Joint Board of Management Agenda
Aylmer Area Secondary Water Supply System & Port Burwell Area Secondary Water Supply System
September 4, 2024 – 1:00p.m.

Malahide Council Chambers
51221 Ron McNeil Line, Springfield

The Joint Board of Management met at the Springfield & Area Community Services Building, at 51221 Ron McNeil Line, Springfield, at 1:00p.m. The following were present:

(1) Call to Order

_____ is appointed Chair and the meeting is called to order at _____p.m.

(2) Disclosure of Pecuniary Interest

(3) Adoption of Minutes of Previous Meeting(s)

Recommended Motion:

THAT the minutes of the Aylmer Area Secondary Water Supply System Joint Board of Management meeting held on June 12, 2024 be approved as presented**.**

Recommended Motion:

THAT the minutes of the Port Burwell Area Secondary Water Supply System Joint Board of Management meeting held on June 12, 2024 be approved as presented.

(4) Reports

-AASWSS-24-12-Aylmer Area Secondary Water Supply System Capital Project Update

Recommended Motion:

THAT Report No. AASWSS-24-12 entitled “Aylmer Area Secondary Water Supply System Capital Project Update” be received.

-PBASWSS-24-12 entitled “Port Burwell Area Secondary Water Supply System Capital Project Update

Recommended Motion:

THAT Report No. PBASWSS-24-12 entitled “Port Burwell Area Secondary Water Supply System Capital Project Update” be received.

-AASWSS-24-11 entitled “First and Second Quarter 2024 Operations Report

Recommended Motion:

THAT Report No. AASWSS-24-11 entitled “First and Second Quarter 2024 Operations Report” be received.

-PBASWSS-24-13 entitled “First and Second Quarter 2024 Operations Report

Recommended Motion:

THAT Report No. PBASWSS-24-13 entitled “First and Second Quarter 2024 Operations Report” be received.

(5) Adjournment

Recommended Motion:

THAT the Aylmer Area Secondary Water Supply System Joint Board of Management adjourn at _____ p.m. to meet again on December 4, 2024 at 1:00 p.m.

Recommended Motion:

THAT the Port Burwell Secondary Water Supply System Joint Board of Management adjourn at _____ p.m. to meet again on December 4, 2024 at 1:00 p.m.

JOINT AGENDA

AYLMER AREA SECONDARY WATER SUPPLY SYSTEM
PORT BURWELL AREA SECONDARY WATER SUPPLY SYSTEM
JOINT BOARD OF MANAGEMENT

June 12, 2024 – 1:00 PM
Malahide Council Chambers
51221 Ron McNeil Line, Springfield, ON

Board Members:
Municipality of Central Elgin – Norman Watson
Town of Aylmer – Pete Barbour
Township of Malahide – Chester Glinski
Municipality of Bayham – Tim Emerson

Staff:
Municipality of Central Elgin – Alex Piggott
Town of Aylmer – Andy Grozelle
Township of Malahide –Jason Godby, Sam Gustavson, Adam Boylan, and Tanya Hoover

(1) Call to Order

Pete Barbour is appointed Chair and the meeting is called to order at 1:00 pm.

(2) Disclosure of Pecuniary Interest

No disclosures of pecuniary interest declared

(3) Adoption of Prior Minutes

Moved by: Norman Watson
Seconded by: Tim Emerson

THAT the minutes of the Port Burwell Area Secondary Water Supply System Joint Board of Management meeting held on March 6, 2024 and April 24, 2024 be approved as circulated.

Carried

Moved by: Chester Glinski
Seconded by: Tim Emerson

THAT the minutes of the Aylmer Area Secondary Water Supply System Joint Board of Management meeting held on March 6, 2024, be approved as circulated.
Carried

(4) Reports

- Water Loss Billing

Members discussed the water loss billing matter and instructed the administrating staff to follow up with a report, including additional details on the matter under consideration.

Moved by: Norman Watson
Seconded by: Chester Glinski

THAT Report AASWSS-24-08 titled "Water Loss Billing" be received.

Carried

- 2023 Audited Financial Statements and Year-End Report

Moved by: Norman Watson
Seconded by: Chester Glinski

THAT the 2023 Audited Financial Statements and Year-End Report be received;
AND THAT the Chair be authorized to sign the Engagement Letter, Audit Planning Letter, and Audit Findings Letter from Graham, Scott, Enns LLP, dated June 12, 2024, on behalf of the AASWSS Board.

AND THAT the Aylmer Area Secondary Water Supply System 2023 surplus of $239,383 be transferred to reserves.

Carried

- 2023 Audited Financial Statements and Year-End Report

Moved by: Tim Emerson
Seconded by: Norman Watson

THAT the 2023 Audited Financial Statements and Year-End Report be received;
AND THAT the Chair be authorized to sign the Engagement Letter, Audit Planning Letter, and Audit Findings Letter from Graham, Scott, Enns LLP, dated June 12, 2024, on behalf of the PBASWSS Board.

AND THAT the Port Burwell Area Secondary Water Supply System 2023 surplus of $116,067 be transferred to reserves.

Carried

- Mid-Year Financial Update

Moved by: Norman Watson
Seconded by: Chester Glinksi

THAT Report AASWSS-24-10 entitled "Mid-Year Financial Update" be received.

Carried

- Mid-Year Financial Update

Moved by: Tim Emerson
Seconded by: Chester Glinksi

THAT report PBASWSS-24-11 entitled "Mid-Year Financial Update" be received.

Carried

- APAM SCADA Wide Area Network Agreement

Moved by: Norman Watson
Seconded by: Tim Emerson

THAT Report No. AASWSS-24-05 entitled "APAM SCADA Wide Area Network Agreement" be received;

AND THAT the Aylmer Area Secondary Water Supply System Joint Board of Management authorizes the Administering Municipality to renew the APAM SCADA Wide Area Network Agreement for a term of three years and to execute the necessary documents with Execulink; SUBJECT TO the acceptance by the Township of Malahide and the Joint Board of Management for the Port Burwell Area Secondary Water Supply System of their portion.

Carried

- APAM SCADA Wide Area Network Agreement

Moved by: Tim Emerson
Seconded by: Norman Watson

THAT Report No. PBASWSS-24-07 entitled "APAM SCADA Wide Area Network Agreement" be received;

AND THAT the Port Burwell Area Secondary Water Supply System Joint Board of Management authorizes the Administering Municipality to renew the existing APAM SCADA Wide Area Network Agreement for a term of three years and to execute the necessary documents with Execulink; SUBJECT TO the acceptance by the Township of Malahide and the Joint Board of Management for the Aylmer Area Secondary Water Supply System of their portion.

Carried

- 2024 First Quarter Operations Report

Moved by: Norman Watson
Seconded by: Chester Glinski

THAT Report No. AASWSS-24-06 entitled "2024 First Quarter Operations Report" be received.

Carried

- First Quarter 2024 Operations Report

Moved by: Norman Watson
Seconded by: Chester Glinksi

THAT Report No. PBASWSS-24-08 entitled "First Quarter 2024 Operations Report" be received.

Carried

- DWQMS Operational Plan: Revision to Element 3 – Commitment and Endorsement

Moved by: Norman Watson
Seconded by: Chester Glinksi

THAT Report No. AASWSS-24-07 entitled "DWQMS Operational Plan: Revision to Element 3 – Commitment and Endorsement" be received;

AND THAT the Joint Board of Management for the Aylmer Area Secondary Water Supply System does hereby endorse the Operational Plan and authorizes the Mayor and Clerk of the Administering Municipality, being the Township of Malahide, to sign the Element 3 Commitment and Endorsement on their behalf.

Carried

- DWQMS Operational Plan: Revision to Element 3 – Commitment and Endorsement

Moved by: Tim Emerson
Seconded by: Norman Watson

THAT Report No. PBASWSS-24-09 entitled "DWQMS Operational Plan: Revision to Element 3 – Commitment and Endorsement" be received;

AND THAT the Joint Board of Management for the Port Burwell Area Secondary Water Supply System does hereby endorse the Operational Plan and authorizes the Mayor and Clerk of the Administering Municipality being the Township of Malahide to sign the Element 3 Commitment and Endorsement on their behalf.

Carried

(5) Correspondence

N/A

(6) New Business

N/A

(7) Adjournment

Moved by: Chester Glinksi
Seconded by: Norman Watson

THAT the Aylmer Area Secondary Water Supply System Joint Board of Management adjourn at 2:02 p.m. to meet again on September 4, 2024 at 1:00 p.m.

Carried

Moved by: Tim Emerson
Seconded by: Chester Glinksi

THAT the Port Burwell Secondary Water Supply System Joint Board of Management adjourn at 2:02 p.m. to meet again on September 4, 2024 at 1:00 p.m.

Carried

_____
Pete Barbour – Board Chair

_____
Allison Adams - Clerk

Aylmer Area Secondary Water Supply System

REPORT NO.: **AASWSS-24-12**

DATE: **September 4, 2024**

ATTACHMENT: **n/a**

SUBJECT: **Capital Project Update**

Recommendation:

THAT Report No. AASWSS-24-12 entitled "Aylmer Area Secondary Water Supply System Capital Project Update" be received.

Background:

The intention of this staff report is to provide an update to the Aylmer Area Secondary Water Supply System Joint Board of Management with respect to the status of Capital projects in accordance with the approved 2024 budget.

Comments/Analysis

In 2024, a variety of Capital projects were approved for the Aylmer Area Secondary System for both the Transmission main and the Elgin Middlesex Pumping Station.

The below table provides a summary on the status of currently approved capital undertakings for the Aylmer Area Secondary Water Supply System.

Item	**Status**
EMPS	
DWQMS Audits	Internal DWQMS Audit completed on May 5, 2024 External DWQMS Audit was completed on June 24th – Not invoiced as of yet. EMPS DWQMS Audit was completed but also has not been invoiced as of yet.
Chlorinator System Repairs	Completed – Budget $2500 – OCWA invoiced $2090.70
Surge Anticipating and Pressure Reducing valve Rebuild	Completed- Budget $5000.00- OCWA invoiced $3627.74
Pump Discharge Control Valve rebuilding	OCWA consulted with Devine and Associates (Cla-Val Representative)- They indicated that only

	the strainers require annual cleaning which is already being completed by OCWA annually.
Major Electrical Maintenance	OCWA currently working on this item. Because the electrical is 600V, OCWA does not believe Triannual maintenance is required. Only the high voltage incoming would require this and that is completed through the Primary contract. They indicated that they believe this was a legacy issue on the capital plan before the delineation of assets was realized through the occupancy and use agreement.
Transmission Main	
Spare PLC	Spare Rockwell PLC processor and I/O modules purchased to be utilized in emergency situation where PLC fails. The spare can be used at any site connected to SCADA. This cost was split between Malahide Water, Malahide Sewer and PB Secondary. If one party uses the spare they will pay the cost to restock this spare unit. The total cost of the spare PLC modules was $10,780.00. Budgeted amount of $3000.00. Apportioned cost to Aylmer Secondary was $3919.88.
UPS replacements	The UPS (uninterruptable power source) units at chambers 13 and 16 were replaced in 2024. The budgeted amount was $2000.00. Total cost was $1751. 55.
SCADA	Q1 and Q2 SCADA Maintenance including Drive Image Inspection / Validation, Disk Space Audit, PLC program backup/archival, and SCADA application backup, UPS inspection in conjunction with service agreement with Summa Engineering Ltd.

Summary:

The majority of Capital projects are expected to be completed within the current calendar year.

All of the projects completed in 2024 were necessary to ensure the continued safe and reliable operation of the Secondary System. In order to ensure the long-term sustainability and useful function of the Secondary System it is essential that life-cycle replacements and equipment maintenance schedules are maintained. This also allows capital upgrades to be scheduled appropriately and ensures future budgets include lifecycle replacements. Keeping the Owners informed ensures that they are aware of the maintenance needs of the water system. This allows for an effective long-term plan of the maintenance and upgrade requirements so a proactive approach can be achieved.

Submitted by:	Approved by:	Approved by:
Sam Gustavson Water/Wastewater Operations Manager	Jason Godby Director of Public Works	Nathan Dias CAO

Port Burwell Area Secondary Water Supply System

REPORT NO.: **PBASWSS-24-12**

DATE: **September 4, 2024**

ATTACHMENT: **n/a**

SUBJECT: **Capital Project Update**

Recommendation:

THAT Report No. PBASWSS-24-12 entitled "Port Burwell Area Secondary Water Supply System Capital Project Update" be received.

Background:

The intention of this staff report is to provide an update to the Port Burwell Area Secondary Water Supply System Joint Board of Management with respect to the status of Capital projects in accordance with the approved 2024 budget.

Comments/Analysis:

In 2024, a variety of Capital projects were approved for the Port Burwell Area Secondary System.

The below table provides a summary on the status of currently approved capital undertakings for the Port Burwell Area Secondary Water Supply System.

Item	Status
Transmission Main	
DWQMS Audit	Internal DWQMS Audit completed on May 9th, 2024 External DWQMS Audit was completed on June 21st – Budgeted $3000.00 - OCWA invoiced $1474.51
Dexter Line UPS Replacement	Replaced battery in existing UPS unit. Budgeted $1500.00- Total cost of $328.80
Condition Assessment Pipeline	Capital project awarded in June 2023 to Xylem Pure Technologies to perform a pipeline desktop review utilizing various methods to review data and provide a forecast for the pipeline's eventual replacement historical breaks and pipeline Staff have provided pipeline data to Xylem for their review

	Project completed in 2024. Results were reported to the Board in report PBASWSS-24-06 in April of 2024. Budgeted amount of $30,000 in 2023. Total project cost was $28,250.00 upon completion in 2024.
Spare PLC	Spare Rockwell PLC processor and I/O modules purchased to be utilized in emergency situations where PLC fails. The spare can be used at any site connected to SCADA. This cost was split between Malahide Water, Malahide Sewer and Aylmer Secondary. If one party uses the spare they will pay the cost to restock this spare unit. The total cost of the spare PLC modules was $10,780.00. Budgeted amount of $3000.00. The apportioned cost to Port Burwell Secondary was $3919.88.
SCADA	Q1 and Q2 SCADA Maintenance including Drive Image Inspection / Validation, Disk Space Audit, PLC program backup/archival, and SCADA application backup, UPS inspection in conjunction with service agreement with Summa Engineering Ltd.
Water Tower	Surface prep and repaint valving and piping in chamber below tower. Budgeted amount was $5000.00. Total cost was $5000.00 including HST Replacement of Ladder rungs in valve pit. Budgeted amount was $1500.00. Total cost was $1800.00 including HST Installation of flapper duckbill valve on overflow outlet. Total budgeted amount was $3500.00. Total cost was $3955.00 including HST
Air Release Valve Replacement	Budgeted amount of $20,000. Staff still need to obtain pricing to address this item. It may be considered for carry over in 2025. Additional locate volume and unforeseen repairs have made it challenging to execute this work thus far in 2024.
Unplanned Maintenance	There are currently 3 watermain leaks scheduled for repair in 2024. All 3 will require new services to be drilled under Nova Scotia Line. This work will be completed using the System Maintenance budgeted amount for 2024. Unable to estimate cost until completed. A Board resolution was passed on April 24, 2024, directing Staff of the Administering Municipality to review surge relief mechanisms to help reduce the interim risk of watermain breaks resulting from pressure transients. Staff have obtained quotes to

	install Pressure Relief valves at Chamber E038 and V001 and E034. Acting in the best interest of the Board staff authorized the installation of a pressure relief valve at E034 (Lakeview). This valve will relieve pressure if a transient were to occur. The estimated cost is based on the quote received is $9,926.00 plus HST. This will be completed within the calendar year. Consideration to install additional pressure relief valves at E038 and V001 will be given for 2025 Capital projects.

Summary:

The majority of Capital projects are expected to be completed within the current calendar year.

All of the projects completed in 2024 were necessary to ensure the continued safe and reliable operation of the Secondary System. In order to ensure the long-term sustainability and useful function of the Secondary System it is essential that life-cycle replacements and equipment maintenance schedules are maintained. This also allows capital upgrades to be scheduled appropriately and ensures future budgets include lifecycle replacements. Keeping the Owners informed ensures that they are aware of the maintenance needs of the water system. This allows for an effective long-term plan of the maintenance and upgrade requirements so a proactive approach can be achieved.

Submitted by:	Approved by:	Approved by:
Sam Gustavson Water/Wastewater Operations Manager	Jason Godby Director of Public Works	Nathan Dias CAO

Aylmer Area Secondary Water Supply System

REPORT NO.: AASWSS-24-11

DATE: September 4, 2024

ATTACHMENT: OCWA First and Second Quarter 2024 Operations Reports

SUBJECT: **2024 First and Second Quarter Operations Report**

Recommendation:

THAT Report No. AASWSS-24-11 entitled "First and Second Quarter 2024 Operations Report" be received.

Background:

The Ontario Clean Water Agency (OCWA) and the Staff of the Administering Municipality (Township Staff), formally meet on a quarterly basis to review the operations and maintenance of the AASWSS. OCWA and the Township Staff discuss recommended lifecycle/capital work, bacteriological/chemical sample results, regulatory compliance, and possible emerging issues. OCWA provides detailed operations reports and performance assessment reports at these meetings.

Comments/Analysis:

This report is a summary of the operations and maintenance for the first and second quarters of 2024. This report is submitted to the Joint Board of Management to satisfy specific requirements of the QEMS Operational Plan for the AASWSS. Additionally, this approach ensures that the Joint Board of Management is kept informed on the operational performance of the water system on a continual basis by Township Staff.

The Township Staff met with OCWA to discuss the attached operations report on August 8, 2024. At their meeting, Township and OCWA Staff reviewed the system operations for the first and second quarter of 2024. Some of the specific items that were discussed are outlined below.

Compliance Summary:

There were no compliance or exceedance issues during the first and second quarters of 2024.

Inspections:

There were no MECP or MOL inspections during the first and second quarters of 2024.

QEMS Update:

There were no QEMS updates during the first quarter of 2024.

On April 29th, OCWA updated the Essential/Emergency Service and Supply Contact List. Updates were made to Client contacts along with OCWA Staff updates. This is the 36th revision to the list to date.

OCWA completed an Internal QEMS Audit on May 5th and 9 OFIs (Opportunity for Improvement) were identified. These OFIs were considered at the Management review held on May 29th. The Operational plan has since been updated.

On June 24th an external audit was completed by Sandra Travares of Intertek. One OFI was identified which will be considered at the next management review.

Performance Assessment:

The average daily flow to the system from the Elgin Area Primary Water Supply System thus far in 2024 was 5,065.44 m^3/d which is a 3.5% increase when compared to 2023 (4,888.62 m^3/d).

Weekly microbiological samples were taken by OCWA via sampling stations throughout the transmission main. Samples are collected at 3 separate locations each week. Samples are tested for E. coli, Total coliforms and HPCs. Samples are shipped to SGS laboratories which is an accredited laboratory.

OCWA tested for free chlorine residuals throughout the distribution system two times per week. Quarterly samples were collected for Trihalomethanes (THMs) and Halo Acetic Acids (HAAs) in accordance with regulatory requirements. All sample results tested were well below the Maximum Allowable Concentrations (MAC) set forth in O.Reg. 170/03. OCWA continues to meet or exceed the Provincial Regulations pertaining to microbiological sampling requirements.

Further information relating to water sampling results is outlined in the attached report.

General Maintenance:

OCWA conducted various maintenance activities during the first and second quarters of 2024. Activities include but are not limited to, regular readings and checks, the inspection and pumping of all chambers including air release chambers, and monthly alarm testing. Annual meter calibrations were completed in March 2024. Spring hydrant flushing was also completed in Q2 of this year. Further information regarding maintenance completed in 2024 can be found in the attached report.

Alarms:

There were some alarms that occurred during the first and second quarter of 2024. These alarms were minor in nature and received the appropriate response from OCWA at the time they occurred. Further information regarding alarms can be found in the attached report.

Complaints & Concerns:

There were 2 complaints from the public that required a response during the first and second quarter of 2024. Further information regarding the complaints is outlined in the attached report.

Summary:

Quarterly meetings with OCWA are an effective tool used to keep the Township Staff well informed as to the operations and maintenance of the drinking water system. The information provided to the Board by OCWA is used to help the Joint Board of Management make well-thought-out decisions in an effort to provide a continual safe supply of potable water.

Submitted by:	**Approved by:**	**Approval for Board:**
Sam Gustavson Water/Wastewater Operations Manager	Jason Godby Director of Public Works	Nathan Dias CAO

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Aylmer Area Secondary Water Supply System Operations Report

Second Quarter 2024

Ontario Clean Water Agency, Southwest Region
Vitaliy Talashok, Sr. Operations Manager, Aylmer Cluster
Date: August 8, 2024

Facility Description

Facility Name:	Aylmer Area Secondary Water Supply System
Regional Manager:	Sam Sianas - (519) 319-2233
Sr. Operations Manager:	Vitaliy Talashok - (226) 378-8986
Business Development Manager:	Robin Trepanier - (519) 791-2922
Facility Type:	Municipal
Classification:	Class 2 Water Distribution
Drinking Water System Category:	Large Municipal Residential
Title Holder:	Municipality
Operation Status:	OCWA

Service Information

Area(s) Serviced:	Central Elgin, Malahide, and Aylmer
Population Serviced:	593
Malahide Direct Connections:	53
Central Elgin Connections:	175

Operational Description

This is an 18" watermain from St. Thomas to Aylmer with booster pumps at the Elgin Middlesex Pumping Station.

CLIENT CONNECTION MONTHLY CLIENT REPORT

Facility Name: Aylmer Area Secondary Water Supply System
ORG#: 6614

SECTION 1: COMPLIANCE SUMMARY

FIRST QUARTER:

There were no compliance issues to report for the first quarter.

SECOND QUARTER:

There were no compliance issues to report for the second quarter.

SECTION 2: INSPECTIONS

FIRST QUARTER:

There were no MECP or MOL inspections conducted during the first quarter.

SECOND QUARTER:

There were no MECP or MOL inspections conducted during the second quarter.

SECTION 3: QEMS UPDATE

FIRST QUARTER:

There were no QEMS updates to report during the first quarter.

SECOND QUARTER:

On April 29th the Essential/Emergency Service and Supply Contact List was updated. Changes were made to Client Contacts as well as OCWA Staff. The list is currently in its 36th revision. There were no additional QEMS updates in the second quarter.

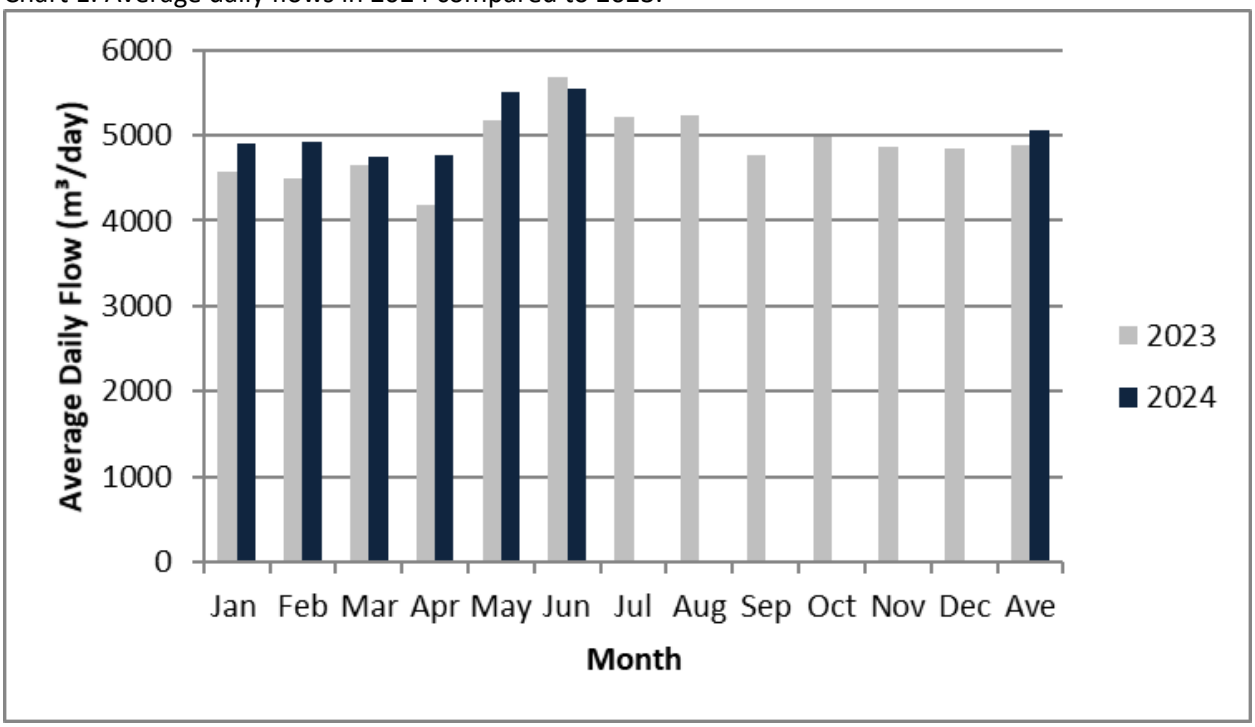
On May 5th an internal audit was completed and 9 OFI's were identified and considered at the management review on May 29th. The operational plan has been updated.

On June 24th an external audit was completed by Intertek's Sandra Travares. One OFI was identified and will be considered at the next management review.

SECTION 4: PERFORMANCE ASSESSMENT REPORT

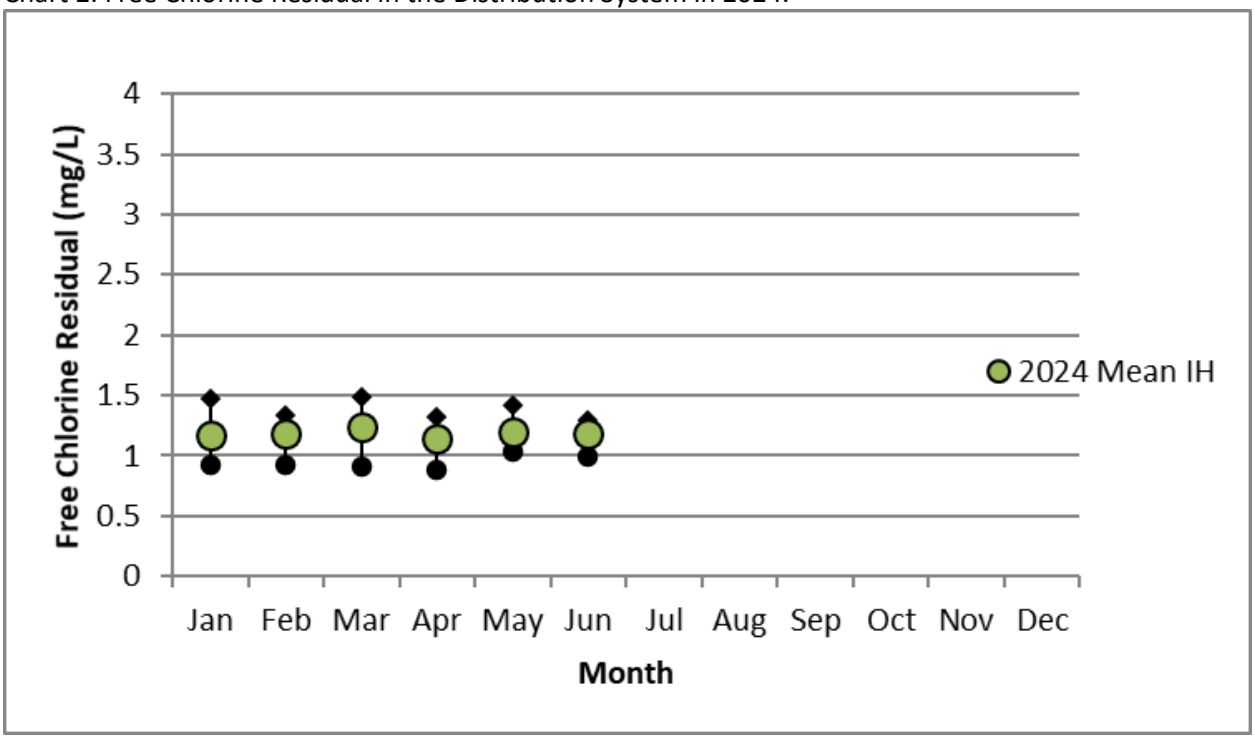
Flows are recorded at various points within the distribution system. The average daily flow to the system from the Elgin Area Primary Water Supply System in 2024 so far was 5,065.44m^3/d which is up 3.5% when comparing to 2023 (4,888.62m^3/d). Chart 1 below depicts the average daily flows for 2024 compared to 2023.

Chart 1. Average daily flows in 2024 compared to 2023.



Chlorine residuals are obtained throughout the distribution system two times per week, with 4 residuals taken on sample days (usually Monday's) and three residuals taken at least 48 hours after the first set (usually on Friday's) to meet the regulatory requirements. The chart below depicts the minimum, maximum and average chlorine residuals taken in the distribution system for 2024. The concentration of free chlorine varies depending on the location that the sample taken (see chart below).

Chart 2. Free Chlorine Residual in the Distribution System in 2024.



Samples are obtained once per week at three locations along the transmission main. The following table summarizes the results of the microbiological sampling for 2024.

Month	# Samples	E. coli Range (cfu/100mL)	Total Coliform Range (cfu/100mL)	# Samples	Heterotrophic Plate Count Range (cfu/mL)
January	15	0 – 0	0 – 0	5	<10 - <10
February	12	0 – 0	0 – 0	4	<10 - <10
March	12	0 – 0	0 – 0	4	<10 - <10
April	15	0 – 0	0 – 0	5	<10 - <10
May	12	0 – 0	0 – 0	4	<10 - <10
June	12	0 – 0	0 – 0	4	<10 - <10

Trihalomethanes (THMs) are sampled on a quarterly basis; the 2024 current running average is 24.25µg/L. When comparing the current running average to the 2023 average (22.50µg/L) there has been an increase of 7.8%. The results are well below the limit of 100 µg/L.

July 2023	-	28
October 2023	-	31
January 2024	-	20
April 2024	-	18
Running Average	**100**	**24.25**

Haloacetic Acids (HAAs) are required to be sampled on a quarterly basis. The 2024 current running average is 9.10µg/L. When comparing the current running average to the 2023 average (6.53µg/L) there has been an increase 39.5%. The results remain well below the limit of 80µg/L.

	Limit (µg/L)	HAA Result (µg/L)
July 2023	-	9.2
October 2023	-	6.1
January 2024	-	14.2
April 2024	-	6.9
Running Average	80	**9.10**

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

There were no additional Health & Safety issues identified in the first quarter.

SECOND QUARTER:

On June 11th 2024, the annual occupational health and safety inspection was completed. There was one issue identified and relayed to OCWA's management to be addressed. There were no additional Health & Safety issues identified in the second quarter.

SECTION 6: GENERAL MAINTENANCE

FIRST QUARTER:

JANUARY

10: Pumped/inspected metering chambers
16: Chamber 13, Eastlink replaced modem

18: Chamber 16, reset modem and router and confirmed communication with on-call operator
25: Power fail/flood alarms tested at chamber 13
: Pumped/inspected air relief chambers
26: Power fail/flood alarms tested at chamber 16

FEBRUARY

13: Pumped/inspected air relief chambers
21: Power fail/flood alarms tested at chamber 13 and 16
23: Chamber 16, reset modem and confirmed communication with on-call operator

MARCH

07: Flowmetrix calibrated flow and pressure sensors at chamber 13 and 16
12: Flowmetrix calibrated flow meters at Roger rd, Norton, Springwater, Belmont rd, and Tower ave.
25: Power fail/flood alarms tested at chamber 13 and 16
27: Pumped/inspected air relief chambers

SECOND QUARTER:

APRIL

09: Pumped and inspected meter chambers.
10: Started spring flushing see rounds sheets for more details.
15: Continued with spring flushing. See rounds sheets for more details.
16: Completed spring flushing of Aylmer secondary hydrants.
17: Pumped and inspected air relief chambers.

MAY

09: Completed annual safety inspection and check sheet.
15: Pumped and inspected air relief chambers.

JUNE

07: Worked on chamber inspections and valve turning from chamber 16 to Rogers Road.
11: Worked on valve turning just west of Rogers Road. Norton at Completed.
27: Worked on valve exercising and annual chamber inspections.

SECTION 7: ALARM SUMMARY

FIRST QUARTER:

JANUARY

15: Chamber 13 no communication alarm, cycled power to modem. Spoke with Execulink, no issues on their end. Spoke with Eastlink also no issues. Communication had restored and trending seems normal.

FEBRUARY

No alarms to report for the month of February.

MARCH

07: Chamber 16 no communication alarm. cycled power to modem and router, communication restored.
: Chamber 16 no communication alarm. Communication restored while enroute to site. Spoke with Execulink who confirmed connection. They believe it to be an issue with the lines and will have Eastlink investigate.
09: Chamber 16 no communication alarm. cycled power to modem, communication restored.

: Chamber 16 no communication alarm. Contacted Execulink who attempted to access remotely. Suggested that we replace cables between modem and router.

SECOND QUARTER:

APRIL

13: Received alert from call service for communication failure at chamber 16. Logged onto SCADA and found all Aylmer, Port Burwell, Copenhagen OPC SPS and Springfield SPS had communication failures. Acknowledged alarm and contacted Execulink. Informed that they were experiencing power failures. Tried contacting Hydro One. Unable to get through due to high call volume. In contact with WWOM of township in case it was an internal issue. Contacted by WWOM of township at 10:07 and informed that communication had been restored to all sites

MAY

15: Received alert from Execulink via call service for communication failure. Acknowledged and logged onto SCADA. Site with full communication.

JUNE

No alarms to report for the month of June.

SECTION 8: COMMUNITY COMPLAINTS & CONCERNS

FIRST QUARTER:

On February 16th, received complaint from WWOM for 48073 Talbot Street Low pressure. Sam Gustavson confirmed pressure on SCADA at chamber 16 was 61PSI. On site Sam removed the flow meter, there was adequate flow and pressure. 1" line going into house reduced to 3/4" and was improperly plumbed inside the house.

On March 15th, Sam Gustavson received a community complaint from Terrace Lodge of rusty/brown water from their hot water. Sam responded to complaint and confirmed colouration was only on the hot water side. Details logged in Opex.

SECOND QUARTER:

There were no complaints or concerns reported during the second quarter.

AASWS01 Locates	
Month	**# of Locates Completed**
January	6
February	8
March	2
April	4
May	3
June	3
July	
August	
September	
October	
November	
December	

Port Burwell Area Secondary Water Supply System

REPORT NO.: PBASWSS-24-13

DATE: September 4, 2024

ATTACHMENT: OCWA First and Second Quarter 2024 Operations Reports

SUBJECT: **2024 First and Second Quarter Operations Report**

Recommendation:

THAT Report No. PBASWSS-24-13 entitled "First and Second Quarter 2024 Operations Report" be received.

Background:

The Ontario Clean Water Agency (OCWA) and the Staff of the Administering Municipality (Township Staff) formally meet on a quarterly basis to review the operations and maintenance of the PBASWSS. OCWA and the Township Staff discuss recommended lifecycle/capital work, bacteriological/chemical sample results, regulatory compliance, and possible emerging issues. OCWA provides detailed operations reports and performance assessment reports at these meetings.

Comments/Analysis:

This report is a summary of the operations and maintenance for the first and second quarters of 2024. This report is submitted to the Joint Board of Management to satisfy specific requirements of the QEMS Operational Plan for the PBASWSS. Additionally, this approach ensures that the Joint Board of Management is kept informed on the operational performance of the water system on a continual basis by the Township Staff.

The Township Staff met with OCWA to discuss the attached operations report on August 8, 2024. At their meeting Township and OCWA Staff reviewed the system operations for the first and second quarter of 2024. Some of the specific items that were discussed are outlined below.

Compliance Summary:

There were no compliance or exceedance issues in the first and second quarters of 2024.

Inspections:

There were no MECP or MOL inspections during the first quarter of 2024.

The MECP made a document request for the annual water system inspection. All requested documentation has been sent. A physical inspection was conducted by Jim Miller on July 18th, 2024.

QEMS Update:

There were no QEMS updates during the first quarter of 2024.

On April 29th, OCWA updated the Essential/Emergency Service and Supply Contact List. Updates were made to Client contacts along with OCWA Staff updates. This is the 36th revision to the list to date.

OCWA completed an Internal QEMS Audit on May 9th and 12 OFIs (Opportunity for Improvement) were identified. These OFIs were considered at the Management review held on May 29th. The Operational plan has since been updated.

On June 21st an external audit was completed by Sandra Travares of Intertek. One OFI was identified which will be considered at the next management review.

Performance Assessment:

The average daily flow to the system from the Elgin Area Water Supply System (recorded at MV1) thus far in 2024 was 695.6 m^3/d. This is a 4.4% decrease when compared to 2023 (727.39 m^3/d).

Weekly microbiological samples were taken by OCWA via sampling stations throughout the transmission main. Samples are tested for E. coli, Total coliforms and HPCs. Samples are shipped to SGS laboratories which is an accredited laboratory.

There were no adverse sample results during the first and second quarters of 2024.

OCWA tested for chlorine residuals throughout the distribution system two times per week. There are also three continuous on-line chlorine analyzers for the system located at the Port Burwell Tower, and the Dexter Line and Lakeview re-chlorination facilities. These analyzers provide continuous data and trends for each facility and are connected to SCADA with the ability to notify operators in the event an alarm occurs which requires an Operator response. OCWA continues to meet or exceed the Provincial Regulations pertaining to microbiological sampling requirements.

Quarterly samples were collected for Trihalomethanes (THMs) and Halo Acetic Acids (HAAs) in accordance with regulatory requirements. All sample results tested were well below the Maximum Allowable Concentrations (MAC) set forth in O.Reg. 170/03. OCWA continues to meet or exceed the Provincial Regulations pertaining to microbiological sampling requirements.

Further information relating to water sampling results is outlined in the attached report.

General Maintenance:

OCWA conducted various maintenance activities during the first and second quarters of 2024. Activities include but are not limited to, regular readings and checks, the inspection and pumping of air release chambers, chemical feed system repairs at re-chlorination facilities, and monthly alarm testing. Annual flow meter and pressure transmitter calibrations were completed in March 2024. Spring hydrant flushing was also completed in Q2 of this year, but is not mentioned in the OCWA report attached. Further information regarding maintenance completed in 2024 can be found in the attached report.

Alarms:

OCWA reported multiple alarms during the first and second quarter of 2024. Some alarms were a result of communication failures of the SCADA system and power failures. There were also various alarms resulting from the re-chlorination facilities outlined in the attached report. All alarms in the first and second quarters were minor in nature and were responded to and resolved by OCWA as outlined in the attached report.

Complaints & Concerns:
There were no complaints received during the first and second quarter of 2024.

Summary:

Quarterly meetings with OCWA are an effective tool used to keep the Township Staff well informed as to the operations and maintenance of the drinking water system. The information provided to the Board by OCWA is used to help the Joint Board of Management make well-thought-out decisions in an effort to provide a continual safe supply of potable water.

Submitted by:	**Approved by:**	**Approval for Board:**
Sam Gustavson Water/Wastewater Operations Manager	Jason Godby Director of Public Works	Nathan Dias CAO

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Port Burwell Area Secondary Water Supply System Operations Report Second Quarter 2024

Ontario Clean Water Agency, Southwest Region
Vitaliy Talashok, Sr. Operations Manager, Aylmer Cluster
Date: August 8, 2024

Facility Description

Facility Name:	Port Burwell Area Secondary Water Supply System
Regional Manager:	Sam Sianas – 519-319-2233
Sr. Operations Manager:	Vitaliy Talashok – 226-378-8986
Business Development Manager:	Robin Trepanier – 519-791-2922
Facility Type:	Municipal
Classification:	Class 2 Water Distribution
Drinking Water System Category:	Large Municipal Residential
Title Holder:	Municipality
Operation Status:	OCWA

Service Information

Area(s) Serviced:	Municipality of Central Elgin, Malahide & Bayham
Population Serviced:	730
Malahide Direct Connections:	204
Central Elgin Connections:	75

Operational Description

This is a 12-inch watermain from the Elgin Area Water Treatment Plant to Port Burwell including an elevated tank west of Pt. Burwell. Includes re-chlorination at the tower and at Lakeview Re-Chlorination Facility.

CLIENT CONNECTION MONTHLY CLIENT REPORT

Facility Name: Port Burwell Secondary - Lakeview, Burwell tower, Valve house
ORG#: 5911

SECTION 1: COMPLIANCE SUMMARY

FIRST QUARTER:

There were no compliance issues to report for the first quarter.

SECOND QUARTER:

There were no compliance issues to report for the second quarter.

SECTION 2: INSPECTIONS

FIRST QUARTER:

There were no MECP or MOL inspections conducted during the first quarter.

SECOND QUARTER:

A document request has been received and all requested documentation has been sent. The Inspection of the system will be conducted on July 18th, 2024, by MECP inspector Jim Miller.

SECTION 3: QEMS UPDATE

FIRST QUARTER:

There were no QEMS updates to report during the first quarter.

SECOND QUARTER:

On April 29th the Essential/Emergency Service and Supply Contact List was updated. Changes were made to Client Contacts as well as OCWA Staff. The list is currently in its 36th revision. There were no additional QEMS updates in the second quarter.

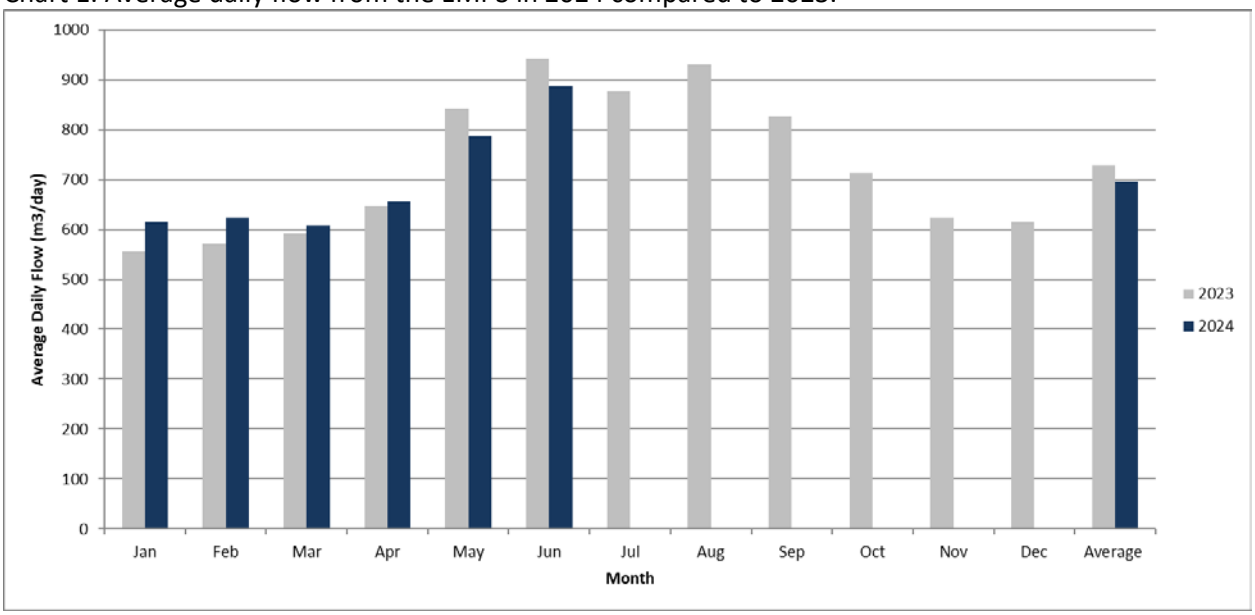
On May 9th an internal audit was completed that identified 12 OFI's that were considered at the management review on May 29th. The operational plan was updated from findings of the management review.

On June 21 an external audit was completed by Intertek's Sandra Travares. One OFI was identified and will be considered at the next management review.

SECTION 4: PERFORMANCE ASSESSMENT REPORT

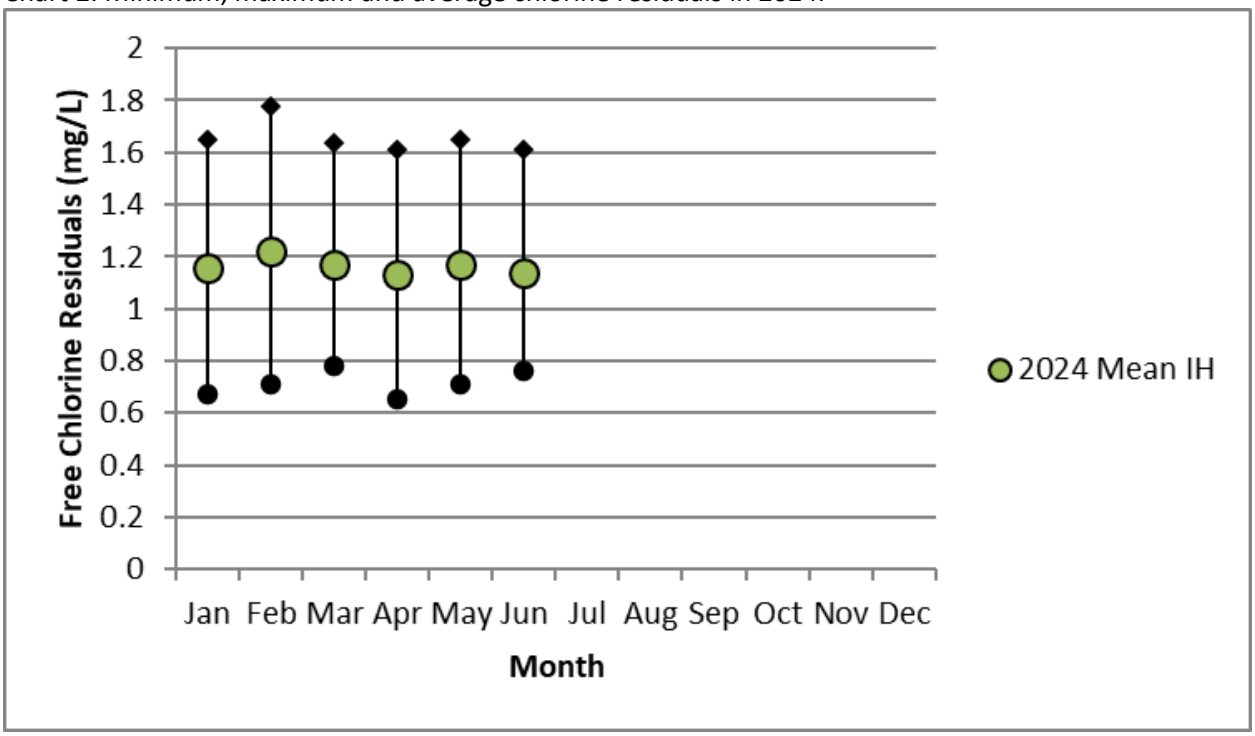
Flows are recorded at various points within the distribution system. The average daily flow to the system from the Elgin Area Primary Water Supply System (recorded at MV1) in 2024 so far was 695.6m^3/d. This is down 4.4% when comparing to 2023 (727.39 m^3/d). Chart 1 below depicts the average daily flow in 2024 compared to 2023.

Chart 1. Average daily flow from the EMPS in 2024 compared to 2023.



Chlorine residuals are obtained throughout the distribution system two times per week, with 4 residuals taken on sample days (usually Mondays) and three residuals taken at least 48 hours after the first set (usually on Fridays) to meet the regulatory requirements. Chart 2 below depicts the minimum, maximum and average chlorine residuals taken in the distribution system in 2023. The concentration of free chlorine varies depending on the location of sample taken. All results met regulatory requirements.

Chart 2. Minimum, maximum and average chlorine residuals in 2024.



The chlorine residuals are continuously monitored at the re-chlorination facilities at Dexter Line, the Tower and Lakeview. Chart 3 below provides the monthly average, minimum and maximum free chlorine residuals at the Dexter Line Re-Chlorination Facility in 2024.

Chart 3. Minimum, maximum and average chlorine residuals recorded at Dexter Line Re-chlorination in 2024.

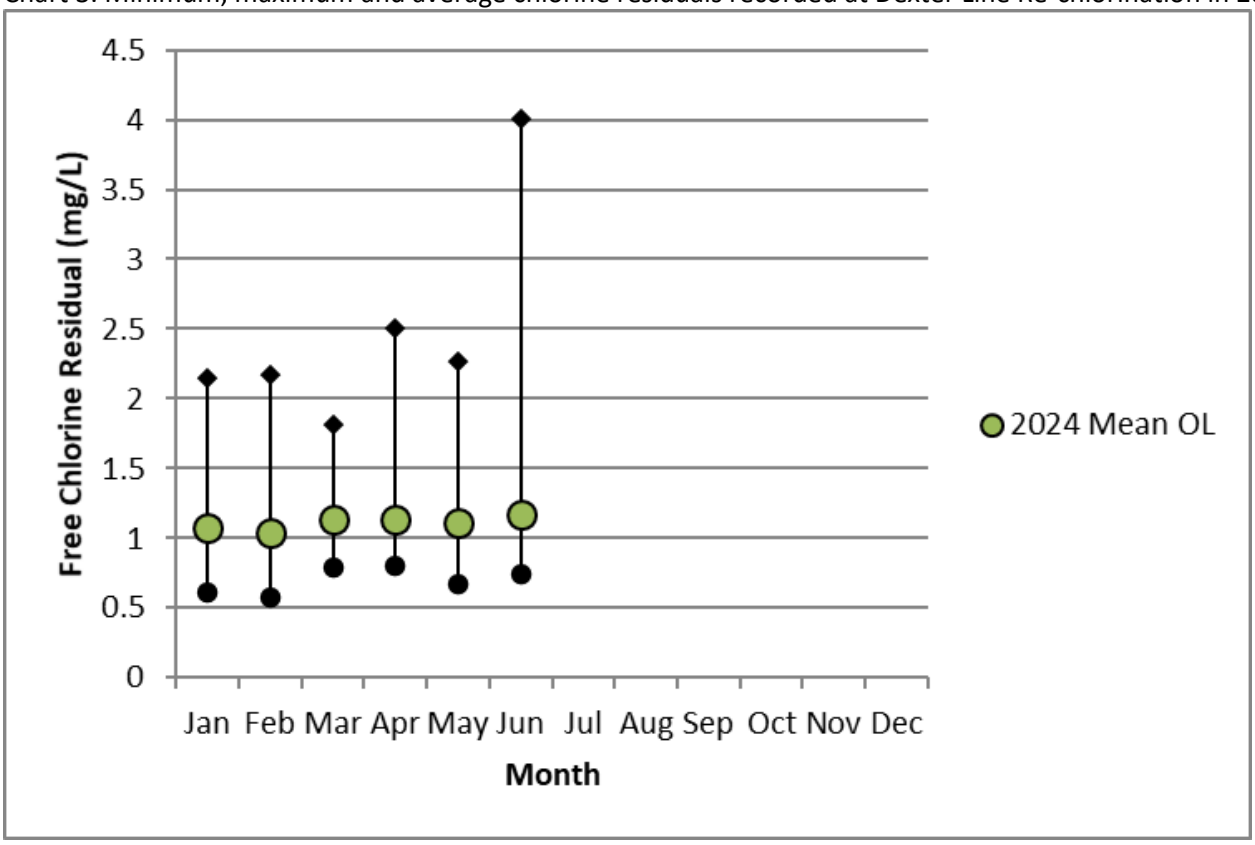


Chart 4 below provides the monthly average, minimum and maximum free chlorine residuals at the Port Burwell Tower in 2024. The residuals at the tower fluctuate depending on the fill cycles.

Chart 4. Minimum, maximum and average chlorine residuals recorded at Port Burwell Tower in 2024.

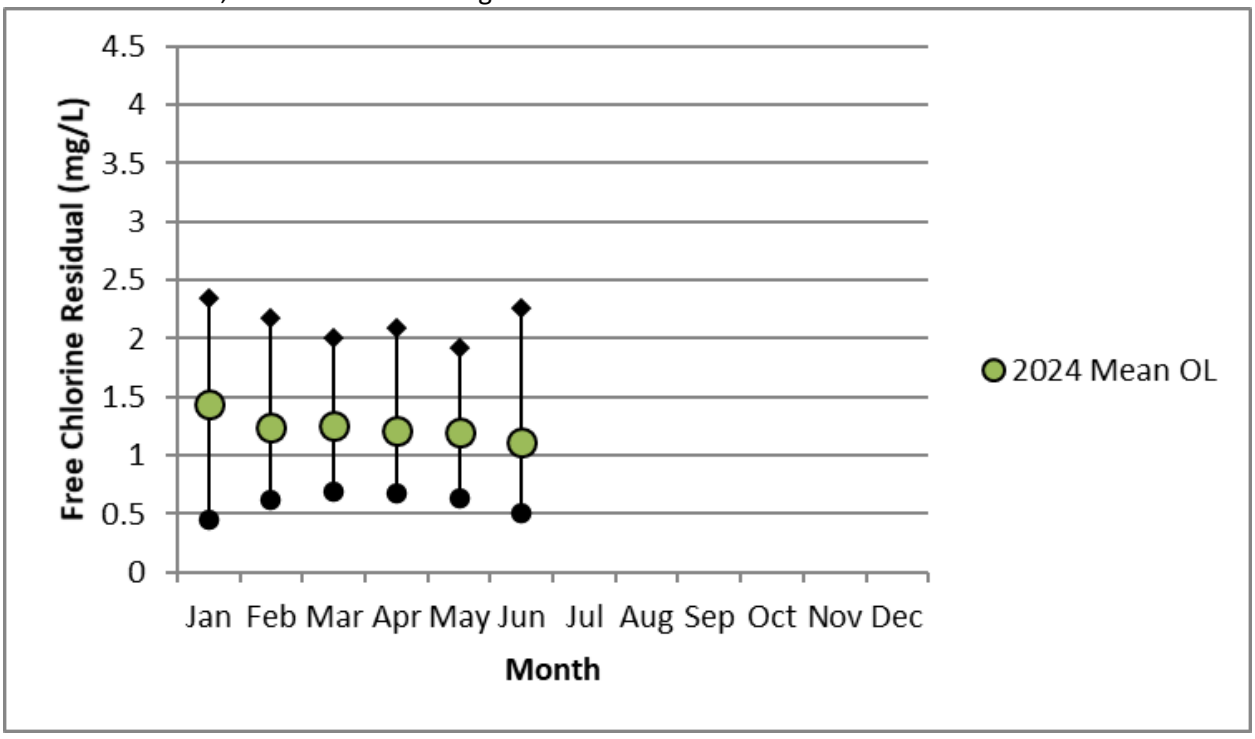
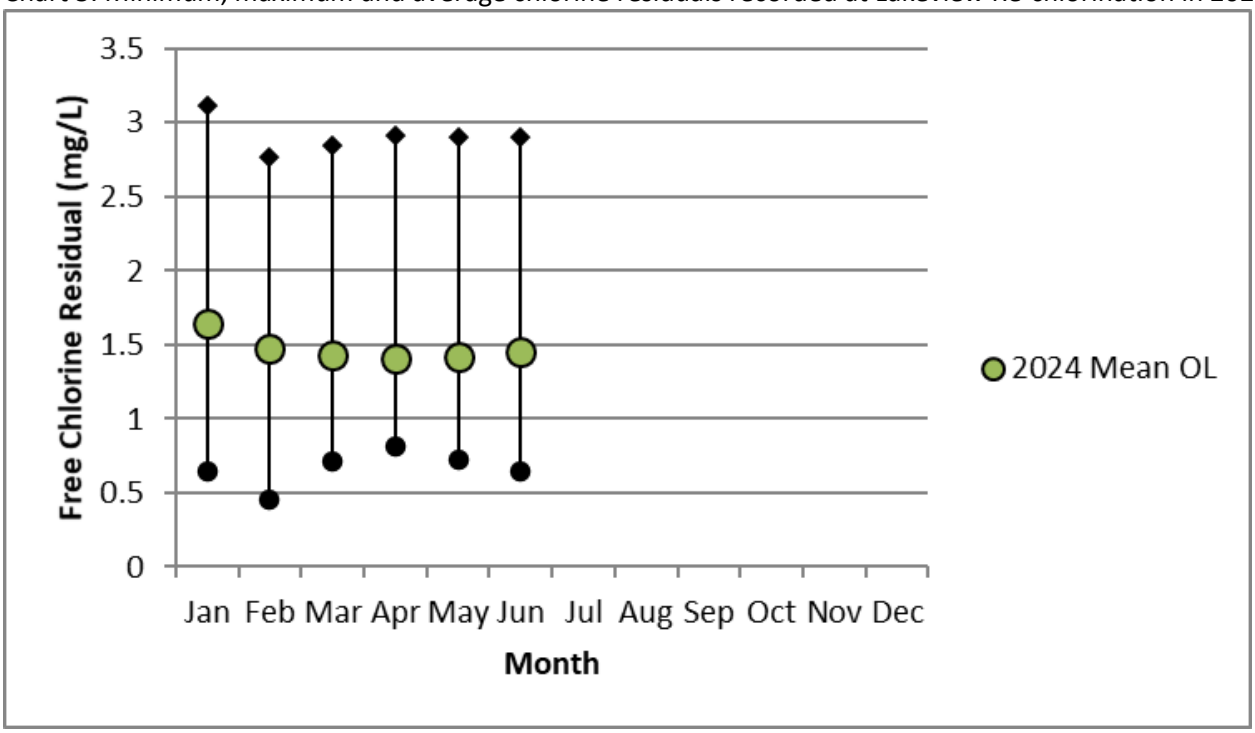


Chart 5 below provides the daily average, minimum and maximum free chlorine residuals at the Lakeview Re-chlorination Facility in 2024.

Chart 5. Minimum, maximum and average chlorine residuals recorded at Lakeview Re-chlorination in 2024.



Samples are obtained once per week at three locations in the distribution system. Table 1 summarizes the results of the microbiological sampling.

Table 1. Summary of microbiological sampling in 2024.

Month	# Samples	E. coli Range (cfu/100mL)	Total Coliform Range (cfu/100mL)	# Samples	Heterotrophic Plate Count Range (cfu/mL)
January	10	0 – 0	0 – 0	5	<10 - <10
February	8	0 – 0	0 – 0	4	<10 - <20
March	8	0 – 0	0 – 0	4	<10 - <10
April	10	0 – 0	0 – 0	5	<10 - <10
May	8	0 – 0	0 – 0	4	<10 - <10
June	8	0 – 0	0 – 0	4	<10 - <10

Trihalomethanes (THMs) are sampled on a quarterly basis; the current running average is 38.75µg/L. When comparing the current running average to the 2023 average (37.25µg/L) there has been an increase of 4.0%. The results are well below the limit of 100 µg/L (refer to Table 2).

Table 2. Summary of THM sample results

	Limit (µg/L)	THM Result (µg/L)
July 2023		38
October 2023		53
January 2024		36
April 2024		28
Running Average	100	38.75

Haloacetic Acids (HAAs) are required to be sampled on a quarterly basis. The current 2024 running average is 16.3µg/L (refer to Table 3). When comparing the current running average to the 2023 average (15.9µg/L) there has been a increase of 2.7%. The results are well below the limit of 80µg/L.

Table 3. Summary of HAA sample results

	Limit (µg/L)	HAA Result (µg/L)
July 2023		17.1
October 2023		16.4
January 2024		22.5
April 2024		9.2
Running Average	80	16.3

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

There were no additional Health & Safety issues identified in the first quarter.

SECOND QUARTER:

On June 11th, 2024, the annual occupational health and safety inspection was completed. There were no issues identified. There were no additional Health & Safety issues identified in the second quarter.

SECTION 6: GENERAL MAINTENANCE

FIRST QUARTER:

JANUARY

04: Valve house - Jutzi on site for chemical delivery.
05: Lakeview – On site with Eastlink technician due to loss of communication for primary internet. Repairs completed the pedestal west of site. Confirmed operation of primary internet before securing site.
09: Port Burwell tower - On site at Lakeview to cycle power to modem and router for Lakeview as per WWOM of township. Due to activity on cellular fail over for Port Burwell tower cycled power to modem and router as well. Once connection was re-established contacted Execulink to confirm both sites are running on primary. Now normal.
10: Valve house, Dexter Rechlor, Port Burwell tower and Lakeview Rechlor – Tested flood alarms.
28: PB02 meter chamber - Inspected meter chamber PB02 due to recent issues with sump pump after rain events. Sump pump failure. Water under main. Will return to pump chamber and test pump. ORO, OIC and WWOM of township notified via email. Pumped out meter chamber PB02. Reset GFCI and tested pump. Now working normally. Attached a temporary shroud over outlet box to help divert water until a proper repair can be completed.

FEBRUARY

05: Port Burwell tower - Landmark Municipal services on site to paint Pipes and valves inside tower chamber
06: Lakeview - On site with Koolen electric for replacement of both baseboard heaters and installation of exterior light. Breaker for heaters also replaced as it was found to be faulty.
06: Lakeview - On site with Koolen electric for replacement of both baseboard heaters and installation of exterior light. Breaker for heaters also replaced as it was found to be faulty.
22: Valve House - Jutzi on site for chemical delivery.

MARCH

07: Flowmetrix completed annual flow and pressure meter calibration at Dexter rechlor, Dexter and Imperial meter chamber and Waneeta Drive meter chambers.
08: Lakeview - Noticed a small leak on injection line between pump 2 and chlorine panel. Pressure cracks in line. Completed repair.
: Flowmetrix on site at PB01, PB02, EO38, VO01 and Lakeview rechlor for annual flow and pressure meter calibration
13: Flowmetrix on site at Port Burwell tower and EO14 for annual annual flow and pressure meter calibrations/
19: Port Burwell tower, Dexter & Lakeview rechlor - Tested critical alarms via SCADA by altering set points. Operation confirmed with alerts from call service. Set points returned to initial settings upon completion
20: Dexter rechlor - Tested flood alarms.
21: Valve house: Jutzi on site for chemical delivery.
27: Dexter rechlor - Replaced last section of chlorine panel after last isolation valve due to pinhole leak.
28: Dexter- Found chlorine panel with leak from treaded joint from previous days repair. Completed repair.

SECOND QUARTER:

APRIL

04: Lakeview - On site with Farmington mechanical for repair on eye wash station and replacement of ball valve. Isolated pipe which also isolated analyzer at 09:06. Analyzer reading 1.40 at this time. Paused pumps. New ball valve installed between old valve and eyewash station. After new ball valve installed opened isolation valve at 09:11 returning analyzer to service. Analyzer reading 1.18. Waited until residual reached 1.32 before unpausing pumps. Actuator valve on eyewash station replaced with new valve. Issue found to be threads on actuator valve failed. Flushed through eyewash station. No further issues
05: Dexter Rechlor - Paused pumps isolated panel from distribution removed section of pipe between isolation valve and injection line. Removed connection piece that connects to isolation valve and installed on new elbow connection. Inspected o ring connected new piping to chlorine panel. Opened isolation valve and advanced pump two to prime panel. Connected injection line once flow was established from panel. Unpaused pumps and contacted on call operator to clear lockout and general alarms caused by pausing

the pumps. Observed pump one return to service shortly after function switched to pump two. Watched pump two complete a full cycle. Tower now switching to discharge. Will return after completion of rounds to inspect panel further. Returned to site. In contact with duty OIC to put tower back to fill mode to check panel while in operation. Observed both pumps complete two full cycles without issue. All appears normal
18: Valve House - On site to receive chlorine delivery from Jutzi
23: Port Burwell tower - On site with Landmark for installation of duck bill valve at discharge end of overflow pipe. Disinfected valve and outlet with 12% NSF sodium hypochlorite solution before installation. Disinfected once more upon completion of installation
24: Lakeview - Found leak on discharge end of chlorine panel. Isolated panel from distribution. Paused both pumps and unfastened line from panel. Found issue to be pressure cracks in injection line. Slid fittings back and removed approximately 6” of line reattached line to panel. Opened valve to distribution and unpaused both pumps. Used zip ties to suspend line to help prevent weight of line causing further pressure cracks

26: Port Burwell tower - Found chlorine accumulating on tubing between pump 2 and panel. Paused pump and isolated from panel. Removed tubing. Upon inspection found pressure cracks on both ends of tubing. Using a new length of tubing attached new fittings on pump end of connection. Replaced o ring on check valve. Fittings and nut for panel end of connection reused as they we still in good condition. Reattached tubing. Paused pump 1. Isolated panel from distribution. Opened valve to cylinder, unpaused pump 2 and opened valve between pump 2 and panel. Advanced pump 2 to purge air from panel. Upon completion drained and isolated cylinder. Opened valve to distribution. Returned pumps to normal operation

30: Port Burwell tower, Lakeview & Dexter Rechlor - Tested critical alarms by altering set points via SCADA. Operation confirmed with alerts from call service. Set points returned to initial settings upon completion

MAY

01: Lakeview - Execulink technician on-site at 8:35 to replace bonder units for Lakeview and Port Burwell tower. While completing rounds found zero pressure on chlorine panel. Isolated panel from distribution and advanced pump one. After panel had reached 60 psi stopped pump. Pressure immediately started to fall. Isolated pumps from panel individually. Issue found to be with pump two. Pinched lines by hand. Degassing check valve failure. Proceeded to Port Burwell tower at 8:43 to obtain a degassing valve. Back on site at Lakeview at 08:51. Removed and replaced degassing check valve on pump two with new valve. Opened valve isolating pump two from panel. Advanced pump one. Stopped pump one once reaching 55 psi. Panel now holding pressure. Opened valve isolating panel from distribution and ensured pumps were returned to service. Now normal. Execulink's technician now completed bonder replacement
Dexter - On site with Execulink's technician to replace bonder unit. Completed rounds and checks. Reviewed data logger. Verified analyzer. Visually inspected chambers. No unusual noises. Technician completed task and is now off site.
PB02 – Sump pump failure due to GFCI being tripped. Returned and pumped out meter chamber. Attempted resetting GFCI within chamber. GFCI failed. Notification sent to ORO, duty OIC and WWOM of township.

03: Lakeview - Completed rounds and checks. Reviewed data logger. Calibrated analyzer. Topped up chlorine tank. Chlorine panel low pressure. Isolated panel from distribution. Advanced pump two to pressurize panel. Panel pressure built quickly. Panel slowly losing pressure once pump stopped. Isolated pump one from panel and advanced pump two. Panel pressure slowly dropping. Isolated pump two and opened valve isolating pump one and advanced pump one. Panel now holding pressure. Tightened all connections on pump two. Opened valve isolating pump two and advanced pump two. Observed panel for 10 minutes. No further pressure loss at this time. Opened valve isolating panel from distribution and ensured panel and pumps returned to service.

08: Valve house and Dexter rechlor – Tested flood alarms.

09: Valve house – Jutzi on site for chemical delivery.

10: Port Burwell tower - Found a small amount of crystallization on panel side connection for pump two chlorine line. Will return after acquiring replacement part to complete repair. Isolated pump two from panel removed and replaced union, coupling nut and fittings for new like for like. Tools and replacement parts disinfected with 12%NSF sodium hypochlorite before beginning work. After completing repairs opened valve isolating pump two. Isolated panel from distribution. Opened valve to cylinder and advanced pump two to purge air and prime panel. No signs of leakage. Drained and isolated cylinder. Opened valve to distribution and ensured pumps in normal operation

13: Port Burwell tower - While completing rounds noted lower than normal pressure on panel and lower than normal high chlorine for previous day. Upon inspection found an air bubble in diaphragm chamber on pump two. Isolated panel from distribution, opened valve to cylinder and advanced pump two. No change. Isolated and paused pump two. Removed and disassembled degassing valve from pump two. Cleaned out crystallization with water and clean towel. Sprayed with 12%NSF sodium hypochlorite before reassembling and reinstalling on pump two. Opened valve isolating pump two and advanced pump. Pressure built

quickly but started dropping slowly after pump had stopped. Unpaused pump to observe function. Noticed tiny circulating air bubbles in intake channel leading to injection check valve just as the check valve failed drawing air into line. Paused pump and isolated. Removed injection check valve and replaced with new disinfected valve. Opened valve isolating pump two and advanced pump to prime panel. Drained and isolated. Opened valve to distribution and ensured pump returned to normal operation. Panel retaining pressure

21: Port Burwell tower, Dexter and Lakeview rechlor - Tested critical alarms by altering set points via SCADA. Operation confirmed with alert from call service. All set points returned to initial settings upon completion.

JUNE:

05: Valve house and Dexter rechlor – Tested flood alarms

06: Valve house – On site with Jutzi for chemical delivery

07: Port Burwell tower - Found large air bubble in diaphragm chamber as well as smaller bubbles in line for pump two. Isolated panel from distribution. Opened valve to cylinder and advanced pump. No change. Paused and isolated pump. Removed degassing check valve. Disassembled and cleaned ball and seal with > 1% sodium hypochlorite solution and clean cloth. Reassembled check valve sprayed with solution and reinstalled. Advanced pump to clear bubbles. Cylinder now filling. Drained and isolated cylinder. Opened valves isolating pump and panel from distribution. Unpaused pump. Now normal

18: Port Burwell tower, Dexter and Lakeview rechlor – Tested critical alarms

21: Port Burwell tower - Chlorine panel had low pressure. Opened cylinder and isolated panel. Advanced pump 1. Pressure regained quickly however dropped as soon as pump stop. Thoroughly inspected panel no signs of leakage. Pinched degassing line. Panel slowly building pressure. Paused and isolated pump one. Removed degassing check valve and replaced ball and seal within. Also replaced washer between valve and pump. Reassembled, opened valve isolating pump from panel and advanced pump to clear air from line and prime panel. Stopped pump once 60 psi was achieved. Unpaused pump. Panel still losing pressure. Spoke with OIC and advised that the issue is most likely with the dosing check valve. Paused pump and isolated pump one. Removed dosing check valve replaced ball and seal within as well as 'o' ring between the valve and pump. Union cracked while reassembling. Cut line immediately after union and replaced with new union and fittings as well as 'o' ring between valve and union. Opened valve isolating pump from panel and advanced pump 1 to purge air and prime panel. Stopped advance once 60 psi achieved. Drained and isolated cylinder opened valve to distribution and returned pump to service. Waited 10 minutes. Panel now holding at 51 psi.

SECTION 7: ALARMS

FIRST QUARTER:

JANUARY

12: Lakeview - Received alarm for Control Panel failure Lakeview rechlor (17:01). Logged onto SCADA Laptop to find no power to site. But still has Communication. Chlorine level reading 1.61ppm free, pressure: 315.1kpa, flow rate 2.42l/sec. Will continue to monitor site through SCADA. Contacted Hydro One about power failure in the area. Expected repair is for 11pm tonight. Received alert from Hydro One that power restoration had been moved to 3pm January 13th. Shortly after conversation lost communication to Lakeview rechlor and Port Burwell Tower. Heading to site (23:13).

13: Lakeview - Arrived on site at Lakeview rechlor due to power failure alarm.
:Set up portable generator to UPS and now restoring communication too SCADA (00:44). Restored communication to Lakeview rechlor, can now see tower as well which is currently in high level. Chlorine analyzer reading 1.55ppm free, grab taken: 1.48ppm free.

:Port Burwell tower - Arrived on site at the tower after receiving a high level alarm. Tower not overflowing currently. Chlorine level on analyzer reading: 1.70ppm free, grab taken: 1.67ppm free. Tower discharging currently all appears normal (01:54).

:Lakeview - Arrived back on site at Lakeview rechlor. Refilled generator with gas and reset router to restore communication to Tower (10:15). Communication to tower restored. Chlorine level at 1.45ppm free and discharging at 8.25l/sec. Put MV1 into pressure mode to run off Lakeview to prevent tower overflowing if communication cuts off from the tower again. Expected Utility power restoration expected to be around 2pm now. Power restored to site. Disassembled generator and returned everything back to normal operation (15:40). MV1 returned to "level only" mode, and pressure control source returned to MV1/MV2.

FEBRUARY

28: Lakeview - Received power failure alarm. Acknowledged alarm and proceeded to site. Arrived on site. Power has been restored. Possibly power flicker due to the heavy thunderstorm. Visually inspected chlorine panel and ensured both pumps had power. Chlorine analyzer also functioning. Verified that communications were up for both the tower and Lakeview. Heater was on. All appeared normal and functioning as intended. Secured site

29: Valve House - Received communication loss alarm. Unknown location. Spectrum operator did mention they had Hydro One outages all over, however not active in our area.

Acknowledged alarm on Win911 system, again no location stated. SCADA alarms email came through showing the comm loss to be at PB3. I was then able to log in to iPad and verify it to be MV1. All appeared normal on SCADA iPad. Contacted water treatment plant on Dexter Line to see if it was anything in conjunction with them. They also had no current alarms on the screen. He also looked into MV1 and confirmed that all appeared normal and functioning as intended. Contacted Execulink, who confirmed it was due to maintenance on their end between 0421 and 0435

MARCH

29: Port Burwell tower - Received notification from Execulink via answering service that Port Burwell Tower modem needed to be reset. Proceeded to site. Checked back building - Tower modem is at Lakeview Re-chlor. Arrived on site at Lakeview Re-chlor. Reset PB Tower modem. Checked SCADA iPad - comms appear to be restored. Observed SCADA for several minutes to confirm no further anomalies/drops in comms. No faults observed, logged off from SCADA.

SECOND QUARTER:

APRIL

04: Lakeview - Received alert from Execulink via Spectrum requesting a modem reset.

Proceeded to site. After arriving on site reset modem, router and the micro hard unit. Contacted Execulink to confirm connection had been re-established. Execulink tech confirmed communication was good at their end. Secured site.

17: Lakeview - Received power fail alarm. On-site power is restored.

Chlorine pumps operating. Checked UPS and circuit breakers. All normal.

23: Dexter Rechlor – Received alert for general pump fault. Reset pump 2 on SCADA, watched both pumps cycle. Reviewed trending small blip but otherwise looks normal.

MAY

04: Port Burwell Tower, & Dexter Re-chlor - Received notification of power failure alarms at Copenhagen BPS, Port Burwell Tower, & Dexter Re-chlor as part of planned power outage from 07:00 - 11:00 for pole replacements. Logged onto Malahide SCADA - acknowledged alarms, checked readings for affected sites. Copenhagen BPS lost reading from pressure meter, flow 0.74 L/s. All readings at Dexter/PB Tower normal.

Cl residuals 0.90/ 1.24 ppm respectively. Will continue to monitor SCADA for further issues for duration of outage. Acknowledged PB Tower backup dialer. Tower began filling. Cl residual rose briefly then dropped, plateauing ~0.90 ppm. Dexter Re-chlor Cl residual holding steady ~0.83 ppm. Lost Cl analyzer reading at PB Tower as backup power failed - reading defaulted to 0.00 causing low Cl alarm. Proceeding to site to confirm residual by hand. Last reading 0.90 ppm. Acknowledged PB Tower low Cl alarm via dialer. Arrived at PB Tower. Took Cl residual by hand - 1.00 free ppm @ 09:56. Spoke with ORO - anticipate loss of Cl reading at Dexter Re-Chlor shortly as UPS power runs out. Will monitor Cl levels at both sites by hand until power is restored at 11:00. Lost comms at Dexter Re-chlor. Last Cl reading 0.85 ppm. Proceeding to site to confirm Cl residual by hand. Arrived at Dexter Re-chlor. Took residual by hand - 0.81 free ppm @ 10:40. Power restored to all sites. Comms functional again, all alarms/faults cleared from Malahide SCADA. Acknowledged power now normal alarm at PB Tower backup dialer. Observed Dexter Re-chlor Cl pumps running to confirm function. Checked SCADA readings for all sites - all appears normal, no equipment faults in wake of power failure. Dexter / Tower Cl residual readings 1.09 / 1.36 ppm respectively. Secured Dexter Re-chlor. Proceeded to PB Tower. Observed Cl pump function. All appears normal, no other equipment faults noted. Secured site.

23: Dexter rechlor- Received smoke detector alarm. Proceeded to site. Found nothing out of the ordinary on-site. Checked all electrical and everything seems good. Spoke with ORO and as per instructions disconnected smoke detector noticed a lot of dead bugs fell out from inside.

25: Valve house - Received UPS fault alarm. Tested UPS on battery power for 10 minutes, went from 100-95%. Put back on utility power, all seems normal. Reviewed scada trending, all good. Spoke with ORO he said UPS may not have surge protection. Referred to manual it indicates that UPS protects equipment from power surges.

<u>JUNE</u>

20: Dexter rechlor - Received alert from call service for power failure and pump fault on both chlorine pumps. Acknowledged alarms. Arrived on site at 04:06. Late arrival due to alarms at multiple sites. Site still without power. End of battery life alarm sounding from UPS. Residual 1.04, 45 psi on panel. 4.41 l/s. Reviewed data logger. Residual was at a minimum of 1.04 during outage. Attempted to set up generator. Could not start. Secured site @ 04:27 and proceeded to Port Burwell tower to obtain generator. On site at Port Burwell tower @ 04:32. Tested generator. Functioning. Secured site at 04:36. Arrived at Lakeview at 04:39. Secured generator to facility, started and connected UPS and both chlorine pumps. Pump 1 began dosing once start up had completed. Shortly after received a comm fault for Lakeview. Cycled power to all communication devices and ensured all connections were fully seated. Comms restored. Residual at 1.85, panel pressure at 55 psi and UPS battery at 7% charge. Secured site at 05:03. Received alert from call service for pump faults on both chlorine pumps. Acknowledged alarm and notified OIC. OIC arrived on site at 08:45 to check status of facility, Hydro One currently just east of facility restoring power. Chlorine level on analyzer reading 1.11ppm free. Grab 1.09ppm free. Filled up emergency generator with gas as it was empty on arrival, and shorty after power was restored.

Rearmed backup dialer and disconnected emergency generator. Reconnected chlorine pumps and all other equipment back to utility power.

Secured and left site. All appears normal.

23: Dexter rechlor- Received alert from call service no message just dead air. Given number for APAM dialer system. Phoned alarm and found Dexter rechlor pump 2 in general fault. Acknowledged alarm and logged onto SCADA. Residual was at 1.11 ppm, flow at 16.13 l/s and pump 1 active. Reset general alarm on pump 2. Also reset pump faults at Lakeview rechlor that were active and acknowledged since power was restored Thursday morning. Reset alarms and reviewed trending. Site working as intended

SECTION 8: COMPLAINTS & CONCERNS

FIRST QUARTER:

There were no community complaints or concerns during the first quarter.

SECOND QUARTER:

There were no community complaints or concerns during the second quarter.

PBSW01 Locates	
Month	**# of Locates Completed**
January	1
February	4
March	5
April	0
May	29
June	4
July	
August	
September	
October	
November	
December	