



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

**TOBERMORY PRIMARY PLACE DAY CARE
DRINKING WATER SYSTEM**

Small Municipal Non-Residential

**SECTION 11
ANNUAL REPORT**

**For the period of
JANUARY 1, 2016 TO DECEMBER 31, 2016**

Prepared by the Ontario Clean Water Agency
For The Municipality of Northern Bruce Peninsula

Drinking Water System Number:	220007034
Drinking Water System Name:	Tobermory Primary Place Day Care
Drinking Water System Owner:	Municipality of Northern Bruce Peninsula
Drinking Water System Category:	Small Municipal Non-Residential
Reporting Period:	January 1, 2016 to December 31, 2016

Number of Designated Facilities served:
 1.

Did you provide a copy of your annual report to all Designated Facilities you serve?
 Yes.

Number of Interested Authorities you report to:
 1.

Did you provide a copy of the annual report to all Interested Authorities you report to for each Designated Facility?
 Yes.

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
n/a	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: Notice included in water billings.

Description of Drinking Water System:

The raw water source is one drilled well. The raw water passes through a softener, followed by treatment consisting of two (2), 0.5 micron cartridge filters, one (1) UV disinfection unit and chlorine disinfection.

List of water treatment chemicals used during the reporting period:

- Water softening salt
- 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:

Replaced Chlorine Contact Tanks.

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
September 9, 2016	Turbidity	>1	NTU	Checked trending online and found that the turbidity level was at 10 NTU. Called Day Care and asked that they not drink the water until further notice. Sent an operator to the Day Care to determine if the issue was due to instrumentation or water quality. Called MOECC, SAC and the MOH (Grey Bruce Health Unit) to inform them of the situation. Once the operator arrived on site, treated water turbidity readings were taken every ~12 minutes all values were <0.08 NTU, it was determined that there were no issues with water quality and the readings from the online turbidity analyzer were false. A raw water turbidity was also taken and found to be 0.4 NTU, the treated water chlorine residual was also confirmed to be 0.83 mg/L. It was confirmed that the false reading was due to the need to replace a dessicant pack. The dessicant pack was replaced and the system was flushed. Upon replacement of the dessicant pack, the online turbidity analyzer values returned to < 1 NTU. Called SAC, MOH, and provided updates to the MOECC and the client. No further actions were recommended by the MOH. Following an investigation done by Heather Lovely MOECC inspector, the MOECC has deemed that this was NOT an adverse water quality incident.	September 9, 2016

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)	13	0	2	1	117	n/a	n/a	n/a
Treated (TW)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Distribution (DW)	27	0	0	0	0	n/a	n/a	n/a

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) - TW	8760	0.0098	1.33
Free Chlorine Residual, In-House (mg/L) - TW	158	0.59	2.6
Free Chlorine Residual, On-Line (mg/L) - DW	8760	0*	3.2026

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

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

**Dip to 0 mg/L due to maintenance. Water flow was shut down and was not being directed to users.*

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
n/a	n/a	n/a	n/a	n/a

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

Parameter	Sample Date	Sample Result	Exceedance
Antimony: Sb (ug/L) - TW	2016/02/29	0.75	No
Arsenic: As (ug/L) - TW	2016/02/29	0.5	No
Barium: Ba (ug/L) - TW	2016/02/29	5.44	No
Boron: B (ug/L) - TW	2016/02/29	21.0	No
Cadmium: Cd (ug/L) - TW	2016/02/29	0.027	No
Chromium: Cr (ug/L) - TW	2016/02/29	1.17	No
Mercury: Hg (ug/L) - TW	2016/02/29	0.02	No
Selenium: Se (ug/L) - TW	2016/02/29	0.05	No
Uranium: U (ug/L) - TW	2016/02/29	14	No
Fluoride (mg/L) - TW	2016/02/29	0.13	No
Nitrite (mg/L) - TW	2016/01/04	<MDL 0.003	No
Nitrite (mg/L) - TW	2016/04/04	<MDL 0.003	No
Nitrite (mg/L) - TW	2016/07/06	<MDL 0.003	No
Nitrite (mg/L) - TW	2016/10/03	<MDL 0.003	No
Nitrate (mg/L) - TW	2016/01/04	4.15	No
Nitrate (mg/L) - TW	2016/04/04	0.405	No
Nitrate (mg/L) - TW	2016/07/06	1.95	No
Nitrate (mg/L) - TW	2016/10/03	2.69	No
Sodium: Na (mg/L) - TW	2016/11/28	142.0	Yes*

**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: The most current set of Schedule 23 samples were taken in February 2016. The next set of samples will be taken in January 2021.

NOTE: Sodium and Fluoride are to be sampled every 60 months. The most current set of samples were taken on May 11, 2015, the next set of samples are scheduled for May 2020.

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 (ug/L)	2	1.87	4.52	0

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

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L) - TW	2016/02/29	<MDL 0.02	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2016/02/29	<MDL 0.01	No
Azinphos-methyl (ug/L) - TW	2016/02/29	<MDL 0.05	No
Benzene (ug/L) - TW	2016/02/29	<MDL 0.32	No
Benzo(a)pyrene (ug/L) - TW	2016/02/29	<MDL 0.004	No
Bromoxynil (ug/L) - TW	2016/02/29	<MDL 0.33	No
Carbaryl (ug/L) - TW	2016/02/29	<MDL 0.05	No
Carbofuran (ug/L) - TW	2016/02/29	<MDL 0.01	No
Carbon Tetrachloride (ug/L) - TW	2016/02/29	<MDL 0.16	No
Chlorpyrifos (ug/L) - TW	2016/02/29	<MDL 0.02	No
Diazinon (ug/L) - TW	2016/02/29	<MDL 0.02	No
Dicamba (ug/L) - TW	2016/02/29	<MDL 0.2	No
1,2-Dichlorobenzene (ug/L) - TW	2016/02/29	<MDL 0.41	No
1,4-Dichlorobenzene (ug/L) - TW	2016/02/29	<MDL 0.36	No
1,2-Dichloroethane (ug/L) - TW	2016/02/29	<MDL 0.35	No
1,1-Dichloroethylene (ug/L) - TW	2016/02/29	<MDL 0.33	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2016/02/29	<MDL 0.35	No
2,4-Dichlorophenol (ug/L) - TW	2016/02/29	<MDL 0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2016/02/29	<MDL 0.19	No
Diclofop-methyl (ug/L) - TW	2016/02/29	<MDL 0.4	No
Dimethoate (ug/L) - TW	2016/02/29	<MDL 0.03	No
Diquat (ug/L) - TW	2016/02/29	<MDL 1.0	No
Diuron (ug/L) - TW	2016/02/29	<MDL 0.03	No
Glyphosate (ug/L) - TW	2016/02/29	<MDL 1.0	No
Malathion (ug/L) - TW	2016/02/29	<MDL 0.02	No
Metolachlor (ug/L) - TW	2016/02/29	<MDL 0.01	No
Metribuzin (ug/L) - TW	2016/02/29	<MDL 0.02	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2016/02/29	<MDL 0.3	No
Paraquat (ug/L) - TW	2016/02/29	<MDL 1.0	No
PCB (ug/L) - TW	2016/02/29	<MDL 0.04	No
Pentachlorophenol (ug/L) - TW	2016/02/29	<MDL 0.15	No
Phorate (ug/L) - TW	2016/02/29	<MDL 0.01	No
Picloram (ug/L) - TW	2016/02/29	<MDL 1.0	No
Prometryne (ug/L) - TW	2016/02/29	<MDL 0.03	No
Simazine (ug/L) - TW	2016/02/29	<MDL 0.01	No
Terbufos (ug/L) - TW	2016/02/29	<MDL 0.01	No
Tetrachloroethylene (ug/L) - TW	2016/02/29	<MDL 0.35	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2016/02/29	<MDL 0.2	No
Triallate (ug/L) - TW	2016/02/29	<MDL 0.01	No
Trichloroethylene (ug/L) - TW	2016/02/29	<MDL 0.44	No
2,4,6-Trichlorophenol (ug/L) - TW	2016/02/29	<MDL 0.25	No
Trifluralin (ug/L) - TW	2016/02/29	<MDL 0.02	No
Vinyl Chloride (ug/L) - TW	2016/02/29	<MDL 0.17	No
THM (ug/L) – DW (Average)*	n/a	n/a	n/a

NOTE: The most current set of Schedule 24 samples were taken in September 2016. The next set of samples will be taken in January 2021.

*Trihalomethane sampling is required for large municipal residential, small municipal residential, and non-municipal year-round residential systems.

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
Sodium	142.0	mg/L	May 11, 2015

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)

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.