



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220001402
Drinking-Water System Name:	Horseshoe Highlands Water System
Drinking-Water System Owner:	Township of Oro-Medonte
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2017 to December 31, 2017

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Township of Oro-Medonte 148 Line 7 South Oro-Medonte, ON L0L 2E0 Tel: 705-487-2171</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: 100px;">None</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: 100px;">None</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
---	---

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
None	

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 []



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

- Public access/notice via the web** www.oro-medonte.ca
- 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 in Open Session Staff Report to Council

Describe your Drinking-Water System

Horseshoe Highlands is serviced with 3-phase, 600 volt power. Horseshoe Highlands is a ground water system with submersible pumps, with two (2) separate lines supplying the pumping station. Raw water enters the pumphouse via two (2) 200 mm lines and is treated with Sodium Hypochlorite. The treated water is then discharged through a 250mm line to the chlorine contact main, which is comprised of 183.5 metres of 600mm PVC diameter pipe, which provides 15-minute chlorine contact time.

The treated water is stored in the elevated water tower, with an operating capacity of 1,280 cubic meters. The treated water is gravity fed into the distribution system. The system is equipped with an alarm system that monitors high/low pressure, high/low reservoir levels, AC failure, low well levels and pump failure. The distribution system consists of 300mm, 250mm, 200mm and 150mm PVC watermains, sixty-one (61) hydrants, two (2) sample stations and forty-two (42) valve boxes. The water distribution system serves residential units, time-share units as part of the Highlands subdivision and Carriage Hills Resort, a Fire Hall and Police detachment, and a nurse practitioner clinic.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite (liquid chlorine)

Were any significant expenses incurred to?

- Install NEW equipment
- Repair required equipment
- Replace required equipment

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

Completed inspection and minor maintenance of the elevated water tower. \$15,000



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
	None in 2016				

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	100	0	0-5	0	-
Treated	50	0	0	50	0-70
Distribution	117	0	0	113	0-210

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	<i>NOTE: For continuous monitors use 8760 as the number of samples.</i>
Turbidity	8760	0.00-1.99	NTU	
Chlorine	8760	0.61-2.58	mg/l	
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A	

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
None Required				

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	Jul. 28, 2015	0.02<MDL	ug/l	No
Arsenic	Jul. 28, 2015	0.2 <MDL	ug/l	No
Barium	Jul. 28, 2015	37.1	ug/l	No
Boron	Jul. 28, 2015	8.9	ug/l	No
Cadmium	Jul. 28, 2015	0.003<MDL	ug/l	No
Chromium	Jul. 28, 2015	0.78	ug/l	No
*Lead	N/A	N/A	N/A	N/A
Mercury	Jul. 28, 2015	0.01<MDL	ug/l	No

Selenium	Jul. 28, 2015	0.19	ug/l	No
Sodium	Oct. 16, 2013	12.1	mg/l	No
Uranium	Jul. 28, 2015	0.664	ug/l	No
Fluoride	Oct. 16, 2013	0.25	mg/l	No
Nitrite	Oct. 31, 2017	0.003<MDL	mg/l	No
Nitrate	Oct. 31, 2017	1.87	mg/l	No

*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	0	N/A	N/A	0
Distribution	0	N/A Due 2018	N/A	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	Apr. 29, 2015	0.02<MDL	ug/l	No
Aldicarb	Apr. 29, 2015	0.01<MDL	ug/l	No
Aldrin + Dieldrin	Apr. 29, 2015	0.01<MDL	ug/l	No
Atrazine + N-dealkylated metabolites	Apr. 29, 2015	0.01<MDL	ug/l	No
Azinphos-methyl	Apr. 29, 2015	0.02<MDL	ug/l	No
Bendiocarb	Apr. 29, 2015	0.01<MDL	ug/l	No
Benzene	Apr. 29, 2015	0.32<MDL	ug/l	No
Benzo(a)pyrene	Apr. 29, 2015	0.004<MDL	ug/l	No
Bromoxynil	Apr. 29, 2015	0.33<MDL	ug/l	No
Carbaryl	Apr. 29, 2015	0.01<MDL	ug/l	No
Carbofuran	Apr. 29, 2015	0.01<MDL	ug/l	No
Carbon Tetrachloride	Apr. 29, 2015	0.16<MDL	ug/l	No
Chlordane (Total)	Apr. 29, 2015	0.01<MDL	ug/l	No
Chlorpyrifos	Apr. 29, 2015	0.02<MDL	ug/l	No
Cyanazine	Apr. 29, 2015	0.03<MDL	ug/l	No
Diazinon	Apr. 29, 2015	0.02<MDL	ug/l	No
Dicamba	Apr. 29, 2015	0.20<MDL	ug/l	No
1,2-Dichlorobenzene	Apr. 29, 2015	0.41<MDL	ug/l	No
1,4-Dichlorobenzene	Apr. 29, 2015	0.36<MDL	ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Apr. 29, 2015	0.01<MDL	ug/l	No

1,2-Dichloroethane	Apr. 29, 2015	0.35<MDL	ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Apr. 29, 2015	0.33<MDL	ug/l	No
Dichloromethane	Apr. 29, 2015	0.35<MDL	ug/l	No
2-4 Dichlorophenol	Apr. 29, 2015	0.15<MDL	ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Apr. 29, 2015	0.19<MDL	ug/l	No
Diclofop-methyl	Apr. 29, 2015	0.40<MDL	ug/l	No
Dimethoate	Apr. 29, 2015	0.03<MDL	ug/l	No
Dinoseb	Apr. 29, 2015	0.36<MDL	ug/l	No
Diquat	Apr. 29, 2015	1<MDL	ug/l	No
Diuron	Apr. 29, 2015	0.02<MDL	ug/l	No
Glyphosate	Apr. 29, 2015	6<MDL	ug/l	No
Heptachlor + Heptachlor Epoxide	Apr. 29, 2015	0.01<MDL	ug/l	No
Lindane (Total)	Apr. 29, 2015	0.01<MDL	ug/l	No
Malathion	Apr. 29, 2015	0.02<MDL	ug/l	No
Methoxychlor	Apr. 29, 2015	0.01<MDL	ug/l	No
Metolachlor	Apr. 29, 2015	0.01<MDL	ug/l	No
Metribuzin	Apr. 29, 2015	0.02<MDL	ug/l	No
Monochlorobenzene	Apr. 29, 2015	0.3<MDL	ug/l	No
Paraquat	Apr. 29, 2015	1<MDL	ug/l	No
Parathion	Apr. 29, 2015	0.02<MDL	ug/l	No
Pentachlorophenol	Apr. 29, 2015	0.15<MDL	ug/l	No
Phorate	Apr. 29, 2015	0.01<MDL	ug/l	No
Picloram	Apr. 29, 2015	0.25<MDL	ug/l	No
Polychlorinated Biphenyls(PCB)	Apr. 29, 2015	0.04<MDL	ug/l	No
Prometryne	Apr. 29, 2015	0.03<MDL	ug/l	No
Simazine	Apr. 29, 2015	0.01<MDL	ug/l	No
THM (NOTE: show latest annual average)	Jan. 31, 2017 Apr. 25, 2017 July 19, 2017 Oct. 31, 2017	4.9	ug/l	No
HAA (NOTE: show latest annual average)	Jan. 31, 2017 Apr. 25, 2017 July 19, 2017 Oct. 31, 2017	5.3<MDL	ug/l	No
Temephos	Apr. 29, 2015	0.01<MDL	ug/l	No
Terbufos	Apr. 29, 2015	0.01<MDL	ug/l	No
Tetrachloroethylene	Apr. 29, 2015	0.35<MDL	ug/l	No
2,3,4,6-Tetrachlorophenol	Apr. 29, 2015	0.14<MDL	ug/l	No
Triallate	Apr. 29, 2015	0.01<MDL	ug/l	No
Trichloroethylene	Apr. 29, 2015	0.44<MDL	ug/l	No



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

2,4,6-Trichlorophenol	Apr. 29, 2015	0.25<MDL	ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Apr. 29, 2015	0.22<MDL	ug/l	No
Trifluralin	Apr. 29, 2015	0.02<MDL	ug/l	No
Vinyl Chloride	Apr. 29, 2015	0.17<MDL	ug/l	No

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
None			