

February 25, 2010

Robert Courchesne, Administrator/Clerk and Council  
The Corporation of the Township of Fauquier-Strickland  
P.O. Box 40, 25 Grezla Road  
Fauquier, Ontario P0J 1G0

**Re: 2009 Annual Report for the Fauquier Water Treatment System**  
**2009 Annual Summary Report for the Fauquier Water Treatment System**

Dear Mr. Courchesne and Council:

Ontario's Drinking Water Systems Regulation (O. Reg. 170/03) made under the *Safe Drinking Water Act in 2002*; requires that the owner of a drinking water system prepare an Annual Report and an Annual Summary Report which describes the operation of the system and the quality of its water.

#### Annual Report

The annual report must cover the period of January 1<sup>st</sup> to December 31<sup>st</sup> in a year and must be prepared not later than February 28<sup>th</sup> of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2009 Annual Report for the Fauquier Water Treatment System.

Pursuant to the legislative requirements, Section 11 (6): the annual report must:

- (a) contain a brief description of the drinking-water system, including a list of water treatment chemicals used by the system during the period covered by the report;
- (b) summarize any reports made to the Ministry under subsection 18 (1) of the Act or section 16-4 of Schedule 16 during the period covered by the report;
- (c) summarize the results of tests required under the Regulation, or an approval or order, including an OWRA order, during the period covered by the report and, if tests required under this Regulation in respect of a parameter were not required during that period, summarize the most recent results of tests of that parameter;
- (d) describe any corrective actions taken under Schedule 17 or 18 during the period covered by the report;
- (e) describe any major expenses incurred during the period covered by the report to install, repair or replace required equipment; and
- (f) if the case of a large municipal residential system or a small municipal residential system, include a statement of where a report prepared under Schedule 22 will be available for inspection under subsection 12 (4) O. Reg. 170/03, s. 11 (6).

In addition, Section 11 (7) gives the direction that a copy of an annual report for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

## Annual Summary Report

The annual summary report must cover the period of January 1<sup>st</sup> to December 31<sup>st</sup> in a year and must be prepared not later than March 31<sup>st</sup> of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2009 Annual Summary Report for the Fauquier Water Treatment System.

Pursuant to the legislative requirements, *Schedule 22 Summary Reports for Municipalities*, the annual summary must:

- (2) (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and
  - (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.
- (3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:
  1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
  2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.

In addition, Section 12 (1) – 4 – gives the direction that a copy of the annual summary for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

These reports were prepared by the Ontario Clean Water Agency (OCWA) on behalf of the Township of Fauquier-Strickland and are based on information kept on record by OCWA. The reports cover the period January 1<sup>st</sup> to December 31<sup>st</sup> 2009.

Please note that any Provincial Officers Orders or non-compliance issues that you have received directly from the Ministry of the Environment (MOE) should be reviewed. Where non-compliance with the Order or Issue is evident and it is not included in the attached 2009 Annual/Summary Report, then we recommend that this information be added to the report.

After your review and inclusion of any additional information, this report is to be provided to the Council members representing the Township of Fauquier-Strickland before March 31, 2010. Please ensure this distribution.

Yours truly,  
Ontario Clean Water Agency

*Original Signed*

Ilona Bruneau  
Process and Compliance Technician

Copy to: Ms. Sarah Momy – Drinking Water Inspector, Ministry of the Environment's Safe Drinking Water Branch



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

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**2009 Annual Compliance/Summary Report**  
for the  
**Fauquier Water Treatment System**



Prepared by the Ontario Clean Water Agency  
on behalf of the Corporation of the Township of Fauquier-Strickland

Part III Form 2  
Section 11. ANNUAL REPORT.

Drinking-Water System Name:	<b>FAUQUIER WATER TREATMENT SYSTEM</b>
Drinking-Water System No.:	<b>220005768</b>
Drinking-Water System Owner:	Fauquier-Strickland, The Corporation of the Township of
Drinking-Water System Category:	Large Municipal, Residential System
Period being reported:	January 1, 2009 to December 31, 2009

<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 <b>X</b></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ ] No <b>X</b></p> <p>Location where 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: 10px;"> <p>Fauquier-Strickland Municipal Office 25 Grzela Road Fauquier, Ontario P0L 1G0</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" 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 style="width: 100px; height: 20px;" 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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**Drinking-Water Systems, which receive all of their drinking water from your system:**

Village of Fauquier

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 **X** 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

**X Public access/notice via other method – Newsletter**

### **Description of the Drinking-Water System**

The Fauquier Water Treatment System is owned by the Corporation of the Township of Fauquier-Strickland and operated by the Ontario Clean Water Agency (OCWA). It is located in the village of Fauquier on 12 Gravel Avenue and serves the residents of Fauquier.

The water plant is equipped with two 100 mm intake pipes, which draws raw water from the Groundhog River. The plant is rated at a maximum capacity of 545 m<sup>3</sup>/day. The intakes are located at different elevations in the river and are equipped with 12-gauge aluminum raw water screens with a 3/16" clear opening. The raw water is gravity fed from the intake structures into a wet well housed in the low lift pumping station. Each intake structure has isolation gates, which permit one or both intakes to draw water, depending on water quality. The water from the wet well is pumped to a common raw water header by two submersible low lift pumps each rated at 6.3 L/s. Water levels in the wet well automatically control the low lift pump activity.

A magnetic flow meter measures the raw water as it flows through the raw water header. Soda ash is injected prior to the static mixer using two metering pumps (one duty and one standby). Alum is also injected prior to the static mixer using one duty pump (a standby pump is available). Soda ash is used for pH adjustment and alum is used in the coagulation and flocculation process.

The water is then divided and enters two Neptune Waterboy treatment package plants consisting of a flocculation tank with a mixer, clarifier, and multimedia filter. The water is mechanically mixed in the flocculation tank and at this point polymer is added to create a more settled floc. The water is gravity fed to the clarifier equipped with tube settlers, a motorized valve with a timer to allow for the systematic removal of sludge, and automatic siphons to evacuate wash water generated during a filter backwash operation. The clarified water then passes through a filter composed of anthracite, sand and garnet.

Manual backwashing of the filters is usually carried out every day. The backwash water enters a surge tank, which is connected to the sewage system for final disposal.

The filtered water from both package plants merge into a common discharge pipe where sodium hypochlorite is added, before entering two interconnected baffled clearwells. Sodium hypochlorite and soda ash are injected prior to the clearwell using one duty pump and a standby pump each. Each clearwell cell has a volume of 341 cubic meters which are connected by an 8" valve. The valve remains open except when the clearwells are being cleaned. Two high lift

pumps, each rated at 8.7 L/s are used to pump the treated water to a common header where pH adjustment and post chlorination may occur before entering the distribution system. A fire pump, rated at 31.8 L is available for emergencies.

Then plant is also equipped with a standby diesel generator that is available to provide emergency power during a power failure.

The distribution system consists of approximately 4.5 kilometers of iron ductile watermains that provides water to residential and commercial users. There is no off-site storage facility. There are eight dead end locations that are managed by seven bleeders in the winter and two in the summer.

The Fauquier Water Treatment System is classified as a Large Municipal Residential Drinking Water System which has approximately 153 service connections that serve an estimated population of 325 residents.

### **A list of all water treatment chemicals used over this reporting period**

Sodium Hypochlorite – Disinfection  
 Sodium Carbonate (Soda Ash) - pH Adjustment  
 Alum (Aluminum Sulphate) - Coagulation/Flocculation  
 Poly Electrolyte (Polymer) - Coagulant Aid

### **Were any significant expenses incurred to?**

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

### **Describe**

A spare chemical transfer pump was purchased in order to keep the operation going if one fails.

Infrared heat sensing scans of the MCC panels were done to locate and repair potential electrical problems before they happen.

No major breakdowns occurred as all routine maintenance procedures were accomplished through OCWA's computerized Workplace Management System.

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

### 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 (Date Reported)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
August 26, 2009	Turbidity	6.31	NTU	<p>Fauquier water treatment plant is programmed to automatically shutdown when turbidity is &gt;1NTU for more than 12 minutes.</p> <p>A malfunction in the program caused Filter #2 to exceed the turbidity limit. The unit was backwashed and put back into service. The program issue was resolved.</p>	August 26, 2009  (AWQI #90793 resolved on August, 26 2009)
Month of October	Turbidity Standard  (<= 0.3 NTU for 95% of the month)	5.5 (Filter #2)	% out of compliance	<p>Turbidity will be continuously monitored using on-line instrumentation</p> <p>This exceedance was reported to MOE Spill's Action Centre and the local Ministry of Health.</p> <p>No further actions recommended by the Health Unit</p>	November 3, 2009  (AWQI #92201 resolved on November 4, 2009)
Month of December	Turbidity Standard  (<= 0.3 NTU for 95% of the month)	9.5 (Filter #2)	% out of compliance	<p>Seasonal temperature had caused unpredictable demands on the coagulation, pH and alkalinity chemicals. This increased demand caused process upsets throughout the month which caused the plant to exceed the turbidity standard.</p> <p>Turbidity will be continuously monitored using on-line instrumentation</p> <p>This exceedance was reported to MOE Spill's Action Centre and the local Ministry of Health.</p>	December 31, 2009  (AWQI #92920 resolved on December 31, 2009)

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

	Number of Samples	Range of <i>E.coli</i> Results (min# to max#)	Range of Total Coliform Results (min# to max#)	Number of HPC Samples	Range of HPC Results (min# to max#)
<b>Raw</b>	52	<2 to 32	<2 to 240	0	N/A
<b>Treated</b>	52	<1 to <1	<1 to <1	52	<1 to 10
<b>Distribution</b>	108	<1 to <1	<1 to <1	53	<1 to 20

MAC = Maximum Allowable Concentration  
 MAC for *E. coli* = 0 Counts/100 mL  
 MAC for Total Coliforms = 0 Counts/100 mL

**Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.**
**Continuous Flow Analyzers in Treatment Process**

	Number of Samples	Range of Results (min# to max#)	Unit of Measure
<b>Turbidity (Filter #1)</b>	8760	0.0 to 1.99*	NTU
<b>Turbidity (Filter #2)</b>	8760	0.0 to 6.31*	NTU
<b>Chlorine (free)</b>	8760	0.798 to 4.99	mg/L

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

\* The plant is set to shutdown when turbidity is >1NTU for more than 12 minutes. Thus, all instances where turbidity was >1 NTU, the 15 minute requirement was met except on August 26<sup>th</sup> when filter #2 exceeded the turbidity limit due to a program malfunction.

**Summary of Combined Chlorine Residual Data at the Water Treatment Plant (Grab Samples)**

	Number of Samples	Range of Results (min# to max#)	Unit of Measure
<b>Free Chlorine</b>	281	1.07 to 3.26	mg/L

**Summary of Chlorine Residual Data in the Distribution System**

	Number of Samples	Range of Results (min# to max#)	Unit of Measure	Standard
<b>Free Chlorine (4/3 samples)</b>	367	0.05 to 2.20	mg/L	0.05

**Note:** Free chlorine residuals are collected and tested as described in section 7.2(4) of Ontario Regulation 170/03. A total of seven operational checks for chlorine residual in the distribution system are required each week. Four (4) samples are tested one day and three (3) on a second day. The sample sets must be collected at least 48-hours apart and samples collected on the same day must be from different locations.

**Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.**

Date Legal Instrument Issued	Parameter	Date Sampled	Result	Unit of Measure
No additional sampling and testing were required for the Fauquier Water Treatment System during the 2009 reporting period due to an approval, order or other legal instrument.				

**Summary of Nitrates & Nitrites tested during this reporting period.**

Date of Sample	Nitrate Result Value	Nitrite Result Value	Unit of Measure	Exceedence
January 12	<0.1	<0.05	mg/L	No
April 20	<0.1	<0.05	mg/L	No
July 27	<0.1	<0.05	mg/L	No
October 19	<0.1	<0.05	mg/L	No

MAC = Maximum Allowable Concentration  
 MAC for Nitrate = 10 mg/L    MAC for Nitrite = 1.0 mg/L

**Summary of Total Trihalomethanes tested in the Distribution System during this reporting period**

Date of Sample	Result Value	Unit of Measure	Annual Running Average	Exceedence
January 12	47.6	ug/L	79.8	No
April 27	58.3	ug/L		
July 27	94.4	ug/L		
October 29	119	ug/L		

MAC = Maximum Allowable Concentration  
 MAC for Trihalomethanes = 100 ug/L (Four Quarter Running Average)

**Summary of the Most Recent Lead Results Required under Schedule 15.1**

(applicable to the following drinking water systems; large municipal residential systems, small, municipal residential systems, and non-municipal year-round residential systems)

The Fauquier Water Treatment System qualified for reduced sampling as described in section 15.1-1 of Ontario Regulation 170/03. Therefore sampling and testing was not required in 2009. The next sample periods are December 15, 2010 to April 15, 2011 and June 15, 2011 to October 15, 2011. The two most recent rounds of community lead testing were conducted on March 31<sup>st</sup> & April 9<sup>th</sup> and July 30<sup>th</sup> of 2008.

Location Type	Number of Samples	Range of Lead Results (min# to max#)	Unit of Measure	Number of Exceedences
Plumbing	44	<1 to 1.7	ug/L	0
Distribution	4	<1 to 4.5	ug/L	0

MAC = Maximum Allowable Concentration  
 MAC for Lead = 10 ug/L

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

Location Type	Number of Samples	Range of pH (units) Results (min# to max#)	Range of Alkalinity (mg/L) Results (min# to max#)
Plumbing	22	7.2 to 7.7	N/A
Distribution	4	7.7 to 7.8	71.2 to 77

## Summary of Most Recent Schedule 23 Inorganic parameters sampled at the Water Treatment Plant (sample required every 12 months)

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Antimony	October 19, 2009	<0.5	ug/L	6	No
Arsenic	October 19, 2009	<1.0	ug/L	25	No
Barium	October 19, 2009	6.1	ug/L	1000	No
Boron	October 19, 2009	<2.0	ug/L	5000	No
Cadmium	October 19, 2009	<0.1	ug/L	5	No
Chromium	October 19, 2009	<1.0	ug/L	50	No
Mercury	October 19, 2009	<0.01	ug/L	1	No
Selenium	October 19, 2009	<1.0	ug/L	10	No
Uranium	October 19, 2009	<1.0	ug/L	20	No

## Summary of Most Recent Schedule 24 Organic parameters sampled at the Water Treatment Plant (sample required every 12 months)

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Alachlor	October 19, 2009	<0.47	ug/L	5	No
Aldicarb	October 19, 2009	<0.57	ug/L	9	No
Aldrin + Dieldrin	October 19, 2009	<0.004	ug/L	0.7	No
Atrazine + N-dealkylated metabolites	October 19, 2009	<0.9	ug/L	5	No
Azinphos-methyl	October 19, 2009	<0.35	ug/L	20	No
Bendiocarb	October 19, 2009	<1.1	ug/L	40	No
Benzene	October 19, 2009	<0.25	ug/L	5	No
Benzo(a)pyrene	October 19, 2009	<0.0058	ug/L	0.01	No
Bromoxynil	October 19, 2009	<0.47	ug/L	5	No
Carbaryl	October 19, 2009	<1.1	ug/L	90	No
Carbofuran	October 19, 2009	<1.1	ug/L	90	No
Carbon Tetrachloride	October 19, 2009	<0.25	ug/L	5	No
Chlordane (Total)	October 19, 2009	<0.004	ug/L	7	No
Chlorpyrifos	October 19, 2009	<0.35	ug/L	90	No
Cyanazine	October 19, 2009	<0.35	ug/L	10	No
Diazinon	October 19, 2009	<0.35	ug/L	20	No
Dicamba	October 19, 2009	<0.19	ug/L	120	No
1,2-Dichlorobenzene	October 19, 2009	<0.25	ug/L	200	No
1,4-Dichlorobenzene	October 19, 2009	<0.25	ug/L	5	No
Dichlorodiphenyl trichloroethane (DDT) + metabolites	October 19, 2009	<0.005	ug/L	30	No
1,2-Dichloroethane	October 19, 2009	<0.25	ug/L	5	No
1,1-Dichloroethylene (vinylidene chloride)	October 19, 2009	<0.25	ug/L	14	No

Parameter	Sample Date	Result Value	Unit of Measure	Standard	Exceedance
Dichloromethane	October 19, 2009	<0.25	ug/L	50	No
2-4 Dichlorophenol	October 19, 2009	<0.051	ug/L	900	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	October 19, 2009	<0.19	ug/L	100	No
Diclofop-methyl	October 19, 2009	<0.19	ug/L	9	No
Dimethoate	October 19, 2009	<0.35	ug/L	20	No
Dinoseb	October 19, 2009	<0.047	ug/L	10	No
Diquat	October 19, 2009	<7	ug/L	70	No
Diuron	October 19, 2009	<5.7	ug/L	150	No
Glyphosate	October 19, 2009	<20	ug/L	280	No
Heptachlor + Heptachlor Epoxide	October 19, 2009	<0.004	ug/L	3	No
Lindane (Total)	October 19, 2009	<0.00044	ug/L	4	No
Malathion	October 19, 2009	<0.35	ug/L	190	No
Methoxychlor	October 19, 2009	<0.0013	ug/L	900	No
Metolachlor	October 19, 2009	<0.23	ug/L	50	No
Metribuzin	October 19, 2009	<0.23	ug/L	80	No
Monochlorobenzene	October 19, 2009	<0.25	ug/L	80	No
Paraquat	October 19, 2009	<1	ug/L	10	No
Parathion	October 19, 2009	<0.23	ug/L	50	No
Pentachlorophenol	October 19, 2009	<0.051	ug/L	60	No
Phorate	October 19, 2009	<0.35	ug/L	2	No
Picloram	October 19, 2009	<0.047	ug/L	190	No
Polychlorinated Biphenyls (PCB)	October 19, 2009	<0.0036	ug/L	3	No
Prometryne	October 19, 2009	<0.23	ug/L	1	No
Simazine	October 19, 2009	<0.35	ug/L	10	No
Temephos	October 19, 2009	<16	ug/L	280	No
Terbufos	October 19, 2009	<0.23	ug/L	1	No
Tetrachloroethylene	October 19, 2009	<0.25	ug/L	30	No
2,3,4,6-Tetrachlorophenol	October 19, 2009	<0.051	ug/L	100	No
Triallate	October 19, 2009	<0.23	ug/L	230	No
Trichloroethylene	October 19, 2009	<0.25	ug/L	50	No
2,4,6-Trichlorophenol	October 19, 2009	<0.051	ug/L	5	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	October 19, 2009	<0.047	ug/L	280	No
Trifluralin	October 19, 2009	<0.23	ug/L	45	No
Vinyl Chloride	October 19, 2009	<0.25	ug/L	2	No

**Summary of Most Recent Sodium Data tested at Water Treatment Plant  
(sample required every 60 months)**

Date of Sample	Number of Samples	Result Value	Unit of Measure	Standard	Exceedance
January 3, 2008 <sup>1</sup>	1	20.2	ug/L	20	Yes
October 15, 2008 <sup>2</sup>	1	31.7	ug/L	20	Yes

<sup>1</sup> Resample for December 27, 2007 exceedance

<sup>2</sup> This sodium result does not qualify as a reportable exceedance under section 16-3 of O. Reg. 170/03. A sodium exceedance was reported for this facility within the past 57 months.

**Summary of Most Recent Fluoride Data tested at Water Treatment Plant  
(sample required every 60 months)**

Date of Sample	Number of Samples	Result Value	Unit of Measure	Standard	Exceedance
October 15, 2008	1	<0.1	mg/L	1.5	No

**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
No inorganic or organic parameter(s) exceeded half the standard found in Schedule 2 of the ODWS during the reporting period.			

(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) Small Municipal Non-Residential has been removed and Non Municipal Year Round Residential has been added.



# **FAUQUIER WATER TREATMENT SYSTEM**

**Large Municipal Residential Drinking Water System**

## **SCHEDULE 22**

### **SUMMARY REPORTS FOR MUNICIPALITIES**

**For the period of**

**JANUARY 2009 to DECEMBER 2009**

Prepared by: The Ontario Clean Water Agency  
Prepared for: The Corporation of the Township of Fauquier-Strickland

**Schedule 22.  
SUMMARY REPORTS FOR MUNICIPALITIES**

***Introduction***

This report is a summary of water quality information for the **Fauquier Water Treatment System**. It is published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation 170/03 for the reporting period of January 1, 2009 to December 31, 2009 and must be submitted to members of council.

The report must list the requirements of the Safe Drinking Water Act (2002), its regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any Provincial Officer Order the system failed to meet during the reporting period. The report must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.

The Safe Drinking Water Act and the drinking water regulations can be viewed at the following website: <http://www.e-laws.gov.on.ca>.

To enable the owner of the system to assess the rated capacity of their system to meet existing and future planned water uses, the following information is also required in the report.

1. A summary of the quantities and flow rates of water supplied, including the monthly average and the maximum daily flows.
2. A comparison of the summary to the rated capacity and flow rates approved in the systems approval, drinking water works permit or municipal drinking water licence

***Requirements the System Failed to Meet***

The following table lists, to my knowledge any requirements the system failed to meet during the 2009 reporting period.

<b>Drinking water Legislation</b>	<b>Requirement(s) the System Failed to Meet</b>	<b>Duration</b>	<b>Corrective Actions</b>	<b>Status</b>
C of A # 6929-6EQKMK  Section 6.7	The owner/operating authority failed to make available up-to-date plans for the drinking-water system in accordance with Section 6.7 of C of A #6929-6EQKMK  The Process and Instrumentation Diagrams (P&ID) for the WTP is out of	December 2007 to May 25, 2009	The Process and Instrumentation Diagrams (P&ID) for the WTP were updated removing the clearwell by-pass.	Complete

	date as it still contains the clearwell by-pass that was removed in December 2007.			
Ontario Regulation 170-03  Section 12	The owner failed to make available several sample results. This information must be made available to the public, free-of-charge during normal business hours at a location accessible to the public.	April 30, 2008 to May 25, 2009	All the missing sample results are now available for review.	Complete
Ontario Regulation 170/03 schedule 6-5 (1) 3	<p>The operators failed to exam continuous monitoring test results within 72 hours of the test.</p> <p>On Monday June 9, 2008 the turbidity continuous chart was changed. It malfunctioned later that day (pen was not locked in). On Monday June 16, 2008; the malfunction was finally noted in the logbook and corrected. This is a violation of Ontario Regulation 170/03 schedule 6-5 (1) 3 which requires continuous monitoring test results to be reviewed within 72 hours.</p>	June 9, 2009 to June 16, 2009	<p>Operators are reviewing test results within the 72 hour timeframe and initialing the charts after they have been reviewed.</p> <p>In addition, they are recording continuous monitoring test result checks on a weekly round sheet.</p>	Complete

### ***Summary of Quantities & Flow Rates***

The following tables summarizes the quantities and flow rates of water taken and produced during the 2009 reporting period, including average monthly volumes, maximum monthly volumes, total monthly volumes and maximum flow rates.

## Raw Water - Monthly Usage for 2009

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
Average Volume (m <sup>3</sup> /day)	195	188	186	183	172	178	188	187	196	213	185	201	189
Maximum Volume (m <sup>3</sup> /day)	234	214	240	211	218	224	237	230	218	271	217	246	271
Total Volume (m <sup>3</sup> )	6031	5275	5773	5487	5333	5335	5834	5807	5868	6611	5550	6218	69122
Maximum Flow Rate (L/sec)	3.8	3.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.4	3.8

## Treated Water - Monthly Usage for 2009

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
Average Volume (m <sup>3</sup> /day)	148	140	138	132	122	129	138	140	150	155	138	154	140
Maximum Volume (m <sup>3</sup> /day)	169	176	164	149	150	182	160	173	173	209	168	201	209
Total Volume (m <sup>3</sup> )	4589	3906	4272	3964	3795	3855	4289	4348	4495	4801	4146	4781	51241
Maximum Flow Rate (L/sec)	7.2	7.1	7.6	5.1	7.6	7.6	4.7	4.4	7.6	7.6	7.6	7.6	7.6

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## Comparison of Summary to the Rated Capacity & Flow Rates Approved in the Systems Approval

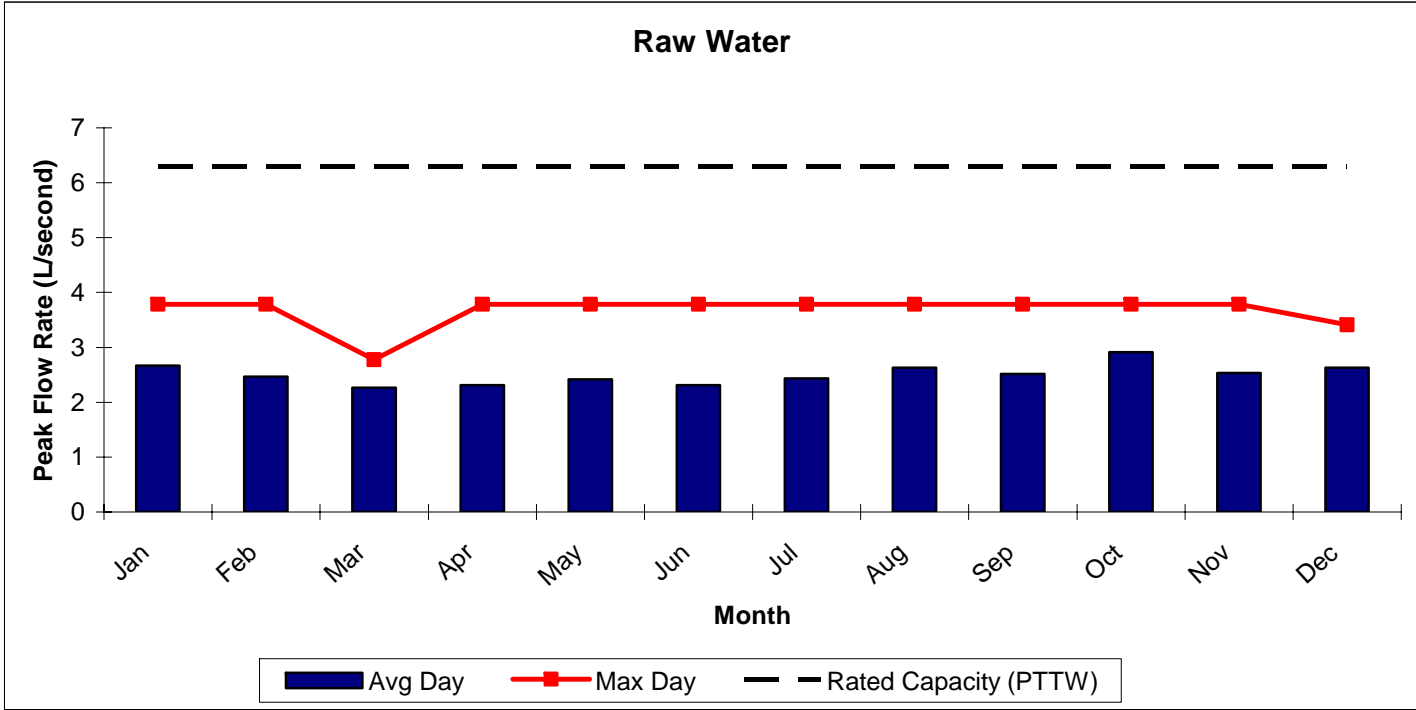
In accordance with section 4.1 of Certificate of Approval (C of A) #6929-6EQKMK, the Fauquier Water Treatment System shall not be operated to exceed a maximum flow rate into the treatment system of 6.3 L/second. At no point during the reporting period did the plant exceed this rate.

The maximum daily flow rate of water entering the treatment system was recorded as 3.79 L/second and the average flow rate was measured at 2.51 L/second.

The following table and graph compares the raw water flows to the approved rated capacity of the system.

**2009 Raw Flow Summary**  
(Raw Water Source: Groundhog River)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date
Average Flow (L/sec)	2.7	2.5	2.3	2.3	2.4	2.3	2.4	2.6	2.5	2.9	2.5	2.6	2.5
Maximum Flow (L/sec)	3.8	3.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.4	3.8
Rated Capacity (C of A)	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
% Rated Capacity	60	60	44	60	60	60	60	60	60	60	60	54	58



***Conclusion***

The Fauquier Water Treatment System was able to operate in accordance with the terms and conditions of Certificate of Approval #6929-6EQMKK without exceeding the approved rated capacity and meet the community's demand for water use.