



MERRICKVILLE DRINKING WATER SYSTEM

2011 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

Prepared by
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Ottawa Valley Hub



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Foreword

This document contains three different annual reports required for the Merrickville 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 Number:	220001227
Drinking-Water System Name:	Merrickville Drinking Water System
Drinking-Water System Owner:	Village of Merrickville-Wolford
Drinking-Water System Category:	Large-Municipal Residential
Period being reported:	January 01, 2011 to December 31, 2011

<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 [] No [X]</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; width: fit-content;"> <p>Available at the Municipal Office</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <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: <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div></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
No other system receives water from the Merrickville Drinking Water System	

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 Not applicable

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

Merrickville WSS has three municipal wells that pump ground water into underground reservoirs. Sodium Hypochlorite is added to the well discharge for maximum detention time. The treated water is pumped to the 1000 residents through a distribution system by a continuously running duty high lift pump.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite

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

Please refer to the section on Maintenance.

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
17 Jan 2011	sodium	32.2	mg/L	Health Unit requested a re-sample to be taken. Resample result was 31.7 mg/L. Health Unit required letters be sent to all water customers.	31 Jan 2011

Below is a summary of microbiological testing done during this reporting period.

Location	Number of Samples Collected	Range of E. Coli Results (cfu/100 mL) (min #) - (max #)	Range of Total Coliform Results (cfu/100 mL) (min #) - (max #)	Number of HPC Samples Collected	Range of HPC Results (cfu/1 mL) (min #) - (max #)
Raw - RW1	45	0 - 1	0 - 200	17	10 - 360
Raw - RW2	53	0 - 200	0 - 200	7	10 - 100
Raw - RW4	52	0 - 0	0 - 11	6	10 - 20
Treated - TW	52	0 - 0	0 - 0	52	10 - 50
Distribution - DW	112	0 - 0	0 - 0	52	10 - 50

Below is a summary of organic and inorganic testing done during this reporting period.

Parameter	Sample Date	Sample Result	Exceedance
Antimony: Sb (ug/L) - TW	2011/01/17	< 0.10	No
Arsenic: As (ug/L) - TW	2011/01/17	< 0.10	No
Barium: Ba (ug/L) - TW	2011/01/17	99.00	No
Boron: B (ug/L) - TW	2011/01/17	101.00	No
Cadmium: Cd (ug/L) - TW	2011/01/17	< 0.020	No
Chromium: Cr (ug/L) - TW	2011/01/17	< 2.00	No
Mercury: Hg (ug/L) - TW	2011/01/17	< 0.020	No
Selenium: Se (ug/L) - TW	2011/01/17	< 1.00	No
Sodium: Na (mg/L) - TW	2011/01/20	31.70	Yes
Uranium: U (ug/L) - TW	2011/01/17	1.29	No
Nitrite (mg/L) - TW	2011/01/24	< 0.10	No
Nitrite (mg/L) - TW	2011/04/11	0.10	No
Nitrite (mg/L) - TW	2011/07/11	< 0.10	No
Nitrite (mg/L) - TW	2011/10/11	< 0.10	No
Nitrate (mg/L) - TW	2011/01/24	0.80	No
Nitrate (mg/L) - TW	2011/04/11	0.80	No
Nitrate (mg/L) - TW	2011/07/11	0.90	No
Nitrate (mg/L) - TW	2011/10/11	0.20	No
Alachlor (ug/L) - TW	2011/01/17	< 0.30	No

Parameter	Sample Date	Sample Result	Exceedance
Aldicarb (ug/L) - TW	2011/01/17	< 3.00	No
Aldrin + Dieldrin (ug/L) - TW	2011/01/17	< 0.020	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2011/01/17	< 0.50	No
Azinphos-methyl (ug/L) - TW	2011/01/17	< 1.00	No
Bendiocarb (ug/L) - TW	2011/01/17	< 3.00	No
Benzene (ug/L) - TW	2011/01/17	< 0.50	No
Benzo(a)pyrene (ug/L) - TW	2011/01/17	< 0.0050	No
Bromoxynil (ug/L) - TW	2011/01/17	< 0.30	No
Carbaryl (ug/L) - TW	2011/01/17	< 3.00	No
Carbofuran (ug/L) - TW	2011/01/17	< 1.00	No
Carbon Tetrachloride (ug/L) - TW	2011/01/17	< 0.20	No
Chlordane:Total (ug/L) - TW	2011/01/17	< 0.040	No
Chlorpyrifos (ug/L) - TW	2011/01/17	< 0.50	No
Cyanazine (ug/L) - TW	2011/01/17	< 0.50	No
Diazinon (ug/L) - TW	2011/01/17	< 1.00	No
Dicamba (ug/L) - TW	2011/01/17	< 5.00	No
1,2-Dichlorobenzene (ug/L) - TW	2011/01/17	< 0.10	No
1,4-Dichlorobenzene (ug/L) - TW	2011/01/17	< 0.20	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - TW	2011/01/17	< 0.10	No
1,2-Dichloroethane (ug/L) - TW	2011/01/17	< 0.10	No
1,1-Dichloroethylene (ug/L) - TW	2011/01/17	< 0.10	No
Dichloromethane (ug/L) - TW	2011/01/17	< 0.30	No
2,4-Dichlorophenol (ug/L) - TW	2011/01/17	< 0.10	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2011/01/17	< 5.00	No
Diclofop-methyl (ug/L) - TW	2011/01/17	< 0.50	No
Dimethoate (ug/L) - TW	2011/01/17	< 1.00	No
Dinoseb (ug/L) - TW	2011/01/17	< 0.50	No
Diquat (ug/L) - TW	2011/01/17	< 5.00	No
Diuron (ug/L) - TW	2011/01/17	< 5.00	No
Glyphosate (ug/L) - TW	2011/01/17	< 25.00	No
Heptachlor+Hepachlor Epoxide (ug/L) - TW	2011/01/17	< 0.10	No
Lindane: (ug/L) - TW	2011/01/17	< 0.10	No
Malathion (ug/L) - TW	2011/01/17	< 5.00	No
Methoxychlor (ug/L) - TW	2011/01/17	< 0.10	No
Metolachlor (ug/L) - TW	2011/01/17	< 3.00	No
Metribuzin (ug/L) - TW	2011/01/17	< 3.00	No
Monochlorobenzene (ug/L) - TW	2011/01/17	< 0.20	No
Paraquat (ug/L) - TW	2011/01/17	< 1.00	No
Parathion (ug/L) - TW	2011/01/17	< 3.00	No

Parameter	Sample Date	Sample Result	Exceedance
Pentachlorophenol (ug/L) - TW	2011/01/17	< 0.10	No
Phorate (ug/L) - TW	2011/01/17	< 0.30	No
Picloram (ug/L) - TW	2011/01/17	< 5.00	No
Polychlorinated Biphenyls(PCB) (ug/L) - TW	2011/01/17	< 0.050	No
Prometryne (ug/L) - TW	2011/01/17	< 0.10	No
Simazine (ug/L) - TW	2011/01/17	< 0.50	No
Temephos (ug/L) - TW	2011/01/17	< 10.00	No
Terbufos (ug/L) - TW	2011/01/17	< 0.30	No
Tetrachloroethylene (ug/L) - TW	2011/01/17	< 0.20	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2011/01/17	< 0.10	No
Triallate (ug/L) - TW	2011/01/17	< 10.00	No
Trichloroethylene (ug/L) - TW	2011/01/17	< 0.10	No
2,4,6-Trichlorophenol (ug/L) - TW	2011/01/17	< 0.10	No
2,4,5-Trichlorophenoxy acetic acid (ug/L) - TW	2011/01/17	< 10.00	No
Trifluralin (ug/L) - TW	2011/01/17	< 0.50	No
Vinyl Chloride (ug/L) - TW	2011/01/17	< 0.20	No

Below is a summary of operational testing done during the reporting period.

Turbidity Raw Water (NTU)	Number of Grab Samples	Range of Results (min #)-(max #)	Average
Well #1	Min of one per month.	0.2 – 1.2	0.48
Well #2	Min of one per month.	0.2 – 22.0	0.78
Well #4	Min of one per month.	0.19 – 20.0	0.71

Free Chlorine Residual (mg/L)	Number of Samples	Range of Results (min #)-(max #)	Average
Treated Water Reservoir	8760	0.45 – 2.0	0.82
Distribution	8760	0.1 – 1.17	0.57

*8760 denotes results from continuous monitors

08 Jun 2011: continuous on-line analyzer and chart recorder put into service.

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
No additional testing and sampling is required.				

Lead: Samples were collected between Dec 15, 2009 and Apr15, 2010. 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	1	0.00038 – 0.00051	No	7.55	Not applicable
Non-Residential Plumbing	1	0.00023 – 0.00028	No	7.55	Not applicable
Distribution Water	2	0.00019 - 0.00129	No	7.57 – 7.69	257 - 258

pH & Alkalinity Sampling

	Dec 15, 2010 - Apr15, 2011		Jun 15, 2011 - Oct 15, 2011			
	pH	Alkalinity	pH	Alkalinity	pH	Alkalinity
DW1	7.28	253	7.42	277	7.3	274
DW2	7.54	253	7.48	275	7.25	275

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
Not Applicable			

Maintenance Summary

During 2011 a total of 368 Work Orders were completed at the Merrickville Water Treatment and Distribution System. A breakdown of this total is listed below;

Corrective 28
 Preventative 128
 Weekly PM 133
 Capital 26
 Operational 53

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

- The biggest project completed within the system this year was the relining of the municipal wells and allow for the drawing of water from a better protected aquifer in an attempt to improve water quality and decrease the vulnerability of the municipal drinking water supply to contamination,
- Completion of the additional monitoring equipment for the optimization of the treatment process including a sample with associated piping, raw water turbidity analyzer and a free chorine analyzer to monitor the chemical feed process,
- Modifications to the internal piping at the wells to ensure continuous, compliant operation,
- Purchase and installation of a water tight manhole access cover for the treated water meter chamber,
- The replacement of the flow meter at Well #2,
- Minor repairs to the emergency backup power supply,

- Purchase of chemical feed and monitoring equipment to have on hand for timely repairs and maintenance and other miscellaneous items,
- Purchase of distribution system parts/components to have on hand for emergency repairs as required,
- Replacement of the failed unit heater in the distribution system services repair trailer,
- Repairs and finishing of the floor in the main pump house to remove H&S hazards and for the sealing of the floors to an impervious nature to protect the treated water supply located in the clearwell beneath the building,
- Purchase of spill containment skids for the safe storage of chemicals on-site,
- Purchase of de-humidifiers for each well site to control moisture and protect equipment from corrosion and premature failure,
- Purchase of a electric water pump for the draining of fire hydrants within the system to prevent freezing and ensure operational availability,
- Multiple watermain repairs completed as corrective actions following breaks,

End

Schedule 22
Summary Report

For

Municipalities

as per

O. Reg. 170/03

MERRICKVILLE DRINKING WATER SYSTEM
2011 SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Merrickville Drinking Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2011 to December 31, 2011. The Merrickville 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 Village of Merrickville-Wolford.

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	Sodium	Jan 2011	Health Unit requested a re-sample to be taken. Resample result was 31.7 mg/L. Health Unit required letters be sent to all water customers.	Complete

The following items were identified by the May 2011 Ministry of the 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 were no actions required noted in the last MOE inspection report.				

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.
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 Merrickville Drinking Water System. This document contains all required flow information.

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

			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Well 1	Max. Peak Day Flow	m ³ /d	131	211	134	390	136	161	438	268	354	96	53	OOS
	Rated Capacity	m ³ /d	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9	1312.9
	Percent Design	%	10.0	16.1	10.2	29.7	10.4	12.3	33.4	20.4	27.0	7.3	4.0	
Well 2	Max. Peak Day Flow	m ³ /d	149	132	242	237	74	88	171	151	191	432	197	190
	Rated Capacity	m ³ /d	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2	2000.2
	Percent Design	%	7.5	6.6	12.1	11.9	3.7	4.4	8.6	7.6	9.5	21.6	9.8	9.5
Well 4	Max. Peak Day Flow	m ³ /d	167	264	169	479	173	206	295	567	519	571	418	419
	Rated Capacity	m ³ /d	981.9	981.9	981.9	981.9	981.9	981.9	981.9	981.9	981.9	981.9	981.9	981.9
	Percent Design	%	17.0	26.9	17.2	48.8	17.6	21.0	30.0	57.7	52.9	58.1	42.6	42.7

OOS = out of service.

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): 2011 Permit No.(N° de permis): 4573-73AR7F Source: Ground Water
 Location: RW1 - Raw Water Well 1

Name of Permittee: Village of Merrickville-Wolford Mailing Address:
Nom du titulaire du permis Adresse postale

Location Of Taking: Twp. or Municipality: Concession: Lot:
Lieu de la prise d'eau Canton ou municipalité
 105 Main Street East Village of Merrickville

	Jan/2011	Feb/2011	Mar/2011	Apr/2011	May/2011	Jun/2011	Jul/2011	Aug/2011	Sep/2011	Oct/2011	Nov/2011	Dec/2011	<-- Total -->	<-- Avg. -->	<-- Max. -->	<-- Criteria-->
Total Amt of Taking(m3)	3,413.0	3,581.0	3,626.0	4,132.0	3,555.0	3,706.0	5,794.0	6,748.0	3,715.0	2,072.0	53.0		40,395.0			
Avg Monthly Taking(m3/month)	110.1	127.89	116.97	137.73	114.68	123.53	186.9	232.69	137.59	66.84	53.0			127.99		
Max Daily Flow(m3)	131.0	211.0	134.0	390.0	136.0	161.0	438.0	268.0	354.0	96.0	53.0				438.0	1,312.885
Peak Daily Rate of Taking(L/sec)	7.09	7.1	7.31	7.2	7.2	7.24	7.23	7.55	7.14	1.72	6.8				7.55	15.16
Peak Daily Rate of Taking(L/min)	425.4	426.0	438.6	432.0	432.0	434.4	433.8	453.0	428.4	103.2	408.0				453.0	910.0

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): 2011 Permit No.(N° de permis): 4573-73AR7F Source: Ground Water
 Location: RW2 - Raw Water Well 2

Name of Permittee: Village of Merrickville-Wolford Mailing Address:
Nom du titulaire du permis Adresse postale

Location Of Taking: Twp. or Municipality: Concession: Lot:
Lieu de la prise d'eau Canton ou municipalité
 105 Main Street East Village of Merrickville

	Jan/2011	Feb/2011	Mar/2011	Apr/2011	May/2011	Jun/2011	Jul/2011	Aug/2011	Sep/2011	Oct/2011	Nov/2011	Dec/2011	<-- Total -->	<-- Avg. -->	<-- Max. -->	<-- Criteria-->
Total Amt of Taking(m3)	2,161.0	2,151.0	2,432.0	2,426.0	1,836.0	2,020.0	2,419.0	2,877.0	3,587.0	6,113.0	4,340.0	4,903.0	37,265.0			
Avg Monthly Taking(m3/month)	69.71	76.82	78.45	80.87	59.23	67.33	83.41	119.88	143.48	254.71	144.67	158.16		111.39		
Max Daily Flow(m3)	149.0	132.0	242.0	237.0	74.0	88.0	171.0	151.0	191.0	432.0	197.0	190.0			432.0	2,000.24
Peak Daily Rate of Taking(L/sec)	4.52	4.52	4.59	4.58	4.57	4.28	4.25	4.46	5.38	6.89	4.89	4.97			6.89	23.11
Peak Daily Rate of Taking(L/min)	271.2	271.2	275.4	274.8	274.2	256.8	255.0	267.6	322.8	413.4	293.4	298.2			413.4	1,387.0

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): 2011 Permit No.(N° de permis): 4573-73AR7F Source: Ground Water
 Location: RW4 - Raw Water Well 4

Name of Permittee: Village of Merrickville-Wolford Mailing Address:
Nom du titulaire du permis Adresse postale

Location Of Taking: Twp. or Municipality: Concession: Lot:
Lieu de la prise d'eau Canton ou municipalité
 105 Main Street East Village of Merrickville

	Jan/2011	Feb/2011	Mar/2011	Apr/2011	May/2011	Jun/2011	Jul/2011	Aug/2011	Sep/2011	Oct/2011	Nov/2011	Dec/2011	<-- Total -->	<-- Avg. -->	<-- Max. -->	<-- Criteria-->
Total Amt of Taking(m3)	4,340.0	4,518.0	4,632.0	5,343.0	4,586.0	4,751.0	5,958.0	10,009.0	8,156.0	6,659.0	9,442.0	10,560.0	78,954.0			
Avg Monthly Taking(m3/month)	140.0	161.36	149.42	178.1	147.94	158.37	198.6	322.87	326.24	317.1	314.73	340.65		229.61		
Max Daily Flow(m3)	167.0	264.0	169.0	479.0	173.0	206.0	295.0	567.0	519.0	571.0	418.0	419.0			571.0	981.936
Peak Daily Rate of Taking(L/sec)	8.7	8.71	9.12	8.65	8.67	8.63	8.73	8.58	8.53	11.05	9.64	9.01			11.05	11.36
Peak Daily Rate of Taking(L/min)	522.0	522.6	547.2	519.0	520.2	517.8	523.8	514.8	511.8	663.0	578.4	540.6			663.0	682.0

Annual Record of Water Taking

(Permit to Take Water)



of

O. Reg. 387/04

Deborah Turner

From: D'Apice, Helen (ENE) [Helen.DApice@ontario.ca]
Sent: Friday, February 03, 2012 7:58 AM
To: Deborah Turner
Subject: RE: Confirmation for Merrickville DWS

Confirmation for PTTW 4573-73AR7F

| WT DATA | REPORTS | SEARCH WT DATA | ADMINISTRATION | USER PROFILE | CONTACT US | HELP | HOME | LOG

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

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 4573-73AR7F
Permit Holder: THE CORPORATION OF THE VILLAGE OF MERRICKVILLE-WOLFORD.
Received on: Feb 3, 2012 8:08 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.

Helen

From: Deborah Turner [mailto:DTurner@ocwa.com]
Sent: February 3, 2012 6:39 AM
To: D'Apice, Helen (ENE)
Subject: xml upload file for Merrickville DWS

Many thanks for your assistance. Let me know if you need any other information.

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Annual Water Taking Report

For the Year 2011

Raw Flow: Sum (m3/d)

Municipality:		Year:	2011
Facility Name:	[1161] - Merrickville Wolford WT	Water Source:	Ground Water
Works:	[220001227] - Merrickville Wolford WT	Total Design Capacity (m3/day):	0.00
Classification:	Class 2 Water Distribution, Class 2 Water Treatment	Population Served:	1,200

January	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	114.000	105.000	102.000	101.000	102.000	101.000	102.000	131.000	113.000	107.000	125.000	104.000	100.000	110.000	124.000	
RW2 - Raw Water Well 2	69.000	63.000	62.000	63.000	62.000	61.000	62.000	79.000	69.000	65.000	76.000	63.000	61.000	66.000	75.000	
RW4 - Raw Water Well 4	145.000	133.000	130.000	128.000	130.000	129.000	130.000	167.000	144.000	137.000	158.000	134.000	128.000	141.000	157.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	106.000	103.000	131.000	109.000	106.000	108.000	125.000	105.000	87.000	103.000	102.000	130.000	107.000	130.000	112.000	108.000
RW2 - Raw Water Well 2	64.000	65.000	79.000	63.000	64.000	64.000	76.000	63.000	149.000	62.000	61.000	78.000	65.000	77.000	67.000	68.000
RW4 - Raw Water Well 4	135.000	131.000	166.000	134.000	135.000	139.000	158.000	134.000	113.000	132.000	131.000	166.000	133.000	165.000	142.000	135.000

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February	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	129.000	103.000	104.000	130.000	108.000	131.000	111.000	132.000	108.000	130.000	109.000	189.000	135.000	107.000	131.000	
RW2 - Raw Water Well 2	76.000	61.000	62.000	77.000	64.000	78.000	68.000	79.000	65.000	78.000	64.000	114.000	80.000	64.000	78.000	
RW4 - Raw Water Well 4	165.000	131.000	132.000	165.000	137.000	167.000	133.000	168.000	138.000	165.000	140.000	237.000	172.000	136.000	166.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	109.000	133.000	108.000	134.000	130.000	113.000	211.000	133.000	111.000	137.000	137.000	138.000	130.000			
RW2 - Raw Water Well 2	69.000	79.000	65.000	81.000	79.000	69.000	132.000	84.000	68.000	70.000	82.000	83.000	82.000			
RW4 - Raw Water Well 4	138.000	169.000	137.000	170.000	166.000	143.000	264.000	169.000	138.000	152.000	173.000	174.000	173.000			
March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	131.000	116.000	132.000	107.000	134.000	106.000	52.000	78.000	129.000	119.000	122.000	133.000	107.000	127.000	103.000	
RW2 - Raw Water Well 2	78.000	70.000	79.000	64.000	81.000	64.000	242.000	106.000	79.000	72.000	75.000	81.000	65.000	78.000	62.000	
RW4 - Raw Water Well 4	166.000	147.000	167.000	135.000	169.000	134.000	65.000	99.000	164.000	151.000	154.000	168.000	135.000	161.000	131.000	

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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	104.000	130.000	105.000	133.000	131.000	121.000	119.000	121.000	110.000	125.000	127.000	128.000	118.000	117.000	111.000	130.000
RW2 - Raw Water Well 2	62.000	78.000	63.000	80.000	79.000	73.000	70.000	70.000	64.000	72.000	73.000	74.000	68.000	68.000	64.000	78.000
RW4 - Raw Water Well 4	131.000	167.000	132.000	168.000	166.000	147.000	154.000	159.000	145.000	163.000	166.000	168.000	156.000	152.000	145.000	167.000
April	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	110.000	128.000	123.000	114.000	127.000	124.000	128.000	390.000	162.000	126.000	122.000	202.000	149.000	239.000	152.000	
RW2 - Raw Water Well 2	64.000	74.000	71.000	66.000	82.000	71.000	75.000	237.000	96.000	73.000	71.000	121.000	87.000	145.000	88.000	
RW4 - Raw Water Well 4	145.000	168.000	161.000	149.000	183.000	162.000	165.000	479.000	207.000	165.000	156.000	255.000	193.000	296.000	194.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	111.000	125.000	114.000	108.000	111.000	113.000	120.000	121.000	114.000	118.000	117.000	109.000	107.000	121.000	127.000	
RW2 - Raw Water Well 2	64.000	72.000	66.000	63.000	64.000	65.000	70.000	70.000	66.000	67.000	70.000	62.000	62.000	70.000	74.000	
RW4 - Raw Water Well 4	144.000	162.000	142.000	142.000	146.000	151.000	156.000	160.000	149.000	155.000	152.000	141.000	140.000	159.000	166.000	

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May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	127.000	113.000	108.000	106.000	112.000	96.000	127.000	114.000	114.000	122.000	136.000	108.000	125.000	109.000	111.000	
RW2 - Raw Water Well 2	74.000	68.000	63.000	61.000	65.000	56.000	73.000	65.000	66.000	9.000	27.000	60.000	68.000	60.000	61.000	
RW4 - Raw Water Well 4	166.000	148.000	141.000	139.000	141.000	126.000	164.000	147.000	139.000	156.000	173.000	140.000	161.000	140.000	144.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	107.000	95.000	116.000	107.000	115.000	127.000	113.000	123.000	115.000	109.000	108.000	112.000	115.000	125.000	128.000	112.000
RW2 - Raw Water Well 2	60.000	53.000	63.000	59.000	63.000	21.000	62.000	68.000	64.000	60.000	59.000	64.000	63.000	69.000	71.000	61.000
RW4 - Raw Water Well 4	138.000	124.000	149.000	138.000	151.000	166.000	148.000	159.000	148.000	141.000	139.000	141.000	150.000	163.000	162.000	144.000
June	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	109.000	107.000	112.000	135.000	116.000	130.000	116.000	125.000	114.000	126.000	116.000	113.000	104.000	117.000	120.000	
RW2 - Raw Water Well 2	60.000	59.000	61.000	74.000	64.000	71.000	63.000	68.000	63.000	69.000	63.000	62.000	57.000	64.000	66.000	
RW4 - Raw Water Well 4	141.000	139.000	144.000	173.000	149.000	163.000	149.000	161.000	147.000	163.000	149.000	145.000	131.000	150.000	153.000	

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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	130.000	147.000	146.000	161.000	147.000	138.000	96.000	111.000	114.000	115.000	130.000	140.000	124.000	109.000	138.000	
RW2 - Raw Water Well 2	71.000	77.000	80.000	88.000	80.000	75.000	52.000	59.000	61.000	63.000	70.000	78.000	68.000	59.000	75.000	
RW4 - Raw Water Well 4	167.000	182.000	187.000	206.000	189.000	176.000	124.000	146.000	145.000	148.000	167.000	181.000	159.000	141.000	176.000	
July	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	133.000	130.000	133.000	131.000	149.000	111.000	128.000	167.000	132.000	153.000	90.000	173.000	155.000	156.000	177.000	
RW2 - Raw Water Well 2	72.000	70.000	72.000	72.000	81.000	60.000	69.000	91.000	72.000	83.000	52.000	96.000	84.000	85.000	96.000	
RW4 - Raw Water Well 4	170.000	166.000	170.000	168.000	191.000	143.000	165.000	211.000	170.000	196.000	115.000	210.000	198.000	200.000	228.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	185.000	184.000	155.000	172.000	182.000	210.000	199.000	187.000	191.000	229.000	302.000	438.000	373.000	207.000	226.000	236.000
RW2 - Raw Water Well 2	101.000	100.000	85.000	93.000	99.000	114.000	111.000	102.000	103.000	129.000	171.000	54.000	1.000	1.000		
RW4 - Raw Water Well 4	235.000	234.000	197.000	219.000	231.000	266.000	247.000	237.000	243.000	144.000		29.000	133.000	262.000	285.000	295.000

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August	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	252.000	234.000	57.000			174.000	243.000	229.000	221.000	237.000	263.000	250.000	268.000	260.000	233.000	
RW2 - Raw Water Well 2								94.000	123.000	77.000	68.000	140.000	151.000	147.000	131.000	
RW4 - Raw Water Well 4	313.000	295.000	454.000	515.000	567.000	395.000	297.000	271.000	273.000	295.000	326.000	308.000	331.000	321.000	285.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	257.000	242.000	246.000	256.000	249.000	251.000	230.000	235.000	230.000	219.000	225.000	241.000	234.000	218.000	239.000	255.000
RW2 - Raw Water Well 2	144.000	138.000	139.000	143.000	140.000	141.000	129.000	133.000	135.000	124.000	131.000	136.000	131.000	123.000	33.000	26.000
RW4 - Raw Water Well 4	317.000	303.000	307.000	314.000	310.000	310.000	286.000	294.000	288.000	275.000	275.000	302.000	294.000	275.000	296.000	317.000
September	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	61.000	7.000				4.000	239.000	347.000	346.000	331.000	335.000	354.000	327.000	180.000	59.000	
RW2 - Raw Water Well 2	87.000	128.000				3.000	116.000	174.000	176.000	178.000	182.000	191.000	179.000	170.000	156.000	
RW4 - Raw Water Well 4	425.000	519.000	508.000	511.000	486.000	500.000	182.000						39.000	132.000	265.000	

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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	60.000	65.000	65.000	67.000	72.000	75.000	71.000	74.000	73.000	74.000	76.000	64.000	107.000	97.000	85.000	
RW2 - Raw Water Well 2	142.000	152.000	150.000	152.000	163.000	172.000	166.000	167.000	166.000	169.000	167.000	56.000	25.000			
RW4 - Raw Water Well 4	256.000	270.000	269.000	270.000	291.000	302.000	295.000	301.000	294.000	299.000	297.000	248.000	459.000	370.000	368.000	
October	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1	83.000	90.000	83.000	70.000	82.000	96.000	87.000	88.000	89.000	85.000	62.000	46.000	67.000	63.000	67.000	
RW2 - Raw Water Well 2								1.000	1.000	1.000	172.000	263.000	390.000	356.000	383.000	
RW4 - Raw Water Well 4	365.000	391.000	353.000	295.000	352.000	419.000	571.000	386.000	388.000	361.000	284.000	74.000				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1	68.000	61.000	53.000	71.000	73.000	80.000	85.000	85.000	56.000	41.000	31.000	45.000	40.000	39.000	38.000	48.000
RW2 - Raw Water Well 2	387.000	350.000	305.000	411.000	413.000	411.000	432.000	426.000	285.000	211.000	158.000	185.000	140.000	135.000	133.000	164.000
RW4 - Raw Water Well 4						59.000			144.000	329.000	266.000	354.000	309.000	299.000	295.000	365.000

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November	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW1 - Raw Water Well 1																
											53.000					
RW2 - Raw Water Well 2																
	132.000	110.000	197.000	117.000	136.000	142.000	94.000	131.000	176.000	134.000	156.000	147.000	149.000	146.000	149.000	
RW4 - Raw Water Well 4																
	336.000	236.000	418.000	333.000	299.000	313.000	207.000	277.000	380.000	288.000	330.000	318.000	323.000	312.000	318.000	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW1 - Raw Water Well 1																
RW2 - Raw Water Well 2																
	150.000	136.000	159.000	158.000	163.000	151.000	150.000	140.000	144.000	142.000	132.000	142.000	184.000	139.000	134.000	
RW4 - Raw Water Well 4																
	320.000	293.000	340.000	337.000	351.000	319.000	317.000	300.000	308.000	310.000	285.000	303.000	389.000	297.000	285.000	
December	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW2 - Raw Water Well 2																
	135.000	129.000	157.000	137.000	147.000	137.000	144.000	135.000	135.000	147.000	151.000	147.000	144.000	157.000	156.000	
RW4 - Raw Water Well 4																
	282.000	270.000	328.000	289.000	302.000	284.000	303.000	287.000	286.000	312.000	319.000	311.000	305.000	333.000	332.000	

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	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW2 - Raw Water Well 2	160.000	162.000	163.000	158.000	170.000	181.000	188.000	190.000	172.000	163.000	163.000	173.000	181.000	168.000	174.000	179.000
RW4 - Raw Water Well 4	352.000	355.000	358.000	342.000	375.000	398.000	414.000	419.000	375.000	350.000	357.000	375.000	398.000	370.000	387.000	392.000