the Operator's business systems including wireless access points, switches, routers, firewalls and related network management for connectivity to the Operator's head office and the internet.
- (e) With the exception of the computers, computer networks business systems for which the Operator is responsible pursuant to subsection 3.2(b)(xi) of this Agreement, Elgin is responsible for all other computers, servers and computer networks implemented at the Facilities including wireless access points, switches, routers, firewalls, media converters, fibre optic networks, and related network management systems, including:
 - (i) Computer stations and servers used for the SCADA system, including tablets and monitors, industrial data centre servers and virtual servers, secured local area networks and wide area networks;
 - (ii) Camera and access control security systems; and
 - (iii) Programming, software and related version upgrades, virus protection, and network monitoring.

3.13 Signage.

The Operator shall maintain, repair and replace the signage at the Facility, where necessary in the opinion of Elgin, acting reasonably.

3.14 Staffing/Employee Training/Certification.

The Operator shall, throughout the Term of this Amended Agreement:

- (a) staff the Facilities with competent, qualified and certified personnel and have at all times;

- one (1) overall responsible manager, to be shared between the Elgin Area and Lake Huron Primary Water Supply Systems, to act as a primary liaison between Elgin and the Operator;
 - one (1) designated person responsible for the overall operation of the Facilities;
 - one (1) designated person responsible for the overall maintenance of the Facilities;
 - one (1) designated person responsible for the quality assurance and compliance of the Facilities; and
 - a minimum of five (5) operators licensed operators, certified in accordance with Applicable Laws, for the WTP;
- (b) ensure that the operators specified in subsection 3.14(a) are not shared with the Lake Huron Primary Water Supply System or any other water or wastewater system without the consent of Elgin;
- (c) provide such additional staffing as is necessary to comply with this Amended Agreement and Applicable Laws;
- (d) implement and review at least annually, on-site training programs for employees of the Facilities to keep current their skill and knowledge of technologies and procedures for effective water treatment; and
- (e) maintain all certification programs for employees of the Facilities in effect prior to the Start Date and implement new or revised certification programs as required to comply with Applicable Laws and standards fixed by a Governmental Authority or any other competent authority from time to time.

3.15 Health and Safety Procedures.

(1) Occupational Health & Safety.

- (a) If the Operator undertakes a construction project for Elgin under this Amended Agreement, the Operator, where this Amended Agreement involves construction, shall be designated as the “**constructor**” for the purposes of the *Occupational Health and Safety Act*, R.S.O. 1990, c.0-1 and shall assume all of the responsibilities of the Constructor as set out in that Act and its regulations. The foregoing shall apply notwithstanding that the Operator may have been referred to as the “**Operator**” in this and other related documents.
- (i) The Operator acknowledges that it has read and understood the *Occupational Health and Safety Act*.
- (ii) The Operator agrees to indemnify and save Elgin harmless for liquidated damages or fines arising from any breach or breaches by the Operator of the said *Occupational Health and Safety Act*.
- (iii) The Operator agrees to assume full responsibility for the compliance with the said *Occupational Health and Safety Act* for activities within its control.

- (iv) The Operator further acknowledges and agrees that any material breach or breaches of the *Occupational Health and Safety Act* whether by the Operator or any of its sub-contractors may be considered an Event of Default by Elgin.
 - (v) The Operator shall allow access to the work site, on demand, to representatives of Elgin to inspect work sites to confirm compliance with the *Occupational Health and Safety Act*. Elgin does not assume any liability or risk for non-compliance by the Operator with the *Occupational Health and Safety Act* by reason of such inspection unless such non-compliance is caused by Elgin Fault.
 - (vi) The Operator agrees that any damages or fines that may be assessed against Elgin by reason of a breach or breaches of the *Occupational Health and Safety Act* by the Operator or any of its subcontractors will entitle Elgin to set-off the damages so assessed against any monies that Elgin may from time to time owe the Operator under this Amended Agreement or any other contract whatsoever.
- (b) The Operator shall provide a list of all controlled hazardous materials or products containing hazardous materials as defined under the *Occupational Health and Safety Act*, all physical agents or devices or equipment producing or emitting physical agents and any substance, compound, product or physical agent that is deemed to be or contains a designated substance in accordance with the Workplace Hazardous Materials Information System (WHMIS) as defined under the *Occupational Health and Safety Act* and shall provide the Safety Data Sheets for these substances used for the performance of the Operator's required work hereunder, prior to the performance of the work and shall ensure that same are kept current.
- (2) Inspection After the Start Date.**
- (a) The Operator shall, immediately after the Start Date, conduct an inspection and review of the Facilities to satisfy itself that there are no outstanding deficiencies in relation to the safety of the Facilities. If, within forty-five (45) days following the Start Date, the Operator determines that there are situations at the Facilities that fail to comply with any Applicable Laws relating to the safety of persons or property, or that create unsafe or hazardous conditions at the Facilities, then the Operator shall advise Elgin of each unsafe or hazardous situation immediately upon determining the existence of the unsafe or hazardous situations.
 - (b) Upon receiving the list of unsafe or hazardous situations, Elgin shall (i) repair or correct any unsafe or hazardous situations, at Elgin's cost, which are necessary to comply with Applicable Law; and (ii) repair or correct any other unsafe or hazardous situations, at Elgin's cost, that it deems necessary.
 - (c) The Operator shall be responsible for the repair or correction of any unsafe or hazardous situations discovered or identified by the Operator after the forty-five (45) day period following the Start Date, at the Operator's cost. Any non-compliance with the *Occupational Health and Safety Act* shall be remedied as soon as reasonably possible and in any event no later than within three (3) months of the non-compliance item or event being identified.

- (d) Elgin shall be responsible for the installation and/or alteration of health and safety equipment, excluding the provision of Personal Protective Equipment, as a result in a change to the *Occupational Health and Safety Act* or its Regulations.

(3) Health and Safety Procedures.

- (a) The Operator shall prepare and establish written health and safety procedures for the protection of its employees, Elgin's employees and visitors to the Facilities consistent with the standards and policies of Elgin and all Applicable Laws. The health and safety procedures shall be submitted to Elgin for Elgin's acceptance thirty (30) days prior to the Start Date. Upon Elgin's acceptance, the Operator shall maintain and enforce the health and safety procedures.
- (b) The Operator and all of its employees shall, at all times, be required to:
 - (i) maintain a safe work-site in accordance with safe working practices; and
 - (ii) use or wear the necessary protective equipment, devices, clothing, and footwear as required by the *Occupational Health and Safety Act* and regulations, procedures and by-laws.
- (c) The Operator shall maintain a record of health and safety activities for each month of the Term, which record shall include:
 - (i) minutes of joint health and safety committee meetings;
 - (ii) details of safety inspections, and
 - (iii) details of all medical aid, lost time, and accidents or incidents.
- (d) The Operator shall provide Elgin on a quarterly basis with a report of health and safety activities at the Facilities within thirty (30) days of the end of each quarter of each Contract Year. The report shall be in a form acceptable to Elgin and shall be provided to Elgin along with the Quarterly Contract Report.
- (e) The Operator shall ensure that any equipment supplied or used by the Operator is safe and suitable for the job. Any equipment deemed unsafe in accordance with the *Occupational Health and Safety Act* and its regulations will be removed and replaced by the Operator.
- (f) All accidents and health and safety related incidents occurring at the Facilities shall be reported in writing to Elgin forthwith after the occurrence, which report shall include copies of any received notification provided to the Workplace Safety and Insurance Board with respect to such occurrence.

(4) Safety Audits and Non-Compliance.

- (a) Elgin may, at its sole discretion and expense, conduct safety audits of the Facilities on a Semi-annual basis which may include inspections of physical conditions and reviews of the Operator's compliance with all applicable safety legislation and regulations.

- (b) If, as a result of Elgin's safety audit or otherwise, Elgin determines that one of the following deficiencies ("**Safety Deficiencies**") has occurred:
- (i) non-compliance with Applicable Laws relating to health and safety; or
 - (ii) the creation by the Operator of a health or safety hazard to a worker or the environment which is contrary to Applicable Laws or contrary to the procedures established under subsection 3.15(3)(a),

then the Operator shall correct the Safety Deficiency to the satisfaction of Elgin within the time frame determined by Elgin acting reasonably but in any event within three (3) months of the identification of the Safety Deficiency.

- (c) If the Operator fails to correct the Safety Deficiency to the satisfaction of Elgin within the time frame determined by Elgin such failure shall be considered an Event of Default, and, Elgin may, in their discretion, withhold from the Service Fee payable to the Operator twenty-five thousand dollars (\$25,000.00) for each month in which the Operator failed to correct the Safety Deficiency within the prescribed time frame, unless the Operator is using Best Efforts to correct such Safety Deficiency. A period of three (3) months or longer, shall not constitute Best Efforts as that phrase is used in this subsection. The withholding of payment of the Service Fee as described herein is in addition to the rights and remedies of Elgin pursuant to Article 10.

3.16 Technical Support.

The Operator shall provide all necessary technical support to ensure the performance of the Operator's obligations under this Amended Agreement and the proper management, Operation and Maintenance of the Facilities.

3.17 Accounting.

- (a) The Operator shall maintain up-to-date financial records of activities related to the Facilities prepared in accordance with the accepted accounting standards.
- (b) Elgin shall have the right to review the Operator's financial statements of activities related to the Facilities as they apply to the terms of this Amended Agreement. This review shall be completed by Elgin itself or by an independent auditor appointed by Elgin at Elgin's expense, excluding expenses incurred by the Operator.

3.18 Litigation Support.

- (a) The Operator shall provide to Elgin at Elgin's request, technical assistance in connection with actions, claims, suits, administrative or arbitration proceedings or investigations, which do not arise from neglect, misfeasance or nonfeasance on the Operator's part or on the part of its agents, workers or persons employed by the Operator or under its control, including subcontractors, whether such proceedings are pending, threatened, or already initiated.

- (b) Elgin shall pay the Operator for the costs incurred for providing the services described in this Section 3.18 at rates to be agreed upon between the Parties. Upon the agreement of the Parties, such costs may be made as an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement subject to the right of indemnification of Elgin pursuant to Section 16.1.
- (c) In the event that Elgin and the Operator cannot agree upon an appropriate rate to be paid for the services to be provided pursuant to this Section 3.18, either Elgin or the Operator may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.

3.19 Operations and Maintenance Manuals.

- (a) Elgin shall provide to the Operator at the Start Date, the available Operations and Maintenance Manuals for the Facilities.
- (b) The Operator shall within six (6) months of the Start Date prepare revised and updated Operations and Maintenance Manuals as appropriate to reflect changes to Operations and Maintenance procedures for the Operating Period. The revised and updated Operations and Maintenance Manuals shall be to the reasonable satisfaction of Elgin, and shall become the property of Elgin.
- (c) Any operational changes made by the Operator must result in the corresponding changes and updates being made to the Operations and Maintenance Manuals and such changes and updates to the Operations and Maintenance Manuals must be made within sixty (60) days from the implementation of the operational change. Elgin may withhold from the Service Fee payable to the Operator twenty-five thousand dollars (\$25,000.00) for each month the relevant changes and updates are delayed, and may deduct an additional ten thousand dollars (\$10,000.00) from the Incentive Payment after three (3) months delay by the Operator in completing the updates and changes.

3.20 Security.

The Operator and Elgin shall be jointly responsible to secure the Facilities against unauthorized access and theft or damage as follows:

- (a) The Operator shall be responsible for:
 - (i) security-related property maintenance, including but not limited to tree trimming along perimeter fencing and other maintenance to maintain camera sightlines;
 - (ii) exterior and interior lighting;
 - (iii) gate operators and gates;
 - (iv) doors and door hardware, excluding the lock cylinder; and

- (v) participating in and supporting security-related policies, procedures, and programs at the Facilities implemented by Elgin.
- (b) Elgin shall be responsible for:
- (i) The development and implementation of security-related policies and programs at the Facilities, including but not limited to the provision of security services;
 - (ii) The maintenance and repair of camera hardware and software;
 - (iii) The maintenance and repair of the access control system implemented by Elgin, including but not limited to related hardware and software;
 - (iv) The lock cylinder mechanisms which are part of the access control systems implemented by Elgin;
 - (v) All security-related computer hardware and software; and
 - (vi) The master key system implemented by Elgin as part of the access control system.

3.21 Use of Subcontractors.

Upon receipt of written notice from Elgin at any time during the Term, the Operator shall not, at the sole discretion of Elgin, employ or hire the services of a specified subcontractor to assist the Operator in the performance of its obligations under this Amended Agreement without the prior written consent of Elgin, and such consent shall not be unreasonably withheld.

3.22 Human Rights Code.

- (a) The Operator acknowledges that it has read and understood the *Human Rights Code*, R.S.O. 1990, c.H-19.
- (b) The Operator covenants and agrees to comply with the provisions of the *Human Rights Code* and all regulations and rules promulgated thereunder.
- (c) The Operator agrees to indemnify and save Elgin harmless for liquidated damages assessed by a Governmental Authority arising from any breach or breaches of the *Human Rights Code* except where such breach is due to Elgin's exercise of its rights under Section 3.21, or Uncontrollable Circumstances.
- (d) Any breach or breaches of the *Human Rights Code* by the Operator or any of its subcontractors may be considered an Event of Default by Elgin, except where such breach or breaches arise from Elgin's exercise of its rights pursuant to Section 3.21 of this Amended Agreement, or due to Uncontrollable Circumstances.

3.23 Workplace Safety and Insurance Act.

- (a) The Operator clearly understands and agrees that it is not, nor is anyone hired by it, covered by Elgin under the *Workplace Safety and Insurance Act*, 1997 and the Operator shall be responsible for and shall pay all dues and assessments payable under the *Workplace Safety and Insurance Act*, 1997 or any Act, whether Provincial or Federal, in respect of itself, its employees and operations, and shall furnish Elgin if requested, with such satisfactory evidence that it has complied with the provisions of any such Acts. If the Operator fails to do so, Elgin shall have the right to withhold payment of such sum or sums of money due to the Operator that would be sufficient to cover its default and Elgin shall have the right to pay same. Elgin is not the employer of the Operator or its personnel under any circumstances whatsoever.
- (b) The Operator shall during the Term provide Elgin's Manager monthly with a Letter of Standing from the Workplace Safety and Insurance Board.

3.24 Innovation and Improvement.

- (a) The Parties hereby agree and Elgin expects the Operator to employ initiative and ability to optimize the Facilities' Operations and Maintenance, including but not limited to all Efficiency Improvements and Capital Improvements contemplated by this Amended Agreement. The Operator shall proactively seek out and propose innovative strategies to Elgin to enhance performance of the operations and maintenance and to reduce the overall Operating and Maintenance Costs. The foregoing shall in no way result in an adverse impact on health and safety nor breach any Applicable Law and must at all times be carried out by the Operator by employing Best Practices.
- (b) Elgin agrees to discuss the reward the Operator's initiative and innovation by savings-sharing formulae as set out in Article 7 hereof.

3.25 Drawings and Figures.

The Operator shall within three (3) months of the Start Date compile all current Facility drawings and keep same on file in a drawing room. All of the drawings shall have been reprinted on new paper (i.e., original plant mylars and paper copies shall be reprinted on new paper). These documents shall be updated at least annually. The Operator will not be responsible for any costs of updating the drawings in electronic format. The Operator's obligation to maintain drawings and figures does not include the providing of engineering services and/or professional certifications.

ARTICLE 4 OPERATION AND MAINTENANCE OF THE FACILITIES

4.1 Quantity of Potable Water.

- (a) The Operator shall provide and treat the Raw Water at the WTP in order to produce Potable Water to supply Elgin's transmission system at a rate necessary to maintain system pressures as determined by Elgin from time to time and to maintain at all times water levels in reservoirs to meet the Water Supply System demands, provided, however,

that such system pressures, water levels and water demands remain within the design capabilities and capacities of the Facilities, as changed from time to time.

- (b) The Operator shall pump water to the pumping stations and reservoirs to maintain system pressures and water levels in reservoirs to maintain emergency and fire storage volumes.
- (c) The Operator is responsible for calibrating and reading all meters of the Elgin system. For the monthly meter readings to ascertain the amount of Potable Water produced and supplied to the benefitting municipalities of the Elgin system, the Operator is required to calibrate the meter and Elgin shall be responsible for reading the meter.

4.2 Elgin's Potable Water Performance Criteria and Compliance Criteria.

- (a) The Operator shall manage and operate the Facilities so as to produce a quality of Potable Water that at a minimum meets the Compliance Criteria and meets the standards of Potable Water as described in Elgin's Potable Water Performance Criteria described herein and attached to this Amended Agreement as Schedule "B-2".
- (b) In the event of any conflict between any Compliance Criterion and Elgin's Potable Water Performance Criterion the stricter Criterion shall apply.
- (c) The Operator acknowledges that there is a seasonal and periodic variation in Raw Water characteristics over the course of the year and that there shall be no Adjustment to the Service Fee in the event of any such variations in Raw Water characteristics provided such seasonal variations are not materially inconsistent with historical seasonal variations.

4.3 Potable Water Performance.

- (a) For the purposes of this Amended Agreement, the quality of Potable Water supplied by the WTP shall be determined using the sampling tests and frequency of tests required by the Municipal Drinking Water Licence, Applicable Laws, and the sampling tests and frequency of tests identified in Schedule "C-2" to this Amended Agreement.
- (b) The Operator must use Elgin's laboratory information management system and must input all data necessary for the operation of such product and the Facility.
- (c) Throughout the Term of this Amended Agreement the Operator shall provide and maintain the necessary facilities and personnel at the WTP required to sample and test (where testing is the Operator's responsibility hereunder) Raw Water, Potable Water and residual wastewater in accordance with the testing requirements as set out in this Amended Agreement.
- (d) The Parties acknowledge that for the purposes of this Amended Agreement, the Operator's Potable Water Performance shall be determined by assessing the quality of Potable Water from the WTP as follows:
 - (i) continuous daily compliance with the Compliance Criteria;

- (ii) the “**Operator’s Cumulative Monthly Results**” shall be determined by calculating the parameters for quality of Potable Water on a cumulative monthly basis at the end of each month within a Contract Year;
- (iii) The Parties acknowledge that the Operator may not be able to produce a quality of Potable Water that meets or improves upon the parameters provided in Elgin’s Potable Water Performance Criteria or the Compliance Criteria if it is prevented from doing so by the occurrence of an Uncontrollable Circumstance, variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations, or Elgin Fault. The Operator shall use its Best Efforts to continue to meet or improve upon the parameters provided in Elgin’ Potable Water Performance Criteria and the Compliance Criteria during the occurrence of an Uncontrollable Circumstance, variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations, or Elgin Fault, notwithstanding the occurrence of such an event; and
- (iv) In the event of an Uncontrollable Circumstance, variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations, or Elgin Fault, the Operator shall be entitled to require an Adjustment to the Service Fee in accordance with Section 8.4 of this Amended Agreement to reflect any increase in the actual Operating and Maintenance Costs that the Operator can demonstrate has occurred as a result of the Uncontrollable Circumstance, variation in Raw Water quality or quantity, or, Elgin Fault.

4.4 Compliance Failures.

- (a) The Parties agree that a Compliance Failure shall be deemed to have occurred when the Operator’s Actual Results exceed the maximum permissible values for that specified criterion and for the applicable time period as provided in the Compliance Criteria or when the Operator fails to comply with any other terms, conditions, instructions contained within the Compliance Criteria. A Compliance Failure shall be deemed not to have occurred if the Operator can demonstrate, and Elgin determines that, such exceedance or non-compliance is a result of the occurrence of an Uncontrollable Circumstance, variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations or Elgin Fault.
- (b) The Party having knowledge of a Compliance Failure shall notify the other Party of a Compliance Failure immediately upon discovering the Compliance Failure.
- (c) Where a Party is obligated by law to inform a Governmental Authority of a contravention of any term or condition of a Municipal Drinking Water Licence or any other Permits and Licences, it shall notify the other Party immediately after informing such Governmental Authority.
- (d) The Operator shall take steps to rectify the situation giving rise to the Compliance Failure immediately and shall provide to Elgin, within three Business Days of a Compliance Failure, an action plan including a schedule for implementation, to prevent the Compliance Failure from reoccurring.

- (e) The Managers shall meet to review the Compliance Failure identified by the Operator, and Elgin shall approve, in its sole discretion, the remedial steps to be taken by the Operator, if any.
- (f) If the Operator fails to take steps to correct the Compliance Failure immediately, such failure shall be considered an Event of Default and Elgin may, in its sole discretion, exercise its rights to terminate this Agreement pursuant to Article 10 of this Agreement. In the alternative, and in its sole discretion, Elgin may deduct up to one hundred thousand dollars (\$100,000.00) from the Incentive Payment and may, at its sole discretion, withhold for a period of up to one year up to one hundred thousand dollars (\$100,000.00) from the monthly payment of the Service Fee.
- (g) Where the Operator demonstrates and Elgin determines that the Compliance Failure has resulted from the occurrence of an Uncontrollable Circumstance, variation in Raw Water quality or quantity materially inconsistent with historical seasonal variations or Elgin Fault, then Elgin shall not have the right to terminate this Amended Agreement nor make any deduction from the Service Fee pursuant to subsection 4.4(f) above.
- (h) Where the Operator disagrees with or disputes Elgin's decision on whether a Compliance Failure has occurred, the cause of such Compliance Failure, the remedial steps to be taken to address the Compliance Failure or the assessment of deductions, then the Operator may refer the matters in dispute to dispute resolution pursuant to Article 17 of this Amended Agreement.

4.5 Cumulative Monthly Potable Water Quality Performance Failures.

- (a) Potable Water quality performance shall be measured at the end of each Contract Year. The Parties acknowledge that it is important that any negative trends in Potable Water quality are identified prior to the end of a Contract Year. The Parties also agree that the Operator's Potable Water Quality Performance shall be measured on a cumulative monthly basis against Elgin's Potable Water Performance Criteria in Schedule "B-2" to this Amended Agreement.
- (b) If the Operator's Cumulative Monthly Results at the end of any month in a Contract Year exceed the monthly performance criteria a "Cumulative Monthly Potable Water Quality Performance Failure" shall be deemed to have occurred.
- (c) If Elgin is of the opinion that a Cumulative Monthly Potable Water Quality Performance Failure has occurred in a given month at the WTP, then Elgin shall give written notice to the Operator specifying the particulars of the Cumulative Monthly Potable Water Quality Performance Failure. If there have been two (2) or more Cumulative Monthly Potable Water Quality Performance Failures then Elgin may, in its discretion, deduct fifteen thousand dollars (\$15,000.00) from the Incentive Payment. If there have been three (3) consecutive Cumulative Monthly Potable Water Quality Performance Failures for any one parameter then it shall be considered an Event of Default.
- (d) The Managers shall meet to review each Cumulative Monthly Potable Water Quality Performance Failure identified by Elgin no later than seven days following delivery of the notice of the Cumulative Monthly Potable Water Quality Performance Failure. At the

meeting, the Operator shall recommend to Elgin the appropriate remedial steps it proposes to take and Elgin shall review the Operator's recommendations. Elgin shall notify the Operator as to whether Elgin accepts or rejects the Operator's recommendations and as to whether Elgin requires further recommendations from the Operator.

- (e) A failure by the Operator to provide the Operator's Cumulative Monthly Results to Elgin in the Monthly Operations and Maintenance Report pursuant to subsection 3.7(3)(b) will constitute a Cumulative Monthly Potable Water Quality Performance Failure.
- (f) If the Operator fails to correct the Cumulative Monthly Potable Water Quality Performance Failure within two months of Elgin's acceptance of the Operator's recommendations, such failure shall be considered an Event of Default, and Elgin may exercise its rights to terminate this Amended Agreement pursuant to Article 10 of this Amended Agreement.
- (g) Notwithstanding subsection 4.5(c) and 4.5(f) above, Elgin shall not be entitled to withhold payment of the Service Fee pursuant to subsection 4.5(c) or to terminate this Amended Agreement pursuant to subsection 4.5(f) if the Operator demonstrates, and Elgin determines that, the Cumulative Monthly Potable Water Quality Performance Failure has resulted from the occurrence of an Uncontrollable Circumstance or Elgin Fault in which case the Cumulative Monthly Potable Water Quality Performance Failure shall be deemed not to have occurred.
- (h) If the Operator does not agree with Elgin's determination as to whether an Cumulative Monthly Potable Water Quality Performance Failure has occurred, the cause of such Cumulative Monthly Potable Water Quality Performance Failure (including, without limitation, a determination that a Cumulative Monthly Potable Water Quality Performance Failure is caused by an Uncontrollable Circumstance) or the remedial steps to be taken to address the Cumulative Monthly Potable Water Quality Performance Failure, then either Elgin or the Operator may refer the matter in dispute to dispute resolution in accordance with Article 17.

4.6 Changes to Elgin's Potable Water Quality Performance Criteria.

- (a) During the Term of this Amended Agreement, Elgin may change any of the criteria identified in Elgin's Potable Water Quality Performance Criteria, or include parameters not previously identified in Elgin's Potable Water Quality Performance Criteria. In the event Elgin change a criterion in Elgin's Potable Water Quality Performance Criteria, the Operator or Elgin shall be entitled to require an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement to reflect any increase or decrease in the actual Operating and Maintenance Costs that the Operator, or Elgin with the assistance of the Operator, can demonstrate have occurred as a result of the change to Elgin's Potable Water Quality Performance Criteria.
- (b) Elgin and the Operator further acknowledge and agree that any changes made to Elgin's Potable Water Quality Performance Criteria may be either temporary or permanent.

4.7 Changes to Compliance Criteria.

During the Term of this Amended Agreement, Elgin may require changes to all or some of the

criteria identified in the Compliance Criteria, or to include parameters not previously identified in the Compliance Criteria, as a result of new or amended Municipal Drinking Water Licence, Applicable Laws, or new MOE policies or guidelines which may be applicable to the Facilities. In the event that Elgin changes the criteria in the Compliance Criteria, the Operator or Elgin shall be entitled to require an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement to reflect any increase or decrease in the actual Operating and Maintenance Costs that the Operator, or Elgin with the assistance of the Operator, can demonstrate have occurred as a result of the changes in the Compliance Criteria.

ARTICLE 5

PROTECTION OF ASSETS AND MAINTENANCE FACILITIES

GENERAL

5.1 Background.

- (a) The protection and maintenance of assets is of primary importance to Elgin. The Operator shall have full responsibility for the maintenance of the Facilities for the Term of this Amended Agreement, except as provided otherwise herein. The Operator shall be responsible for performing Routine Maintenance, Preventative Maintenance and Corrective Maintenance of the Facilities, all in a manner that is cost effective and in accordance with generally accepted principles and practices for water treatment in Ontario, the Municipal Drinking Water Licence and all Applicable Laws.
- (b) The Parties further acknowledge that, for the purpose of this Article, the Facilities shall be divided into two general categories of assets namely: (a) Civil, Structural and Site-Related Assets; and (b) Mechanical and Electrical Equipment. Each category of assets shall be subject to its own regimen of asset protection and Routine Maintenance.
- (c) The Operator shall provide all personnel, materials and services necessary to maintain the Facilities, structures, grounds, vehicles, equipment, mechanical, electrical, HVAC, instrumentation, communication, computer and SCADA system adequately to ensure efficiency, long-term reliability and conservation of capital investment. The Operator shall implement its maintenance in accordance with industry standards, equipment manufacturers' instructions together with existing operations and maintenance manuals so that upon the Termination Date the Facilities are returned to Elgin in the same or better condition than at the Start Date, normal wear and tear excepted. The Operator shall make provisions for enforcing existing equipment warranties and guarantees, and for maintaining all warranties on new equipment purchased after the Effective Date.
- (d) The Operator shall include specialized testing as part of their preventive and predictive maintenance program. The specialized testing shall include, but not be limited to, vibration testing and analysis, wear particle analysis or oil analysis, infrared thermography, ultrasonic testing, laser alignment systems, performance monitoring, non-destructive testing, image scoping systems, ultrasonic thickness gauges, structural failure detection, videography and air quality monitoring.

CIVIL, STRUCTURAL AND SITE-RELATED ASSETS

5.2 Condition Surveys.

(1) Initial Condition Survey.

- (a) The Operator shall within one (1) year of the Start Date together with Elgin drain selected reservoirs, tanks, and vessels that cannot normally be inspected at the Facilities and undertake a comprehensive survey of these structures and Elgin will identify any corrections or repairs required to correct major deficiencies within a time frame to be developed by Elgin. Elgin may choose, at its expense, to correct and repair the deficiencies and may undertake any of the correction or repairs within a time frame to be developed by Elgin. The Operator shall cooperate with Elgin in the scheduling and implementation of all such repairs, at Elgin's cost and there will be no adjustment to the Service Fee for any such accommodation.
- (b) The Operator was required in its Proposal to address, in detail, all deficiencies in the Facilities which the Operator identified from its site visits prior to submission of its Proposal, including any deficiencies in Civil and Structural Assets identified by the Operator. The Operator certified in its Proposal, that it had identified in its Proposal, all deficiencies which could reasonably have been identified, by an experienced Operator, within the time allotted for the aforementioned site visits.
- (c) Prior to the Start Date the Operator shall make such further inspections of the Facilities as it deems necessary to verify the deficiencies identified in its Proposal, and then shall prepare an Initial Condition Survey of the Civil and Structural Assets within six (6) months of the Start Date. The Operator shall be required by Elgin to certify that any and all deficiencies in the Civil and Structural Assets have been identified in the Initial Condition Survey.
- (d) Where there are, in the opinion of Elgin, significant or material discrepancies or differences between the deficiencies identified by the Operator in its Proposal, and the deficiencies identified in the Initial Condition Survey, such discrepancies or differences shall constitute an Event of Default, except where such discrepancies could not have been reasonably detected in site visits conducted prior to the submission of the Operator's Proposal.
- (e) Elgin shall review all deficiencies identified by the Operator pursuant to subsections 5.2(1)(a), 5.2(1)(b) and 5.2(1)(c) above, and will assess whether to correct or repair the deficiencies. Elgin may choose, at its expense, to correct and repair such deficiencies and may undertake any of the correction or repairs within a time frame to be developed by Elgin; provided, however, that Elgin shall, at its expense, within a reasonable time frame to be developed by Elgin, correct and repair the deficiencies to the extent necessary in order for (i) the Facilities to comply with Applicable Laws or (ii) the Civil, Structural and Site-Related Assets to which the deficiency relates to be in good working order. The Operator shall cooperate with Elgin in the scheduling and implementation of all such repairs, and there will be no adjustment to the Service Fee for any such accommodation unless such accommodation would materially adversely affect the Operator's ability to faithfully perform its obligations under this Amended Agreement.

- (f) Except for the deficiencies Elgin is required to correct or repair pursuant to subsection 5.2(1)(e), Elgin may decide not to correct or repair the deficiencies identified by the Operator pursuant to subsections 5.2(1)(a), 5.2(1)(b) and 5.2(1)(c), in which case the Operator will not be responsible for correcting or repairing these deficiencies prior to the end of this Amended Agreement.
- (2) Final Condition Survey.**
- (a) In the Contract Year preceding the Final Contract Year, Elgin and the Operator shall conduct an inspection of all Civil, Structural and Site-related Assets and prepare a “**Final Condition Survey**” of all Facilities. The sub-consultant engaged by the Operator in connection with the Final Condition Survey and the Final Condition Survey Report must be acceptable to Elgin, acting reasonably. The Operator shall submit the Final Condition Survey Report to Elgin at least six (6) months before expiry of this Amended Agreement, or if the Term of this Amended Agreement is extended, then six (6) months prior to the expiry of the Term as amended.
- (b) The Operator shall, at no cost to Elgin, drain all tanks, chambers or vessels that cannot normally be inspected at the Facilities and any of the Pumping Stations at least nine (9) months prior to expiry of this Amended Agreement to conduct an inspection of the aforementioned structures.
- (c) Based on the results of the Final Condition Survey, Elgin shall prepare a list of deficiencies identified in the Final Condition Survey and submit it to the Operator.
- (d) Based on the list of deficiencies prepared by Elgin, the Operator shall prepare a plan for remediation to correct the deficiencies and submit the plan to Elgin no later than six (6) months before the expiry of this Amended Agreement.
- (e) The Operator shall correct or repair all the deficiencies identified in the Final Condition Survey no later than three (3) months prior to the expiration of this Amended Agreement; provided, however, that the Operator shall have no obligation to correct or repair any deficiency which (i) is not material, (ii) results from normal wear and tear and provided the Operator has complied with its obligations pursuant to this Amended Agreement to repair and maintain the Facilities, (iii) results from Uncontrollable Circumstances or (iv) was identified in the Proposal or the Initial Condition Survey and not corrected or repaired by Elgin.
- (f) If the Operator has not corrected or repaired the above deficiencies within the three (3) months described in subsection 5.2(2)(e) above, Elgin may, at its discretion, withhold the estimated cost of correcting or repairing the deficiencies plus management fees, plus five per cent (5%), as determined by Elgin, from any of the last three monthly payments of the Service Fee until the Operator has performed the corrections or repairs to the satisfaction of Elgin.
- (g) The Operator shall have the right to contest Elgin’s determination or identification of any deficiencies hereunder, and the requirement to repair same, by submitting the matter to dispute resolution pursuant to Article 17.

- (h) Under no circumstances shall the Operator be responsible for deficiencies caused by an Uncontrollable Circumstance or Elgin Fault or deficiencies identified under Section 5.2 and not corrected or repaired by Elgin.

5.3 Routine Maintenance of Civil, Structural and Site-Related Assets.

(1) Civil Maintenance Program.

- (a) The Operator shall prepare and submit for approval within three (3) months from the Start Date, the Operator's maintenance management program describing, in general terms, all Preventative and Corrective Maintenance which is required for the Civil, Structural and Site-Related Assets (the "**Civil Maintenance Program**").
- (b) Elgin shall pay for the amount in excess of thirty thousand dollars (\$30,000.00) for an Incident of Repairs and Replacement or Corrective Maintenance where the cost of materials and contract labour is in excess of thirty thousand dollars (\$30,000.00) where such Repairs and Replacement or Corrective Maintenance:
 - (i) are caused by events outside the control of Operator;
 - (ii) are not as result of Operator's negligence or failure to perform the Corrective Maintenance and Preventative Maintenance pursuant to the Civil Maintenance Program and the Civil Maintenance Specifications; and
 - (iii) the costs for the Repairs and Replacement or Corrective Maintenance have, in the opinion of Elgin, been reasonably incurred by the Operator.
- (c) For the purpose of this Section 5.3, an Incident of Repairs and Replacement or Corrective Maintenance shall mean:
 - (i) a random failure of a single item of Civil, Structural and Site-Related Assets or a part thereof, that causes an adverse impact either immediately, or in the long term, upon the integrity of the functionality of that item or part thereof, and shall include the repair of the transmission pipeline where one or, where two pipes are adjacent to each other within the same excavation, two pipes are replaced due to the detected degradation of reinforcing wires within the concrete pressure pipe; or
 - (ii) a failure of single, or multiple, items of Civil, Structural and Site-Related Assets, the failure of which can be shown to be caused by a specific event which is outside the control of the Operator, including an Uncontrollable Circumstance or Elgin Fault, and is outside the normal operating conditions for the particular item or items of Civil, Structural and Site-Related Assets.
- (d) The Operator shall be required to obtain three written competitive bids for any failures or deficiencies where the value of the materials is estimated to be thirty thousand dollars (\$30,000.00) or over and submit the bids to Elgin for approval, except where an emergency situation occurs.

- (e) In the case of an emergency situation and where reasonably possible, the Operator shall provide Elgin with an estimate of the cost of the Repairs and Replacement or Corrective Maintenance required to correct the emergency situation and shall obtain the written consent of Elgin before implementing the Repairs and Replacement or Corrective Maintenance.
- (f) The Operator shall not undertake Repairs and Replacement or Corrective Maintenance where the value of the materials for an Incident of Repairs and Replacement or Corrective Maintenance is estimated to exceed thirty thousand dollars (\$30,000.00) in total cost without the prior written consent of Elgin.
- (g) Where the Operator disagrees with or disputes Elgin's determination of an Incident of Repairs and Replacement or Corrective Maintenance or whether the Operator's expenditures for an Incident of Repairs and Replacement or Corrective Maintenance have been reasonably incurred, then the Operator may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.
- (h) The amount of thirty thousand dollars (\$30,000.00) specified in this Section 5.3 shall be adjusted as of January 1st of each Contract Year by the Consumer Price Index.
- (i) The Operator shall not apply a mark-up or administrative charge, and Elgin shall not be required to pay a mark-up or administrative charge, to that portion of the cost of materials and contract labour in excess of thirty thousand dollars (\$30,000.00) where the cost of materials and contract labour for an Incident of Repairs and Replacement or Corrective Maintenance exceeds thirty thousand dollars (\$30,000.00), and where Elgin is required to pay for a portion of the Incident of Repairs and Replacement or Corrective Maintenance in accordance with Subsection 5.3(1)(b).
- (j) Effective as of January 1, 2023, the amount of thirty thousand dollars (\$30,000.00) specified in this Section 5.3 which has been adjusted pursuant to subsection 5.3(1)(h) of this Agreement shall become thirty thousand dollars (\$30,000.00) and such amount shall thereafter be adjusted as of January 1st of each Contract Year by the Consumer Price Index.

MECHANICAL AND ELECTRICAL EQUIPMENT

5.4 Inspections and Surveys.

(1) Inventory and Baseline Survey.

- (a) Elgin's Request for Proposals, required the Operator in its Proposal to address, in detail, all deficiencies in the Facilities which the Operator identified from its site visits prior to submission of its Proposal, including any deficiencies in Mechanical and Electrical Equipment. The Operator certified in its Proposal, that it had identified in its Proposal, all deficiencies which could reasonably have been identified, by an experienced Operator, within the time allotted for the aforementioned site visits.
- (b) Elgin shall make available to the Operator, Equipment Operating and Maintenance Manuals, as well as drawings, calculations, maintenance manuals, operational records,

logs, reports, submittals, test records, repair records, cost records, energy consumption records, specifications which may be in Elgin's possession related to the design, condition or operation of the Facilities. The Operator shall take no action which would invalidate or void such Documents.

- (c) Within six (6) months of the Start Date, the Operator shall undertake and complete a comprehensive inspection survey and inventory of all mechanical and electrical equipment (the "**Inventory and Baseline Survey**") to verify and supplement Elgin's information.
 - (d) The Inventory and Baseline Survey shall include, but not be limited to, the following:
 - (i) Collect all necessary information to support the implementation and maintenance of a Computerized Maintenance Management System.
 - (ii) Set up a bar coding system that will form a numbering system for the CMMS.
 - (iii) Carry out a condition survey of all major equipment and list the deficiencies associated with all Mechanical and Electrical Equipment. The Operator shall conduct the specialized testing listed in subsection 5.1(d) as part of the Inventory and Baseline Survey.
 - (e) The lack of or poor quality of any background information or documentation for the Mechanical and Electrical Equipment shall not prevent the Operator from completing the Inventory and Baseline Survey.
 - (f) The Operator shall submit the Inventory and Baseline Survey prepared by the Operator to Elgin for review within six (6) months of the Start Date.
 - (g) Elgin shall pay the Operator \$120,948.00 for the preparation of the Inventory and Baseline Survey upon the acceptance by Elgin, such payment being outside of the Service Fee described in Article 8 of this Amended Agreement. The fee includes the price as set out in the Proposal adjusted to include the costs associated with dechlorination/chlorination/confined space entry, rescue teams and bacteriological testing.
 - (h) Where there are, in the opinion of Elgin, significant or material discrepancies or differences between the deficiencies identified by the Operator in its Proposal, and the deficiencies identified in the Inventory and Baseline Survey, and where such deficiencies were not detectable on site visits conducted prior to submission of the Proposal by a reasonably experienced operator purporting to have special expertise in the operation of the Facilities Elgin may withhold all or part of the amount payable by Elgin pursuant to subsection 5.4(1)(g) above.
- (2) Deficiencies Identified from Inventory and Baseline Survey.**
- (a) Elgin shall review the mechanical, and electrical deficiencies listed in the Inventory and Baseline Survey and shall establish whether any of the Mechanical and Electrical Equipment should be repaired, replaced or upgraded.

- (b) Elgin may decide to address any or all of the deficiencies identified at its expense. Elgin makes no representations or warranties that the upgrades, repairs or replacement to the Mechanical and Electrical Equipment will be undertaken; provided, however, that Elgin shall, at its expense, within a reasonable time frame to be developed by Elgin repair, replace or upgrade the deficiencies to the extent necessary in order for (i) the Facilities to comply with Applicable Laws or (ii) the Mechanical and Electrical Equipment to which the deficiency relates to be in good working order.
- (c) If Elgin decides not to correct or repair a deficiency identified in the Inventory and Baseline Survey, and the piece of Mechanical or Electrical Equipment which was identified as deficient fails within the first year, it shall be repaired or replaced by Elgin at no cost to the Operator.

(3) Annual Review of Mechanical and Electrical Equipment.

The Operator shall conduct an annual review of the Mechanical and Electrical Equipment, using the Inventory and Baseline Survey as a guide, by April 30 of each Contract Year. The Operator shall report on the results of this review as part of the Annual Asset Report pursuant to subsection 3.7(7) of this Amended Agreement.

(4) Final Inventory and Survey.

- (a) Nine (9) months prior to expiry of this Amended Agreement Elgin and the Operator shall conduct an inspection of all Mechanical and Electrical Equipment and the Operator shall prepare a Final Inventory and Survey of all the mechanical and electrical equipment. The Operator shall conduct the specialized testing listed in subsection 5.1(d) as part of the Final Inventory and Survey with such specialized testing to be sufficient to permit comparison to the Inventory and Baseline Survey for the purposes of this subsection 5.4(4).
- (b) The Operator shall prepare a plan for remediation to correct the deficiencies identified in the Final Inventory and Survey and shall submit the plan to Elgin no later than six (6) months prior to the expiration of the Term of this Amended Agreement.
- (c) The Operator shall at its sole cost correct or repair all deficiencies identified in the Final Inventory and Survey no later than three (3) months prior to the expiration of this Amended Agreement; provided, however, that the Operator shall have no obligation to correct or repair any deficiency which (i) is not material, (ii) results from normal wear and tear and provided that the Operator had complied with its obligations pursuant to this Amended Agreement to repair and maintain the mechanical and electrical equipment, (iii) results from Uncontrollable Circumstances or (iv) was identified in the Proposal or the Inventory and Baseline Survey and not corrected or repaired by Elgin.
- (d) If the Operator has not corrected or repaired the above deficiencies for which it is responsible under subsection 5.5(a)(c) within the three (3) month period stipulated above for correcting such deficiencies, Elgin reserves the right to withhold the estimated cost of correcting or repairing the deficiencies plus management fees plus five per cent (5%) from the Operator's Service Fee for the remainder of the Term until the Operator has performed the corrections or repairs to the satisfaction of Elgin.

- (e) The Operator shall have the right to contest Elgin's determination or identification of any deficiencies hereunder, and the requirement to repair same, by submitting the matter to dispute resolution pursuant to Article 17.
- (f) Under no circumstances shall the Operator be responsible for deficiencies caused by an Uncontrollable Circumstance or Elgin Fault.
- (g) Elgin shall pay the Operator three hundred thousand dollars (\$150,000) for the preparation of the Final Inventory and Survey upon the acceptance by Elgin, such payment being outside of the Service Fee described in Article 8 of this Amended Agreement. The fee includes the price as set out in the Proposal adjusted to include the costs associated with dechlorination/chlorination/confined space entry, rescue teams and bacteriological testing.

5.5 Routine Maintenance of Mechanical and Electrical Equipment.

- (a) Based upon the equipment's' intended use and manufacturer's performance specifications together with any available background information including operating and maintenance manuals and specifications and the Inventory and Baseline Survey referred to in subsection 5.4(1), the Operator shall update the Preventative Maintenance program for the Mechanical and Electrical Equipment (the "**Equipment PM Program**") and submit it to Elgin for review and approval within three (3) months of the Start Date.
- (b) The lack or poor quality of available background information for the Mechanical and Electrical Equipment shall not prevent the Operator from completing the Equipment PM Program or from performing any Preventative Maintenance as required pursuant to the provisions of this Amended Agreement.
- (c) Throughout the Term of this Amended Agreement, the Operator shall perform all Preventative Maintenance on the Mechanical and Electrical Equipment in accordance with the Equipment PM Program.
- (d) Throughout the Term of this Amended Agreement, the Operator may request changes to the Equipment PM Program. Elgin shall review the Operator's requests and determine, in its discretion, whether such changes should be made. The Operator shall also update the Equipment PM Program periodically in accordance with a protocol to be agreed upon by Elgin.
- (e) The Operator shall ensure that the backlog for all Preventative Maintenance does not exceed two months for the first six (6) months after the Start Date and one (1) month for the balance of the Term of this Amended Agreement.
- (f) Unless the Operator is able to demonstrate to Elgin that it has been unable to access the necessary parts, having made all reasonable best efforts to access such parts, where the backlog for Preventative Maintenance exceeds the values in subsection 5.5(e), Elgin may, in its sole discretion, withhold two hundred thousand dollars (\$200,000.00) of the monthly payment of the Service Fee. The payment shall be withheld for the month in which the performance was below the required level and shall only be paid to the Operator when the

required performance standard has been achieved in any two (2) successive months, following the month in which payment was withheld.

5.6 Repairs and Replacement of Mechanical and Electrical Equipment.

- (a) The Operator shall perform all Repairs and Replacement to the Mechanical and Electrical Equipment, including in the event of an emergency situation, in order to maintain the equipment in good working order.
- (b) The Operator shall be responsible for the first thirty thousand dollars (\$30,000.00) of material or Mechanical or Electrical Equipment costs and contract labour costs, excluding Operator labour costs or Operator equipment costs, related to each Incident of Repairs and Replacement to the Mechanical and Electrical Equipment.
- (c) For the purpose of this Amended Agreement, an Incident of Repairs and Replacement shall mean:
 - (i) a random failure of a single item of Mechanical and Electrical Equipment. Such item will be any piece of Mechanical and Electrical Equipment which is manufactured and sold as a self-contained functional unit. Items would include, but not be limited to, a pump, a motor, a valve, an actuator, or a measurement probe; or
 - (ii) a failure of single, or multiple, items Mechanical and Electrical Equipment, the failure of which can be shown to be caused by a specific event which is outside the control of the Operator, including an Uncontrollable Circumstance or Elgin Fault, and is outside the normal operating conditions for the particular item or items of Mechanical and Electrical Equipment.
- (d) Elgin shall pay that portion in excess of thirty thousand dollars (\$30,000.00) of each Incident of Repairs and Replacement where material, contract labour or Mechanical or Electrical Equipment costs and contract labour costs exceed thirty thousand dollars (\$30,000.00) providing the following conditions are met:
 - (i) the Operator has performed all Preventative Maintenance as recommended by the equipment suppliers, the Facilities designer, and approved by Elgin as part of the Equipment PM Program and all Monthly Operations and Maintenance Reports have been produced by the Operator pursuant to subsection 3.7(4) of this Amended Agreement;
 - (ii) the Mechanical and Electrical Equipment has been operated within the manufacturer's limitations;
 - (iii) the claim by the Operator for material or equipment cost is in excess of thirty thousand dollars (\$30,000.00) for an occurrence on a single unit of Mechanical and Electrical Equipment;

- (iv) the Incident of Repairs and Replacement is clearly documented, outlining the work required, the parts to be purchased, the sub-contracted services necessary, proposed sub-contractor, the reason for occurrence, and cost;
 - (v) the costs of the Repairs and Replacement have, in the opinion of Elgin, been reasonably incurred; and
 - (vi) the Operator shall pay the first thirty thousand dollars (\$30,000.00) of material or equipment costs of each Incident of Repairs and Replacement.
- (e) Elgin may elect to have the Operator perform the work on terms to be agreed upon by the Parties or have an outside contractor perform the work or competitively bid the work.
 - (f) If the Operator fails to meet any of the conditions described in subsection 5.6(d) above, the Operator shall pay for that portion of the cost of the Incident of Repairs and Replacement in excess of \$30,000 which resulted from the failure of the Operator meet any of such conditions.
 - (g) Elgin shall not pay for any Incident of Repairs and Replacements in excess of thirty thousand dollars (\$30,000.00) where the Operator has failed to maintain and provide adequate Quarterly Contract Reports pursuant to subsection 3.7(5) of this Amended Agreement to the extent that the Operator's failure to so maintain and provide adequate Quarterly Contract Reports caused the cost of any Incident of Repairs and Replacements to exceed thirty thousand dollars (\$30,000.00).
 - (h) Where the Operator disagrees with or disputes Elgin's determination of an Incident of Repairs and Replacement, or whether the Operator's expenditures for an Incident of Repairs and Replacement have been reasonably incurred, then the Operator may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.
 - (i) The amount of thirty thousand dollars (\$30,000.00) specified in this section shall be adjusted as of January 1st of each Contract Year by the Consumer Price Index.
 - (j) The Operator shall not apply a mark-up or administrative charge, and Elgin shall not be required to pay a mark-up or administrative charge, to that portion of the cost of materials and contract labour in excess of thirty thousand dollars (\$30,000.00) where the cost of materials and contract labour for an Incident of Repairs and Replacement exceeds thirty thousand dollars (\$30,000.00), and where Elgin is required to pay for a portion of the Incident of Repairs and Replacement in accordance with Subsection 5.6(d) of this Agreement.
 - (k) Effective as of January 1, 2023, the amount of thirty thousand dollars (\$30,000.00) specified in this Section 5.3 which has been adjusted pursuant to subsection 5.3(1)(h) of this Agreement shall become thirty thousand dollars (\$30,000.00) and such amount shall thereafter be adjusted as of January 1st of each Contract Year by the Consumer Price Index.

5.7 Elgin's Equipment Replacements.

- (a) Throughout the Term of this Amended Agreement, Elgin at its expense may replace existing Mechanical and Electrical Equipment to enhance the operation of the Facilities or to upgrade outdated Mechanical and Electrical Equipment ("**Elgin's Equipment Replacements**").
- (b) The Operator shall accommodate Elgin and any of its contractors to allow for the implementation of Elgin's Equipment Replacements and shall not claim any Adjustment to the Service Fee as a result of reasonable disruption to the operation of the Facilities from Elgin's Equipment Replacements, unless such disruption materially adversely affects the Operator's ability to perform its obligations under this Amended Agreement. Elgin shall use Best Efforts to minimize any such disruption.
- (c) Where Elgin's Equipment Replacement is undertaken by the Operator at the request of Elgin, the Operator shall be entitled to apply a markup of 15% on the first ten thousand dollars (\$10,000.00) of the cost of materials and contract labour, 10% on the amounts between ten thousand dollars (\$10,000.00) and fifty thousand dollars (\$50,000.00) and 5% on the amount in excess of fifty thousand dollars (\$50,000.00) for materials and contract labour.

5.8 Further Testing by Elgin.

From time to time, Elgin may wish to undertake specialized testing including, but not limited to vibration, thermographic and electrical analysis, instrumentation maintenance and oil and grease sampling to confirm the level of Preventative Maintenance performed by the Operator. The Operator shall provide Elgin with access to the Mechanical and Electrical Equipment to undertake such activities. The Operator shall cover Elgin's specialized testing costs if it is determined that the Equipment has not been maintained as per the Equipment Manufacturers Specifications or that Routine Maintenance has not been performed to the satisfaction of Elgin, acting reasonably.

REPORTING, DOCUMENTATION AND QUALITY ASSURANCE

5.9 Computerized Maintenance Management System

- (a) The Operator will purchase licences as necessary for access to Elgin's Computerized Maintenance Management System ("**CMMS**") for the Operator's use in Elgin Area Water Supply System. The Operator shall implement and install the CMMS licence and software that will allow the Operator to schedule and record all Corrective, Predictive and Preventive Maintenance to the Civil, Structural and Site-Related Assets and the Mechanical and Electrical Equipment.
- (b) The Operator shall be responsible for all costs associated with using and maintaining the CMMS.
- (c) The Operator shall develop and implement a comprehensive bar coding system for all equipment to populate the CMMS. The Operator shall maintain and update the CMMS including data entry, troubleshooting, backup and all necessary software upgrades for the duration of this Amended Agreement.

- (d) Elgin shall have direct on-line access at all times to Elgin's CMMS maintained by the Operator for monitoring purposes only. Elgin shall be responsible for obtaining and maintaining any licences required for its access to Elgin's CMMS.
- (e) The Operator shall enter one hundred percent (100%) of all necessary data in the CMMS within three (3) months of the Start Date. All data in connection with the construction, installation, and/or implementation of new equipment must be entered within three (3) months of installation of the new equipment.
- (f) Elgin may, in its discretion, withhold twenty thousand dollars (\$20,000.00) of the monthly payment of the Service Fee if the Operator does not achieve the performance levels stated in subsection 5.9(e) above. Elgin shall withhold the payment for the month in which the performance was below the required level and the payment shall only be paid to the Operator in the month when the required performance standard has been achieved, following the month in which payment was withheld.
- (g) Elgin shall be permitted, at its own expense, to have complete and full access to the CMMS maintained by the Operator at a location or locations specified by Elgin's Manager.
- (h) The CMMS, including any database(s) and data referred to herein and all associated licences, copyrights and other intellectual property rights shall be the property of Elgin and shall remain with Elgin upon the termination or completion of this Amended Agreement. Upon termination of this Agreement, the Operator shall return to Elgin the data and any database(s) in its electronic format.

5.10 Asset Management Program.

- (a) The Operator shall validate and update the current information in its Asset Management Program, including the rolling Equipment Renewal Program, that will provide Elgin with the necessary information to meet its obligations with respect to PSAB 3150 requirements. This program must address specific work tasks for developing asset management practices, inventorying of assets and implementation of a fully integrated, secure and accessible information system.
- (b) The Operator shall, within forty-five (45) days, of the Start Date review and update Elgin's Asset Management Program. The Asset Management Program should include but not be limited to the following:
 - (i) Classification of the inventory for PSAB 3150 requirements. All assets must be classified into appropriate asset groups;
 - (ii) Assist with the strategy for collecting base inventory data;
 - (iii) Assist with the validation of the current inventory records. Review all of the assets and infrastructure records stored in various data bases and validate against the physical asset;

- (iv) Assist with the development and validation that the processes are in place and being followed to collect changes to the asset inventory including the purchase of new assets, changes to assets;
 - (v) Assist with the development of the processes for regular condition assessments that can easily be used to update the inventory system; and
 - (vi) Review the current use of the CMMS to assess its ability to support both PSAB 3150 reporting requirements and advanced asset management practices.
- (c) The Operator shall, as part of the Asset Management Program assist Elgin with the development of an Equipment Renewal Program. The Equipment Renewal Program shall detail the replacement program at the Facilities for such equipment and systems which are beyond their useful life, for the purpose of maintaining a high level of reliability, and availability of the Facilities during the Term.
- (d) The Equipment Renewal Program shall:
- (i) list major Assets including equipment and systems recommended to be replaced;
 - (ii) provide the schedule during the Term for replacement of those Assets;
 - (iii) the rationale for the replacement of those Assets, including priority and criticality of the replacement; and
 - (iv) the anticipated cost of replacement of those Assets.
- (e) The Operator shall update the Equipment Renewal Program on an annual basis and shall, prior to May 31 of each Contract Year following the First Contract Year, provide Elgin with an updated Equipment Renewal Program. At a minimum, the Operator shall update the information required to be included in the Equipment Renewal Program for the next five (5) years of the Equipment Renewal Program. The updated Equipment Renewal Program shall identify any changes to the anticipated cost of replacement of specified Assets, and shall include a rationale by the Operator for any changes from the Equipment Renewal Program provided to Elgin for the previous Contract Year.

5.11 Calibration of Flow Measurement.

The Operator shall conduct, at a minimum, annual testing and calibration of all flow measuring and sampling equipment required by the Municipal Drinking Water Licence using a qualified, independent firm and shall prepare a report outlining the status of all flow measuring and sampling equipment to be included in the Annual Operating Report. The Operator shall implement any remedial action required to ensure the proper calibration of this equipment.

5.12 Warranties.

Elgin and the Operator shall cooperate in enforcing all warranties and warranty rights with respect to the Civil, Structural and Site-Related Assets and all maintenance contracts with respect to the Mechanical and Electrical Equipment installed in the Facilities prior to the Start Date and during

the Term of this Amended Agreement and generally in all claims to be made against third parties.

ARTICLE 6

CAPITAL IMPROVEMENTS

6.1 General.

- (a) The Operator acknowledges that throughout the Term of this Amended Agreement, Elgin may install or implement Capital Improvements to the Facilities, whether they are part of Elgin's annual capital budget or not.
- (b) Elgin shall be responsible for financing all Capital Improvements unless the Parties agree that the costs of any Capital Improvement shall be paid in part or in their entirety by the Operator.
- (c) The Operator shall not rely in any way on Elgin's annual capital budgets and acknowledges that the identification of a Capital Improvement in Elgin's annual capital budgets in no way ensures that the Capital Improvement will be carried out by Elgin.
- (d) Where Capital Improvement is undertaken by the Operator at the request of Elgin, the Operator shall be entitled to apply a markup of 15% on the first ten thousand dollars (\$10,000.00) of the cost of materials and contract labour, 10% on the amounts between ten thousand dollars (\$10,000.00) and fifty thousand dollars (\$50,000.00) and 5% on the amount in excess of fifty thousand dollars (\$50,000.00) for materials and contract labour
- (e) Elgin shall be responsible for the installation and/or alteration of health and safety equipment, except for Personal Protective Equipment, as a result Capital Improvements.

6.2 Prohibition.

The Operator shall not make any structural changes, alterations or additions to the Facilities, save as expressly provided in this Amended Agreement, and no Capital Improvements shall be undertaken, implemented or removed by the Operator without the prior written consent of Elgin which consent shall be at the sole and absolute discretion of Elgin.

6.3 Ownership of Capital Improvements.

All Capital Improvements shall be and remain the property of Elgin.

6.4 Proposal for Capital Improvements.

- (a) The Operator and Elgin shall meet each year to review Elgin's annual capital budgets for the upcoming Contract Year and the remaining Term of this Amended Agreement. Elgin shall determine the timing of the meetings. One (1) month prior to the meeting(s) described herein the Operator shall submit suggestions to Elgin as to Capital Improvements which the Operator believes should be made in the upcoming Contract Year and in the remaining years of this Amended Agreement. Elgin, in its discretion, shall decide whether or not to accept the Operator's suggestions and shall develop a schedule for the implementation and installation of Capital Improvements for the upcoming Contract Year.

- (b) Elgin and the Operator shall meet at least quarterly to review the status of the Capital Improvements in progress at the Facilities, together with the schedule for implementing Capital Improvements which have been approved by Elgin.
- (c) The Operator acknowledges that Elgin may change any part of Elgin's annual capital budget for any given Contract Year and the Operator shall not rely on Elgin's annual capital budget being implemented as planned.

6.5 Impact of Capital Improvements.

(1) Capital Improvements by Elgin

- (a) The Operator acknowledges that during the Term of this Amended Agreement, Elgin may undertake and implement certain Capital Improvements to the Facilities. Elgin shall review the details of the Capital Improvements with the Operator periodically.
- (b) Elgin agrees to reimburse the Operator for any and all insurance costs (both one-time and ongoing) in excess of those incurred by the Operator as at the Start Date which are referable to any Capital Improvements or other alterations made to the Facilities by Elgin during the Term of this Amended Agreement. Such reimbursement may be made as an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement.
- (c) Elgin shall use its Best Efforts to ensure that minimal disruptions to the management and operation of the Facilities occurs as a result of any Capital Improvements by Elgin.
 - (i) The Operator shall provide Elgin, up to 250 hours of support time by maintenance staff, certified operators, team leads, and managers for every three (3) months of the Term to assist Elgin in the management and accommodation of the implementation of Capital Improvements made to the Facilities by Elgin during the Term of this Amended Agreement;
 - (ii) Time provided by the Operator to assist Elgin in the management and accommodation of the implementation of Capital Improvements made to the Facilities by Elgin that is coincidental with operational and maintenance activities concurrently being undertaken by the Operator will not be included in the time outlined under (i) above, and is considered to be part of the Service Fee paid to the Operator; and,
 - (iii) The Operator shall provide Elgin with a Project Integration Coordinator, satisfactory to Elgin, acting reasonably, to provide co-ordination, where required by Elgin, between major maintenance work undertaken by the Operator and Elgin; coordinate operational resources, where required by Elgin, in support of projects undertaken by Elgin; and coordinate from an operational perspective review of drawings, work plans, commissioning, start-up and deficiencies at a frequency determined by Elgin. The time provided by the Project Integration Coordinator to assist Elgin will not be included in the time outlined under subsection (i) above, and is considered to be part of the Service Fee paid to the Operator.

- (d) The Operator shall cooperate with Elgin to minimize the disruption during the construction of the Capital Improvements and shall prepare a clear statement of any impact to the actual Operating and Maintenance Costs that result from the construction or implementation of the Capital Improvements themselves, including any costs associated with disruption during the construction period. The changes in costs shall be reviewed with Elgin and any payments shall be made as an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement.
- (e) Subsequent to the installation and completion of any Capital Improvements by Elgin, the Operator or Elgin shall be entitled to make a claim for an Adjustment to the Service Fee for any decrease or increase in Operating and Maintenance Costs arising from or in connection with the operation or maintenance of any Capital Improvements made by Elgin during the Term of this Amended Agreement, including (without limitation) any decrease or increase in the number of Incidents of Repairs or Replacement, or Corrective Maintenance, any decrease or increase in the cost of Routine Maintenance, any decrease or increase in the number or the cost of employees or subcontractors of the Operator and any decrease or increase in the usage of electricity, Spare Parts, chemicals, fuel or other Consumables by the Facilities.

(2) Capital Improvements by Operator

- (a) Pursuant to subsection 6.1(b) the Parties may agree that the cost of any Capital Improvements identified in accordance with subsection 6.4(a), and for which the prior written consent of Elgin has been obtained, shall be paid in part or in their entirety by the Operator.
- (b) Elgin agrees to reimburse the Operator for any and all insurance costs (both one-time and ongoing) in excess of those incurred by the Operator as at the Start Date which are referable to any Capital Improvements or other alterations made to the Facilities by the Operator during the Term of this Amended Agreement. Such reimbursement shall be made as an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement.
- (c) Elgin shall provide continued assistance in the management and accommodation of the implementation of any Capital Improvements made to the Facilities by the Operator. The Operator shall use its Best Efforts to ensure that minimal disruptions to the management and operation of the Facilities occurs as a result of any Capital Improvements by the Operator.
- (d) The Operator shall minimize the disruption during the construction of the Capital Improvements by the Operator and shall prepare a clear statement of any impact to the actual Operating and Maintenance Costs that result from the construction or implementation of the Capital Improvements themselves, including any costs associated with disruption during the construction period. The changes in costs shall be reviewed with Elgin and any payments shall be made as an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement.
- (e) Subsequent to the installation and completion of any Capital Improvements by the Operator, the Operator or Elgin shall be entitled to make a claim for an Adjustment to the

Service Fee for any decrease or increase in Operating and Maintenance Costs arising from or in connection with the operation or maintenance of any Capital Improvements made by the Operator during the Term of this Amended Agreement, including (without limitation) any decrease or increase in the number of Incidents of Repairs or Replacement, or Corrective Maintenance, any decrease or increase in the cost of Routine Maintenance, any decrease or increase in the number or the cost of employees or subcontractors of the Operator and any decrease or increase in the usage of electricity, Spare Parts, chemicals, fuel or other Consumables by the Facilities.

- (f) The obligations of Elgin to pay for any of the costs of any Capital Improvements as identified in this subsection are only incurred by Elgin where Elgin has given the Operator prior written consent for the Capital Improvement.

6.6 Construction Liens.

If any construction liens are registered against the Facilities as a result of work done or materials supplied to the Facilities at the request of the Operator, then the Operator agrees to obtain and register a discharge of such lien within ten days thereafter and if the Operator fails to do so, Elgin may pay into court, in the name of the Operator, the amount required to obtain such a discharge and the amount so paid by Elgin together with all disbursements and costs of such proceedings on a full indemnity basis shall be deducted by Elgin from the next monthly payment of the Service Fee payable by Elgin.

ARTICLE 7 EFFICIENCY SAVINGS AND INCENTIVE PROGRAMS

7.1 Efficiency Savings.

- (a) The Proposal will identify Process or Operational Changes or Capital Improvements that may result in efficiency improvements or cost savings in the management, operation, and maintenance of the Facilities (hereinafter known as an “**Efficiency Improvement**”). The Proposal will identify cost savings to Elgin attributable to Efficiency Improvements, which cost savings will be shown in the Service Fee. This Article 7 applies only to those Efficiency Improvements identified after the Start Date.
- (b) The Operator shall actively pursue improvements in the effectiveness and efficiency of the Facilities and is encouraged to approach Elgin with recommendations for any Efficiency Improvements.
- (c) For any Efficiency Improvement not involving a Capital Improvement, implemented by the Operator at the Facilities at the Operator’s cost, or optimization of prices and services including energy costs by the Operator, the Operator and Elgin agree that the Operator shall be entitled to any cost savings as a result of such Process or Operational Change, or optimization of prices and services, and the Operator shall receive one hundred percent (100%) of the decrease in the Service Fee attributable to that Process or Operational Change, or optimization, except where Elgin has contributed to the Efficiency Improvement or optimization, in which case the Operator and Elgin shall share in any cost savings and Elgin shall receive a reduction to a maximum of fifty percent (50%) of the decrease in the Service Fee attributable to that Efficiency Improvement or optimization of

prices and services. The percentage of the decrease in the Service Fee resulting from such Elgin contributions shall be determined by agreement between the Parties and shall be based upon the percentage contribution of Elgin to the Efficiency Improvement or optimization. Failing agreement between the parties, the determination of the appropriate decrease in Service Fee may be referred to dispute resolution pursuant to Article 17 by either Party.

- (d) Where, as a result of any Capital Improvement by Elgin, there is a decrease in Operating and Maintenance Costs, the amount of the decrease shall be applied as follows:
 - (i) the Service Fee payable by Elgin shall be reduced by the entire amount of the decrease in Operating and Maintenance Costs until such time as Elgin has recovered one hundred percent (100%) of the cost to Elgin of the Capital Improvement plus interest at the Prime Rate; and
 - (ii) following recovery by Elgin of the cost of the Capital Improvement, Elgin and the Operator shall thereafter, in equal shares, share the decrease in Operating and Maintenance Costs such that the Service Fee payable by Elgin shall only be reduced by fifty percent (50%) of the aforesaid decrease in Operating and Maintenance Costs.

- (e) Where, as a result of any capital Improvement by the Operator, there is a decrease in Operating and Maintenance Costs, the amount of the decrease shall be applied as follows:
 - (i) the Service Fee payable by Elgin shall be increased by the cost of the Capital Improvement by the Operator annualized over the remainder of the Term minus the decrease in Operating and Maintenance Costs until such time as the Operator has recovered one hundred percent (100%) of the cost to the Operator of the Capital Improvement plus interest at the Prime Rate; and
 - (ii) following recovery by the Operator of the cost of the Capital Improvement, Elgin and the Operator shall thereafter, in equal shares, share the decrease in Operating and Maintenance Costs such that the Service Fee payable by Elgin shall only be reduced by fifty percent (50%) of the aforesaid decrease in Operating and Maintenance Costs.

- (f) The Operator shall accommodate and support optimization and efficiency programs implemented by Elgin, including but not limited to:
 - (i) Accommodating or undertaking reasonable sampling;
 - (ii) Accommodating reasonable access and utilization of the laboratory space by Elgin staff;
 - (iii) Provide limited training and support of Elgin staff in the use of equipment at the Facilities;
 - (iv) Operating the Facilities in support of optimization and efficiency initiatives and related studies; and

- (v) Assisting in the review of work plans, procedures and study results and investigations undertaken by Elgin.

7.2 Incentive Payments.

- (a) At the end of each Contract Year commencing the second Contract Year, the Operator shall be entitled to an Incentive Payment of One Hundred Thousand Dollars (\$100,000.00), subject to any deductions as set out in this Amended Agreement.
- (b) In addition to the Incentive Payment provided for by subsection 7.2(a) above, at the end of each Contract Year commencing the second Contract Year, the Operator shall be entitled to a employee retention incentive payment of thirty thousand dollars (\$30,000.00) provided that the Operator can demonstrate to the Elgin, acting reasonably, that all staff positions at the Facilities have been filled over that Contract Year, and the Operator has had a staff turnover, except in the case of retirement and statutory leave of absence such as in the case of maternity/paternity leave or short/long term disability, at the Facilities of no more than two (2) persons during that Contract Year.
- (c) The following positions are excluded from consideration for the purposes of determining the entitlement of the employee retention Incentive Payment:
 - (i) Administrative assistants and similar clerical staff;
 - (ii) Electricians;
 - (iii) Mechanics and millwrights; and
 - (iv) Instrumentation Technicians.

ARTICLE 8 COMPENSATION PAYABLE TO THE OPERATOR

8.1 Service Fee.

- (a) Effective the Start Date, Elgin shall pay the Service Fee to the Operator for the services provided by the Operator under this Amended Agreement to Elgin. The Service Fee to be paid by Elgin shall be for the services provided by the Operator under this Amended Agreement only to Elgin. The Service Fee shall be calculated as follows:

Service Fee for the Contract year = the Operations Fee +
Adjustments to the Service Fee

- (b) The Operator acknowledges that the Service Fee is inclusive of all Operating and Maintenance Costs for the Facilities and for all services to be supplied by the Operator pursuant to the terms and conditions of this Amended Agreement.
- (c) The Parties agree that the Operations Fee for each Contract Year of the Term and cost for the Initial and Final Condition Survey are as set out in Schedule "E-2".

8.2 Volume of Potable Water.

- (a) The Parties agree that Elgin shall only pay a Service Fee and Adjustments to the Service Fee as described herein for the volume of Potable Water supplied to Elgin. Elgin shall not be responsible for payment of the Service Fee for the Potable Water supplied to the Elgin Area Primary Water Supply System.
- (b) The Operator is prohibited from supplying the Elgin Area Primary Water Supply System from the Lake Huron Primary Water System, and is prohibited from supplying the Lake Huron Primary Water System from the Elgin Area Primary Water Supply System without express written authorization from each of Elgin and the Lake Huron Primary Water Supply System to such supply. The Operator agrees that the Elgin Area Primary Water Supply System will continue to be supplied by the Elgin WTP and that the Lake Huron Primary Water System will continue to be supplied from the Lake Huron WTP, unless express written authorization is received from each of Elgin and the Lake Huron Area Primary Water Supply Systems.
- (c) The Operator agrees that neither the Elgin Area Primary Water Supply System or the Lake Huron Primary Water System will be used to supply Potable Water to any person, corporation, municipality or other entity without express written authorization from the owner of the water supply system from which the provision of such supply is sought.

8.3 Electricity Cost.

- (a) Elgin is solely responsible for the payment of the Electricity Cost.
- (b) For greater certainty, the Operator must participate in Elgin's energy efficiency and pump optimization strategy.

8.4 Adjustments to the Service Fee.

(1) General.

- (a) The Parties acknowledge that the purpose of an "**Adjustment to the Service Fee**" is to reflect a material change to the actual Operating and Maintenance Costs.
- (b) The Parties agree that it is their intention that an Adjustment to the Service Fee shall be limited to a review of only those costs and expenses which have been affected, either negatively or positively, by the occurrence of only the events, or any one of them described below and in order to account for the impact of such event, and should not be considered an opportunity to review all items included or excluded from the Service Fee.

(2) Adjustments to the Service Fee.

- (a) Either Elgin or the Operator may require an Adjustment to the Service Fee if either Party can demonstrate that there has been an increase or decrease in the actual Operating and Maintenance Costs that has occurred as a result of only the following events:
 - (i) an Uncontrollable Circumstance, or Elgin Fault;

- (ii) Process or Operational Changes which have been approved by Elgin pursuant to this Amended Agreement;
 - (iii) Capital Improvements made or not made to the Facilities;
 - (iv) a Change of Laws;
 - (v) a request by Elgin for additional types of insurance or higher policy limits made pursuant to subsection 14.1(2)(d); and,
 - (vi) a change in the location of the waste disposal site for the Facility's dewatered solids, resulting in changes to the haulage and disposal costs incurred by the Operator, including but not limited to tipping fees, sampling and testing fees and other disposal costs.
- (b) All Adjustments to the Service Fee from the occurrence of any of the events described in subsection 8.4(2)(a) above shall be reviewed on a quarterly basis.
- (c) Any Adjustments to the Service Fee shall be equal to the actual change to the Operating and Maintenance Costs as a result of any of the events described in subsection 8.4(2)(a) above.
- (3) Adjustment to the Service Fee as a Result of Fluctuations in Demand.**
- (a) The Parties acknowledge that Raw Water Quality may vary from time to time. The Parties agree there shall be no Adjustments to the Service Fee for any change in Raw Water quality or quantity, materially consistent with historical variations.
- (b) The Parties recognize that the Water Supply System Potable Water demand may vary from time to time. The Operator acknowledges and agrees that it has been supplied by the Board with the projected Potable Water demand trend for the Term of this Amended Agreement. The Parties agree that there shall be no Adjustment to the Service Fee, if during any Contract Year, the actual Potable Water demand is no greater than one hundred and five percent (105%) of the projected Potable Water demand for that year and no less than ninety-five percent (95%) of the projected Potable Water demand for that year.
- (c) The Parties agree that there shall be an Adjustment to the Service Fee if in any Contract Year, the actual Potable Water demand is greater than one hundred and five percent (105%) of the projected Potable Water demand for that year and less than ninety-five percent (95%) of the Potable Water demand for that year. Any Adjustments to the Service Fee provided for in this subsection shall be applicable to the Contract Year in which the increase or decrease in the actual demand occurs and for such period of time that the actual demand exceeds the limits set out in subsection 8.4(3)(b) above. Any Adjustment to the Service Fee provided for in this subsection shall be equal to the actual change to the Operating and Maintenance Costs as a result of any of the events described in this subsection. Any Adjustment to the Service Fee provided for in this subsection shall be equal to the actual change to the Operating and Maintenance Costs as a result of any of

the events described in this subsection. Any Adjustment to the Service Fee provided for in this subsection shall be limited to:

- (ii) an adjustment up to the equivalent cost associated with ninety five percent (95%) of the demand, in the case where actual demand is less than ninety five percent (95%); or,
- (iii) down to the equivalent cost associated with one hundred and five percent (105%) of the demand, in the case where actual demand is greater than one hundred and five percent (105%).

The Parties agree that the adjustment provided for in this subsection shall not be adjusted to one hundred percent (100%) of the Potable Water demand.

- (d) Any Adjustments to the Service Fee made in accordance with this subsection once approved by Elgin shall be paid within two months from the end of the Contract Year in which the change occurred and, thereafter shall be paid for the period of time such change continues, with regular instalments of the Service Fee as provided in Section 8.9.

(4) Procedure for Adjustments.

- (a) If a Party requests an Adjustment to the Service Fee, the onus shall be on that Party to provide supporting evidence of its claim for an Adjustment to the Service Fee. The Party will be required to demonstrate that:
 - (b) There has been an occurrence of one of the events described in subsection 8.4(2) above has occurred;
 - (i) There has been a change to the actual Operating and Maintenance Costs; and
 - (ii) The change to the actual Operating and Maintenance Costs is directly related to one of the circumstances described in subsection 8.4(2) above.
 - (iii) The Operator shall cooperate with Elgin in providing Elgin with information on the Operating and Maintenance Costs which Elgin determines that it requires to support the Operator's claim for an Adjustment to the Service Fee.
- (c) The Adjustment to the Service Fee shall be made retroactive to the date on which the impact on the Operating and Maintenance Costs of such event was first documented by the Operator. If, at any time, Elgin and the Operator cannot agree on the appropriate Adjustment to the Service Fee, then either Party may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.

8.5 Business Plan.

(1) General.

- (a) The Operator submitted a separate Business Plan, Operations and Maintenance Plan, Transition Arrangement Plan, Service Fee for each of the Elgin Area Primary Water Supply System and the Lake Huron Primary Water System.
- (b) The Operator acknowledges that it has been provided with information on historical and forecast Raw Water quality, Potable Water demand, base flow.
- (c) The Operator agrees that the Business Plan (as amended from time to time in accordance with this Amended Agreement) forms part of this Amended Agreement and constitute representations and warranties on the part of the Operator which are enforceable pursuant to the terms of this Amended Agreement.
- (d) The Business Plans shall be for a period of three (3) years commencing from the Start Date.
- (e) Together with the third Quarterly Contract Report in each Contract Year, the Operator shall update the Business Plan and the updated Business Plan shall cover the three-year period following the Contract Year.
- (f) The Operator shall provide Elgin with a Business Plan by October 30 of each Contract Year and Elgin shall review and accept the Business Plan by November 30 of each Contract Year, failing which Elgin and the Operator shall meet to attempt to resolve the dispute. If the Parties are unable to reach a resolution within ten (10) days, then either Party may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.
- (g) The Operations and Maintenance Plan shall be as comprehensive as possible and should include all services intended to be provided pursuant to this Amended Agreement. Any services not otherwise addressed in the Operations and Maintenance Plan will be deemed to not be included within this Amended Agreement except as they are otherwise provided for in this Amended Agreement.
- (h) The Business Plan, Operations and Maintenance Plan and Transition Plan may not be changed, altered or modified by the Operator, unless prior written approval has been obtained from Elgin acting reasonably, for such changes.

(2) Contents.

- (a) The Business Plan will cover in detail the following:
 - (i) the philosophy of the Operator with respect to the Management and Operations of the Facilities, including the Operators mission statement, vision statement and objectives with respect to this Amended Agreement;

- (ii) the objectives and targets that the Operator will meet in each year of the Business Plan including the method of measurement to determine if the objectives or targets have been met;
- (iii) deficiencies identified in the Facilities and the operations and maintenance procedures, and recommended changes to the operations and maintenance procedures for the Facilities;
- (iv) the improvements to be made by the Operator to the Facilities for the purpose of improving the performance of the Facilities and reducing the cost to Elgin, including the period of time over which such improvements are to be made;
- (v) a business case analysis of any potential improvements identified in accordance with previous subsection;
- (vi) any changes to operations and maintenance procedures required as a result of expansion of the Water Supply System or anticipated changes to technology employed at the Facilities;
- (vii) business continuity plans which address the issues of knowledge retention, succession planning and how resources will be provided for anticipated operational changes. The business continuity plan shall also be included in and form part of the emergency response plan;
- (viii) a discussion of such other issues pertaining to this Amended Agreement and the Facilities as have arisen over the course of the previous Contract Year.

8.6 Operations and Maintenance Plan.

The Operations and Maintenance Plan shall contain the following information:

- (a) Operator's Asset maintenance approach;
- (b) Operator's proposed maintenance programs and procedures;
- (c) Operator's program for SCADA system and CMMS optimization;
- (d) Operator's general maintenance and operations procedures including overall Facility and equipment appearance, corrosion prevention and Asset protection procedures; and
- (e) Operator's detailed and specific operation and maintenance procedures for each of the water Facilities, reservoirs, Pumping Stations and Feeder mains.

8.7 Transition Plan.

The Transition Plan shall contain a detailed identification by the Operator of the transition issues from the current Operator and the proposals by the Operator to address those issues including the details of each service to be provided and the cost of the service to be provided by the Operator. The Transition Plan shall include job shadowing to be provided by the Operator on its

own cost and expense for a period of three (3) months for up to five (5) persons prior to the expiration or termination of this Amended Agreement.

8.8 Penalty for Failure to Prepare and Abide by Plans

In the event the Operator fails to provide the plans identified in this Amended Agreement in the form and substance acceptable to Elgin and in accordance with the requirements set out herein, or provides same but fails to govern itself according to such plans, Elgin shall have the right to withhold twenty thousand dollars (\$20,000.00) per annum per plan.

8.9 Method of Payment.

- (a) Effective forty-five (45) days after the Start Date, the Operator shall render an invoice to Elgin by the 15th day of each month for services provided in the preceding month, for an amount equal to 1/12 of the Service Fee for the Contract Year.
- (b) The Operator shall also render an invoice to Elgin for any agreed upon Adjustments to the Service Fee applicable to the month immediately preceding the month in which such invoice is rendered.
- (c) The invoices rendered by the Operator to Elgin shall be in accordance with the format agreed upon by Elgin and the Operator, both acting reasonably, and shall be accompanied by such backup information and documentation as is considered necessary by Elgin, acting reasonably.
- (d) Except where the Operator fails to provide Elgin with the necessary backup information and documentation as required by subsection 8.9(c) of this Amended Agreement, and provided that Elgin does not require clarification from the Operator as to the charges included in the invoice, Elgin shall pay each invoice within thirty (30) days after the date of the invoice. The Service Fee and the agreed upon Adjustments to the Service Fee shall be paid in the amount billed in each such invoice notwithstanding any circumstance, happening or event whatsoever, except to the extent Elgin is permitted and decides to withhold a portion of the Service Fee pursuant to this Amended Agreement.
- (e) Within sixty (60) days after the end of each Contract Year, the Operator shall provide to Elgin for review and approval an annual statement which shall show for each Contract Year the calculation of all amounts owed or payable to the Operator by Elgin under this Amended Agreement, all amounts owed or payable to Elgin by the Operator under this Amended Agreement, all amounts paid by Elgin to the Operator under this Amended Agreement and all amounts paid by the Operator to Elgin under this Amended Agreement, including corrections and reconciliations to actual values of all estimated amounts. Elgin shall review the annual statement and make any amendments it deems necessary within thirty (30) days of receipt. If there are no amendments required to the annual statement, Elgin shall approve the annual statement. If the approved annual statement reflects any balance owed by either Elgin or the Operator to the other, such amount shall be paid within twenty (20) days after Elgin's approval.
- (f) If Elgin makes amendments to the Annual Statement, Elgin shall return the amended annual statement to the Operator. If the Operator agrees with the amendments, then the

balance owing on the amended annual statement shall be paid within thirty (30) days of the Operator's approval. If the Operator disagrees with the amendments, then Elgin and the Operator shall meet to attempt to resolve the dispute. If the Parties are unable to reach a resolution within thirty (30) days, then either Party may refer the matter to dispute resolution pursuant to Article 17 of this Amended Agreement.

8.10 Other Payments.

(1) Payment of Municipal Taxes.

Elgin is responsible for payment of any and all municipal taxes or payments in lieu of taxes assessed against the Facilities.

(2) Payments for Items not Included in the Service Fee.

Elgin shall pay the Operator for the preparation of the Inventory and Baseline Survey as part of the Service Fee.

(3) Compensation to Landowners

Elgin shall pay landowners any compensation for access to the pipeline easement pursuant to the Pipeline Operations and Maintenance Agreement between Elgin and the landowners.

8.11 Withholding of Service Fee.

If Elgin decides to withhold any portion of the monthly payment of the Service Fee to the Operator pursuant to the terms of this Amended Agreement, no interest shall accrue or be paid to the Operator for the time the portion of the monthly payment of the Service Fee is withheld by Elgin unless otherwise ordered pursuant to subsection 17.9(m). Elgin shall not withhold any portion of the monthly payment of the Service Fee which is not in dispute and shall promptly advise the Operator of the basis for Elgin's withholding of any portion of the monthly payment of the Service Fee.

8.12 Additional Services.

During the Term of this Amended Agreement, Elgin and the Operator agree that the Operator may perform additional services outside of the scope of this Amended Agreement, and, if Elgin requests additional services, the Operator shall provide a price to provide the additional services. Elgin will review the Operator's price and decide whether to use the Operator's services or have the additional services carried out by another party.

8.13 Operating Deficit.

To the extent that the Operating and Maintenance Costs in any Contract Year exceed the Service Fee paid hereunder to operate and manage the Facilities as set out herein, and an operating deficit is created, the Operator agrees to finance the deficit and shall ensure sufficient funds are available for fulfillment of the Operator's obligations hereunder.

8.14 HST Arrangements.

If Harmonized Sales Tax (“**HST**”) is payable, then the Operator is responsible for charging Elgin applicable HST and Elgin shall pay the applicable HST.

8.15 Books, Payrolls, Accounts and Records.

- (a) The Operator shall maintain and keep sufficiently complete and accurate books, payrolls, accounts, and records which pertain to this Amended Agreement in accordance with the applicable and accepted accounting procedures to permit their verification and audit and they shall have no claim for payment unless such books, payrolls, accounts, and records have been so maintained and kept.
- (b) Elgin may inspect, review or audit the books, payrolls, accounts, and records of the Operator as they pertain to this Amended Agreement at any time during the Term of this Amended Agreement and at any time thereafter as deemed by Elgin to be desirable but not exceeding the preservation period set forth in subsection 8.15(c) below.
- (c) The Operator shall preserve all original books, payrolls, accounts, and records which pertain to this Amended Agreement relating to the performance of this Amended Agreement or to claims arising from the performance of this Amended Agreement, for a period of thirty-six (36) months after the completion of the Term or thirty-six (36) months after the final settlement of all claims, made or threatened at the time of completion of this Amended Agreement, whichever period is the longer.

8.16 Failure of Elgin to Approve Adjustments.

Any failure of Elgin to approve an Adjustment to the Service Fee where such Adjustment is provided for in this Amended Agreement may be submitted by the Operator to dispute resolution pursuant to Article 17 of this Amended Agreement.

ARTICLE 9 TRANSFER OF RESPONSIBILITIES

9.1 Initial Transition Plan.

Immediately following the execution by the Parties of this Amended Agreement and prior to the Start Date, the Operator and Elgin shall further develop and implement the Transition Plan based on the Transition Plan described in Section 8.7 hereof to further address the particulars of the transfer of managerial and operational responsibility for the Facilities. Each of the Parties shall take all steps required to ensure a smooth transition and to ensure that transition is completed by the Start Date.

9.2 Transfer of Business.

(1) Contracts to Expire Upon Termination of Amended Agreement.

The Operator shall ensure that all contracts and commitments it has entered into in relation to the Facilities expire upon the completion or termination of this Amended Agreement. The Parties

agree that Elgin will not assume any of the Operator's contracts and commitments upon the completion or termination of this Amended Agreement, unless agreed to by Elgin, at the sole discretion of Elgin.

9.3 Transfer of Records.

- (a) Elgin shall make available to the Operator all records and documents in the possession of Elgin in respect of the management, operation and maintenance of the Facilities which the Operator may request either prior to the Start Date or from time to time thereafter provided that such documents are readily available and no other restrictions as to their release exists.
- (b) At the completion or termination of this Amended Agreement, the Operator shall return all operational and maintenance documents and records to Elgin. All operational and maintenance documents and records that are stored in electronic format shall be returned in electronic format, unless otherwise agreed upon by Elgin.

9.4 Transfer of Assets.

(1) Elgin's Inventory.

One hundred and twenty (120) days of the Start Date of this Amended Agreement the Operator shall be compensated as mutually agreed to complete an inventory of all existing Attractables owned by Elgin and available at the Facilities as of the Start Date (the "**Elgin's Inventory**").

(2) Attractables.

- (a) Elgin shall transfer all Attractables owned by Elgin which are located on and within the Facilities at the time of the Start Date at no cost to the Operator (the "**Elgin's Attractables**").
- (b) The Operator shall be responsible for securing and providing all additional or replacement Attractables, in addition to Elgin's Attractables, the Operator deems necessary to operate and maintain the Facilities pursuant to the terms of this Amended Agreement.
- (c) Elgin shall retain ownership of Elgin's Attractables provided to the Operator, and the Operator shall not dispose of nor grant security interests in Elgin's Attractables without the prior written consent of Elgin.
- (d) The Operator shall maintain all Attractables in accordance with the manufacturer's recommendations and shall include the maintenance of all Attractables in the CMMS.
- (e) Upon the completion or termination of this Amended Agreement, the Operator shall return all Attractables to Elgin at no cost to Elgin and, in the same condition on an overall basis as they were in on the Start Date, reasonable wear and tear excepted.

(3) Consumables.

- (a) Elgin agrees to sell to the Operator and the Operator agrees to purchase from Elgin the Consumables on hand at the Facilities at the Start Date at their invoiced price value. Elgin

shall deduct an amount equal to one third of the purchase price of the Consumables from each of the first three (3) monthly payments of the Service Fee in the first Contract Year.

- (b) At the completion or termination of this Amended Agreement, the Operator shall ensure that the Consumables on hand at the Facilities are sufficient for two (2) months operation of the Facilities from the date of completion or termination.
 - (c) At the completion or termination of this Amended Agreement, the Operator agrees to sell to Elgin and Elgin agree to purchase from the Operator the Consumables described in subsection 9.4(3)(b) at their invoiced price value. Elgin shall pay the Operator for the consumables within thirty (30) days of the completed sale.
- (4) Spare Parts.**
- (a) Elgin shall provide to the Operator all Spare Parts related to the Operation and Maintenance of the Facilities which are located at the Facilities on the Start Date at no cost to the Operator.
 - (b) Elgin and the Operator shall, within ninety (90) days of the effective date of the Amended Agreement, jointly develop and agree to a list of Spare Parts, including quantity and type, that will be maintained by the Operator during the Term of this Amended Agreement, as amended (the "**Spare Parts Inventory**").
 - (c) At the completion or termination of this Amended Agreement, the Operator shall return to Elgin all Spare Parts, at no cost to Elgin, in good working condition to the satisfaction of Elgin and in quantities at least equal to the Spare Parts Inventory.

ARTICLE 10

COMPLETION OR TERMINATION OF THIS AMENDED AGREEMENT

10.1 Termination by Elgin.

Elgin shall have the right to terminate this Amended Agreement in the Event of Default or an Extraordinary Event of Default of the Operator on the terms set out in this Article of this Amended Agreement.

10.2 Termination by the Operator.

The Operator shall have the right to terminate this Amended Agreement in the Event of Default or an Extraordinary Event of Default of Elgin on the terms set out in this Article of this Amended Agreement.

10.3 Notice and Cure for Event of Default.

- (a) If any Party determines that the other Party has committed an Event of Default, the non-defaulting Party shall give notice in writing to the defaulting Party of the Event of Default. The Parties shall, no later than thirty (30) days following delivery of such notice of breach, meet and determine whether the Event of Default is a result of an Uncontrollable

Circumstance and agree upon the remedial steps, if any, to be taken by the defaulting Party.

- (b) If the Parties are unable to agree upon the remedial steps to be taken within a further thirty (30) days or to agree upon the occurrence of an Event of Default, then the matter may be referred to dispute resolution pursuant to Article 17 of this Amended Agreement.
- (c) If the defaulting Party does not implement the remedial action agreed upon or fixed by dispute resolution within the time frame agreed upon or fixed by dispute resolution, then the non-defaulting Party may exercise any of the remedies set forth in this Amended Agreement.
- (d) The Parties agree that any time period allowed for a defaulting Party to cure an Event of Default shall be extended if the Event of Default cannot be cured without Governmental Authority approval by the time required to obtain such approval, provided that an application for such approval has been filed with the appropriate Governmental Authority within the applicable cure period.

10.4 Termination Upon Event of Default.

- (a) If a defaulting Party does not cure an Event of Default as described in Section 10.3 above, then:
 - (i) if the Operator is the Party in default, Elgin may terminate this Amended Agreement on not less than sixty (60) days prior written notice of the effective date of termination; or
 - (ii) if Elgin is the Party in default, the Operator may terminate this Amended Agreement on not less than sixty (60) days prior written notice of the effective date of termination.
- (b) The foregoing remedies shall be in addition to, and not in lieu of or a limitation of all remedies available at law or in equity to the non-defaulting Party.

10.5 Definition of “Extraordinary Event of Default”.

The occurrence of any of the following shall be an Extraordinary Event of Default under this Amended Agreement:

- (a) material and persistent Events of Default by a defaulting Party, whether or not remedied by the defaulting Party, including the Operator’s failure to correct or remedy Compliance Failures or a Performance Failure pursuant to Sections 4.4 and 4.5 of this Amended Agreement and which are not due to an Uncontrollable Circumstance, Elgin Fault or variations in Raw Water quality or quantity materially inconsistent with historical seasonal variations;
- (b) If:
 - (i) the Operator generally does not pay its debts as they become due;

- (ii) the Operator admits in writing its inability to pay its debts generally or makes a general assignment for the benefit of creditors;
 - (iii) a receiver is appointed for the Operator for any substantial part of its property; and
 - (iv) any proceedings are instituted by or against the Operator seeking to adjudicate it a bankrupt or insolvent, or seeking liquidation, winding up, reorganization, arrangement, adjustment protection, relief or composition of it or its debts under any law relating to bankruptcy, insolvency, reorganization or relief of debts, or seeking the entry of an order for relief by the appointment of a receiver, trustee, custodian or other similar official for it or for any substantial part of its property where any such proceeding has not been stayed or dismissed within thirty (30) days of a receiver custodian or other similar official being appointed for it or any substantial part of its property;
- (c) if Elgin fails to pay the monthly payment due for the Service Fee or agreed upon Adjustments to the Service Fee as provided for in Section 8.8 of this Amended Agreement within thirty (30) days of the date upon which such payment is due as provided in this Amended Agreement (subject to the exceptions as provided for in Section 8.8), except where an amount is withheld by Elgin in accordance with the terms of this Amended Agreement;
 - (d) any strike or lock out of the employees of the Operator which creates a situation which poses a potential for a real and serious threat to the health and public welfare of residents and consumers served by Elgin's WTP or which would seriously jeopardize the operational capacity or integrity of the Facilities;
 - (e) if the Operator operates or maintains, or fails to properly operate or maintain the Facilities in accordance with industry standards so as to create a situation which poses a potential for a threat to the health and public welfare of the residents and consumers served by Elgin's WTP, or which would jeopardize the operational capacity or integrity of the Facilities, except in the event of Uncontrollable Circumstance or Elgin Fault;
 - (f) any change of Control of the Operator in contravention of Article 21 of this Amended Agreement or any realization by any creditor upon its shares as may be pledged;
 - (g) there is a failure to provide the insurance coverage specified in Article 14 of this Amended Agreement in a form acceptable to Elgin, within the time specified in subsection 14.1(2)(b) or there is a lapse of the insurance coverage required to be maintained by the Operator pursuant to Article 14 of this Amended Agreement, and failure to secure replacement coverage within fifteen (15) days of the insurance coverage expiration date; or
 - (h) failure by the Operator to provide and maintain a Performance Letter of Credit in accordance with the requirements of subsection 14.2(1).

10.6 Remedy for Extraordinary Event of Default.

- (a) In the event of any Extraordinary Event of Default, the non-defaulting Party shall be entitled to give notice of termination of this Amended Agreement, specifying the

circumstances of the asserted Extraordinary Event of Default, which notice shall be effective immediately.

10.7 Conditions upon Completion or Termination of this Amended Agreement.

(1) Costs Payable by the Operator Upon Termination by Elgin.

- (a) In the event Elgin terminates this Amended Agreement pursuant to this Article 10, the Operator shall not be entitled to any compensation subsequent to receiving notice of termination from Elgin including, without limitation, but for this subsection 10.7(1), any fee which would be payable to the Operator. The Operator shall also not be entitled to any demobilization costs incurred as a result of Elgin's termination of this Amended Agreement.
- (b) Upon termination of this Amended Agreement by Elgin, the Operator shall:
 - (i) forfeit the Performance Letter of Credit described in Section 14.2; and
 - (ii) and in any case, the Operator shall pay to Elgin all reasonable costs incurred by Elgin in negotiating and implementing a new agreement with the subsequent operator of the Facilities, and all reasonable costs incurred by Elgin in operating and maintaining the Facilities until such time as the new Operator commences operation and maintenance of the Facilities.

(2) Costs Payable by Elgin to Operator Upon Termination by Operator.

In the event the Operator terminates this Amended Agreement pursuant Section 10.2, the Operator shall be entitled to payment from Elgin of the sum of (a) all reasonable costs and expenses of the Operator relating to demobilization by the Operator from the Facilities including (without limitation) reasonable costs of termination of employees, subcontractors, contracts for the purchase of Consumables and movement of equipment of the Operator located at the Facilities, (b) all capital investment of the Operator approved by Elgin pursuant to this agreement relating to the purchase by the Operator of Capital Improvements which have not been fully amortized and (c) lost profits of the Operator for one (1) year as determined in accordance with the provisions of this Amended Agreement.

(3) Carryover Services.

Upon the completion or termination of this Amended Agreement and only at Elgin's request, the Operator shall provide the services necessary to continue normal operations for a period of up to ninety (90) days after the termination date. This ninety (90) day period shall commence only at Elgin's request and shall be only for the purpose of training and assisting new employees of Elgin or the subsequent operator of the Facilities in the management, operation and maintenance of the Facilities. In such event, Elgin agree to pay to the Operator a pro rata portion of the then current Service Fee for such ninety (90) day period.

(4) Return of Civil, Structural and Site-Related Assets.

- (a) Upon the completion or termination of this Amended Agreement, the Operator shall return the Civil, Structural and Site-Related Assets to Elgin, in the same condition on an overall basis as they were in at the Start Date, except that under no circumstances shall the Operator be responsible for deficiencies caused by an Uncontrollable Circumstance or Elgin Fault or deficiencies identified under Section 5.2 and not corrected or repaired by Elgin.
- (b) The Operator shall be responsible for the correction and repair of any deficiencies identified by Elgin pursuant to subsection 5.2(2) of this Amended Agreement, unless otherwise specified in this Amended Agreement.

(5) Return of the Mechanical and Electrical Equipment.

- (a) Upon the completion or termination of this Amended Agreement, the Operator shall return the Mechanical and Electrical Equipment to Elgin in a well-maintained and functional condition and shall ensure that the Mechanical and Electrical Equipment is fully operational in accordance with manufacturer's equipment specifications, except that under no circumstances shall the Operator be responsible for deficiencies caused by Uncontrollable Circumstance or Elgin Fault.
- (b) The Operator shall be responsible for the repair and correction of any deficiencies identified by Elgin in accordance with the provisions of Section 5.6 of this Amended Agreement.

ARTICLE 11
INVENTIONS AND INNOVATIONS

11.1 Inventions.

The Operator shall retain exclusive rights to all inventions and innovations developed by or for it in connection with its operations and maintenance of the Facilities during the Term of this Amended Agreement, with the exception of the CMMS, SCADA and all associated software. For the Operator-owned inventions introduced into the Facilities during the Term of this Amended Agreement, the Operator shall grant to Elgin a perpetual non-exclusive fully paid-up licence, to continue to use such technology in connection with the operation, maintenance and management of the Facilities after the expiration or termination of this Amended Agreement, without charge to Elgin. The licence shall be specific to Elgin and the Facilities and may be transferred or assigned by Elgin to any subsequent operator of the Facilities for use in connection with the operation, maintenance and management of the Facilities. This provision shall apply only to those inventions and innovations for which the Operator has the right to grant such a licence to Elgin.

ARTICLE 12
CONFIDENTIALITY AND NON-DISCLOSURE

12.1 Confidentiality and Non-Disclosure.

- (a) The Operator acknowledges that all sampling and laboratory test results and other similar information collected or received by it during or following the term hereof concerning the day to day operations of the Facilities are the property of Elgin and may be confidential and any such information shall not be released or disclosed to any person, unless required or compelled by Applicable Law to do so, without the prior written consent of Elgin, which consent shall not be unreasonably withheld. The Operator shall have the right to retain copies of all such sampling and laboratory test results and other similar information.
- (b) This Amended Agreement and all schedules attached hereto shall be a public document and subject to the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990 c. M.56, as amended from time to time.

ARTICLE 13
TRADE MARK

13.1 Trade-Mark.

- (a) The name of Elgin and all related marks, slogans and designs belongs to Elgin exclusively and shall not be used in any way by the Operator unless otherwise approved in writing by Elgin.
- (b) Within sixty (60) days after the Start Date, the Operator shall cause to be removed all marks, slogans and designs related to the Previous Operator from any buildings at the Facilities, structures or vehicles to be used by the Operator.

ARTICLE 14
INSURANCE AND LETTER OF CREDIT

14.1 Insurance.

(1) Insurance Coverage to be Obtained by the Operator.

- (a) The Operator shall obtain and maintain, throughout the Term, insurance with insurers that are acceptable to Elgin covering the following events and in the following amounts:
 - (i) Occurrence-basis comprehensive general liability insurance in an amount not less than fifty million dollars (\$50,000,000.00) covering the directors, officers, employees, agents and other persons for whom the Operator is responsible throughout the entire period of this Amended Agreement. Such policy shall include non-owned automobile liability, personal injury, broad form property damage, contractual liability, owners' and contractors' protective, completed operations, contingent employers liability, cross liability and severability of interest clauses. This insurance shall have a deductible no greater than two hundred and fifty thousand dollars (\$250,000.00) per occurrence.

- (ii) Standard all risk property insurance covering the property of the Operator, including Attractables, in an amount not less than the full replacement cost value with a deductible of no more than two hundred and fifty thousand dollars (\$250,000.00); such policy shall include a waiver of subrogation in favour of Elgin;
- (iii) Automobile third party liability insurance covering all vehicles owned, leased, hired, borrowed or operated by the Operator in connection with its operation of the Facilities with a coverage limit of not less than two million dollars (\$2,000,000.00) third party liability per occurrence; such policy to include all mandatory coverage requirements as specified in Ontario Automobile Insurance Act;
- (iv) Environmental impairment liability insurance covering third party property damage and bodily injury and clean-up costs for pollution conditions emanating from the Facilities with a limit of coverage not less than ten million dollars (\$10,000,000.00) per claim and in the aggregate. Such insurance shall provide coverage for on-site clean-up of the Facilities also in an amount not less than ten million dollars (\$10,000,000.00). The Operator further agrees to maintain this insurance coverage for 24 months following the expiry or termination of this Amended Agreement;
- (v) Professional liability insurance covering wrongful acts, errors and omissions arising out of activities and operations of a professional nature in connection with this Amended Agreement with limits of not less than five million dollars (\$5,000,000.00) per claim and in the aggregate. Professional Liability insurance can be provided by the Operator and/or affiliate of the Operator but in the event that such insurance is provided by an affiliate of the Operator, then both the Operator and the affiliate must be named on the policy, and
- (vi) The Operator shall not do, omit to do, or permit any acts or omissions on or in the Facilities that may void coverage under the insurance policies described in 14.1(1)(a)(i) through 14.1(1)(a)(v) above.

(2) Conditions of Insurance.

- (a) The Operator shall cause Elgin to be included as an additional insured on the policies of insurance described in subsections 14.1(1)(a)(i) to (iv) maintained by the Operator pursuant to this Amended Agreement and each such policy shall contain a cross-liability clause and shall protect Elgin against all claims for all damage to any property of Elgin or any other public or private property resulting from or arising out of any failure, neglect or omission including negligence.
- (b) The Operator shall provide Elgin with certificates, in a form prescribed by Elgin, confirming that the Operator has obtained insurance coverage as described in this Amended Agreement sixty (60) days before the Start Date and confirmation of the renewal of such policies within ten (10) days of their renewal date.
- (c) The Operator or the Operator's insurance company shall not suspend, void, cancel, restrict or reduce insurance coverage or limits except after giving thirty (30) days, prior written notice by registered mail to Elgin. Any deductibles or self insured retention greater

than that specified in subsection 14.1(1) must be declared to Elgin for acceptance or rejection by Elgin. Any such deductible or self insured retention shall be the sole and immediate responsibility of the Operator in the event of a claim.

- (d) The policy limits and policy types described in subsection 14.1(1) above shall be reviewed annually by Elgin and the Operator, having regard to the Operator's claims history and loss statistics in the prior Contract Year. Elgin and the Operator reserve the right to request higher limits or additional types of insurance as they may reasonably require. Elgin shall pay the cost of any such higher limits or additional types of insurance required by Elgin.
- (e) The insurance as required by this Amended Agreement shall be kept in place by the Operator for a period of twelve (12) months following the expiry or termination of this Amended Agreement.
- (f) The Operator shall promptly notify Elgin of the first notice of loss or claim in excess of two hundred and fifty thousand dollars (\$250,000.00) against the policies maintained by the Operator pursuant to this Amended Agreement. If such claims reduce the aggregate coverage amount available from those limits described in subsection 14.1(1) above, or as subsequently amended by agreement between Elgin and the Operator, then Elgin may require that the Operator acquire additional insurance coverage to ensure that the aggregate limits are maintained at the levels described above. The cost of acquiring such additional insurance shall form part of the Operating and Maintenance Costs.
- (g) The Operator shall advise Elgin of the cost of the insurance described in subsection 14.1(1) above. Upon receipt of this information Elgin may, in its sole discretion, require the Operator to obtain such insurance or Elgin may obtain such insurance at its own cost.
- (h) The minimum liability limits required may be satisfied through the combination of the primary General Liability, Employer's Liability and Automobile Liability limits with an Umbrella Liability policy (with coverage no more restrictive than the underlying insurance) providing excess limits at least equal to or greater than the combined primary limits.

14.2 Financial Security.

(1) Performance Bond or Letter of Credit.

- (a) The Operator shall at its own expense throughout the Term of this Amended Agreement, provide, maintain and pay for a Performance Bond or Letter of Credit, in a form acceptable to Elgin, acting reasonably, in the amount of the Service Fee for the first Contract Year as security for the performance by the Operator of its obligations pursuant to this Amended Agreement, to be delivered to Elgin prior to the Start Date. For greater certainty, a Performance Bond shall only be acceptable if such Performance Bond uses the standard wording required by the City of London from time to time for such bonds.
- (b) Notwithstanding that any amendments to this Amended Agreement following the date hereof shall not be covered by the Performance Bond or Letter of Credit until expressly so indicated by its issuer, the Operator agrees that all such amendments made pursuant to the terms of this Amended Agreement shall be supported by a form of security reasonably satisfactory to Elgin unless this requirement is waived by Elgin.

ARTICLE 15
REPRESENTATIONS AND WARRANTIES

15.1 Representations and Warranties of the Operator.

The Operator hereby represents and warrants, on a continuous basis, to Elgin and. acknowledges that Elgin is entering into this Amended Agreement in reliance on such representations and warranties:

- (a) The Operator is a corporation established under the Capital Investment Plan Act, 1993. The Operator has sent to the appropriate Governmental Authority all material annual returns and financial statements required to be sent under the laws of Ontario. The Operator has the corporate power and authority to carry on business as currently carried on by it. No act or proceeding has been taken by or against the Operator in connection with the dissolution, liquidation, winding up, bankruptcy or reorganization of the Operator;
- (b) The Operator has the corporate power, authority and capacity to enter into this Amended Agreement and all other agreements and instruments to be executed by it as contemplated by this Amended Agreement and to carry out its obligations under this Amended Agreement and such other agreements and instruments. The execution and delivery of this Amended Agreement and such other agreements and instruments and the completion of the transactions contemplated by this Amended Agreement and such other agreement and instruments have been duly authorized by all necessary corporate action on the part of the Operator and its shareholders, as required;
- (c) This Amended Agreement constitutes a valid and binding obligation of the Operator enforceable against the Operator in accordance with its terms. The Operator is not an insolvent person within the meaning of the *Bankruptcy and Insolvency Act* (Canada);
- (d) The execution, delivery or performance of this Amended Agreement by the Operator and the fulfilment of its obligations herein do not and will not conflict with or result in a breach of:
 - (i) any Applicable Laws affecting the Operator;
 - (ii) any of the terms or conditions of the constating documents of the Operator;
 - (iii) any agreement, document or instrument to which the Operator is a party or by which the Operator is bound or to which any property of the Operator is subject; and
 - (iv) do not and will not constitute or result in a violation, breach or default under any of the foregoing;
- (e) There is no action, suit, proceeding, claim, application, complaint or investigation in any court or before any Arbitrator or before or by any regulatory body or Governmental or non-governmental Authority pending or threatened by or against the Operator which would materially affect its ability to enter into or perform its obligations pursuant to this Amended

Agreement; and, there is no factual or legal basis which could give rise to any such action, suit, proceeding, claim, application, complaint or investigation; and

- (f) The statements, representations, warranties (express and/or implied) in the Operator's Proposal are and remain true as of the date of the execution of this Amended Agreement and shall survive the execution of this Amended Agreement.

15.2 Representations and Warranties of Elgin.

Elgin hereby represents, warrants, on a continuous basis, to the Operator and acknowledges that the Operator is entering into this Amended Agreement in reliance on such representations, and warranties:

- (a) The execution and delivery of this Amended Agreement has been authorized by Elgin and such authorization has not been rescinded or otherwise modified;
- (b) This Amended Agreement has been authorized, executed and delivered by Elgin and constitutes a legal, valid, and binding obligation of Elgin, enforceable against it in accordance with its terms;
- (c) To the knowledge of Elgin there is no action, suit, or proceeding pending or threatened against Elgin or the Previous Operator which would materially affect Elgin's ability to enter into or perform obligations pursuant to this Amended Agreement or which would or could materially affect the Operator; and
- (d) With respect to the Consumables purchased from Elgin pursuant to the provisions of subsection 9.4(3) of this Amended Agreement, Elgin has the authority to convey such assets to the Operator as provided in this Amended Agreement. Such assets are or will be at the date of closing of the purchase and sale thereof, free and clear of any and all charges and encumbrances whatsoever.

ARTICLE 16 INDEMNIFICATION

16.1 Indemnification by the Operator.

- (a) The Operator shall indemnify, defend and save Elgin, its councillors, directors, officers, agents and employees harmless from all costs, expenses, damages and Claims of third parties for personal injury or property damage arising from the extent of negligent performance or non-performance or wilful misconduct by the Operator of its obligations under this Amended Agreement or which arise as a result of the negligent acts or omissions or wilful misconduct of the Operator in connection with the performance or non-performance of its obligations under this Amended Agreement or in connection with the Operator's use or occupancy of the Facilities pursuant to this Amended Agreement, including, without limitation, Claims for personal injury and damage to or loss of use or loss of any personal or real property caused by or arising out of the negligent act or omission or wilful misconduct of the Operator.

- (b) Without limiting the generality of the foregoing, the Parties acknowledge and agree that part of the Mechanical and Electrical Equipment located at the Facilities includes equipment required to be installed and maintained pursuant to Applicable Laws relating to health and safety. The Operator shall indemnify and save Elgin harmless from any and all claims and losses which Elgin can demonstrate that it has suffered or incurred as a result of any injury arising from the use of such health and safety equipment, except to the extent such Claims or losses result from insufficient health and safety equipment located at the Facilities at the Start Date in non-compliance with Applicable Laws, and failure by Elgin to repair or correct such non-compliance in accordance with subsection 3.15(2)(b).
- (c) The Operator, its agents and all workers and persons employed by or under its control, including subcontractors, shall use all reasonable care to ensure that no person or property is injured and that no rights are infringed in the carrying out of the Operator's duties and obligations under this Amended Agreement.
- (d) The Operator shall be solely responsible for all damages by whomsoever claimable in respect of any injury to persons, including death, or to land, buildings, structures or property of whatever description, and in respect of any infringement of any right or privilege whatever occasioned in the carrying out of the Operator's duties or obligations under this Amended Agreement, or any part thereof, or by any neglect, misfeasance or nonfeasance on the Operator's part or on the part of any of its agents, workers or persons employed by the Operator or under its control, including subcontractors, either carrying out the Operator's duties and obligations under this Amended Agreement or present at the Facilities and shall bear the full costs thereof and shall at its own expense make such temporary provisions to ensure the avoidance of any such damage, injury, or infringement and to prevent the interruption of or danger or menace to the operation of the Facilities.
- (e) The Operator shall indemnify and save harmless Elgin from and against all Claims, demands, loss, costs, damages, actions, suits or other proceedings by whomsoever made, brought, occasioned by or attributed to any such damage, injury or infringement referenced in subsection 16.1(d) above.
- (f) The Operator further agrees to indemnify and save Elgin, its agents, servants and employees, harmless from all legal consequences including, without limitation, all legal costs and expenses incurred to defend any action brought by the MOE or other Governmental Authority in connection with noncompliance with Applicable Laws or a Change of Laws, as well as any fines or penalties imposed by MOE or a Governmental authority except where the Operator is entitled to indemnification by Elgin pursuant to Section 16.2.

16.2 Indemnification by Elgin.

- (a) Elgin shall indemnify and save the Operator, its agents, employees and subcontractors and Her Majesty the Queen in Right of Ontario, as represented by the Minister of Environment, Conservation and Parks and all directors, officers, employees and agents of the MOE from all reasonable costs, expenses, damages and claims of third parties for personal injury or property damage arising from:

- (i) all reasonable costs, expenses, damages and claims of third parties for personal injury or property damage arising from Elgin Fault, including the negligent acts or omissions or wilful misconduct of Elgin in connection with the performance or non-performance of its obligations under this Amended Agreement;
 - (ii) any incorrectness in or breach of any representation or warranty of Elgin contained in this Amended Agreement or in any other agreement, or instrument executed and delivered pursuant to this Amended Agreement;
 - (iii) a violation of Applicable Law by Elgin;
 - (iv) failure of Elgin to make Process or Operational Charges or Capital Improvements to achieve compliance with Applicable Laws or to correct unsafe or hazardous situations as advised by the Operator within forty-five (45) days following the Start Date;
 - (v) the presence at the Facilities of (i) subsurface structures, materials or conditions having historical, geological, archaeological, religious or similar significance, or (ii) any habitat of an endangered or protected species;
 - (vi) the presence on the Start Date of hazardous waste or hazardous substances upon or beneath the Facilities in non-compliance with Applicable Laws;
 - (vii) structural damage to or the collapse of the Facilities caused by geological conditions; and
 - (viii) any other matters specifically provided in this Amended Agreement. Notwithstanding the above, Elgin shall only be liable for its percentage of fault or negligence.
- (b) Elgin further agrees to indemnify and save the Operator, its agents, servants, and employees, harmless from all legal consequences including, without limitation, all legal costs and expenses incurred to defend any action brought by the MOE or other Governmental Authority in connection with non-compliance with Applicable Laws or a Change of Laws, as well as any fines or penalties imposed by the MOE or other Governmental Authority which the Operator can demonstrate it has suffered or incurred arising from or in connection with its compliance with Elgin's direction as to the appropriate means of achieving compliance with Applicable Laws or a Change of Laws, subject to the Operator confirming due care and diligence by the Operator in following and implementing Elgin's direction and in its management, operation and maintenance of the Facilities.
- (c) Elgin shall indemnify and save harmless the Operator, its agents and employees in respect of any claim, demand, action, cause of action, damage, loss, cost or liability arising out of non-compliance of any employee of Elgin with the Operator's health and safety procedures.

16.3 Survival of Covenants.

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

16.4 Procedure for Indemnification.

(1) Notice of Claim.

- (a) Promptly after becoming aware of any action or proceeding that may give rise to a Claim pursuant to this Amended Agreement, the Indemnified Party shall provide to the Indemnifying Party written notice of the commencement of such action or proceeding. Such notice shall specify whether the Claim arises as a result of a claim by a Person other than a Party to this Amended Agreement against the Indemnified Party (a “**Third Party Claim**”) or whether the Claim does not so arise (a “**Direct Claim**”), and shall also specify with reasonable particularity, to the extent that the information is available:
 - (i) the factual basis for the Claim; and
 - (ii) the amount of the Claim, if known.
- (b) If, through the fault of the Indemnified Party, the Indemnifying Party does not receive notice of any Claim in time effectively to contest the determination of any liability susceptible of being contested, then the Liability of the Indemnifying Party to the Indemnified Party under this Article shall be reduced by the amount of any losses incurred by the Indemnifying Party resulting from the Indemnified Party’s failure to give such notice on a timely basis.
- (c) The Party shall be defended by the Indemnifying Party but shall be entitled to participate in the defence of any such claim, at its own expense, and without limiting the generality of the foregoing, may advance a defence available to it, which is not available to the Party obliged to defend and may participate in such defence through counsel without the obligation to conduct the defence. The Indemnifying Party shall not be liable for any settlement of any action or proceeding effected without its written consent.
- (d) The Parties agree that in individual cases it may be more appropriate for the Indemnified Party to conduct its own defence in reliance on the financial obligation of the Indemnifying Party. In these cases, the Indemnifying Party shall not be liable for any settlement of any action or proceeding effected without its written consent.
- (e) The assumption of the defence or financial obligations of the defence by the Indemnifying Party is not a bar to any claim for contribution and indemnity or other relief over against the Indemnified Party.
- (f) If the Indemnifying Party fails to assume control of the defence of any Third Party Claim, the Indemnified Party shall have the exclusive right to contest, settle or pay the amount claimed. Whether or not the Indemnifying Party assumes control of the negotiation, settlement or defence of any Third Party Claim, the Indemnifying Party shall not settle any Third Party Claim without the written consent of the Indemnified Party, which consent shall

not be unreasonably withheld or delayed; provided, however, that the liability of the Indemnifying Party shall be limited to the proposed settlement amount if any such consent is not, obtained for any reason within a reasonable time after the request therefor.

(2) Direct Claims.

In the case of a Direct Claim, the Indemnifying Party shall have sixty (60) days from receipt of notice of the Claim within which to make such investigation of the Claim as the Indemnifying Party considers necessary or desirable. For the purpose of such investigation, the Indemnified Party shall make available to the Indemnifying Party the information relied upon by the Indemnified Party to substantiate the Claim, together with all such other information as the Indemnifying Party may reasonably request. If both Parties agree at or before the expiration of such sixty (60) day period (or any mutually agreed upon extension thereof) to the validity and amount of such Claim, the Indemnifying Party shall immediately pay to the Indemnified Party the full agreed upon amount of the Claim, failing which the matter shall be referred to binding arbitration in such manner as the Parties may agree or shall be determined by a court of competent jurisdiction.

16.5 Limits on Liability.

Notwithstanding any other provision in this Amended Agreement:

- (a) The Operator shall be liable to Elgin for Claims for general and special damages resulting from negligence or wilful misconduct in the performance or non-performance of the obligations under this Amended Agreement up to a total aggregate of the amount(s) recoverable from the insurance and financial security that is required to be in place by Article 14 of this Amended Agreement during the term of this Amended Agreement , whether such damages are characterized as arising under breach of contract or warranty, negligence, fault, strict liability, indemnity or other theory of legal liability.
- (b) Elgin shall be liable to the Operator for Claims for general and special damages resulting from negligence or wilful misconduct performance or non-performance under this Amended Agreement, whether such damages are characterized as arising under breach of contract, negligence, fault, strict liability, indemnity or other theory of legal liability.
- (c) The Parties' respective liability under this Amended Agreement shall be limited to Claims arising from the negligence or wilful misconduct, acts, omissions, violations, or non-performance under this Amended Agreement by a Party, or those for whom the Party is responsible at law, in the course of performing the terms and conditions of this Amended Agreement. In addition, neither Party shall be liable for indirect, consequential, aggravated, exemplary or punitive damages, including damages for loss of profit or business shut-down.

ARTICLE 17
DISPUTE RESOLUTION

17.1 Availability of Dispute Resolution.

The Parties agree that dispute resolution shall be available in the following circumstances, including the interpretation of this Amended Agreement as it relates to those circumstances:

- (a) any dispute or controversy with respect to the assessment of liquidated damages by Elgin as provided in this Amended Agreement;
- (b) any dispute or controversy with respect to the withholding by Elgin of a portion of the Service Fee as provided in this Amended Agreement;
- (c) any dispute or controversy with respect to an Adjustment to the Service Fee pursuant to Section 8.4 of this Amended Agreement;
- (d) any matters described in this Amended Agreement that require further terms, conditions or payments to be negotiated or agreed upon by the Parties and the Parties are unable to reach an agreement on such terms, conditions or payments; and
- (e) those instances specifically identified in this Amended Agreement.

17.2 Meeting Among Parties to Negotiate a Resolution.

- (a) If a dispute arises out of or in relation to this Amended Agreement (the “**Dispute**”), the Parties will attempt in good faith to negotiate a resolution of the Dispute.
- (b) The Parties will appoint representatives with decision-making authority to settle the Dispute.
- (c) To commence negotiations under this section, any Party may send a notice to the other Party of a Dispute which has not been resolved in the ordinary course of business. The notice shall include a statement of the Party’s position and the name and title of the representative of the Party who will attend the resolution meeting.
- (d) The Party who receives such a notice shall within ten (10) Business Days deliver a response setting out its position and the name and title of the representative of the Party who will attend the resolution meeting.
- (e) Within ten (10) Business Days of the sending of a notice of Dispute, a meeting shall be held between the Parties at a mutually satisfactory time and place. At the meeting, the Parties will attempt in good faith to negotiate a resolution of the Dispute.

17.3 Dispute Submitted to Mediation.

If the Parties have not succeeded in negotiating a resolution of the Dispute within ten (10) Business Days after such meeting or if a meeting is not held within fifteen (15) Business Days of the disputing Party’s notice (unless extended by mutual agreement of the Parties), the Dispute shall be submitted to mediation.

17.4 Costs of Mediation.

The Parties will bear equally all costs of the mediation.

17.5 Appointment of Mediator.

The Parties will jointly appoint a mutually acceptable mediator. If the Parties have been unable to agree upon the appointment of a mediator within ten (10) Business Days from the conclusion of the negotiation period, then each Party shall identify a mediator and the mediators identified by the Parties shall select a mediator, being a person who is not one of the mediators identified by the Parties to select a mediator.

17.6 Disclosure.

There will be complete and honest disclosure by each Party to the other and to the mediator, if appointed, of all information and documents relevant to the Dispute.

17.7 Conduct of Mediation.

- (a) Within ten (10) Business Days following his or her appointment, the mediator shall fix a time and a place in London, Ontario for the purpose of conducting the mediation.
- (b) Each Party shall provide a written summary of no more than five (5) pages summarizing its perspective on the Dispute to the mediator and to the other Party no later than the third day prior to the scheduled commencement of the mediation event.
- (c) The mediation event will be attended by the Parties and their legal counsel, and each Party will be represented by a person or persons who has full and unqualified authority to reach a settlement on all issues relating to the Dispute.
- (d) The Parties agree that they will not call the mediator as a witness for any purpose and will not seek access to any documents prepared or delivered to the mediator in connection with the mediation, including any records or notes of the mediator. Statements made by any person and documents produced in the mediation not otherwise discoverable shall not be subject to disclosure through discovery or any other process and shall not be admissible into evidence in any context for any purpose.
- (e) The Parties agree to keep all communications and information forming part of the mediation in confidence. The only exception to this is disclosure for the purposes of enforcing any settlement agreement reached between the Parties.
- (f) The Parties agree that any agreement reached as the result of the mediation event shall be reduced to writing and signed by the parties.

17.8 Participation in Mediation.

The Parties agree to participate in good faith in the mediation and the related negotiations for a period of fifteen (15) Business Days.

17.9 Unsuccessful Mediation

- (a) If the Parties are not successful in resolving the Dispute through the mediation, then either Party may submit the Dispute to arbitration and such arbitration shall be in accordance with the *Arbitrations Act*, 1991, S.O. 1991 c.17 ("**Arbitrations Act**").

- (b) Arbitration proceedings shall be commenced by the Party desiring arbitration (the “**Initiating Party**”) by giving written notice (the “**Notice of Arbitration**”) to the other Party (the “**Responding Party**”) within ten (10) Business Days of the date the Parties were unable to resolve the Dispute. The Notice of Arbitration shall specify the matter to be arbitrated and request an arbitration thereof.
- (c) The Parties agree that, if the Initiating Party fails to deliver the Notice to Arbitration within the ten (10) Business Day period, the Initiating Party shall be deemed to have waived its entitlement to have the Dispute submitted to arbitration and shall not be permitted to seek further resolution.
- (d) Until the Dispute is finally resolved through arbitration, Elgin’s Manager shall, in his or her sole discretion, establish an interim resolution describing the terms under which the Parties shall govern themselves.
- (e) The arbitration shall take place in London, Ontario, Canada unless otherwise agreed.
- (f) The law governing the procedures and substance of the arbitration shall be that of the *Arbitrations Act*.
- (g) A single Arbitrator shall be selected by mutual agreement of both Parties, no later than thirty (30) days following delivery of the Notice of Arbitration. If the Parties are unable to reach an agreement on the selection of the Arbitrator, within the thirty (30) days, either Party may bring an application before the Court requesting the Court to appoint an Arbitrator.
- (h) The Initiating Party shall have sixty (60) days from the date of the Notice of Arbitration or such other period as the Parties may agree, to schedule an arbitration hearing.
- (i) Subject to the Arbitrator’s availability and discretion, the arbitration hearing shall be completed within thirty (30) days of the commencement of the arbitration hearing and the Arbitrator shall deliver a decision within fifteen (15) days of the completion of the arbitration hearing.
- (j) The Arbitrator may determine all questions of law and jurisdiction including questions as to whether the Dispute is arbitrable and has the right to grant legal and equitable relief including injunctive relief and the right to grant permanent and interim injunctive relief and shall have the discretion to award costs including reasonable legal fees, interest and costs of the arbitration.
- (k) The decision of the Arbitrator shall be final and binding on the Parties and there shall be no appeal from such decision.
- (l) Judgment upon the award rendered by the Arbitrator may be entered in any court having jurisdiction thereof.
- (m) Where a matter has been referred to arbitration, the successful Party shall be entitled to be reimbursed by the unsuccessful Party for the reasonable costs incurred by it (including interest on amounts for which reimbursement was not made at the time claimed) as agreed

to by the Parties or as determined by the Arbitrator. Pending final resolution, the Parties agree that the costs of the Arbitrator shall be shared equally by the Parties.

- (n) No issue which has been the subject of arbitration can be the subject of a second arbitration without the consent of both Parties.

ARTICLE 18

ANNUAL PERFORMANCE REVIEW

18.1 Annual Performance Review.

Elgin may conduct an annual performance review of the Operator pursuant to this Amended Agreement, to be conducted no later than ninety (90) days following the end of each Contract Year. Notwithstanding the right of Elgin to conduct the annual performance review, Elgin may review the Operator's performance at any time during the Term of this Amended Agreement. The Operator shall cooperate with Elgin in every respect of the annual performance review.

ARTICLE 19

FORCE MAJEURE

19.1 Performance.

- (a) In the event that performance of this Amended Agreement in the reasonable opinion of either Party is made impossible by reason of an Uncontrollable Circumstance, and if a Party seeks to rely on the occurrence of an act, event or condition as an Uncontrollable Circumstance as grounds for not performing its obligations under this Amended Agreement, then the Party relying on such act, event or condition shall; (i) provide prompt notice to the other Party of the occurrence of the act, event or condition as soon as reasonably practicable after the Party first knew of such occurrence and give an estimation of its expected duration and the probable impact on the performance of its obligations hereunder (ii) exercise all reasonable efforts to continue to perform its obligations hereunder; (iii) in accordance with this Amended Agreement, as expeditiously as reasonably practicable-take action to correct or cure the act, event or condition preventing its performance; (iv) exercise all reasonable efforts to mitigate or limit damages to the other party; and (v) provide prompt notice to the other Party of the cessation of the act, event or condition giving rise to its inability to perform.
- (b) In the event that performance of this Amended Agreement in the reasonable opinion of either Party continues to be made impossible by reason of an Uncontrollable Circumstance, then either Party shall notify the other in writing and Elgin shall either:
- (i) terminate this Amended Agreement forthwith and make all payment for services performed through the date of termination and all reasonable costs incurred by the Operator in demobilizing from the Facilities, subsection 10.7(1) shall not be invoked. Further; Elgin shall pay within sixty (60) days, all amounts owing to the Operator including the Operator's reasonable costs related to cancellation of contracts due to such termination and all capital investment of the Operator approved by Elgin pursuant to this Amended Agreement relating to the Purchase by the Operator of Capital Improvements which have not been fully amortized;

or

- (ii) authorize the Operator to continue the performance of this Amended Agreement with such Adjustments to the Service Fee as may be required by the Uncontrollable Circumstances, as are agreed upon by both parties. In the event that the Parties cannot agree upon the aforementioned Adjustments, it is agreed by the Parties that this Amended Agreement shall be terminated and Elgin shall pay the Operator for all services performed through the date of termination, all reasonable costs incurred by the Operator in demobilizing from the Facilities, and all capital investment of the Operator approved by Elgin pursuant to this Amended Agreement relating to the purchase by the Operator of capital Improvements which have not been fully amortized.
- (c) Except as expressly provided under the terms of this Amended Agreement, neither party to this Amended Agreement shall be liable to the other for any loss, damage, delay, default or failure to perform any obligation to the extent it results from an Uncontrollable Circumstance. The occurrence of an Uncontrollable Circumstance shall not excuse or delay the performance of a party's obligation to pay monies previously accrued and owing under this Amended Agreement, or to perform any obligation hereunder not affected by the occurrence of the Uncontrollable Circumstances.

ARTICLE 20

LIMITATIONS ON DAMAGES

20.1 Limitation on Damages.

Neither Party shall be liable to the other Party for indirect, consequential, aggravated, exemplary, or punitive damages, including damages for loss of profit or business shut-down.

ARTICLE 21

CHANGE OF CONTROL

21.1 Change of Control.

During the Term of this Amended Agreement, the Operator shall not transfer Control, directly or indirectly of the Operator to a third Party without the prior written consent of Elgin. Failure by the Operator to obtain the consent of Elgin shall constitute an Event of Default. Elgin agrees that a pledge of the shares of the Operator to the Operator's principal lenders shall not constitute a transfer of Control for purposes of this Article 21. Elgin further agrees that an initial public offering and listing of the shares of the Operator on a recognized stock exchange shall not constitute a transfer of Control for purposes of this Article 21.

ARTICLE 22
CONFLICT OF INTEREST

22.1 Conflict of Interest.

- (a) Throughout the Term of this Amended Agreement, the Operator shall not enter into any agreement, relationship or situation which causes or potentially causes a conflict of interest with Elgin or the management, operation and maintenance of the Facilities.
- (b) Throughout the Term of this Amended Agreement, any Affiliated Company of the Operator shall not enter into any agreement or relationship with Elgin, or provide services to Elgin relating to any water services, or water capital projects unless it receives the prior written consent of Elgin.

ARTICLE 23
NO CLAIM FOR LACK OF ELGIN'S CAPACITY

23.1 No Claim for Lack of Elgin's Capacity.

The Operator shall not call into question, directly or indirectly, in any proceeding whatsoever, in law or in equity, or before any administrative tribunal, the right of Elgin to enter into this Amended Agreement or to enforce each and every term, covenant and condition herein contained and this Amended Agreement shall be pleaded as an estoppel against the Operator in any such proceedings.

ARTICLE 24
GENERAL PROVISIONS

24.1 Notices.

- (a) Any notice, certificate, consent, determination or other communication required or permitted to be given or made under this Amended Agreement shall be in writing and shall be effectively given and made if (i) delivered personally, or (ii) sent by prepaid courier service or mail, in each case to the applicable address set out below:

If to Elgin, to:

Andrew Henry, P.Eng.
Director, Regional Water
Elgin Area Primary Water Supply System
235 North Centre Road, Suite 200
London Ontario N5X 4E7

Tel: (519) 930-3505 ext.1355
Fax: (519) 474-0451
E-mail: ahenry@ElginElginWater.ca

with a copy to:

Harry Dahme
Gowling WLG LLP

1 First Canadian Place, 100 King Street West
Toronto, Ontario M5X 1G5

E-mail: harry.dahme@gowlingwlq.com

Tel: (416) 862-4300

Fax: (416) 863-3410

If to the Operator, to:

Blair Tully
General Manager
Suite 370, 450 Sunset Drive
St. Thomas, Ontario N5R 5V1

E-Mail: btully@ocwa.com

Tel: (510) 637-8334

Fax: 519 680-1390

with a copy to:

Robin Kind
Ontario Clean Water Agency
One Yonge Street
Toronto, ON M5E 1E5

E-Mail: rkind@ocwa.com

Tel: 416 314-9648

Fax: 416 703-2389

- (b) Any such communication so given or made shall be deemed to have been given or made and to have been received on the day of delivery if delivered, provided that such day in either event is a business day and the communication is so delivered before 4:30 p.m. on such day. Otherwise, such communication shall be deemed to have been given and made and to have been received on the next following business day. Any such communication sent by mail shall be deemed to have been given and made and to have been received on the fifth business day following the mailing thereof; provided however that no such communication shall be mailed during any actual or apprehended disruption of postal services. Any such communication given or made in any other manner shall be deemed to have been given or made and to have been received only upon actual receipt.
- (c) Any Party may from time to time change its address under this Section 24.1 by notice to the other Party given in the manner provided by this subsection.

24.2 Waiver.

No covenant or condition of this Amended Agreement may be waived except by the written consent of the Party waiving same and the failure on the part of any Party to insist on compliance with any covenant or condition shall not be deemed a waiver of same or a waiver of any right to subsequently insist upon compliance or fulfilment of same or condonation of continuing or subsequent default or breach.

24.3 Confidentiality.

The Operator shall not disclose any information which is not otherwise available to the public relating to the Facilities other than (1) to Elgin's Manager, (2) as required from time to time from Elgin or the City of London personnel operating equipment or processes affecting the Facilities equipment and processes, (3) as required under Applicable Law or (a) to any Affiliate or the operator or employee, officer, director, accountant, legal counsel or other consultant of the Operator or any Affiliate of the Operator without the written approval of Elgin. Disclosure by the Operator or any Affiliate of the Operator of the existence and terms of the transaction described in this Amended Agreement shall not be prohibited by this subsection.

24.4 Governing Law.

This Amended Agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable in the Province of Ontario and shall be treated in all respects as an Ontario contract.

24.5 Enurement.

This Amended Agreement shall enure to the benefit of the Parties and be binding upon their respective successors and assigns, provided that the Operator shall not be permitted to assign or transfer, whether absolutely, by way of security or otherwise, all or any part of its rights and obligations under this Amended Agreement without the prior written consent of Elgin except as provided under Article 21.

24.6 Severability.

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

24.7 Set-Off

The Operator expressly acknowledges and agrees that Elgin shall have a right to set-off against any damages incurred or any damages reasonably expected to be incurred or any amounts owed to Elgin by the Operator as a consequence of the Operator's breach of this Amended Agreement or an occurrence of any Event of Default, from any monies or amounts otherwise owing to the Operator under this Amended Agreement.

24.8 Fines.

- (a) The Operator shall be liable for all fines incurred by either party imposed by any Governmental Authority on the Operator or Elgin as a result of the Operator's negligence or non-performance of any of its obligations under this Amended Agreement.

- (b) If Elgin chooses to pay a fine, then prior to the payment of the fine by Elgin, Elgin shall inform the Operator of Elgin's intent to pay the fine and the Operator may have the right to contest any government or private suits or proceedings or penalties.

24.9 Forbearance.

The Operator agrees that forbearance by Elgin in the enforcement of any obligations, rights or remedies pursuant to this Amended Agreement including, but not limited to, the assessment of liquidated damages or the withholding of payment, or the forbearance in the identification of breach of this Amended Agreement or of an Event of Default or Extraordinary Event of Default shall not affect the entitlement of Elgin under this Amended Agreement to later seek enforcement of any such obligations, rights or remedies pursuant to this Amended Agreement or arising from such breach, Event of Default or Extraordinary Event of Default.

24.10 Counterparts.

This Amended Agreement may be executed and delivered by the Parties in counterparts, each of which shall constitute an original and may be delivered by facsimile, email or other functionally equivalent electronic means of communication, and those counterparts taken together shall constitute one and the same instrument.

Remainder of this page is intentionally left blank.

DATED this day of , 2021.

IN WITNESS WHEREOF:

Signed in the Presence of:

Signed in the Presence of:

By: _____

Name:

Title: Chair
 Elgin Area Primary Water Supply
 System Board of Management

By: _____

Name: Kelly Scherr

Title: Chief Administrative Officer

I/We have authority to bind Elgin.



By: _____

Name:

Title:

I/We have authority to bind the
Corporation.



By: _____

Name:

Title:

I/We have authority to bind the
Corporation.

SCHEDULE “A-2”

DESCRIPTION OF ELGIN AREA PRIMARY WATER SUPPLY SYSTEM

OVERVIEW

This Schedule contains a description of the following:

- Description of existing system

DESCRIPTION OF EXISTING SYSTEM

Overview

The Elgin Area Primary Water Supply System is responsible for the treatment and transmission of drinking water to the following eight municipalities in south-western Ontario: Municipality of Bluewater, Municipality of South Elgin, Municipality of Lambton Shores, Municipality of North Middlesex, Township of Lucan-Biddulph, Municipality of Middlesex Centre, Municipality of Strathroy-Caradoc and the City of London.

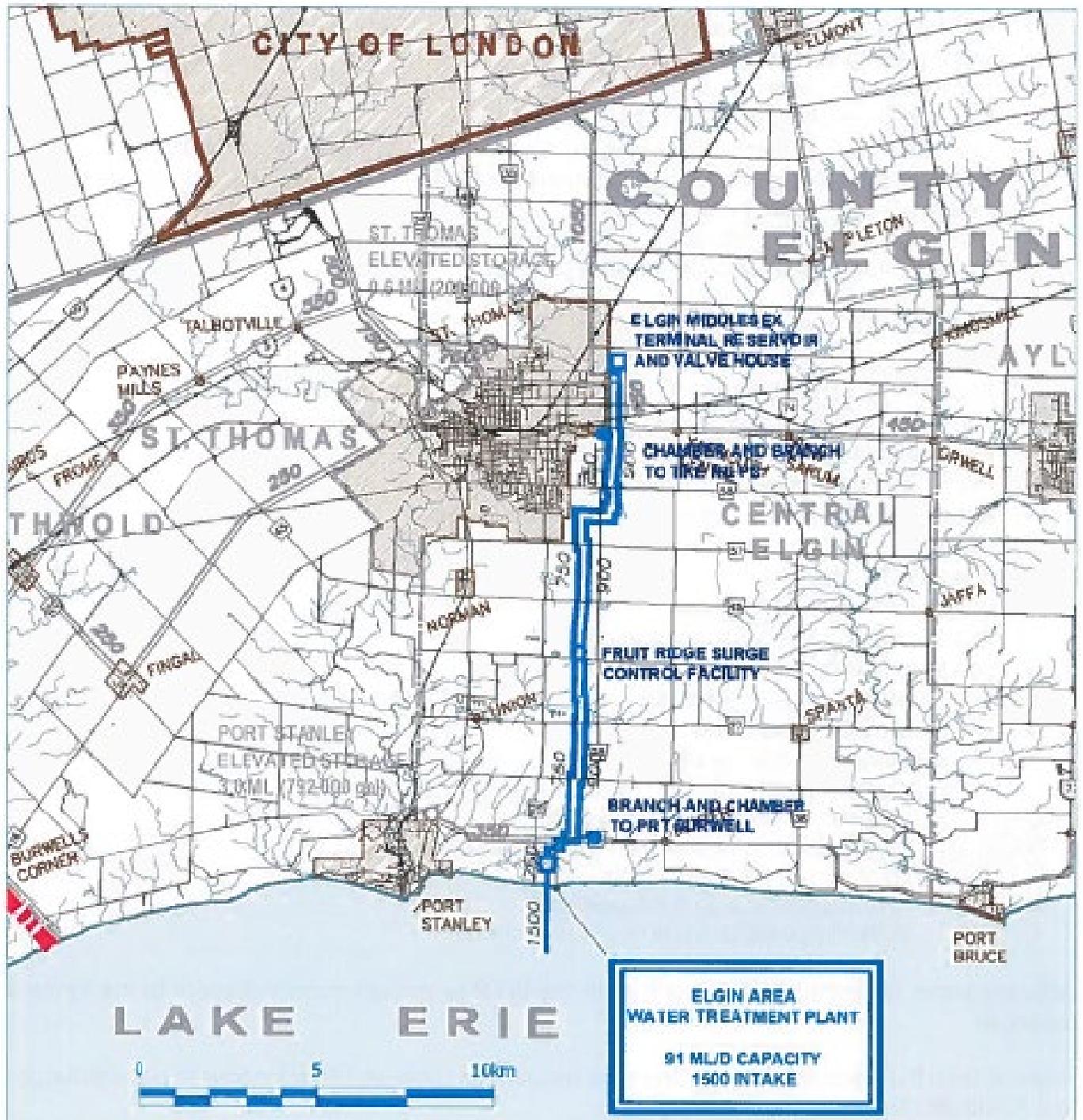
The population served by this system is approximately 390,000. Water is provided bulk wholesale to the municipalities who then distribute it to their customers. The Elgin Area Primary Water Supply System extends to the first isolation valve off of the Primary Transmission Mains in all cases and all flow meters (except on individual service connections which are municipally owned) belong to the Elgin Area Primary Water Supply System.

The drinking water system is monitored at various locations throughout the system via a Supervisory Control and Data Acquisition (SCADA) system.

The Certificates of Classification for the Elgin Area Primary Water Supply System are as follows:

- Water Treatment Subsystem Class IV
- Water Distribution Subsystem Class IV

A map of the system is shown below.



Water Treatment Plant

The 91 MLD Elgin Area WTP is located at 43665 Dexter Line in the Municipality of Central Elgin. The low lift pumping station (LLPS) is located on the shore of Lake Erie approximately 1400 m from the plant. The LLPS draws water for treatment from Lake Erie via one 182 MLD, 1200m long, 1500mm diameter intake at an intake crib depth of 10 m and conveys this water to the plant via a 1400 m long, 750 mm diameter raw water pipeline.

The LLPS consists of the following:

- one below grade surge well
- two travelling screens
- two low lift wet wells
- four low lift vertical turbine pumps
- one 750 mm diameter 1400 m long pipeline connecting the LLPS to the WTP
- one 75mm diameter polyethylene chlorine solution feed line located inside the intake pipe that is used for zebra mussel control
- chemical systems as follows:
 - chlorine gas for zebra mussel control

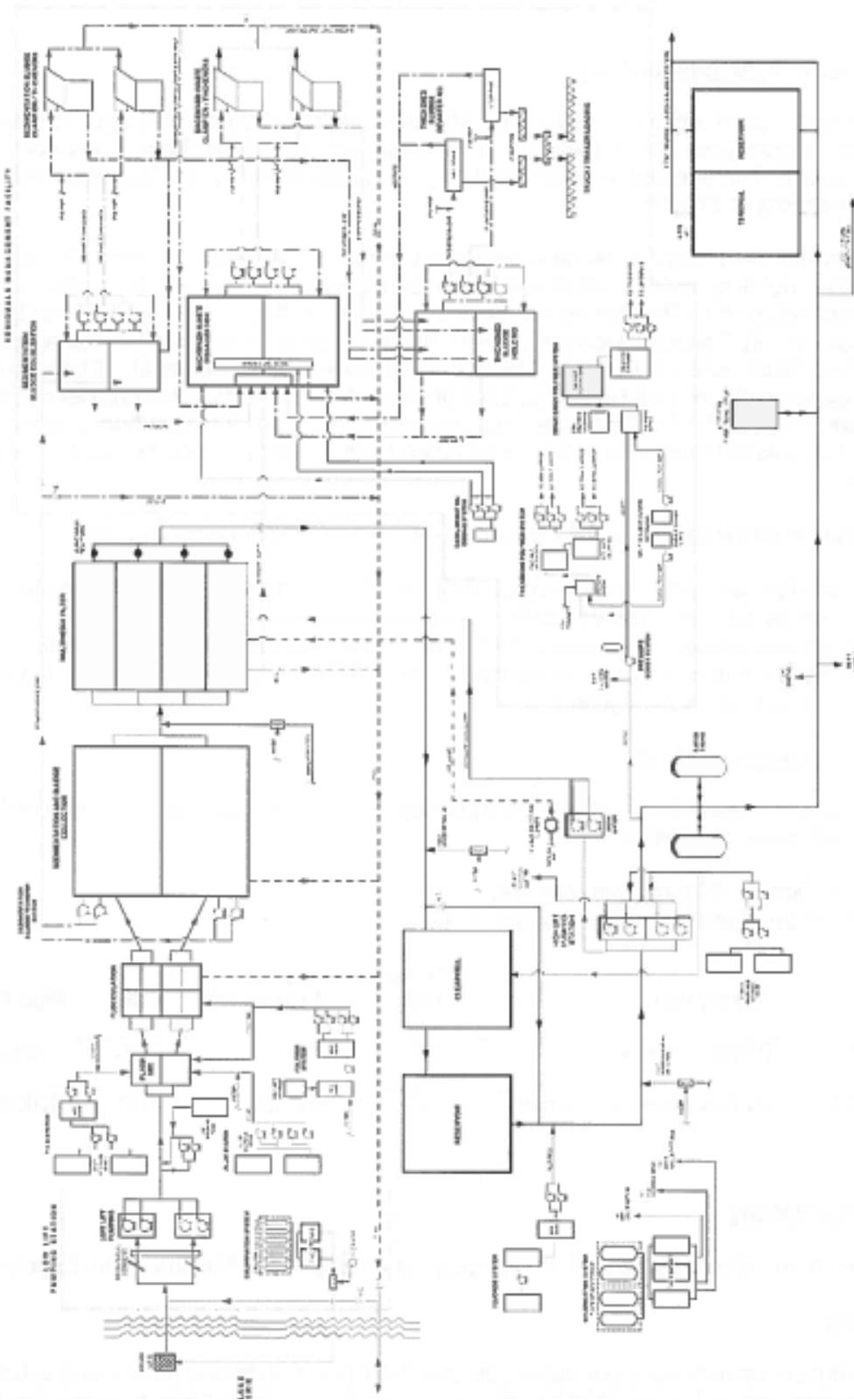
The Elgin Area WTP consists of the following:

- two flash mix chambers, each chamber consisting of two cells
- two banks of flocculation tanks, each bank consisting of four cells
- two below-grade gravity sedimentation tanks
- four dual-media (sand and anthracite) gravity filters
- two filter backwash pumps and an air scour system
- four UV reactors on the filter effluent pipes
- one 2.6 ML clearwell
- one 2.8 ML storage reservoir
- four high lift vertical turbine pumps
- two surge tanks
- two emergency diesel generators rated at 2500 kW and 100kW
- chemical systems as follows:
 - carbon dioxide for pH adjustment
 - alum for coagulation
 - polymer for coagulation and flocculation aid
 - powdered activated carbon for taste and odour control
 - chlorine gas for disinfection
 - hydrofluosilicic acid for fluoridation
 - sodium hydroxide for final pH adjustment

After the water is treated, it is pumped from the WTP to various communities or to the terminal reservoir.

Residue from the flocculation tanks drain, sedimentation tanks and filter backwash are discharged to a Residuals Management Facility (RMF).

A process schematic of the treatment process is shown below.



Reservoirs and Pumping Stations

Water from the plant is pumped to the Elgin Middlesex terminal reservoir via approximately 30 km of primary transmission mains (twinned 15 km mains) with the Fruit Ridge surge control facility along the way. The terminal reservoir is an in-ground reservoir with two cells, each cell having a storage capacity of 27.3 ML.

The EAPWSS Joint Board of Management owns the Elgin-Middlesex Pumping Station property valvehouse building, settling pond and the two-cell reservoir, but not the pump station and associated equipment. Process equipment within the pump station building is owned by the City of London, the St. Thomas Secondary Water Supply System Joint Board of Management, and the Aylmer Secondary Water Supply System Joint Board of Management. Delineation of the system ownership is included in the CD/DVD of supporting information that has been provided as part of the *Request for Proposals for Lake Huron & Elgin Area Primary Water Supply Systems Contract Successful Proponent Procurement dated June x, 2011*, under the folder E3 -Drawings — EMPS.

In general the following are part of the Elgin Area Primary Water Supply System:

- Includes: property, valvehouse building, one PLC, site drainage, overflow/settling ponds, overflow systems, reservoir cells.
- Excludes process equipment, MCCs for power, standby generator, building services, sumps, sump pumps, site servicing incl. septic tank, other PLCs inside building and other items not part of the System.

Primary Transmission Mains

There is approximately 30 km of primary transmission mains as summarized below and listed in more detail in the table below:

- 14.7 km of 750 mm main (original)
- 14.7 km of 900 mm main (twinned, 2011)

| System | Description | Diameter (mm) | Approx. Length (m) | Year | Pipe Material |
|---------------|----------------------------|----------------------|---------------------------|-------------|----------------------|
| EAPWSS | Primary Pipeline | 750 | 14,700 | 1966 | C301(E) CPP |
| EAPWSS | Primary Pipeline - Twinned | 900 | 14,700 | 2011 | C200 Steel |

Monitoring Stations

There are no monitoring stations located throughout the Elgin Area Primary Water Supply System.

Chambers

Throughout the system, there are numerous chambers that include flow meters and valves. More information is included in the CD/DVD of supporting information that has been provided as part

of the *Request for Proposals for Lake Huron & Elgin Area Primary Water Supply Systems Contract Successful Proponent Procurement dated August 2, 2011*, under the folder EI Governance — a —System Maps and Chambers.

Additional Information

A CD/DVD containing supporting information has been provided as part of the Request for Proposals for Lake Huron & Elgin Area Primary Water Supply Systems Contract Successful Proponent Procurement dated August 2, 2011.

SCHEDULE "B-2"

POTABLE WATER PERFORMANCE CRITERIA

In addition to meeting the requirements of the *Safe Drinking Water Act*, the Drinking Water Systems Regulation (O. Reg. 170/03) and the Ontario Drinking Water Quality Standards (O.Reg. 169/03), all water treatment facilities shall produce drinking water that at least meets with the following criteria at all times except for Uncontrollable Circumstances and Abnormal Raw Water quality:

Finished water quality should produce a product in which none of the microbiological, chemical and radiological standards listed in the Ontario Drinking-Water Quality Standards are exceeded at any point in time.

The finished water quality shall, unless otherwise specified below, at least meet the following criteria:

1. On a daily basis, a turbidity of less than 0.1 NTU, 95% of the time from each filter, and less than 0.2 NTU, 100% of the time from the high lift treated water, unless it is established, based upon investigative studies, that the Facilities are not capable of meeting such criteria in which case the Parties shall meet and negotiate criteria which are in compliance with Applicable Laws and which are acceptable to both parties acting reasonably.
2. A daily average concentration of total aluminum of not more than 0.1 mg/L on filtered water, based on laboratory results.
3. pH in the finished water in the range of 7.4 to 7.8, or as otherwise identified in the corrosion control plan.
4. A fluoride concentration adjusted to 0.6 to 0.8 mg/L (target 0.7 mg/L), 99% of the time.
5. Primary and Secondary disinfection to meet the latest standards in "Procedure for Disinfection of Drinking Water in Ontario". MOECC, 2006, (as amended from time to time)
6. Distribution free chlorine residuals to be maintained above 0.5 mg/L at all points in the transmission mains, including the furthest points and at all points of supply to municipal distribution systems, at all times.
7. The concentration of Trihalomethanes (THMs) shall be below 80 pg/L. The 80 pg/L is based on a locational running annual average of quarterly samples at the extremities of the transmission mains.
8. The concentration of Haloacetic acids (HAAs) shall be below 60 pg/L. The 60 pg/L is based on a locational running annual average of quarterly samples at the extremities of the transmission mains.
9. Geosmin levels below 4.0 ng/L and MIB levels below 8.5 ng/L in the treated water at all times.
10. Microbiological concentration in the finished water at discharge, controlled so that E. Coli are never detected and that total coliforms per 100 mL are never detected in consecutive samples or in multiple samples taken as a single submission.

turbidity, ph, fluoride and chlorine performance are based on scada data.

OPERATIONAL PERFORMANCE CRITERIA

Residue effluent with a monthly average less than 25 mg/l total suspended solids discharged back to Lake Erie.

SCHEDULE "C-2"

SAMPLING AND TESTING REQUIREMENTS

Sampling and testing at all water treatment facilities are to be performed in accordance with the latest *Safe Water Drinking Act*, the Drinking Water Systems Regulation (O. Reg. 170/03), Municipal Drinking Water Licence and Applicable Laws.

Additional sampling and monitoring requirements include the following:

One additional sample of treated water shall be taken annually and tested for every parameter set out in Schedule 23 (Inorganic Parameters) and Schedule 24 (Organic Parameters) of O.Reg. 170/03.

The parameters listed in Table 4 of the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines are to be tested at least once annually in the raw and treated water.

Haloacetic acids (HAAs) shall be tested simultaneously with trihalomethanes on a quarterly basis. Reporting is based on a locational running annual average of quarterly samples at the extremities of the transmission mains.

Geosmin and MIB samples shall be taken weekly in both the raw and treated water during the period July 1 — October 31.

Continue to participate in the MOECC's Drinking Water Surveillance Program (DWSP) routine monitoring program (provide samples approximately twice annually on raw, treated and distribution water), intake monitoring program (provide raw water samples approximately weekly), and algal toxins monitoring program (provide raw and treated water samples weekly, June through November).

Participate in storm event sampling as per the protocol developed by Elgin.

The following types of continuous on-line SCADA analyzers and flow meters must be maintained and operational at all times:

- Turbidity
- pH
- Temperature
- Conductivity
- Free Chlorine
- Total Chlorine
- Fluoride
- Particle Counters
- UV Sensors
- Flow

Minimum Operational Testing:

| Location of Sampling | Parameter(s) | Frequency of Testing | Description |
|---|--|----------------------|--|
| Raw Water | Colour | Once daily | |
| | Turbidity pH | Every 4 hours | |
| | Total Chlorine Free Chlorine | Every 4 hours | Only if Zebra mussel control system is in operation |
| Settled Water | pH Turbidity | Every 4 hours | |
| Filtered Water | Turbidity Free Chlorine | Every 4 hours | |
| Treated Water | Total Chlorine Colour | Twice daily | |
| | pH Turbidity | Every 4 hours | |
| Distribution (Valve House at Elgin Middlesex Pumping Station) | Lead Alkalinity | Twice annually | |
| | Turbidity Free Chlorine Fluoride Aluminum Colour | Twice annually | |
| Distribution (Fruit Ridge Surge Facility) | Turbidity Free Chlorine | Once weekly | |
| Filter Backwash Water | Suspended Solids | Monthly | Monthly composite sample (at least 3 discrete samples taken at equal time intervals over discharge period) |

SCHEDULE "D"

OPERATOR'S SUBMISSION OF QUALIFICATIONS AND PROPOSAL

SCHEDULE "E-2"
OPERATIONS FEE AND INITIAL AND FINAL CONDITION SURVEY COST

Elgin

| Item | Proposal Pricing (May 3, 2021) | | | | |
|--|--------------------------------|---------------------|---------------------|---------------------|---------------------|
| | 2023 | 2024 | 2025 | 2026 | 2027 |
| Salaries and Training | \$ 2,080,925 | \$ 2,133,588 | \$ 2,187,591 | \$ 2,242,970 | \$ 2,299,758 |
| OCWA Support | \$ 74,750 | \$ 77,553 | \$ 80,461 | \$ 83,479 | \$ 86,609 |
| Consulting/Audit | \$ 17,250 | \$ 17,897 | \$ 18,568 | \$ 19,264 | \$ 19,987 |
| Health and Safety | \$ 57,500 | \$ 59,656 | \$ 61,893 | \$ 64,214 | \$ 66,622 |
| Insurance | \$ 159,132 | \$ 165,185 | \$ 171,502 | \$ 178,098 | \$ 184,986 |
| Utilities | \$ 80,500 | \$ 84,928 | \$ 89,599 | \$ 94,526 | \$ 99,725 |
| Facility Maintenance | \$ 276,000 | \$ 286,350 | \$ 297,088 | \$ 308,229 | \$ 319,788 |
| Transmission | \$ 57,500 | \$ 59,656 | \$ 61,893 | \$ 64,214 | \$ 66,622 |
| Equipment Maintenance | \$ 350,750 | \$ 363,903 | \$ 377,549 | \$ 391,708 | \$ 406,397 |
| Sampling | \$ 48,300 | \$ 50,111 | \$ 51,990 | \$ 53,940 | \$ 55,963 |
| Vehicles | \$ 76,475 | \$ 79,373 | \$ 82,381 | \$ 85,504 | \$ 88,746 |
| Site Administration | \$ 47,438 | \$ 49,216 | \$ 51,062 | \$ 52,977 | \$ 54,963 |
| Regional Administration Support | \$ 37,375 | \$ 38,777 | \$ 40,231 | \$ 41,739 | \$ 43,305 |
| Bank Fees | \$ 9,775 | \$ 9,775 | \$ 9,775 | \$ 9,775 | \$ 9,775 |
| Final Condition Assessment | | | | | \$ 150,000 |
| RMF Cost | \$ 466,411 | \$ 485,224 | \$ 503,857 | \$ 523,271 | \$ 543,498 |
| Subtotal of Costs | \$ 3,840,081 | \$ 3,961,192 | \$ 4,085,440 | \$ 4,213,908 | \$ 4,496,744 |
| Water Treatment Chemical cost (\$) | \$ 962,780 | \$ 1,015,733 | \$ 1,071,598 | \$ 1,130,536 | \$ 1,192,716 |
| Total Cost (\$) excluding taxes | \$ 4,802,861 | \$ 4,976,925 | \$ 5,157,038 | \$ 5,344,444 | \$ 5,689,460 |
| Yearly Increase (%) | 8.90% | 3.62% | 3.62% | 3.63% | 6.46% |
| Sediment Haulage (included in total RMF cost) | \$ 63,250 | \$ 66,729 | \$ 70,399 | \$ 74,271 | \$ 78,356 |
| RMF Treatment Chemical Cost (\$) (included in RMF cost) | \$ 34,161 | \$ 35,264 | \$ 35,441 | \$ 35,618 | \$ 35,796 |
| Flow Adjustment Costs | \$ 1,060,191 | \$ 1,117,726 | \$ 1,177,438 | \$ 1,240,425 | \$ 1,306,867 |
| Annual treated water volume (m ³) | 17,031,811 | 17,074,391 | 17,117,077 | 17,159,870 | 17,202,769 |
| WT and RMF Chemical Sediment Haulage costs per cubic metre of treated water and excluding taxes (\$/m ³) | \$ 0.06225 | \$ 0.06546 | \$ 0.06879 | \$ 0.07229 | \$ 0.07597 |

Notes:

RMF costs rolled into the annual O&M fee, prior was invoiced via expenditure request outside of O&M on a time and materials basis

Chemical costs have been adjusted and projected future year escalations based on current market indicators

All CMF costs executed to April 23 2021 have been accounted for into the annual O&M fee (\$76K)

One (1) additional day shift operator has been added to the org structure for Elgin

Water treatment chemical costs are based on water volumes received in April 2021 from RWS

Sediment haulage is based on hauling to W12A London

Sediment disposal tipping fees have not be accounted for as this is to be a EAPWSS expense

Transition plan has been removed 2022

RMF cost 2022 estimated at \$494,329

The costs for line items RMF Treatment Chemical, Water Treatment Chemical and Sediment Haulage will be utilized to calculate any Treated Water Volume reconciliations based on the agreed to terms of (<95% or >105%)



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-09

Report Page: 1 of 8

Meeting Date: October 7, 2021

File No.: EA2177

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

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

Subject: Asset Management Policy and Asset Management Plan Update

RECOMMENDATION

That the following actions be taken with regards to the Asset Management Policy and Asset Management Plan Update for the Elgin Area Primary Water Supply System:

- a) The Board of Management for the Elgin Area Primary Water Supply System **APPROVE** the Asset Management Policy; and,
- b) The Board of Management for the Elgin Area Primary Water Supply System **RECEIVE** this report regarding the Asset Management Policy and Asset Management Plan Update for information.

PREVIOUS AND RELATED REPORTS

December 3, 2020 Asset Management Maturity Assessment and Roadmap

March 4, 2021 Asset Management – Roadmap and Plan Update

BACKGROUND

In March 2021, Board staff reported on the finalization of the Asset Management Maturity Assessment and Roadmap (AM Roadmap) that outlines the Elgin Area Primary Water Supply System's (EAPWSS) current level of maturity and capabilities related to Asset Management (AM) Planning, as well as illustrating a clear pathway for the improvement of AM processes by prioritizing areas of focus. A key recommendation of the roadmap is the development of an Asset Management Policy and continuing to update the AM Plan following the principles of asset management planning.

DISCUSSION

AM Plan Update

Board staff issued the Request for Proposal (RFP) for the AM Plan in mid-February to four consulting firms. In mid-March, three proposals were received by the closing date. The proposals were reviewed by Board staff and evaluated against the requirements identified in the RFP document. Based on this evaluation, the proposal from Dillon Consulting Limited (Dillon) was deemed to have the best value to the Board and was recommended by Board staff.

The overall project budget for this project has been approved by the Board at \$150,000. Dillon estimates the fees associated with this assignment to be \$143,592, including contingency, excluding HST, based on their current work plan. It is therefore anticipated that the total cost for this project will remain below budget.

In accordance with the delegated authority given by the Board in March, the Chair and Chief Administrative Officer executed a consulting services agreement with Dillon for the completion of the AM Plan update.

AM Policy

The AM Policy is a statement that demonstrates the utility's commitment to asset management by setting out the principles by which the utility intends to apply asset management planning to achieve its organizational objectives. The policy establishes the intentions and direction of the utility as formally expressed and committed to by its top management.

The AM Policy is a key deliverable of the AM Plan update and was developed through a series of workshops with all service areas participation to ensure that it's guiding principles and outcomes are implemented across the utility. The policy applies to the assets owned by the EAPWSS and to all service areas that operate or manage infrastructure assets that provide service to our customers. The Director of Regional Water is responsible for leading the implementation of the policy, as well as periodic policy review.

The Board is responsible for:

- Approving the policy;
- Receiving annual reports on the status of implementing the AM plan;
- Approving funding and resources to implement the policy; and
- Endorsing anticipated asset funding requirements through multi-year and long-range financial plans.

The proposed AM Policy recommended by staff for Board approval is attached to this report as Appendix A.



Elgin Area

Primary Water Supply System

Report No.: EA-2021-03-09

Report Page: 1 of 8

Meeting Date: October 7, 2021

File No.: EA2177

CONCLUSION

Staff recommends that the Board approve the Asset Management Policy that demonstrates the EAPWSS' commitment to asset management by setting out the principles by which the utility intends to apply asset management to achieve its organizational objectives.

Prepared by: Billy Haklander, P.Eng., LL.M.
Environmental Services Engineer

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

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

Attachments: Appendix A: Asset Management Policy

APPENDIX A: ASSET MANAGEMENT POLICY



Asset Management Policy

1. Purpose

Asset Management is a coordinated approach to realize the full value of existing and new assets. The Asset Management Policy outlines the key asset management principles that will be developed and implemented across the utility and be the utility's commitment to asset management.

This policy supports a consistent approach to asset management planning in alignment with the utility's corporate strategic priorities and legislative requirements.

2. Scope

The Elgin Area Primary Water Supply System strives to operate and to continually improve the sustainable, environmentally friendly utility that provides safe and reliable drinking water to current and future customers.

The utility delivers drinking water services which include water supply, treatment, and transmission services to benefiting municipalities. This policy applies to the assets owned by the utility and to all service areas that operate or manage infrastructure assets that provide service to our customers. The value of an infrastructure asset in terms of the level of service the asset provides, and the total cost of owning the asset over its service life, will be the basis for an asset's inclusion in the asset management system.

3. Alignment

The asset management planning approach fosters integration with the Strategic Plan (currently under development), Master Water Plan, Operations Plan and Financial Plan. It is also in alignment with global best practice standards for Asset Management such as ISO 55000.

4. Compliance

The asset management system, which includes this policy, supporting strategies, and asset management plan satisfies compliance obligations including requirements and standards of ISO 14001, Drinking Water Quality Management Standard, the Environmental and Quality Policy, and any other contractually relevant obligations.

5. Guiding Principles

The guiding principles for infrastructure asset management priority setting, planning, and investment are the following:

1. **Service Delivery:** Service delivery is the key purpose of infrastructure assets. Decision-making should be focused on delivering defined levels of service that reflect customer expectations and balance risk and affordability.
2. **Long-Term Sustainability and Resilience:** Services and infrastructure assets should be socio-culturally, environmentally, and economically sustainable over the long term. Achieving this involves long-term planning that incorporates triple bottom line considerations, climate change awareness, and the development of resilience.
3. **Fiscal Responsibility and Asset Management Decision-Making:** Financial challenges and constraints are a reality for the utility and robust asset management decision-making processes are required to make the best use of available funds to deliver services for the benefit of the utility's customers.
4. **Whole-Life Perspective:** The utility shall consider the full financial impact of managing an asset from acquisition to disposal. Encouraging holistic thinking and collaborative asset management decision-making across service areas and disciplines will help the utility realize maximum value for the customers we serve.
5. **Environmentally Conscious:** The utility shall minimize the impact of infrastructure on the environment and address the vulnerabilities and risks caused by climate change through lifecycle management. This includes energy and resource optimization, meeting environmental standards such as ISO14001 in our operation, considering end of product life disposal or reuse options, and whole lifecycle considerations at the time of repair, replacement, or new build.
6. **Transparency:** To make transparent infrastructure decisions, the utility shall be data-driven and evidence-based.

6. Key Outcomes

1. The utility must integrate findings from the asset management plan into its annual budgeting process using a business case approach. The asset management plan and progress made on the plan shall be considered in the creation of the capital budget, operating budget, and long-term financial plan.
2. To build a future-ready utility that is data rich as well as knowledge rich, a corporate asset information strategy must be developed to ensure accessibility to a fully integrated asset data registry to support good governance and leverage operational efficiencies.
3. Climate change is part of our risk management approach embedded in asset management and lifecycle management strategies to enhance the resilience of the infrastructure. The utility must develop and maintain an asset risk register capturing climate change impacts on infrastructure assets to inform prioritization of capital projects.
4. Asset management facilitates evidence-based dialogue with the utility and its customers about investment recommendations.
5. Sustainable levels of service and asset lifecycle activities are used by the utility as drivers for investment and are foundational to its decision making.
6. The utility strives for continuous improvement in asset management planning and asset management systems by applying best management practices in alignment with the ISO 55000 standards for asset management which represents global consensus on asset management.

7. Responsibilities for Leading Implementation

1. The utility will communicate this policy to its staff and partners. The Director of Regional Water is accountable for this policy and will review it regularly.
2. The Board's role and responsibilities are to:
 - Approve this Asset Management Policy;
 - Receive reports on the status of implementation of the asset management plan on an annual basis;
 - Approve funding and resources to implement this policy and associated requirements; and

- Endorse anticipated asset funding requirements through multi-year and long-range financial plans.
3. All staff, partners and contractors are responsible for observing and implementing the requirements of this policy.

8. Monitoring

Compliance with this policy will be monitored through the Board's annual review of asset management planning progress that would address:

- The utility's progress in implementing its asset management plan;
- Any factors impeding the utility's ability to implement its asset management plan; and
- A strategy to address these factors including the adoption of appropriate policies practices.

9. Definitions

"Asset" is a thing, item, or entity that has potential or actual value to the utility.

"Asset Management" is the coordinated activity of the utility to realize value from its assets.

"Asset Management Plan" is documented information that specifies the activities, resources and timelines required for an individual asset, or a grouping of assets, to achieve the utility's asset management objectives.

"Asset Management Policy" is a statement that demonstrates the utility's commitment to asset management by setting out the principles by which the utility intends to apply asset management to achieve its organizational objectives. The policy establishes the intentions and direction of the utility as formally expressed by its top management.

"Asset Management System" is the set of interrelated and interacting elements that establish the asset management policy, strategies, plan, processes, and asset information systems to ensure that organizational objectives are met. It is how the utility practices the discipline of asset management.

"Capital budgets" are a summary of annual forecasted funding and expenditure requirements categorized by capital projects.

“Capital projects” are annual forecasted funding and expenditure requirements for specific initiatives that include the purchase, construction, major repair, replacement, and renewal of assets.

“Compliance obligations” are legal requirements that a utility must comply with and other requirements that a utility must or chooses to comply with.

“Green infrastructure asset” is an infrastructure asset consisting of natural or human-made elements that provide ecological and hydrological functions and processes and includes natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.

“Infrastructure Asset” means an infrastructure asset, including a green infrastructure asset, directly owned by the utility, or included on the consolidated financial statements of the utility.

“Lifecycle Activities” means activities undertaken with respect to an infrastructure asset over its service life, including constructing, maintaining, renewing, operating, and decommissioning, and all engineering and design work associated with those activities.

“Level of Service” is the parameters, or combination of parameters, which reflect social, political, environmental, and economic outcomes the utility delivers. The parameters can include safety, customer satisfaction, quality, quantity, capacity, reliability, responsiveness, environmental acceptability, cost, and availability.

“Operating Budget” covers the day-to-day expenses required to deliver operations and maintenance services and includes items like staff wages, supplies, spare parts, and utilities.

“Risk” is the effect of uncertainty on objectives. An effect is a deviation from the expected – positive and/or negative.

“Service Life” means the total period during which an infrastructure asset is in use or is available to be used.

“Sustainable levels of service” are maintained for the lifecycle of the asset and within the funding envelope.

“Triple bottom line” is a business concept that includes three parts: social, environmental, and financial.