



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

OLIPHANT
DRINKING WATER SYSTEM

Small Municipal Residential

SCHEDULE 22
SUMMARY REPORT

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 South Bruce Peninsula

Summary

This report is a summary of water quality and 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 Oliphant Drinking Water System located in the Town of South Bruce Peninsula. 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 June 20, 2017. On July 13, 2017 the report for this inspection was issued, the Oliphant Drinking Water System received an inspection rating of 100%.

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:

- There were no non-compliances during the reporting period.

Refer to the Section 11 Annual Report for a summary of any Adverse Water Quality Incident(s) which occurred during the reporting period.

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 license.

As per Municipal Drinking Water License (MDWL) 094-105 (Issue Number: 3, expires March 17, 2020), the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed a rated capacity of 75 m³/day. There is no maximum allowable limit listed in the MDWL for the flowrate of water that flows into a treatment subsystem.

The Oliphant Water Treatment Plant stopped treating water on January 16, 2011 and began receiving transported water from the Wiarton Water Treatment Plant, by the direction of the Town of South Bruce Peninsula. The transported water from Wiarton Water Treatment Plant is pumped into the clearwell of the Oliphant Water Treatment Plant and sodium hypochlorite (12%) is added to increase the chlorine residual prior to entering the distribution system.

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

2017	Flow (Treated Water from Wiarnton)			
	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity
January	4.84	6.45%	6.24	8.32%
February	4.22	5.63%	5.95	7.93%
March	4.00	5.33%	4.87	6.49%
April	4.62	6.16%	6.26	8.35%
May	5.52	7.36%	8.59	11.45%
June	5.91	7.88%	9.40	12.53%
July	7.53	10.04%	12.83	17.11%
August	7.24	9.65%	9.53	12.71%
September	7.24	9.65%	11.43	15.24%
October	6.24	8.32%	7.86	10.48%
November	6.78	9.04%	14.85	19.80%
December	6.61	8.81%	8.64	11.52%

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

2017	Treated Water	
	Average Flowrate (l/s)	Maximum Flowrate (l/s)
January	1.24	2.95
February	1.23	2.86
March	1.23	2.85
April	1.24	2.99
May	1.26	10.00
June	1.24	2.90
July	1.26	6.59
August	1.25	2.99
September	1.24	2.96
October	1.24	2.98
November	1.24	2.98
December	1.23	10.00



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OLIPHANT
DRINKING WATER SYSTEM

Small Municipal Residential

SECTION 11
ANNUAL REPORT

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

Prepared by the Ontario Clean Water Agency
For The Town of South Bruce Peninsula

Drinking Water System Number:	220007695
Drinking Water System Name:	Oliphant
Drinking Water System Owner:	Town of South Bruce Peninsula
Drinking Water System Category:	Small Municipal Residential
Reporting Period:	January 1, 2017 to December 31, 2017

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

No.

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 South Bruce Peninsula
315 George Street
Warton, Ontario
N0H 2T0
519-534-1400

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

n/a.

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?

n/a.

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 Oliphant Drinking Water System currently transports all of its drinking water from the Warton Drinking Water System. The equipment that is currently being used consists of:

- 2 Clearwells
- 2 Highlift pumps
- Secondary Disinfection by Sodium Hypochlorite
- PLC/SCADA system
- Standby power diesel generator

NOTE: Starting January 20th, 2011, the Oliphant Water Treatment Plant began receiving its treated water from the Warton Water Treatment Plant.

List of water treatment chemicals used during the reporting period:

- Sodium hypochlorite 12%

Significant expenses were incurred to:

- Install required equipment
 Repair required equipment
 Replace required equipment
 No significant expenses were incurred

Description of expenses:

n/a.

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	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
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
Distribution (DW)	52	0	0	0	0	52	0	14

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, On-Line (NTU) – Filter	8760	n/a*	n/a*
Free Chlorine Residual, On-Line (mg/L) - TW	8760	n/a*	n/a*
Free Chlorine Residual, In-House (mg/L) - DW	104	0.53	1.52

NOTE: Record the unit of measure if it is not milligrams per litre.

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

*NOTE: These parameters are currently not applicable as the drinking water from Oliphant is transported from Wiarton.

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	Parameter	Date Sampled	Result	Allowable Limit
March 19, 2015 094-105 (Issue 3)	Total Suspended Solids (Filter backwash - composite)	Quarterly	n/a*	30 mg/L

*NOTE: Currently this parameters is not being tested as the filters are not in use. Oliphant has its water transported from Wiarton.

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

Parameter	Sample Date (mm/dd/yyyy)	Sample Result	Exceedance
Antimony: Sb (µg/L) - TW	01/10/11	< 0.02	No
Arsenic: As (µg/L) - TW	01/10/11	0.3	No
Barium: Ba (µg/L) - TW	1/10/2011	595	Yes
Boron: B (µg/L) - TW	1/10/2011	33	No
Cadmium: Cd (µg/L) - TW	1/10/2011	< 0.003	No
Chromium: Cr (µg/L) - TW	1/10/2011	< 0.5	No
Mercury: Hg (µg/L) - TW	1/10/2011	< 0.02	No
Selenium: Se (µg/L) - TW	1/10/2011	< 1.0	No
Uranium: U (µg/L) - TW	1/10/2011	0.008	No
Fluoride (mg/L) - TW	01/10/11	0.24	No
Nitrite (mg/L) - TW	01/07/13	< 0.005	No
Nitrite (mg/L) - TW	04/02/12	< 0.005	No
Nitrite (mg/L) - TW	07/09/12	< 0.005	No
Nitrite (mg/L) - TW	10/16/12	< 0.005	No
Nitrate (mg/L) - TW	01/07/13	0.258	No
Nitrate (mg/L) - TW	04/02/12	0.281	No
Nitrate (mg/L) - TW	07/09/12	0.250	No
Nitrate (mg/L) - TW	10/16/12	0.233	No
Sodium: Na (mg/L) - TW	01/10/11	0.13	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.

NOTE: Schedule 23, Sodium and Fluoride samples are to be taken every 60 months. The most recent sampling session was in January 2011 for Schedule 23, the next sampling session is scheduled for when the plant restarts. The most recent sampling session for Sodium was in January 2011, the next sampling session is scheduled for when the plant restarts. The most recent sampling session for Fluoride was in January 2011, the next sampling session is scheduled for when the plant restarts.

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	-	-	-	-
Distribution (µg/L)	-	-	-	-

NOTE: This system now qualifies for the plumbing exemption as per Ontario Regulation 170/03 Schedule 15.1-5 (9) (10). Two (2) distribution lead samples are only taken every 36 months during the sampling periods (i.e. 1 distribution sample per period). The most current set of samples was taken in 2015; the next set of samples will be taken in 2018.

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	1/10/2011	< 0.02	No
Aldicarb (µg/L) - TW	1/10/2011	< 0.01	No
Aldrin+Dieldrin (µg/L) - TW	1/10/2011	< 0.01	No
Atrazine + N-dealkylated metabolites (µg/L) - TW	1/10/2011	< 0.01	No
Azinphos-methyl (µg/L) - TW	1/10/2011	< 0.02	No
Bendiocarb (µg/L) - TW	1/10/2011	< 0.01	No
Benzene (µg/L) - TW	1/10/2011	< 0.32	No
Benzo(a)pyrene (µg/L) - TW	1/10/2011	< 0.004	No
Bromoxynil (µg/L) - TW	1/10/2011	< 0.33	No
Carbaryl (µg/L) - TW	1/10/2011	< 0.01	No
Carbofuran (µg/L) - TW	1/10/2011	< 0.01	No
Carbon Tetrachloride (µg/L) - TW	1/10/2011	< 0.16	No
Chlordane: Total (µg/L) - TW	1/10/2011	< 0.01	No
Chlorpyrifos (µg/L) - TW	1/10/2011	< 0.02	No
Cyanazine (µg/L) - TW	1/10/2011	< 0.03	No
Diazinon (µg/L) - TW	1/10/2011	< 0.02	No
Dicamba (µg/L) - TW	1/10/2011	< 0.2	No
1,2-Dichlorobenzene (µg/L) - TW	1/10/2011	< 0.41	No
1,4-Dichlorobenzene (µg/L) - TW	1/10/2011	< 0.36	No
DDT + metabolites (µg/L) - TW	1/10/2011	< 0.01	No
1,2-Dichloroethane (µg/L) - TW	1/10/2011	< 0.35	No
1,1-Dichloroethylene (µg/L) - TW	1/10/2011	< 0.33	No
Dichloromethane (Methylene Chloride) (µg/L) - TW	1/10/2011	< 0.35	No
2,4-Dichlorophenol (µg/L) - TW	1/10/2011	< 0.15	No
Dimethoate (µg/L) - TW	1/10/2011	< 0.03	No
Dinoseb (µg/L) - TW	1/10/2011	< 0.36	No
Diquat (µg/L) - TW	1/10/2011	< 1.0	No
Diuron (µg/L) - TW	1/10/2011	< 0.03	No
Glyphosate (µg/L) - TW	1/10/2011	< 6.0	No
Heptachlor+hepachlor epoxide (µg/L) - TW	1/10/2011	< 0.01	No
Lindane (µg/L) - TW	1/10/2011	< 0.01	No
Malathion (µg/L) - TW	1/10/2011	< 0.02	No
Methoxychlor (µg/L) - TW	1/10/2011	< 0.01	No
Metolachlor (µg/L) - TW	1/10/2011	< 0.01	No
Metribuzin (µg/L) - TW	1/10/2011	< 0.02	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW	1/10/2011	< 0.3	No
Paraquat (µg/L) - TW	1/10/2011	< 1.0	No
Parathion (µg/L) - TW	1/10/2011	< 0.02	No
PCB (µg/L) - TW	1/10/2011	< 0.04	No
Pentachlorophenol (µg/L) - TW	1/10/2011	< 0.15	No
Phorate (µg/L) - TW	1/10/2011	< 0.01	No
Picloram (µg/L) - TW	1/10/2011	< 0.25	No
Prometryne (µg/L) - TW	1/10/2011	< 0.03	No
Simazine (µg/L) - TW	1/10/2011	< 0.01	No
Temephos (µg/L) - TW	1/10/2011	< 0.01	No
Terbufos (µg/L) - TW	1/10/2011	< 0.01	No
Tetrachloroethylene (µg/L) - TW	1/10/2011	< 0.35	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW	1/10/2011	< 0.14	No
Triallate (µg/L) - TW	1/10/2011	< 0.01	No
Trichloroethylene (µg/L) - TW	1/10/2011	< 0.43	No
2,4,6-Trichlorophenol (µg/L) - TW	1/10/2011	1.3	No
Trifluralin (µg/L) - TW	1/10/2011	< 0.02	No
Vinyl Chloride (µg/L) - TW	1/10/2011	< 0.17	No
Trihalomethane: Total (µg/L) Annual Average - DW	2017 (Quarterly)	64.25	No
HAA Total (µg/L) Annual Average - DW	2017 (Quarterly)	29.175	n/a

NOTE: Schedule 24 samples are to be taken every 60 months. The most current sampling session was in January 2011 for Schedule 24, the next sampling session is scheduled for when the plant restarts.

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
Barium	595	mg/L	2011/01/10
Trihalomethane: Total ($\mu\text{g/L}$)	60	$\mu\text{g/L}$	2017/01/09
Trihalomethane: Total ($\mu\text{g/L}$)	52	$\mu\text{g/L}$	2017/04/03
Trihalomethane: Total ($\mu\text{g/L}$)	67	$\mu\text{g/L}$	2017/07/10
Trihalomethane: Total ($\mu\text{g/L}$)	67	$\mu\text{g/L}$	2017/10/17

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)