

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

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	210001111
Drinking-Water System	Wanapitei Water Treatment Plant and Distribution System
Drinking-Water System Owner:	City of Greater Sudbury
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	From 2006-01-01 To 2006-12-31

<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; margin-top: 5px;"> www.greatersudbury.ca TDS-Engineering Department </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px;" 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 style="width: 100px;" 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
Garson Wells and Distribution System	220003485

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

The City of Greater Sudbury includes the urban area of Sudbury and the surrounding outlying areas with the Wanapitei Treatment Water Treatment Plant servicing the northeastern and northwestern urban areas including 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 which is situated just north of Hwy. 17 in the community of Wahnapiatae on the banks of the Wanapitei River. The Raw water is drawn from a concrete intake structure that protrudes approximately 18 metres into the Wanapitei River. The raw water passes through a coarse aluminum bar screen before it enters the Raw Water Intake Pumping Station then through two finer stainless steel screens inside the station before being pumped to the treatment plant approximately 2 km to the west. The Wanapitei Water Treatment utilizes a conventional water treatment process complete with Coagulation / Flocculation, chemically assisted filtration, and disinfection. The Treatment Process consists of Pre- chemical Treatment (Chlorine/Chlorine Dioxide for disinfection and oxidation, Alum for coagulation, Lime for Alkalinity adjustment and Polyelectrolyte for flocculation), Sludge Removal, Filtration (Dual Media Filters). Post Chemical Treatment includes Chlorine for disinfection, Lime for ph adjustment, Fluoride for prevention of dental cavities and Polyphosphate a corrosion inhibitor.

The source water, the Wanapitei River, like all surface water sources may be under the influence of several sources of contamination. The primary influence is from atmospheric deposition of acid and metals from the nickel and copper smelting operations in Sudbury, as well as mine drainage from the abandoned Whistle Mine north of Lake Wanapitei. Although this has been a greater influence in the past, the river does have elevated levels of nickel, copper and manganese due to the smelting industry.

Also, as a result of having a river for a water source, the raw water is subject to the influence of storms and rainfall which causes fluctuations in raw water quality. Overall, the river provides the plant with a high quality source of clean water. Please help us to keep our drinking water source safe from doing your part in pollution prevention.

List all water treatment chemicals used over this reporting period

Chlorine Gas, Sodium Hydroxide, Polyphosphate, Sodium Chlorite (20%), PHAS-Aluminum Sulfate, Polymer, Hydrated Lime, Fluoride (Hydrofluosilicic acid 20-30%), Chlorine Dioxide

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

Reactivator # 2 Mixer Components were repaired and minor repairs on skirt supports were completed. Total cost of repair and related work was \$25,000.

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
2006/11/04	Total Coliform	10	cfu	Resample/Re-test;	2006/11/06

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					
	79	0 to 17	0 to 200		
Treated: HL PUMP STATION, Sudbury (Wanapitei) WTP					
	166	0 to 0	0 to 0	52	0 to 30
Distribution					
	1,565	0 to 0	0 to 10	505	0 to 1780

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	0.13 - 1.99

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

HL PUMP STATION, Sudbury (Wanapitei) WTP

Turbidity	8,760	0.00 - 1.14
Chlorine	8,760	0.40 - 2.00
Fluoride (If the DWS provides fluoridation)	363	0.07 - 1.28

*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	2006/02/20	<0.001	mg/L	No

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2006/02/20	0.0005	mg/L	No
Arsenic	2006/02/20	0.001	mg/L	No
Barium	2006/02/20	0.012	mg/L	No
Boron	2006/02/20	0.004	mg/L	No
Cadmium	2006/02/20	0.0001	mg/L	No
Chromium	2006/02/20	0.001	mg/L	No
Mercury	2006/09/18	0.00018	mg/L	No
Selenium	2006/02/20	0.001	mg/L	No
Uranium	2006/02/20	0.001	mg/L	No
Fluoride	2004/01/19	0.58	mg/L	No
Nitrite	2006/02/20	0.05	mg/L	No
	2006/05/01	0.05	mg/L	No
	2006/09/20	0.05	mg/L	No
	2006/12/01	0.05	mg/L	No
Nitrate	2006/02/20	0.2	mg/L	No
	2006/05/01	0.2	mg/L	No
	2006/09/20	0.1	mg/L	No
	2006/12/01	0.19	mg/L	No
Sodium	2005/12/14	1.60	mg/L	No

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)	2006	0.0458	mg/L	No

HL PUMP STATION, Sudbury (Wanapitei) WTP

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2006/02/20	0.0008	mg/L	No
Aldicarb	2006/02/20	0.001	mg/L	No
Aldrin + Dieldrin	2006/02/20	0.000004	mg/L	No
Atrazine + N-dealkylated metabolites	2006/02/20	0.0009	mg/L	No
Azinphos-methyl	2006/02/20	0.0006	mg/L	No
Bendiocarb	2006/02/20	0.002	mg/L	No

Benzene	2006/02/22	0.0003	mg/L	No
Benzo(a)pyrene	2006/02/20	0.00001	mg/L	No
Bromoxynil	2006/02/20	0.001	mg/L	No
Carbaryl	2006/02/20	0.002	mg/L	No
Carbofuran	2006/02/20	0.002	mg/L	No
Carbon Tetrachloride	2006/02/22	0.0003	mg/L	No
Chlordane (Total)	2006/02/20	0.000004	mg/L	No
Chlorpyrifos	2006/02/20	0.0006	mg/L	No
Cyanazine	2006/02/20	0.0006	mg/L	No
Diazinon	2006/02/20	0.0006	mg/L	No
Dicamba	2006/02/20	0.0004	mg/L	No
1,2-Dichlorobenzene	2006/02/22	0.0003	mg/L	No
1,4-Dichlorobenzene	2006/02/22	0.0003	mg/L	No
(DDT) + metabolites	2006/02/20	0.000005	mg/L	No
1,2-Dichloroethane	2006/02/22	0.0003	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2006/02/22	0.0003	mg/L	No
Dichloromethane	2006/02/22	0.0003	mg/L	No
2-4 Dichlorophenol	2006/02/20	0.001	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2006/02/20	0.0004	mg/L	No
Diclofop-methyl	2006/02/20	0.0004	mg/L	No
Dimethoate	2006/02/20	0.0006	mg/L	No
Dinoseb	2006/02/20	0.0001	mg/L	No
Diquat	2006/02/20	0.007	mg/L	No
Diuron	2006/02/20	0.001	mg/L	No
Glyphosate	2006/02/20	0.01	mg/L	No
Heptachlor + Heptachlor Epoxide	2006/02/20	0.000004	mg/L	No
Linadane (Total)	2006/02/20	0.000002	mg/L	No
Malathion	2006/02/20	0.0006	mg/L	No
Methoxychlor	2006/02/20	0.000004	mg/L	No
Metolachlor	2006/02/20	0.0004	mg/L	No
Metribuzin	2006/02/20	0.0004	mg/L	No
Monochlorobenzene	2006/02/22	0.0003	mg/L	No
Paraquat	2006/02/20	0.001	mg/L	No
Parathion	2006/02/20	0.0004	mg/L	No
Pentachlorophenol	2006/02/20	0.001	mg/L	No
Phorate	2006/02/20	0.0006	mg/L	No
Picloram	2006/02/20	0.0001	mg/L	No
Polychlorinated Biphenyls(PCB)	2006/02/20	0.0003	mg/L	No
Prometryne	2006/02/20	0.0004	mg/L	No
Simazine	2006/02/20	0.0006	mg/L	No
Temephos	2006/02/20	0.03	mg/L	No
Terbufos	2006/02/20	0.0004	mg/L	No
Tetrachloroethylene	2006/02/22	0.0003	mg/L	No
2,3,4,6-Tetrachlorophenol	2006/02/20	0.001	mg/L	No
Triallate	2006/02/20	0.0004	mg/L	No
Trichloroethylene	2006/02/22	0.0003	mg/L	No
2,4,6-Trichlorophenol	2006/02/20	0.001	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2006/02/20	0.0001	mg/L	No
Trifluralin	2006/02/20	0.0004	mg/L	No
Vinyl Chloride	2006/02/22	0.0003	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

(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)