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File: SI-ES-KI-540  
Union Area Water Supply System

March 20, 2024

Union Area Water Supply System  
1615 Union Avenue  
Ruthven, ON  
N0P 2G0

Attention: Mr. Rodney Bouchard, Manager  
[rbouchard@unionwater.ca](mailto:rbouchard@unionwater.ca)

Re: **January 2024 Inspection – Union Area Water Supply System**

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Enclosed is a copy of the inspection report prepared for the Union Area Water Supply System. The report is based on conditions encountered at the time of inspection and subsequent follow-up.

There were no compliance issues identified during the inspection. Please review the report for detailed inspection findings. If you have any questions, please contact me at (519) 466-0281.

Regards,

A handwritten signature in black ink, appearing to read "David Dominelli".

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David Dominelli  
Water Compliance Officer  
Sarnia/Windsor District  
Ministry of the Environment,  
Conservation, and Parks



UNION AREA WATER SUPPLY SYSTEM  
Physical Address: 1615 UNION AVE, , KINGSVILLE,  
ON N9Y 2G5

## INSPECTION REPORT

Entity: ONTARIO CLEAN WATER  
AGENCY  
UNION WATER SYSTEM JOINT  
BOARD OF MANAGEMENT  
(LEAMINGTON, KINGSVILLE,  
ESSEX, LAKESHORE)

Inspection Start Date: December 21, 2023  
Inspection End Date: March 18, 2024  
Inspected By: David Dominelli  
Badge #: 1119  
Inspected By: Marc Bechard  
Badge #: 918



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(signature)

**NON-COMPLIANCE**

The following item(s) have been identified as non-compliance, based on a "No" response captured for a legislative question(s). For additional information on each question see the Inspection Details section of the report.

**Ministry Program:** DRINKING WATER | **Regulated Activity:** DW Municipal Residential

Item	Question	Compliance Response/Corrective Action(s)
NC-1	<p><b>Question ID:</b> DWMR1044000</p> <p>Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?</p>	<p>The process wastewater discharge monitoring program and discharge quality did not comply with requirements established in the Municipal Drinking Water Licence issued under Part V of the SDWA.</p> <p>The MDWL limits the annual average for Total Residual Chlorine to 0.02 mg/l. The annual average Total Chlorine Residual for the 2023 operating year was 0.12 mg/L.</p> <p>The owner has retained Associated Engineering Ltd. to design a system to address the ongoing limit exceedance. There are no further actions required at this time.</p>

## **RECOMMENDATIONS**

This should not be construed as a confirmation of full conformance with all potential applicable BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.

### INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

**Ministry Program:** DRINKING WATER | **Regulated Activity:** DW Municipal Residential

Question ID	DWMR1001000	Question Type	Information
<p><b>Legislative Requirement(s):</b> Not Applicable</p>			
<p><b>Question:</b> What was the scope of this inspection?</p>			
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b>                      The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.</p> <p>This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.</p> <p>This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.</p> <p>The Union Area Water Supply System (Union WSS) is located in Ruthven, Ontario. The drinking water system is owned by, and supplies water to, the municipalities of Kingsville, Leamington, Essex and Lakeshore via the Union Water System Joint Board of Management. Each of these respective municipalities forms part of the board, but each also owns and operates a separate standalone distribution system receiving water from the Union WSS.</p> <p>The drinking water system's total serviced population is approximately 66,600. The Union WSS system is considered a "large municipal residential system" under O.Reg. 170/03.</p> <p>The inspection consisted of a review of the following documents:</p> <ul style="list-style-type: none"> <li>- Municipal Drinking Water Licence (MDWL): 041-101, Issue Number: 8;</li> <li>- Drinking Water Works Permit (DWWP): 041-201, Issue Number: 6;</li> <li>- Union Area Water Supply System operating and maintenance procedures;</li> <li>- Operational logs, sample results, maintenance records, monitoring data, and other records related to the operation of the DWS for the period of January 1, 2023 to December 31, 2023.</li> </ul>			

The physical inspection of the DWS was conducted on January 23, 2024.

Question ID	DWMMR1000000	Question Type	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Does this drinking water system provide primary disinfection?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> This drinking water system provides for both primary and secondary disinfection and distribution of water.			

Question ID	DWMMR1010000	Question Type	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Are trends in source water quality being monitored?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Trends in source water quality were being monitored.			

Question ID	DWMMR1012000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Does the owner have a harmful algal bloom monitoring plan in place that meets the requirements of the MDWL?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had a harmful algal bloom monitoring plan in place.			

Question ID	DWMMR1014000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.

Condition 2.1.1 under Schedule C of the MDWL requires that continuous flow measurement and recording be undertaken to monitor the flow rate and daily volume of treated water from the treatment works to the distribution system.

Condition 2.1.2 under Schedule C of the MDWL requires that continuous flow measurement and recording be undertaken to monitor the flow rate and daily volume of water that flows into the treatment works.

Flow meters are in place to monitor raw water flow into the treatment works and treated water flow at POE to the distribution system.

<b>Question ID</b>	DWMR1015000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Are the flow measuring devices calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The flow measuring devices were calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SWDA.			

<b>Question ID</b>	DWMR1016000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is the owner in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.  Condition 1.1 under Schedule C of the MDWL limits the volume of treated water from the Union Area Water Supply System to the distribution system to a maximum of 124,588 m3/day. A review of flow monitoring data provided by the operating authority confirmed that the above rated capacity was not exceeded over the inspection review period. The maximum recorded daily volume from the treatment plant to the distribution system was 108,676 m3 in June, which is approximately 87% of the rated capacity of the works.			



<b>Question ID</b>	DWMR1017000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were appropriate records of flows and any capacity exceedances made in accordance with the MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Appropriate records of flows and any capacity exceedances were made in accordance with the Municipal Drinking Water Licence issued under Part V of the SDWA.			

<b>Question ID</b>	DWMR1013000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> OWRA   34   (3);			
<b>Question:</b> Is the owner in compliance with all conditions of the PTTW?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was in compliance with all conditions of the PTTW.			

<b>Question ID</b>	DWMR1018000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.			

<b>Question ID</b>	DWMR1029000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Where a potential bypass of primary or secondary treatment equipment exists, have measures been taken to ensure that raw or partially treated water is not directed to the			

distribution system?
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Where a potential bypass of primary or secondary treatment equipment existed, measures were taken to ensure that raw or partially treated water was not directed to the distribution system.</p>

<b>Question ID</b>	DWMR1021000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.			

<b>Question ID</b>	DWMR1114000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Does the owner have evidence that, when required, all legal owners associated with the DWS were notified of the requirements of the Licence & Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had evidence that required notifications to all legal owners associated with the Drinking Water System had been made during the inspection period.			

<b>Question ID</b>	DWMR1028000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Are up-to-date plans for the drinking water system kept in place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the DWWP and MDWL issued under Part V of the SDWA?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

Up-to-date plans for the drinking water system were kept in a place, or made available in such a manner, that they could be readily viewed by all persons responsible for all or part of the operation of the drinking water system in accordance with the DWWP and MDWL issued under Part V of the SDWA.

<b>Question ID</b>	DWMR1025000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.			

<b>Question ID</b>	DWMR1023000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Do records indicate that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a DWWP and/or MDWL issued under Part V of the SDWA at all times that water was being supplied to consumers?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under O. Reg. 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.			

<b>Question ID</b>	DWMR1027000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Does the owner have evidence indicating that all chemicals and materials which come in contact with water within the drinking water system have met all applicable AWWA and ANSI standards in accordance with the DWWP and MDWL issued under Part V of the SDWA?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.

<b>Question ID</b>	DWMR1024000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.			

<b>Question ID</b>	DWMR1036000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-7   (1);			
<b>Question:</b> Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Samples for chlorine residual analysis were tested using an acceptable portable device.			

<b>Question ID</b>	DWMR1030000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-2   (1); SDWA   O. Reg. 170/03   7-2   (2);			
<b>Question:</b> Is primary disinfection chlorine monitoring being conducted at a location approved by MDWL and/or DWWP issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.

<b>Question ID</b>	DWMR1031000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Are operators aware of the operational criteria necessary to achieve primary disinfection within the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.			

<b>Question ID</b>	DWMR1032000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-3   (2);			
<b>Question:</b> If the drinking water system obtains water from a surface water source and provides filtration, is continuous monitoring of each filter effluent line being performed for turbidity?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Continuous monitoring of each filter effluent line was being performed for turbidity.			

<b>Question ID</b>	DWMR1035000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10;			
<b>Question:</b> Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.			

<b>Question ID</b>	DWMR1038000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4;			
<b>Question:</b> Is continuous monitoring equipment that is being utilized to fulfill O. Reg. 170/03 requirements performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.			

<b>Question ID</b>	DWMR1037000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Are all continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or MDWL or DWWP or order, equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous monitoring equipment utilized for sampling and testing required by O. Reg. 170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.			

<b>Question ID</b>	DWMR1040000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10;			
<b>Question:</b> Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.			

<b>Question ID</b>	DWMR1108000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-5   (1)1-4; SDWA   O. Reg. 170/03   6-5   (1)5-10; SDWA   O. Reg. 170/03   6-5   (1.1);			
<b>Question:</b> Where continuous monitoring equipment used for the monitoring of free chlorine residual, total chlorine residual, combined chlorine residual or turbidity, required by O. Reg. 170/03, an Order, MDWL, or DWWP issued under Part V, SDWA, has triggered an alarm or an automatic shut-off, did a qualified person respond in a timely manner and take appropriate actions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.			

<b>Question ID</b>	DWMR1099000	<b>Question Type</b>	Information
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records showed that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).			

<b>Question ID</b>	DWMR1079000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-4   (1); SDWA   O. Reg. 170/03   10-4   (2); SDWA   O. Reg. 170/03   10-4   (3);			
<b>Question:</b> For LMR systems, are all microbiological water quality monitoring requirements for raw water samples prescribed by legislation being met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All microbiological water quality monitoring requirements prescribed by legislation for raw water samples were being met.  Schedule 10-4. of O. Reg 170/03 requires that the owner of a drinking water system and the			

operating authority ensures that a water sample is collected at least once per week from the drinking water systems raw water supply and tested for E. Coli and total coliforms.

A review of sampling records for the inspection review period showed the owner and operating authority are meeting the raw water microbiological sampling requirements.

<b>Question ID</b>	DWMR1083000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   10-3;			
<b>Question:</b> For LMR systems, are all microbiological water quality monitoring requirements for treated samples being met?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All microbiological water quality monitoring requirements prescribed by legislation for treated samples were being met.  Schedule 10-3. of O. Reg 170/03 requires that the owner of a drinking water system and the operating authority ensures that a treated water sample is collected at least once per week and tested for E. Coli, total coliforms, and general bacteria as a heterotrophic plate count.  A review of sampling records for the inspection review period showed the owner and operating authority are meeting the treated water microbiological sampling requirements.			

<b>Question ID</b>	DWMR1096000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-3   (1);			
<b>Question:</b> Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

<b>Question ID</b>	DWMR1084000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-2;			
<b>Question:</b> Are all inorganic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			



**Compliance Response(s)/Corrective Action(s)/Observation(s):**

All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Schedule 13-2. of O. Reg 170/03 requires that the owner and the operating authority of a drinking water system that has a surface water raw water supply collect at least one sample every 12 months and test for the inorganic parameters listed in Schedule 23 of the regulation.

A review of sampling records confirmed that the required samples are being collected and tested for the required inorganic parameters.

Sampling and testing was last completed in January of 2023.

Question ID	DWMR1085000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-4   (1); SDWA   O. Reg. 170/03   13-4   (2); SDWA   O. Reg. 170/03   13-4   (3);			
<b>Question:</b> Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Schedule 13-4. of O. Reg 170/03 requires that the owner and the operating authority of a drinking water system that has a surface water raw water supply collect at least one sample every 12 months and test for the organic parameters listed in Schedule 24 of the regulation.  A review of sampling records confirmed that the required samples are being collected and tested for the required organic parameters.  Sampling and testing was last completed in January of 2023.			

Question ID	DWMR1088000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-7;			
<b>Question:</b> Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency.  Schedule 13-7. requires that the owner and the operating authority of a drinking water system			

collect at least one water sample every three months and test for nitrate and nitrite.

A review of sampling records confirmed that the required sampling is being completed.

<b>Question ID</b>	DWMR1089000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-8;			
<b>Question:</b> Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			

<b>Question ID</b>	DWMR1090000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13-9;			
<b>Question:</b> Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.			

<b>Question ID</b>	DWMR1092000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-2;			
<b>Question:</b> Has the owner ensured that water samples are taken at the prescribed location?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner ensured that water samples were taken at the prescribed location.			

<b>Question ID</b>	DWMR1094000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			

<p><b>Question:</b> Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?</p>
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.</p>

<b>Question ID</b>	DWMMR1098000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   13   (1); SDWA   O. Reg. 170/03   13   (2); SDWA   O. Reg. 170/03   13   (3);			
<b>Question:</b> Has the owner indicated that the required records are kept and will be kept for the required time period?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner indicated that the required records are kept and will be kept for the required time period.			

<b>Question ID</b>	DWMMR1110000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   11   (6);			
<b>Question:</b> Was an Annual Report containing the required information prepared by February 28 of the following year?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The Annual Report containing the required information was prepared by February 28th of the following year.			

<b>Question ID</b>	DWMMR1057000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   11   (2.1);			
<b>Question:</b> Has the owner of this system provided an Annual Report to the owner(s) of all standalone distribution systems connected to this system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The donor had provided an Annual Report to the receiver stand alone distribution system(s) connected to this system.			

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Question ID	DWMR1111000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   22-2   (1); SDWA   O. Reg. 170/03   22-2   (2); SDWA   O. Reg. 170/03   22-2   (3); SDWA   O. Reg. 170/03   22-2   (4);			
<b>Question:</b> Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.			

Question ID	DWMR1043000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Are the process wastewater and residual solids/sludges being treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The process wastewater and residual solids/sludges were treated, handled and disposed of in accordance with the design requirements approved under the Drinking Water Works Permit and the Municipal Drinking Water Licence.			

Question ID	DWMR1044000	Question Type	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The process wastewater discharge monitoring program and discharge quality did not comply with requirements established in the Municipal Drinking Water Licence issued under Part V of the SDWA.  The MDWL limits the annual average for Total Residual Chlorine to 0.02 mg/l. The annual average Total Chlorine Residual for the 2023 operating year was 0.12 mg/L.			

The owner has retained Associated Engineering Ltd. to design a system to address the ongoing limit exceedance. There are no further actions required at this time.

The MDWL limits the annual average for Total Residual Chlorine to 0.02 mg/l. The annual average Total Chlorine Residual for the 2023 operating year was 0.12 mg/L.

The owner has retained Associated Engineering Ltd. to design a system to address the ongoing limit exceedance.

There are no further actions required at this time.

<b>Question ID</b>	DWMR1045000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Has the owner updated the document describing the distribution components within 12 months of completion of alterations to the system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had up-to-date documents describing the distribution components as required.			

<b>Question ID</b>	DWMR1053000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Is the Owner able to maintain proper pressures in the distribution system and is pressure monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate.			

<b>Question ID</b>	DWMR1047000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Does the owner have a program or maintain a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system?			

**Compliance Response(s)/Corrective Action(s)/Observation(s):**

The owner had a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.

<b>Question ID</b>	DWMR1058000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   28;			
<b>Question:</b> Do operators and maintenance personnel have ready access to operations and maintenance manuals?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators and maintenance personnel had ready access to operations and maintenance manuals.			

<b>Question ID</b>	DWMR1059000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   28;			
<b>Question:</b> Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.			

<b>Question ID</b>	DWMR1060000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   31   (1);			
<b>Question:</b> Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.			

<b>Question ID</b>	DWMR1061000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   27   (1); SDWA   O. Reg. 128/04   27   (2); SDWA   O. Reg. 128/04   27   (3); SDWA   O. Reg. 128/04   27   (4); SDWA   O. Reg. 128/04   27   (5); SDWA   O. Reg. 128/04   27   (6); SDWA   O. Reg. 128/04   27   (7);			
<b>Question:</b> Are logbooks properly maintained and contain the required information?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Logbooks were properly maintained and contained the required information.			

<b>Question ID</b>	DWMR1062000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   7-5;			
<b>Question:</b> Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.			

<b>Question ID</b>	DWMR1063000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   6-10   (1);			
<b>Question:</b> For every required operational test and for every required sample, is a record made of the date, time, location, name of the person conducting the test and result of the test?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.			

<b>Question ID</b>	DWMR1064000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   26   (2);			

<p><b>Question:</b> Did the operator-in-charge ensure that records were maintained of all adjustments made to the processes within his or her responsibility?</p>
<p><b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.</p>

<b>Question ID</b>	DWMR1065000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   27   (6);			
<b>Question:</b> Are logs and other record keeping mechanisms available for at least five (5) years?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Logs or other record keeping mechanisms were available for at least five (5) years.			

<b>Question ID</b>	DWMR1066000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Is spill containment provided for process chemicals and standby power generator fuel?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Spill containment was provided for process chemicals and/or standby power generator fuel.			

<b>Question ID</b>	DWMR1067000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Are clean-up equipment and materials in place for the clean up of spills?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Clean-up equipment and materials were in place for the clean up of spills.			



<b>Question ID</b>	DWMR1068000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> If available, are standby power generators tested under normal load conditions?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Standby power generators were tested under normal load conditions.			

<b>Question ID</b>	DWMR1069000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Are all storage facilities completely covered and secure?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All storage facilities were completely covered and secure.			

<b>Question ID</b>	DWMR1070000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Are air vents and overflows associated with reservoirs and elevated storage structures equipped with screens?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.			

<b>Question ID</b>	DWMR1071000	<b>Question Type</b>	BMP
<b>Legislative Requirement(s):</b> Not Applicable			
<b>Question:</b> Has the owner provided security measures to protect components of the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The owner had provided security measures to protect components of the drinking water			

system.

<b>Question ID</b>	DWMR1073000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1);			
<b>Question:</b> Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> The overall responsible operator had been designated for each subsystem.			

<b>Question ID</b>	DWMR1078000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   23   (1); SDWA   O. Reg. 128/04   23   (2); SDWA   O. Reg. 128/04   23   (4); SDWA   O. Reg. 128/04   23   (6); SDWA   O. Reg. 128/04   23   (7);			
<b>Question:</b> In instances where the overall responsible operator was unable to act, was an adequately certified operator designated to act in place of the overall responsible operator?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.			

<b>Question ID</b>	DWMR1074000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   25   (1);			
<b>Question:</b> Have operators-in-charge been designated for all subsystems which comprise the drinking water system?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Operators-in-charge had been designated for all subsystems which comprise the drinking water system.			

<b>Question ID</b>	DWMR1075000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 128/04   22;			
<b>Question:</b> Do all operators possess the required certification?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> All operators possessed the required certification.			

<b>Question ID</b>	DWMR1076000	<b>Question Type</b>	Legislative
<b>Legislative Requirement(s):</b> SDWA   O. Reg. 170/03   1-2   (2);			
<b>Question:</b> Do only certified operators make adjustments to the treatment equipment?			
<b>Compliance Response(s)/Corrective Action(s)/Observation(s):</b> Only certified operators made adjustments to the treatment equipment.			

Ministry of the Environment, Conservation and Parks - Inspection Summary Rating Record (Reporting Year - 2023-24)

**DWS Name:** UNION AREA WATER SUPPLY SYSTEM  
**DWS Number:** 210000853  
**DWS Owner:** UNION WATER SYSTEM JOINT BOARD OF MANAGEMENT (LEAMINGTON, KINGSVILLE, ESSEX, LAKESHORE)  
**Municipal Location:** KINGSVILLE

**Regulation:** O.REG. 170/03  
**DWS Category:** DW Municipal Residential  
**Type of Inspection:** Detailed  
**Inspection Date:** Dec-21-2023  
**Ministry Office:** Windsor Area Office

**Maximum Risk Rating:** 540

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/42
Certification and Training	0/49
Distribution System	0/8
Effluent Quality and Quantity	10/20
Logbooks	0/30
Operations Manuals	0/42
Reporting & Corrective Actions	0/33
Source	0/12
Treatment Processes	0/213
Water Quality Monitoring	0/91
<b>Overall - Calculated</b>	<b>10/540</b>

**Inspection Risk Rating:** 1.85%

**Final Inspection Rating:** 98.15%

Ministry of the Environment, Conservation and Parks - Detailed Inspection Rating Record (Reporting Year - 2023-24)

<b>DWS Name:</b>	UNION AREA WATER SUPPLY SYSTEM
<b>DWS Number:</b>	210000853
<b>DWS Owner Name:</b>	UNION WATER SYSTEM JOINT BOARD OF MANAGEMENT (LEAMINGTON, KINGSVILLE, ESSEX, LAKESHORE)
<b>Municipal Location:</b>	KINGSVILLE

<b>Regulation:</b>	O.REG. 170/03
<b>DWS Category:</b>	DW Municipal Residential
<b>Type of Inspection:</b>	Detailed
<b>Inspection Date:</b>	Dec-21-2023
<b>Ministry Office:</b>	Windsor Area Office

Non-Compliance Question(s)	Non Compliance Risk
<b>Effluent Quality and Quantity</b>	
Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?	10
<b>Overall - Total</b>	<b>10</b>

Maximum Question Rating: 540

<b>Inspection Risk Rating:</b>	<b>1.85%</b>
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<b>FINAL INSPECTION RATING:</b>	<b>98.15%</b>
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