

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	210001111
Drinking-Water System	Sudbury Drinking Water System - Wanapitei
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2010-01-01 To 2010-12-31

<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 <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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>www.greatersudbury.ca TDS-Engineering Department</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Number of Interested Authorities you report to: <input type="text" value="0"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></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
Markstay-Warren	220013606
Sudbury Drinking Water System - Garson	220003485
Sudbury Drinking Water System - David St.	220003537

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/Citizen Service Centre
- Public access/notice via other method _____

Describe your Drinking-Water System

The Wanapitei Water Treatment Plant is a surface water plant which draws water from the Wanapitei River. Proportionally, the plant services approximately 60% of Sudbury, with the water being produced supplying the northeastern and northwestern areas of the City but includes Markstay, Coniston and parts of Garson (west of Falconbridge Road at O'Neil Drive) as well as supplying water to the Ellis Reservoir. The raw water is pumped from the Wanapitei River via the Wanapitei intake, a concrete intake structure that protrudes into the Wanapitei River. The raw intake pumphouse is situated north of Hwy. 17, in the community of Wahnapiatae. The raw water passes through a coarse aluminum bar screen then through two finer stainless steel screens inside the station before being pumped to the treatment plant to the west. The Wanapitei WTP utilizes a conventional water treatment process complete with Coagulation / Flocculation, Sedimentation and Filtration by dual media filters. Ultra-Violet irradiation was added to the end of the process in 2010. The plant is in full treatment compliance with O. Reg. 170/03.

List all water treatment chemicals used over this reporting period

Chlorine Gas UN#1017, Hydrofluosilicic Acid UN#1778, Polyphosphate, Sodium Chlorite UN#1908, PAS-Aluminum Sulfate UN#3264, Hydrated Lime, Polyelectrolyte, Chlorine Dioxide (generated onsite)

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

The addition of a new Ultra-Violet irradiation system/facility and upgrades to the standby diesel system was completed in 2010 at a cost of approximately \$5,000,000. The plant Polymer feed system was upgraded at a cost of approximately \$200,000, the plant's field bed was upgraded at a cost of \$26,000 and a new sump and controls for a chemical room at an approximate cost of \$5,000.

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

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
2010/02/18	Pressure	0	psi	Flushing mains/pipes;	2010/02/20
2010/08/15	UV	0	mj/cm ²	Disinfectant restored/increased;	2010/08/18
2010/10/05	UV	0	mj/cm ²	Disinfectant restored/increased;	2010/10/05
2010/11/11	Total Coliform	1	cfu	Resample/Re-test;	2010/11/16
2010/11/13	Total Coliform	19	cfu	Resample/Re-test;	2010/11/16
2010/11/29	Distribution pressure dropped below 20 psi @ 1300	<20	psi	Distribution sampling being done in area. Initial by Dan Kvaltin	2010/12/01

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: WANAPITEI RIVER					
	100	0 to 20	0 to 211		
Treated: HL PUMP STATION, Sudbury (Wanapitei) WTP					
	143	0 to 0	0 to 0	140	0 to 940
Distribution					
	1,411	0 to 0	0 to 19	358	0 to 500

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 #)
Chlorine Residual Distribution System	8,760	0.24 - 3.03

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

HL PUMP STATION, Sudbury (Wanapitei) WTP

Turbidity	8,760	0.002 - 0.80	NTU
Chlorine	8,760	0.64 - 2.66	mg/L
Fluoride (If the DWS provides fluoridation)	365	0.16 - 0.85	mg/L

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 or 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 most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Lead	2010/12/15	0.001	mg/L	No

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2010/12/21	0.0005	mg/L	No
Arsenic	2010/12/21	0.001	mg/L	No
Barium	2010/12/21	0.0132	mg/L	No
Boron	2010/12/21	0.0033	mg/L	No
Cadmium	2010/12/21	0.0001	mg/L	No
Chromium	2010/12/21	0.001	mg/L	No
Mercury	2010/12/21	0.000104	mg/L	No
Selenium	2010/12/21	0.001	mg/L	No
Uranium	2010/12/21	0.001	mg/L	No
Nitrite	2010/03/15	0.05	mg/L	No
	2010/06/15	0.05	mg/L	No
	2010/09/13	0.03	mg/L	No
	2010/12/21	0.05	mg/L	No
Nitrate	2010/03/15	0.1	mg/L	No
	2010/06/15	0.1	mg/L	No
	2010/09/13	0.1	mg/L	No
	2010/12/21	0.13	mg/L	No
Sodium	2010/09/13	1.53	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period.

Location Type	Number of Samples	Range of Lead Results (min#) - (max#)	Number of Exceedances
Plumbing	45	0.001 - 0.0015 mg/L	0
Distribution	9	0.001 - 0.001 mg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	2010	0.0708	mg/L	No

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2010/12/21	0.00048	mg/L	No
Aldicarb	2010/12/21	0.0005	mg/L	No
Aldrin + Dieldrin	2010/12/21	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2010/12/21	0.0009	mg/L	No
Azinphos-methyl	2010/12/21	0.00036	mg/L	No
Bendiocarb	2010/12/21	0.001	mg/L	No
Benzene	2010/12/21	0.00025	mg/L	No
Benzo(a)pyrene	2010/12/21	0.0000068	mg/L	No
Bromoxynil	2010/12/21	0.00052	mg/L	No
Carbaryl	2010/12/21	0.001	mg/L	No
Carbofuran	2010/12/21	0.001	mg/L	No
Carbon Tetrachloride	2010/12/21	0.00025	mg/L	No
Chlordane (Total)	2010/12/21	0.000004	mg/L	No
Chlorpyrifos	2010/12/21	0.00036	mg/L	No
Cyanazine	2010/12/21	0.00036	mg/L	No
Diazinon	2010/12/21	0.00036	mg/L	No
Dicamba	2010/12/21	0.00021	mg/L	No
1,2-Dichlorobenzene	2010/12/21	0.00025	mg/L	No
1,4-Dichlorobenzene	2010/12/21	0.00025	mg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	2010/12/21	0.000005	mg/L	No
1,2-Dichloroethane	2010/12/21	0.00025	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2010/12/21	0.00025	mg/L	No
Dichloromethane	2010/12/21	0.00025	mg/L	No
2-4 Dichlorophenol	2010/12/21	0.000059	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2010/12/21	0.00021	mg/L	No
Diclofop-methyl	2010/12/21	0.00021	mg/L	No
Dimethoate	2010/12/21	0.00036	mg/L	No
Dinoseb	2010/12/21	0.000052	mg/L	No
Diquat	2010/12/21	0.007	mg/L	No
Diuron	2010/12/21	0.005	mg/L	No
Glyphosate	2010/12/21	0.02	mg/L	No

Heptachlor + Heptachlor Epoxide	2010/12/21	0.000004	mg/L	No
Linadane (Total)	2010/12/21	0.00000064	mg/L	No
Malathion	2010/12/21	0.00036	mg/L	No
Methoxychlor	2010/12/21	0.0000017	mg/L	No
Metolachlor	2010/12/21	0.00024	mg/L	No
Metribuzin	2010/12/21	0.00024	mg/L	No
Monochlorobenzene	2010/12/21	0.00025	mg/L	No
Paraquat	2010/12/21	0.001	mg/L	No
Parathion	2010/12/21	0.00024	mg/L	No
Pentachlorophenol	2010/12/21	0.000059	mg/L	No
Phorate	2010/12/21	0.00036	mg/L	No
Picloram	2010/12/21	0.000052	mg/L	No
Polychlorinated Biphenyls(PCB)	2010/12/21	0.0000053	mg/L	No
Prometryne	2010/12/21	0.00024	mg/L	No
Simazine	2010/12/21	0.00036	mg/L	No
Temephos	2010/12/21	0.014	mg/L	No
Terbufos	2010/12/21	0.00024	mg/L	No
Tetrachloroethylene	2010/12/21	0.00025	mg/L	No
2,3,4,6-Tetrachlorophenol	2010/12/21	0.000059	mg/L	No
Triallate	2010/12/21	0.00024	mg/L	No
Trichloroethylene	2010/12/21	0.00025	mg/L	No
2,4,6-Trichlorophenol	2010/12/21	0.000059	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2010/12/21	0.000052	mg/L	No
Trifluralin	2010/12/21	0.00024	mg/L	No
Vinyl Chloride	2010/12/21	0.00025	mg/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
Benzo(a)pyrene	6.8e-006	mg/L	2010/12/21

(Only if DWS category is large municipal residential, small municipal residential, large municipal non-residential, non municipal year round residential, large non municipal non residential)