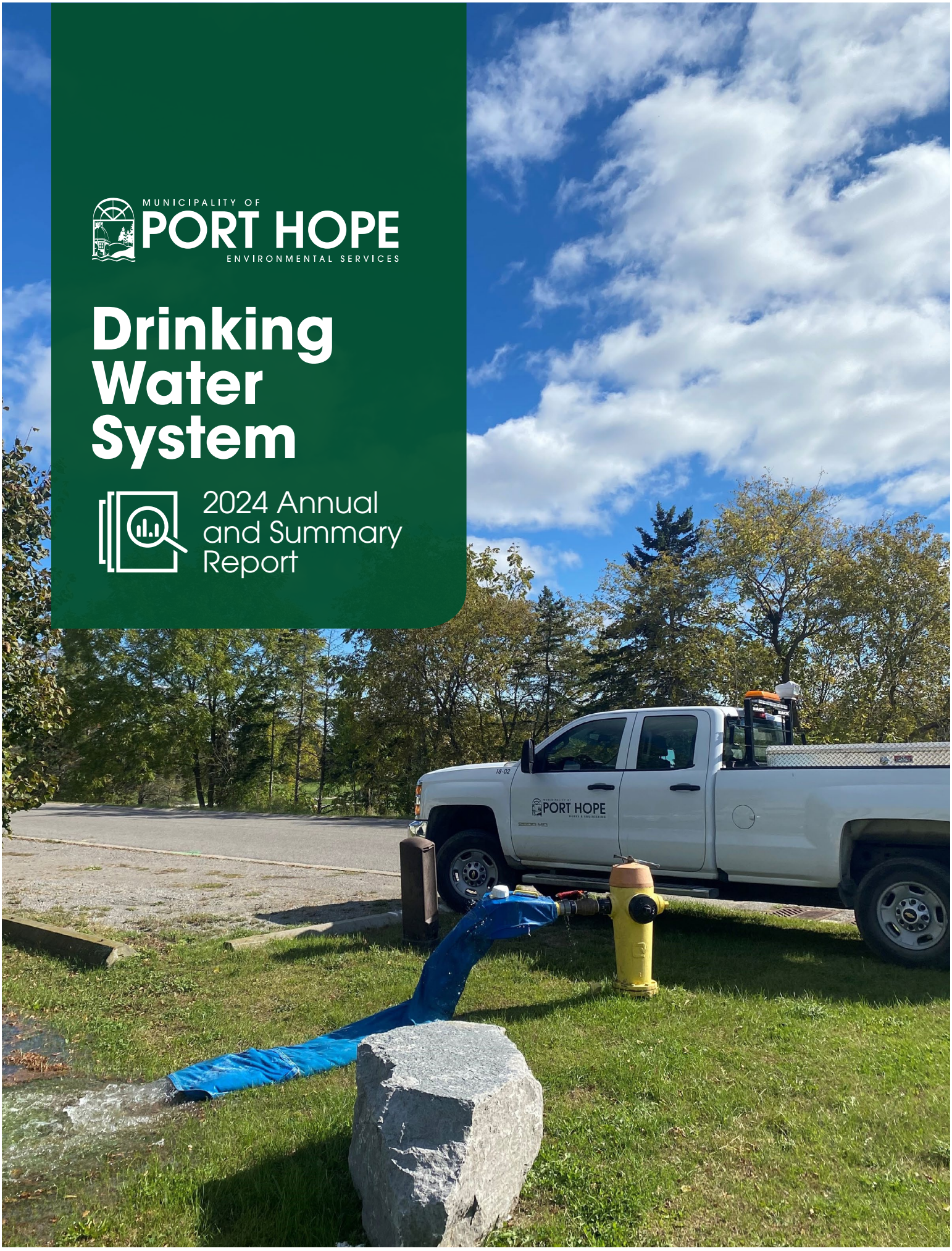
MUNICIPALITY OF
PORT HOPE
ENVIRONMENTAL SERVICES

Drinking Water System

2024 Annual and Summary Report



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February 4, 2025

Municipality of Port Hope
56 Queen Street
Port Hope, ON
L1A 3Z9

RE: 2024 Annual and Summary Report – Port Hope Drinking Water System No. 260058006

Dear Ms. Tonia Bennett:

We are pleased to provide the 2024 Annual and Summary Report for the Municipality of Port Hope's Drinking Water System, as outlined in Section 11 and Schedule 22 of Ontario Regulation 170/03, made under the *Safe Drinking Water Act 2002.*

This report includes information from January 1, 2024, to December 31, 2024.

Sincerely,

Mike Stewart
Manager, Water
Municipality of Port Hope

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2024 Annual Drinking Water System Report

System Information

Drinking-Water System Number:	**260058006**
Drinking-Water System Name:	**Port Hope Drinking Water System**
Drinking-Water System Owner:	**The Corporation of the Municipality of Port Hope**
Drinking-Water System Category:	**Large Municipal Residential System**
Reporting Period:	**January 1, 2024 to December 31, 2024**

Does your Drinking-Water System serve more than 10,000 people?

Yes

Is your annual report available to the public at no charge on a web site on the Internet?

Yes – please visit www.porthope.ca

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Port Hope Municipal Town Hall
56 Queen Street
Port Hope, ON L1A 3Z9

*Also available at the Municipal Libraries (Mary J Benson Branch and The Hub in Canton) and the Water Treatment Plant.

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

N/A

Indicate how you notified system users that your annual report is available and is free of charge.

[X] Public access/notice via the web

[X] Public access/notice via Government Office

[ ] Public access/notice via a newspaper

[X] Public access/notice via Public Request

[X] Public access/notice via a Public Library

[ ] Public access/notice via other method:

Description of the Drinking Water System

Port Hope Drinking Water System is classified as Large Municipal Residential System and consists of the Water Treatment Plant (WTP) and the Distribution System. The WTP provides ultrafiltration water treatment for the water system. The WTP is located at 35 Marsh St in the Municipality of Port Hope, County of Northumberland, Ontario. The Municipality is the Owner and Operator of the Port Hope Drinking Water System that serves the community of Port Hope with a population of approximately 17,300.

Drinking Water Quality Management System

Port Hope Drinking Water System is operated by an accredited Operating Authority and in accordance with the Municipal Drinking Water Licence # 146-101, the Drinking Water Works Permit # 146-201 and the Municipality's Drinking Water Quality Management System Operational Plan # 146-401.

The following describes the components of the Port Hope Drinking Water System:

Raw Water Source

The water supply for Port Hope WTP is obtained from Lake Ontario. Lake Ontario water is of good quality and can be described as a large body of clear-coloured water with low turbidity. The Lake water's temperature ranges from 0°C (winter) to approximately 25°C (summer). The raw water source is classified as surface water, which means that it is considered to be an unprotected source. Raw water requires full treatment at Port Hope's WTP to make it drinkable or potable.

Intake Structure

Raw water is taken into a 750 mm diameter intake pipe through the intake structure. The existing intake structure and 750 mm intake piping was retrofitted to include a 900 mm on shore addition. The intake is utilized to draw water from Lake Ontario to the low lift pumping station. The low lift pumping station is where water undergoes coarse screening.

Raw Water Pumping

The raw water pumping station consists of several raw water chambers, one (1) raw water travelling screen, two (2) manually cleaned screens (i.e., for standby purposes), and three (3) low lift pumps (with provision for a fourth). Raw water is dosed as required with chlorine

for Zebra Mussel control prior to the ultrafiltration process. The raw water quality is monitored by Operations staff at the WTP.

Water Treatment

Facility Type	Facility Name	Class	Certificate No.	Issue Date
Water Treatment Plant	Port Hope Water Treatment Plant	II	WT No. 3552	July 25, 2005

Raw water is treated by passing through the ultrafiltration system. The ultrafiltration process removes organics and solids as well as safeguards against giardia and cryptosporidium contamination. The water treatment facilities consist of a Zenon ZeeWeed 1000 membrane ultrafiltration system which includes four (4) membrane tanks (each tank contains two (2) filtration cassettes with a total capacity for four cassettes) and associated cleaning and backwashing equipment. Following ultrafiltration, filtered water is disinfected by using a chlorine gas system (primary disinfection). The post-chlorination is used to maintain a fixed chlorine residual level in the water leaving the WTP. Following the disinfection process, the water is pumped to the distribution system. Five (5) high lift pumps (with provision for a sixth) pump treated water to the distribution system. The WTP has a rated capacity of 20,300 m^3/day. It is expected that this capacity will provide potable water to the Municipality of Port Hope for a period greater than the 20-year planning period.

Process Wastewater System

The WTP provides process residue management consisting of equalization storage and solids separation. Two (2) equalization tanks precede two (2) parallel tube settling units. Settled solids at the base of each wastewater clarifier are pumped via a sewage pumping station (located outside the WTP) to the sanitary sewer. The wastewater supernatant is continuously analyzed for total chlorine residual and dechlorinated prior to a discharge to Lake Ontario.

Water Distribution System

Facility Type	Facility Name	Class	Certificate No.	Issue Date
Distribution System	Port Hope Water Distribution	III	WD No. 719	April 22, 2007

Due to Port Hope's hilly terrain, the community has been divided into two pressure zones. Zone 1 is located in the lower elevation areas (east end) of the community, whereas Zone

2 is located in the higher elevation areas (west end). Zone 2 pressure and flows are maintained via a booster pumping station, elevated water tower and an in-ground reservoir/ pumping station. Zone 1 pressure and flows are maintained via the WTP pumping station and standpipe.

Water Storage Facilities

At the WTP, potable water storage consists of twined reservoirs that have a total rated capacity of 4943 m^3. Off-site storage facility in Zone 1 includes a standpipe with a rated capacity of 1,080 m^3. Storage facilities in Zone 2 include an in-ground reservoir with a rated capacity of 2,270 m^3 and an elevated tank that can hold up to 3,000 m^3 of water.

Supervisory Control and Data Acquisition (SCADA)

The SCADA system consists of numerous PLC and computer systems that controls and monitors the drinking water system, while always tracking the water quality. Operational staff monitor and control these systems to ensure their proper operation and water quality. All Operational Staff for Port Hope Drinking Water System are fully certified by the Ministry of the Environment, Conservation and Parks (MECP).

List all water treatment chemicals used over this reporting period:

Chemical Systems

All chemicals and materials used in the operation of the Port Hope Drinking Water System which came into contact with drinking water, met the AWWA and the ANSI safety criteria standards NSF/60 and NSF/61.

Table 1 - Descriptions of Chemical Feed Systems at the Port Hope WTP

Treatment System	Chemical	Purpose	Chemical Concentration (%)
Membrane Filtration	Sodium Hypochlorite	Membrane cleaning (CEB & high pH CIP)	12
Membrane Filtration	Citric Acid	Membrane cleaning (low pH CIP)	50
Membrane Filtration	Hydrochloric Acid	Membrane cleaning (low pH CIP)	30 - 40
Membrane Filtration	Sodium Bisulphite	Dechlorination of membrane cleaning wastewater	38
Membrane Filtration	Sodium Hydroxide	Membrane wastewater pH control	50

Treatment System	Chemical	Purpose	Chemical Concentration (%)
Membrane Filtration	Polyaluminum Chloride	Membrane Pre-treatment	N/A
Waste Residual Management System	Sodium Bisulphite	Dechlorination of wastewater supernatant from clarifier/thickeners	38
Disinfection Systems	Chlorine gas	• Zebra mussel control • Primary disinfection at inlet of chlorine contact chambers • Secondary disinfection at high lift chambers	100

Table 2 - Summary of Annual Chemical Usage at Port Hope WTP

Treatment System	Chemical	Volume (Litre) or Weight (kg)	Range of Monthly Quantities Used
Membrane Filtration	Sodium Hypochlorite	20,610 L	1,696 – 2,099 L
Membrane Filtration	Citric Acid	6,126 L	467 - 669 L
Membrane Filtration	Hydrochloric Acid	860 L	40 – 100 L
Membrane Filtration	Sodium Bisulphite	10,067 L	765 – 1,055 L
Membrane Filtration	Sodium Hydroxide	3,104 L	240 – 345 L
Membrane Filtration Pre-treatment	Poly-aluminum Chloride	3,445 L	282 – 358 L
Waste Residual Management System	Sodium Bisulphite	-	Combined with membrane volumes
Disinfection Systems	Chlorine gas for Zebra mussel control	-	Volume included in Primary disinfection
Disinfection Systems	Chlorine gas for primary disinfection at inlet of chlorine contact chambers	3,887 kg	252 – 454 kg
Disinfection Systems	Chlorine gas for secondary disinfection at high lift chambers	472 kg	16 – 84 kg

Were any significant expenses incurred to?
[X] Install required equipment

[X] Repair required equipment

[X] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred:

Preventative maintenance activities for equipment are scheduled and completed routinely along with other lifecycle replacement needs. In addition to the PM activities, the following capital expenditures were incurred throughout this Reporting Period.

Description	Monetary Expenses
Zone 1 Floating Storage Detailed Design	$281,265
Upgrade Booster Station Pump P2503 and Additional Generator	$1,950
Watermain Reconstruction on Walton Street from Church Street to Pine Street	$584,933
Neptune Water Meter Replacement Program	$488,000
Highland Drive Watermain Upgrades	$704,000
Backpulse Tank Upgrades Engineering	$22,240
VFD Replacement on Low lift Pump 1 and High lift Pump 1	$34,945
John Deere Lawnmower Replacement	$12,540

Notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre during this Reporting Period:

Table 3 - Summary of Reportable Incidents

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Completed
October 24, 2024	Adverse Test Result Total Coliform (TC) at Hamilton	TC – 1	cfu/100mL	No Boil Water Advisory issued by Health Unit. Thoroughly flushed watermain in area of concern.	October 26, 2024

	Road/Peter Street Sample Station			Two (2) sets of bacteriological samples were taken, at least 24 hours apart. Results were negative for EC and TC.	

Microbiological Testing completed under Schedule 10, 11, or 12 of Regulation 170/03 during this Reporting Period:

Table 4 - Microbiological Testing Summary

Type of Sample	Number of Samples	Range of E.Coli Or Fecal Results (min #) – (max #)	Range of Total Coliform Results (min #) – (max #)	Number of HPC Samples	Range of HPC Results (min #) – (max #)
Raw	53	0-NDOGT[1]	0-NDOGT[1]	N/A	N/A
Treated	53	0	0	53	0-2
Distribution	390	0	0 - 1	390	0-95

Operational Testing completed under Schedule 7, 8, or 9 of Regulation 170/03 during the Reporting Period covered by this Annual Report:

Table 5 - Operational Testing Summary

Parameters	Number of Grab Samples[2]	Range of Results (min #)-(max #)	Annual Average	Unit of Measure
Raw Turbidity	8760	0.00 – 99.99	1.73	NTU
Treated Turbidity	8760	0.00 – 2.00	0.05	NTU
Primary Chlorine	8760	0.78 – 4.04	1.38	mg/L
Post-Chlorination Chlorine	8760	0.54 – 2.10	1.50	mg/L
Distribution Chlorine (Grab Samples)	1556	0.08 – 2.08	1.30	mg/L

[1] NDOGT stands for No DATA: Overgrown with Target Bacteria. Prior, and subsequent data sets within normal range.
[2] For continuous monitors, 8760 is used as the number of samples.

Parameters	Number of Grab Samples[2]	Range of Results (min #)-(max #)	Annual Average	Unit of Measure
Distribution Chlorine (Reservoir)	8760	0.11 – 5.00	1.45	mg/L
Distribution Chlorine (Elevated Tank)	8760	1.11 – 5.00	1.48	mg/L
Fluoride (If the DWS provides Fluoridation)	N/A	N/A	N/A	N/A

Table 6 - Summary of additional testing and sampling carried out in accordance with the requirement of an Approval, Order, or other Legal Instrument

Date of legal instrument issued	Parameter	Date Sampled	Result (min#) – (max #)	Unit of Measure
August 26, 2020 Municipal Drinking Water License 146-101	Process Wastewater, Total Chlorine Residual	Continuously	0.00 Annual Average	mg/L
August 26, 2020 Municipal Drinking Water License 146-101	Process Wastewater, Total suspended solids	Monthly	8.25 Annual Average	mg/L
August 26, 2020 Municipal Drinking Water License 146-101	Uranium (Treated Water)	Weekly	0.325-0.746	ug/L
August 26, 2020 Municipal Drinking Water License 146-101	Arsenic (Treated Water)	Weekly	0.70-1.00	ug/L

Table 7 - Summary of Inorganic parameters tested during this Reporting Period or the most recent Sample Results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	August 7, 2024	0.6 <MDL	ug/L	No
Arsenic	August 7, 2024	0.9	ug/L	No
Barium	August 7, 2024	21.3	ug/L	No
Boron	August 7, 2024	21	ug/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Cadmium	August 7, 2024	0.009	ug/L	No
Chromium	August 7, 2024	0.19	ug/L	No
Lead[3]	N/A			
Mercury	August 7, 2024	0.01 <MDL	ug/L	No
Selenium	August 7, 2024	0.13	ug/L	No
Sodium	August 7, 2024	14.4	mg/L	No
Uranium	August 7, 2024	0.455	ug/L	No
Fluoride	August 7, 2024	0.12	mg/L	No
Nitrite	February 6, 2024	0.003 <MDL	mg/L	No
Nitrate	February 6, 2024	0.500 (MAX for year)	mg/L	No

Table 8 - Summary of Lead Testing under Schedule 15.1 during this Reporting Period

Sampling Period	Location Type	Number of Samples	Range of Lead Results (ug/L), (min – max)	Number of Exceedances
Winter Sampling Period[4]	Distribution	4	0.05 - 0.21	0
Summer Sampling Period[5]	Distribution	4	0.25 – 3.32	0

The Port Hope Drinking Water System is exempt from sampling in accordance with Section 15.1, 5(9) under Schedule 15 of. O. Reg. 170/03. Sampling and testing for Lead is not required until the Winter 2026/2027 and Summer 2027 sampling periods.

[3] Only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems.
[4] Winter Sampling Period runs from December 15 – April 15. The last lead sample collected in accordance with the Regulation was sampled on February 6, 2024.
[5] Summer Sampling Period runs from June 15 – October 15. The last sample collected in accordance with the Regulation was sampled on September 4, 2024.

Table 9 - Summary of Organic parameters sampled during this Reporting Period:

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	August 7, 2024	0.02 <MDL	ug/L	No
Atrazine + N-dealkylated metobolites	August 7, 2024	0.07	ug/L	No
Azinphos-methyl	August 7, 2024	0.05 <MDL	ug/L	No
Benzene	August 7, 2024	0.32 <MDL	ug/L	No
Benzo(a)pyrene	August 7, 2024	0.004 <MDL	ug/L	No
Bromoxynil	August 7, 2024	0.33 <MDL	ug/L	No
Carbaryl	August 7, 2024	0.05 <MDL	ug/L	No
Carbofuran	August 7, 2024	0.01 <MDL	ug/L	No
Carbon Tetrachloride	August 7, 2024	0.17 <MDL	ug/L	No
Chlorpyrifos	August 7, 2024	0.02 <MDL	ug/L	No
Diazinon	August 7, 2024	0.02 <MDL	ug/L	No
Dicamba	August 7, 2024	0.20 <MDL	ug/L	No
1,2-Dichlorobenzene	August 7, 2024	0.41 <MDL	ug/L	No
1,4-Dichlorobenzene	August 7, 2024	0.36 <MDL	ug/L	No
1,2-Dichloroethane	August 7, 2024	0.35 <MDL	ug/L	No
1,1-Dichloroethylene	August 7, 2024	0.33 <MDL	ug/L	No
Dichloromethane	August 7, 2024	0.35 <MDL	ug/L	No
2-4 Dichlorophenol	August 7, 2024	0.15 <MDL	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	August 7, 2024	0.19 <MDL	ug/L	No
Diclofop-methyl	August 7, 2024	0.40 <MDL	ug/L	No
Dimethoate	August 7, 2024	0.06 <MDL	ug/L	No
Diquat	August 7, 2024	1 <MDL	ug/L	No
Diuron	August 7, 2024	0.03<MDL	ug/L	No
Glyphosate	August 7, 2024	1 <MDL	ug/L	No
Malathion	August 7, 2024	0.02 <MDL	ug/L	No
MCPA	August 7, 2024	0.00012 <MDL	ug/L	No
Metolachlor	August 7, 2024	0.01<MDL	ug/L	No
Metribuzin	August 7, 2024	0.02 <MDL	ug/L	No
Monochlorobenzene	August 7, 2024	0.3 <MDL	ug/L	No
Paraquat	August 7, 2024	1 <MDL	ug/L	No
Pentachlorophenol	August 7, 2024	0.15 <MDL	ug/L	No
Phorate	August 7, 2024	0.01 <MDL	ug/L	No
Picloram	August 7, 2024	1 <MDL	ug/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Polychlorinated Biphenyls(PCB)	August 7, 2024	0.04 <MDL	ug/L	No
Prometryne	August 7, 2024	0.03 <MDL	ug/L	No
Simazine	August 7, 2024	0.01 <MDL	ug/L	No
THM (Running Annual Average of Quarterly Results**)**	2024	52	ug/L	No
HAA (Running Annual Average of Quarterly Results**)**	2024	29	ug/L	No
Terbufos	August 7, 2024	0.01 <MDL	ug/L	No
Tetrachloroethylene	August 7, 2024	0.35 <MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	August 7, 2024	0.20 <MDL	ug/L	No
Triallate	August 7, 2024	0.01 <MDL	ug/L	No
Trichloroethylene	August 7, 2024	0.44 <MDL	ug/L	No
2,4,6-Trichlorophenol	August 7, 2024	0.25 <MDL	ug/L	No
Trifluralin	August 7, 2024	0.02 <MDL	ug/L	No
Vinyl Chloride	August 7, 2024	0.17 <MDL	ug/L	No

Table 10 - Inorganic or Organic parameter(s) that have exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameters	Result Value	Unit of Measure	Date of Sample
N/A			

2024 Summary Report to Council

In accordance with Schedule 22 of Ontario Regulation 170/03, a Summary Report shall be prepared no later than March 31st for the preceding year and supplied to members of Municipal Council.

The Report shall list the requirements of the Act, Regulations, Drinking Water Works Permit (DWWP), Municipal Drinking Water Licence (MDWL), and any Orders applicable to the system that were not met at any time during the period covered by the Report.

The Report must also include a summary of the quantities and flow rates of potable (drinkable) water supplied during the reporting period, including monthly average and maximum daily flows. A comparison of these flows, to the rated capacity and flow rates approved in the system Drinking Water Works Permit and Municipal Drinking Water Licence, must also be provided.

Acts, Regulations, and Prescribed Instruments applicable to the Port Hope Drinking Water System (DWS)

The Port Hope DWS is governed by, and must operate their DWS in accordance with the following Acts and Regulations at minimum:

- Safe Drinking Water Act, 2002;
  - O. Reg. 170/03 – Drinking Water Systems;
  - O. Reg. 128/04 – Certification of Drinking Water System Operators and WQA;
  - O. Reg. 169/03 – Ontario Drinking Water Quality Standards;
- Environmental Protection Act, where applicable;
- Clean Water Act, where applicable;
- Municipal Drinking Water Licence 146-101;
- Municipal Drinking Water Works Permit 146-201; and
- Permit to Take Water 2205-7DQHGN.

Compliance with Prescribed Instruments, Acts and Regulations

Safe Drinking Water Act

The Municipality, acting as the Operating Authority for the operation of the Port Hope Drinking Water System, endeavors to be fully compliant with Ontario Acts, Regulations and Orders and as such has maintained a MECP inspection rating of 100% for most years. The 2023 MECP inspection was completed in February of 2024 scored a rating

of 100%. No non-compliance events or best management practices were noted in the inspection report. The 2024 MECP inspection commenced December 17, 2024, with a site tour of the DWS. Completion of inspection is expected to take place in January of 2025.

One notice was submitted to the MECP in accordance with section 16-3 of Schedule 16 of O.Reg.170/03 and reported to the Haliburton Kawartha Pineridge District Health Unit and the Spills Action Centre during this Reporting Period. Corrective actions were taken immediately. No Boil Water Advisory was issued by the Health Unit. Flushing of watermain and re-sampling was completed, revealing no adverse effects to public health. Details of the reportable event can be found in Table 3 – Summary of Reportable Incidents above.

SAI Global conducted an offsite surveillance system audit on the Municipality of Port Hope's Drinking Water Quality Management System (QMS) on April 15th, 2024. No non-conformances were identified during the audit. One (1) opportunity for improvement was suggested. A small administrative amendment was made under Element 9, Organizational Structure, Roles, Responsibilities and Authorities, to the Operational Plan. SAI Global also conducted an onsite re-accreditation audit on May 13th and 14th, 2024. No non-conformances were identified during the audit. Five (5) opportunities for improvement were suggested involving three (3) elements within the DWQMS – Element 7, Risk Assessment, Element 13, Essential Supplies and Services, and Element 18, Emergency Management. All suggestions were considered/reviewed with appropriate actions taken, where applicable. The audits determined that the QMS is effectively implemented, maintained, and meets the requirements of the Drinking Water Quality Management Standard Version 2.0 – 2017. The Municipality received re-accreditation.

In accordance with Schedule C, Condition 6.0 of the Port Hope Municipal Drinking Water Licence, a Harmful Algal Bloom monitoring, reporting, and sampling plan shall be developed, kept up to date and shall be implemented when a potential harmful algal bloom is suspected or present. During the Reporting Period, monitoring of harmful algal blooms was conducted from June 1, 2024, until October 31, 2024. No harmful algal blooms were identified or suspected through visual inspection. No reporting or sampling was required during the Reporting Period.

Clean Water Act

The Ganaraska Source Protection Plan was approved by the MECP and came into effect on January 1, 2015. The Municipality has put necessary internal processes in

place with the Planning, Fire and Emergency Services and Works and Engineering Departments to ensure compliance with the Source Protection Plan. The vulnerable scores for the Port Hope Intake Protection Zone are too low to create prescribed significant drinking water threats within the Intake Protection Zone (IPZ) 1 and IPZ 2. The current local significant drinking water threats have been identified through an event-based modelling approach and are mitigated through emergency preparedness and sound operational practices.

On April 18, 2024, Cameco reported a spill to the Spills Action Centre, notifying them that approximately 10 Litres of uranium contaminated water was discharged to Lake Ontario. Corrective actions were taken. All parties involved were satisfied that there was no impact to the raw water intake or drinking water. No further action was required by the Water Department.

On July 13, 2024, Port Hope Fire Department reported a spill to the Spills Action Centre, due to firefighting measures that took place at the old File Factory Building on Cavan Street where debris had entered the Ganaraska River. Corrective actions were taken to prevent contaminants from entering Lake Ontario. All parties involved were satisfied that there was no impact to the raw water intake or drinking water. No further action was required by the Water Department.

Permit to Take Water

In accordance with Permit to Take Water number 3130-AW2KR4, the Port Hope Water Treatment Plant is permitted to take 52,700 m3/day from Lake Ontario, at a maximum flow rate of 609.95 Litres/second. Throughout the Reporting Period, the Municipality of Port Hope WTP remained within compliance limits identified in the Permit to Take Water for the facility. A maximum daily taking of 6,719 m^3 was recorded on May 31, 2024. The maximum flow rate recorded was 318 L/s on October 16, 2024. For further details on Raw Water taking throughout the reporting period, see Table 11 – Monthly Summary of Net Daily Raw Water Volumes below.

Raw Water Flow Rates

A summary of the daily quantities of water being taken from Lake Ontario (i.e., net daily raw water volumes) are shown in Table 11. As shown, the highest daily raw water volume of 6,719 m^3/day has not exceeded 52,700 m^3/ day as stipulated in the Permit to Take Water.

Table 11 - Monthly Summary of Net Daily Raw Water Volumes

Month	Daily Average Raw Water Volume per Month (m^3/day)	Maximum Daily Raw Water Volume in Month (m^3/day)	Maximum Flow Rate (l/s)
January	4,356	5,160	166.80
February	4,369	5,617	188.91
March	4,356	5,213	178.86
April	4,513	5,299	183.72
May	5,313	6,719	182.36
June	5,569	6,573	215.13
July	5,511	6,665	298.62
August	5,187	5,965	187.90
September	5,166	5,986	276.41
October	4,766	5,619	318.45
November	4,293	5,506	307.18
December	4,230	5,246	168.87
Average	**4,802**		
Maximum		**6,719**	**318.45**

Drinking Water Works Permit/Municipal Drinking Water Licence

Summary of Water Quantities and Flow Rates

This section provides a summary of records related to flow rates of treated water, wastewater, and membrane instantaneous flow rates.

This section provides a summary and discussion on the quantity of treated water supplied in 2024 compared to the rated capacity specified in the Municipal Drinking Water Licence, including monthly average and maximum daily flows.

There are sufficient membrane modules installed to produce Phase 1 flows of 14,000 m^3/day. This flow rate is a total net daily production of treated water.

Given that there's downtime for cleaning, backwashing and membrane integrity tests, the instantaneous flow rate into the membranes is higher than the plant rated capacity as defined above. The current recovery rate is 92%, which provides an instantaneous

factor of approximately 1.11 l/s. Thus, requiring an instantaneous raw water flow rate into the membranes of 15,540 m^3/day.

A summary of the above is provided below:

- Current plant rated capacity (net treated water production) = 14,000 m^3/day.
- Current instantaneous raw water flow rate at plant rated capacity = 15,540 m^3/day.
- Current maximum daily flow rate from membranes = 6,110 m^3/day. This has decreased 2053 m^3/day compared to 2024 and decreased 2022 m^3/day compared to 2022.

Membrane Instantaneous Flow Rates

A summary of the combined instantaneous flow rate from the membranes is shown in Table 12 – Monthly Summary of Combined Instantaneous Flowrate from Membranes below. As shown, the maximum instantaneous flow rate from the membranes has not exceeded the anticipated instantaneous raw water flow rate of 15,540 m^3/day.

Table 12 - Monthly Summary of Combined Instantaneous Flowrate from Membranes

Month	Daily Average Per Month	Maximum Instantaneous Flow Rate (l/s)	Maximum Instantaneous Flow Rate (m^3/day)
January	3,998	55	4,722
February	4,012	60	5,198
March	3,994	56	4,813
April	4,197	58	4,995
May	4,937	71	6,093
June	5,073	70	6,032
July	5,087	71	6,110
August	4,835	64	5,563
September	4,847	66	5,707
October	4,450	61	5,254
November	3,996	59	5,108
December	3,924	57	4,883
Average	**5,087**	**62**	

Month	Daily Average Per Month	Maximum Instantaneous Flow Rate (l/s)	Maximum Instantaneous Flow Rate (m^3/day)
Maximum		**71**	**6,110**

Treated Water Flow Rates

A summary of the treated water flows is shown in Table 13 – Monthly Summary of Treated Water Flows. As shown, the plant rated capacity of 20,300 m^3/day was not exceeded. The maximum daily water demand reached 30.76% of the plant rated capacity, averaging 24.68% over the year.

Table 13 - Monthly Summary of Treated Water Flows

Month	Daily Average per Month (m^3/day)	Maximum Daily (m^3/day)	% Max/ Rated Capacity	Maximum Flow Rate (l/s)
January	3,752	4,247	20.92	220.13
February	3,742	4,390	21.63	217.85
March	3,728	4,216	20.77	235.28
April	3,951	4,828	23.78	243.12
May	4,656	5,638	27.77	242.89
June	4,760	6,244	30.76	227.89
July	4,768	5,969	29.41	230.36
August	4,525	5,027	24.76	218.58
September	4,561	5,182	25.53	224.68
October	4,183	4,685	23.08	228.34
November	3,719	5,148	25.36	245.92
December	3,651	4,556	22.44	225.15
Average	**4,166**		**24.68**	**230.02**
Maximum		**6,244**	**30.76**	**245.92**

Wastewater Flow Rates

Wastewater is generated on-site from cleaning the membranes utilizing the following processes: backwashing, maintenance cleans, and recovery cleans. It has been

anticipated that approximately 10% of the raw water volume is used for these processes, resulting in the plant recovery rate of approximately 90%.

Table 14 – Monthly Summary of Wastewater Flows shows that wastewater production, in any given month, has averaged 16.95% of the raw water flows, which is 6.95% more than the anticipated 10% wastewater production.

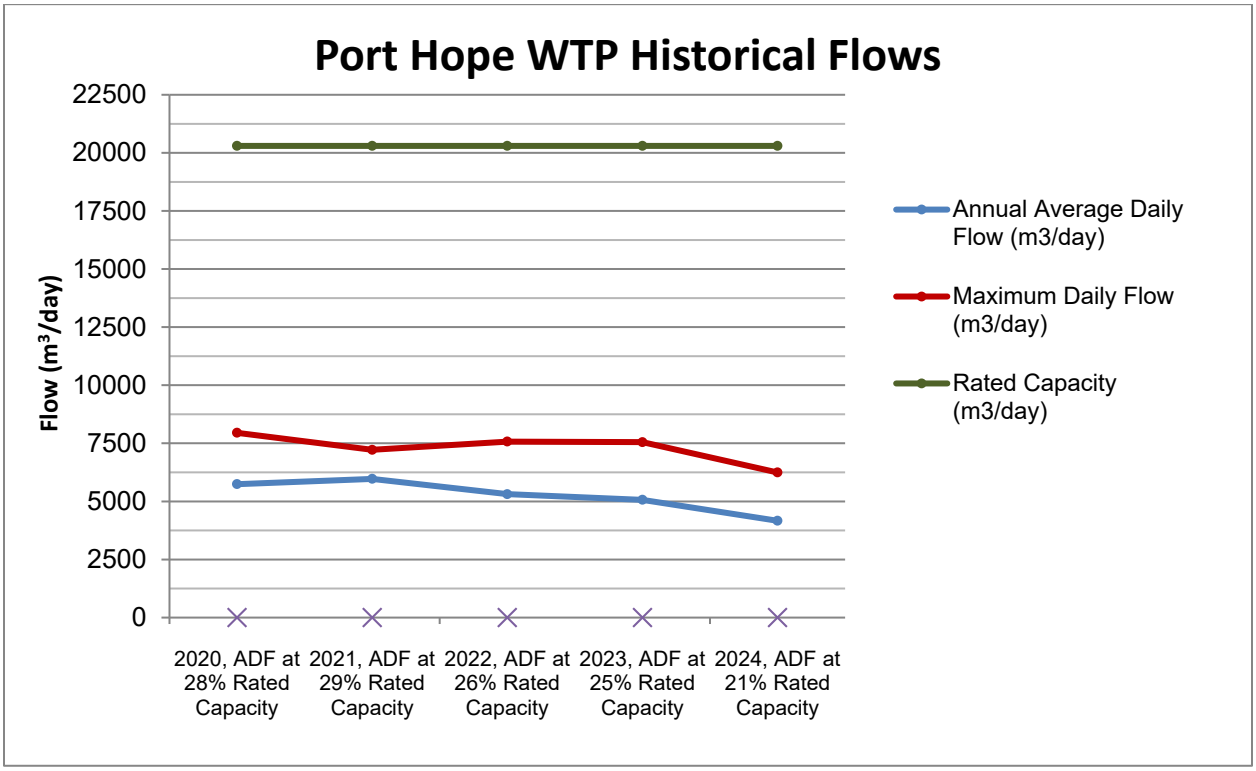
Table 14 - Monthly Summary of Wastewater Flows

Month	Total Monthly Raw Water Volume (m^3)	Total Monthly Wastewater Volume (m^3)	% Wastewater/ Raw
January	135,042	22,933	16.98%
February	126,697	21,785	17.19%
March	135,047	23,825	17.64%
April	135,393	20,849	15.40%
May	164,718	25,296	15.36%
June	167,060	32,462	19.43%
July	170,840	29,218	17.10%
August	160,782	26,556	16.52%
September	154,985	25,165	16.24%
October	147,750	25,054	16.96%
November	128,805	22,526	17.49%
December	131,124	22,392	17.08%
Average	**146,520**	**24,838**	**16.95%**
Maximum	**170,840**	**32,462**	**19.43%**

Historical Flow Comparison

Accounting for 26% of the facility's rated capacity, the 5-year Average Daily Flow (ADF) is 5,251 m^3/day. The following chart below shows the 5-year average daily flows for the years 2020 to 2024, including max daily flows and percentage of rated capacity, for each year, respectively.

Figure 1 - Historical Flow Comparison



Sampling Analytical Results

This section provides a summary of analytical results of sampling required by Ontario Drinking Water Quality Standards (ODWQS) and conditions in the Municipal Drinking Water Licence, Section 1.5 of Schedule C.

Microbiological

The bacteriological data in the raw, treated and distribution water supply are shown in Table 4 - Microbiology Testing Summary above. If either the treated or distribution water contain any total coliform (TC) or fecal coliform (FC), then the water quality is considered adverse. The corrective action in all cases is to report, resample, analyze and follow the instructions as directed by the Medical Officer of Health. The Municipality observed one incident of adverse samples in 2024. Details of the reportable event can be found in Table 3 – Summary of Reportable Incidents above.

Turbidity

Permeate water turbidity readings from all four membrane trains averaged 0.02 NTU in 2024.

Table 15 - Analysis of Permeate Water Turbidity Data

Month	Sampling Location	Train 1 Average	Train 2 Average	Train 3 Average	Train 4 Average	Total Turbidity Samples	Total Turbidity Samples <0.1NTU	Percentage of Samples <0.1 NTU
January	On-line	0.02	0.01	0.02	0.01	6042088	6041440	99.989%
February	On-line	0.02	0.01	0.02	0.01	5643825	5643506	99.994%
March	On-line	0.02	0.01	0.02	0.02	6022536	6021527	99.983%
April	On-line	0.02	0.01	0.02	0.02	5327562	5325819	99.967%
May	On-line	0.02	0.02	0.04	0.02	6294336	6291353	99.953%
June	On-line	0.02	0.01	0.02	0.03	7152666	7150933	99.976%
July	On-line	0.02	0.02	0.02	0.03	7385192	7381646	99.952%
August	On-line	0.02	0.02	0.02	0.02	6519928	6518267	99.975%
September	On-line	0.02	0.02	0.02	0.02	6131631	6130468	99.981%
October	On-line	0.02	0.01	0.02	0.02	6444134	6443488	99.990%
November	On-line	0.02	0.02	0.02	0.02	5734571	5734249	99.994%
December	On-line	0.02	0.02	0.02	0.02	5946353	5946317	99.999%
Average		**0.02**	**0.02**	**0.02**	**0.02**			

Disinfection

Primary and Post Chlorination Disinfection Chlorine Residuals

Primary disinfection: chlorine is added just prior to the dual cell contact chambers to target a free chlorine residual of 1.30 to 1.50 mg/l.

Post chlorination disinfection: chlorine is injected into the high lift equalization chambers, to maintain free chlorine residual of 1.50 mg/L, entering Zone 1 of the distribution system.

Table 16 - Summary of Primary and Post Chlorination Disinfection Free Chlorine Residuals

Location	Sample Count	Minimum Free Chlorine Residual (mg/L)	Average Free Chlorine Residual (mg/L)	Maximum Free Chlorine Residual (mg/L)
WTP – Primary Disinfection	continuous	0.78	1.38	4.04
WTP – Post Chlorination Disinfection	continuous	0.54	1.50	2.10

Secondary Disinfection Chlorine Residuals – Distribution System

The Procedure for Disinfection of Drinking Water in Ontario states that "the distribution system must be operated such that at all times and at all locations within the distribution system there is at least a detectable free chlorine residual of 0.05 mg/L at a pH 8.5 or lower."

O. Reg. 170/03, Schedule 16-3.4 states that the distribution water quality is considered to be adverse if the free chlorine residual is measured to be less than 0.05 mg/L. The corrective action is to restore chlorination immediately and follow the instructions as directed by the Medical Officer of Health. All samples analyzed in 2024 met the regulatory requirement for free chlorine residual, being greater than 0.05 mg/L.

The Municipality has implemented the following procedures to comply with the Regulation:

- Scheduled flushing of dead-end water mains through automated flushing stations, blowoffs, and hydrants,
- Chlorine addition at the Zone 2 at the Elevated Tank and Reservoir, and
- Initiation of a "Capital Works" program to replace all 100 mm cast iron water mains and loop dead ends within the next ten (10) years.

Table 17 - Summary of Distribution Free Chlorine Residuals

Location	Sample Count	Minimum Distribution Chlorine Residual (mg/L)	Average Distribution Chlorine Residual (mg/L)	Maximum Distribution Chlorine Residual (mg/L)
Distribution – Jocelyn Street Reservoir	continuous	0.11[6]	1.45	5.00[7]
Distribution – Fox Rd. Elevated Water Tank	continuous	1.11	1.48	5.00[8]
Distribution System, Grab Samples	1556	0.08	1.30	2.08

Supernatant Total Suspended Solids

Schedule C, Section 1.5 of the Municipal Drinking Water Licence states that the annual average concentration of the suspended solids (TSS) in the effluent discharged from the Port Hope WTP into the natural environment shall not exceed 25 mg/L. Furthermore, as stated in Schedule C, Section 4.4, the total suspended solids composite sampling is required to be completed quarterly at the effluent discharge pipe. As shown below, the annual average concentration of suspended solids has not exceeded the discharge limit of 25 mg/L and continuing efforts are made to optimize the process to ensure TSS content in the effluent remains below 25 mg/L.

Table 18 - Supernatant Discharge Total Suspended Solids

Location	Sample Count	Minimum Total Suspended Solids (mg/L)	Average Total Suspended Solids (mg/L)	Maximum Total Suspended Solids (mg/L)
Supernatant Discharge at Outfall	12	5.0	8.08	19.0

[6] September 12, 2024, SCADA reporting program recorded analyzer value when maintenance activities were being performed.
[7] November 28, 2024, SCADA reporting program recorded analyzer value when maintenance activities were being performed.

[8] June 29, 2024, SCADA reporting program recorded analyzer value during a power outage.

Other Parameters

Table 19 lists deviations from Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG).

Table 19 - Deviations from ODWSOG

Parameter	Location	Operational Guideline (OG) /Aesthetic Objective (AO)	Annual Value(s) Observed	Comments
Raw Water Hardness (as $CaCO_3$)	Plant	80-100 mg/L (AO)	114 mg/L	Uncontrolled parameter
Treated Water Hardness (as $CaCO_3$)	Plant	80-100 mg/L (AO)	118 mg/L	Uncontrolled parameter
Treated Water Temperature	Plant	15 °C (OG)	5 – 23°C	Uncontrolled parameter

Abnormal or Emergency Drinking Water System Operating Conditions

There were no abnormal or emergency drinking water system operating conditions as a result of an emergency situation in 2024.

APPENDIX A

Ontario Ministry of the Environment, Conservation and Parks Compliance Inspection Results

Ministry of the Environment, Conservation and Parks
Eastern Region
Peterborough District Office
300 Water Street
2nd Floor, South Tower
Peterborough ON K9J 3C7

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Région de l'Est
Bureau du district de Peterborough
300, rue Water
2e étage, Tour Sud
Peterborough (Ontario) K9J 3C7

Ontario

March 4, 2024.

Mike Stewart,
Water Operations Manager,
The Corporation of The Municipality of Port Hope,
56 Queen St, Port Hope, ON, L1A 3Z9

RE: 2023/24 Port Hope Drinking Water System Inspection Report 1-204083836

Please see the attached Ministry of the Environment, Conservation and Parks inspection report for the compliance inspection initiated for the Port Hope Drinking Water System on February 1, 2024.

A section of the report entitled ***NON-COMPLIANCE*** are typically linked to incidents of non-compliance with regulatory requirements contained within the Environmental Compliance Approval and its associated Acts and Regulations. It should be noted that there were no violations identified during this inspection. ***RECOMMENDATIONS*** convey information that the owner or operating authority should consider implementing to advance efforts already in place. Please note that items which appear as recommendations do not, in themselves, constitute violations.

Thank you for the assistance afforded to me during this compliance assessment. Please do not hesitate to call me at 705-768-9502 or Ms. Brittney Wielgos, Supervisor, Safe Drinking Water Branch 705-768-0436 should you have any questions or concerns regarding the above.

Yours truly,

Corey Biswanger
Water Inspector
Peterborough District Office

Enclosure (1)

Cc: Natalie Bocking, Medical Officer of Health, Haliburton Kawartha Pine Ridge Health Unit
Jeanette Davidson, Director of Works, and Engineering, The Corporation of The Municipality of Port Hope
Claire Holloway-Wadhwani, Councilor, The Corporation of The Municipality of Port Hope
Christine Smith, Water/Wastewater Compliance Coordinator, The Corporation of The Municipality of Port Hope
Rhonda Bateman, CAO/Secretary-Treasurer, Lower Trent Conservation Authority
Olena Hankivsky, Mayor, The Corporation of The Municipality of Port Hope
Brittney Wielgos, Water Compliance Supervisor, Peterborough District Office, MECP

Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Ontario

Ontario

PORT HOPE DRINKING WATER SYSTEM
Physical Address: 35 MARSH ST, PORT HOPE, ON L1A 4K3

INSPECTION REPORT

System Number:	260058006
Entity:	THE MUNICIPALITY OF PORT HOPE
Inspection Start Date:	January 29, 2024
Inspection End Date:	February 23, 2024
Inspected By:	Corey Biswanger
Badge #:	1814

We want to hear from you. How was my service? You can provide feedback at 1-888-745-8888 or Ontario.ca/inspectionfeedback

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Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Ontario

(signature)

Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Ontario

NON-COMPLIANCE

This should not be construed as a confirmation of full compliance with all potential applicable legal requirements. 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.

Event Number: 1-204083836

Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Ontario

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.

Ministry of the Environment Drinking Water Inspection

Ontario

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Ministry of the Environment, Conservation and Parks

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Ontario

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

Legislative Requirement(s):
Not Applicable

Question:
What was the scope of this inspection?

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

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.

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.

The Port Hope drinking water system is classified as a large municipal residential system comprised of a class 2 water treatment subsystem and a class 3 water distribution subsystem. This inspection period is for the time between February 1, 2023 and February 1, 2024.

Question ID	DWMR1000000	**Question Type**	Information

Legislative Requirement(s):
Not Applicable

Question:
Does this drinking water system provide primary disinfection?

Compliance Response(s)/Corrective Action(s)/Observation(s):
This drinking water system provides for both primary and secondary disinfection and distribution of water.

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Question ID	DWMR1010000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Are trends in source water quality being monitored?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Trends in source water quality were being monitored.

In addition to the weekly raw water bacteriological sampling the operating authority monitors raw water turbidity and pH levels.

Question ID	DWMR1011000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Does the owner have a harmful algal bloom monitoring plan in place?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had a harmful algal bloom monitoring plan in place.

Question ID	DWMR1012000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Does the owner have a harmful algal bloom monitoring plan in place that meets the requirements of the MDWL?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had a harmful algal bloom monitoring plan in place.

It was confirmed during the inspection that the owner had a harmful algal bloom monitoring plan in place as per the municipal drinking water license.

Question ID	DWMR1014000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Is there sufficient monitoring of flow as required by the MDWL or DWWP issued under Part V of the SDWA?

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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.

It was confirmed during the inspection that there are flow meters for the raw water, each filter effluent line and treated water.

Question ID	DWMR1015000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Are the flow measuring devices calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The flow measuring devices were calibrated or verified in accordance with the requirements of the MDWL issued under Part V of the SWDA.

Question ID	DWMR1016000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
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?

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

Question ID	DWMR1017000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Were appropriate records of flows and any capacity exceedances made in accordance with the MDWL issued under Part V of the SDWA?

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

Question ID	DWMR1013000	Question Type	Legislative

Legislative Requirement(s):
OWRA | 34 | (3);

Question:
Is the owner in compliance with all conditions of the PTTW?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner was in compliance with all conditions of the PTTW.

Question ID	DWMR1018000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Has the owner ensured that all equipment is installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.

Question ID	DWMR1028000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
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.

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Question ID	DWMR1025000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
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?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.

Review of the records provided indicate that on July 11, 2023 the Jocelyn St. reservoir was inspected via a dedicated potable water ROV system. Records indicate that AWWA standard C-652-19 was followed for operations in potable water, including disinfection of the ROV system. Also, on September 15th, 2023, a dedicated potable water ROV system was utilized to perform an internal inspection of the Fox Road water tower. AWWA standard C-652-19 was followed for operations in potable water, including disinfection of the ROV system.

Question ID	DWMR1023000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question:
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?

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

Records provided during the document review indicated that the Port Hope drinking water system had been operated in a manner to meet the design capabilities required under Ontario Regulation 170/03. Records reviewed included filter effluent turbidities, chlorine residuals at the point where primary disinfection had been achieved, logbooks, certificates of analysis, secondary disinfection residuals, and operator certificates.

Question ID	DWMR1027000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
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

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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.

Question ID	DWMR1024000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question:
Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?

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

Question ID	DWMR1033000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-2 | (3); SDWA | O. Reg. 170/03 | 7-2 | (4);

Question:
Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The secondary disinfectant residual was measured as required for the large municipal residential distribution system.

Question ID	DWMR1049000	**Question Type**	BMP

Legislative Requirement(s):
Not Applicable

Question:
Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution system?

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Compliance Response(s)/Corrective Action(s)/Observation(s):
Records confirmed that disinfectant residuals were routinely checked at the extremities and dead ends of the distribution system.

Question ID	DWMR1036000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-7 | (1);

Question:
Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Samples for chlorine residual analysis were tested using an acceptable portable device.

Question ID	DWMR1030000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-2 | (1); SDWA | O. Reg. 170/03 | 7-2 | (2);

Question:
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.

It was confirmed during the inspection that chlorine is injected into the header that flows into the CT chamber inlet while measuring free chlorine residual at the inlet and outlet of the CT chambers. The outlet free chlorine residual analyzer is used for CT calculation.

Question ID	DWMR1031000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Are operators aware of the operational criteria necessary to achieve primary disinfection within the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators were aware of the operational criteria necessary to achieve primary disinfection within the drinking water system.

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Question ID	DWMR1032000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-3 | (2);

Question:
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?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Continuous monitoring of each filter effluent line was being performed for turbidity.

Question ID	DWMR1035000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4; SDWA | O. Reg. 170/03 | 6-5 | (1)5-10;

Question:
Are operators examining continuous monitoring test results and are they examining the results within 72 hours of the test?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.

Question ID	DWMR1038000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4;

Question:
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?

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

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Question ID	DWMR1037000	Question Type	Legislative

Legislative Requirement(s):
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);

Question:
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?

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

Records confirmed that the free chlorine alarm set point required to meet CT is above the calculated concentration of 0.45 mg/L. Also, the filter effluent high turbidity alarm set points are 0.10 NTU and the high high alarm is set at 0.30 NTU. It was confirmed that if the contact tank outlet free chlorine is reading <0.65 mg/L for more than 120 seconds, the filtration shuts down resulting in the low lift pumps locking out. If the filter effluent water turbidity reaches 0.3 NTU, the individual filter will lock out.

Question ID	DWMR1040000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-5 | (1)1-4; SDWA | O. Reg. 170/03 | 6-5 | (1)5-10;

Question:
Are all continuous analysers calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.

Question ID	DWMR1108000	Question Type	Legislative

Legislative Requirement(s):
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);

Question:
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?

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

Question ID	DWMR1099000	Question Type	Information

Legislative Requirement(s):
Not Applicable

Question:
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)?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records did not 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).

Review of the records for this inspection period indicates that there was an exceedance of the microbiological standard on June 29, 2023.

Question ID	DWMR1079000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-4 | (1); SDWA | O. Reg. 170/03 | 10-4 | (2); SDWA | O. Reg. 170/03 | 10-4 | (3);

Question:
For LMR systems, are all microbiological water quality monitoring requirements for raw water samples prescribed by legislation being met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All microbiological water quality monitoring requirements prescribed by legislation for raw water samples were being met.

Question ID	DWMR1081000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-2 | (1); SDWA | O. Reg. 170/03 | 10-2 | (2); SDWA | O. Reg. 170/03 | 10-2 | (3);

Question:
For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?

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Compliance Response(s)/Corrective Action(s)/Observation(s):
All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were being met.

The Port Hope distribution system serves a population of approximately 14,217 residents. The system is classified as a large municipal residential system, and the owner/operating authority for the system is required to collect at a minimum twenty-two distribution samples each month.

Question ID	DWMR1083000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10-3;

Question:
For LMR systems, are all microbiological water quality monitoring requirements for treated samples being met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All microbiological water quality monitoring requirements prescribed by legislation for treated samples were being met.

Question ID	DWMR1096000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-3 | (1);

Question:
Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.

Question ID	DWMR1084000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-2;

Question:
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.

Question ID	DWMR1085000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-4 | (1); SDWA | O. Reg. 170/03 | 13-4 | (2); SDWA | O. Reg. 170/03 | 13-4 | (3);

Question:
Are all organic water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Question ID	DWMR1086000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-6.1 | (1); SDWA | O. Reg. 170/03 | 13-6.1 | (2); SDWA | O. Reg. 170/03 | 13-6.1 | (3); SDWA | O. Reg. 170/03 | 13-6.1 | (4); SDWA | O. Reg. 170/03 | 13-6.1 | (5); SDWA | O. Reg. 170/03 | 13-6.1 | (6);

Question:
Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

Question ID	DWMR1087000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-6 | (1); SDWA | O. Reg. 170/03 | 13-6 | (2); SDWA | O. Reg. 170/03 | 13-6 | (3); SDWA | O. Reg. 170/03 | 13-6 | (4); SDWA | O. Reg. 170/03 | 13-6 | (5); SDWA | O. Reg. 170/03 | 13-6 | (6);

Question:
Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.

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Question ID	DWMR1088000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-7;

Question:
Are all nitrate/nitrite water quality monitoring requirements prescribed by legislation conducted within the required frequency for the DWS?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Question ID	DWMR1089000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-8;

Question:
Are all sodium water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Question ID	DWMR1090000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13-9;

Question:
Where fluoridation is not practiced, are all fluoride water quality monitoring requirements prescribed by legislation conducted within the required frequency?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

Question ID	DWMR1092000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-2;

Question:
Has the owner ensured that water samples are taken at the prescribed location?

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Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner ensured that water samples were taken at the prescribed location.

Question ID	DWMR1094000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Are all water quality monitoring requirements imposed by the MDWL and DWWP being met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All water quality monitoring requirements imposed by the MDWL or DWWP issued under Part V of the SDWA were being met.

The municipal drinking water license requires the collection and analysis of quarterly composite samples for total suspended solids and continuous monitoring of total chlorine residual in the wastewater supernatant.
Review of the documents provided indicates that wastewater composite samples were collected monthly and analyzed for total suspended solids.
In addition, the license requires quarterly sampling/analysis of treated water for uranium and arsenic.

Question ID	DWMR1095000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 15.1-10; SDWA | O. Reg. 170/03 | 15.1-4 | (1); SDWA | O. Reg. 170/03 | 15.1-5 | (1); SDWA | O. Reg. 170/03 | 15.1-5 | (10); SDWA | O. Reg. 170/03 | 15.1-5 | (11); SDWA | O. Reg. 170/03 | 15.1-5 | (12); SDWA | O. Reg. 170/03 | 15.1-5 | (2); SDWA | O. Reg. 170/03 | 15.1-5 | (3); SDWA | O. Reg. 170/03 | 15.1-5 | (4); SDWA | O. Reg. 170/03 | 15.1-5 | (5); SDWA | O. Reg. 170/03 | 15.1-5 | (6); SDWA | O. Reg. 170/03 | 15.1-5 | (7); SDWA | O. Reg. 170/03 | 15.1-5 | (8); SDWA | O. Reg. 170/03 | 15.1-5 | (9); SDWA | O. Reg. 170/03 | 15.1-7 | (1); SDWA | O. Reg. 170/03 | 15.1-7 | (2); SDWA | O. Reg. 170/03 | 15.1-7 | (3); SDWA | O. Reg. 170/03 | 15.1-7 | (4); SDWA | O. Reg. 170/03 | 15.1-9 | (1); SDWA | O. Reg. 170/03 | 15.1-9 | (2); SDWA | O. Reg. 170/03 | 15.1-9 | (3); SDWA | O. Reg. 170/03 | 15.1-9 | (4); SDWA | O. Reg. 170/03 | 15.1-9 | (5); SDWA | O. Reg. 170/03 | 15.1-9 | (6); SDWA | O. Reg. 170/03 | 15.1-9 | (7); SDWA | O. Reg. 170/03 | 15.1-9 | (8); SDWA | O. Reg. 170/03 | 15.1-9 | (9);

Question:
Have all lead sampling requirements prescribed by Schedule 15.1 of O. Reg. 170/03 been met?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.

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Review of the documents provided indicates that 4 samples were collected from the distribution system on February 22, 2023 and September 12, 2023 along with pH and alkalinity as per the reduced sampling schedule in O. Reg. 170/03 15.1-5.

Question ID	DWMR1098000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 13 | (1); SDWA | O. Reg. 170/03 | 13 | (2); SDWA | O. Reg. 170/03 | 13 | (3);

Question:
Has the owner indicated that the required records are kept and will be kept for the required time period?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner indicated that the required records are kept and will be kept for the required time period.

Question ID	DWMR1101000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 17-1; SDWA | O. Reg. 170/03 | 17-10 | (1); SDWA | O. Reg. 170/03 | 17-11; SDWA | O. Reg. 170/03 | 17-12; SDWA | O. Reg. 170/03 | 17-13; SDWA | O. Reg. 170/03 | 17-14; SDWA | O. Reg. 170/03 | 17-2; SDWA | O. Reg. 170/03 | 17-3; SDWA | O. Reg. 170/03 | 17-4; SDWA | O. Reg. 170/03 | 17-5; SDWA | O. Reg. 170/03 | 17-6; SDWA | O. Reg. 170/03 | 17-9;

Question:
For LMR Systems, have corrective actions (as per Schedule 17 of O. Reg. 170/03) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Corrective actions (as per Schedule 17), including any other steps that were directed by the Medical Officer of Health, had been taken to address adverse conditions.

Question ID	DWMR1104000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 16-6 | (1); SDWA | O. Reg. 170/03 | 16-6 | (2); SDWA | O. Reg. 170/03 | 16-6 | (3); SDWA | O. Reg. 170/03 | 16-6 | (3.1); SDWA | O. Reg. 170/03 | 16-6 | (3.2); SDWA | O. Reg. 170/03 | 16-6 | (4); SDWA | O. Reg. 170/03 | 16-6 | (5); SDWA | O. Reg. 170/03 | 16-6 | (6);

Question:
Were all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?

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Compliance Response(s)/Corrective Action(s)/Observation(s):
All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.

Question ID	DWMR1105000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 16-7 | (1); SDWA | O. Reg. 170/03 | 16-7 | (2); SDWA | O. Reg. 170/03 | 16-7 | (3); SDWA | O. Reg. 170/03 | 16-7 | (4); SDWA | O. Reg. 170/03 | 16-7 | (5);

Question:
Were all required written notices of adverse water quality incidents provided as per O. Reg. 170/03 16-7?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All required written notices of adverse water quality incidents were provided as per O. Reg. 170/03 16-7.

Question ID	DWMR1106000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 16-9 | (1); SDWA | O. Reg. 170/03 | 16-9 | (2);

Question:
Were all required written notices of issue resolution provided as per O. Reg. 170/03 16-9?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All required written notices of issue resolution were provided as per O. Reg. 170/03 16-9.

Question ID	DWMR1110000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 11 | (6);

Question:
Was an Annual Report containing the required information prepared by February 28 of the following year?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The Annual Report containing the required information was prepared by February 28th of the following year.

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Question ID	DWMR1111000	Question Type	Legislative

Legislative Requirement(s):
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);

Question:
Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.

Question ID	DWMR1113000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 10.1 | (3);

Question:
Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All changes to the system registration information were provided within ten (10) days of the change.

Question ID	DWMR1043000	Question Type	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
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?

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

Legislative Requirement(s):
SDWA | 31 | (1);

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Question:
Does the process wastewater discharge monitoring program and discharge quality comply with requirements established in the MDWL issued under Part V of the SDWA?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The process wastewater discharge monitoring program and discharge quality complied with requirements established in the Municipal Drinking Water Licence Issued under Part V of the SDWA.

Question ID	DWMR1046000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Is there a backflow prevention program, policy and/or bylaw in place that addresses cross connections and connections to high hazard facilities?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a backflow prevention program, policy and/or bylaw in place.

Question ID	DWMR1053000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
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?

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

Question ID	DWMR1047000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
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?

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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.

Question ID	DWMR1048000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Has the owner implemented a program for the flushing of watermains as per industry standards?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had implemented a program for the flushing of watermains as per industry standards.

Question ID	DWMR1050000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Is there a program in place for inspecting and exercising valves?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a program in place for inspecting and exercising valves.

Question ID	DWMR1051000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Is there a program in place for inspecting and operating hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a program in place for inspecting and operating hydrants.

Question ID	DWMR1052000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

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Question:
Is there a by-law or policy in place limiting access to hydrants?

Compliance Response(s)/Corrective Action(s)/Observation(s):
There was a by-law or policy in place limiting access to hydrants.

Question ID	DWMR1058000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 28;

Question:
Do operators and maintenance personnel have ready access to operations and maintenance manuals?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators and maintenance personnel had ready access to operations and maintenance manuals.

Question ID	DWMR1059000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 28;

Question:
Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.

Question ID	DWMR1060000	**Question Type**	Legislative

Legislative Requirement(s):
SDWA | 31 | (1);

Question:
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?

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

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Question ID	DWMR1061000	Question Type	Legislative

Legislative Requirement(s):
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);

Question:
Are logbooks properly maintained and contain the required information?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Logbooks were properly maintained and contained the required information.

Question ID	DWMR1062000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 7-5;

Question:
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?

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

Question ID	DWMR1063000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 6-10 | (1);

Question:
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?

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

Question ID	DWMR1064000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 26 | (2);

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Question:
Did the operator-in-charge ensure that records were maintained of all adjustments made to the processes within his or her responsibility?

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

Question ID	DWMR1065000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 27 | (6);

Question:
Are logs and other record keeping mechanisms available for at least five (5) years?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Logs or other record keeping mechanisms were available for at least five (5) years.

Question ID	DWMR1066000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Is spill containment provided for process chemicals and standby power generator fuel?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Spill containment was provided for process chemicals and/or standby power generator fuel.

Question ID	DWMR1067000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Are clean-up equipment and materials in place for the clean up of spills?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Clean-up equipment and materials were in place for the clean up of spills.

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Question ID	DWMR1068000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
If available, are standby power generators tested under normal load conditions?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Standby power generators were tested under normal load conditions.

Question ID	DWMR1069000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Are all storage facilities completely covered and secure?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All storage facilities were completely covered and secure.

Question ID	DWMR1070000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Are air vents and overflows associated with reservoirs and elevated storage structures equipped with screens?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.

Question ID	DWMR1071000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Has the owner provided security measures to protect components of the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner had provided security measures to protect components of the drinking water

system.

Question ID	DWMR1072000	Question Type	BMP

Legislative Requirement(s):
Not Applicable

Question:
Has the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in their system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.

It was confirmed during the inspection that the Port Hope drinking water system is metered.

Question ID	DWMR1073000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 23 | (1);

Question:
Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
The overall responsible operator had been designated for each subsystem.

Question ID	DWMR1078000	Question Type	Legislative

Legislative Requirement(s):
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);

Question:
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?

Compliance Response(s)/Corrective Action(s)/Observation(s):
An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.

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Question ID	DWMR1074000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 25 | (1);

Question:
Have operators-in-charge been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Operators-in-charge had been designated for all subsystems which comprise the drinking water system.

Question ID	DWMR1075000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 128/04 | 22;

Question:
Do all operators possess the required certification?

Compliance Response(s)/Corrective Action(s)/Observation(s):
All operators possessed the required certification.

Question ID	DWMR1076000	Question Type	Legislative

Legislative Requirement(s):
SDWA | O. Reg. 170/03 | 1-2 | (2);

Question:
Do only certified operators make adjustments to the treatment equipment?

Compliance Response(s)/Corrective Action(s)/Observation(s):
Only certified operators made adjustments to the treatment equipment.

APPENDIX A

STAKEHOLDER APPENDIX

March 2019

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater

PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	 012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

PIBS 8990b01

Ontario

APPENDIX B

INSPECTION RATING RECORD

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

DWS Name:	PORT HOPE DRINKING WATER SYSTEM
DWS Number:	260058006
DWS Owner:	THE MUNICIPALITY OF PORT HOPE
Municipal Location:	PORT HOPE
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Detailed
Inspection Date:	Jan-29-2024
Ministry Office:	Peterborough District Office

Maximum Risk Rating: 649

Inspection Module	Non Compliance Risk (X out of Y)
Capacity Assessment	0/42
Certification and Training	0/49
Effluent Quality and Quantity	0/20
Logbooks	0/30
Operations Manuals	0/42
Reporting & Corrective Actions	0/88
Source	0/12
Treatment Processes	0/230
Water Quality Monitoring	0/136
Overall - Calculated	**0/649**

Inspection Risk Rating:	**0.00%**

Final Inspection Rating:	**100.00%**

Inspection Rating Record Generated On 2024-03-04 (Inspection ID: 1-204083836)

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

DWS Name:	PORT HOPE DRINKING WATER SYSTEM
DWS Number:	260058006
DWS Owner Name:	THE MUNICIPALITY OF PORT HOPE
Municipal Location:	PORT HOPE
Regulation:	O.REG. 170/03
DWS Category:	DW Municipal Residential
Type of Inspection:	Detailed
Inspection Date:	Jan-29-2024
Ministry Office:	Peterborough District Office

All legislative requirements were met. No detailed rating scores.

Maximum Question Rating: 649

Inspection Risk Rating:	**0.00%**
FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 2024-03-04 (Inspection ID: 1-204083836)