South Huron Water Distribution System

2025 Annual Report to Council

January 26, 2026

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I. DESCRIPTION OF SOUTH HURON WATER DISTRIBUTION SYSTEM

System Overview

The South Huron water distribution system provides service to approximately 8,000 residents in Exeter, Stephen and a few customers in Usborne Ward, in the vicinity of the former Exeter well sites. The system consists of 209 km of distribution piping, booster pumping stations, reservoirs and water towers. The system is continuously monitored by online analyzers and a computerized Supervisory, Control and Data Acquisition System (SCADA). Source of supply is the Lake Huron Primary Water Supply System (LHPWSS). South Huron residents along our south boundary are serviced from the adjacent North Middlesex water system, who also obtain treated water from the LHPWSS. South Huron supplies customers in the Municipality of Bluewater along our north boundary and in the village of Dashwood.

Water Source

The Municipality of South Huron obtains its drinking water supply from the Lake Huron Primary Water Supply System. The LHPWSS Joint Board of Management owns and governs the area water system using the City of London as the Administering Municipality. City of London, Regional Water Supply Division provides all administrative services on behalf of the Joint Board. The LHPWSS is operated by the Ontario Clean Water Agency (OCWA), under contract to the LHPWSS Joint Board of Management.

The LHPWSS water treatment plant is located in South Huron near the intersection of Highway #21 and County Road #83. The WTP has a treatment capacity of 340 million litres per day and supplies water to the City of London and several municipalities in our region. The South Huron connections to LHPWSS system are at the following locations:

- B-Line Connection - Gore Road and B-Line
- Shipka connection - Crediton Road, east of Shipka
- Dashwood connection - Huron Street and Bronson Line
- Exeter south connection - Huron Street and Airport Line
- Exeter north connection - Airport Line and Thames Road

Detailed System Description

Distribution System

The South Huron water distribution system is comprised of approximately 209km of watermains ranging in size from 50mm to 400mm diameter. 50mm mains are typically polyethylene (PE); 100mm to 300mm mains are typically polyvinylchloride (PVC) and larger mains are typically cast iron, ductile iron, steel, and concrete pressure pipe.

The oldest water system in the municipality is in Exeter, where pipes were installed in 1900 along Main Street as part of a street watering system. Between

1910 and 1915 the system expanded to provide water for the Grand Trunk Railway Yard, for plumbing purposes and fire protection. The Exeter Public Utilities Commission was established in 1917; however, potable drinking water wasn't provided until 1936 with the development of the Springs well site and Main Pump House on MacNaughton Drive. Some of the early cast iron watermains are still in service; however, many of the older mains have been replaced and the majority now date from the mid 1960's.

The Huron Park distribution system was constructed in the early 1940's by the RCAF, as part of the Airforce Station Centralia, with the residential area of Huron Park being added in the 1950's. The Base closed in 1967, and the system transferred to the former Stephen Township in 1983. The entire water distribution system in the Huron Park residential area was replaced in 2006. In 2010 the watermains on Canada Avenue in the Industrial area were replaced and upgraded. After the construction of a new water tower in Huron Park in 2010, the old steel water tower, pumping station and in-ground concrete reservoir were decommissioned and demolished.

The Stephen distribution system dates to the mid to late 1960's. After the completion of the Lake Huron Water Treatment Plant in 1965, watermain systems started to be built in the lakeshore area of the former Stephen Township. Significant expansion of the Stephen system occurred in 1983 with systems being constructed in Crediton, Centralia and Dashwood. In 2010 a new 300mm watermain was constructed from Huron Park to Centralia (Airport Line & Canada Ave to Victoria Drive & Melbourne Street). This watermain, in combination with the new Huron Park water tower, provided improved fire protection to the village of Centralia.

Pressure Zones

- **Stephen Pressure Zone 1 (HGL 250m) -** A connection to the LHPWSS transmission main through a pressure reducing valve (PRV) and metering chamber located west of the intersection of B-Line and Gore Road, provides water supply to the Stephen Pressure Zone 1. It is through this connection that LHPWSS also provides water to the Highway #21 corridor in the Municipality of Bluewater.

  LHPWSS is responsible for maintaining the water supply to Bluewater, water quality and billings through a deduct meter at Waterworks Road and Highway #21. This connection also provides an emergency backup water supply to the Municipality of Lambton Shores through a normally closed valve in an inter-connect chamber on Highway #21, at the boundary between Lambton Shores and South Huron.

  Stephen Pressure Zone 1 is separated from Stephen Pressure Zone 2 by a pressure zone control chamber located on County Road #83, immediately west of Shipka Line. This chamber is equipped with a normally closed gate valve with a 19mm bleeder valve to maintain a minimum circulation of water at this location.

If the normal feed to Stephen Pressure Zone 1, from the LHPWSS transmission main connection on B-Line is disrupted, an emergency backup feed can be provided from the Lambton Shores distribution system. In an emergency the normally closed gate valve in the inter-connect chamber, located on Highway #21 at the Lambton Shores/South Huron boundary, can be opened to feed Stephen Pressure Zone 1 through the 350mm watermain on Highway #21.

- **Stephen Pressure Zone 1A** – This is pressure zone within the Stephen Pressure Zone 1 for the Highway #21 corridor and lakeshore area only. A connection to the 400mm watermain on Highway #21 through a pressure reducing valve (PRV) and metering chamber located at the intersection of Highway #21 and Waterworks Road, provides water supply to the Stephen Pressure Zone 1A.

  The chamber is equipped with a pressure reducing valve to limit the operating pressure to safe level and to protect the lakeshore area distribution system from excessive pressure in the Gore Road 400mm watermain from the LHPWSS operations.

  If the normal feed to Stephen Pressure Zone 1A is disrupted, an emergency backup feed can be provided from the Lambton Shores distribution system. In an emergency the normally closed gate valve in the inter-connect chamber, located on Highway #21 at the Lambton Shores/South Huron boundary, can be opened to feed Stephen Pressure Zone 1A through the 350mm watermain on Highway #21.

- **Stephen Pressure Zone 2 (HGL 263m) (County Rd #10, west of village of Shipka) -** A connection to the LHPWSS transmission main through a pressure reducing valve (PRV) and metering chamber; then through a separate valve chamber, provides water supply to the Stephen pressure Zone 2 including the community of Shipka.

  Stephen Pressure Zone 2 is separated from Stephen Pressure Zones 1, 3 and 4 by three pressure zone control chambers. The first chamber is located County Road #83, immediately west of Shipka Line; the second at Blackbush Line, north of Crediton Road; and the third on County Road #83 west of the village of Dashwood. The chambers located at County Road #83/Shipka Line and Blackbush Line/Crediton Road are equipped with a normally closed gate valve with a 19mm bleeder valve to maintain a minimum circulation of water at these locations.

  The chamber located on County Road #83 west of the village of Dashwood is equipped with pressure sustaining valve that will sense a pressure drop in Stephen Pressure Zone 2 and automatically open to provide an emergency backup feed from Zone 4 to Stephen Pressure Zone 2.

- **Stephen Pressure Zone 3 (HGL 281m) (County Rd #10, east of village of Shipka) -** A connection to the LHPWSS transmission main through a pressure reducing valve (PRV) and metering chamber provides water supply to the Stephen Pressure Zone 2 between the village of Shipka and Crediton. Some rural areas north and south of this route also receive water directly from the County Road 10 feedermain. A portion of the feedermain along County Road #10 from Shipka to Goshen Line is twinned for additional capacity.

  Stephen Pressure Zone 3 is separated from Stephen Pressure Zones 2, 3 and 4 by four pressure zone control chambers. The first chamber is located on Blackbush Line, north of Crediton Road; the second at Bronson Line & Huron Street; the third at Goshen Line & Huron Street; and the fourth at Babylon Line & Huron Street.

  The chambers located at Blackbush Line/Crediton Road; Goshen Line/Huron Street; and Babylon Line/Huron Street are equipped with a normally closed gate valve with a 19mm bleeder valve to maintain a minimum circulation of water at these locations.

  The chamber located on Bronson Line south of Huron Street is equipped with pressure sustaining valve that will sense a pressure drop in Stephen Pressure Zone 3 and automatically open to provide an emergency backup feed from Stephen Pressure Zone 4.

- **Stephen Pressure Zone 4 (HGL 293m) (Dashwood Connection)** - The connection to the LHPWSS Exeter-Hensall transmission main through a pressure reducing valve (PRV) and metering chamber at Bronson Line and Huron Street services the village of Dashwood and the surrounding pressure zone. A series of pressure control zone chambers are installed at the limits of the pressure zone.

  Stephen Pressure Zone 4 is separated from Stephen Pressure Zones 2 and 3 by four pressure zone control chambers. The first chamber is located on County Road #83, east of the village of Dashwood; the second at Bronson Line & Huron Street; the third at Goshen Line & Huron Street; and the fourth at Babylon Line & Huron Street.

  The chambers located at Goshen Line/Huron Street and Babylon Line/Huron Street are equipped with a normally closed gate valve with a 19mm bleeder valve to maintain a minimum circulation of water at these locations.

  The chamber located on Bronson Line south of Huron Street is equipped with pressure sustaining valve that will sense a pressure drop in Stephen Pressure Zone 4 and automatically open to provide an emergency backup feed from Stephen Pressure Zone 3.

  The chamber located on County Road #83 west of the village of Dashwood is also equipped with pressure sustaining valve that will sense a pressure drop in

Stephen Pressure Zone 4 and automatically open to provide an emergency backup feed from Stephen Pressure Zone 2.

- **Stephen Pressure Zone 5 (HGL 307m) (County Rd #10, east of village of Crediton) -** A connection to the LHPWSS transmission main through a pressure reducing valve (PRV) and metering chamber at Shipka that provides water supply to the Stephen Pressure Zone 3, also supplies water to the Stephen Pressure Zone 5 and to Crediton, Huron Park and Centralia. Water is conveyed to Stephen Pressure Zone 5 via a watermain located along County Rd #10 from Shipka to Crediton; where an inline Booster Pumping Station, re-pumps the water on to the Stephen Pressure Zone 5 and to Crediton, Huron Park and Centralia.

  Stephen Pressure Zone 5 is separated from Stephen Pressure Zone 3 by check valves located in the Crediton BPS. Stephen Pressure Zone 5 is separated from the Exeter South Pressure Zone by a control chamber located at Airport line and Huron Street. This chamber has a normally closed electrically operated valve that can be monitored and operated through the SCADA system. In an emergency the electrically operated valve in this chamber can be opened remotely to provide an emergency backup feed from Exeter South Pressure Zone to Stephen Pressure Zone 5.

  The Exeter Water Tower HGL can be set at the same elevation as the Huron Park Water Tower and can operate as a backup for the Huron Park Water Tower and Stephen Pressure Zone 5 and to varying degrees can provide an emergency backup feed to Stephen Pressure Zones 3, 4, 2 and 1.

- **Exeter North Pressure Zone (HGL 313m) -** Exeter is serviced by two connections; the north connection to the LHPWSS Exeter-Hensall transmission main is through a pressure reducing valve (PRV) and metering chamber at Thames Road West and Airport Line. This connection provides water to the Exeter north pressure zone, north of the Ausable River and is separated from the Exeter South pressure zone by a control zone chamber located at William and Church Street. The chamber has a control valve, check valve and by-pass piping to control the pressure zones and allow feed from the north pressure zone to the south pressure zone to facilitate and an emergency feed in either direction.

The normal operation of the Exeter north pressure zone is a direct feed and with constant pressure provided by the LHPWSS pipeline on Airport Line. System pressure is constantly monitored and controlled through an integrated SCADA system and a by pressure control at the PRV at the north connection point.

The backup for the north pressure zone is provided by the reconfigured MacNaughton Drive Booster Pumping Station, controlled by a VFD and PRV control of the high lift and fire pump discharges. Additional back up for the north pressure zone is provided by the Exeter south pressure zone and the elevated water tower located within that zone.

- **Exeter South Pressure Zone (HGL 307m) -** Exeter is serviced by two connections; the south connection to the LHPWSS is through a connection at the LHPWSS Exeter-Hensall Booster Pumping Station located at Huron Street and Airport Line. This connection provides water to the Exeter south pressure zone, south of the Ausable River and is separated from the Exeter North pressure zone by a control zone chamber located at William and Church Street. This chamber has a control valve, check valve and by-pass piping to control the pressure zones and allow feed from the north pressure zone to the south pressure zone to facilitate and an emergency feed in either direction.

  The normal day time operation of the Exeter south pressure zone is to fill and drain the elevated water tower as required during the day from the Exeter south LHPWSS connection at Huron Street and Airport Line. Water tower levels are constantly monitored and controlled by the South Huron SCADA system and requests for water are automatically sent to the LHPWSS SCADA system. During the night the in-ground reservoirs at MacNaughton Drive are slowly filled from the Exeter distribution system. Water enters the in-ground concrete storage reservoirs through an inlet control pipe in the MacNaughton Drive Booster Pumping Station. During the early morning hours, water is pumped from the reservoir cells, by pumps located in the MacNaughton Drive BPS, to fill the elevated water tower, as required. This process continues until the reservoirs reach their low-level setting and the system automatically switches over to normal daytime operation (i.e. tower filled by the Exeter south LHPWSS connection).

  The backup for the south pressure zone is provided by the reconfigured MacNaughton Drive Booster Pumping Station, controlled by a VFD and PRV control of the high lift and fire pump discharges. Additional redundancy for the south pressure zone is provided by the Exeter north pressure zone.

Booster Pumping Stations

- **Crediton Booster Pumping Station** – An in-line booster pumping station (BPS) located at the west end of Crediton supplies water to the Stephen Pressure Zone 5, including Crediton, Huron Park and Centralia by pumping water along County Rd #10 and Airport Line to the new Huron Park Water Tower. The Crediton BPS has three pumps with VFD's; control valves; and is also equipped with a diesel-

powered backup emergency generator. The normal mode of operation of the BPS is that it is controlled by the Huron Park Water Tower levels. When the Huron Park Water Tower is taken out of service, the Crediton BPS is configured so that it can by-pass the Huron Park Water Tower and directly supply the water distribution system in the entire Stephen Pressure Zone 5 by using the VFD's.

The Crediton BPS and the pipeline on Airport Line is configured so that it can be used as an emergency backup supply to Exeter, by opening a normally closed valve in a chamber at Airport Line and Huron Street. The Crediton BPS is also equipped with a control valve that can be opened in an emergency to back feed the Stephen Pressure Zone 3.

- **MacNaughton Drive Booster Pumping Station** - A booster pumping station (BPS) is located at 62B MacNaughton Drive, Exeter that supplies water to the Exeter North and the Exeter South Pressure Zones, including the Exeter Water Tower, when either pressure zone is not being supplied by the LHPWSS Exeter-Hensall pipeline connection.

  The MacNaughton Drive BPS has three vertical turbine pumps with VFD's, including one that is a fire pump; control valves; and is also equipped with a diesel-powered backup emergency generator located in the adjacent Generator Building at 62A MacNaughton Drive. One pump and the fire pump are dedicated to the Exeter North Pressure Zone; one pump is dedicated to the Exeter South Pressure Zone.

  In 2021 a liquid chlorine (sodium hypochlorite) re-chlorination system was installed in the Booster Pumping Station that can inject liquid chlorine into the water line from the Reservoir in MacNaughton Park to supplement any diminishing chlorine residual from the LHPWSS source water. Chlorine residual is continuously monitored at this location by an on-line analyzer at this location.

  The BPS is controlled by the SCADA system and its' normal mode of operation is to fill and drain the MacNaughton Drive in-ground reservoirs; and to provide a backup for the Exeter North and Exeter South Pressure Zones. For a description of normal mode of operation related to the MacNaughton Drive BPS please see the section above for "Exeter North Pressure Zone" and "Exeter South Pressure Zones".

Storage Facilities

- **Huron Park Elevated Water Tower** - Elevated water tower consists of a 2,700 m^3 elevated tank located at 69751 Airport Line. The elevated tank provides "floating storage" and pressure regulation for the water distribution system in Stephen Pressure Zone 5, including Crediton, Huron Park and Centralia. Water level in this tank is used to control the pumps at the Crediton Booster Pumping

Station. The Water tower is also equipped with a stand-alone natural gas-powered backup emergency generator, located adjacent to the tower.

The water tower is equipped with a passive mixing system to assist in maintaining water quality and a minimum chlorine residual in the elevated tank. Chlorine residual is continuously monitored at this location by an on-line analyzer in the mechanical room in the base of the water tower and liquid chlorine (sodium hypochlorite) can be injected into the water at this location to supplement any diminishing chlorine residual from the LHPWSS source water.

The Huron Park Water Tower HGL can be set at the same elevation as the Exeter Water Tower and the distribution system is configured so that it can operate as a backup for the Exeter Water Tower and associated pressure zones.

- **Exeter Water Tower** - Elevated water tower consists of a 1,515 m^3 elevated tank located at 66 Nelson Street. The elevated tank provides storage and pressure regulation for the Exeter South Pressure Zone and can be used in an emergency, as a backup for the Exeter North Pressure Zone at reduced pressure. The water level in this tank is used to control the source of supply for the Exeter South connection to the LHPWSS at the Exeter-Hensall Booster Pumping Station.

  The water tower was retrofitted with a passive mixing system in 2018 to assist in maintaining water quality, minimum chlorine residual and to prevent freezing in the elevated tank.

  The Exeter Water Tower HGL can be set at the same as the Huron Park Water Tower and the distribution system is configured so that it can operate as a backup for the Huron Park Water Tower and associated pressure zones.

- **MacNaughton Drive Reservoirs** – Additional storage capacity for Exeter North and Exeter South Pressure Zones is provided by three in-ground concrete reservoir cells. The original 1,140 m^3 single cell in-ground reservoir (with a pump well) is located adjacent to the MacNaughton Drive Booster Pumping Station (BPS) and the 2,490 m^3 single cell in-ground reservoir is located in MacNaughton Park, south of the MacNaughton BPS. Both reservoirs normally operate in series as a single reservoir.

  The reservoir was retrofitted in 2021 with upgraded intake/discharge valves to assist in maintaining water quality and minimum chlorine residual.

  Additional storage for the Exeter North and Exeter South Pressure Zones is provided by the LHPWSS 8,000 m^3 two cell in-ground concrete reservoir, located adjacent to the LHPWSS BPS at Huron Street and Airport Line. The LHPWSS BPS and reservoir is equipped with a stand-alone diesel-powered backup emergency generator.

Control System

The South Huron Water Distribution System is monitored and controlled by a PLC based Supervisory, Control and Data Acquisition (SCADA) system. Remote processing units (RPUs) are located at remote facilities and communicate through a third-party internet provider. The SCADA system is continuously monitored, backed up, and has failsafe measures built into the system.

II. MECP INSPECTION, ORDERS AND COMPLIANCE ISSUES

Ministry of Environment, Conservation and Parks Annual Inspection

The Ministry completed an inspection of the South Huron Water Distribution System in 2025. The inspection covered the period from January 1, 2024, to December 31, 2024.

The inspection began with a scheduled onsite inspection on January 16, 2025. This involved interviews with Alyssa Keller, Manager of Environmental Services, and Jason McBride, Environmental Services Foreman and Water System ORO, by MECP Provincial Officer, David Dominelli.

The onsite inspection was followed up with the provision of documentation, such as the MDWL, DWWP, MECP-Form 1's, MECP-Form 2's issued during the inspection period, O&M Manual, logbooks, certification records, Licensed Operators records, SCADA reports, microbiological/chemical lab results and AWQI reports and new watermain commissioning reports.

The focus of this inspection was to confirm compliance with Provincial Legislation, as well as evaluating conformance with Ministry drinking water-related policies and guidelines during the inspection period. The Ministry has a comprehensive approach to inspection of drinking water systems that focuses on source, treatment and distribution components of the system as well as best management practices. The South Huron Inspection Report is based on a stand-alone distribution system that receives treated water from another regulated system, the Lake Huron Primary Water Supply System (LHPWSS). The report contains all the elements required to assess compliance issues and to ensure that the system is properly operated and managed.

The Municipality received the final Inspection Report on February 20, 2025. The South Huron Water Distribution System was found to be in regulatory compliance. The report did not identify any action items stemming from compliance concerns.

A copy of the inspection report is posted for public viewing on the Municipal Web site.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection, Investigation & Enforcement Secretariat. The Inspection Rating Record is included as an appendix to the inspection report. This provides the Ministry, the system owner and the local Public Health Unit with a quantitative measure of the drinking water system's

annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous inspection year) in the Ministry's Chief Drinking Water Inspectors' Annual Report.

The South Huron Water Distribution System Inspection Risk Rating was 0.00% and the Final Inspection Rating was 100.00%

The South Huron Drinking Water System continues to achieve excellent inspection results, with low Risk Ratings and high Inspection Ratings. This is the 16th consecutive year that South Huron has achieved the highest percentile inspection rating (top 5%), and the 14th time that South Huron has achieved a 100% inspection rating.

Non-compliance issues, Adverse Reports and Orders

There were no non-compliance issues, or MECP Orders for the South Huron Water Distribution System in 2025; however, there were three Adverse Reports.

1. Lead exceedance from a private residence on Huron Street West during routine lead sampling on April 3, 2025. A form 2002E was filed with the Spills Action Centre (SAC), Huron Perth Public Health (HPPH) and Ministry of the Environment, Conservation and Parks (MECP). A resample of the private property was completed and a private lead water service was discovered. The adverse report was closed out on April 9, 2025.

2. Category 2 watermain break on a temporary water system on June 20, 2025 with an assigned AWQI# 168634. The temporary watermain system on the Victoria Street East Reconstruction project was struck by a dozer resulting in a large section of watermain broke and depressurized. An isolated precautionary boil water advisory was issued by HPPH on June 20, 2025 for properties east of Andrew Street and the old field stone pillars, that were connected to the temporary watermain. Following two consecutive sets of passing bacteriological samples, the boil water advisory was lifted on June 23, 2025. Proper notification and paperwork was provided to the MECP, HPPH, SAC and residents affected.

3. A routine bacteriological test taken from a residential property on MacDonald Road on July 22, 2025 yielded a result of 13 Total Coliform. Notification of the failed bacteriological test was received on July 24, 2025 with an assigned AWQI# 169158 and resampling was completed the same day. Passing resample results were received on July 28, 2025 and the proper notification and paperwork was provided to the MECP, HPPH and SAC.

III SUMMARY OF QUANTITIES AND FLOW RATES

Flow data is an indicator of the performance of the system and demonstrates seasonal variations in water consumption. An analysis of the Exeter flow data indicates that the Exeter-Hensall pipeline feeds are operating at approximately half of the design capacity, with significant capacity for growth and development.

In Stephen Ward the Crediton Booster Pumping Station rarely exceeds 50% of its design capacity. The fill rates for the Huron Park Water Tower are very moderate, and the water tower comfortably services the surrounding area, including Huron Park and Centralia. The 2025 flow data is an example of how interchangeable the water system is in South Huron with the ability to adapt and reroute flows as required.

STEPHEN 2025 MAX DAY- DATE AND AVERAGE DAY FLOWS (m^3)									
	CREDITON BOOSTER PUMPING STATION			HURON PARK WATER TOWER			HURON PARK /CENTRALIA		
MONTH	MAX	DATE	AVG	MAX	DATE	AVG	MAX	DATE	AVG
JAN	2114	8th	1259	1541	30th	793	209	13th	174
FEB	2692	9th	1082	1682	5th	1050	867	9th	201
MAR	2167	12th	1278	1706	8th	1086	230	6th	183
APR	2850	28th	1216	1699	13th	1088	209	19th	171
MAY	1839	15th	1154	1545	2nd	851	189	28th	166
JUN	0	1st	0	1260	9th	309	688	16th	548
JUL	4	17th	0	247	17th	67	690	31st	616
AUG	577	28th	19	0	-	0	689	6th	655
SEP	1894	23rd	469	0	-	0	706	25th	638
OCT	2346	5th	1512	0	-	0	901	24th	605
NOV	1863	5th	846	2448	10th	1779	210	4th	183
DEC	1232	7th	988	2412	5th	2169	284	6th	182

Notes: Huron Park Tower sustained a lightning strike on July 24th damaging the flow meter.
Backfeeding from Exeter/Huron Park from May to August for Dashwood reconstruction.

EXETER 2025 MAX DAY- DATE AVERAGE DAY FLOWS (m^3)									
	LHPWSS- EXETER NORTH			LHPWSS- EXETER SOUTH			HURON ST MONITORING CHAMBER		
MONTH	MAX	DATE	AVG	MAX	DATE	AVG	MAX	DATE	AVG
JAN	843	31st	515	660	26th	180	1205	9th	760
FEB	1261	5th	584	1139	5th	390	2035	5th	785
MAR	1075	18th	733	756	12th	365	1036	8th	731
APR	1335	17th	796	950	24th	458	1203	29th	843
MAY	1117	16th	798	2585	30th	682	1517	30th	925
JUN	1443	15th	1053	3432	23rd	2367	1639	18th	1201
JUL	1335	28th	1114	3604	30th	2421	1768	28th	1165
AUG	1164	5th	867	3797	1st	2666	1954	5th	1183
SEP	1046	15th	776	3065	12th	1748	1629	10th	1027
OCT	818	2nd	565	1859	16th	629	1553	15th	920
NOV	786	21st	448	1641	25th	576	1221	24th	832
DEC	691	1st	492	697	21st	368	885	15th	765

Notes: Backfeeding from Huron Park/Exeter from May to August for Dashwood reconstruction.

IV. SUMMARY OF BACTERIOLOGICAL SAMPLING

The number of bacteriological samples taken in the South Huron water system are in accordance with *Schedule 10* of *O. Reg. 170/03 - Ontario Drinking Water Quality Standards* made under the *Safe Drinking Water Act*. Bacteriological samples are also

required weekly, at each POE UV location listed in Schedule C – “System Specific Conditions” in the South Huron Drinking Water Licence Number: 054-101. Throughout the year additional bacteriological samples may be taken in response to customer water concerns, after watermain break repairs or other incidents of potential contamination.

377 regulated bacteriological samples were taken in 2025, including 162 that were tested for HPC (Heterotrophic Plate Counts).
Of all the samples that were taken only one sample for total coliform at a POE UV location exceeded the regulatory limit. The water service at this location was flushed, resampled and the sample passed. Regulatory Authorities were notified, as required by O. Reg. 170/03, and no concerns were raised.

2025 BACTERIOLOGICAL TESTING					
Month	Number of Samples		Sample Results		HPC Range of Results
	Distribution	HPC	E.Coli	Total Coliform	
JAN	37	16	0	0	<10 - 10
FEB	28	13	0	0	<10
MAR	28	12	0	0	<10 - 20
APR	35	15	0	0	<10
MAY	29	13	0	0	<10
JUN	28	12	0	0	<10
JUL	38	15	0	13 MAC	<10 - 20
AUG	28	12	0	0	<10 - 20
SEP	28	12	0	0	<10
OCT	35	15	0	0	<10 - 50
NOV	28	12	0	0	<10 - 10
DEC	35	15	0	0	<10 - 10
TOTAL	**377**	**162**	**0**	**13 MAC**	**<10 - 50**

Notes:

1. Heterotrophic Plate Counts (HPC) results are used to measure the overall bacteriological quality of drinking water but are not an indicator of pathogens in drinking water.

2. Escherichia coli (E.Coli) is a type of fecal coliform that can cause intestinal illness. One strain is E.coli O157: H7 and is found in the digestive tract of cattle.

3. Total Coliform bacteria are a colony of relatively harmless microorganisms that live in the intestines of humans and animals. Fecal coliform by themselves are usually not pathogenic. However, they are indicator organisms that may indicate the presence of other pathogenic bacteria.

4. The presence of fecal contamination is an indicator that a potential health risk exists in water. Examples of waterborne pathogenic diseases include typhoid fever, viral and bacterial gastroenteritis and hepatitis A.

V. SUMMARY LEAD SAMPLING

Lead sampling requirements for the South Huron water distribution system is set out in the *Safe Drinking Water Act* under *Schedule 15.1* of O. Reg. 170/03 - Ontario Drinking Water Quality Standards.

Based on historical lead sampling results, the South Huron water system is exempt from Community Lead Testing and annual samples are no longer required to be taken from plumbing and tested for lead. Exempt status still requires lead samples to be taken every three (3) years in every “winter” and “summer” period. Results must remain below the regulatory limit in order to maintain the exempt status. A full regiment of lead samples was completed in 2025 with the next sample period to be completed in 2028. The following are the sample results for 2025:

2025 LEAD SAMPLING

FREQUENCY	RESIDENTIAL	EXCEEDANCES	NON-RESIDENTIAL	EXCEEDANCES	DISTRIBUTION	EXCEEDANCES
WINTER	20	1	2	0	3	0
SUMMER	20	0	2	0	3	0

pH AND ALKALINITY TESTING IN DISTRIBUTION

SEASON	DATE	DISTRIBUTION	pH	ALKALINITY
WINTER	3-Apr-25	1	8.01	84
		1	8.16	89
	7-Apr-25	1	8.26	87
SUMMER	1-Oct-25	1	8.32	92
		1	8.21	90
	7-Oct-25	1	8.43	86

Overall, the lead risk is relatively low in the South Huron drinking water system. The former Exeter PUC had removed the remaining lead water services within the road allowance in the early 1990’s and the majority of the Stephen water system was originally constructed with PVC and PE pipe. Additional protection was provided in 2008 when a corrosion control system was installed at the LHPWSS water treatment plant to adjust the pH of treated water to mitigate elevated levels of lead in the City of London drinking water system. To further assist our customers, a subsidy program is available on street reconstruction projects, to remove lead services on private property.

VI. SUMMARY of WATERMAIN MAIN BREAKS and SERVICE LEAKS

Watermain breaks and service leaks are an indicator of the overall condition and performance of the water distribution system. Historical main breaks and service leak data are also used to develop priority rankings for future watermain replacements in the Asset Management Plan.

There was an average number of watermain breaks in 2025. The Exeter distribution system continues to have relatively few watermain breaks and service leaks. This is a result of the high standards for materials/workmanship and life cycle replacement program of the former Exeter PUC.

The Stephen distribution system continues to experience watermain breaks and service leaks due to higher system pressures, lower grade material and substandard construction practices used in the original installation. However, we are seeing a declining trend which is attributable to the active rural watermain replacement program in Stephen Ward.

2025 WATERMAIN MAIN BREAKS and SERVICE LEAKS - SOUTH HURON		
DATE	**Type of Failure**	**LOCATION**
EXETER		
January 22	150mm Cast - Circumferential	William/Mill Street
February 2	150mm Cast - Circumferential	William/Thomas Street
May 5	100mm Cast - Longitudinal	397 Marlborough Street
May 6	100mm Cast - Valve Failure	Sanders/Marlborough Street
STEPHEN		
January 17	20mm Poly - Split	1 Indian Road
February 9	150mm Cast - Circumferential	Quebec Ave - Huron Park
May 2	20mm Poly - Split	69879 Grand Bend Line
September 16	100mm PVC - Longitudinal	69413 Grand Bend Line
October 27	25mm Poly - Split	34588 Gore Road
October 28	20mm Poly - Split	35825 Gore Road
November 27	20mm Poly - Blowout	24 Forest Ave
December 1	15mm Copper - Circumferential/Longitudinal	287 Huron Street W
December 17	200mm PVC - Longitudinal	Gore Road and Highway 21

VII. SUMMARY of FROZEN WATER SERVICES

For twenty years prior to 2014 there were very few recorded frozen water services in Exeter, and no records of frozen services could be found for Stephen Township. During the winter of 2014 (January to March) there were eight frozen services, four of which could not be thawed and were back-fed from an adjacent property for the duration of the winter. During the winter of 2015 (January to March) there were eleven frozen services, three of which could not be thawed and were back-fed for the duration of the winter.

As a result of this increasing trend, a plan was implemented to lower services that froze to mitigate future issues. Between 2015 and 2017 water services that previously froze within the road allowance were lowered or replaced. During the winter of 2025 (January to March) there were no frozen water services.

VIII. OPERATIONAL CONSTRAINTS

The South Huron Distribution System offers a vast deal of redundancy and forms of back up systems that allow system reconfigurations, maintenance work and emergency shutdowns to take place without customers noticing a supply change. In 2025, the following operational constraints were identified:

a) Huron Park Tower loss of level control, flow metering and remote operation. On July 24, 2025, the Huron Park Tower sustained a lightning strike, rendering some of the electrical monitoring and control equipment failed. The Huron Park Tower required level control to integrate into the distribution system by filling when Crediton Booster Pumps turn on and off ensuring the tower not over filling or underfilling. With the Exeter Tower and Huron Park Tower being built on the gradeline, the Huron Park Tower was able to remain operational to the system, even without any level control, by combining the pressure systems, thus allowing the Exeter Tower to act as the level control on the Huron Park Tower.

b) Dashwood Main Street Reconstruction created lower pressures east of Dashwood during the replacement of the 200mm watermain, as the existing watermain east of village was temporarily cut/capped and backfed from Goshen Line. The South Huron Distribution system was reconfigured to create higher pressures in the Dashwood area by using the Huron Park Tower and the natural elevation of the system. The rural Stephen system east of Dashwood was supplied by the Exeter-Hensall Pipeline and Reservoirs for the duration of the Dashwood Reconstruction Project.

c) Supply system maintenance from the Lake Huron Primary Water Supply System continued to increase in 2025, leading to twenty five (25) supply shutdowns for South Huron. An increase of 67% over the previous year. Each shutdown to supply affects fire protection, storage quantity and pressures. The system is resilient with storage at MacNaughton Reservoirs, Exeter Tower, Huron Park Tower and Airport Line Reservoir (LHPWSS) but the system did reach low level during a few shutdowns in 2025. The system continues to struggle to provide the Lakefront and surrounding communities water during a shutdown from supply as there is no connection points to storage (ie. Huron Park Tower). South Huron is fortunate to obtain supply from a neighboring Municipality for this area during shutdowns, but this cannot always be relied upon. The planned future construction of an interconnecting watermain between the Shipka Pressure Zone and the Lakeshore Pressure Zone will address this issue and provide a reliable emergency backup feed to the lakeshore area. Significant upgrades were completed to the system to create better operator interface due to the increase of shutdowns including better pressure monitoring oversight, actuated valves to allow remote operations and system configurations. It is important to note that each shutdown takes approximately four (4) hours to configure the system into backup mode, including filling reservoirs and towers to overflow, multiple operators throughout the systems re-valving to allow the system to run from reserve and coordination with other municipalities. When supply is returned after

a shutdown, it is once again another three (3) hours for multiple operators to return the South Huron system to regular operation.

d) Supply system pressures emerged as a concern in August of 2025. Supply from the Shipka connection point began seeing lower than normal pressures, followed by pressure surges. These drops and surges were often too quick for protective equipment such as Pressure Reducing Valves (PRV) to react and would lead to over pressurization of the South Huron Distribution System. During an over pressurization event, emergency response is required from the South Huron Operators to cut off supply from the LHPWSS with a confined space entry into the Shipka Chamber. Discussions with the Regional Water Supply staff and contract operator staff (OCWA) have been unsuccessful for a resolution to the inconsistent pressures. South Huron Operations have mitigated some of the pressure surges with system reconfigurations but progress to mitigate all surges is continuing.

APPENDIX “A”

APPENDIX "A"

OWNER REQUIREMENTS UNDER THE SAFE DRINKING WATER ACT

Safe Drinking Water Act, 2002

S.O. 2002, CHAPTER 32

Consolidation Period: From April 1, 2024 to the e-Laws currency date of January 22, 2026. **Last amendment:** 2021, c. 4, Sched. 10, s. 7.

PART III
GENERAL REQUIREMENTS

Potable water

10 Despite any other Act, a requirement that water be "potable" in any Act, regulation, order or other document issued under the authority of any Act or in a municipal by-law shall be deemed to be a requirement to meet, at a minimum, the requirements of the prescribed drinking water quality standards. 2002, c. 32, s. 10.

Duties of owners and operating authorities

11 (1) Every owner of a municipal drinking water system or a regulated non-municipal drinking water system and, if an operating authority is responsible for the operation of the system, the operating authority for the system shall ensure the following:

1. That all water provided by the system to the point where the system is connected to a user's plumbing system meets the requirements of the prescribed drinking water quality standards.
2. That, at all times in which it is in service, the drinking water system,

i. is operated in accordance with the requirements under this Act,

ii. is maintained in a fit state of repair, and

iii. satisfies the requirements of the standards prescribed for the system or the class of systems to which the system belongs.

3. That the drinking water system is operated by persons having the training or expertise for their operating functions that is required by the regulations and the licence or approval issued or granted for the system under this Act.

4. That all sampling, testing and monitoring requirements under this Act that relate to the drinking water system are complied with.
5. That personnel at the drinking water system are under the supervision of persons having the prescribed qualifications.
6. That the persons who carry out functions in relation to the drinking water system comply with such reporting requirements as may be prescribed or that are required by the conditions in the licence or approval issued or granted for the system under this Act. 2002, c. 32, s. 11 (1).

Duty of owner to report to public

(2) If an owner of a municipal drinking water system or regulated non-municipal drinking water system is required by the regulations to report on any matter to the public, the owner shall report in accordance with the regulations. 2002, c. 32, s. 11 (2).

Out-of-province drinking water testing service

(3) No owner or operating authority of a municipal drinking water system or regulated non-municipal drinking water system shall obtain a drinking water testing service from a person who is not licensed under Part VII to offer or provide the service unless,

(a) the laboratory at which the testing is to be conducted is located outside Ontario and is an eligible laboratory in respect of the particular tests to be conducted;

(b) the person agrees in writing to comply with section 18 and any prescribed requirements; and

(c) the owner or operating authority provides to the Director appointed for the purposes of Part VII,

(i) written notice of the use of the testing service,

(ii) a copy of the accreditation referred to in clause (4) (a), if applicable, and

(iii) a copy of the agreement referred to in clause (b). 2002, c. 32, s. 11 (3).

Eligible laboratory

(4) For the purposes of this section, a laboratory located outside Ontario is an eligible laboratory in respect of a particular test if the laboratory is on a list maintained by the Director appointed for the purposes of Part VII and,

(a) the laboratory is accredited for the conduct of the test and, in the Director's opinion, the accreditation is equivalent to the accreditation standard of an accreditation body for drinking water testing under Part VII; or

(b) in the Director's opinion,

(i) it is desirable for the purposes of this Act that the test be available,

(ii) there is no laboratory, or there are insufficient laboratories, in the area for the conduct of the test under a licence issued under Part VII, and

(iii) the person who is to provide the drinking water testing service will be capable of conducting the test at the laboratory, or causing the test to be conducted there. 2002, c. 32, s. 11 (4).

List of out-of-province laboratories

(5) For the purposes of subsection (4), a laboratory may be added to the list maintained by the Director, and may be retained on the list, only if,

(a) any fee required under this Act has been paid in respect of the laboratory; and

(b) the laboratory complies with the prescribed requirements. 2002, c. 32, s. 11 (5).

Director's direction

(6) The Director may issue a direction to one or more owners or operating authorities prohibiting them from obtaining drinking water testing services from a laboratory located outside Ontario if the Director has reason to believe that the laboratory has ceased to be an eligible laboratory or has failed to comply with section 18 or a prescribed requirement. 2002, c. 32, s. 11 (6).

Same

(7) Every person who receives a direction under subsection (6) shall comply with the direction and advise the Director in writing of the alternative laboratory from which the person will obtain drinking water testing services. 2002, c. 32, s. 11 (7).

Revocation of direction

(8) The Director may revoke a direction issued under subsection (6) if he or she is of the opinion that the reasons for issuing the direction no longer exist. 2002, c. 32, s. 11 (8).

Operator's certificate

12 (1) No person shall operate a municipal drinking water system or a regulated non-municipal drinking water system unless the person holds a valid operator's certificate issued in accordance with the regulations. 2002, c. 32, s. 12 (1).

(2)-(4) REPEALED: 2017, c. 2, Sched. 11, s. 6 (2).

Section Amendments with date in force (d/m/y)

Duty to have accredited operating authority

13 (1) Every owner of a municipal drinking water system shall ensure that an accredited operating authority is in charge of the system at all times on and after the day specified in the regulations for the municipality, the system or the owner of the system. 2002, c. 32, s. 13 (1).

Same

(2) If the Minister makes a regulation requiring an accredited operating authority to be in charge of a non-municipal drinking water system, the owner of the system shall ensure that an accredited operating authority is in charge of the system at all times. 2002, c. 32, s. 13 (2).

Agreement with accredited operating authority

14 (1) If an accredited operating authority is in charge of a drinking water system and it is not the owner of the system, the accredited operating authority and the owner of the system shall enter into an agreement that contains the following:

1. A description of the system or the parts of the system for which the operating authority is responsible.
2. A description of the respective responsibilities of the owner and the operating authority to ensure that the operation, maintenance, management and alteration of the system comply with this Act, the regulations, any order under this Act and the conditions in,

i. the drinking water works permit and the municipal drinking water licence for the system, in the case of a municipal drinking water system, or

ii. the approval for the system, in the case of a non-municipal drinking water system.

3. A description of the respective responsibilities of the owner and the accredited operating authority in the event a deficiency is determined to exist or an emergency occurs.
4. A description of the respective responsibilities of the owner and the accredited operating authority to ensure that the operational plans for the system are reviewed and revised appropriately and that both parties are informed of all revisions.
5. Any other provisions required by the regulations. 2002, c. 32, s. 14 (1).

Delegation of duty

(2) If an owner of a drinking water system enters into an agreement with an accredited operating authority, the owner may, in the agreement, delegate a duty imposed on the owner under this Act to the accredited operating authority. 2002, c. 32, s. 14 (2).

Exception

(3) A delegation referred to in subsection (2) shall not relieve the owner of the drinking water system from the duty to comply with section 19 or the duty,

(a) to ensure that the accredited operating authority carries out its duties under this Act and the agreement in a competent and diligent manner while it is in charge of the system; and

(b) upon discovery that the accredited operating authority is failing to act in accordance with clause (a), to take all reasonable steps to ensure that the operation of the system complies with the requirements under this Act. 2002, c. 32, s. 14 (3).

Agreement to be made public

(4) The contents of every agreement referred to in subsection (1) between an owner of a drinking water system and an accredited operating authority shall be made public by the owner of the system in accordance with the requirements prescribed by the Minister. 2002, c. 32, s. 14 (4).

Directions, operational plans

15 (1) The Director shall, on or before the prescribed date, issue directions governing the preparation and content of operational plans for municipal drinking water systems and may issue such additional directions as the Director considers necessary for the purposes of this section. 2002, c. 32, s. 15 (1).

Same

(2) If the Minister makes a regulation requiring a non-municipal drinking water system or a class of non-municipal drinking water systems to have operational plans, the Director shall, on or before the date prescribed by the Minister, issue directions governing the preparation and content of operational plans for the system or systems. 2002, c. 32, s. 15 (2).

Same

(3) The Director may amend, revoke or replace a direction issued under this section. 2002, c. 32, s. 15 (3).

Content of direction

(4) The direction shall include,

(a) minimum content requirements for operational plans;

(b) rules respecting the retention of copies of versions of operational plans;

(c) rules respecting the public disclosure of the contents of operational plans; and

(d) such other requirements as the Director considers necessary for the purposes of this Act and the regulations. 2002, c. 32, s. 15 (4).

Same

(5) A direction issued under this section may,

(a) be general or limited in its application;

(b) apply in respect of any class of drinking water systems;

(c) require the preparation of operational plans for a treatment system, a distribution system or any part of either or both of them. 2002, c. 32, s. 15 (5).

Publication

(6) A direction, amendment to a direction or revocation of a direction takes effect when a notice of the direction, amendment or revocation, as the case may be, is given in the Registry. 2002, c. 32, s. 15 (6).

***Legislation Act, 2006*, Part III**

(7) Part III (Regulations) of the *Legislation Act, 2006* does not apply to a direction issued under this section. 2002, c. 32, s. 15 (7); 2006, c. 21, Sched. F, s. 132 (1).

Section Amendments with date in force (d/m/y)

Operational plans

16 (1) If operational plans are required for a drinking water system under this Act, every owner and accredited operational authority of the system shall,

(a) ensure that the plans comply with such directions issued under section 15 that apply in respect of the system; and

(b) make public the contents of the operating plans in accordance with the Director's directions. 2002, c. 32, s. 16 (1).

Submission of plans, municipal drinking water system

(2) Every owner of a municipal drinking water system shall provide a copy of all operational plans for the system to the Director on or before the day prescribed by the regulations for the municipality, the system or the owner of the system. 2002, c. 32, s. 16 (2).

Review of plans

(3) The Director shall review the operational plans for the municipal drinking water system and shall issue a notice,

(a) accepting the plans if the Director is satisfied that the plans satisfy the directions; or

(b) rejecting the plans for the reasons set out in the notice, if the Director is not satisfied that the plans satisfy the directions. 2002, c. 32, s. 16 (3).

Resubmission of plans

(4) The owner of a municipal drinking water system whose operational plans are rejected by the Director shall revise and resubmit the revised plans to the Director in accordance with the directions specified in the notice. 2002, c. 32, s. 16 (4).

Ownership of operational plans

17 (1) All operational plans for a drinking water system remain the property of the owner of the system, irrespective of who prepares or revises the plans. 2002, c. 32, s. 17 (1).

Retention of plans

(2) Every accredited operating authority of a drinking water system for which operational plans are required under this Act shall retain copies of the operational plans for the system in accordance with the Director's directions under section 15. 2002, c. 32, s. 17 (2).

Same

(3) Upon termination of an agreement between the owner and the accredited operating authority of a system, the accredited operating authority shall ensure that the owner has copies of the most recently prepared and revised operational plans for the system. 2002, c. 32, s. 17 (3).

Duty to report adverse test result

18 (1) Each of the following persons shall report every prescribed adverse result of a drinking water test conducted on any waters from a municipal drinking water system or a regulated non-municipal drinking water system to the Ministry and the medical officer of health immediately after the adverse result is obtained:

1. The operating authority responsible for the system or, if there is no operating authority responsible for the system, the owner of the system.
2. The person operating the laboratory at which the adverse result was obtained. 2002, c. 32, s. 18 (1); 2007, c. 10, Sched. D, s. 3 (6).

Same

(2) A report under subsection (1) shall be made in accordance with the regulations. 2002, c. 32, s. 18 (2).

Duty to report to the owner

(3) If an operating authority is required to report an adverse test result under subsection (1), the operating authority shall also immediately report the adverse test result to the owner of the system for which the operating authority is responsible. 2007, c. 10, Sched. D, s. 3 (7).

Duty of laboratory to report

(4) Every person operating a laboratory who is required to report an adverse test result under subsection (1) shall also notify the operating authority responsible for the system or, if there is no operating authority responsible for the system, the owner of the system, of every adverse test result relating to the system, immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (7).

Section Amendments with date in force (d/m/y)

Duty to report adverse test result

18.1 (1) The person operating the laboratory at which an adverse result was obtained shall report every prescribed adverse result of a drinking water test conducted on any waters from a small drinking water system within the meaning of the *Health Protection and Promotion Act* to the Ministry of Health and Long-Term Care and the medical officer of health immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (8).

Same

(2) A report under subsection (1) shall be made in accordance with the regulations. 2007, c. 10, Sched. D, s. 3 (8).

Duty of laboratory to report

(3) Every person operating a laboratory who is required to report an adverse test result under subsection (1) shall also notify the operator responsible for the system or, if there is no operator responsible for the system, the owner of the system, of every adverse test result relating to the system, immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (8).

Section Amendments with date in force (d/m/y)

Standard of care, municipal drinking water system

19 (1) Each of the persons listed in subsection (2) shall,

(a) exercise the level of care, diligence and skill in respect of a municipal drinking water system that a reasonably prudent person would be expected to exercise in a similar situation; and

(b) act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the municipal drinking water system. 2002, c. 32, s. 19 (1).

Same

(2) The following are the persons listed for the purposes of subsection (1):

1. The owner of the municipal drinking water system.
2. If the municipal drinking water system is owned by a corporation other than a municipality, every officer and director of the corporation.
3. If the system is owned by a municipality, every person who, on behalf of the municipality, oversees the accredited operating authority of the system or exercises decision-making authority over the system. 2002, c. 32, s. 19 (2).

Offence

(3) Every person under a duty described in subsection (1) who fails to carry out that duty is guilty of an offence. 2002, c. 32, s. 19 (3).

Same

(4) A person may be convicted of an offence under this section in respect of a municipal drinking water system whether or not the owner of the system is prosecuted or convicted. 2002, c. 32, s. 19 (4).

Reliance on experts

(5) A person shall not be considered to have failed to carry out a duty described in subsection (1) in any circumstance in which the person relies in good faith on a report of an engineer, lawyer, accountant or other person whose professional qualifications lend credibility to the report. 2002, c. 32, s. 19 (5).

Prohibition

20 (1) No person shall cause or permit any thing to enter a drinking water system if it could result in,

(a) a drinking water health hazard;

(b) a contravention of a prescribed standard; or

(c) interference with the normal operation of the system. 2002, c. 32, s. 20 (1).

Exception

(2) Subsection (1) does not apply to prohibit activities that are carried out,

(a) in the course of the proper operation, maintenance, repair or alteration of a drinking water system; or

(b) under a statutory authority or for the purposes of complying with a statutory requirement. 2002, c. 32, s. 20 (2).

Dilution no defence

(3) For the purposes of prosecuting the offence of contravening subsection (1), it is not necessary to prove that the thing, if it was diluted when or after it entered the system, continued to result in or could have resulted in a drinking water health hazard. 2002, c. 32, s. 20 (3).

APPENDIX “B”

APPENDIX "B"

DRINKING-WATER-RELATED ACTS AND REGULATIONS

Great Lakes Protection Act, 2015 S.O. 2015, CHAPTER 24	
Clean Water Act, 2006, S.O. 2006, CHAPTER 22	✓ O. Reg. 288/07 - Source Protection Committees ✓ O. Reg. 287/07 - General ✓ O. Reg. 284/07 - Source Protection Areas and Regions ✓ O. Reg. 231/07 - Service of Documents
Safe Drinking Water Act, 2002, S.O. 2002, CHAPTER 32	✓ O. Reg. 205/18 – Municipal Residential Drinking Water Systems in Source Protection Areas ✓ O. Reg. 453/07 - Financial Plans ✓ O. Reg. 243/07 - Schools, Private Schools and Day Nurseries ✓ O. Reg. 229/07 - Service of Documents ✓ O. Reg. 188/07 - Licensing of Municipal Drinking Water Systems ✓ O. Reg. 242/05 - Compliance and Enforcement ✓ O. Reg. 128/04 - Certification of Drinking Water System Operators and Water Quality Analysts ✓ O. Reg. 248/03 - Drinking Water Testing Services ✓ O. Reg. 172/03 - Definitions Of "Deficiency" and "Municipal Drinking Water System" ✓ O. Reg. 171/03 - Definitions of Words And Expressions Used In The Act ✓ O. Reg. 170/03 - Drinking Water Systems ✓ O. Reg. 169/03 - Ontario Drinking Water Quality Standards
Ontario Water Resources Act, R.S.O. 1990, CHAPTER O.40	✓ O. Reg. 450/07 - Charges for Industrial and Commercial Water Users ✓ O. Reg. 387/04 - Water Taking and Transfer ✓ O. Reg. 129/04 - Licensing of Sewage Works Operators ✓ O. Reg. 525/98 - Approval Exemptions ✓ R.R.O. 1990, Reg. 903 - Wells
Water Opportunities Act, 2010 S.O. 2010, CHAPTER 19 Schedule 1	✓ O. Reg. 40/11 – Water Technology Acceleration Project

Environmental Bill of Rights, 1993 S.O. 1993, CHAPTER 28	✓ O. Reg. 681/94 – Classification of Proposal for Instruments ✓ O. Reg. 73/94 - General
Environmental Protection Act, R.S.O. 1990, CHAPTER E.19	✓ O. Reg. 255/11 - Applications for Environmental Compliance Approvals ✓ O. Reg. 224/07 – Spill Prevention and Contingency Plans ✓ O. Reg. 524/98 - Environmental Compliance Approvals - Exemptions from Section 9 of the Act
Environmental Assessment Act, R.S.O. 1990, CHAPTER E.18	
Ministry of the Environment Act, R.S.O. 1990, c. M.24	
Municipal Water and Sewage Transfer Act, 1997, S.O. 1997, c. 6, Sched. A	
Health Protection and Promotion Act (Ministry of Health and Long-Term Care)	✓ O. Reg. 319/08 - Small Drinking Water Systems
Development Corporations Act, R.S.O. 1990, CHAPTER D.10	✓ O. Reg. 304/04 – The Walkerton Clean Water Centre

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Last Modified: 01/06/2024

APPENDIX “C”

Ontario

MUNICIPAL DRINKING WATER LICENCE

Licence Number: 054-101
Issue Number: 4

Pursuant to the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, I hereby issue this municipal drinking water licence under Part V of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 to:

The Corporation of the Municipality of South Huron

322 Main Street South
P.O. Box 759
Exeter ON, N0M1S6

For the following municipal residential drinking water system:

South Huron Distribution System

This municipal drinking water licence includes the following:

Schedule	Description
Schedule A	Drinking Water System Information
Schedule B	General Conditions
Schedule C	System-Specific Conditions
Schedule D	Conditions for Relief from Regulatory Requirements

Upon the effective date of this drinking water licence #054-101, all previously issued versions of licence #054-101 are revoked and replaced by this licence.

DATED at TORONTO this 4th day of November, 2024

Signature

Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act*, 2002

APPENDIX “D”

Ontario

DRINKING WATER WORKS PERMIT

Permit Number: 054-201
Issue Number: 4

Pursuant to the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, I hereby issue this drinking water works permit under Part V of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 to:

The Corporation of the Municipality of South Huron

322 Main Street South
P.O. Box 759
Exeter ON, N0M1S6

For the following municipal residential drinking water system:

South Huron Distribution System

This drinking water works permit includes the following:

Schedule	Description
Schedule A	Drinking Water System Description
Schedule B	General
Schedule C	All documents issued as Schedule C to this drinking water works permit which authorize alterations to the drinking water system

Upon the effective date of this drinking water works permit # 054-201, all previously issued versions of permit # 054-201 are revoked and replaced by this permit.

DATED at TORONTO this 4th day of May, 2021

Signature

Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act*, 2002

APPENDIX “E”

Certificate of Registration

This certifies that the Quality Management System of

The Corporation of the Municipality of South Huron

322 Main Street South
P.O. Box 759
Exeter, Ontario, N0M 1S6, Canada

has been assessed by NSF-ISR and found to be in conformance to the following standard(s):

Ontario's Drinking Water Quality Management Standard Version 2

Scope of Certification:

South Huron Distribution System, 054-OA1, Entire Full Scope Accreditation

Sameer Vachani
Senior Director, NSF-ISR

Certificate Number:	C0122376-DWQ9
Certificate Decision Date:	23-AUG-2023
Certificate Issue Date:	23-AUG-2023
Cycle Effective Date:	25-OCT-2023
Certificate Expiration Date*:	24-OCT-2026

Issued by:
NSF International Strategic Registrations (NSF-ISR)
789 N. Dixboro Road, Ann Arbor, MI 48105 USA

Authorized Certification and/or Accreditation Marks. This certificate is property of NSF-ISR and must be returned upon request.

Company is audited for conformance at regular intervals. To verify certification call (888) NSF-9000 or visit our web site at www.nsf-isr.org

APPENDIX “F”

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	**220001520**
Drinking-Water System Name:	***South Huron Distribution System***
Drinking-Water System Owner:	***Municipality of South Huron***
Drinking-Water System Category:	***Large Residential***
Period being reported:	***January 1, 2025 to December 31, 2025***

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [✓] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [✓] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** ***Office*** ***Internet*** ***Library***	**Number of Designated Facilities served:** **Did you provide a copy of your annual report to all Designated Facilities you serve?** **Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?** **Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

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

Drinking Water System Name	Drinking Water System Number

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [ ] NA [✓]

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

- **[✓] Public access/notice via the web**
- **[✓] Public access/notice via Government Office**
- **[✓] Public access/notice via a newspaper**
- **[✓] Public access/notice via Public Request**
- **[✓] Public access/notice via a Public Library**
- **[✓] Public access/notice via other method (Social Media, Facebook, X)**

Describe your Drinking-Water System

Large Municipal Residential Distribution Class III
Surface water supplied from Lake Huron Primary Water Supply System (LHPWSS)

List all water treatment chemicals used over this reporting period

Sodium hypochlorite

Were any significant expenses incurred to?

- **[✓]** Install required equipment
- **[✓]** Repair required equipment
- **[✓]** Replace required equipment

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

Project Name	Project Cost
Victoria Street East Reconstruction Watermain Replacement (Exeter) - Main Street to East End	$ 667,651
Automated Meter Reading Upgrade	$ 250,000
SCADA System Upgrades	$ 125,000
Main Street Reconstruction (Dashwood) - Centre Street to East Limits	$ 550,572
Grand Bend Line Watermain Upgrade - B-Line to Grand Bend Airport (engineering)	$ 36,649
Gore Road Watermain Upgrade - Highway 21 to Corbett Line	$ 1,181,002
Huron Park Water Tower Repairs	$ 20,300
Crediton Booster Upgrades	$ 16,700
Miscellaneous PLC Repairs	$ 10,600
Chlorine Pump Repairs	17,900
Total	**$ 2,876,374**

Provide details on the 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

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
04/03/2025	Lead – Private Residence	11.3 40.7	10ug/L	Confirmation of private lead service - resample	04/04/2025
06/20/2025	Category 2 Temporary Watermain Break	-	-	Boil Water Advisory, Sample	06/23/2025
07/24/2025	Total Coliform	13	Cfu/100ml	Resample	07/28/2025

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	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	*N/A*				
Treated	*N/A*				
Distribution	*377*	*0*	*0-13*	*162*	*<10 – 50*

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	*N/A*		
Chlorine	*8760*	*0.19 – 2.69*	*mg/L Free*
Fluoride (If the DWS provides fluoridation)	*N/A*		

***NOTE**: For continuous monitors use 8760 as the number of samples.*

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	Unit of Measure

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				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
***Lead**				
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite				
Nitrate				

*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

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	***44***	***0.01 – 40.7***	***ug/L***	***1***
Distribution	***6***	***0.03 – 0.45***	***ug/L***	***0***

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metobolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				

Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM (NOTE: latest annual average)	***SEE NOTE***	***36.5***	***ug/L***	
Total Haloacetic Acids (HAA5) (NOTE: latest annual average)	***SEE NOTE***	***11.6***	***ug/L***	
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				

Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				
Trifluralin				
Vinyl Chloride				

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample

Note:

	THM	***HAA5***
FEB 18 -	***28.0***	***5.3***
MAY 27 -	***39.0***	***20.4***
AUG 19 -	***43.0***	***6.1***
NOV 12 -	***36.0***	***14.5***
	36.5	***11.6***