



Ontario Clean Water Agency Agence Ontarienne Des Eaux

February 28, 2018

Amanda Froese, Director of Public Works
Town of Saugeen Shores
600 Tomlinson Dr.
Box 820
Port Elgin, Ontario
N0H 2C0

Re: Annual Report, Requirement under O. Reg. 170/03, Section 11

Dear Ms. Froese,

Attached is the 2017 Annual Report for the Saugeen Shores Drinking Water System. This report was completed in accordance with Section 11 of Ontario Regulation 170/03. It is required that an Annual Report for the previous calendar year be prepared no later than February 28th of each year.

Section 12 of Ontario Regulation 170/03 requires that the Annual Report be made available for inspection, at no charge, by any member of the public during regular business hours. The report should be made available for inspection at the office of the Municipality or at a location that is convenient for the users of the water system.

Should you require further clarification of information regarding this report, please feel free to contact me.

Kind regards,

A handwritten signature in blue ink that reads "Karen Lorente".

Karen Lorente
Regional Hub Manager
OCWA, Georgian Highlands Regional Hub



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

SAUGEEN SHORES
DRINKING WATER SYSTEM

Large Municipal Residential

SECTION 11
ANNUAL REPORT

For the period of
JANUARY 1, 2017 TO DECEMBER 31, 2017

Drinking Water System Number:	210000078
Drinking Water System Name:	Saugeen Shores Drinking Water System
Drinking Water System Owner:	The Corporation of the Town of Saugeen Shores
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2017 – December 31, 2017

Does the 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.

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

Town of Saugeen Shores
600 Tomlinson Drive
Port Elgin, Ontario
N0H 2C0
519-832-2008

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

Saugeen First Nation

Did you provide a copy of the annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?

Yes

How system users are notified that the 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: _____

Description of Drinking Water System:

The Saugeen Shores Drinking Water System (DWS) is a Class III Treatment and a Class III Distribution System.

The Southampton Water Treatment Plant is supplied by Lake Huron, the treatment system consists of:

- Low lift pumping station (raw water well, treatment and control facilities, strainers)
- Membrane filtration systems (with a cleaning system and residuals management)
- Sodium Hypochlorite Treatment
- SCADA system with operation control instrumentation (including process and compliance monitoring)
- 2 generator sets (back-up power supply)

The distribution system is made up of the following:

- Storage reservoir, booster pump station
- Elevated storage tanks (2)
- Approximately 8 kilometers of trunk watermains
- Approximately 146 kilometers of distribution watermains

The Southampton WTP Facility provides treated water to Southampton and Port Elgin via the Saugeen Shores Distribution System. There are two pressure zones, Zone 1 and Zone 2. Zone 1 provides water to the Southampton portion of the Saugeen Shores Distribution System and Zone 2 provides water to the Port Elgin portion of the Saugeen Shores Distribution System.

The Southampton WTP draws raw water from Lake Huron through a 1600 m long, 762 mm diameter HDPE intake pipe with a raw water sample line and a chlorine gas feed line for zebra mussel control.

There is a 600 mm diameter concrete standby intake pipe, with a wooden intake crib and flat sealed top and a 38 mm diameter solution feed for zebra mussel control inside the concrete pipe. There is an underground inlet chamber equipped with a manually cleaned raw water screen.

The low lift pumping is located on the shores of Lake Huron consisting of a raw water well with a 20 m long by 14 m wide heated superstructure housing the pumping, treatment and control facilities. This includes:

- Three (3)VFD-controlled vertical turbine pumps (two duty, one standby) each rated at 104 L/s at a total dynamic head (TDH) of 37 m
- Two (2) self-cleaning strainers (one duty, one standby) with two strainer backwash wastewater storage tanks.
- Dual chlorine gas feeder system (duty and standby) each rated at 50 lbs./day (22.7 kg/day) and a chlorine feed line to the diffuser located in the mouth of the intake pipe for zebra mussel control and pre-chlorination
- a 230 kW diesel engine standby power generator set and associated equipment

The Southampton WTP is an approximately 31 m long by 19 m wide enclosed building located at 140 Island St., Southampton, ON. It houses the facilities described below, in addition to a laboratory/control room, electrical/mechanical room, storage room and washroom:

- Membrane Filtration System:
 - Four (4) individual submerged membrane trains (each with a capacity of 5950 m³/day)
 - Five (5) permeate pumps (four duty, one shelf standby) each rated at 73 L/s at 11.5 m TDH
 - Two (2) back-pulse pumps (one duty, one standby) each rated at 73 L/s at 13.5 m TDH
 - Two (2) Clean-in-place (CIP) membrane wash pumps (one duty, one standby) each

rated at 56 L/s at 13.5 m TDH

- Two (2) Vacuum Pumps (one duty, one standby) each rated at 22 L/s at 3.0 m TDH
- Two (2) oil free compressors rated at 37.4 m³/hr.
- Two (2) air blowers (one duty, one standby) each rated at 4.4 m³/min at 31.5 kPa
- A sodium hypochlorite feed system consisting of two metering pumps for recovery cleaning (one duty, one standby) with capacity of 28.1 L/min, two (2) metering pumps for biogrowth protection (one duty, one standby) with capacity of 2.78 L/min and one 1000 L storage tank
- citric acid feed system consisting of two metering pumps (one duty and one standby) with capacity of 0.37 L/s and one 200 L storage tank
- dechlorination feed system consisting of two metering pumps (one duty and one standby) and one 200 L storage tank
- sodium hydroxide feed system consisting of two metering pumps (one duty and one standby) with capacity of 2.83 L/min and one 60 L storage tank
- Membrane Wastewater Treatment System:
 - one flocculator/clarifier including coagulation and sedimentation chambers equipped with draining system discharging sludge by gravity to sanitary sewer
 - two equalization tanks with total volume of 160 m³, for membrane back pulse water equalization
 - two tank drain/recirculation pumps (one duty and one standby) each rated at 24 L/s at 7.9 m TDH
 - two pumps (one duty and one standby) rated at 22 L/s at 12 m TDH to pump equalized wastewater to clarifier
 - alum feed system consisting of one storage tank and two mechanical metering pumps (one duty and one standby) each rated at 5.94 L/hr
 - one 25 m³ neutralization tank
 - two 8.8 m long x 7 m wide decant chambers discharging clarifier effluent by gravity to the adjacent surface drainage ditch
 - dechlorination feed system consisting of two metering pumps (one duty and one standby) with capacity of 0.32 L/hr and storage tank
- Sodium Hypochlorite Disinfection System:
 - Two (2) storage tanks
 - Two (2) metering pumps (one duty, one standby) for post-chlorination, each rated at 20 L/hr
- High Lift Works:
 - Two (2) clear wells in parallel at with a total storage volume of 3720 m³. It is complete with intra basin baffling for storage and chlorine contact
 - Four (4) vertical turbine pumps (one duty, three standby). Pump #1 has a rated capacity of 50 L/s at TDH of 49.9m, Pumps #2 and #3 have a rated capacity at 60 L/s at a TDH of 49.9 m, and Pump #4 has a rated capacity at 54 L/s at a TDH of 79.9 m.
 - Zone 2: Three (3) vertical turbine pumps (one duty, two standby), each rated at 54 L/s at a TDH of 80 m
- Standby Power
 - 750 kW diesel engine standby power generator set and associated equipment located in a separate room of the Plant Enclosure Building.

Treated water may be fed from Zone 1 to fill Zone 2 in case of an emergency condition or failure of either Zone 1 or Zone 2 Pumps, using Pump #4.

List of water treatment chemicals used during the reporting period:

- Sodium Hypochlorite 12%
- Chlorine Gas
- Poly-aluminum chloride
- Citric Acid
- Sodium Hydroxide
- Calcium Thiosulphate

Significant expenses were incurred to:

- | | |
|-------------------------------------|---------------------------------------|
| <input checked="" type="checkbox"/> | Install required equipment |
| <input checked="" type="checkbox"/> | Repair required equipment |
| <input checked="" type="checkbox"/> | Replace required equipment |
| <input type="checkbox"/> | No significant expenses were incurred |

Description of expenses:

- Repaired strainer valves and ordered a set of critical spares.
- Replaced air dryers for hermetically sealed units
- Inspection of the conditions of the intake, reservoir, standpipe, and towers.
- Replaced SCADA computer
- Repaired Watermain
- Installed new pH probe and controller for neutralization tank
- Replaced E&H pressure transmitter
- Installation of highlift pump guards.
- Repaired Hydrants
- Repaired water service leaks
- Repaired damaged and leaking curbstops
- Zenon Membrane & Expansion modules
- Hydrant fire flow testing and painting

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:

Date of Incident (yyyy/mm/dd)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (yyyy/mm/dd)
n/a	n/a	n/a	n/a	n/a	n/a

Table 1. Microbiological testing done under Schedule 10, 11 or 12 of Regulation 170/03 during this reporting Period

Location	Number of Samples	Range of E.coli Results		Range of Total Coliforms Results		Number of HPC Samples	Range of HPC Samples	
		Minimum	Maximum	Minimum	Maximum		Minimum	Maximum
Raw (RW)	53	0	27	0	1400	n/a	n/a	n/a
Treated (TW)	53	0	0	0	0	52	0	2
Distribution (DW)	312	0	0	0	0	106	0	36

Table 2. Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results	
		Minimum	Maximum
Turbidity, Filter 1 (NTU)	8760	0.010	1*
Turbidity, Filter 2 (NTU)	8760	0.020	0.227
Turbidity, Filter 3 (NTU)	8760	0.012	0.066
Turbidity, Filter 4 (NTU)	8760	0.021	0.229
Chlorine Residual - Zone 1 (mg/L)	8760	0.60	2.18
Chlorine Residual - Zone 2 (mg/L)	8760	0.65	2.23
Free Chlorine Residual - DW (mg/L) ¹	8760	0.67	2.00

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

NOTE: Zone 1 & Zone 2 pumps pull from the same clearwell source, thus one can be used to verify the other.

*Occurred on August 26, 2017 - Turbidity spike to 1.0 NTU for less than a minute (not adverse & filter efficiency still achieved - less than or equal to 0.1 NTU in 99% of the measurements for the month).

Table 3. Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of Order of MDWL	Parameter	Date Sampled	Annual Average Result	MDWL Allowable Annual Average Concentration	Annual Maximum Result	MDWL Allowable Maximum Concentration
April 29, 2016 MDWL #093-101 (Issue 2)	Filter Backwash Suspended Solids (composite)	Monthly	2 mg/L	15 mg/L	2 mg/L	25 mg/L

Table 4. Summary of Inorganic parameters tested during this reporting period or most recent sample results

Parameter	Sample Date	Sample Result	Exceedance
Antimony: Sb (µg/L) - TW	2017/01/10	0.12	No
Arsenic: As (µg/L) - TW	2017/01/10	0.7	No
Barium: Ba (µg/L) - TW	2017/01/10	14.4	No
Boron: B (µg/L) - TW	2017/01/10	15.0	No
Cadmium: Cd (µg/L) - TW	2017/01/10	0.006	No
Chromium: Cr (µg/L) - TW	2017/01/10	0.66	No
Mercury: Hg (µg/L) - TW	2017/01/10	<MDL 0.01	No
Selenium: Se (µg/L) - TW	2017/01/10	0.16	No
Uranium: U (µg/L) - TW	2017/01/10	0.237	No
Fluoride (mg/L) - TW	2016/01/05	0.09	No
Nitrite (mg/L) - TW	2017/01/10	<MDL 0.003	No
Nitrite (mg/L) - TW	2017/04/03	<MDL 0.003	No
Nitrite (mg/L) - TW	2017/07/04	<MDL 0.003	No
Nitrite (mg/L) - TW	2017/10/02	<MDL 0.003	No
Nitrate (mg/L) - TW	2017/01/10	0.48	No
Nitrate (mg/L) - TW	2017/04/03	0.75	No
Nitrate (mg/L) - TW	2017/07/04	0.38	No
Nitrate (mg/L) - TW	2017/10/02	0.361	No
Sodium: Na (mg/L) - TW	2016/01/05	7.08	No

NOTE: There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

¹ Chlorine residual of the Port Elgin Reservoir.

Table 5. Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results		Number of Exceedances
		Minimum	Maximum	
Plumbing	n/a	n/a	n/a	n/a
Distribution (µg/L)	8	0.03	0.38	0

NOTE: This system now qualifies for the plumbing exemption as per Ontario Regulation 170/03 Schedule 15.1-5 (9) (10). Distribution lead samples are only taken every 36 months. The most recent set of distribution lead samples was taken in 2017. The next set of distribution lead samples is scheduled for 2020.

Table 6. Summary of Organic parameters sampled during this reporting period or most recent sample results.

Parameter	Sample Date	Result Value	Exceedance
Alachlor (µg/L) - TW	2017/01/10	<MDL 0.02	No
Atrazine + N-dealkylated metabolites (µg/L) - TW	2017/01/10	0.03	No
Azinphos-methyl (µg/L) - TW	2017/01/10	<MDL 0.05	No
Benzene (µg/L) - TW	2017/01/10	<MDL 0.32	No
Benzo(a)pyrene (µg/L) - TW	2017/01/10	<MDL 0.004	No
Bromoxynil (µg/L) - TW	2017/01/10	<MDL 0.33	No
Carbaryl (µg/L) - TW	2017/01/10	<MDL 0.05	No
Carbofuran (µg/L) - TW	2017/01/10	<MDL 0.01	No
Carbon Tetrachloride (µg/L) - TW	2017/01/10	<MDL 0.16	No
Chlorpyrifos (µg/L) - TW	2017/01/10	<MDL 0.02	No
Diazinon (µg/L) - TW	2017/01/10	<MDL 0.02	No
Dicamba (µg/L) - TW	2017/01/10	<MDL 0.2	No
1,2-Dichlorobenzene (µg/L) - TW	2017/01/10	<MDL 0.41	No
1,4-Dichlorobenzene (µg/L) - TW	2017/01/10	<MDL 0.36	No
1,2-Dichloroethane (µg/L) - TW	2017/01/10	<MDL 0.35	No
1,1-Dichloroethylene (µg/L) - TW	2017/01/10	<MDL 0.33	No
Dichloromethane (Methylene Chloride) (µg/L) - TW	2017/01/10	<MDL 0.35	No
2,4-Dichlorophenol (µg/L) - TW	2017/01/10	<MDL 0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW	2017/01/10	<MDL 0.19	No
Diclofop-methyl (µg/L) - TW	2017/01/10	<MDL 0.4	No
Dimethoate (µg/L) - TW	2017/01/10	<MDL 0.03	No
Diquat (µg/L) - TW	2017/01/10	<MDL 1.0	No
Diuron (µg/L) - TW	2017/01/10	<MDL 0.03	No
Glyphosate (µg/L) - TW	2017/01/10	<MDL 1.0	No
Malathion (µg/L) - TW	2017/01/10	<MDL 0.02	No
Metolachlor (µg/L) - TW	2017/01/10	<MDL 0.01	No
Metribuzin (µg/L) - TW	2017/01/10	<MDL 0.02	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW	2017/01/10	<MDL 0.3	No
Paraquat (µg/L) - TW	2017/01/10	<MDL 1.0	No
PCB (µg/L) - TW	2017/01/10	<MDL 0.04	No
Pentachlorophenol (µg/L) - TW	2017/01/10	<MDL 0.15	No
Phorate (µg/L) - TW	2017/01/10	<MDL 0.01	No
Picloram (µg/L) - TW	2017/01/10	<MDL 1.0	No
Prometryne (µg/L) - TW	2017/01/10	<MDL 0.03	No
Simazine (µg/L) - TW	2017/01/10	<MDL 0.01	No
Terbufos (µg/L) - TW	2017/01/10	<MDL 0.01	No
Tetrachloroethylene (µg/L) - TW	2017/01/10	<MDL 0.35	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW	2017/01/10	<MDL 0.2	No
Triallate (µg/L) - TW	2017/01/10	<MDL 0.01	No
Trichloroethylene (µg/L) - TW	2017/01/10	<MDL 0.44	No
2,4,6-Trichlorophenol (µg/L) - TW	2017/01/10	<MDL 0.25	No
Trifluralin (µg/L) - TW	2017/01/10	<MDL 0.02	No
Vinyl Chloride (µg/L) - TW	2017/01/10	<MDL 0.17	No
Trihalomethane: Total (µg/L) Annual Average - DW	2017 (Quarterly)	23.25	No
HAA Total (µg/L) Annual Average - DW	2017 (Quarterly)	9.175	n/a*

* The limit of 80 µg/L running annual average for HAAs does not come into force until 2020.

Table 7. 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
n/a	n/a	n/a	n/a

NOTE: This is required only if DWS category is large municipal residential, small municipal residential, large municipal non-residential, small municipal non-residential, large non municipal non-residential)



Ontario Clean Water Agency Agence Ontarienne Des Eaux

March 1, 2018

Amanda Froese, Director of Public Works
amanda.froese@saugeenshores.ca
Town of Saugeen Shores
600 Tomlinson Dr.
Box 820
Port Elgin, Ontario
N0H 2C0

Re: 2017 Summary Report Version 2, Requirement under O. Reg. 170/03, Schedule 22

Dear Ms. Froese,

This report was completed in accordance with Schedule 22 of Ontario Regulation 170/03. It is required that a Summary Report for the previous calendar year be prepared no later than March 31st of each year, and be provided to the members of the Council. Please ensure this distribution.

Section 12 of Ontario Regulation 170/03 requires that the Summary Report be made available for inspection, at no charge, by any member of the public during regular business hours. The report should be made available for inspection at the office of the Town or at a location that is convenient for the users of the water system.

Should you require further clarification of information regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Camille Leung".

Camille Leung
Safety, Process & Compliance Manager
OCWA, Georgian Highlands Region

cc: Adam Stanley, Engineering Services, Town of Saugeen Shores



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

SAUGEEN SHORES
DRINKING WATER SYSTEM

Large Municipal Residential

SCHEDULE 22
SUMMARY REPORT
Version 2

For the period of
JANUARY 1, 2017 TO DECEMBER 31, 2017

Prepared by the Ontario Clean Water Agency
For The Corporation of the Town of Saugeen Shores

Summary

This report is a summary of water quantity information submitted in accordance with Schedule 22 of Ontario’s Drinking Water System Regulation for the reporting period of January 1, 2017 to December 31, 2017 for the Saugeen Shores Drinking Water System located in the Town of Saugeen Shores. The summary includes the following information:

- Any requirements of the Act and Regulation, Orders or System Approval(s) that the system failed to meet during the reporting period and the measures taken to correct each failure.
- A summary of the quantities and flow rates of water supplied during the reporting period, including monthly averages and maximum daily flows.
- A comparison of the average and monthly maximum daily flows to the approved capacity specified in the System Approval.

Issues of Non-Compliance

An MOECC Drinking Water System Inspection was performed on October 17, 2017 for the period of September 16, 2016 to October 17, 2017.

The following is a summary of the requirements of the Act, the regulations, the system’s approval, drinking water works permit, municipal drinking water license, and any orders applicable to the system that were not met at any time during the period covered by the report; as well as the duration of the failure and the measures that were taken to correct the failure:

Non-Compliance(s)	Duration	Corrective Actions
1) Operators were not examining continuous monitoring test results or they were not examining the results within 72 hours of the test. <i>(From 2017/2018 MOECC Inspection Report)</i>	Multiple instances during inspection period	Required Actions: “The Owner and Operating Authority shall by no later than February 23, 2018 submit to Shayne Finlay, Provincial Officer a plan to ensure all requirements of O.Reg. 128/04 s. 27 are met. Furthermore, the O/OA shall submit a monthly summary, along with copies of the logbook entries no later than the 15 th of each month, a summary of any incidents which meet the criteria listed in O.Reg. 128/04 s. 27(5) 3 to 6 which occurred during the previous calendar month. These Summaries are to be submitted until further notice, as per O.Reg. 128/04 s. 27 (7).” Corrective Actions: <ul style="list-style-type: none"> • Provide a training session to operations staff on the requirements of O.Reg 128/04 s. 27 • Operations Staff to provide copies of logbook entries and daily SCADA reports to the PCT on a daily basis • Compliance Team to complete a detailed review of logbook entries and provide feedback to Operations Staff • Submit a monthly summary of any incidents which meet the criteria listed in O.Reg. 128/04 s. 27(5) 3 to 6 which occurred during the previous calendar month to the Provincial officer • Submit copies of the logbook entries for the previous calendar month to the Provincial Officer • Schedule monthly meetings with the Provincial Officer to receive updates on progress and feedback on areas of improvement. <i>Refer to the action plan which was submitted to the Provincial Officer on February 23, 2018 for more detail.</i>

<p>2) Logbooks were not properly maintained and/or did not contain the required information. <i>(From 2017/2018 MOECC Inspection Report)</i></p>	<p>Multiple instances during inspection period</p>	<p>Required Actions: “The owner/operating authority shall immediately comply with O. Reg. 128/04, s 27 (5) An operator-in-charge or a person authorized by an operator-in-charge is required to record the following information in the logs or other record keeping mechanisms in respect of each operating shift:</p> <ol style="list-style-type: none"> 1. The date, the time of day the shift began and ended and the number or designation of the shift. 2. The names of all operators on duty during the shift. 3. Any departures from normal operating procedures that occurred during the shift and the time they occurred. 4. Any special instructions that were given during the shift to depart from normal operating procedures and the person who gave the instructions. 5. Any unusual or abnormal conditions that were observed in the subsystem during the shift, any action that was taken and any conclusions drawn from the observations. 6. Any equipment that was taken out of service or ceased to operate during the shift and any action taken.” <p>Corrective Actions:</p> <ul style="list-style-type: none"> • In addition to the logbook e-course that all Operations staff have completed, an additional training session (refer to the Action Plan submitted on February 22, 2018) will be provided. As of February 1, 2018 the Compliance team has been reviewing the logbook entries and providing comments/feedback to Operations staff. Instances where logbook entries are not meeting the requirements of <i>O. Reg. 128/04, s 27 (5)</i> or OCWA’s Requirements for Making Log Book Entries are identified and suggestions on how to improve the entries are provided. The Action Plan specifies tasks which will be carried out to ensure compliance with O. Reg. 128/04, s 27 (5). • The CT calculation worksheet has been updated to include a section to specify the name of the person completing the worksheet, the date the worksheet was completed and the timeframe the worksheet is being completed for as well as where the document is to be stored and who the document should be forwarded to. The revised version of the CT calculation worksheet will be distributed to staff before March 3, 2018. <p><i>Refer to the plan which was submitted to the Provincial Officer on February 23, 2018 for more detail.</i></p>
<p>3) The operator-in-charge did not ensure that records were maintained of all adjustments made to the processes within his or her responsibility. <i>(From 2017/2018 MOECC Inspection Report)</i></p>	<p>May 4, 2017</p>	<p>Required Actions: “The owner/operating authority shall immediately comply with 26(2)(c) ensure that records are maintained of all adjustments made to the processes within his or her responsibility.”</p> <p>Corrective Actions:</p> <ul style="list-style-type: none"> • The CT calculation worksheet has been updated to include a section to specify the name of the person completing the worksheet, the date the worksheet was completed and the timeframe the worksheet is being completed for as well as where the document is to be stored and who the document should be forwarded to. The revised version of the CT calculation worksheet will be distributed to staff before March 3, 2018 and a copy will be forwarded to the Provincial Officer. At the time of distribution, staff will be provided with 26(2)(c) so that the requirements are understood. <p><i>Refer to the action plan which was submitted to the Provincial Officer on February 23, 2018 for more detail.</i></p>

<p>4) Logs or other record keeping mechanisms were not available for at least five (5) years. <i>(From 2017/2018 MOECC Inspection Report)</i></p>	<p>May 4, 2017</p>	<p>Required Actions:</p> <ul style="list-style-type: none"> • 27(6) The owner or operating authority shall immediately ensure that logs and other record-keeping mechanisms are accessible at the subsystem, (a) for at least five years after the last entry in it was made, in the case of a log or record-keeping mechanism that is kept in a book or document form or kept on a similarly fixed basis; or (b) for at least five years after each entry in it was made, in the case of a log or record-keeping mechanism that is kept on a loose-leaf or electronic basis or kept on a similarly continuous basis. O.Reg. 128/04, s. 27(6) <p>Corrective Actions:</p> <ul style="list-style-type: none"> • The CT calculation worksheet has been updated to include a section to specify the name of the person completing the worksheet, the date the worksheet was completed and the timeframe the worksheet is being completed for as well as where the document is to be stored and who the document should be forwarded to. The revised version of the CT calculation worksheet will be distributed to staff before March 3, 2018 and a copy will be forwarded to the Provincial Officer. • OCWA is listed as a designated public body under O. Reg. 336/07 and has a record retention policy that has been approved under the Archives and Record keeping Act, 2006. OCWA will be providing Operations staff with additional training on document records and controls as it pertains to OCWA's Quality and Environmental Management Documents and Records Control procedure (for documents that pertain to DWQMS) as well as a review of the OCWA's Internal Document Retention Periods which are relevant to Operations staff (and includes the retention periods for various operations related documents). This training is currently scheduled for the week of March 12th, 2018. Training records will be provided upon successful completion of the training. <p><i>Refer to the plan which will be submitted to the Provincial Officer on February 23, 2018 for more detail.</i></p>
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*The Operating Authority reported a non-compliance on April 12, 2017 regarding a Treated Water heterotrophic plate count (HPC) sample for March 27, 2017. The Drinking Water Inspector confirmed that the OA was going above and beyond by reporting it as such and did not consider the incident to be a non-compliance as the sample was taken as required but the incubator failure resulted in no reading. As such, this incident has not been included in the table above.

For information on any Adverse Water Quality Incident(s), refer to the Saugeen Shores Drinking Water System Annual Report (Section 11) for the reporting period of January 1, 2017 to December 31, 2017.

Assessment of Flowrates and Quantity of Water Supplied

The following tables summarize the quantities (Table 1) and flow rates (Table 2) of the water supplied during the period covered by the report, including monthly average and maximum daily flows as well as a comparison of the summary to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence.

As per Municipal Drinking Water License (MDWL) 093-101 (Issue Number: 2), the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed a rated capacity of 18,000 m³/day. There is no maximum allowable limit listed in the MDWL for the flowrate of water that flows into a treatment subsystem, however, raw water flowrate has been included in this report (Table 3).

Table 1. Treated Water Monthly Average and Maximum Daily Flows and Comparison to Rated Capacity for 2017

2017	Treated Water Flow			
	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity
January	4,565	25.36 %	5,298	29.43 %
February	4,593	25.52 %	4,915	27.31 %
March	4,493	24.96 %	5,221	29.01 %
April	4,832	26.84 %	5,456	30.31 %
May	5,837	32.43 %	7,206	40.03 %
June	6,125	34.03 %	7,795	43.31 %
July	6,807	37.82 %	7,418	41.21 %
August	7,043	39.13 %	7,768	43.15 %
September	6,150	34.17 %	7,650	42.50 %
October	5,452	30.29 %	6,290	34.94 %
November	4,762	26.46 %	5,747	31.93%
December	4,662	25.90 %	5,840	32.44%

Table 2. Treated Water Monthly Average and Maximum Flowrates for 2017

2017	Treated Water: Zone 1		Treated Water: Zone 2	
	Average Flowrate (l/s)	Maximum Flowrate (l/s)	Average Flowrate (l/s)	Maximum Flowrate (l/s)
January	22	71	31	113
February	22	117	32	113
March	21	70	31	113
April	23	70	33	116
May	28	155	40	160
June	29	117	42	114
July	32	105	47	114
August	34	122	48	117
September	28	69	43	113
October	25	89	38	113
November	21	95	34	117
December	22	70	32	127

Table 3. Raw Water Monthly Average and Maximum Flowrates for 2017

2017	Raw Water	
	Average Flowrate (l/s)	Maximum Flowrate (l/s)
January	61	214
February	60	240
March	59	235
April	62	213
May	75	250
June	77	225
July	86	232
August	90	222
September	78	234
October	69	222
November	61	221
December	61	230