



ANNUAL REPORT

Drinking-Water System Number:	220005143
Drinking-Water System Name:	Bass Lake Woodlands Water Supply 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:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></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; width: 100px; height: 20px; margin: 5px 0;"></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>
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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
N/A	

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
- 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 Bass Lake Woodlands comes from three (3) ground water wells located at 1852 Ridley Boulevard. Groundwater is pumped from the well into the pump house where it is chlorinated using sodium hypochlorite. It then travels through a 32 m³ chlorine contact tank before being stored in a 136 m³ underground reservoir. Treated water is pumped from the reservoir by three VFD-controlled vertical turbine high lift pumps to the distribution system. The distribution system is comprised of 150 mm PVC water main with copper and PE service lines to the homes. There are four (4) sample stations and three (3) blow-offs located throughout the distribution system. There are no fire hydrants. The system services approximately 450 residents of the community Bass Lake Woodlands.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

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

Well 2 Inspection and Rehabilitation	\$9,750
Well 3 Inspection and Rehabilitation	\$9,750
SCADA Upgrade	\$50,000
Replacement of two (2) Sample Stations	\$6,400
Highlift Pump #2 Rebuild	\$26,000

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	38.6	mg/L	Resample	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 – Well #1	53	0 - 0	0 – 0	N/A	-
Raw – Well #2	52	0 - 0	0 – 0	N/A	-
Raw – Well #3	57	0 - 0	0 – 63	N/A	-
Treated	53	0 – 0	0 – 0	N/A	-
Distribution	106	0 - 0	0 - 0	104	0 - 13

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 – Well #1	12	0.09 – 0.38 NTU
Turbidity – Well #2	12	0.25 – 0.55 NTU
Turbidity – Well #3	12	0.13 – 0.61 NTU
Turbidity	8760	0.13 – 0.39 NTU
Chlorine	8760	0.76 – 1.06
Chlorine Free Residual Distribution System	369	0.50 – 1.05
Fluoride (If the DWS provides fluoridation)	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	January 8, 2018	<0.02	µg/L	No
Arsenic	January 8, 2018	<0.2	µg/L	No
Barium	January 8, 2018	248	µg/L	No
Boron	January 8, 2018	17	µg/L	No
Cadmium	January 8, 2018	0.005	µg/L	No



Chromium	January 8, 2018	0.99	µg/L	No
*Lead	N/A			
Mercury	January 8, 2018	<0.01	µg/L	No
Selenium	January 8, 2018	0.08	µg/L	No
Sodium	Oct. 15, 2018	38.6	mg/L	Yes
Uranium	January 8, 2018	0.229	µg/L	No
Fluoride	January 8, 2018	0.08	mg/L	No
Nitrite	January 8, 2018	0.003	mg/L	No
	April 16, 2018	0.003		
	July 16, 2018	0.003		
	Oct. 15, 2018	0.003		
Nitrate	January 8, 2018	1.11	mg/L	No
	April 16, 2018	1.02		
	July 16, 2018	0.979		
	Oct. 15, 2018	1.08		

*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			
Distribution			

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	January 8, 2018	<0.02	µg/L	No
Atrazine + N-dealkylated metabolites	January 8, 2018	<0.01	µg/L	No
Atrazine	January 8, 2018	<0.01	µg/L	No
Azinphos-methyl	January 8, 2018	<0.05	µg/L	No
Benzene	January 8, 2018	<0.32	µg/L	No
Benzo(a)pyrene	January 8, 2018	<0.004	µg/L	No
Bromoxynil	January 8, 2018	<0.33	µg/L	No
Carbaryl	January 8, 2018	<0.05	µg/L	No
Carbofuran	January 8, 2018	<0.01	µg/L	No
Carbon Tetrachloride	January 8, 2018	<0.16	µg/L	No
Chlorpyrifos	January 8, 2018	<0.02	µg/L	No
Diazinon	January 8, 2018	<0.02	µg/L	No
Dicamba	January 8, 2018	<0.20	µg/L	No



1,2-Dichlorobenzene	January 8, 2018	<0.41	µg/L	No
1,4-Dichlorobenzene	January 8, 2018	<0.36	µg/L	No
1,2-Dichloroethane	January 8, 2018	<0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	January 8, 2018	<0.33	µg/L	No
Dichloromethane	January 8, 2018	<0.35	µg/L	No
2,4 Dichlorophenol	January 8, 2018	<0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	January 8, 2018	<0.19	µg/L	No
Diclofop-methyl	January 8, 2018	<0.40	µg/L	No
Dimethoate	January 8, 2018	<0.03	µg/L	No
Diquat	January 8, 2018	<1	µg/L	No
Diuron	January 8, 2018	<0.03	µg/L	No
Glyphosate	January 8, 2018	<1	µg/L	No
Haloacetic Acids (HAA5) (NOTE: show latest annual average)	2018 Average	<5.3	µg/L	No
Malathion	January 8, 2018	<0.02	µg/L	No
Metolachlor	January 8, 2018	<0.01	µg/L	No
Metribuzin	January 8, 2018	<0.02	µg/L	No
MCPA	January 8, 2018	<0.00012	mg/L	No
Monochlorobenzene	January 8, 2018	<0.3	µg/L	No
Paraquat	January 8, 2018	<1	µg/L	No
Pentachlorophenol	January 8, 2018	<0.15	µg/L	No
Phorate	January 8, 2018	<0.01	µg/L	No
Picloram	January 8, 2018	<1	µg/L	No
Polychlorinated Biphenyls (PCB)	January 8, 2018	<0.04	µg/L	No
Prometryne	January 8, 2018	<0.03	µg/L	No
Simazine	January 8, 2018	<0.01	µg/L	No
THM (NOTE: show latest annual average)	2018 Average	6.15	µg/L	No
Terbufos	January 8, 2018	<0.01	µg/L	No
Tetrachloroethylene	January 8, 2018	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	January 8, 2018	<0.20	µg/L	No
Triallate	January 8, 2018	<0.01	µg/L	No
Trichloroethylene	January 8, 2018	<0.44	µg/L	No
2,4,6-Trichlorophenol	January 8, 2018	<0.25	µg/L	No
Trifluralin	January 8, 2018	<0.02	µg/L	No
Vinyl Chloride	January 8, 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	38.8	mg/L	October 15, 2018