



ANNUAL REPORT

Drinking-Water System Number:	260061958
Drinking-Water System Name:	West Shore Treatment and Distribution
Drinking-Water System Owner:	The Corporation of the Township of Severn
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2018 to December 31, 2018

<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 Severn Administrative Office 1024 Hurlwood Lane Severn, Ontario L3V 0Y6</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text"/></p> <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: <input type="text"/></p> <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
West Shore Beach Club Distribution System	260095641

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 [X] No []



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 _____

Describe your Drinking-Water System

Water for the West Shore water treatment plant is pumped from Lake Couchiching, via three low lift pumps located at 3491 Hedgemere Landing, to a package water treatment plant located at 3333 New Brailey Line. The treatment plant consists of a conventional two-train coagulation, flocculation, sedimentation and filtration plant. Filtered water flows through granular activated carbon tanks for taste and odor removal before being disinfected by ultraviolet light and sodium hypochlorite. Water is then stored in a 1,910 m³ concrete underground reservoir. Backwash water from the filters is sent directly to the sanitary sewage system. Three high lift pumps provide water to the distribution system. The distribution system was constructed in 2005 and consists of PVC water main with PE service piping. There are 12 sample stations, 127 fire hydrants and 7 private hydrants connected to the distribution system. The West Shore system services approximately 800 residential and commercial properties as well as supplying water to 86 homes in the West Shore Beach Club.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
 Alum
 ClearFloc AP1065 polymer

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

Replacement of five (5) sample stations	\$16,000
Replacement of three (3) turbidity analyzers with new HACH Tu5300 units	\$16,000

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
Oct. 23, 2018	Sodium	32.2	mg/L	Resampled	Oct. 24, 2018



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	54	0 – 2	0 – 500	N/A	N/A
Treated	53	0 – 0	0 – 0	53	0 – 220
Distribution	162	0 – 0	0 – 0	54	0 – 35

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 #)
Turbidity – Train 1	8760	0.028 – 0.261 NTU
Turbidity – Train 2	8760	0.028 – 0.229 NTU
Turbidity	8760	0.035 – 0.141 NTU
Chlorine	8760	1.12 – 1.86
Chlorine Free Residual Distribution System	364	0.39 – 1.91
Fluoride (If the DWS provides fluoridation)	N/A	N/A

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

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

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	October 15, 2018	0.03	µg/L	No
Arsenic	October 15, 2018	0.3	µg/L	No
Barium	October 15, 2018	25.7	µg/L	No
Boron	October 15, 2018	20	µg/L	No
Cadmium	October 15, 2018	<0.003	µg/L	No
Chromium	October 15, 2018	0.14	µg/L	No
*Lead	N/A			
Mercury	October 15, 2018	0.01	µg/L	No
Selenium	October 15, 2018	<0.04	µg/L	No
Sodium	October 15, 2018	32.2	mg/L	Yes



Uranium	October 2, 2017	0.020	µg/L	No
Fluoride	October 26, 2015	<0.06	mg/L	No
Nitrite	January 9, 2018	<0.003	mg/L	No
	April 16, 2018	<0.003		
	July 16, 2018	<0.003		
	October 15, 2018	<0.003		
Nitrate	January 9, 2018	0.066	mg/L	No
	April 16, 2018	0.163		
	July 16, 2018	0.068		
	October 15, 2018	0.050		

*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 #)	Number of Exceedances
Plumbing	22	0.08 – 7.28	1
Distribution	4	0.58 – 1.26	0

Note: Lead sample results are from the Westshore Beach Club Distribution System DWS# 260095641

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	October 15, 2018	<0.02	µg/L	No
Atrazine + N-dealkylated metabolites	October 15, 2018	<0.01	µg/L	No
Azinphos-methyl	October 15, 2018	<0.05	µg/L	No
Benzene	October 15, 2018	<0.32	µg/L	No
Benzo(a)pyrene	October 15, 2018	<0.004	µg/L	No
Bromoxynil	October 15, 2018	<0.33	µg/L	No
Carbaryl	October 15, 2018	<0.05	µg/L	No
Carbofuran	October 15, 2018	<0.01	µg/L	No
Carbon Tetrachloride	October 15, 2018	<0.16	µg/L	No
Chlorpyrifos	October 15, 2018	<0.02	µg/L	No
Diazinon	October 15, 2018	<0.02	µg/L	No
Dicamba	October 15, 2018	<0.20	µg/L	No
1,2-Dichlorobenzene	October 15, 2018	<0.41	µg/L	No
1,4-Dichlorobenzene	October 15, 2018	<0.36	µg/L	No
1,2-Dichloroethane	October 15, 2018	<0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	October 15, 2018	<0.33	µg/L	No
Dichloromethane	October 15, 2018	<0.35	µg/L	No
2-4 Dichlorophenol	October 15, 2018	<0.15	µg/L	No



2,4-Dichlorophenoxy acetic acid (2,4-D)	October 15, 2018	<0.19	µg/L	No
Diclofop-methyl	October 15, 2018	<0.40	µg/L	No
Dimethoate	October 15, 2018	<0.03	µg/L	No
Diquat	October 15, 2018	<1	µg/L	No
Diuron	October 15, 2018	<0.03	µg/L	No
Glyphosate	October 15, 2018	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2018 Average	27.4	µg/L	No
Malathion	October 15, 2018	<0.02	µg/L	No
MCPA	October 15, 2018	<0.0001 2	mg/L	No
Metolachlor	October 15, 2018	<0.01	µg/L	No
Metribuzin	October 15, 2018	<0.02	µg/L	No
Monochlorobenzene	October 15, 2018	<0.30	ug/L	No
Paraquat	October 15, 2018	<1	µg/L	No
Pentachlorophenol	October 15, 2018	<0.15	µg/L	No
Phorate	October 15, 2018	<0.01	µg/L	No
Picloram	October 15, 2018	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	October 15, 2018	<0.04	µg/L	No
Prometryne	October 15, 2018	<0.03	µg/L	No
Simazine	October 15, 2018	<0.01	µg/L	No
THM (NOTE: show latest annual average)	2018 Average	42.75	µg/L	No
Terbufos	October 15, 2018	<0.01	µg/L	No
Tetrachloroethylene	October 15, 2018	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	October 15, 2018	<0.20	µg/L	No
Triallate	October 15, 2018	<0.01	µg/L	No
Trichloroethylene	October 15, 2018	<0.44	µg/L	No
2,4,6-Trichlorophenol	October 15, 2018	<0.25	µg/L	No
Trifluralin	October 15, 2018	<0.02	µg/L	No
Vinyl Chloride	October 15, 2018	<0.17	µg/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
Sodium	32.2	mg/L	October 15, 2018