

**Part III Form 2  
Section 11. ANNUAL REPORT.**

<b>Drinking-Water System Number:</b>	220000442
<b>Drinking-Water System Name:</b>	Sturgeon Falls Water Treatment Plant
<b>Drinking-Water System Owner:</b>	The Corporation of the Municipality of West Nipissing
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2004 to December 31, 2004

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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>Sturgeon Falls Water Treatment Plant 11 Nipissing Street Sturgeon Falls ON P2B 1J4</p> </div>	<p><b><u>Complete for all other Categories.</u></b></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>
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List Drinking-Water Systems, which receive all of their drinking water from your system:

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 [x]

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 Sturgeon Falls WTP commissioned in 1991, consists of a full surface water treatment facility, with a design capacity of 14 200 m<sup>3</sup>/day, drawing water from the Sturgeon River.

The process consists of:

- Intake from the Sturgeon River, equipped with manually removable screens
- Four vertical turbine raw water pumps
- Two up-flow pre-treatment tanks (powdered limestone, activated silica, and aluminum sulphate coagulant pre-treatment)
- Four sets of three-cells-in-series flocculation tanks
- Two rectangular settling tanks, each with an inclined plate settling system
- Three dual media (anthracite/sand) gravity filters
- Filtered effluent discharge to the post-filtration chlorine contact tanks, and turbidity system
- Backwash wastewater discharge to the backwash settling tanks
- Filter backwash system consisting of two filter backwash pumps, serving all filters
- One chlorine contact tank equipped with baffle walls, with an overflow pipe and discharge line to the underground reservoir
- A two-chamber high lift pump well located below the high lift pumping station
- Five vertical turbine type high lift pumps
- Two cell in-ground treated water storage reservoir, equipped with valves to enhance flow through circulation
- Three backwash settling tanks
- Two square sludge thickening tanks
- Sludge discharge to municipal sewage collection system
- Supernatant returned to the Sturgeon River

**List all water treatment chemicals used over this reporting period**

- Alum (aluminum sulphate)
- Activated silica (sodium silicate and alum)
- Chlorine (gas)
- Limestone
- Hydrated lime (calcium hydroxide)
- Hydrofluosilicic acid (fluoride)

**Were any significant expenses incurred to?**

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

**Describe**

No significant expenses were incurred in 2004.

**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
04-06-14	Free Chlorine	0.00	mg/L	<ul style="list-style-type: none"> <li>No residual chlorine in Distribution measured at Second Street.</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.20mg/L</li> <li>Collected sample and tested for bacti; results were negative</li> </ul>	04-06-18
04-06-15	Free Chlorine	0.00	mg/L	<ul style="list-style-type: none"> <li>No residual chlorine in Distribution measured at Second Street.</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.31mg/L</li> <li>Collected sample and tested for bacti; results were negative</li> <li>Installed continuous bleed at hydrant</li> </ul>	04-06-18
04-07-14	Total Coliform	1	CFU/100mL	<ul style="list-style-type: none"> <li>Sample collected at residential home on Russell Street</li> <li>Cl<sub>2</sub> residual was 1.28mg/L</li> <li>Water main was flushed</li> <li>Samples collected on July 14 and 15; all bacti analyses were negative</li> </ul>	04-07-16
04-11-15	Free Chlorine	0.00	mg/L	<ul style="list-style-type: none"> <li>No residual chlorine in Distribution, measured at 130 Lisgar (Ecole publique Jeunesse Active).</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.57mg/L at hydrant, and 0.52mg/L at school.</li> <li>Collected sample and tested for bacti; results were negative</li> </ul>	04-11-15
04-11-17	Turbidity	>1	NTU	<ul style="list-style-type: none"> <li>Water Treatment Plant filter turbidity exceeded 1 NTU due to coagulant (alum) pump failure.</li> <li>Switched to back-up pump</li> <li>Water was filtered-to-waste when turbidity exceeded 1 NTU.</li> </ul>	04-11-17
04-11-17	Free Chlorine	0.01	mg/L	<ul style="list-style-type: none"> <li>Low residual chlorine in Distribution, measured at Second Street.</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.21mg/L at hydrant.</li> <li>Increased blow-off flow rate already installed on hydrant.</li> </ul>	04-11-17
04-11-26	Free Chlorine	0.04	mg/L	<ul style="list-style-type: none"> <li>Low residual chlorine in Distribution, measured at residence on Cache Bay Road.</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.58mg/L at hydrant.</li> </ul>	04-11-26
04-12-01	Free Chlorine	0.00	mg/L	<ul style="list-style-type: none"> <li>Low residual chlorine in Distribution, measured at residence on Cache Bay Road.</li> <li>Flushed fire hydrant, restored Free Cl<sub>2</sub> residual to 0.37mg/L at hydrant.</li> <li>Increased blow-off flow rate already installed on hydrant.</li> <li>Installed continuous bleed at hydrant</li> </ul>	04-12-02

**Microbiological testing done under section 8-2 during this reporting period**

	Number of Samples	Range of E.Coli Or Fecal Results (#-#)	Range of Total Coliform Results (#-#)	Number of HPC Samples Or Background Colony Counts	Range of HPC Results (#-#) Or Background Colony Counts
<b>Raw</b>	52	20 - 720	2 - 120	52	200 - >2000
<b>Treated</b>	52	0	0 - 0	52	0 - 1
<b>Distribution</b>	302	0	0 - 1	260	0 - 190

**Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.**

	Number of Grab Samples	Range of Results (#-#)
<b>Turbidity</b>	8760	Daily Average 0.02 - 0.32 NTU Yearly Average 0.07 NTU Instantaneous 0.05 - 1.37 NTU
<b>Chlorine</b>	8760	Daily Average 1.15 - 1.30 mg/L Instantaneous 0.59 - 1.89 mg/L
<b>Chlorine Residual Distribution System</b>	614	0.00 - 1.37 mg/L
<b>Fluoride</b> (If the DWS provides fluoridation)	8760	Daily Average 0.49 - 0.75 mg/L Instantaneous 0.05 - 1.17 mg/L

*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 or order.**

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure
0814-5MKGWZ (May 23/03)	Backwash SS	monthly	2 - 44	mg/L

**Summary of Inorganic parameters tested during this reporting period or most recent**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2004-12-06	0.001	mg/L	
Arsenic	2004-12-06	< 0.001	mg/L	
Barium	2004-12-06	0.013	mg/L	
Boron	2004-12-06	< 0.005	mg/L	
Cadmium	2004-12-06	< 0.0001	mg/L	

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Chromium	2004-12-06	< 0.002	mg/L	
Lead	2004-12-06	0.0002	mg/L	
Mercury	2004-12-06	< 0.00006	mg/L	
Selenium	2004-12-06	< 0.001	mg/L	
Sodium	2004-12-06	-	mg/L	
Uranium	2004-12-06	< 0.0001	mg/L	
Fluoride	2004-12-06	-	mg/L	
Nitrite	2004-12-06	0.2	mg/L	
Nitrate	2004-12-06	< 0.1	mg/L	

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2004-12-06	< 0.3	µg/L	
Aldicarb	2004-12-06	< 3	µg/L	
Aldrin + Dieldrin	2004-12-06	< 0.02	µg/L	
Atrazine + N-dealkylated metabolites	2004-12-06	< 0.5	µg/L	
Azinphos-methyl	2004-12-06	< 0.21	µg/L	
Bendiocarb	2004-12-06	< 3	µg/L	
Benzene	2004-12-06	< 0.5	µg/L	
Benzo(a)pyrene	2004-12-06	< 0.005	µg/L	
Bromoxynil	2004-12-06	< 0.094	µg/L	
Carbaryl	2004-12-06	< 3	µg/L	
Carbofuran	2004-12-06	< 1	µg/L	
Carbon Tetrachloride	2004-12-06	< 0.2	µg/L	
Chlordane (Total)	2004-12-06	< 0.04	µg/L	
Chlorpyrifos	2004-12-06	< 0.5	µg/L	
Cyanazine	2004-12-06	< 0.5	µg/L	
Diazinon	2004-12-06	< 1	µg/L	
Dicamba	2004-12-06	< 5	µg/L	
1,2-Dichlorobenzene	2004-12-06	< 0.1	µg/L	
1,4-Dichlorobenzene	2004-12-06	< 0.2	µg/L	
Dichlorodiphenyltrichloroethane (DDT) + metabolites	2004-12-06	< 0.14	µg/L	
1,2-Dichloroethane	2004-12-06	< 0.1	µg/L	
1,1-Dichloroethylene (vinylidene chloride)	2004-12-06	< 0.1	µg/L	
Dichloromethane	2004-12-06	< 0.3	µg/L	
2,4-Dichlorophenol	2004-12-06	< 0.1	µg/L	
2,4-Dichlorophenoxy acetic acid (2,4-D)	2004-12-06	< 5	µg/L	
Diclofop-methyl	2004-12-06	< 0.4	µg/L	
Dimethoate	2004-12-06	< 1	µg/L	
Dinoseb	2004-12-06	< 0.5	µg/L	
Diquat	2004-12-06	< 5	µg/L	
Diuron	2004-12-06	< 5	µg/L	

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Glyphosate	2004-12-06	< 25	µg/L	
Heptachlor + Heptachlor Epoxide	2004-12-06	< 0.1	µg/L	
Linadane (Total)	2004-12-06	< 0.1	µg/L	
Malathion	2004-12-06	< 5	µg/L	
Methoxychlor	2004-12-06	< 0.1	µg/L	
Metolachlor	2004-12-06	< 3	µg/L	
Metribuzin	2004-12-06	< 3	µg/L	
Monochlorobenzene	2004-12-06	< 0.2	µg/L	
Paraquat	2004-12-06	< 1	µg/L	
Parathion	2004-12-06	< 3	µg/L	
Pentachlorophenol	2004-12-06	< 0.1	µg/L	
Phorate	2004-12-06	< 0.3	µg/L	
Picloram	2004-12-06	< 5	µg/L	
Polychlorinated Biphenyls(PCB)	2004-12-06	< 0.05	µg/L	
Prometryne	2004-12-06	< 0.1	µg/L	
Simazine	2004-12-06	< 0.5	µg/L	
THM (NOTE: show latest annual average)	2004-12-06	49.7	µg/L	
Temephos	2004-12-06	< 10	µg/L	
Terbufos	2004-12-06	< 0.3	µg/L	
Tetrachloroethylene	2004-12-06	< 0.2	µg/L	
2,3,4,6-Tetrachlorophenol	2004-12-06	< 0.1	µg/L	
Triallate	2004-12-06	< 10	µg/L	
Trichloroethylene	2004-12-06	< 0.1	µg/L	
2,4,6-Trichlorophenol	2004-12-06	< 0.1	µg/L	
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2004-12-06	< 10	µg/L	
Trifluralin	2004-12-06	< 0.5	µg/L	
Vinyl Chloride	2004-12-06	< 0.2	µg/L	

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
Nil			

**(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)**