



**RENFREW
WATER TREATMENT PLANT**

**2010 SUMMARY REPORT FOR MUNICIPALITIES
Schedule 22 of O. Reg. 170/03
&
Section 11 of O. Reg. 170/03
&
Annual Record of Water Taking of O. Reg. 387/04**

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Process & Compliance Technician
Ottawa Valley Hub



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

Foreword

This document contains three different annual reports required for the Renfrew Drinking Water System:

These reports are the:

- Section 11 Annual Report as per section 11 of Ontario Regulation 170/03
- Summary Report as per Schedule 22 of the Ontario Regulation 170/03
- Summary of the raw water taking that were submitted to the Ministry of the Environment under the Ontario Regulation 387/04 (Water Taking and Transfer)

Section 12 of O. Reg. 170/03 requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. These reports are to be made available for inspection at the office of the municipality.

Section 11 Report

As per

O. Reg. 170/03

Drinking-Water Systems Regulation O. Reg.170/03
Section 11 Annual Report

System Information

Drinking-Water System Name:	Renfrew Drinking Water System
Drinking-Water System Number:	210001102
Drinking-Water System Owner:	Town of Renfrew
Operating Authority:	Ontario Clean Water Agency
Drinking-Water System Category:	Large, municipal, residential
Period being reported:	January 01 – December 31, 2010

Summary Report (170/03 Schedule 22) will be available for inspection at:

**Town of Renfrew
Municipal Office
127 Raglan Street South
Renfrew, Ontario.
K7V 4G7**

List all Drinking Water Systems which receive all of their drinking water from your system:

Name	Drinking Water System Number
No other system receives water from the Renfrew Drinking Water System.	

Provide a brief description of the system:

The Renfrew Drinking Water System, water treatment consists of a surface water treatment plant that has been upgraded to an Actiflo® treatment system. Actiflo® is a system where sand is used to assist the sedimentation process. Three dual media filters filter the water before chlorine is applied for disinfection. Lime is added for pH adjustment and fluoridation is practiced. Powdered activated carbon is added occasionally for taste and odour control.

Does your Drinking-Water System serve more that 10,000 people?

YES NO

If yes, is your annual report available to the public at no charge on a web site on the internet?

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: _____

Water Treatment Chemicals were used during the reporting year:

Chemical Name	Use	Supplier
Chlorine gas	Disinfection	Brenntag
Alum: Aluminum sulphate	Primary Coagulation	Kemira
PASS 100: Aluminum Hydroxide Sulfate	Primary Coagulation	Kemira
Fluoride: Hydrofluosilicic Acid	Fluoridation helps to prevent tooth decay	Min-Chem.
Polymer: LT27AG	Coagulant aid.	Ciba
Lime	pH adjustment	Solvay

Summary of any reports made to the Ministry under subsection 18 (1) of the Act or section 16-4 of Schedule 16 and reported to Spills Action Centre:

Incident Date	AWQI #	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
28 Jan 2010	93297	Total Coliform	40	cfu/100 mL	Immediate resample and test	28 Jan 2010
11 Jun 2010	95308	Low Chlorine residual at house	0	mg/L	Resident of home advised to run water	11 Jun 2010
04 Aug 2010	96845	Problem with fluoride analyzer	N/A	N/A	Analyzer taken off-line.	The final report from the manufacturer has not been received.

Regulatory Sample Results Summary

Microbiological Testing (170/03, Sch.10, Sch.11 or Sch.12):

	# of E-coli Samples Taken	E-Coli Results (min-max)	Total Coliform Results (min-max)
Raw	52	0 – 413	0 – 136,000
Treated	52	0 – 0	0 – 0
Distribution	217	0 – 0	0 – 0

Microbiological Testing (170/03, Sch.10, Sch.11 or Sch.12) continued:

	# of HPC Samples Taken	HPC Results (min-max)
Treated	52	0 – 3
Distribution	97	0 – 121

E-Coli & Total Coliform results are reported in cfu/100 mL
HPC (Heterotrophic Plate Count) results are reported in cfu/1 mL
cfu = colony forming unit

Operational Testing (170/03, Sch.7, Sch.8 or Sch.9):

Parameter	Number of Samples Collected	Range of Results (min #)-(max #)	Annual Average
Turbidity: Filter 1	8760	ND – 0.964 NTU	0.116 NTU
Turbidity: Filter 2	8760	0.01 – 0.961 NTU	0.117 NTU
Turbidity: Filter 3	8760	0.016 – 0.972 NTU	0.116 NTU
Chlorine: Treated Water (free chlorine residual)	8760	0.896 – 3.142 mg/L	1.691 mg/L
Chlorine: Distribution (free chlorine residual)	8760	0.25 - 2.35 mg/L	1.206 mg/L
	221	0.21 – 2.14 mg/L	1.082 mg/L

NOTE: 8760 denotes results from continuous monitors
ND: not detectable
NTU: Nephelometric Turbidity Units

Fluoride: In 2010 the on-line fluoride analyzer brought many challenges to the operators of the Renfrew DRS. In Aug, the analyzer began ‘drifting’ and the readings from the unit became erratic. The unit was taken off-line and notification was provided to the Ministry of Environment. Operators resumed daily bench test to analyze for fluoride concentrations in the drinking water. In September, when it was determined the analyzer would be out-of-service for several months, the Health Unit requested twice daily bench test monitoring. The table below summarizes the results from the on-line analyzer and the in-house bench test results. Also included in the table are the results of samples that were sent to an off-site laboratory as confirmation.

Fluoride (mg/L)	Month Average				Laboratory Confirmation
	On-Line Analyzer	In-House Bench Tests – grab samples			
		Once	AM	PM	
Jan	0.859	0.605			
Feb	0.511	0.539			
Mar	0.518	0.557			
Apr	0.518	0.53			
May	0.51	0.556			
Jun	0.501	0.597			
Jul	0.508	0.568			0.45
Aug	0.507	0.528			0.528
Sep		0.521	0.512	0.481	0.53
Oct			0.547	0.583	0.52
Nov			0.569	0.566	0.52
Dec			0.571	0.568	0.515

Summary of Inorganic parameters:

Parameter	Sample Date	Result Value	Exceedance
Antimony: Sb (ug/L) - TW	11 Jan 2010	< 0.10	No
Arsenic: As (ug/L) - TW	11 Jan 2010	< 1.00	No
Barium: Ba (ug/L) - TW	11 Jan 2010	30.00	No
Boron: B (ug/L) - TW	11 Jan 2010	< 10.00	No
Cadmium: Cd (ug/L) - TW	11 Jan 2010	< 0.10	No
Chromium: Cr (ug/L) - TW	11 Jan 2010	1.00	No
Mercury: Hg (ug/L) - TW	11 Jan 2010	< 0.10	No
Selenium: Se (ug/L) - TW	11 Jan 2010	< 1.00	No
*Sodium: Na (mg/L) - TW	16 Jan 2006	13.00	No
Uranium: U (ug/L) - TW	11 Jan 2010	< 1.00	No
Nitrite (mg/L) - TW	11 Jan 2010	< 0.10	No
Nitrite (mg/L) - TW	16 Apr 2010	< 0.10	No
Nitrite (mg/L) - TW	14 Jul 2010	< 0.10	No
Nitrite (mg/L) - TW	12 Oct 2010	< 0.10	No
Nitrate (mg/L) - TW	11 Jan 2010	< 0.10	No
Nitrate (mg/L) - TW	16 Apr 2010	< 0.10	No
Nitrate (mg/L) - TW	14 Jul 2010	< 0.10	No
Nitrate (mg/L) - TW	12 Oct 2010	< 0.10	No

* Sodium sampling required every 60 months.

Distribution System

Parameter	Date of Sample	Result Value (ug/L)	RAA	Exceedance
THM	11 Jan 2010	34.1	84.3	No
	14 Apr 2010	70.0	86.6	
	13 Jul 2010	101.0	72.1	
	12 Oct 2010	83.3	72.1	

RAA: Running Annual Average

Lead: Samples were collected between Jun 15, 2009 and Oct 15, 2009. The results are summarized below:

Location	# of samples collected	Lead Results (mg/L)		pH Results (min. - max)	Alkalinity (mg/L) (min. - max)
		(min. - max)	Exceedance		
Residential Plumbing	24	0.00002 - 0.00416	No	7.77 – 8.29	Not applicable
Non-Residential Plumbing	4	0.00008 – 0.00189	No	7.74 – 7.82	Not applicable
Distribution Water	8	0.00002 – 0.00522	No	7.75 – 7.83	44 - 50

Please note the results of the 2010 Distribution samples

Summary of Organic parameters sampled during this reporting period:

Parameter	Sample Date	Result	Exceedance
Alachlor (ug/L) - TW	11 Jan 2010	< 0.50	No
Aldicarb (ug/L) - TW	11 Jan 2010	< 5.00	No
Aldrin + Dieldrin (ug/L) - TW	11 Jan 2010	< 0.010	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	11 Jan 2010	< 0.20	No
Azinphos-methyl (ug/L) - TW	11 Jan 2010	< 2.00	No
Bendiocarb (ug/L) - TW	11 Jan 2010	< 2.00	No
Benzene (ug/L) - TW	11 Jan 2010	< 0.50	No
Benzo(a)pyrene (ug/L) - TW	11 Jan 2010	< 0.010	No
Bromoxynil (ug/L) - TW	11 Jan 2010	< 0.50	No
Carbaryl (ug/L) - TW	11 Jan 2010	< 5.00	No
Carbofuran (ug/L) - TW	11 Jan 2010	< 5.00	No
Carbon Tetrachloride (ug/L) - TW	11 Jan 2010	< 0.50	No
Chlordane:Total (ug/L) - TW	11 Jan 2010	< 0.020	No
Chlorpyrifos (ug/L) - TW	11 Jan 2010	< 1.00	No
Cyanazine (ug/L) - TW	11 Jan 2010	< 1.00	No
Diazinon (ug/L) - TW	11 Jan 2010	< 1.00	No
Dicamba (ug/L) - TW	11 Jan 2010	< 1.00	No
1,2-Dichlorobenzene (ug/L) - TW	11 Jan 2010	< 0.40	No
1,4-Dichlorobenzene (ug/L) - TW	11 Jan 2010	< 0.40	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - TW	11 Jan 2010	< 0.020	No
1,2-Dichloroethane (ug/L) - TW	11 Jan 2010	< 0.50	No
1,1-Dichloroethylene (ug/L) - TW	11 Jan 2010	< 0.50	No
Dichloromethane (ug/L) - TW	11 Jan 2010	< 4.00	No
2,4-Dichlorophenol (ug/L) - TW	11 Jan 2010	< 0.50	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	11 Jan 2010	< 1.00	No
Diclofop-methyl (ug/L) - TW	11 Jan 2010	< 0.90	No
Dimethoate (ug/L) - TW	11 Jan 2010	< 2.50	No

Parameter	Sample Date	Result	Exceedance
Dinoseb (ug/L) - TW	11 Jan 2010	< 1.00	No
Diquat (ug/L) - TW	11 Jan 2010	< 7.00	No
Diuron (ug/L) - TW	11 Jan 2010	< 10.00	No
Glyphosate (ug/L) - TW	11 Jan 2010	< 10.00	No
Heptachlor+Hepachlor Epoxide (ug/L) - TW	11 Jan 2010	< 0.010	No
Lindane: (ug/L) - TW	11 Jan 2010	< 0.010	No
Malathion (ug/L) - TW	11 Jan 2010	< 5.00	No
Methoxychlor (ug/L) - TW	11 Jan 2010	< 0.020	No
Metolachlor (ug/L) - TW	11 Jan 2010	< 0.50	No
Metribuzin (ug/L) - TW	11 Jan 2010	< 5.00	No
Monochlorobenzene (ug/L) - TW	11 Jan 2010	< 0.20	No
Paraquat (ug/L) - TW	11 Jan 2010	< 1.00	No
Parathion (ug/L) - TW	11 Jan 2010	< 1.00	No
Pentachlorophenol (ug/L) - TW	11 Jan 2010	< 0.50	No
Phorate (ug/L) - TW	11 Jan 2010	< 0.50	No
Picloram (ug/L) - TW	11 Jan 2010	< 5.00	No
Polychlorinated Bichenysl(PCB) (ug/L) - TW	11 Jan 2010	< 0.10	No
Prometryne (ug/L) - TW	11 Jan 2010	< 0.25	No
Simazine (ug/L) - TW	11 Jan 2010	< 1.00	No
Temephos (ug/L) - TW	11 Jan 2010	< 10.00	No
Terbufos (ug/L) - TW	11 Jan 2010	< 0.40	No
Tetrachloroethylene (ug/L) - TW	11 Jan 2010	< 0.30	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	11 Jan 2010	< 0.50	No
Triallate (ug/L) - TW	11 Jan 2010	< 1.00	No
Trichloroethylene (ug/L) - TW	11 Jan 2010	< 0.30	No
2,4,6-Trichlorophenol (ug/L) - TW	11 Jan 2010	< 0.50	No
2,4,5-Trichlorophenoxy acetic acid (ug/L) - TW	11 Jan 2010	< 1.00	No
Trifluralin (ug/L) - TW	11 Jan 2010	< 0.40	No
Vinyl Chloride (ug/L) - TW	11 Jan 2010	< 0.20	No

Summary of additional samples:

Date of legal instrument issued	Parameter	Month	Month Avg.	Unit of Measure	Compliance Limit
Certificate of Approval 8875-6XHLJ9	Suspended Solids Backwash Effluent Residuals.	*January	210.8	mg/L	Not applicable
		February	15.2	mg/L	Not applicable
		March	15.6	mg/L	Not applicable
		April	17.0	mg/L	Not applicable
		May	13.5	mg/L	Not applicable
		June	11.4	mg/L	Not applicable
		July	13.5	mg/L	Not applicable
		August	14.8	mg/L	Not applicable
		September	14.5	mg/L	Not applicable
		October	12.5	mg/L	Not applicable
		November	19.8	mg/L	Not applicable
		December	20.5	mg/L	Not applicable
		Annual Avg.	30.6	mg/L	25 mg/L

*One sample taken on Jan 11, 2010 had a result of 743.0 mg/L – this one sample skewed the data for the entire year. This has results in a **non-compliance with the certificate of approval.**

Date of legal instrument issued	Parameter	Month	Result	Unit of Measure	Compliance Limit
Certificate of Approval 8875-6XHLJ9	Suspended Solids Actiflo Residuals	January	19.8	mg/L	Not applicable
		February	16.0	mg/L	Not applicable
		March	12.0	mg/L	Not applicable
		April	12.8	mg/L	Not applicable
		May	13.2	mg/L	Not applicable
		June	19.0	mg/L	Not applicable
		July	7.5	mg/L	Not applicable
		August	10.6	mg/L	Not applicable
		September	12.2	mg/L	Not applicable
		October	10.2	mg/L	Not applicable
		November	12.6	mg/L	Not applicable
		December	18.5	mg/L	Not applicable
		Annual Avg.	13.7	mg/L	25 mg/L

Date of legal instrument issued	Month	Raw Water		Treated Water		Unit
		DOC	Aluminum	DOC	Aluminum	
Certificate of Approval 8875-6XHLJ9	Jan.	6.1	0.06	3.9	0.04	mg/L
	Feb.	5.8	0.04	3.5	0.06	mg/L
	Mar.	6.2	0.13	4.0	0.042	mg/L
	Apr.	5.8	0.07	3.4	0.053	mg/L
	May.	6.8	0.06	3.9	0.042	mg/L
	Jun.	7.2	0.08	4.4	0.032	mg/L
	Jul.	6.1	0.1	3.2	0.033	mg/L
	Aug.	6.2	0.08	3.9	0.042	mg/L
	Sep.	6.1	0.06	3.5	0.037	mg/L
	Oct.	6.3	0.06	3.4	0.048	mg/L
	Nov.	6.2	0.1	3.5	0.03	mg/L
	Dec.	6.3	0.07	3.3	0.022	mg/L

DOC: Dissolved Organic Carbon

Maintenance Summary

During 2010 a total of 1409 Work Orders were completed at the Renfrew Water Treatment Facility. A breakdown of this total is listed below;

Corrective	63
Preventative	418
Weekly PM	816
Capital	44
Operational	68

Highlights of the some of the capital expenditures during the year are summarized below;

- Following major repairs to the water tower the previous year, the tower was taken out of service for a detailed inspection of the work for warranty reasons, during this time the water treatment facility was staffed 24/7 for a one (1) week period.
- Purchase of a fire hydrant PRV to be used in the distribution system at times when tower work is to be done and to control pressures,
- Multiple PLC/SCADA upgrades and repairs to address issues as they arose,
- Overhaul of High Lift Pump #2 to address cavitation and vibration issues,
- Installation of additional monitoring equipment to assist operational staff during run-off conditions and to ensure proper disinfection dosages,
- Repairs and commissioning of the capacitor bank to improve power quality and reduce energy costs,
- Filter Rotork Valve overhauls to resolve fault/moisture concerns,
- Replacement of the Actiflo Hydro-cyclones used in the separation of process material and residual solids,
- Several repairs to the chlorination system including piping alterations, mixing valves, ejectors, solenoid valves and other minor repairs,
- Replacement of several level transmitters,
- Repairs to the coagulant flow meter to allow for improved process control, cleaning of debris from the tanks and replacement of the isolation valves on the storage tanks,
- Miscellaneous items and repairs to other chemical feed systems including the purchase of injectors and discharge valves and a motor on the slurry mixer on the lime system, spare parts for the fluoride addition system
- Upgrades to the security system at the facility including the replacement of existing sensors and the installation of additional monitors,
- Purchase of several health and safety related items,
- Installation of a bypass unit (with backflow prevention) around the existing backflow prevention device to allow of continuous facility operation,
- Repairs and replacement of process monitoring equipment including a filtered water turbidity analyzer, chlorine and turbidity monitor transmitters, pH probe, chlorine leak detector probe, fluoride analyzer probes and other minor repairs.

END

Schedule 22
Summary Report

For

Municipalities

as per

O. Reg. 170/03



RENFREW DRINKING WATER SYSTEM
2010 SUMMARY REPORT FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Renfrew Drinking Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1 to December 31, 2010. The Renfrew Drinking Water System is categorized as a Large, Municipal, Residential Drinking Water System.

This report was prepared by the Ontario Clean Water Agency for the Town of Renfrew.

Who gets a copy of the Report:

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;

What must the Report contain?

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table lists the requirements that the system failed to meet and the measures taken to correct the failure:

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
O. Reg. 170.03	28 Jan 2010 AWQI #: 93297 Total Coliform = 40 cfu/100 mL in a distribution sample	28 Jan 2010	Immediate resample and test	Complete
O. Reg. 170.03	11 Jun 2010 AWQI #: 95308 Low Chlorine residual at house	11 Jun 2010	Resident of home advised to run water.	Complete
O. Reg. 170.03	04 Aug 2010 AWQI #: 96845 Problem with fluoride analyzer	04 Aug 2010	Analyzer taken off-line. Bench testing for fluoride residual. The final report from the manufacturer has not yet been received.	On-going
Certificate of Approval	Backwash supernatant discharge greater than the limit of 25 mg/L.	Annual Average for 2010	One sample taken in Jan 2010 had a result of 743 mg/L. This result skewed the entire year's data. If this result anomaly is removed then the annual average drops to 16.7 mg/L. With the result the annual average is 30.6.	Complete

*AWQI: Adverse water Quality Incident

The following table lists additional items identified during the annual Ministry of Environment inspection report:

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
There was no MOE inspection done in 2010 – it has taken place in Feb 2011 and will be reported upon in the 2011 report for the Renfrew DWS.				

What else must the Report contain?

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 and daily instantaneous peak flow rates (see below).
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

Attached please find a copy of the Annual Record of Water Taking for the Renfrew Drinking Water System.

The table below is a summary of the rated capacity flow rates and flow rates approved in the system's approval.

	Peak Day Flow (m3/d)	Rated Capacity (m3/d)	Percent Rated Capacity (%)
January	7449	18184	41.0
February	7203	18184	39.6
March	6671	18184	36.7
April	6333	18184	34.8
May	6861	18184	37.7
June	11128	18184	61.2*
July	7612	18184	41.9
August	6945	18184	38.2
September	6848	18184	37.7
October	6507	18184	35.8
November	5814	18184	32.0
December	5994	18184	33.0

*Tower refill

When Does the Report Get Submitted?

If a report is prepared for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

END

Personal information contained on this form is collected under the authority of the Ontario Water Resources Act, Section 20. The Purpose of the form is to record details and information about the taking of water annually. Questions should be directed to the respective hub office in your area.

Les renseignements personnels qui figurent dans le présent formulaire sont recueillis en vertu de l'article 20 de la Loi sur les ressources en eau de l'Ontario. Ce formulaire sert à dossiers les détails et les renseignements concernant la prise d'eau annuelle. Prière d'adresser toutes questions au personnel du bureau régional de votre secteur.

Year(Année): 2010 Permit No.(N° de permis): 89-P-4012 Source: Bonnechere River
 Location: RW - Raw Water

Name of Permittee: Town of Renfrew Mailing Address: Postal Bag 2000, Renfrew ON K7V 4G7
Nom du titulaire du permis Adresse postale

Location Of Taking: Twp. or Municipality: Concession: Lot:
Lieu de la prise d'eau Canton ou municipalité
 Bonnechere River 244 McAndrew Ave. Renfrew ON Town of Renfrew 597

	Jan/2010	Feb/2010	Mar/2010	Apr/2010	May/2010	Jun/2010	Jul/2010	Aug/2010	Sep/2010	Oct/2010	Nov/2010	Dec/2010	<-- Total -->	<-- Avg. -->	<-- Max. -->	<-- Criteria-->
Avg Daily Taking(m3)	6,300.22	5,819.18	5,102.55	4,420.9	4,890.58	5,017.0	5,539.9	5,640.43	5,668.13	5,385.26	5,111.13	5,074.22		5,330.79		18,184.0
Total Amt of Taking(m3)	195,306.7	162,936.9	158,179.0	132,627.0	151,608.0	150,509.95	171,737.0	174,853.3	170,044.0	166,943.0	153,334.0	157,300.7	1,945,379.55			
Max Daily Flow(m3)	7,449.0	7,203.0	6,671.0	6,333.0	6,861.0	11,128.0	7,612.0	6,945.0	6,848.0	6,507.0	5,814.0	5,994.0			11,128.0	18,184.0
Peak Daily Rate of Taking(L/sec)	147.33	147.22	147.43	145.94	184.34	173.36	175.5	147.78	147.7	147.2	153.7	149.1			184.34	227.3
Peak Daily Rate of Taking(L/min)	8,839.98	8,832.9	8,846.04	8,756.4	11,060.4	10,401.6	10,530.0	8,866.8	8,862.0	8,832.0	9,222.0	8,946.0			11,060.4	13,638.0

Annual Record of Water Taking

(Permit to Take Water)

of

O. Reg. 387/04



Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#)

WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 89-P-4012

Permit Holder: RENFREW, TOWN OF.

Received on: Feb 15, 2011 9:45 AM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

[Return to Main Page](#)

TOWN2 RENFREW2 | 2011/02/15

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Annual Water Taking Report

For the Year 2010

Raw Flow: Sum (m3/d)

Municipality: Town of Renfrew

Year: 2010

Facility Name: [5862] - Renfrew Water Treatment Plant

Water Source: Bonnechere River

Works: [210001102] - Renfrew Water Treatment Plant

Total Design Capacity (m3/day): 19,090.00

Classification: Class 3 Water Treatment

Population Served: 8,125

January	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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RW - Raw Water	6,592.000	4,837.000	6,743.000	6,068.000	7,120.000	5,764.000	7,449.000	6,029.000	7,292.000	5,344.000	7,351.000	5,282.000	6,848.000	5,693.000	7,427.000
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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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RW - Raw Water	5,309.000	6,595.000	6,102.000	6,860.000	5,882.000	5,722.000	6,662.700	6,572.500	5,350.400	7,121.400	5,755.800	6,790.000	6,010.100	6,176.800	7,057.200	5,500.800
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February	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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RW - Raw Water	6,801.000	5,667.000	7,132.000	5,558.000	7,203.000	5,046.000	7,020.000	6,003.000	6,538.000	5,663.000	5,274.000	6,693.000	4,713.000	5,656.000	6,168.000
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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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RW - Raw Water	4,301.000	6,270.000	5,560.000	5,790.000	5,715.000	5,245.000	5,234.000	6,168.000	5,431.000	5,394.000	5,789.000	5,543.900	5,361.000
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Annual Water Taking Report For the Year 2010

March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	5,026.000	6,671.000	5,193.000	5,763.000	5,056.000	5,381.000	6,316.000	5,127.000	5,129.000	5,261.000	6,016.300	5,122.000	4,439.000	5,977.000	5,223.400	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	6,410.000	5,647.000	4,975.000	5,184.000	4,551.000	4,821.000	4,865.000	4,840.000	4,631.300	4,935.000	3,892.000	4,312.000	4,033.000	5,065.000	4,302.000	4,015.000
April	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	4,092.000	4,528.000	2,445.000	6,205.000	4,442.000	4,711.000	4,406.000	4,724.000	4,174.000	4,430.000	4,113.000	5,140.000	4,092.000	4,759.000	4,064.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	4,474.000	4,117.000	4,143.000	4,742.000	4,426.000	4,542.000	3,900.000	4,477.000	4,613.000	4,319.000	4,674.000	3,124.000	6,333.000	4,181.000	4,237.000	
May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	4,590.000	4,212.000	4,440.000	4,735.000	5,082.000	3,930.000	4,663.000	3,609.000	4,006.000	5,001.000	4,462.000	3,854.000	4,942.000	4,204.000	3,843.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	6,492.000	4,632.000	4,841.000	4,884.000	6,101.000	5,060.000	4,775.000	5,056.000	5,151.000	6,161.000	3,916.000	6,861.000	4,301.000	5,976.000	5,852.000	5,976.000
June	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	1,965.950	5,489.000	5,070.000	4,716.000	2,871.000	4,436.000	5,914.000	5,961.000	11,128.000	5,920.000	3,219.000	5,368.000	4,146.000	5,411.000	4,793.000	

Annual Water Taking Report For the Year 2010

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water	5,020.000	5,063.000	5,130.000	4,785.000	4,684.000	6,040.000	4,829.000	4,476.000	5,359.000	5,146.000	4,244.000	5,146.000	4,683.000	5,252.000	4,245.000	
July	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water	5,479.000	3,912.000	5,829.000	5,026.000	5,026.000	7,239.000	5,304.000	7,612.000	5,222.000	4,874.000	4,964.000	5,856.000	5,624.000	5,594.000	5,562.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water	5,673.000	6,310.000	5,044.000	4,937.000	5,892.000	5,891.000	6,298.000	4,662.000	4,744.000	5,524.000	6,110.000	5,291.000	4,671.000	6,234.000	5,449.000	5,884.000
August	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water	5,250.000	5,108.000	4,443.300	6,161.000	5,054.000	5,267.000	4,851.000	4,320.000	6,628.000	5,247.000	4,868.000	6,617.000	5,879.000	5,418.000	5,581.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water	6,258.000	5,766.000	6,945.000	5,091.000	6,658.000	6,473.000	4,719.000	6,335.000	5,172.000	5,839.000	6,284.000	5,174.000	5,774.000	5,767.000	5,117.000	6,789.000
September	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water	5,546.000	6,056.000	5,646.000	6,389.000	5,097.000	4,914.000	6,578.000	5,490.000	4,899.000	6,046.000	6,160.000	4,784.000	6,401.000	5,333.000	4,888.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water	6,156.000	5,459.000	4,798.000	5,664.000	6,318.000	5,506.000	6,333.000	6,087.000	5,717.000	4,400.000	6,319.000	5,955.000	5,245.000	6,848.000	5,012.000	

Annual Water Taking Report For the Year 2010

October	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	5,203.000	6,249.000	4,977.000	5,298.000	6,507.000	5,280.000	5,360.000	5,984.000	4,609.000	5,085.000	5,924.000	4,993.000	4,716.000	6,120.000	5,163.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	4,666.000	5,862.000	5,339.000	4,704.000	5,960.000	5,875.000	5,670.000	5,516.000	4,496.000	5,648.000	5,486.000	5,715.000	4,846.000	4,650.000	5,732.000	5,310.000
November	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	5,267.000	5,670.000	4,493.000	5,241.000	5,541.000	4,638.000	5,364.000	5,053.000	5,414.000	5,100.000	4,862.000	5,732.000	4,921.000	4,689.000	4,246.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	5,688.000	5,582.000	4,294.000	5,361.000	5,315.000	4,986.000	5,114.000	4,601.000	5,814.000	5,437.000	4,354.000	5,451.000	5,378.000	4,735.000	4,993.000	
December	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water																
	5,203.000	5,659.000	5,123.000	5,621.000	4,702.000	5,994.000	4,757.000	4,778.000	5,050.700	5,712.000	5,059.000	4,685.000	4,536.000	4,441.000	5,827.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water																
	5,356.000	4,738.000	4,826.000	5,677.000	5,163.000	4,584.000	5,336.000	5,709.000	5,066.000	4,219.000	4,359.000	5,254.000	5,406.000	5,355.000	4,777.000	4,328.000