

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

Drinking-Water System Number:	220000442
Drinking-Water System Name:	Sturgeon Falls Water Treatment Plant
Drinking-Water System Owner:	The Corporation of the Municipality of West Nipissing
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2007 to December 31, 2007

<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>Sturgeon Falls Water Treatment Plant 11 Nipissing Street Sturgeon Falls ON P2B 1J4</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 50px;" type="text" value="0"/></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 style="width: 50px;" 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 [] 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

The Sturgeon Falls WTP commissioned in 1991, consists of a full surface water treatment facility, with a design capacity of 14 200 m³/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 for flash mixing; flocculating chemicals consist of powdered limestone and aluminum sulphate, and activated silica as a coagulant aid
- 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
- Continuous filtered turbidity monitoring for each filter
- Filtered effluent discharge to the post-filtration chlorine contact tanks with optional filter-to-waste capability return to the Sturgeon River (unchlorinated)
- Chlorine gas addition points located before filters and after filter-to-waste valve
- One chlorine contact tank equipped with baffle walls, with an overflow pipe and discharge line to the underground reservoir
- Continuous Giardia Log removal calculations to monitor adequacy of disinfection
- Hydrated lime (calcium hydroxide) addition after the chlorine contact chamber for pH and alkalinity control
- Two cell in-ground treated water storage reservoir, equipped with valves to enhance flow through circulation
- A two-chamber high lift pump well located below the high lift pumping station
- Five vertical turbine type high lift pumps
- Post-chlorine gas addition to Distribution with continuous feed-back monitoring
- Hydrofluosilicic acid (fluoride) addition to Distribution with continuous feed-back monitoring
- Filter backwash system consisting of two filter backwash pumps, serving all filters
- Backwash wastewater discharge to the backwash settling tanks
- Three backwash settling tanks; supernatant return to Sturgeon River; settled sludge to sludge thickening tanks
- Two square sludge thickening tanks; sludge discharge to municipal sewage collection system; supernatant return to the Sturgeon River
- Back-up diesel powered generator servicing entire plant

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

Please provide a brief description and a breakdown of monetary expenses incurred

Water Plant Material/Supplies/Rentals	\$ 22 000
Water Plant Equipment Maintenance/Repairs	\$ 17 000
Water Plant Process Chemicals	\$ 58 000
Water Quality Lab Testing	\$ 9 900
Consulting/Operator Training	\$ 32 000
Water Plant Utilities	\$ 96 000
Water Distribution Materials/Supplies/Repairs	\$ 119 000

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
07-11-15	Low chlorine residual in Distribution	0.04	mg/L	<ul style="list-style-type: none"> • Low residual chlorine measured at a continuous bleed at the end of Delorme Road • Main was flushed for 45 minutes • Chlorine residual went up to 0.17mg/L • Bleed rate was increased to maintain residual • AWQI 76729 	07-11-15

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	52	1 - 830	5 - 1010	0	n/a
Treated	52	0 - 0	0 - 0	52	0 - 2
Distribution	208	0 - 0	0 - 0	52	0 - 6

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	8760	Daily Average 0.027 - 0.298 NTU
Chlorine	8760	Daily Average 0.63 - 1.54 mg/L Instantaneous 0.34 - 4.35 mg/L
Fluoride (If the DWS provides fluoridation)	8760	Daily Average 0.48 - 0.76 mg/L Instantaneous 0.25 - 1.82 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, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
7618-6QXP8Z (July 7/06)	Backwash SS	monthly	12.8	mg/L (annual average)

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	2007-09-13	< 0.0001	mg/L	no
Arsenic	2007-09-13	0.0004	mg/L	no
Barium	2007-09-13	0.014	mg/L	no
Boron	2007-09-13	0.006	mg/L	no
Cadmium	2007-09-13	< 0.00002	mg/L	no
Chromium	2007-09-13	< 0.002	mg/L	no
Lead	2007-09-13	0.00017	mg/L	no
Mercury	2007-09-13	< 0.00002	mg/L	no
Selenium	2007-09-13	0.0003	mg/L	no
Sodium	2007-09-13	-	mg/L	no
Uranium	2007-09-13	< 0.00005	mg/L	no
Fluoride	2007-09-13	0.6	mg/L	no
Nitrite	2007-01-11	< 0.1	mg/L	no
	2007-04-18	< 0.1		
	2007-07-10	< 0.1		
	2007-09-13	< 0.1		
	2007-12-04	< 0.1		
Nitrate	2007-01-11	0.2	mg/L	no
	2007-04-18	0.2		
	2007-07-10	0.1		
	2007-09-13	0.1		
	2007-12-04	0.1		

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	2007-09-13	< 0.3	µg/L	no
Aldicarb	2007-09-13	< 3	µg/L	no
Aldrin + Dieldrin	2007-09-13	< 0.02	µg/L	no
Atrazine + N-dealkylated metabolites	2007-09-13	< 0.5	µg/L	no
Azinphos-methyl	2007-09-13	< 1	µg/L	no
Bendiocarb	2007-09-13	< 3	µg/L	no
Benzene	2007-09-13	< 0.5	µg/L	no
Benzo(a)pyrene	2007-09-13	< 0.005	µg/L	no
Bromoxynil	2007-09-13	< 0.3	µg/L	no
Carbaryl	2007-09-13	< 3	µg/L	no
Carbofuran	2007-09-13	< 1	µg/L	no
Carbon Tetrachloride	2007-09-13	< 0.2	µg/L	no
Chlordane (Total)	2007-09-13	< 0.04	µg/L	no
Chlorpyrifos	2007-09-13	< 0.5	µg/L	no
Cyanazine	2007-09-13	< 0.5	µg/L	no
Diazinon	2007-09-13	< 1	µg/L	no
Dicamba	2007-09-13	< 5	µg/L	no
1,2-Dichlorobenzene	2007-09-13	< 0.1	µg/L	no
1,4-Dichlorobenzene	2007-09-13	< 0.2	µg/L	no
Dichlorodiphenyltrichloroethane (DDT) + metabolites	2007-09-13	< 0.1	µg/L	no
1,2-Dichloroethane	2007-09-13	< 0.1	µg/L	no
1,1-Dichloroethylene (vinylidene chloride)	2007-09-13	< 0.1	µg/L	no
Dichloromethane	2007-09-13	< 0.3	µg/L	no
2,4 Dichlorophenol	2007-09-13	< 0.1	µg/L	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	2007-09-13	< 5	µg/L	no
Diclofop-methyl	2007-09-13	< 0.5	µg/L	no
Dimethoate	2007-09-13	< 1	µg/L	no
Dinoseb	2007-09-13	< 0.5	µg/L	no
Diquat	2007-09-13	< 5	µg/L	no
Diuron	2007-09-13	< 5	µg/L	no
Glyphosate	2007-09-13	< 25	µg/L	no
Heptachlor + Heptachlor Epoxide	2007-09-13	< 0.1	µg/L	no
Lindane (Total)	2007-09-13	< 0.1	µg/L	no
Malathion	2007-09-13	< 5	µg/L	no
Methoxychlor	2007-09-13	< 0.1	µg/L	no
Metolachlor	2007-09-13	< 3	µg/L	no
Metribuzin	2007-09-13	< 3	µg/L	no
Monochlorobenzene	2007-09-13	< 0.2	µg/L	no
Paraquat	2007-09-13	< 1	µg/L	no
Parathion	2007-09-13	< 3	µg/L	no
Pentachlorophenol	2007-09-13	< 0.1	µg/L	no
Phorate	2007-09-13	< 0.3	µg/L	no
Picloram	2007-09-13	< 5	µg/L	no
Polychlorinated Biphenyls(PCB)	2007-09-13	< 0.05	µg/L	no
Prometryne	2007-09-13	< 0.1	µg/L	no
Simazine	2007-09-13	< 0.5	µg/L	no

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM (NOTE: show latest annual average)	2007-01-11	33.5	µg/L	No
	2007-04-18	52.5		
	2007-07-10	79.2		
	2007-09-13	44.7		
	2007-12-04	46.5		
Temephos	2007-09-13	< 10	µg/L	No
Terbufos	2007-09-13	< 0.3	µg/L	No
Tetrachloroethylene	2007-09-13	< 0.2	µg/L	No
2,3,4,6-Tetrachlorophenol	2007-09-13	< 0.1	µg/L	No
Triallate	2007-09-13	< 10	µg/L	No
Trichloroethylene	2007-09-13	< 0.1	µg/L	No
2,4,6-Trichlorophenol	2007-09-13	< 0.1	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2007-09-13	< 10	µg/L	No
Trifluralin	2007-09-13	< 0.5	µg/L	No
Vinyl Chloride	2007-09-13	< 0.2	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

(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)