

Agenda

Lake Huron Primary Water Supply System Joint Board of Management

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

| | Pages |
|---|-------|
| 1. Call to Order | |
| 1.1. Disclosures of Pecuniary Interest | |
| 2. Adoption of Minutes | |
| 2.1. Minutes of the 2nd Meeting held on March 3, 2022 | 4 |
| 3. Consent Items | |
| 3.1. Kelly Scherr, Chief Administrative Officer - Quarterly Compliance Report (1st Quarter 2022: January - March) | 8 |
| 3.2. Kelly Scherr, Chief Administrative Officer - Environmental Management System and Quality Management System | 11 |
| 3.3. Kelly Scherr, Chief Administrative Officer - Quarterly Operating Financial Status - 1st Quarter 2022 | 23 |
| 3.4. Kelly Scherr, Chief Administrative Officer - Lake Huron Treatment and Transmission Assets - State of the Infrastructure Report | 27 |
| 3.5. Kelly Scherr, Chief Administrative Officer - 2021 Audited Financial Statement and Auditor's Report | 40 |
| 3.6. Kelly Scherr, Chief Administrative Officer - Water System Operation - Contract Status Report | 59 |
| 3.7. Kelly Scherr, Chief Administrative Officer - Municipal Act - Board Structure | 63 |
| 3.8. Kelly Scherr, Chief Administrative Officer - Video Surveillance Policy | 66 |

| | | |
|-----------|--|-----|
| 3.9. | Kelly Scherr, Chief Administrative Officer - LH1230 Huron High Lift Pump Replacement - Status Update | 76 |
| 3.10. | Kelly Scherr, Chief Administrative Officer - LH1317 Distressed Pipe Replacement Program (Pipe 1-162 Repair) | 82 |
| 3.11. | Kelly Scherr, Chief Administrative Officer - Port Blake Park | 88 |
| 4. | Items for Discussion | |
| 4.1. | Kelly Scherr, Chief Administrative Officer - LH2042 Huron Pipeline 'A' Double Isolation Valve Upgrades Design - Consulting Award | 92 |
| 4.2. | Kelly Scherr, Chief Administrative Officer - Oneida Nation of the Thames Water Supply Agreement | 95 |
| 4.3. | Kelly Scherr, Chief Administrative Officer - LH1408 Oneida Nation of the Thames Transmission Pipeline Municipal Class Environmental Assessment and Preliminary Design - Consultant Award | 110 |
| 4.4. | Kelly Scherr, Chief Administrative Officer - LH1901 Water Quality Facility Plan Update - Consultant Award | 115 |
| 4.5. | Kelly Scherr, Chief Administrative Officer - LH1243 McGillivray Booster Pumping Station Facility Upgrades - Project Update and Engineering Fees | 118 |
| 4.6. | Kelly Scherr, Chief Administrative Officer - LH1426 Microbial Inactivation and Storage Class Environmental Assessment - Project Status Update | 122 |
| 4.7. | Kelly Scherr, Chief Administrative Officer - LH1246 Low Lift Window Replacement Project | 127 |
| 4.8. | Kelly Scherr, Chief Administrative Officer - Pressure Reducing Valves Replacements | 129 |
| 4.9. | Kelly Scherr, Chief Administrative Officer - North Middlesex Repayment Agreement | 131 |
| 5. | Deferred Matters/Additional Business | |
| 6. | Upcoming Meeting Dates | |
| | October 6, 2022 | |
| | January 19, 2023 | |

7. Adjournment

Lake Huron Primary Water Supply System Report

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

Attendance: Meeting held remotely on Thursday, March 3, 2022, commencing at 2:00 PM.

PRESENT: M. van Holst (Chair), C. Burghardt-Jesson, M. Cassidy, D. Faubert, J. Fergusson, A. Hemming, S. Hillier, S. Lehman, P. van Meerbergen, P. Walden, J. Wilcox and B. Willard and J. Bunn (Committee Clerk)

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

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Adoption of Minutes

2.1 Minutes of the 1st Meeting held on December 2, 2021

VAN MEERBERGEN AND WILCOX

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

Motion Passed

3. Consent Items

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

WILLARD AND HEMMING

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

Motion Passed

3.2 Environmental Management System and Quality Management System
FERGUSSON AND VAN MEERBERGEN

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

Motion Passed

3.3 Quarterly Operating Financial Status - 4th Quarter 2021
WILLARD AND HEMMING

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

Motion Passed

3.4 Capital Status Report
WILLARD AND HEMMING

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

- a) the above-noted report **BE RECEIVED**;
- b) projects LH1105 Computerized Maintenance Management System, LH1239 Sluice Gate Repairs, LH1263 Low Lift Pump Motor Replacement, LH1271 Non-Revenue Meter and LH1385 1996 Crop Loss Monitoring **BE CLOSED**, with surplus funding in the approximate amount of \$218,299 being released to the Reserve Funds; and,
- c) projects LH1025 Bluewater Highway Property and LH1373 IT Security Upgrades **BE CLOSED**, with additional funding in the approximate amount of \$139,614 being drawn from the Reserve Funds. **CARRIED**

Motion Passed

3.5 Ministry of the Environment, Conservation and Parks Inspection Report

FERGUSSON AND VAN MEERBERGEN

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

Motion Passed

4. Items for Discussion

4.1 Asset Management Plan - Levels of Service Framework

WILLARD AND FAUBERT

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

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

Motion Passed

4.2 Oneida Nation of the Thames Water Supply

WILLARD AND VAN MEERBERGEN

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the report, dated March 3, 2022, related to the Oneida Nation of the Thames Water Supply:

- a) the request by the Oneida Nation of the Thames to connect to the Lake Huron Water Supply System **BE ENDORSED**;
- b) Board staff **BE AUTHORIZED** to enter into discussions with the Oneida Nation of the Thames for the purpose of negotiating a Water Supply Agreement;

c) Board staff **BE AUTHORIZED** to undertake necessary administrative activities with the Oneida Nation of the Thames and Indigenous Services Canada, if and as required, for the coordination and planning for the connection; and,

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

Motion Passed

5. Deferred Matters/Additional Business

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

VAN HOLST AND HILLIER

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

Motion Passed

6. Next Meeting Date

June 2, 2022

7. Adjournment

The meeting adjourned at 2:42 PM.

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

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

Subject: Quarterly Compliance Report (1st Quarter 2022: January - March)

RECOMMENDATION

That the Quarterly Compliance report with respect to the general, regulatory and contractual obligations of the Lake Huron 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 1st quarter of 2022.

BACKGROUND

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

DISCUSSION

Regulatory Issues

Recent Regulatory Changes: At the time of drafting this report, there were no new regulatory changes for this reporting period which may significantly impact the Lake Huron Primary Water Supply System (LHPWSS).

New Environmental Registry of Ontario (ERO) Postings: At the time of drafting this report, there were new postings on the ERO that may have an impact on the LHPWSS.

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

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



Impacts to the LHPWSS:

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

Quarterly Water Quality Reports: The [Water Quality Quarterly Report](#) for the period of January 1 – March 31, 2022, was completed by the operating authority, and is posted on the Water Systems' website for public information.

Note: In order to better comply with the *Accessibility for Ontarians with Disabilities Act, 2005*, the detailed tables of water quality test results which were previously appended to this Report have been removed. The full list of 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, detailed water quality information is also published within the water system's Annual Report required by O.Reg. 170/03 under the *Safe Drinking Water Act*.

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

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

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

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

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

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

Contractual Issues

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

Board staff informally meets with OCWA on a monthly basis to discuss operations and maintenance related issues, and formally on a quarterly basis to review contractual performance. The 2022 first quarter Contract Report was received from OCWA on April 28, 2022, and was scheduled to be discussed at the quarterly administration meeting between Board staff and OCWA on May 12, 2022. Copies of the monthly Operations and Maintenance Reports, and quarterly Contract Reports are available at the Board’s Administration Office in London upon request.

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

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

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



To: Chair and Members, Board of Management
Lake Huron 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 Lake Huron Primary Water Supply System **BE RECEIVED** for information.

BACKGROUND

Environmental Management System (EMS)

The Lake Huron Primary Water Supply System (LHPWSS) has an Environmental Management System (EMS) which has been registered to the ISO 14001 standard since 2003. The LHPWSS 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 LHPWSS.

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 every three years.

OCWA received full scope DWQMS re-accreditation in November 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 LHPWSS and the Elgin Area Primary Water Supply System (EAPWSS).

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

Internal Audits

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

The EMS Internal Audit is scheduled for May 10-11, 2022
The DWQMS Internal Audit is scheduled for June 7-8, 2022

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

External Audits

Annual surveillance audits (third-party external audits) are conducted for both the EMS and QMS, with a recertification audit taking place every third year. The external registrar for both the EMS and QMS is currently SAI Global. External audits review all aspects of the EMS or

QMS, including the scope and results of internal audits, subsequent management reviews, and corrective action processes.

There were no external audits conducted during the reporting period.

Corrective and Preventive Actions

For the EMS/QMS to be effective on an on-going basis, an organization must have a systematic method for identifying actual and potential non-conformities, making corrections and undertaking corrective and preventive actions, preferably identifying and preventing problems before they occur. The Internal Audit process and Management Review are the two main drivers for proactively identifying potential problems and opportunities for improvement for the LHPWSS 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 LHPWSS's overall performance.

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

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

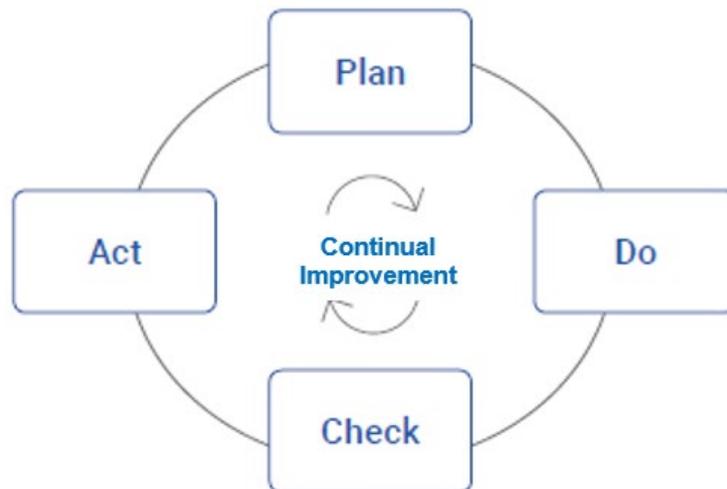


Figure 1: Plan-Do-Check-Act improvement process

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

- Three (3) new action items were added as a result of the corrective action process for a loss of Alum Incident
- Nine (9) new action items were added as a result of the management of change process for the High Lift Pump Project
- Four (4) new action items were added as a result of the management of change process for the 5-year extension of the Operating Contract with OCWA (2023-2027)
- One (1) new action item was added as a result of the Management Review and the inclusion of cyber security/cyber-attack as a hazardous event in the QMS Risk Assessment.
- One (1) new action item was added as the result of a required regulatory change to the QMS Operational Plan.

As of May 16, 2022, there are currently thirty-nine (39) 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 LHPWSS continues to be suitable, adequate and effective. Activities by OCWA continue to address the need for change, and the management systems are being revised and refined as required.

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

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

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

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

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

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

Date: April 1, 2022

Time: 1:00pm

Location: Virtual – Microsoft Teams

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

Regrets: Randy Lieber (OCWA)

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

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

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

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

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

Huron Board Meeting

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

Each of these reports were received for information.

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

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

Elgin Board Meeting

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

Each of these reports were received for information.

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

The 5-year Drinking Water Quality Trends were reviewed and discussed (Jan 2017-Feb 2022). There are strong correlations for the Lake Huron WTP trends but very few notable correlations for Elgin WTP likely due to the large fluctuations in turbidity from the source water. There were no concerns that required operational modifications at this time.

Additional trends to include in the next annual review:

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

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

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

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

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

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

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

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

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

5. Adequacy of Resources (LHPWSS & EAPWSS)

Inspection & Audit Results:

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

Staffing:

All RWS staff positions are currently filled, no vacancies.

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

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

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

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

Training:

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

Pandemic:

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

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

Water volumes:

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

Capital projects:

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

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

6. Relevant Communications from Interested Parties (EAPWSS)

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

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

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

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

7. Staff Suggestions (LHPWSS & EAPWSS)

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

8. Compliance Obligations Updates (LHPWSS & EAPWSS)

[Expanding administrative penalties for environmental contraventions](#)

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

Date Posted/Notice Received: January 27, 2022

Comments Due: Extended to March 28, 2022

Summary:

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



compliance and enforcement activities.

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

Provincial Officers will use an “Informed Judgement Matrix” to determine when/how to apply compliance and enforcement tools.

Potential Impacts:

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

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

Minister’s Annual Report on Drinking Water (2021)

Source: MECP

Date Posted/Notice Received: December 23, 2021

Comments Due: N/A

Summary:

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

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

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

Potential Impacts:

It was noted in the report that MECP is proposing to amend the “List of Potential Hazardous Events” referenced in the DWQMS to include cyber security/cyberattacks among the matters that are to be considered in municipalities’ risk assessments.

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

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

Source: Health Canada

Date Posted/Notice Received: February 4, 2022

Comments Due: N/A

Summary:

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

Potential Impacts:



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

[Withdrawal of select guidelines for Canadian drinking water quality](#)

Source: Health Canada

Date Posted/Notice Received: January 28, 2022

Comments Due: N/A

Summary:

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

Potential Impacts:

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

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

[Guidance on Monitoring the Biological Stability of Drinking Water in Distribution Systems](#)

Source: Health Canada

Date Posted/Notice Received: February 25, 2022

Comments Due: N/A

Summary:

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

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

Potential Impacts: None anticipated.

[Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Bromoxynil](#)

Source: Health Canada

Date Posted/Notice Received: March 4, 2022

Comments Due: N/A

Summary: The maximum acceptable concentration (MAC) for bromoxynil in

drinking water has been set at 0.03 mg/L (30 µg/L). Bromoxynil is a herbicide used to control broadleaf weeds in food and feed crops

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

[Guideline Technical Document: 4-Chloro-2-methylphenoxyacetic Acid \(MCPA\) in Drinking Water](#)

Source: Health Canada

Date Posted/Notice Received: March 18, 2022

Comments Due: N/A

Summary:

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

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

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

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

9. Management of Change (LHPWSS & EAPWSS)

The following Management of Change Forms were completed:

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

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

The following Management of Change Forms are outstanding:

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

d. EMPS Ownership Clarification

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

10. Corrective Action Forms (LHPWSS & EAPWSS)

The following Corrective Action Forms (CAFs) were completed:

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

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

11. Status of Action Items (LHPWSS & EAPWSS)

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

12. Other Business (LHPWSS & EAPWSS)

1. RWS has appointed a new Capital Programs Manager and there are some expected modifications occurring in the contract/contractor management program related to standardized project management templates and health and safety management. There are anticipated impacts on QMS/EMS procedures including outlining contractor QMS/EMS requirements during the tender process. OCWA plans to maintain their current process.
2. The MECP is considering changes to the Conservation Authorities Act. The MECP released a proposal on January 26, 2022, with the opportunity to comment by February 25, 2022. The regulation remains in phase 2 and has not been formalized at this time. The MECP is going to be modifying the language to allow Conservation Authorities to apply levies against Municipalities. It is not clear at this time if this will affect EAPWSS and LHPWSS or create implications to QMS/EMS. Waiting for formal communication.
3. OCWA has appointed a new CEO and President - Alicia Fraser. No change required to QMS/EMS.

Next Meeting: June 22, 2022



Report No.: LH-2022-02-03
Report Page: 1 of 4
Meeting Date: June 2, 2022
File No.:

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

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

Subject: Quarterly Operating Financial Status – 1st Quarter 2022

RECOMMENDATION

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

BACKGROUND

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

A high-level summary of incurred expenses and revenues for the water supply system is attached to this report as Appendix A for the first quarter 2022 (January 1 to March 31) as well as a comparative accumulation of expensed for the year to date.

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

DISCUSSION

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

- Contracted Operating Services in the summary report reflects the total direct operating costs of the contracted operation of the water treatment and transmission system, as well as other related contracted services. The total accumulated operating costs over the year (unaudited) is higher than the same period in 2021 and is reflective of contractual increases in service agreements with the operating authority and other contracted services. In the comparative period in 2021, the payment of an invoice was delayed and reported in the second quarter, artificially making the payables look lower than normal.
- Contracted Administrative Services in the summary report reflects the fees paid to the City of London.
- Electricity expenditures include the purchase of energy and related energy management service charges for the water system. The water system was marginally higher than the previous year largely due to marginal increases in energy costs and higher consumption.
- Salaries, wages and benefits expenditures include all direct labour costs for administrative staff including benefits. Variations over the same period in 2021 are attributed to annual salary adjustments, previous staff vacancies, additional costs as a result of the pandemic, and additional staff added in the 2022 budget.
- Administration and Other Expenses relates to various overhead operating expenses, including subscriptions and memberships, and office supplies. While the reported expenditures may be adjusted as part of the year-end process, accounting for 2022 and 2023 pre-payments and other cost accounting adjustments, the costs to date marginally higher than 2021 due to increased material, supply, and rental costs. In addition, the accounting of some computer software and services was changed and moved from “Vehicles and Equipment.” and the payment of an invoice was delayed and reported in the second quarter, making the payables look lower than normal in the first quarter.
- Vehicles and Equipment expenditures include costs associated with vehicles, computers, and office equipment for administrative staff. First quarter 2022 expenditures are currently lower than 2021 largely due to a change in accounting and moving of some costs to “Administration and Other Expenses”.
- Purchased Services and Professional Fees largely relate to allowances for ad hoc professional consulting and legal services, security services, office lease, telephone charges, network and SCADA (Supervisory Control and Data Acquisition) maintenance,

printing services, and pipeline locate costs. The increased cost when compared to the same period in 2021 is largely attributed to higher insurance premiums, and additional legal costs incurred by the water system related to the High-Pressure event as well as discussions related to the Joint Municipal Services Board and Municipal Services Corporation under the Municipal Act.

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

Prepared by: Archana Gagnier
Budget and Finance Analyst

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

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

Attachments: Operating Financial Status Summary – 1st Quarter 2022

Quarterly Financial Summary Report

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

| | Approved 2022 Budget | Q1 - 2022 | 2022 Year to Date | Year To Date Variance | 2021 Year To Date |
|--|-------------------------|--------------|----------------------|--------------------------|----------------------|
| Total Revenue | 24,254 | 3,431 | 3,431 | 20,823 | 3,426 |
| <u>Expenditures:</u> | | | | | |
| Contracted Operating Services | 7,158 | 1,769 | 1,769 | 5,389 | 1,190 |
| Contracted Administrative Services | 322 | 81 | 81 | 241 | 79 |
| Electricity | 3,500 | 523 | 523 | 2,977 | 513 |
| Salaries, Wages, Benefits | 961 | 145 | 145 | 816 | 173 |
| Administration and Other Expenditures | 484 | 188 | 188 | 296 | 106 |
| Vehicles and Equipment | 84 | 15 | 15 | 69 | 30 |
| Purchased Services & Professional Fees | 1,427 | 393 | 393 | 1,034 | 341 |
| Debt Principle Payments | 1,292 | 924 | 924 | 368 | 911 |
| Interest on Long-Term Debt | 106 | 51 | 51 | 55 | 63 |
| Contributions to Reserve Funds | 8,921 | 0 | 0 | 8,921 | 0 |
| Total Expenditures | 24,254 | 4,089 | 4,089 | 20,166 | 3,406 |

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

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

Subject: Lake Huron Treatment and Transmission Assets – State of the Infrastructure Report

RECOMMENDATION

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

PREVIOUS AND RELATED REPORTS

December 3, 2020 Asset Management Maturity Assessment and Roadmap

March 4, 2021 Asset Management – Roadmap and Plan Update

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

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

BACKGROUND

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

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

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

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



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

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

DISCUSSION

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

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

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

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

The utility has a combination of over 4,500 individual and grouped assets registered within the asset registry, which are assessed and categorized across ten process areas. The overall assessment of the state of the infrastructure is based on all four of these indicators, in combination. A lower rating in any one factor does not necessarily denote the imminent failure of the system. risks due to poor operational practices, or ineffective investment strategies.

Asset Condition

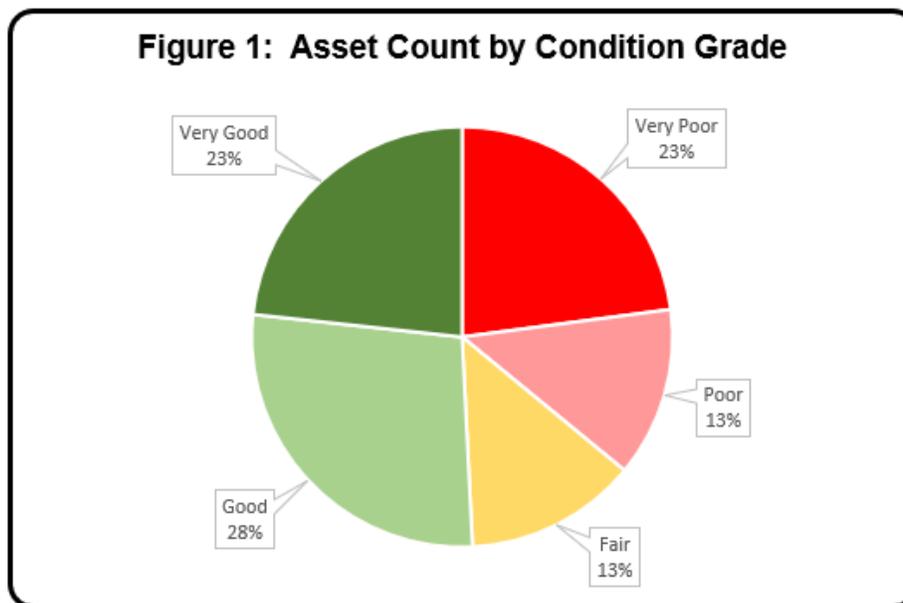
For the purposes of asset condition evaluation, the straight-line deterioration method was utilized for this initial report. Straight-line deterioration is most useful when an asset's condition is assumed to deteriorate uniformly over time.

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

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

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

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



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

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

poor condition count is historical installation records, where in the absence of detailed records we need to assume that the asset is original to the plant construction. As demonstrated in the performance section below, collectively the treatment and transmission assets continue to perform at a high level despite age-related risks.

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

Asset Performance

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

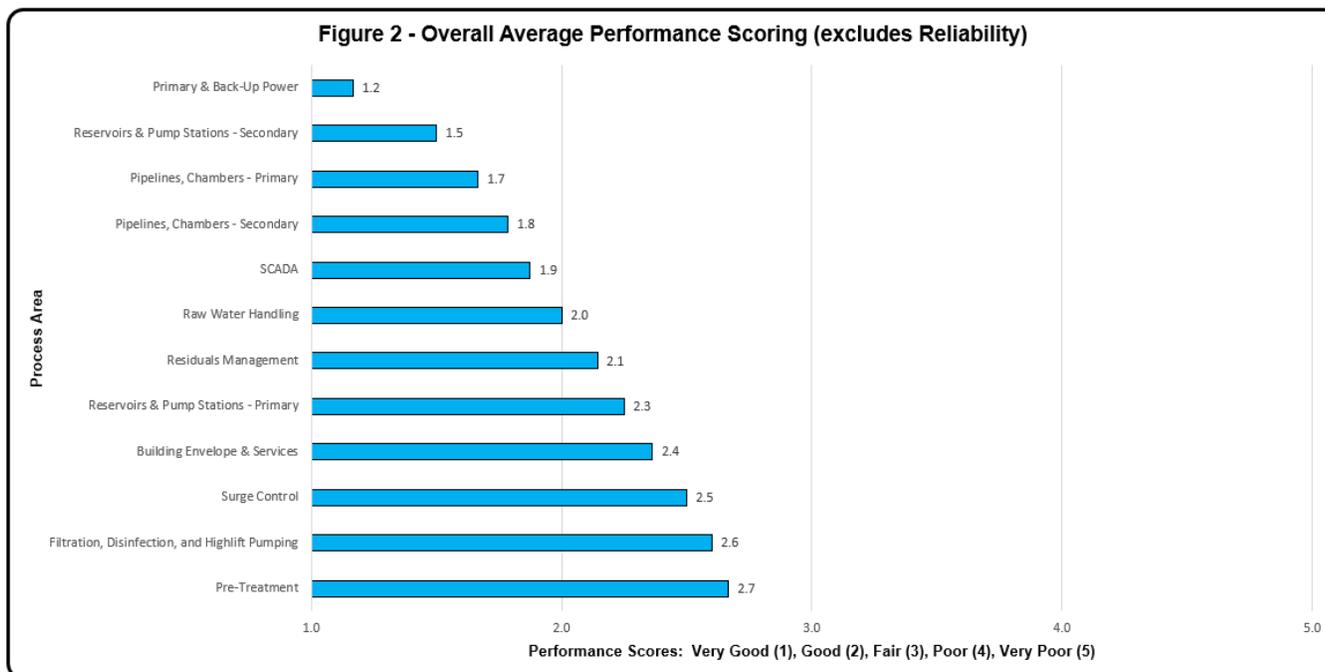
In preparing this SOTI report, Board, and the Ontario Clean Water Agency (OCWA) staff undertook a workshop to discuss our various asset groups and process systems and established qualitative performance grades for the various processes and systems based on our collective knowledge, experience, and history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

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

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

The Reliability scores reflect the redundancy and current excess capacity built into the utility's treatment and transmission process assets. Should redundancy and/or excess capacity diminish with increased future demand, reliability scoring may be affected. Overall, based on

our qualitative assessment of the performance categories our collective system assets are performing in the upper Fair to Very Good range.



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

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

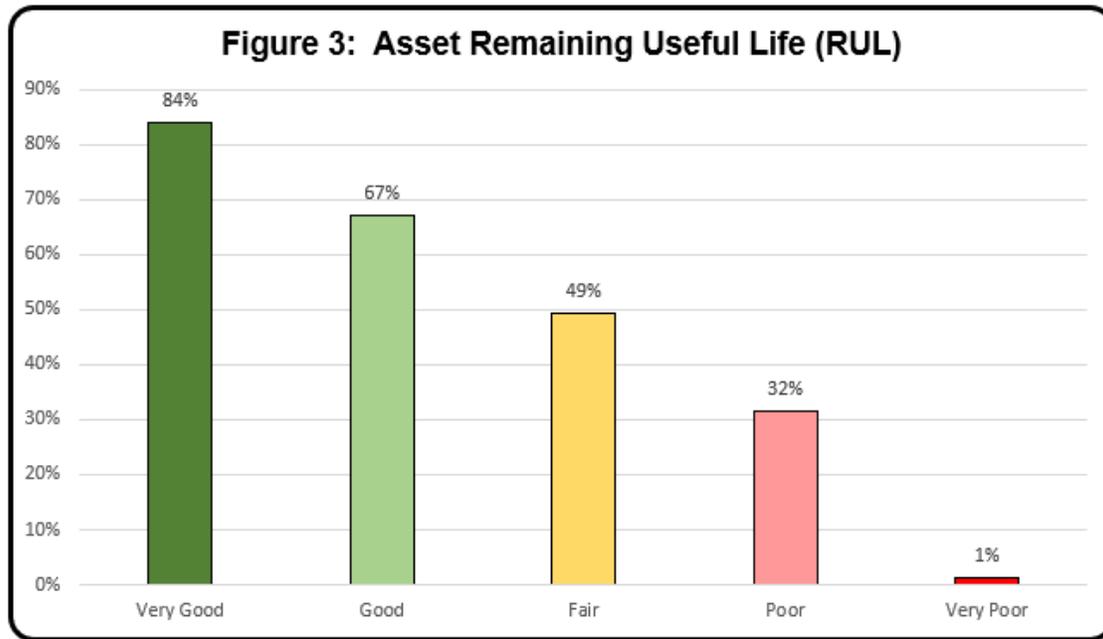
Asset Remaining Useful Life

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

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



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



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

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

Asset Replacement Value

Overall, the utility has a 2022 asset replacement value of approximately \$479 million compared to \$406 million estimated in 2016.

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

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

| Table 2: Asset Valuation (2022 Dollars) | | | | | |
|--|------------------|-------------|-------------|-------------|------------------|
| Asset Condition: | Very Good | Good | Fair | Poor | Very Poor |
| Asset Value (\$M): | \$121.8 | \$94.4 | \$187.7 | \$58.0 | \$16.3 |

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

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

Managing and Mitigating our Data Limitations

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

Key Outcome #2 from the Asset Management Policy is:

“To build a future-ready utility that is data rich as well as knowledge rich, a corporate asset information strategy must be developed to ensure accessibility to a fully integrated asset data registry to support good governance and leverage operational efficiencies.”

The planned approach by Board staff to managing and mitigating asset information data limitations includes but is not limited to the following:

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

CONCLUSION

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

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

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

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

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

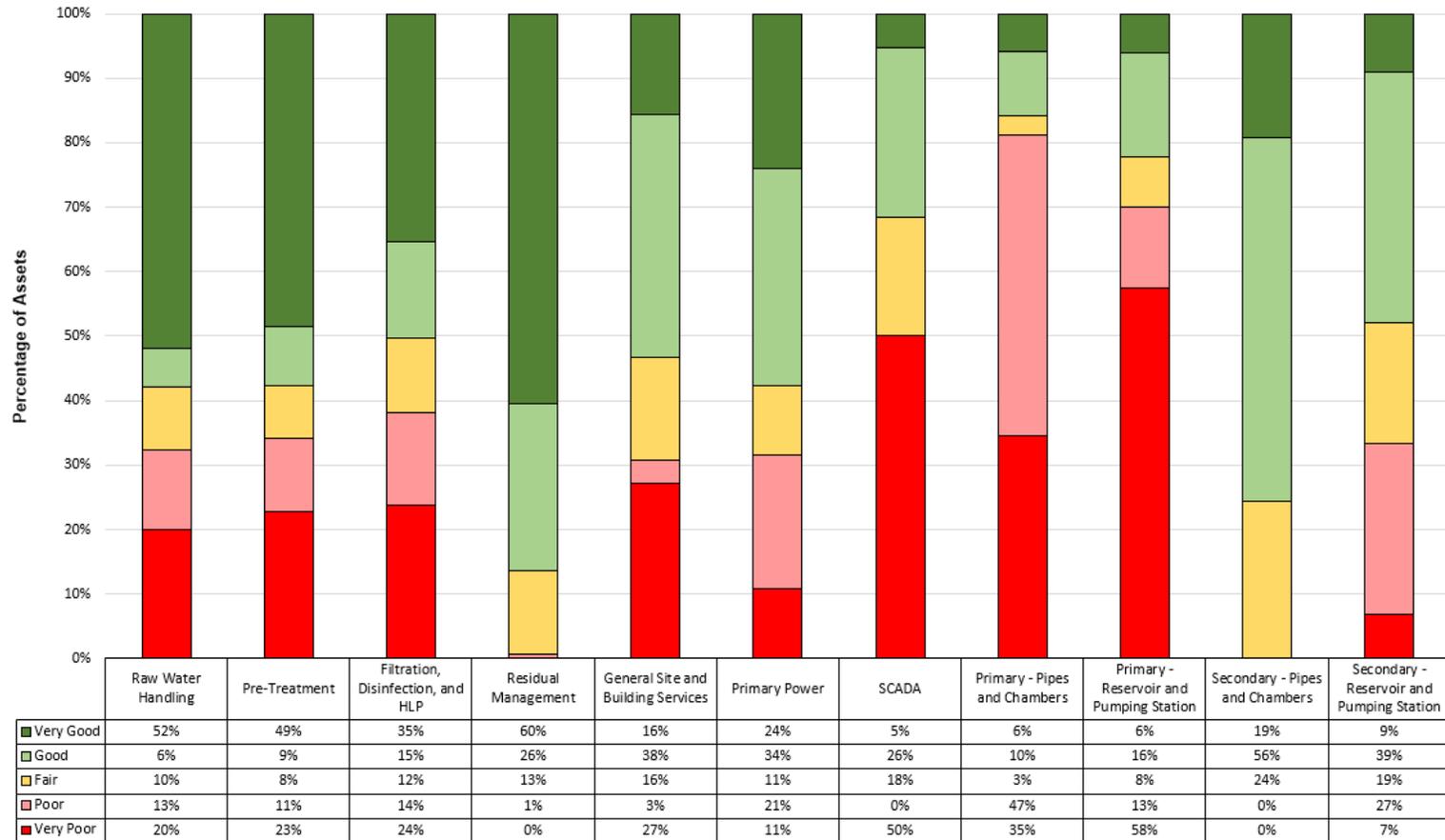
Submitted by: Billy Haklander, P. Eng. LL.M.
Capital Programs Manager

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

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

APPENDIX A: STATE OF THE INFRASTRUCTURE CHARTS BY PROCESS AREA

Chart 1 - Asset Condition Grade by Process Area



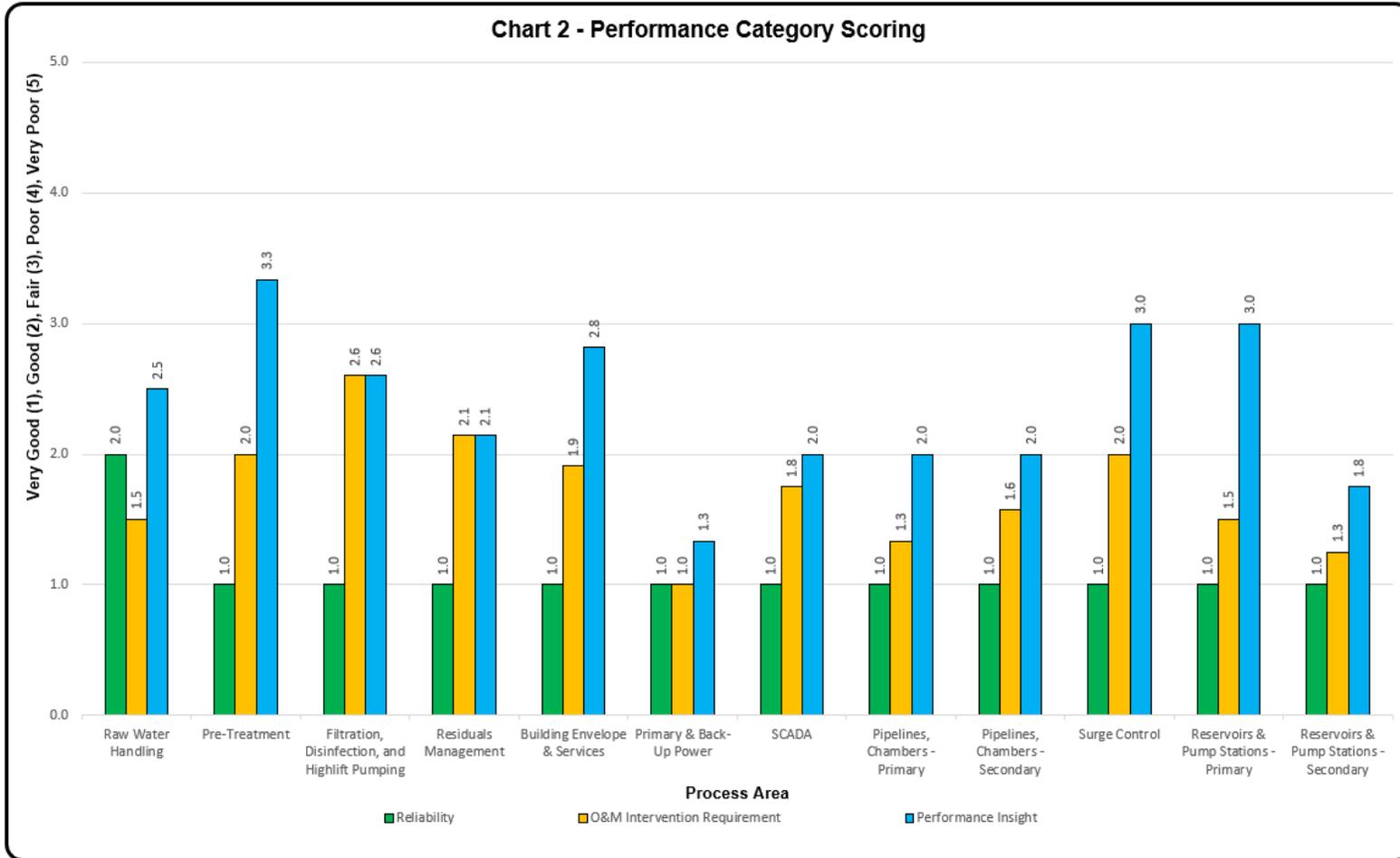


Chart 3 - Average Asset Remaining Useful Life (RUL)

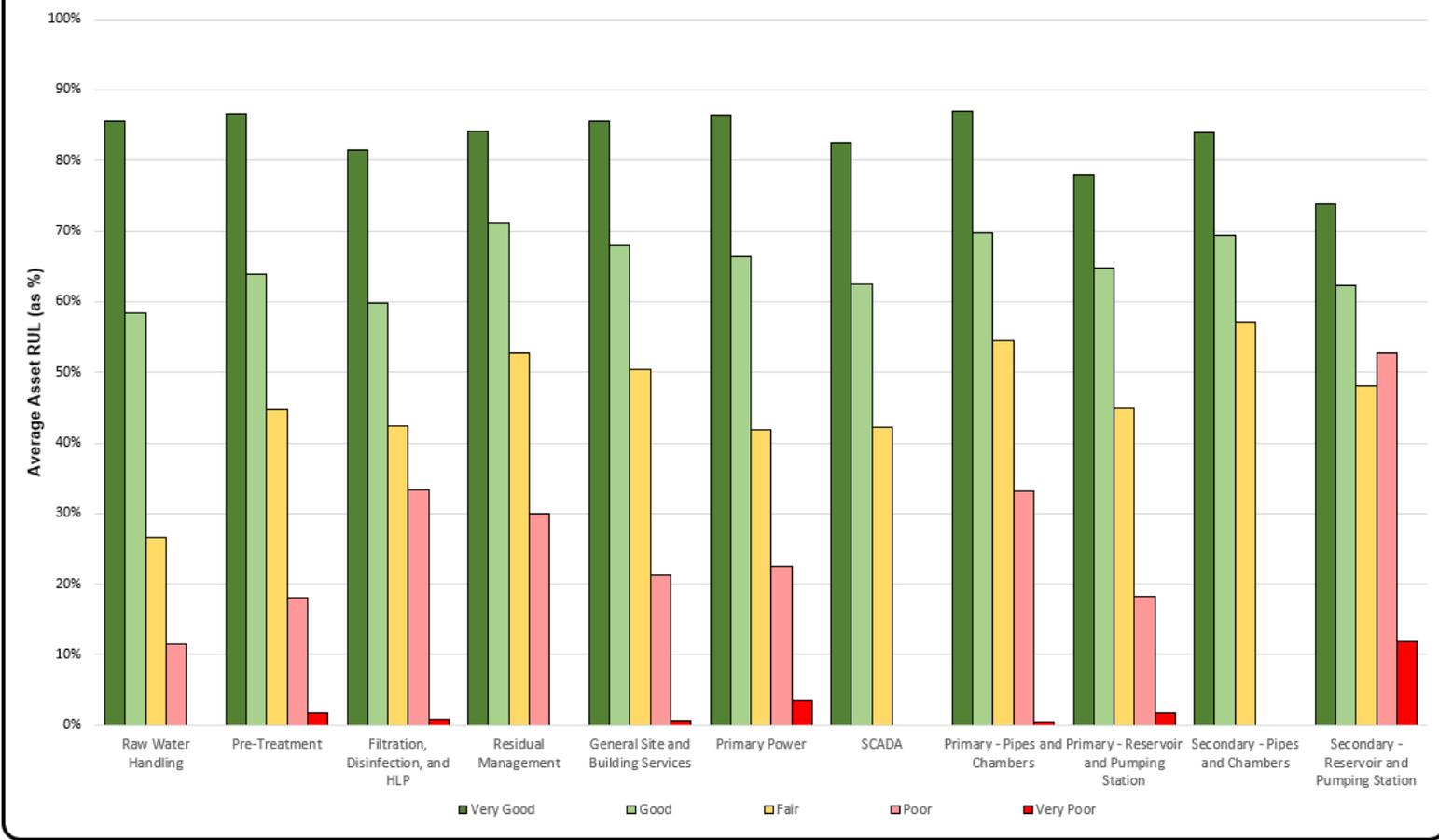


Chart 4a - Collective Asset Valuation by Asset Condition (Treatment Assets)

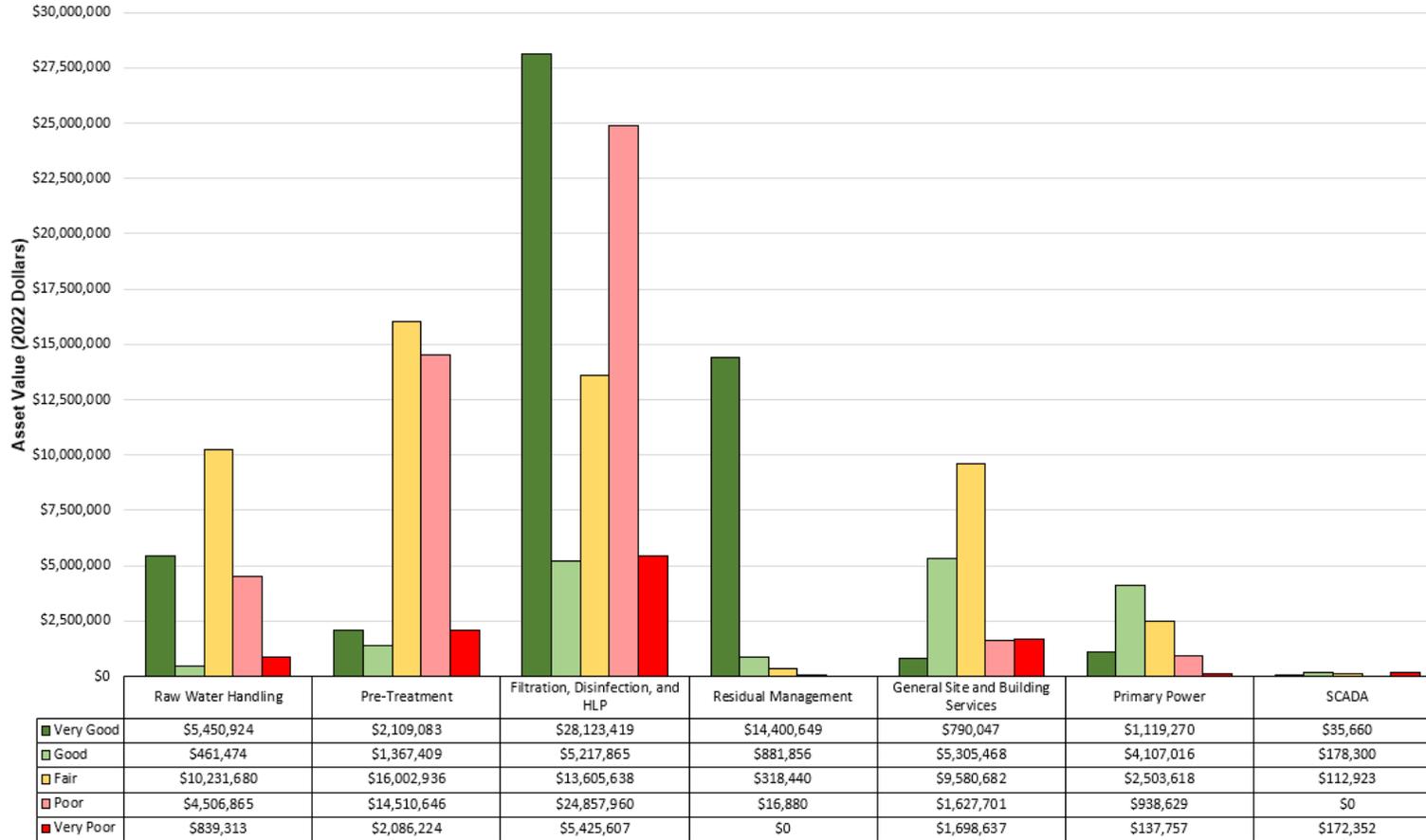
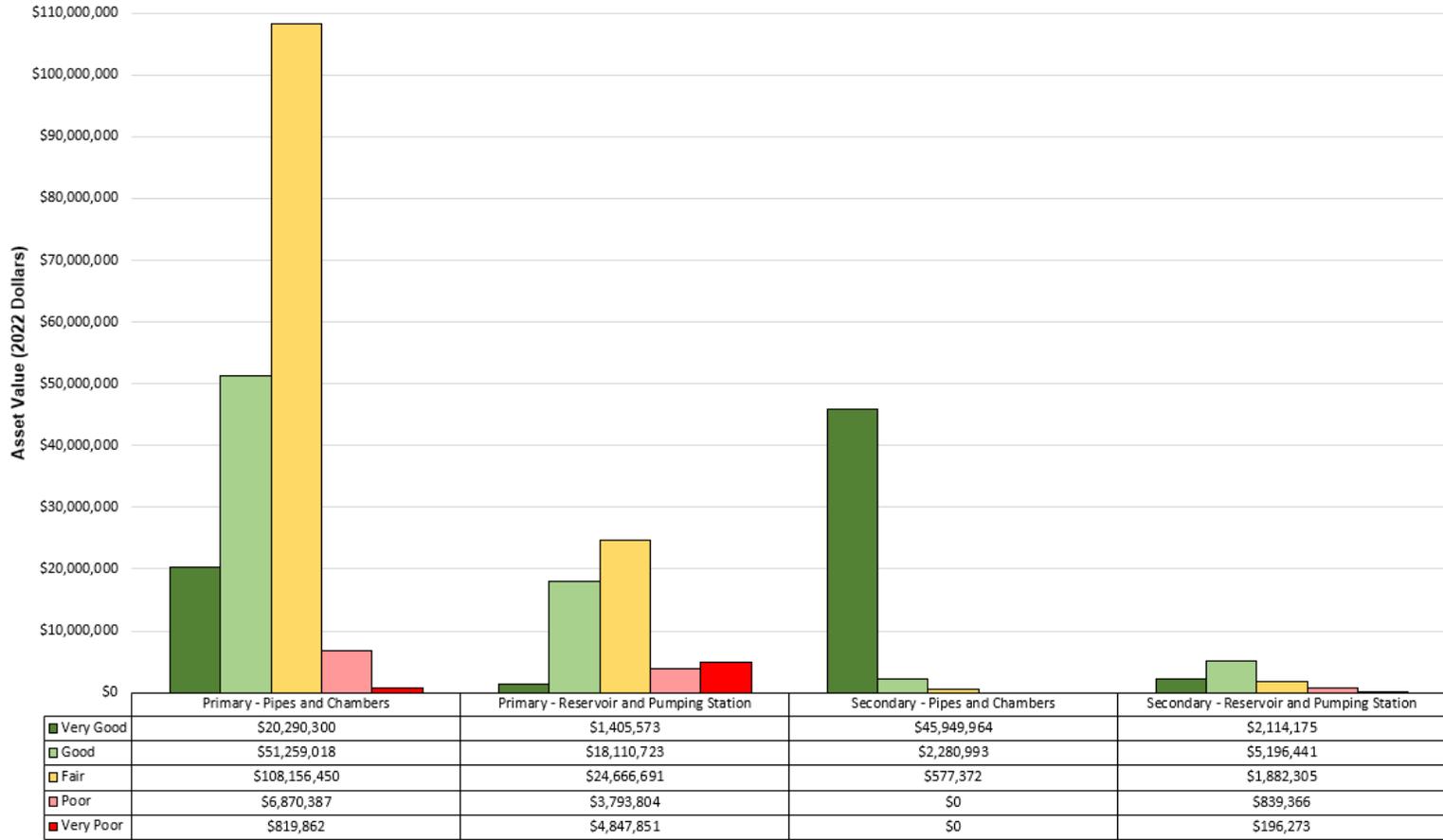


Chart 4b - Collective Asset Valuation by Asset Condition (Transmission Assets)





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

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

Subject: 2021 Audited Financial Statement and Auditors Report

RECOMMENDATION

That the Board of Management for the Lake Huron Primary Water Supply System **RECEIVE AND ACCEPT** the 2021 Audited Financial Statements and Auditor's Report for the Lake Huron Primary Water Supply System.

DISCUSSION

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

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

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

Attachments: 2021 Audited Financial Statements, Lake Huron Water Supply System

INDEPENDENT AUDITORS' REPORT

To the Board of Directors of Lake Huron Area Primary Water Supply System

Opinion

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

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

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

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

Basis for Opinion

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

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

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

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

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

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

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

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

We also:

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

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

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

Chartered Professional Accountants, Licensed Public Accountants

London, Canada

Date

Financial Statements of

**LAKE HURON AREA PRIMARY WATER
SUPPLY SYSTEM**

And Independent Auditors' Report thereon

December 31, 2021

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

| | 2021 | 2020 |
|---|-----------------------|-----------------------|
| Financial assets | | |
| Due from the Corporation of the City of London (note 3) | \$ 48,536,911 | \$ 44,588,744 |
| Trade and other receivables | 462,664 | 745,428 |
| Loan receivable (note 4) | 1,639,331 | - |
| Total financial assets | 50,638,906 | 45,334,172 |
| Financial liabilities | | |
| Accounts payable and accrued liabilities | 3,023,153 | 977,399 |
| Accrued interest on long-term debt | 29,075 | 36,640 |
| Long-term debt (note 5) | 4,371,157 | 5,624,219 |
| Total financial liabilities | 7,423,385 | 6,638,258 |
| Net financial assets | 43,215,521 | 38,695,914 |
| Non-financial assets | | |
| Tangible capital assets (note 6) | 145,076,753 | 144,293,049 |
| Prepaid expenses | 344,374 | 283,448 |
| Total non-financial assets | 145,421,127 | 144,576,497 |
| Commitments (note 9) | | |
| Contingent liabilities (note 10) | | |
| Accumulated surplus (note 7) | \$ 188,636,648 | \$ 183,272,411 |

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

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

| | Budget (note 11) | 2021 | 2020 |
|--|---------------------|-----------------------|----------------|
| Revenues | | | |
| User charges | \$ 23,275,000 | \$ 23,730,080 | \$ 23,698,905 |
| Investment income | 324,000 | 889,875 | 927,618 |
| Other municipalities (note 4) | 1,409,900 | 1,639,331 | - |
| Other | 5,000 | 1,669 | 7,426 |
| Total revenues | 25,013,900 | 26,260,955 | 24,633,949 |
| Expenses | | | |
| Salaries, wages and fringe benefits | 779,150 | 825,321 | 726,734 |
| Materials and supplies | 11,435,700 | 10,905,724 | 10,679,193 |
| Contracted services | 1,392,944 | 1,251,399 | 625,370 |
| Rents and financial expenses | 85,500 | 63,002 | 65,613 |
| Interest on long-term debt | 116,778 | 116,779 | 141,565 |
| Amortization of tangible capital assets | 7,416,861 | 7,416,861 | 7,496,404 |
| Administrative charges to the Corporation of the City of London | 317,600 | 317,632 | 305,730 |
| Total expenses | 21,544,533 | 20,896,718 | 20,040,609 |
| Annual surplus | 3,469,367 | 5,364,237 | 4,593,340 |
| Accumulated surplus, beginning of year | 183,272,411 | 183,272,411 | 178,679,071 |
| Accumulated surplus, end of year (note 7) | \$ 186,741,778 | \$ 188,636,648 | \$ 183,272,411 |

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

LAKE HURON AREA PRIMARY WATER SUPPLY SYSTEM
Statement of Changes in Net Financial Assets
Year ended December 31, 2021, with comparative information for 2020

| | Budget | 2021 | 2020 |
|--|---------------|----------------------|---------------|
| Annual surplus | \$ 3,469,367 | \$ 5,364,237 | \$ 4,593,340 |
| Acquisition of tangible capital assets | (4,366,856) | (8,200,565) | (3,249,108) |
| Amortization of tangible capital assets | 7,416,861 | 7,416,861 | 7,496,404 |
| | 6,519,372 | 4,580,533 | 8,840,636 |
| Change in prepaid expenses | - | (60,926) | (40,060) |
| Change in net financial assets | 6,519,372 | 4,519,607 | 8,800,576 |
| Net financial assets, beginning of year | 38,695,914 | 38,695,914 | 29,895,338 |
| Net financial assets, end of year | \$ 45,215,286 | \$ 43,215,521 | \$ 38,695,914 |

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

LAKE HURON AREA PRIMARY WATER SUPPLY SYSTEM
Statement of Cash Flows
Year ended December 31, 2021, with comparative information for 2020

| | 2021 | 2020 |
|---|--------------------|--------------------|
| Cash provided by (used in) | | |
| Operating activities | | |
| Annual surplus | \$ 5,364,237 | \$ 4,593,340 |
| Items not involving cash | | |
| Amortization of tangible capital assets | 7,416,861 | 7,496,404 |
| Amortization of debenture discount | 8,201 | 8,201 |
| Change in non-cash assets and liabilities | | |
| Due from the Corporation of the City of London | (3,948,167) | (6,956,714) |
| Prepaid expenses | (60,926) | (40,060) |
| Trade and other receivables | 282,764 | (72,361) |
| Accounts payable and accrued liabilities | 2,045,754 | (533,686) |
| Accrued interest on long-term debt | (7,565) | (6,569) |
| Net change in cash from operating activities | 11,101,159 | 4,488,555 |
| Capital activities | | |
| Purchase of tangible capital assets | (8,200,565) | (3,249,108) |
| Net change in cash from capital activities | (8,200,565) | (3,249,108) |
| Financing activities | | |
| Long-term debt repayments | (1,261,263) | (1,239,447) |
| Loan receivable | (1,639,331) | - |
| Net change in cash from financing activities | (2,900,594) | (1,239,447) |
| Net change in cash flows and cash, end of year | \$ - | \$ - |

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

LAKE HURON AREA PRIMARY WATER SUPPLY SYSTEM
Notes to Financial Statements
Year ended December 31, 2021

1. Nature of Reporting Entity

The final transfer order for Lake Huron Area Primary Water Supply System (the “Entity”) was effective September 15, 2000, transferring assets along with any other real property to The Corporation of the City of London (the “Corporation”) in trust to act as the Administering Municipality on behalf of the participating municipalities.

Under the transfer order, the works, properties and all assets, liabilities, rights and obligations of the system are conveyed, assigned and transferred to the Corporation as Trustee. Each of the benefitting municipalities, for so long as the municipality is serviced by the works has an undivided beneficial ownership interest in the works as tenant in common with all other municipalities jointly. The proportion that each municipality’s interest bears to the total of all municipalities’ interests shall be in the same ratio that the quantity of water supplied from the works to the municipalities at any time and from time to time bears to the total quantity of water supplied to all municipalities at such time. At present, the benefitting municipalities are The Corporation of the City of London, the Municipalities of Bluewater, South Huron, Lambton Shores, North Middlesex, Lucan-Biddulph, Middlesex Centre and Strathroy-Caradoc.

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

| Municipality | Members | Votes |
|--|----------------|--------------|
| The Corporation of the City of London | 4 | 16 |
| The Corporation of the Municipality of Bluewater | 1 | 1 |
| The Corporation of the Municipality of South Huron | 1 | 1 |
| The Township of Lucan-Biddulph | 1 | 1 |
| The Corporation of the Municipality of Lambton Shores | 1 | 1 |
| The Municipality of North Middlesex | 1 | 3 |
| The Municipality of Middlesex Centre | 1 | 1 |
| The Corporation of the Municipality of Strathroy-Caradoc | 1 | 3 |

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

2. Significant Accounting Policies

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

(a) Accrual Accounting

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

(b) Non-financial Assets

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

(i) Tangible Capital Assets

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

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

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

(ii) Interest Capitalization

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

(c) Revenue Recognition

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

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

2. Significant Accounting Policies (continued)

(d) Government Transfers

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

(e) Use of Estimates

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

Actual results could differ from those estimates.

(f) Budget Figures

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

(g) Liability for Contaminated Sites

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

2. Significant Accounting Policies (continued)

(h) Related Party Disclosures

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

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

(i) Inter-entity Transactions

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

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

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

3. Due from the Corporation of the City of London

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

4. Loan Receivable

Subsequent to year end, the Entity discovered that the Municipality of North Middlesex was not billed for their portion of the pipeline to Strathroy in 2006. As a result, a repayment loan was established between the Lake Huron Area Primary Water Supply System and the Municipality of North Middlesex where the Municipality of North Middlesex will pay the Lake Huron Area Primary Water Supply System \$1,639,331 over 10 years with a fixed rate of 2.69% paid semi-annually. This loan will mature in January 2032. At the time of approval of these financial statements, the terms are currently being negotiated.

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

5. Long-term Debt

Long-term debt is stated as follows:

| | 2021 | 2020 |
|---|---------------------|---------------------|
| Long-term debt assumed by the Corporation of the City of London, as Administering Municipality, on behalf of the Lake Huron Area Primary Water Supply System, with semi-annual interest payments: | | |
| at rates ranging from 3.05% to 3.20% (2020 - 2.90% to 3.20%), maturing September 2022. | \$ 195,075 | \$ 385,400 |
| at rates ranging from 3.45% to 3.80% (2020 - 3.20% to 3.80%), maturing September 2023. | 332,130 | 491,820 |
| at rates ranging from 1.55% to 2.25% (2020 - 1.40% to 2.25%), maturing March 2025. | 3,615,124 | 4,487,187 |
| at rates ranging from 1.80% to 2.85% (2020 - 1.55% to 2.85%), maturing March 2027. | 253,458 | 292,643 |
| Total long-term debt | 4,395,787 | 5,657,050 |
| Less: Unamortized debenture discount | (24,630) | (32,831) |
| Net long-term debt | \$ 4,371,157 | \$ 5,624,219 |

The long-term debt repayment schedule is as follows:

| | |
|-----------------|---------------------|
| 2022 | \$ 1,283,326 |
| 2023 | 1,106,232 |
| 2024 | 951,752 |
| 2025 | 965,816 |
| 2026 | 43,730 |
| 2027 and beyond | 44,931 |
| Total | \$ 4,395,787 |

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

| | 2021 | 2020 |
|------------------------------------|-------------------|-------------------|
| Interest on long-term debt | \$ 108,578 | \$ 133,364 |
| Amortization of debenture discount | 8,201 | 8,201 |
| | \$ 116,779 | \$ 141,565 |

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

6. Tangible Capital Assets

| Cost | Balance at December 31, 2020 | Additions | Disposals | Balance at December 31, 2021 |
|-------------------------------------|---|---------------------|---------------------|---|
| Land | \$ 2,412,389 | \$ 112,427 | \$ - | \$ 2,524,816 |
| Buildings and building improvements | 55,975,219 | 533,348 | 55,723 | 56,452,844 |
| Machinery and equipment | 36,267,668 | 1,128,757 | 852,110 | 36,544,315 |
| Vehicles | 11,527 | - | - | 11,527 |
| Water infrastructure | 119,032,580 | 1,212,607 | - | 120,245,187 |
| Computers | 328,939 | 236,880 | 85,620 | 480,199 |
| Assets under construction | 2,548,004 | 5,918,010 | 941,465 | 7,524,549 |
| Total | \$ 216,576,326 | \$ 9,142,029 | \$ 1,934,918 | \$ 223,783,437 |

| Accumulated Amortization | Balance at December 31, 2020 | Amortization Expense | Amortization Disposals | Balance at December 31, 2021 |
|-------------------------------------|---|---------------------------------|-----------------------------------|---|
| Land | \$ - | \$ - | \$ - | \$ - |
| Buildings and building improvements | 20,213,329 | 2,238,520 | 55,724 | 22,396,125 |
| Machinery and equipment | 18,154,125 | 2,731,258 | 852,110 | 20,033,273 |
| Vehicles | 5,768 | 1,646 | - | 7,414 |
| Water infrastructure | 33,774,473 | 2,290,671 | - | 36,065,144 |
| Computers | 135,582 | 154,766 | 85,620 | 204,728 |
| Assets under construction | - | - | - | - |
| Total | \$ 72,283,277 | \$ 7,416,861 | \$ 993,454 | \$ 78,706,684 |

| | Net Book Value December 31, 2020 | Net Book Value December 31, 2021 |
|-------------------------------------|---|---|
| Land | \$ 2,412,389 | \$ 2,524,816 |
| Buildings and building improvements | 35,761,890 | 34,056,719 |
| Machinery and equipment | 18,113,543 | 16,511,042 |
| Vehicles | 5,759 | 4,113 |
| Water infrastructure | 85,258,107 | 84,180,043 |
| Computers | 193,357 | 275,471 |
| Assets under construction | 2,548,004 | 7,524,549 |
| Total | \$ 144,293,049 | \$ 145,076,753 |

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

6. Tangible Capital Assets (continued)

(a) Assets Under Construction

Assets under construction with a cost of **\$7,524,549** (2020 - \$2,548,004) have not been amortized. Amortization of these assets will commence when the asset is available for productive use.

(b) Tangible Capital Assets Disclosed at Nominal Values

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

(c) Write-down of Tangible Capital Assets

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

7. Accumulated Surplus

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

| | 2021 | 2020 |
|--|-----------------------|----------------|
| Surplus | | |
| Invested in tangible capital assets | \$ 139,795,274 | \$ 136,172,679 |
| Reserve funds set aside for specific purpose by the Entity: | | |
| Infrastructure renewal - water operations | 48,841,374 | 47,099,732 |
| | \$ 188,636,648 | \$ 183,272,411 |

8. Financial Instruments

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

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

(b) Financial Risks

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

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

9. Commitments

Derivatives

The Entity has the following derivative:

- Contract with one block negotiated May 5, 2017, with a daily electricity purchase of 24 megawatt hours. Covering the period of November 1, 2018 to August 31, 2021, remaining contract cost at December 31, 2021 is **\$nil** (2020 - \$172,635).

This derivative contract was purchased to ensure price certainty for 26% of the Entity's electricity needs over the term of the contract. The value of the contract is not reflected as an asset or liability in these financial statements.

10. Contingent Liabilities

There are certain claims pending against the Entity as at December 31, 2021. The final outcome of these claims cannot be determined at this time, however management believes that settlement of these matters will not materially exceed amounts recorded in these financial statements.

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

11. Budget Data

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

| | Budget |
|--|---------------------|
| Revenues | |
| User charges | \$ 23,275,000 |
| Municipal revenues - other | 25,000 |
| Total revenues | 23,300,000 |
| Expenses | |
| Personnel costs | 740,900 |
| Administrative expenses | 61,850 |
| Financial expenses - other | 355,500 |
| Financial expenses - interest and discount on long-term debt | 116,778 |
| Financial expenses - debt principal repayments | 1,261,262 |
| Financial expenses - transfers to reserves and reserve funds | 8,741,210 |
| Purchased services | 1,210,100 |
| Materials and supplies | 10,448,900 |
| Furniture and equipment | 45,900 |
| Other expenses | 317,600 |
| Total expenses | 23,300,000 |
| Net surplus as per budget | - |
| PSAB reporting requirements | |
| Transfers to reserves and reserve funds | 8,741,210 |
| Debt principal repayments | 1,261,262 |
| Capital funding earned | 1,409,900 |
| Capital expenses not resulting in capital assets | (830,144) |
| Amortization | (7,416,861) |
| Reserve fund interest earned | 304,000 |
| Net PSAB budget surplus as per financial statements | \$ 3,469,367 |

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

12. Impact of COVID-19 Pandemic

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

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

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

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



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

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

Subject: Water System Operation - Contract Status Update

RECOMMENDATION

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

PREVIOUS AND RELATED REPORTS¹

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

BACKGROUND

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

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

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

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

On March 4, 2021, the Board authorized staff to negotiate the terms and conditions for a draft term extension agreement with OCWA for the allowable five-year period.

On October 7, 2021, the Board approved the Amended and Restated Operations and Maintenance Services Agreement and authorized the Board Chair and the CAO to execute the agreement with OCWA. The Agreement has been executed and will be in effect for the period of January 1, 2023 to December 31, 2027.

DISCUSSION

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

General Contract Deliverables

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

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

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

Employee Retention Incentive

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

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

Performance Incentive Payment

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

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

The water quality performance criteria specified within the service agreement was met with one (1) exception. On July 13, 2021, the filter turbidity performance criteria was not met on Filter #6. The incident was reported to the Ministry of Environment, Conservation and Parks as an Adverse Water Quality Incident (AWQI). This was deemed the only water quality performance failure in 2021. Therefore, there were no deductions from the incentive payment as this only applies if there have been two or more water quality performance failures.

Several short-duration (i.e. minutes) disruptions in water quality performance occurred in 2021. LHPWSS staff considered that these disruptions occurred as a result of a capital project or emergency repair work and therefore deductions to the incentive payment were not applied. For example, emergency repair work was being undertaken on the south filtered conduit, which affected the performance of some filters on the south side as they were being brought back into service. Each short duration disruption was individually assessed, with the conclusion that the incentive payment should not be impacted. This assessment was made at the sole discretion of the LHPWSS and may not be construed as precedent for future evaluations and assessments.

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

Service Fee Adjustment

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

In 2021, the actual volume for the LHPWSS was 99.22% of the projected contract volume. This was within the accepted range therefore no adjustments to the service fee were required.



Lake Huron
Primary Water Supply System

Report No.: LH-2022-02-06

Report Page: 4 of 4

Meeting Date: June 2, 2022

File No.:

CONCLUSION

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

Prepared by: Erin McLeod, Quality Assurance & Compliance Manager

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

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



To: Chair and Members, Board of Management
Lake Huron Primary Water Supply System
From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer
Subject: Municipal Act – Board Structure

RECOMMENDATION

That the following actions be taken with respect to clarifying the legal status of the Lake Huron Water Supply System and its Board of Management:

- a) That the Board of Management for the Lake Huron Water Supply System authorize the undertaking of a consulting services assignment on behalf of the benefiting municipalities of the Lake Huron Water Supply System to review and make recommendations related to the legal risks, liabilities, and financial implications in establishing the regional water system as either a Joint Municipal Services Board or a Municipal Services Corporation;
- b) That the Board of Management for the Lake Huron Water Supply System approve a Capital Budget of \$200,000 for the consulting services assignment, it being noted that the source of funding for the assignment will be from the Capital Reserve; and,
- c) That the Board of Management for the Lake Huron Water Supply System RECEIVE this report for information.

PREVIOUS AND RELATED REPORTS

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

BACKGROUND

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



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

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

DISCUSSION

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

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

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

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

As of April 20, 2022, the date of the most recent meeting of the Committee, the majority of municipalities benefiting from the Lake Huron Water Supply System have expressed an interest in undertaking negotiations to establish, at a minimum, a Joint Municipal Services Board and are willing to consider establishing a Municipal Services Corporation. In addition, the benefiting municipalities have requested the Board’s consideration of coordinating and

undertaking a consulting services assignment on behalf of the benefiting municipalities which would review and provide specific recommendations related to:

- The legal risks and organizational structures that should be considered to mitigate liabilities to the benefiting municipalities
- The specific financial risks and implications to the regional water system and the benefiting municipalities

Notwithstanding the pending Municipal Elections later this year, the municipalities have expressed their desire to undertake the consulting assignment and subsequent negotiations as expeditiously as possible.

CONCLUSION

The municipalities benefitting from the Lake Huron Water Supply system have indicated a general preference to undertake further and specific negotiations to establish, at a minimum, a Joint Municipal Services Board and are willing to consider establishing a Municipal Services Corporation. In addition, the benefiting municipalities have requested that this Board consider undertaking and coordinating a consulting services assignment which would provide specific recommendations related to legal risks, liabilities, and financial implications.

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

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



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

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

Subject: Video Surveillance Policy

RECOMMENDATION

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

BACKGROUND

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

DISCUSSION

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

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

Purpose: The purpose of the CCTV surveillance system must be clear and may not be used for other purposes. In the case of the Lake Huron Water Supply System, the purpose of the surveillance program is to ensure the safety of staff and visitors, and for site security related to the treatment and supply of drinking water to the benefiting municipalities. Images and related information captured but the surveillance system may only be used for this purpose, as well as investigations and prosecutions under applicable law. Images and related information may not be used for the other unrelated purposes, such as disciplinary actions, that is not related to the purpose of the surveillance program.

Access: Access to the video surveillance system is restricted. Specific cameras may be utilized for operational purposes; however, access to recorded images is restricted to only authorized persons and only for purposes outlined in the

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

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

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

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

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

CONCLUSION

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

Prepared by: Lisa McVittie
Manager, Regional Water Security

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

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

Attachments: Draft Video Surveillance Policy



Closed Circuit Television Surveillance Policy

1. Introduction

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

2. Purpose

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

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

3. Scope

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

4. Definitions

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

5. Responsibilities

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

5.2 Security Services will:

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

5.3 The Security Manager will:

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

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

6. Policy

6.1 Installation

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

6.2 Monitoring

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

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

6.3 Securing and Retaining Image

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

6.4 Disclosure of Images

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

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

1. Non-Compliance with this Policy

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

2. Reporting

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

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

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

Subject: LH1230 Huron High Lift Pump Replacements – Status Update

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Lake Huron Primary Water Supply System **RECEIVE** this report regarding the High Lift Pump Replacements (LH1230) project status update for information.

PREVIOUS AND RELATED REPORTS

| | |
|------------------|--|
| October 5, 2017 | 2018 Operating & Capital Budgets |
| October 4, 2018 | LH1230 High Lift Pump Replacements Project – Engineering Award |
| January 31, 2019 | LH1230 High Lift Pump Replacement Project – IESO Master Program Agreement and Project Incentive Contract |
| October 3, 2019 | LH1230 High Lift Pump Replacements Project Pump Purchase |
| October 8, 2020 | LH1230 High Lift Pump Replacements - Motor Control Centre & Valve Pre-purchase |
| March 4, 2021 | LH1230 Huron High Lift Pump Replacements – Tender Award |

BACKGROUND

The Energy Audit and Pump Optimization Study identified an opportunity for significant energy savings and the optimization of pump operations with the replacement of the high lift pumps at the water treatment plant. These pumps are more than fifty-years old, original to the plant construction and nearing the end of their useful life. Specifically, the existing five-pump configuration would be changed to a six-pump configuration:

- Two existing 3,000hp pumps would remain (to be replaced in future)
- three existing 3,000hp pumps would be removed, with two new high-capacity pumps and two smaller capacity pumps installed

As a utility directly connected to the provincial electrical transmission system, the Lake Huron Primary Water Supply System (LHPWSS) is eligible under the Independent Electricity Systems Operator’s (IESO) Industrial Accelerator Program for financial incentives for energy efficiency projects.

In March 2019, the Board Chair and Chief Administrative Officer signed an Incentive Contract with the IESO for financial incentives associated with the above-noted project which requires that the four new pumps be in-service by December 31, 2022.

The estimated total financial incentives from the IESO are \$1.32M.

Following the completion of a public procurement process, the Board at the March 2021 meeting authorized the Board Chair and Chief Administrative Officer to execute an agreement with Kenaidan for the construction of the High Lift Pump Replacements.

DISCUSSION

In response to the COVID-19 pandemic, suppliers and manufacturers globally had to adjust the machining, assembly, testing and transportation schedules. This impact across all sectors resulted in a loss of production efficiency and larger pieces of pre-purchased equipment ordered for this project (pumps, valves, and motor control centres) were delayed and didn't arrive on site until starting in the summer of 2021.

Kenaidan mobilized to site in July 2021 and the existing high lift pumps number 4 and 5 were taken out of service in the fall of 2021 allowing for new motor control centres and new pumps 5 and 6 could be installed along with associated control and isolation valves. The new pumps 5 and 6 and existing pump 4 were put back into service in mid-January 2022 with commissioning and testing activities continuing into April.

During this commissioning period, water supply to benefiting municipalities was provided by the existing pumps 1, 2 and 3 which represents only half of the available pumping capacity of the plant.

In mid-April, the operation of pumps 4, 5 and 6 was transferred to the contracted operating authority, the Ontario Clean Water Agency (OCWA). At that time, it was decided by Board staff, in consultation with OCWA, to move forward with the installation of the remaining two new pumps 2 and 3 during the summer months.

Pumps 1, 2, and 3 were taken out of service to install the new motor control centres. Although it won't be replaced at this time, the existing pump 1 was also out of service to facilitate the new motor control centre installation, but is anticipated to be back online in early June and subsequently available with pumps 4, 5 and 6. For the peak supper water demand periods, a total of four pumps are available. Two pumps (one large and one small) are required to maintain normal supply during the summer with 2 additional pumps being available on standby.

Appendix A attached to this report provides photos of the high lift pumps, piping, valves, and motor control centres as currently installed.

It is anticipated that remaining new pumps 2 and 3 will have the commissioning and testing completed by the end of August 2022. Subject to how construction and commissioning

proceeds over the next few months it is expected that these pumps will be in-service by mid-October in advance of the IESO December 31, 2022, deadline.

PROJECT FINANCIAL STATUS

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

| Expenditure | Projected | Incurred |
|---|----------------------|---------------------|
| Engineering, Construction Supervision & Contract Administration | \$ 1,624,850 | \$ 1,033,347 |
| Construction | \$ 9,153,761 | \$ 5,666,455 |
| Additional Services | \$ 50,000 | \$ 8,588 |
| Total | \$ 10,828,611 | \$ 6,708,390 |
| Approved Budget | \$ 13,557,000 | |
| Projected Variance | \$ 2,728,389 | |

CONCLUSION

The High Lift Pump Replacements project provides a significant opportunity for energy savings and qualifies for an estimated \$1.32M in financial incentives through Independent Electricity Systems Operator's (IESO) Industrial Accelerator Program. Construction and installation of the new pumps is to continue through the summer of 2022 and all pumps are expected to be in-service by mid-October in advance of the IESO funding deadline.

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

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

Attachments: Appendix A – Construction Photos



APPENDIX A: CONSTRUCTION PHOTOS



Photo 1: High lift pump gallery showing from back to front, existing pumps 1, 2, 3 (removed with dust containment area) and pumps 4 (existing) 5 (small new) and 6 (large new)



Photo 2: Inside dust containment area showing progress of removal of pump 3 base



Photo 3: New high lift pump 5 (small) rated at 900 litres per second at 125 metres total dynamic head with 2000 horsepower motor



Photo 4: New high lift pump 6 (large) installed in the spare slot rated at 1300 litres per second at 150 metres total dynamic head with 3500 horsepower motor



Photo 5: High lift pump pipe gallery showing existing control valve to be removed



Photo 6: High lift pump pipe gallery showing installation of isolation valve



Photo 7: High lift pump pipe gallery showing new high lift pump 5 discharge piping, control valve and isolation valve



Photo 8: High lift pump electrical room showing installation of motor control centre that supply power to the high lift pump motors 1, 2 and 3

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

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

Subject: LH1317 Distressed Pipe Replacement Program (Pipe 1-162 Repair)

RECOMMENDATION

That the Lake Huron Primary Water Supply System Board of Management **RECEIVE** this report regarding the LH1317 Distressed Pipe Replacement Program (Pipe 1-162) for information.

PREVIOUS AND RELATED REPORTS

| | |
|--------------|---|
| June 4, 2020 | LH1317 Distressed Pipe Replacement Program (Pipe 4-80) |
| June 3, 2021 | LH1317 Distressed Pipe Replacement Program (Pipe 1-162) |

BACKGROUND

The acoustic fibre optic (AFO) real-time transmission pipeline monitoring system was commissioned in mid-2015, and the system periodically detected wire breaks across the pipe in the fall/winter months in subsequent years. In January 2021, the wire break activity on Pipe number 1-162, located south of Gore Road between Highway 21 and B Line Road in a twinned section of the transmission main, started to increase to the point where there was higher risk of pipeline failure and proactive repairs were planned.

Figure 1 shows the wire break trends for the pipe and Figure 2 shows the location of the pipe.

The detection of wire breaks by the AFO monitoring system is accurate to within one metre (the total length of one pipe is 4.88 metres or 16 feet). With active wire breaks continuing to occur in 2021 and those wire breaks were occurring on one pipe, there was an elevated risk of failure. On this basis, Board staff undertook the pipe repair in March 2022 under the previously approved capital project LH1317.



Lake Huron
Primary Water Supply System

Report No.: LH-2022-02-11
Report Page: 2 of 6
Meeting Date: June 2, 2022
File No.: LH1317

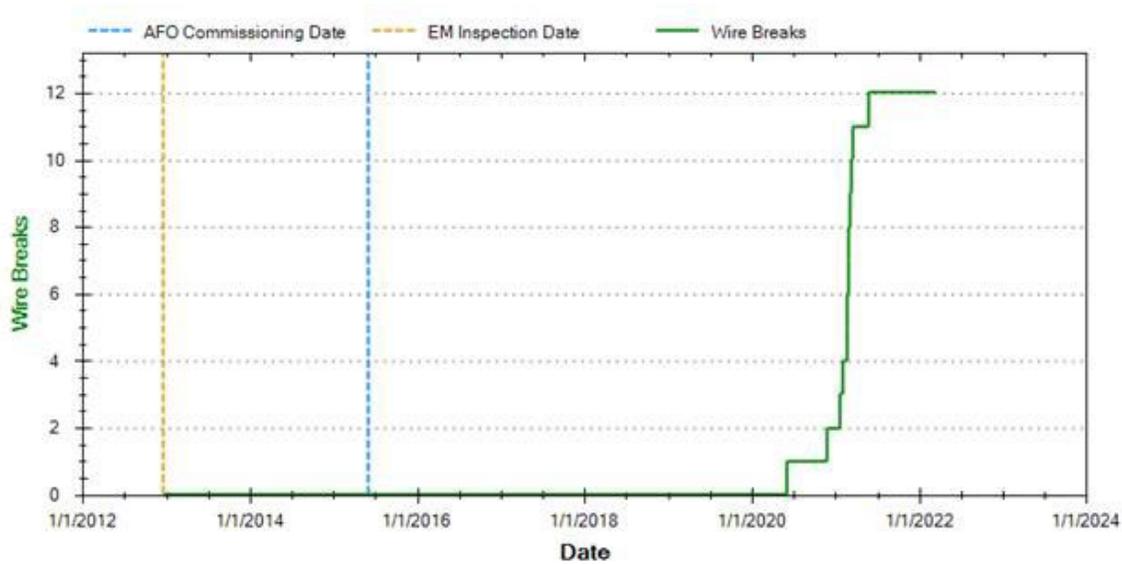


Figure 1: Wire Break Trend of Pipe 1-162

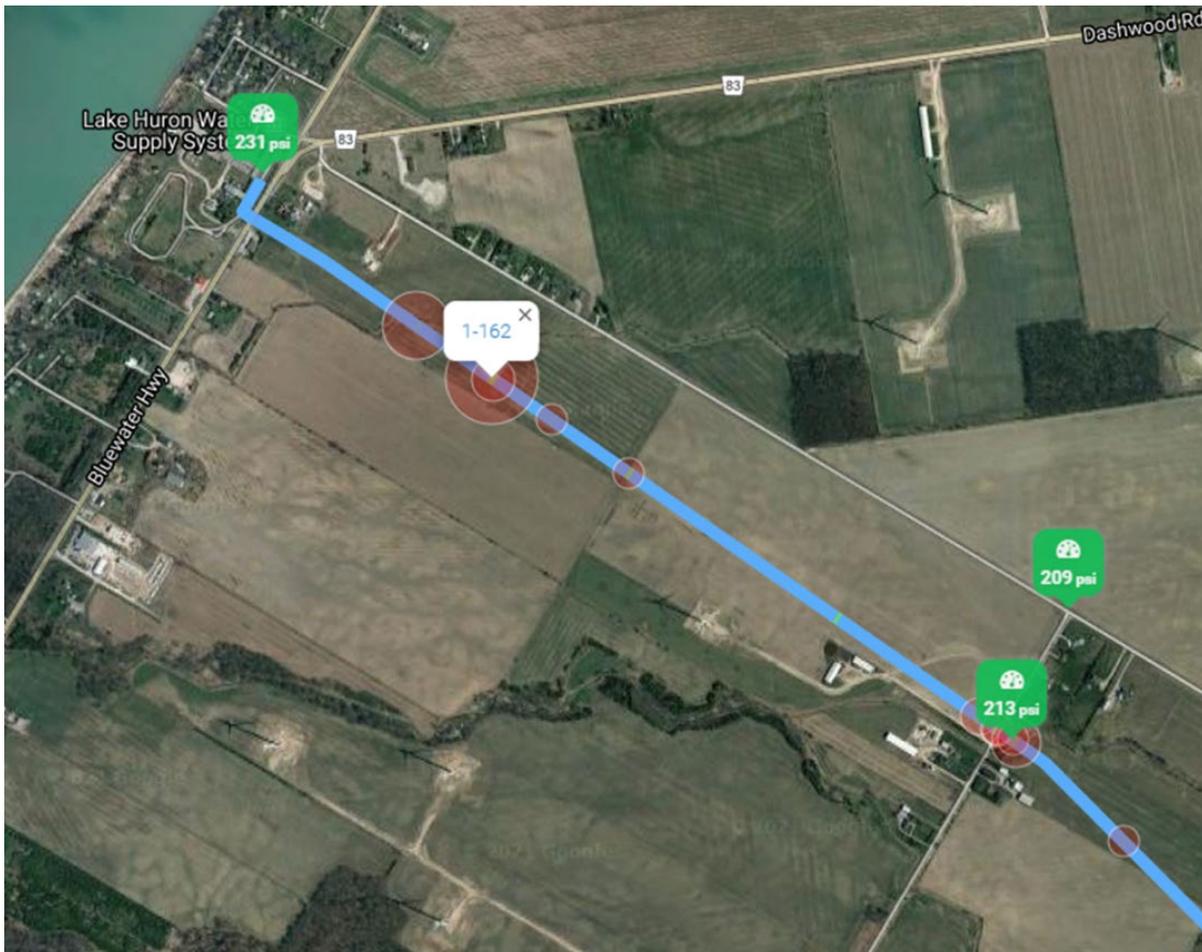


Figure 2: Pipe Location (between Bluewater Highway and B Line Road)

DISCUSSION

Pipe 1-162 Repair

With the repair located in a twinned section of the transmission main, the work to prepare and recover from the repair was performed over several days. At approximately 5:00 am on March 1, the contracted operating authority (OCWA) shutdown the water treatment plant and began to depressurize and drain the pipeline. Once depressurized, pipe 1-162 could be excavated and exposed to allow Xylem to perform an external electromagnetic (EM) scan of the pipe to confirm the precise location of the wire breaks. The EM scan determined that the wire breaks were located entirely on pipe 1-162 (refer to Appendix A for photos of the repair) and that only a single pipe was required to be replaced. During the repair, the water treatment plant remained shut down to provide an additional level of safety to the crew working in the excavated area. L82 was able to start the repair at 11:00 am following the EM scan.

During this approximate 8-hour repair of the transmission pipeline, area municipalities relied upon treated water stored in reservoirs and elevated towers throughout the region. Due to the low system demands in the region, typical of this time of year, the ability to supply through the twinned pipeline for periods of time and the increased supply from the Elgin Area Primary Water Supply System into the City of London, the regional water system was able to recover and refill area reservoirs by the morning of March 2. Grouting of the pipe joints, backfilling and cleanup were completed by 11:00 am on March 2.

The approved budget for the project is \$300,000 within the Distressed Pipe Repair project LH1317. The total cost of the repair including engineering, construction and operational support was \$264,941, as further detailed in the Project Financial Status below. In comparison, the total expenditures associated with the transmission main failure that occurred in 2012 was approximately \$1.84 million (inflated to 2022 dollars).

PROJECT FINANCIAL STATUS

| | |
|---|----------------------|
| <u>Approved Budget</u> | \$ 300,000 |
| <u>Expenditures Incurred as of: April 21, 2022</u> | |
| The following summary of project expenditures: | |
| Design & Construction Administration | \$ 11,316 |
| Construction | \$ 231,498 |
| Operational Support (OCWA) & Misc. Expenses | \$ 6,052 |
| <u>Property Owner Compensation</u> | <u>\$ 16,075</u> |
| Total Expenditures | \$ 264,941 |
| Projected Budget Surplus/Deficit | \$ 35,059 |

CONCLUSION

Pipe 1-162 located in a twinned section of the primary transmission main approximately 200 metres south of Gore Road was in poor condition and consequently at risk of catastrophic failure. On this basis, and with the concurrence of OCWA and Pure Technologies, Board staff engaged the services of L82 Construction Ltd. to complete the proactive replacement of the pipe in early March 2022.

Prepared by: Dave Scott, Capital Project Coordinator

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

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

Attachments: Appendix A – Photos from repair of Distressed Pipe #1-162



APPENDIX A – PHOTOS FROM REPAIR OF DISTRESSED PIPE #1-162



External Electromagnetic Verification of the Pipe



Damaged Pipe Section



Lake Huron
Primary Water Supply System

Report No.: LH-2022-02-11

Report Page: 6 of 6

Meeting Date: June 2, 2022

File No.: LH1317



Installation of Flexible Coupling



Clean Up of Work Area

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

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

Subject: Port Blake Park

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Lake Huron Water Supply System **AUTHORIZE** the lot addition of 71111 Bluewater Highway with the park area of the water treatment plant property located at 71155 Bluewater Highway in South Huron.

PREVIOUS AND RELATED REPORTS

| | | |
|--------------|----------------------|--|
| Oct.8, 2020 | Port Blake Park | <i>Information report on the status of the Licence of Occupancy and anticipated changes related to the use of the park area of the plant property.</i> |
| Jun.4, 2020 | Master Water Plan | <i>Authorize the initiation for a Microbial Inactivation and Storage Schedule B Environmental Assessment.</i> |
| Oct.3, 2019 | 71111 Bluewater Hwy. | <i>Termination of Licence Agreement with 1342936 Ontario Ltd. (Report reference to a possible future entrance to Port Blake Park).</i> |
| Dec.8, 2011 | Port Blake Park | <i>Authorize the execution of a Licence of Occupancy Agreement with South Huron for Port Blake Park.</i> <i>Direct staff to seek opportunities with South Huron and Bluewater to improve the security of the water plant with specific regard to the public use of Waterworks Road.</i> |
| Mar.20, 2008 | Port Blake Park | <i>Authorize South Huron to continue to operate Port Blake Park on condition of the execution of an interim agreement.</i> |
| Oct.11, 2007 | Port Blake Park | <i>Authorize the execution of an agreement with South Huron for the operation of an area of the water treatment plant property as a day park and beach access.</i> |

BACKGROUND

Port Blake Park

The Municipality of South Huron currently occupies a portion of the water treatment plant property to operate as a day-use park known as “Port Blake Park”, in accordance with a licence of occupancy agreement. The operation of the park area of the plant property is a longstanding arrangement with the municipality which precedes the transfer of the regional water system from the Province of Ontario in September 2000. The existence of Port Blake Park was initiated with an arrangement between the Ausable Bayfield Conservation Authority, the former Stephen Township, and the Province of Ontario.

With the recent acquisition of the property municipally known as 71111 Bluewater Highway by the Lake Huron Water Supply system, there is an opportunity to relocate the access to the park area of the property, from the currently shared location near the water treatment plant, to the existing driveway entrance from the provincial highway at 71111 Bluewater Highway.

DISCUSSION

In discussions with the Ministry of Transportation staff, and while the Ministry is obligated to allow the entrance to 71111 Bluewater Highway, the Ministry is reluctant to allow the existing entrance to the former restaurant property to be used as the park entrance. Ministry staff understand the need to further separate the operational activities of the plant from the operation of the park for security purposes; however, using the existing entrance at 71111 Bluewater Highway to access a portion of the plant property at 71155 Bluewater Highway would set a precedent from the Ministry’s perspective. The Ministry has not issued a formal denial of the access but has indicated that the entrance permit application will not be approved given the Ministry’s guidelines.

In discussion with the Municipality of South Huron, it was determined that a lot addition can be undertaken through Municipal consent which would take most of the park portion of the water treatment plant property (71155 Bluewater Highway) and add it to the former restaurant property (71111 Bluewater Highway). In doing so, most of the park activities would be confined to 71111 Bluewater Highway and allow the separated park entrance away from the main water treatment plant.

Board staff are also considering the future build-out needs for the water treatment plant, based on known needs and conceptual treatment expansion plans. The original intent for the area of the water treatment plant property currently occupied by Port Blake Park was that any future treatment expansion, reservoirs, or other processes would expand southerly from the existing facility.

A report will be presented to the Board at a future meeting outlining the anticipated expansion and utilization of the water treatment plant property.



It is not recommended at this time that the park area of the plant property be severed and transferred to the Municipality of South Huron on a permanent basis as Board staff cannot be fully certain on future needs should treatment technologies significantly change or should future regulations result in the deployment of alternative treatment technologies requiring substantial land utilization.

The final size and configuration of the lot addition to 71111 Bluewater Highway will be finalized upon completion of the Municipal Class Environmental Assessment related to the Inactivation/Disinfection and Water Storage Reservoir for the water treatment plant.

CONCLUSION

In consultation with the Municipality of South Huron, Board staff recommend the consideration of undertaking a lot addition to 71111 Bluewater Highway, the former restaurant property recently acquired by the Lake Huron Water Supply System. In doing so, most of the park activities will be confined to the parcel municipally known as 71111 Bluewater Highway, with a separate controlled entrance dedicated to the park, while ensuring the land is reserved for the long-term future needs of the water treatment plant and the Lake Huron Water Supply System.

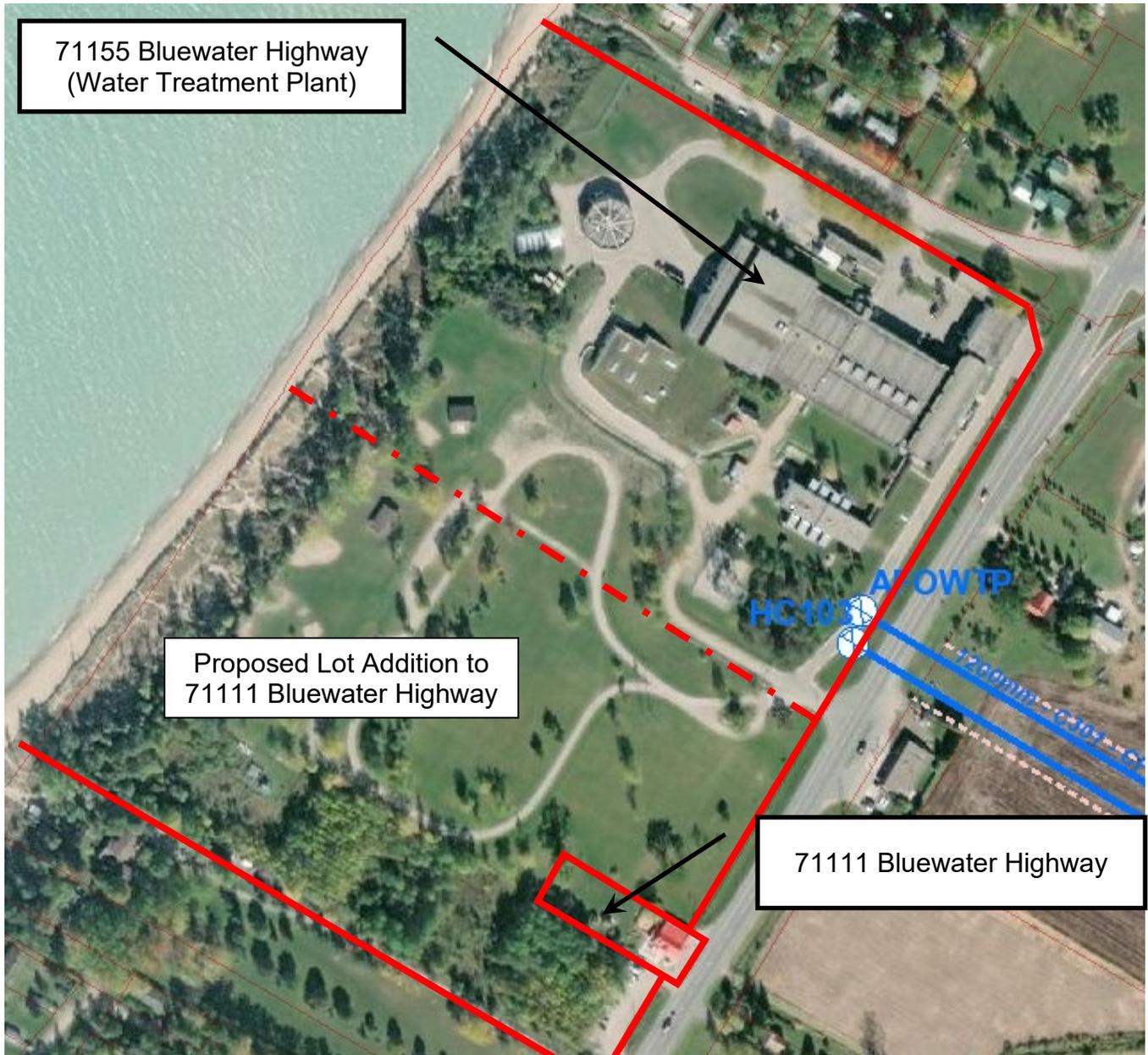
Submitted by: Andrew Henry, P. Eng.,
Director, Regional Water Supply

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

Attachments: Appendix A – Proposed Lot Addition (71111 Bluewater Highway)



APPENDIX A – PROPOSED LOT ADDITION (71111 BLUEWATER HIGHWAY)



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

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

Subject: LH2042 Huron Pipeline 'A' Double Isolation Valve Upgrades Design – Consulting Award

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Huron Pipeline 'A' Double Isolation Valve Upgrades (Project LH2042):

- a) The Board of Management for the Lake Huron Primary Water Supply System **ACCEPT** the proposal from Stantec Consulting Ltd. for the completion of the design for the Huron Pipeline 'A' Double Isolation Valve Upgrades, in the amount of \$139,948.50, including contingency and excluding HST, having submitted a proposal which meets the Request for Proposal requirements and evaluated as having the best value; and
- b) The Board of Management for the Lake Huron Primary Water Supply System **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with Stantec Consulting Ltd. for the completion of the design for the Huron Pipeline 'A' Double Isolation Valve Upgrades project; and,
- c) The Board of Management for the Lake Huron Primary Water Supply System **RECEIVE** this report regarding the status of the Huron Pipeline 'A' Double Isolation Valve Upgrades project for information.

PREVIOUS AND RELATED REPORTS

October 7, 2021 2022 Operating and Capital Budgets

BACKGROUND

The 1200mm diameter concrete discharge pipe from the Lake Huron Water Treatment Plant (WTP) connects into a downstream interconnection chamber on the plant grounds, where the Lake Huron pipeline branches at a 'tee' and is twinned for the first eight kilometres of the high-pressure transmission main. The original pipeline circa 1967 (Pipeline 'A') is 1200mm diameter concrete pressure pipe and the twinned pipeline circa 1996 (Pipeline 'B') is 1200mm diameter steel pipe.

Currently each branch of the first eight kilometres of the high-pressure twinned transmission main has one isolation valve located at the interconnection chamber at the water treatment plant. The valve used to isolate Pipeline 'A' is original to the plant and pipeline construction in 1967, often leaks, and is found to not fully seal and isolate the pipeline when closed causing a risk to workers undertaking repairs downstream within this section of pipeline. As a result,

when one of the twinned transmission mains is required to be isolated for maintenance/repair, the current operating procedure requires shutting down the Lake Huron water treatment plant. With the operating water pressure at the plant discharge in the range of 230 psi, and considering the leakage of the existing isolation valving, the plant shutdown is necessary to provide for worker safety when working on this portion of the transmission mains.

With both branches of the pipeline isolated and/or the water treatment plant shut down, water supply to customers cannot be maintained from the plant. During scheduled maintenance and repair operations, municipalities must rely solely on regional and municipal storage reservoirs and towers to maintain their local supply. In the event of an unscheduled repair, an extended duration repair, or a transmission main failure, the need for the complete shutdown to allow for the work to be safely undertaken can result in water supply issues for the benefiting municipalities as there may be limited or no advance notice of the disruption.

The twinned high-pressure transmission main isolation valving is recommended for upgrade/replacement to ensure the proper isolation of the pipeline a double-isolation valve configuration is proposed. Incorporating double-isolation valving on the twinned sections of pipeline at the plant discharge is intended to reduce the number and duration of plant shutdowns required, increase worker safety, afford greater operational flexibility when working on the transmission main, and ensure continuous water supply to the member municipalities.

DISCUSSION

In accordance with the procurement policy of the Board, as well as the City of London's Procurement of Goods and Services Policy (used as a guide), Board staff with the assistance of the Purchasing Department of the City of London released a Request for Proposal (RFP-2022-012) in early February 2022 for the design engineering services for the LH2042 Huron Pipeline 'A' Double Isolation Valve Upgrades project.

Four (4) consulting firms were invited to submit proposals through the bids&tenders procurement portal, with three (3) proposal submissions received by the closing date of March 3, 2022. The proposals were reviewed by Board staff and evaluated against the requirements identified in the RFP (Request for Proposal) document. The technical proposal submissions from all three consultants were successful and confirmed qualified to have their respective cost proposals considered. Based on the evaluation team's scoring, the proposal from Stantec Consulting Ltd. was deemed to offer the best value to the Board and is therefore recommended for award by Board staff.

Stantec's cost proposal for their consulting fees associated with this design assignment includes detailed design services, contractor pre-qualification, equipment pre-purchase, and construction tendering support. There are provisional items associated with the project design for which a budget would also need to be carried, including geotechnical investigation, topographic survey, instrumentation design, and hydraulic modeling. The total design phase project budget, including provisional items and contingency, has an upset limit of \$139,948.50, excluding HST. This design phase cost is consistent with Board staff expectations for this



assignment and is within the budget for project LH2042, as approved as part of the 2022 Capital Budget. Given the recent increase in construction bids generally being experienced on all capital projects issued during the pandemic, an additional budget to proceed with this project may be included in the 2023 Capital budget.

Consulting engineer contract administration and construction supervision fees will be subject to a future separate proposal submission solicited by Board staff in conjunction with the construction tendering phase of the Huron Pipeline 'A' Double Isolation Valve Upgrades project.

PROJECT FINANCIAL STATUS

| Expenditure | Projected | Incurred |
|---|-------------------|-----------------|
| detailed design, contractor pre-qualification, equipment pre-purchase, and construction tendering support | \$ 142,412 | \$ - |
| Total | \$ 142,412 | \$ - |
| Approved Budget (engineering) | \$ 230,000 | |
| Projected Variance | \$ 87,588 | |

CONCLUSION

As set-out in the Request for Proposal issued in February 2022, Stantec Consulting Ltd. was deemed to provide the best value to the Board and staff recommend that the Board accept their proposal and execute a consulting services agreement with them for the Huron Pipeline 'A' Double Isolation Valve Upgrades project (LH2042).

Prepared by: Ryan Armstrong, C.E.T., Asset Management Coordinator
Marcy McKillop, P.Eng., Environmental Services Engineer

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

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



To: Chair and Members, Board of Management
Lake Huron Primary Water Supply System
From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer
Subject: Oneida Nation of the Thames Water Supply Agreement

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Lake Huron Water Supply System **AUTHORIZE** the Board Chair and Chief Administrative Officer to execute a Water Supply Agreement with the Oneida Nation of the Thames, substantially in the form attached to this report.

PREVIOUS AND RELATED REPORTS

March 3, 2022 Oneida Nation of the Thames Water Supply

BACKGROUND

At the March 3, 2022 meeting, the Board endorsed the request to supply drinking water to the Oneida Nation of the Thames (Oneida Nation) from the Lake Huron Water Supply System and authorized Board staff to negotiate a Water Supply Agreement with Oneida Nation.

DISCUSSION

Board staff met with Oneida Nation of the Thames and Indigenous Services Canada to review the anticipated process for connecting the First Nation settlement with the Lake Huron Water Supply System. The process anticipated didn't appear to be substantively different than that of connecting a municipality, and the water system's template Water Supply Agreement was utilized as the basis for further discussions.

Oneida Nation of the Thames currently anticipates that it will be undertaking the planning and design of necessary modifications and upgrades to the Oneida Nation water distribution system starting in mid-2022 in preparation for construction in 2023. The Water Supply Agreement is necessary to formalize the relationship between the Oneida Nation of the Thames and the Lake Huron Water Supply System and allow the regional water system to begin the process of designing and constructing the transmission pipeline to connect the Oneida Nation settlement to the regional water supply system.



CONCLUSION

As set out in the Request for Proposal issued in March 2022, the proposal submitted by Stantec Consulting Ltd. was deemed to provide the best value to the Board. Staff recommend that the Board accept the proposal and execute a consulting services agreement with Stantec Consulting Ltd. for the Oneida Nation of the Thames transmission pipeline Municipal Class Environmental Assessment and preliminary design, subject to the execution of a Water Supply Agreement with Oneida Nation of the Thames.

To proceed with the preliminary engineering Board staff are recommending an increase in the approved budget of the Oneida Transmission Pipeline (LH1408) project by \$100,000 for a total budget of \$200,000, with additional funds being provided from the Capital Reserve Fund.

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

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

Attachments: Draft - Oneida Nation of the Thames Water Supply Agreement

Oneida Nation of the Thames Water Supply Agreement

THIS AGREEMENT made in duplicate the ____ day of ____, 2022

BETWEEN:

ONEIDA NATION OF THE THAMES
(herein after referred to as "Oneida")

AND

THE JOINT BOARD OF MANAGEMENT
OF THE LAKE HURON PRIMARY WATER SUPPLY SYSTEM
(herein after referred to as "Huron Board")

WHEREAS the Huron Board owns, operates, maintains and governs a water treatment plant, water transmission pipelines and associated appurtenance for the supply of potable drinking water to area municipalities and communities in Huron County, Lambton County and Middlesex County, including the City of London;

AND WHEREAS the Corporation of the City of London provides certain administrative services to and under the direction of the Huron Board, and has been designated the Administering Municipality in accordance with the Transfer Order issued by the Province of Ontario on September 15, 2000, pursuant to the *Municipal Water and Sewage Systems Transfer Act, 1997*;

AND WHEREAS Oneida owns, operates, maintains and governs a water distribution system and associated appurtenances for the distribution and provision of potable drinking water to the Oneida settlement;

AND WHEREAS Oneida has requested and the Huron Board has consented to a connection of the Oneida water distribution system to the Lake Huron Primary Water Supply System and to the purchase and supply of water from the Lake Huron Primary Water Supply System, subject to the terms of this Agreement;

NOW THEREFORE IN CONSIDERATION OF the mutual covenants contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the parties agree as follows:

Article 1 INTERPRETATION

1.1 Definitions:

- "Administering Municipality"** means the Corporation of the City of London in its capacity of Administering Municipality as identified in the Transfer Order issued by the Province of Ontario under the *Municipal Water & Sewage Systems Transfer Act, 1997*, and who provides some administrative services on behalf of and under the direction of the Huron Board.
- "Business Day"** means a day other than any holiday as defined in the *Interpretation Act* (Ontario) and Boxing Day.
- "Huron Board"** means the Joint Board of Management of the Lake Huron Primary Water Supply System and/or its Administering Municipality, The Corporation of the City of London.
- "Huron Facility"** means the water treatment plant belonging to the Lake Huron Primary Water Supply System.
- "Huron Transmission System"** means the water pipelines, reservoirs, and associated equipment and works belonging to the Lake Huron Primary Water Supply System, which pre-exist as of the date of this Agreement.
- "Meter"** means the meter installed in a chamber adjacent to the pipeline at the Connection Point for the purpose of measuring the total flow of water pumped through the interconnection to the Oneida Distribution System.
- "Oneida"** means the Oneida Nation of the Thames
- "Oneida Connection Point"** means the point of physical connection of the waterworks belonging to the Oneida Nation of the Thames and the waterworks belonging to the Lake Huron Water Supply System. For the purpose of clarity, the pre-existing connection may be referred to as the "Oneida Connection Point" or "Connection Point".
- "Oneida Distribution System"** means the water pipelines, booster pumping stations, reservoirs, elevated water towers, and associated equipment and works belonging to the Oneida Nation of the Thames.
- "Rate for Water"** means the rate of 51.18 cents (\$0.5118) per cubic metre at the time of executing this agreement, or such other rate as determined from time to time by the Huron Board expressed in cents per cubic metre, which is charged to Oneida and the benefiting municipalities which are supplied by the Lake Huron Primary Water Supply System;
- "Treated Water"** means the water that is treated at the Huron Facility for potable drinking water purposes.

"Uncontrollable Circumstance" means any event or condition which materially alters the rights and obligations of the Parties under this Agreement, or the management, operation or maintenance of the Huron Facility, the Huron Transmission System, or the Oneida Distribution System, which is beyond the reasonable control of or could not reasonably be anticipated by the Party relying thereon as justification for a delay in or non-performance of any obligation of such Party pursuant to this Agreement and shall include but not be limited to:

- (i) an act of God, landslide, lightning, earthquake, hurricane, flood, tornado or other natural disaster, fire, explosion, acts of public enemy, terrorism, war, blockade, sabotage, insurrection, riot or public disturbance;
- (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 Huron Board or Oneida. 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) loss or inability to obtain service from a utility;
- (v) provided, however, that a failure by a Party to perform its obligations under this 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;

"Volume Charge" means the volume charge as defined in Subsection 3.1.

1.2 **Scope.** The scope of this agreement is limited to the supply of treated potable drinking water to the Oneida First Nation from the Lake Huron Primary Water Supply System.

Article 2 DUTIES AND SERVICES IN PROVIDING WATER

2.1 **Duties of the Huron Board.** The Huron Board agrees:

2.1.1 *Water Supply* - to supply water to the Oneida Distribution System at the Oneida Connection Point on the terms and conditions hereinafter set forth in this Agreement;

2.1.2 *Water Quality* - to supply water to the Oneida Distribution System of a quality equivalent to or better than that required by the *Safe Drinking Water Act, 2002*, as amended and Regulations made thereunder, or such other standards as may be legislated;

2.1.2.1 Provided the Huron Board complies with its obligation under clause 2,1,2, then Huron neither accepts or assumes any responsibility of liability for the degradation of water quality as a result of the transportation and distribution of supplied water within the Oneida Distribution System ;

- 2.1.3 *Delivery Point* - to deliver the water supplied hereunder at the Oneida Connection Point as shall be determined from time to time by the Huron Board in consultation with Oneida. For the purpose of this agreement, at the time of execution, the Oneida Connection Point is identified in Schedule A of this agreement;
- 2.1.4 *Water Quantity* - to deliver such quantity of water as Oneida may require, save and except in an emergency situation as determined by the Huron Board.
- 2.1.5 *Volume Metering* - to install, maintain, repair, inspect, test, and alter such equipment as may be necessary for the purpose of recording the volume and the rate of flow of water supplied and delivered to the Oneida Distribution System at the Oneida Connection Point.
- 2.1.6 *Flow Control* - to install, maintain, repair, inspect, alter and test such equipment, including necessary alarms, as may be required for the purpose of controlling the flow of water through the Meter, including the remote control of such equipment from the Huron Facility if and as required.
- 2.1.7 *Monthly Reporting* - to record the readings from the Meter monthly for the purpose of calculating the monthly volume of water supplied and delivered to the Oneida Distribution System at the Oneida Connection Point.
- 2.1.8 *Meter Calibration* - to carry out the calibration of the Meter annually, and as required by applicable legislation, Certificate of Approval, licence and/or permit.
- 2.1.9 *Meter Maintenance* - to maintain the Meter at a frequency of not less than that recommended in the literature published by the manufacturer of the Meter.
- 2.1.10 *Calibration Reporting* - to provide the results of all calibration testing of the Meter to Oneida upon request.
- 2.2 **Duties of Oneida.** Oneida agrees:
- 2.2.1 *Access* - to permit the Huron Board, its Operating Authority, or its designate, access to the Meter, the Oneida Connection Point, and associated valves and equipment at the Meter chamber and Oneida Connection Point for the purposes of reading, testing, maintaining, inspecting, repairing, calibrating, or altering such equipment as necessary.
- 2.2.2 *Disconnection of Existing Water Treatment System* – upon completion of the water main connecting the Huron Transmission System to the Oneida Connection Point to physically disconnect the Oneida Distribution System from the water treatment system currently providing drinking water to the Oneida Distribution System.
- 2.2.3 *Payment* - to pay all charges in accordance with Section 3.1 of this agreement.
- 2.3 **No Obligation To Act Where Detrimental.**
- 2.3.1 *Substandard system* - No provision of this Agreement creates any obligation, express or implied on the Huron Board, to supply water hereunder to a water distribution system that, in the opinion of the Huron Board or their designates, has not been constructed or is not being operated in accordance with good engineering or operational principles or practices.

2.3.2 *Huron systems* - Without restricting the generality of the forgoing, nothing herein contained creates an obligation, express or implied, to enlarge or extend, or modify the Huron Facility, the Huron Transmission System, if in the opinion of the Huron Board or its designate, the effect of such enlargement, extension, alteration or modification could be detrimental to the Huron Transmission System, the Huron Facility or its source of supply.

2.4 **Temporary Shut Down**

2.4.1 *Huron Facility* - The Huron Board shall have the right, after reasonable notice has been given to Oneida, to discontinue the delivery of water provided that such discontinuance shall be of a minimum duration, if the Huron Board, or its designate, in its discretion determines that:

- (i) An emergency exists, namely that a substantial interruption or reduction, whether actual or potential, in the supply and delivery of water to the Oneida Distribution System could leave users without drinking water; or,
- (ii) Such discontinuance is necessary for the operation, enlargement, modification, alteration, repair or replacement of equipment.

2.5 **Curtailement of Water Usage** - In the event of an emergency in the area supplied by the Huron Board, Oneida agrees that any unnecessary usage of water in the area supplied by the Oneida Distribution System shall be curtailed.

Article 3 ONEIDA - CHARGES, RATE, INVOICING AND REPORTS

3.1 **Volume Charges**

3.1.1 *Obligation for charge* - Oneida shall pay to Huron Board or its designate all charges for water supplied and delivered hereunder which shall be in accordance with the Volume Charges as set out in Subsection 3.1.2.

3.1.2 *Volume Charge* - Subject to the other provisions of this section, the volume charge for water supplied and delivered to the Oneida Distribution System at the Oneida Connection Point for a month shall be equal to the product achieved by multiplying the Rate for Water and the total volume of water passing through the Oneida Connection Point in such month as determined by the Huron Board or its designate.

3.1.3 *Monthly Invoice* - Such Volume Charge shall be paid by Oneida to the Huron Board or its designate in accordance with its monthly statement of account delivered to the Oneida Distribution System at the Oneida Connection Point.

- 3.1.4 *Estimated Volume* - In the event that the Huron Board or its designate determines that the supply and delivery of water to the Oneida Distribution System at the Oneida Connection Point has not been recorded or has not been recorded accurately for any period of time, the Huron Board or its designate shall estimate the volume of water supplied and delivered to Oneida at the Oneida Connection Point during such period of time and such determination and estimation made on a reasonable basis shall, if disputed, be subject to the Huron Board's Dispute Resolution process.
- 3.1.5 *Charge for Huron Facility and Huron Transmission System Capacity* - Oneida will pay to the Huron Board a Buy-In Charge, consistent with the terms of the New Connection Policy of the Huron Board, representing Oneida's proportionate share of the depreciated value of the Huron Facility and Huron Transmission system (LESS the outstanding debt of the Huron Facility and Huron Transmission system) in proportion to their Maximum Day Demand for the supplied area of Oneida (currently estimated at **2,182** m³/d) to the Huron Facility capacity (currently estimated at 340,000 m³/d) and as mutually agreed between the parties.

The Parties hereby agree that the Buy-in Charge, consistent with the terms of the New Connection Policy and Huron's approved rate of \$441/m³, is **\$962,262**.

- 3.1.6 The Parties agree that the payment of the charge outlined in 3.1.5 above is not the purchase of explicit system capacity of the Huron System by Oneida.

3.2 Invoicing.

- 3.2.1 *Payment* - Oneida shall pay all amounts payable hereunder within twenty (20) Business Days after the delivery of the statement of account.
- 3.2.2 *Incorrect Invoice* - If any error or omission is made in any notification or statement of account delivered to Oneida under this agreement, the Huron Board or its designate shall correct such error or omission in the notification or statement of account within five (5) Business Days following the date on which such error or omission comes to the attention of the Huron Board or its designate and the parties hereto shall be bound and shall comply with such correction.
- 3.3 **Reports** - Oneida shall supply to the Huron Board or their designate upon request at any time or times such other written reports or information as the Huron Board or their designate may reasonably require for the benefit of itself for the proper administration of the delivery of services pursuant to this Agreement.

Article 4 CONSTRUCTION BY THE HURON BOARD

- 4.1 **Construction of Transmission System and Meter.**
- 4.1.1 *Construction Responsibility.* The Huron Board shall arrange and pay for the design, construction, and installation of the extension of the Huron Transmission System up to and including the Oneida Connection Point. The Huron Board shall not be responsible for the construction of any pipeline or waterworks, or modification to the Oneida Distribution System or other waterworks, beyond the Oneida Connection Point. Oneida is solely responsible for and liable for construction of any pipeline or waterworks, or modification to the Oneida Distribution System or other waterworks, beyond the Oneida Connection Point.
- 4.1.2 *Charge for Capital Construction.* Oneida will pay to the Huron Board all charges, or proportionate share thereof, relating to the construction of the extension of the Huron Transmission System and any waterworks necessary to transmit water from the Huron Facility to Oneida, including interest, administration costs, and other charges incurred by the Huron Board. In the event that a municipality or other community connects to the extension of the Huron Transmission System in the future which was not included in the initial allocation calculation, the proportionate allocation of capital costs shall be recalculated. Any net reduction in the allocation of costs to Oneida shall be remitted to Oneida by the Huron Board.

Article 5 REPRESENTATIONS, WARRANTIES AND COVENANTS

5.1 Representations, Warranties and Covenants of Oneida

- 5.1.1 *Authority to Contract* - Oneida warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.
- 5.1.2 *Construction and Maintenance* - Oneida covenants and agrees to construct, repair, maintain, and keep in a good state of repair and in accordance with good engineering practice and applicable laws, certificates of approval, licence and/or permits, all equipment and water works that belong to or are under the control of Oneida and that are supplied with water hereunder at the Oneida Connection Point and beyond the Oneida Connection Point to the point of delivery to its customers.
- 5.1.3 *Skilled Personnel* - Oneida represent and warrant to the Huron Board that they have, and any employee or other person that they may retain to help perform the services hereunder will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.
- 5.1.4 *Water Quality* - Oneida shall use reasonable care and its best efforts not to permit contamination of any kind to enter the Oneida Distribution System. In the event that any contamination enters the Oneida Distribution System, Oneida shall forthwith notify the Huron Board, or their designate, and take such steps as may be reasonably be taken to correct such contamination.

- 5.1.5 *Provision of Information* - Oneida shall use reasonable care to prepare and supply to the Huron Board, or their designate, for the benefit of itself of any report or information required hereunder.
- 5.1.6 *Extension of Service* - Oneida shall not extend or permit the extension of water supplied by the Huron Transmission System, beyond the jurisdictional boundaries of Oneida without the express authorization of the Huron Board, by written notice of resolution or bylaw of the Huron Board.

5.2 Representations, Warrantees and Covenants of the Huron Board

- 5.2.1 *Authority to Contract* - The Huron Board warrants that it has the power and authority to enter into and carry out all of its obligations under this Agreement.
- 5.2.2 *Water Supply* - The Huron Board covenants and agrees to use their best efforts to supply and deliver water sufficient for the requirements of Oneida pursuant to this Agreement.
- 5.2.3 *Skilled Personnel* - The Huron Board represent and warrant to Oneida that they have, and any employee or other person that they may retain to help perform the services hereunder will have all necessary skills, training and qualifications to provide services in accordance with the provisions of this Agreement and applicable law.
- 5.2.4 *Water Quality* - The Huron Board covenants and agrees to use their best endeavours to supply water and deliver water to Oneida of sufficient quality which meets the requirements of applicable law.

Article 6

LIABILITY AND INDEMNITY DURING THE PROVISION OF SERVICES

6.1 Indemnification of Huron Board by Oneida.

- 6.1.1 Oneida shall indemnify and hold the Huron Board, their respective employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property, which is caused by or directly attributable to the negligent or wrongful act of Oneida, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of Oneida.

6.2 Indemnification of Oneida by Huron Board.

6.2.1 The Huron Board shall indemnify and hold Oneida, their respective employees, officers, directors, agents and representatives harmless from and against all liability for all damages of any nature whatsoever, including any bodily injury or personal damage claim and any damage to or loss of use or loss of any personal or real property which is caused by or directly attributable to the negligent or wrongful act of the Huron Board, its employees, officers, directors, agents and representatives for which it may be responsible in the performance or purported performance of its obligations hereunder, but only to the extent and in proportion to the negligence or fault of the Huron Board.

6.3 Waiver of Consequential Damages.

6.3.1 In no event shall the parties be liable to each other, and each party specifically waives as against the other, any and all claims for consequential, incidental, indirect, special or punitive damages resulting in any way from performance or non-performance of this Agreement, whether such damages are characterized as arising under breach of contract or warranty, tort, fault, strict liability, indemnity, or other theory of legal liability.

6.4 Uncontrollable Circumstances.

6.4.1 In the event that performance of this 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 Agreement, then the Party relying on such act, event or condition shall;

6.4.1.1 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,

6.4.1.2 Exercise all reasonable efforts to continue to perform its obligations hereunder,

6.4.1.3 In accordance with this Agreement, as expeditiously as reasonably practicable take action to correct or cure the act, event or condition preventing its performance,

6.4.1.4 Exercise all reasonable efforts to mitigate or limit damages to the other Party, and

6.4.1.5 Provide prompt notice to the other Party of the cessation of the act, event or condition giving rise to its inability to perform,

6.4.2 Except as expressly provided under the terms of this Agreement, neither Party to this 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 Agreement, or to perform any obligation hereunder not affected by the occurrence of the Uncontrollable Circumstance.

Article 7 GENERAL PROVISIONS

- 7.1 **Dispute Resolution.** If a dispute arises between the parties, the parties agree that the Dispute Resolution Process of the Joint Board of Management for the Lake Huron Primary Water Supply System shall be used, a copy of which has been provided to Oneida.
- 7.2 **Applicable Law.** This Agreement and its interpretation shall be governed by the laws of the Province of Ontario.
- 7.3 **Headings.** The headings and captions appearing in this Agreement have been inserted for convenience of reference only and in no way define, limit or enlarge the scope or meaning of this Agreement or any provision hereof.
- 7.4 **Amendments.** No amendment to this Agreement shall be effective unless in writing and signed by all Parties to this Agreement.
- 7.5 **Entire Agreement.** This Agreement constitutes the entire agreement between the parties hereto and supersedes all previous or contemporaneous communications, representations or agreements. No oral agreement or conversation with any officer, agent or employee of the Huron Board or Oneida, either before or after the execution of this Agreement, shall affect or modify any of its terms or obligations herein contained.
- 7.6 **Enurement and Assignment.** This Agreement shall enure to the benefit of the Parties and be binding upon their respective successors and assigns.
- 7.7 **Survival.** Wherever this 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 Agreement and continue in full force and effect.
- 7.8 **Severability.** Any provision of this 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 Agreement, all without affecting the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction.
- 7.9 **Waiver.** The failure on the part of either party to enforce its rights as to any provision of this Agreement shall not be construed as a waiver of its rights to enforce such provision in the future.

7.10 Notices.

7.10.1 *Delivery Mode and Address.* Any notice required to be or may be given or made by one of the parties hereto to the other, it shall be in writing and shall be delivered in person, transmitted by facsimile or similar means of recorded electronic communication, or sent by ordinary or registered mail to the respective addresses of the parties hereto:

If to the Huron Board:

The Lake Huron Primary Water Supply System
235 North Centre Road, Suite 200
London, Ontario N5X 4E7
Attention: Chief Administrative Officer
Fax: (519) 474-0451
Phone: 519-930-3505
eMail: General@HuronElginWater.ca

with copy to: ahenry@HuronElginWater.ca

If to Oneida:

The Oneida Nation of the Thames
2212 Elm Avenue
Southwold, Ontario N0L 2G0
Attention: Chief Executive Officer
Fax: (519) 652-9880
Phone: (519) 652-6161
eMail:ceo@oneida.on.ca

7.10.2 *Time of Delivery.* Any such notice shall be deemed to have been given and received on the day on which it was delivered or transmitted (or, if such day is not a Business Day, on the next following Business Day), or if mailed, on the third Business Day following the date of mailing; provided, however, that if at the time of mailing or within three Business Days thereafter there is or occurs a labour dispute or other events which might reasonably be expected to disrupt the delivery of document by mail, any notice hereunder shall be delivered or transmitted by means of recorded electronic communications as aforesaid.

7.11 **Effective Date.** This Agreement shall be effective as of _____

IN WITNESS WHEREOF the Huron Board and Oneida have cause for this Agreement to be executed by the affixing of their proper seals attested by the signature of the proper persons duly authorized in that behalf.

**THE JOINT BOARD OF MANAGEMENT OF THE
LAKE HURON PRIMARY WATER SUPPLY SYSTEM**

Michael van Holst
Board Chair

Kelly Scherr
Chief Administrative Officer

THE ONEIDA NATION OF THE THAMES

<Name>
<Title>

<Name>
<Title>

Schedule “A” – Map of Oneida Connection Point

[insert map showing location of the Oneida Connection Point, including an inset drawing of the chamber showing assets owned by Huron versus assets owned by Oneida]

T1029081\49759325\2



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

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

Subject: LH1408 Oneida Nation of the Thames Transmission Pipeline Municipal Class Environmental Assessment and Preliminary Design – Consultant Award

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Oneida Transmission Pipeline (LH1408) project:

- a) The Board of Management for the Lake Huron Primary Water Supply System **INCREASE** the budget of the Oneida Transmission Pipeline (LH1408) project by \$100,000 for a total budget of \$200,000, with additional funds being provided from the Capital Reserve Fund;
- b) Subject to the Chair and Chief Administrative Officer executing a Water Supply Agreement with Oneida Nation of the Thames, the Board of Management for the Lake Huron Primary Water Supply System **ACCEPT** the proposal from Stantec Consulting Ltd. for the completion of the Oneida Nation of the Thames Transmission Pipeline Municipal Class Environmental Assessment and Preliminary Design in the amount of \$124,307, including contingency and excluding HST, having submitted a proposal which meets the Request for Proposal requirements and evaluated as having the best value;
- c) The Board of Management for the Lake Huron Primary Water Supply System **AUTHORIZE** the Chair and Chief Administrative Officer to execute a consulting services agreement with Stantec Consulting Ltd. for the completion of the Oneida Nation of the Thames Transmission Pipeline Municipal Class Environmental Assessment and Preliminary Design; and,
- d) The Board of Management for the Lake Huron Primary Water Supply System **RECEIVE** this report for information.

PREVIOUS AND RELATED REPORTS

- March 3, 2022 Oneida Nation of the Thames Water Supply
- June 2, 2022 Oneida Nation of the Thames Water Supply Agreement

BACKGROUND

At the March 3, 2022 meeting, the Board endorsed the request to supply drinking water to the Oneida Nation of the Thames (Oneida Nation) from the Lake Huron Water Supply System and authorized Board staff to negotiate a Water Supply Agreement with Oneida Nation.

Given the location of the Oneida Nation settlement, it is proposed that the existing transmission pipeline, which currently terminates near the community of Mount Brydges, be extended west along Glendon Drive and then along a route southerly to a connection point located near Muncey Road and Jubilee Drive.

Oneida Nation anticipates that it will be undertaking the planning and design of necessary modifications and upgrades to the Oneida Nation water distribution system starting in mid-2022 in preparation for construction in 2023.

The feasibility study completed by Oneida Nation estimates the capital cost of the transmission pipeline and connection at approximately \$20.6 million.

DISCUSSION

Given the timelines noted above and in anticipation of the Lake Huron Water Supply System entering into a Water Supply Agreement with Oneida Nation, Board staff initiated the procurement of necessary engineering services for the Oneida Nation of the Thames transmission pipeline Municipal Class Environmental Assessment and preliminary design. To initiate the procurement process, Board staff administratively approved a capital budget of \$100,000, which is the upset limit of its authority.

In March 2022, Board staff released a Request for Proposal (RFP-2022-100) to the three (3) invited firms. Each of the three (3) firms provided proposal submissions by the closing date of April 22, 2022. The proposals were reviewed by Board staff and evaluated against the requirements identified in the RFP document. The technical proposal submissions from all three consultants were successful and deemed qualified to have their respective cost proposals considered. Based on the evaluation team scoring, the proposal from Stantec Consulting Ltd. was deemed to offer the best value to the Board and is therefore recommended for award by Board staff.

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

The workplan and associated cost estimate in the proposal from Stantec Consulting Ltd. for their consulting fees associated with this assignment, which includes preliminary design services and environmental investigations, is \$124,307, including contingency and excluding HST. In addition to Stantec Consulting Ltd.'s fees, costs for provisional items that may be associated with this stage of the project, such as developing a hydrogeological investigation scope of work, topographical survey, and legal survey, were also provided should they be required.



To proceed with the preliminary engineering assignment and undertaking the additional design items noted above, Board staff are recommending an increase in the approved budget of the Oneida Transmission Pipeline (LH1408) project by \$100,000 for a total budget of \$200,000, with additional funds being provided from the Capital Reserve Fund.

The estimated cost for the preliminary design phase of the project is consistent with Board staff expectations for this assignment. Once the total anticipated value of the project is confirmed, to the extent possible given current market conditions, the construction value of this project will be included in the 2023 capital budget later this year. Consulting engineer detailed design, contract administration and construction supervision fees will be subject to a future proposal submission solicited by Board staff in conjunction with or separate from the construction of the Oneida Nation Water Supply connection project.

Given accelerated timelines needed to meet the needs of Oneida Nation and Indigenous Services Canada, Board staff are considering undertaking this project as a Design-Build project following the completion of the Environmental Assessment and preliminary design, rather than a traditional Design-Bid-Build project. Additional reports associated with future approvals from the Board will be provided as required.

PROJECT FINANCIAL STATUS

| Expenditure | Projected | Incurred |
|---|--------------------|-----------------|
| Preliminary Engineering | \$ 126,495 | \$ 0 |
| Detailed Design, Construction Supervision & Contract Administration | \$ - | \$ 0 |
| Construction | \$ - | \$ 0 |
| Additional Services | \$ - | \$ 0 |
| Total | \$ 126,495 | \$ 0 |
| Approved Budget | \$ 100,000 | |
| Projected Variance | \$ - 26,495 | |



CONCLUSION

As set out in the Request for Proposal issued in March 2022, the proposal submitted by Stantec Consulting Ltd. was deemed to provide the best value to the Board. Staff recommend that the Board accept the proposal and execute a consulting services agreement with Stantec Consulting Ltd. for the Oneida Nation of the Thames transmission pipeline Municipal Class Environmental Assessment and preliminary design, subject to the execution of a Water Supply Agreement with Oneida Nation of the Thames.

To proceed with the preliminary engineering Board staff are recommending an increase in the approved budget of the Oneida Transmission Pipeline (LH1408) project by \$100,000 for a total budget of \$200,000, with additional funds being provided from the Capital Reserve Fund.

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

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

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

Attachments: Lake Huron Supply Municipal Type Servicing Agreement (MTSA)
Route, First Nations Engineering Services Inc.



Lake Huron
Primary Water Supply System

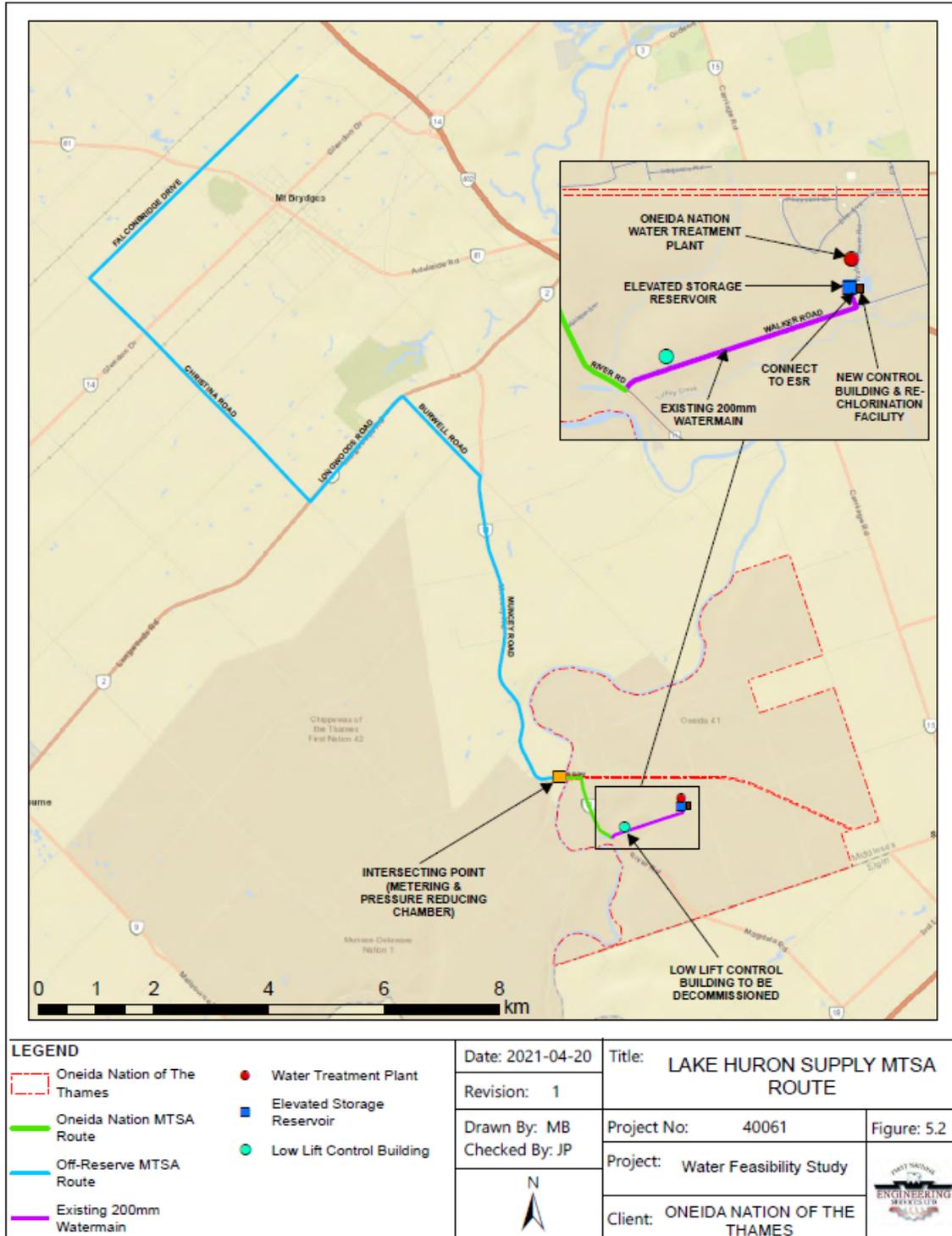
Report No.: LH-2022-02-14

Report Page: 5 of 5

Meeting Date: June 2, 2022

File No.: LH1408

APPENDIX A: LAKE HURON SUPPLY MUNICIPAL TYPE SERVICING AGREEMENT (MTSA) POTENTIAL TRANSMISSION PIPELINE ROUTE, FIRST NATIONS ENGINEERING SERVICES INC.



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

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

Subject: LH1901 Water Quality Facility Plan Update – Consultant Award

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Water Quality Facility Plan Update (LH1901):

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

PREVIOUS AND RELATED REPORTS

October 7, 2021 2022 Operating & Capital Budgets

BACKGROUND

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

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

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

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

DISCUSSION

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

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

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

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

CONCLUSION

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



Lake Huron
Primary Water Supply System

Report No.: LH-2021-02-09

Report Page: 3 of 3

Meeting Date: June 2, 2022

File No.: LH1901

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

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

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

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

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

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

Subject: LH1243 McGillivray Booster Pumping Station Facility Upgrades - Project Update and Engineering Fees

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with regards to the McGillivray Electrical Upgrades (LH1243), HVAC Replacement (LH1204) and Control Panel Replacement (LH1258) projects:

- a) The Board of Management for the Lake Huron Primary Water Supply System **CLOSE** the LH1204 McGillivray HVAC Replacement and LH1258 McGillivray Control Panel Replacement projects such that the scope of these projects may be managed as part of LH1243 Electrical Upgrades project with surplus funding in the approximate amount of \$1,877,436 to be released to the Reserve Funds;
- b) The Board of Management for the Lake Huron Primary Water Supply System **INCREASE** the approved budget for LH1243 Electrical Upgrades project by \$1,877,436, for a total budget of \$7,785,00, with the additional funding being drawn from the Reserve Funds;
- c) The Board of Management for the Lake Huron Primary Water Supply system **EXTEND** the existing engineering assignment with Stantec Consulting Ltd. for the HVAC Replacement design services at an estimated cost of \$127,115 (excluding HST); and
- d) The Board of Management for the Lake Huron Primary Water Supply System **RECEIVE** this report regarding the status of the McGillivray Booster Pumping Station facilities upgrade project for information.

PREVIOUS AND RELATED REPORTS

| | |
|-----------------|---|
| October 8, 2020 | 2021 Operating & Capital Budgets |
| June 3, 2021 | LH1243 McGillivray Electrical Upgrades – Consulting Award |
| October 7, 2021 | 2022 Operating & Capital Budgets |

BACKGROUND

The McGillivray Booster Pumping Station (BPS) was constructed in 1976 and with much of the original equipment still in place, the various electrical equipment and mechanical systems, including heating, ventilation, and air conditioning (HVAC), at this facility are well past their

expected operating life. In general, equipment of this type is typically replaced after it has been in operation for 25 to 35 years, depending on their operating conditions and environment. This equipment has been in operation for approximately 46 years and requires replacement, as evidenced by periodic equipment failures as well as replacement components being no longer readily available.

The Energy Audit and Pump Optimization Study previously completed included several recommendations related to Building Services and Energy Management Strategies for the McGillivray Pumping Station, which may be considered as part of a facility upgrade.

DISCUSSION

In June 2021, Stantec Consulting Ltd. was awarded the McGillivray Electrical Upgrades (project LH1243) and a consulting services agreement was subsequently executed. The preliminary design prepared by Stantec Consulting Ltd., including the drawings and report, addressed various electrical and mechanical upgrades for the McGillivray BPS facility. The preliminary design also considered the benefits of replacing the control panel and various mechanical systems, in particular the facility HVAC systems, as part of the electrical upgrades.

Given the confluence of the anticipated construction timelines and to facilitate the coordinated management of the scope of the upgrades under the electrical upgrades project, Board staff recommend that the LH1204 McGillivray HVAC Replacement and LH1258 McGillivray Control Panel Replacement projects be merged with LH1243 McGillivray Electrical Upgrades under one approved capital project. To facilitate this, and with the Board's approval, project LH1204 McGillivray HVAC Replacement and project LH1258 will be closed and the remaining budget in each will be transferred to the LH1243 McGillivray Electrical Upgrades project.

The scope for project LH1243 will be dedicated to McGillivray Booster Pumping Station Facility Upgrades, incorporating and consolidating the electrical and HVAC upgrades and control system improvements.

Stantec Consulting Ltd. provided a work plan to Board staff for consideration that included the scope change to address the detailed design of the HVAC system replacement, in coordination with the electrical system upgrades, to provide one tender for these facility improvements.

Stantec's estimate for the fees associated with their HVAC replacement work plan is \$127,115, including contingency, but excluding HST, based on their current work plan. This work plan was reviewed by Board staff and found to meet the requirements for this overall project and is therefore recommended by Board staff for approval. The additional consulting fees associated with construction supervision and administration will be addressed separately with the tender award. The proposed 2023 Capital Budget later this year will address the capital budget for the overall facility upgrades at the McGillivray Booster Pumping Station.



PROJECT FINANCIAL STATUS

The following is a summary of projected and incurred expenditures to date for the LH1243 McGillivray Electrical Upgrades, LH1204 McGillivray HVAC Replacement and LH1258 McGillivray Control Panel Replacement projects:

| Expenditure | Projected | | Incurred | |
|--|------------------|--------------------|-----------------|----------------|
| Preliminary and Detailed Design | \$ | 429,392 | \$ | 99,624 |
| Construction Supervision & Contract Administration | \$ | 347,948 | \$ | 0 |
| Construction | \$ | 8,170,000 | \$ | 44,411 |
| Contingency | \$ | 430,000 | \$ | 0 |
| Total | \$ | 9,377,340 | \$ | 141,035 |
| <hr/> | | | | |
| Approved Budget (Consolidated) | \$ | 7,785,000 | | |
| <hr/> | | | | |
| Projected Variance* | \$ | - 1,592,340 | | |

**The shortfall in approved budget for the proposed McGillivray Booster Pumping Station facility upgrades will be addressed as part of the 2023 budget process once construction cost estimates are refined based on the detailed design.*



CONCLUSION

The detailed design work plan submitted by Stantec Consulting Ltd. for the McGillivray Booster Pumping Station facility upgrades was deemed to meet the requirements for this assignment and offers the best value when considered in coordination with the overall upgrades for the facility. Board staff recommend that the Board accept this work plan and extend the existing consulting services assignment with Stantec Consulting Ltd.

To facilitate the management of the scope of the upgrades under the electrical upgrades project, Board staff recommend that the LH1204 McGillivray HVAC Replacement and LH1258 McGillivray Control Panel Replacement projects be closed with remaining budget transferred to the LH1243 Electrical Upgrades project.

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

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

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



Report No.: LH-2022-02-16
Report Page: 1 of 5
Meeting Date: June 2, 2022
File No.: LH1426

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

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

Subject: LH1426 Microbial Inactivation and Storage Class Environmental Assessment –
Project Status Update

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Lake Huron Primary Water Supply system **RECEIVE** this report regarding the LH1426 Microbial Inactivation and Storage Class Environmental Assessment for information.

PREVIOUS AND RELATED REPORTS

October 3, 2019 2020 Operating & Capital Budgets

October 8, 2020 LH2019 Master Water Plan Update – Award

BACKGROUND

The recently completed Master Water Plan Update determined that the treated water storage capacity at the Lake Huron Water Treatment Plant does not currently have sufficient standalone storage for optimal plant performance. In addition, the Master Water Plan identified the opportunity to utilize a proposed storage reservoir to meet the system's disinfection contact time (CT) requirements in lieu of the previously authorized Ultraviolet (UV) Disinfection project. On this basis, the Board authorized the creation of a capital project to initiate a Microbial Inactivation and Storage Schedule B Environmental Assessment to confirm the preferred solution recommended in the Plan for achieving microbial inactivation and addressing storage needs at the Lake Huron Water Treatment Plant.

On October 8, 2020, the Board approved the award of the Microbial Inactivation and Storage Schedule B Environmental Assessment to Jacobs Engineering Group. The project was initiated in November 2020.

DISCUSSION

Project Status

The project is in Phase 2 of the Class Environmental Assessment process, which is the phase when the preferred solution and design concepts are evaluated and selected.

The required Public Information Center is being undertaken as a virtual event to present the various alternative solutions, share the evaluation process and present the draft preferred alternative with the public, agencies, and stakeholders.

Currently, the proposed preferred alternative is to construct a new UV disinfection facility at a new below-grade storage reservoir. An image of the preferred alternative conceptual building and piping arrangement can be found in Appendix A, attached to this report for information and reference.

Once the Public Information Centre and consultation process is completed, the Environmental Assessment project file will be completed for acceptance at the October 2022 Board Meeting. The project file will then be posted for a 30-day review period in accordance with the Environmental Assessment Act. Subject to not receiving any Part Two Orders from the Minister of the Environment, Conservation and Parks following the 30-day review period, the project's Environmental Assessment is anticipated to be completed at the end of December 2022.

Additional Engineering Efforts

Due to the complexity, detailed technical requirements and additional coordination efforts, the project team has encountered challenges that were not anticipated at the proposal stage with additional effort being undertaken which includes but is not limited to the following:

Water sampling program for the development of UV alternatives

To help select the UV reactors which would be used as the basis for developing the UV relevant alternatives, a sampling program was developed. Jacobs reviewed and summarized the data, which helped inform the discussions with UV vendors.

Additional public consultation requirements

In the proposal, it was assumed three (3) alternatives would be developed and evaluated. As the project progressed, it was determined five (5) alternatives were evaluated resulting in additional efforts.

Due to the on-going Covid-19 pandemic, changes were made to the format and delivery of the Public Information Centre (PIC). With the decision to change to the pre-recorded PIC instead of an online meeting, additional efforts were required to develop a pre-recorded video which includes a presentation narrative, presentation slides and website coordination.

Constructability review

Due to the complexity of the alternatives presented, a constructability review was required prior to selecting a preferred alternative.

Additional hydraulic modeling efforts

The development of the hydraulic plant model required additional effort was required to fill in data gaps in the model.

Additional pumping scenarios were also discussed with Board Staff and operations to ensure the model was representative of the new pumping arrangements associated with the High Lift Pump Upgrades at the Lake Huron Water Treatment Plant.

Additional project management

Additional effort was required on the project management task to coordinate the above noted changes with Jacobs, Board staff and operations.

Undertaking Ecological Studies

It was recommended through the Desktop Preliminary Natural Features Assessment to undertake a baseline field survey and impact assessment during preliminary design to confirm the baseline desktop assessment. The impact assessment would provide further information in terms of preparation for the required studies, such as a Species at Risk Assessment, tree inventory and protection study, which will take place during the detailed design phase.

Over the course of the project, it became clear that additional efforts were needed to meet the project's objectives. The original engineering fee estimate was \$416,921, excluding HST. Given the significant additional efforts required, a \$38,024, excluding HST, increase to the estimated engineering fees to an upset limit of \$454,945, excluding HST, was administratively approved by Board staff. With an approved budget of \$500,000, the project is anticipated to be within budget.

The original schedule had a completion date of December 2021. With the additional efforts required to meet the project objectives, the new anticipated completed date is December 2022.



CONCLUSION

The purpose of the Microbial Inactivation and Storage MCEA is to determine the preferred alternative for achieving microbial inactivation and to address storage needs at the Lake Huron WTP as identified in the recently completed Master Water Plan Update (Jacobs, 2020). The final Project File will include the evaluation and recommended preferred solution, as well as the preliminary design of the preferred solution and is expected to be completed by December 2022.

Since the onset of the project, additional efforts have been required to meet project objectives. Given the complexity, technical requirements, and coordination efforts, a \$38,024, excluding HST, increase in the estimated engineering fees to an upset limit of \$462,953 was administratively approved by Board staff.

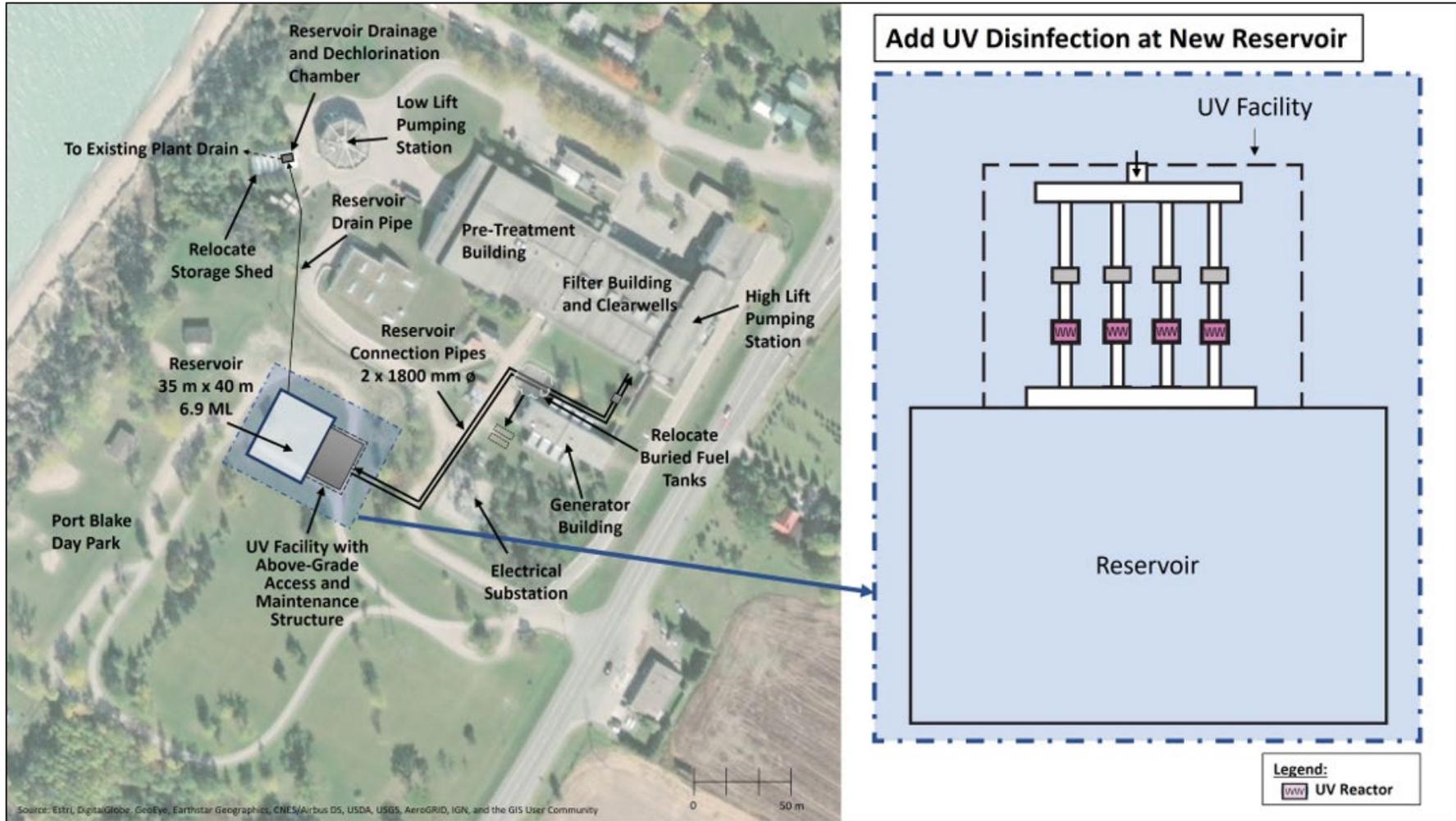
Prepared by: Brittany Bryans, P. Eng.,
Environmental Services Engineer

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

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

Appendix A: Draft Preferred Alternative - UV Disinfection at New Reservoir

APPENDIX A - DRAFT PREFERRED ALTERNATIVE - UV DISINFECTION AT NEW RESERVOIR



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

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

Subject: LH1246 Low Lift Window Replacement Project

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken with respect to the Low Lift Window Replacement (LH1246) project:

- a) The Board of Management for the Lake Huron Primary Water Supply System **APPROVE** a budget increase of \$50,000 for the Low Lift Window Replacement (LH1246) project, for a total approved budget of \$425,000, with the additional funds being provided from the Asset Replacement Reserve Fund; and,
- b) The Board **RECEIVE** this report regarding the general status of Low Lift Window Replacement Project for information.

PREVIOUS AND RELATED REPORTS

October 7, 2021 2022 Operating & Capital Budgets

DISCUSSION

At the October 2022 meeting, the Board approved a budget of \$375,000 to replace the original window curtain wall at the low lift building as they were failing. The window curtainwall would be replaced with energy-efficient windows and improved seals.

The project was subsequently tendered in early April through the Board's contracted operating authority, the Ontario Clean Water Agency (OCWA). Fifteen proponents attended the mandatory site meeting. Due to the volume of work currently being undertaken within this industry, only one proponent submitted a bid. OCWA reviewed the bid and knowing the work that was required, OCWA and Board staff agree that the bid provided is reasonable given current market conditions. The bid, including OCWA's management fees, is approximately \$382,000.

During the budget development process, the interior framing conditions were unknown but were suspected to be useable. Upon further investigation, it was determined that both the framing and the exterior cladding was all unusable and in need of replacement.

While all the required work can be undertaken close to the original budget, the number of unknowns within the framing and building structure surrounding the windows warrant an added contingency to be carried within the project budget.



Given the anticipated timing of unrelated future projects in the vicinity of the low lift building, it is not recommended to delay this project.

PROJECT FINANCIAL STATUS

Capital Project LH1246 Low Lift Window Replacement Project has a current approved budget of \$375,000.

Summary of Projected Costs:

| | |
|----------------------------------|-------------------------|
| Construction and Management Fees | \$382,000 |
| Recommended Contingency | \$43,000 |
| Total | <u>\$425,000</u> |

CONCLUSION

It is the recommendation of Board staff that the budget for the low lift window (curtainwall) be increased to a total of \$425,000 to ensure the installation of the windows is completed in a timely manner. This will ensure building integrity and energy savings for years to come.

Prepared by: John Walker, CD, B.Sc.,
Operations Manager

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

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

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

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

Subject: Pressure Reducing Valves Replacement

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the following actions be taken:

- a) That the Board of Management **AUTHORIZE** the creation of a capital project to replace the existing Pressure Reducing Valves (PRVs) in certain high-pressure areas on the water transmission system with an approved budget of \$425,000, it being noted that the Asset Replacement Reserve fund will be utilized for the source of funding; and,
- b) That the Board of Management **RECEIVE** this report for information.

BACKGROUND

The Lake Huron Water Supply System supplies eight (8) municipalities in Huron, Lambton, and Middlesex counties from its transmission pipelines and reservoirs throughout the region. In order to supply the municipalities across this region of southwest Ontario, and overcome the elevations across the entire region, the discharge pressure from the water treatment plant to the 1200mm diameter primary transmission pipeline is in the order of 230psi (1585 kpa). Pressure along the primary transmission pipeline decreases over distance due to the increase in elevation between the plant and the Denfield/Ilderton area, before increasing again to the Arva terminal reservoir within the Thames River valley.

Pressure reducing valves (PRV) regulate the pressure from the high-pressure transmission pipeline at the points of supply to the municipal distribution system(s). Given the nature of the PRV to the supply of water to the municipal water distribution systems and their respective safe operation, PRV's are inspected regularly and at least twice per year.

DISCUSSION

Board staff and the Board's contracted operating authority, the Ontario Clean Water Agency (OCWA), undertook a preliminary risk assessment related to the possible consequence of PRV failures. After investigating the type and operations of the various PRVs within the regional water system, Board staff and OCWA have determined that two (2) locations are recommended to have a specialised 'failsafe' type of double-PRV installed that will allow lower pressure water to continue to flow into the respective systems even if the primary pressure reducing valve fails.



PROJECT FINANCIAL STATUS:

Requested Budget **\$ 425,000**

Projected Costs

| | |
|------------------------------|-------------------|
| Valve Procurement | 80,000 |
| Valve Installation | 275,000 |
| Contingency | 38,500 |
| Taxes and Fees | 30,000 |
| Total Projected Costs | \$ 423,500 |

CONCLUSION

Replacing the high-risk PRVs with specialized double-PRVs will ensure that the regional water system’s higher working pressure will not adversely and catastrophically affect the downstream operational stability of the municipal water distribution systems in the unlikely event that any PRVs may fail in the future.

Prepared by: John Walker, CD, B.Sc.,
Operations Manager, Regional Water Supply

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

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



To: Chair and Members, Board of Management
Lake Huron Primary Water Supply System
From: Kelly Scherr, P.Eng., MBA, FEC
Chief Administrative Officer
Subject: North Middlesex Repayment Agreement

RECOMMENDATION

That, on the recommendation of the Chief Administrative Officer, the Board of Management for the Lake Huron Water Supply System **AUTHORIZE** the Board Chair and Chief Administrative Officer to execute a Repayment Agreement with the Municipality of North Middlesex, substantially in the form attached to this report.

BACKGROUND

Initiated at the request of the Municipality of Strathroy-Caradoc, the Strathroy Pipeline Project (LH1327) began in 2004 and achieved substantial completion in January 2006. The pipeline was undertaken as a Design-Build project and included connections for the Municipality of North Middlesex along the pipeline route.

Water Supply Agreements were entered into with each of the Municipality of Strathroy-Caradoc and the Municipality of North Middlesex which, in part, included the provision that the municipalities would be responsible for the costs associated with the construction of the pipeline, associated appurtenances, and any necessary modifications to the water supply system necessary to facilitate the requested supply.

The costs associated with the project were apportioned between the benefiting municipalities, on a segment-by-segment basis, in order to facilitate the recovery of costs associated with the project. The initial calculated apportionment, as well as revised apportionments due to change orders and requested modifications, were shared with the municipalities throughout the term of the project for information and reference.

At the conclusion of the project, each of Strathroy-Caradoc and North Middlesex were to be issued invoices for their respective proportionate share of the project. A clerical error resulted in Strathroy-Caradoc being issued an invoice for the full amount of the project but was immediately corrected and reissued for their proportionate share only. A subsequent clerical

error resulted in the invoice to North Middlesex not being issued and was not discovered by Board staff until 2008 when the project file was to be formally closed.

Successive changes in key municipal staff and turnover of elected officials delayed resolution of this issue, and ongoing financial constraints by the municipality further exacerbated the water system's ability to collect this outstanding debt.

This project is complete and operational, and all amounts due and payable to the contractors have been addressed.

DISCUSSION

The proposed Repayment Agreement addresses the longstanding debt repayment from the Municipality of North Middlesex to the Lake Huron Water Supply System. In the best interest of all parties involved, it is proposed that the outstanding amount of approximately \$1.6 million be repaid over a ten-year period with a fixed rate of interest applied of 2.69% with semi-annual payments made in January and July of each year.

In consultation with the City of London, a fixed rate of 2.69% represents the same rate that the city offers to London residents for local improvements in 2022. This rate would not change for the duration of the repayment period, thereby providing some certainty regarding future payment amounts for North Middlesex.

CONCLUSION

The proposed Repayment Agreement with the Municipality of North Middlesex resolves this longstanding issue of outstanding debt for the municipality's connection to the Strathroy Pipeline project. The Repayment will be applied to the Board's Capital Reserve Fund and recoup the costs incurred by the regional water system from the pipeline's construction concluded in 2006.

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

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

Attachments: Draft – North Middlesex Repayment Agreement

North Middlesex Loan Repayment Agreement

THIS AGREEMENT made in duplicate this _____ day of _____, 20__

BETWEEN:

**THE CORPORATION OF THE
MUNICIPALITY OF NORTH MIDDLESEX**
(hereinafter referred to as "North Middlesex")

AND

**THE JOINT BOARD OF MANAGEMENT
FOR THE LAKE HURON PRIMARY WATER SUPPLY SYSTEM**
(hereinafter referred to as "Huron Board")

WHEREAS the Huron Board owns, operates, maintains and governs a water treatment plant, water transmission pipelines and the associated appurtenance for the supply of potable drinking water to area municipalities and communities in Huron County, Lambton County and Middlesex County, including the City of London;

AND WHEREAS the Corporation of the City of London provides certain administrative services to and under the direction of the Huron Board and has been designated as the Administering Municipality in accordance with the Transfer Order issued by the Province of Ontario on September 15, 2000, pursuant to the *Municipal Water and Sewage Systems Transfer Act, 1997*, S.O. 1997, c.6. Sch. A;

AND WHEREAS the Huron Board and North Middlesex entered into a Water Supply Agreement on September 26, 2007 for the supply of treated drinking water and which, in part, included a charge for capital construction of its proportionate share of the Strathroy Transmission System being a series of interconnecting water mains to facilitate the supply of drinking water to North Middlesex;

AND WHEREAS the Huron Board has offered, and North Middlesex has agreed, to advance the funds associated with the capital construction to North Middlesex by way of a loan in the principal amount of One Million and Six Hundred and Thirty-Nine Thousand and Three Hundred and Thirty Dollars and Sixty-Seven Cents (\$1,639,330.67) subject to repayment to the Huron Board in accordance with the terms and conditions set out in this Agreement;

NOW THEREFORE in consideration of the mutual covenants and agreements herein contained and the sum of Ten (\$10.00) Dollars in lawful money of Canada now paid by each party to the other and for other good and valuable consideration (the receipt and adequacy of which is hereby irrevocably acknowledged), **IT IS AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:**

1. DEFINITIONS

1.1. In this Agreement unless the context otherwise requires:

- a. **"Agreement"** means this agreement and any amendment hereto from time to time.
- b. **"Loaned Funds"** has the meaning set forth in section 2.1.
- c. **"Effective Date"** means July 1, 2022.
- d. **"Events of Default"** means any event specified in ARTICLE 4.
- e. **"Repayment Date"** has the meaning specified in section 2.2(b).

2. LOANED FUNDS

2.1. Establishment of Loaned Funds

Subject to the terms and conditions of this Agreement, the Huron Board agrees to advance to North Middlesex by way of a loan the principal sum of One Million and Six Hundred and Thirty-Nine Thousand and Three Hundred and Thirty Dollars and Sixty-Seven Cents (\$1,639,330.67) (being the **"Loaned Funds"**). The Huron Board will issue a promissory note to North Middlesex (the **"Note"**) for the entire amount of the Loaned Funds, in the form attached as Schedule "A" hereto.

2.2. Repayment Provisions

- a. North Middlesex shall pay to the Huron Board interest on the principal amount of the Loaned Funds at a rate of interest of 2.69% per annum. Interest on the outstanding principal balance will accrue from the date of advance of July 1, 2022, and be calculated and payable semi-annually, with the first calculation and payment due on the 1st day of July, 2022.
- b. The Loaned Funds shall be repaid as set out in the Note. The full unpaid principal and accrued interest shall be due no later than January 1, 2032 (the **"Repayment Date"**).
- c. Huron Board shall be paid in accordance with the Promissory Note attached to this Agreement as Schedule "A".

- d. North Middlesex shall have the right to prepay the Loaned Funds or any part thereof at any time or times, with thirty (30) days notice, and without premium or penalty, at any time during the term of this Agreement.

3. COVENANTS

- 3.1. North Middlesex covenants and agrees with the Huron Board that, so long as this Agreement is in full force and effect and except as otherwise permitted by the prior written consent of the Huron Board, North Middlesex shall:
 - a. **Event of Default.** Forthwith notify the Huron Board of the occurrence of any Event of Default under this Agreement or under any event of which it is aware which with notice or lapse of time or both would constitute an Event of Default;
 - b. **Other Information.** Deliver or cause to be delivered to the Huron Board on a confidential basis such other information relating to the conduct of the business and affairs and operations of North Middlesex as the Huron Board may reasonably request.

4. EVENTS OF DEFAULT

4.1. Events of Default

Subject to the terms and conditions of this Agreement and as set out in section 2.2 any one or more of the following events shall constitute an Event of Default of this Agreement:

- a. **Default in Interest, etc.** If North Middlesex fails to pay any interest or other amount payable under this Agreement on the due date thereof.
- b. **Default hereunder.** Subject to section 4.1(a), if North Middlesex defaults in the performance or observance of any term, condition, representation or covenant contained in this Agreement and such default continues for a period of 15 days or more after written notice thereof has been delivered by the Huron Board to North Middlesex.
- c. **Representations and Warranties.** If any representation, warranty or statement made in this Agreement or any certificate or other document delivered to the Huron Board pursuant to this Agreement is untrue or incorrect in any material respect.
- d. **Default under Other Agreements with the Huron Board.** If North Middlesex defaults in the performance or observance of any term, condition, representation or covenant contained in any agreement between North Middlesex and the Huron Board in any material respect (other than this Agreement), and such default continues for a period of 15 days or more after written notice thereof has been delivered by the Huron Board to North Middlesex.

- e. **Default in other Indebtedness.** If North Middlesex defaults in the payment of any indebtedness which, in the reasonable opinion of the Huron Board, is material (other than to the Huron Board) which has become due and payable or has been declared to be due and payable prior to the expressed maturity thereof and, unless North Middlesex in good faith is exercising due diligence in disputing such default, such default continues for a period of 15 days after the later of the date of such default, or the date on which the dispute of such default fails.

- f. **Encumbrances.** If an encumbrancer takes possession of the property of North Middlesex or any part thereof which in the opinion of the Huron Board is a substantial part thereof, or if a distress or execution or any similar process is levied or enforced against such property and remains unsatisfied for such period as would permit such property or such part thereof to be sold thereunder, provided that such possession or process has not been stayed and is not being contested in good faith by North Middlesex.

4.2. Acceleration

Without restricting the ability of the Huron Board to make demand under the Loaned Funds, upon the occurrence of any one or more of the Events of Default, all indebtedness of North Middlesex to the Huron Board hereunder shall, at the option of the Huron Board, immediately become due and payable without presentment, demand, protest or other notice of any kind, all of which are expressly waived by North Middlesex, and all collateral and securities shall thereupon become enforceable by the Huron Board or its duly authorized agent.

4.3. Remedies Cumulative

The rights and remedies of the Huron Board hereunder are cumulative rights and are in addition to and not in substitution for any remedies provided by law.

4.4. Non-Merger

The taking of a judgment or judgments or any other action or dealing whatsoever by the Huron Board in respect of any security given by North Middlesex to the Huron Board shall not operate as a merger of any indebtedness or liability of North Middlesex to the Huron Board or in any way suspend payment or affect or prejudice the rights, remedies and powers, legal or equitable, which the Huron Board may have in connection with such liabilities and the surrender, cancellation or any other dealings with any security for such liabilities shall not release or affect the liability of North Middlesex hereunder or any security held by the Huron Board.

5. DISPUTE RESOLUTION

In the event a dispute arises between the parties, the parties agree that the Dispute Resolution Process of the Joint Board of Management for the Lake Huron Primary Water Supply System shall be used, a copy of which has been provided to North Middlesex and is attached as Schedule "B".

6. NOTICE

Any notice to be given pursuant to this Loan Repayment Agreement shall be sufficiently given if served personally upon the party or an officer of the party for whom it is intended, or mailed, or sent by email or facsimile in the case of:

If to the Huron Board:

Lake Huron Water Supply System
235 North Centre Road, Suite 200
London, Ontario N5X 4E7
CANADA

Attention: Chief Administrative Officer

E: general@HuronElginWater.ca with copy to ahenry@HuronElginWater.ca

F: 519.474.0451

If to North Middlesex:

Municipality of North Middlesex
229 Parkhill Main Street
Parkhill, Ontario NOM 2K0
CANADA

Attention: Chief Administrative Officer

E: jonathondg@northmiddlesex.on.ca with a copy to treasurer@northmiddlesex.on.ca

or at another address that the party has specified by notice in writing to the other party. Where notice is given by mail, it is deemed to have been received by the person to whom it is addressed, on the fifth (5) business day following the next business day after which the notice, sent by prepaid first-class mail, was deposited in a post office or letter box in Ontario. Where notice is personally delivered or sent by e-mail or facsimile it shall be deemed to have been received by the person to whom it is addressed on the date of delivery provided such notice is received during normal business hours. Any notice sent after 4:00 pm shall be deemed to have been received on the following business day. In the event of postal disruption, the parties agree that service shall be made by personal delivery or e-mail only.

7. MISCELLANEOUS

- 7.1. This Agreement shall continue in full force and effect so long as any indebtedness or liability is due and payable to the Huron Board in respect of the Loaned Funds unless it is varied or terminated in writing and all agreements, representations, warranties and covenants of North Middlesex made herein or in any document delivered by or on behalf of North Middlesex to the Huron Board pursuant to the provisions hereof or otherwise, shall be deemed to have been relied on by the Huron Board notwithstanding any investigation heretofore or hereafter made by the Huron Board, the Huron Board's solicitors or any representative of the Huron Board and shall survive the execution of this Agreement until repayment in full of all amounts owing to the Huron Board.
- 7.2. This Agreement shall be deemed to be a contract and instrument made pursuant to the laws of the Province of Ontario and shall be construed, interpreted and enforced in accordance therewith.
- 7.3. If any provision of this Agreement shall be held invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision and all other provisions hereof shall continue in full force and effect.
- 7.4. Time is of the essence of this Agreement but a forbearance by the Huron Board of the strict application of this provision shall not operate as a continuing and subsequent forbearance.
- 7.5. The failure on the part of either party to enforce its rights as to any provision of this Agreement shall not be construed as a waiver of its rights to enforce such provision in the future.
- 7.6. This Agreement constitutes the entire agreement between the parties hereto and supersedes all previous or contemporaneous communications, representations or agreements. No oral agreement or conversation with any officer, agent or employee of the Huron Board or North Middlesex, either before or after the execution of this Agreement, shall affect or modify any of its terms or obligations herein contained
- 7.7. No amendment to this Agreement shall be effective unless in writing and signed by all Parties to this Agreement.
- 7.8. This Agreement may be executed in counterparts, each of which shall be deemed 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.
- 7.9. The headings and captions appearing in this Agreement have been inserted for convenience of reference only and in no way define, limit or enlarge the scope or meaning of this Agreement or any provision hereof

7.10. This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective heirs, estate trustees, successors and assigns.

One signature page to follow.

IN WITNESS WHEREOF the parties hereto have executed this Loan Agreement as of and with effect from the date first written above.

**THE CORPORATION OF THE MUNICIPALITY OF
NORTH MIDDLESEX**

Per: _____

Name:

Title:

Per:

Name:

Title:

I/We have the authority to bind the corporation

**THE JOINT BOARD OF MANAGEMENT FOR THE
LAKE HURON PRIMARY WATER SUPPLY
SYSTEM**

Per: _____

Name:

Title:

Per: Name:

Title:

I/We have the authority to bind the corporation

SCHEDULE A
PROMISSORY NOTE

\$1,639,330.67

July 1 , 2022

FOR VALUE RECEIVED, the undersigned, THE CORPORATION OF THE MUNICIPALITY OF NORTH MIDDLESEX, hereby promises to pay, to or to the order of THE JOINT BOARD OF MANAGEMENT FOR THE LAKE HURON PRIMARY WATER SUPPLY SYSTEM (hereinafter the "**Huron Board**") the principal sum of One Million and Six Hundred and Thirty-Nine Thousand and Three Hundred and Thirty Dollars and Sixty-Seven Cents (\$1,639,330.67) in lawful money of Canada, together with interest at the rate of 2.69% per annum.

This Promissory Note (the "**Note**") is delivered pursuant to Section 2.1 of the Loan Agreement between North Middlesex as borrower, and the Huron Board as the lender and is subject to the terms and conditions of the Loan Agreement. Capitalized terms used in this Note and not defined herein have the meaning ascribed to them in the Loan Agreement.

Interest on the outstanding principal balance will accrue from the date hereof and be calculated and payable quarterly. Blended payments of principal and interest shall be payable semi-annually on the first day of January and July in each year, with the first payment due July 1, 2022, in accordance with the repayment schedule set out in **Schedule "A"** hereto and shall be subject to the terms and conditions of the Loan Agreement entered into between North Middlesex and the Huron Board dated even date hereof under which this promissory note is delivered ("**Loan Agreement**"). The full unpaid principal and interest shall be due and payable no later than January 1, 2032. All payments of unpaid principal and interest shall be made in Canadian funds to the order of the Huron Board, at such place as it may designate in writing.

The principal amount of this promissory note may be payable at any time, in whole or in part, at the option of the undersigned without notice, premium or penalty, at any time.

Default: Subject to the terms and conditions of the Loan Agreement, the undersigned hereby covenants and promises to observe and perform each and every covenant, term and condition set forth in this promissory note. Upon default in any payment of principal or interest due under this promissory note, the entire principal balance of this promissory note together with all accrued and unpaid interest, shall, at the option of the Payee hereof, forthwith become due and payable as of such date, were the maturity date expressly set forth herein or therein. The failure to exercise said option shall not constitute a waiver on the part of the Payees of the right to exercise the same at any other time.

Enurement: This promissory note shall be binding upon and enure to the benefit of the undersigned and the Huron Board and their respective heirs, executors, administrators, successors and permitted assigns.

Waiver, Etc.: The undersigned hereby waives presentment, notice of dishonour, protest and notice of protest of this promissory note and diligence in collection or bringing suit, and consents to all extensions of time, renewals, waivers and modifications that may be granted by the holder of this promissory note with respect to payment or any other provision of this promissory note. No failure or delay by the Huron Board in exercising any right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right exclude other further exercise thereof or the exercise of any other right.

Governing Law: This promissory note shall be governed by the laws of the Province of Ontario, which laws shall be applicable to the interpretation, construction and enforcement hereof.

General Provisions: This promissory note may not be changed, modified, discharged or cancelled orally or in any manner other than by agreement in writing signed by the parties hereto or their respective successors and assigns.

DATED the first day of July, 2022.

**THE CORPORATION OF THE MUNICIPALITY OF
NORTH MIDDLESEX**

Per: _____

Name:

Title:

Per:

Name: _____

Title:

I/We have the authority to bind the corporation

Schedule "A"
Repayment Schedule

**Balance Owning from the Municipality of North Middlesex, per
Capital Project LH1327 – Strathroy Transmission Pipeline**

Amount: \$1,639,330.67
Term: 10 Years
Payments: Semi-Annual
Rate: 2.69%

| Payment | Payment Date | Opening Balance | Principal | Interest | Total Payment | Remaining Balance |
|---------|-----------------|-----------------|--------------|------------|---------------|-------------------|
| 1 | July 1, 2022 | 1,639,330.67 | 92,783.48 | 0.00 | 92,783.48 | 1,546,547.19 |
| 2 | January 1, 2023 | 1,546,547.19 | 71,982.42 | 20,801.06 | 92,783.48 | 1,474,564.77 |
| 3 | July 1, 2023 | 1,474,564.77 | 72,950.58 | 19,832.90 | 92,783.48 | 1,401,614.19 |
| 4 | January 1, 2024 | 1,401,614.19 | 73,931.77 | 18,851.71 | 92,783.48 | 1,327,682.42 |
| 5 | July 1, 2024 | 1,327,682.42 | 74,926.15 | 17,857.33 | 92,783.48 | 1,252,756.27 |
| 6 | January 1, 2025 | 1,252,756.27 | 75,933.91 | 16,849.57 | 92,783.48 | 1,176,822.36 |
| 7 | July 1, 2025 | 1,176,822.36 | 76,955.22 | 15,828.26 | 92,783.48 | 1,099,867.14 |
| 8 | January 1, 2026 | 1,099,867.14 | 77,990.27 | 14,793.21 | 92,783.48 | 1,021,876.88 |
| 9 | July 1, 2026 | 1,021,876.88 | 79,039.24 | 13,744.24 | 92,783.48 | 942,837.64 |
| 10 | January 1, 2027 | 942,837.64 | 80,102.31 | 12,681.17 | 92,783.48 | 862,735.33 |
| 11 | July 1, 2027 | 862,735.33 | 81,179.69 | 11,603.79 | 92,783.48 | 781,555.64 |
| 12 | January 1, 2028 | 781,555.64 | 82,271.56 | 10,511.92 | 92,783.48 | 699,284.08 |
| 13 | July 1, 2028 | 699,284.08 | 83,378.11 | 9,405.37 | 92,783.48 | 615,905.97 |
| 14 | January 1, 2029 | 615,905.97 | 84,499.54 | 8,283.94 | 92,783.48 | 531,406.43 |
| 15 | July 1, 2029 | 531,406.43 | 85,636.06 | 7,147.42 | 92,783.48 | 445,770.37 |
| 16 | January 1, 2030 | 445,770.37 | 86,787.87 | 5,995.61 | 92,783.48 | 358,982.50 |
| 17 | July 1, 2030 | 358,982.50 | 87,955.16 | 4,828.31 | 92,783.48 | 271,027.34 |
| 18 | January 1, 2031 | 271,027.34 | 89,138.16 | 3,645.32 | 92,783.48 | 181,889.17 |
| 19 | July 1, 2031 | 181,889.17 | 90,337.07 | 2,446.41 | 92,783.48 | 91,552.10 |
| 20 | January 1, 2032 | 91,552.10 | 91,552.10 | 1,231.38 | 92,783.48 | 0.00 |
| | | TOTALS: | 1,639,330.67 | 216,338.92 | 1,855,669.59 | |

Accrued Interest at December 31st

| | |
|------------|-----------|
| 2022-12-31 | 20,801.06 |
| 2023-12-31 | 18,851.71 |
| 2024-12-31 | 16,849.57 |
| 2025-12-31 | 14,793.21 |
| 2026-12-31 | 12,681.17 |
| 2027-12-31 | 10,511.92 |
| 2028-12-31 | 8,283.94 |
| 2029-12-31 | 5,995.61 |
| 2030-12-31 | 3,645.32 |
| 2031-12-31 | 1,231.38 |

Schedule "B"
Dispute Resolution Policy – Lake Huron Water Supply System
as at July 1, 2022