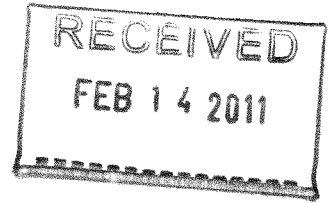




Ontario Clean Water Agency
Agence Ontarienne Des Eaux

359 Snow Road, P.O Box 656
Bancroft, Ontario K0L 1C0
Tel: 613-332-4783
Fax: 613-332-2594



Mrs. Pat Pilgrim
Township of Madawaska Valley
85 Bay Street
Barry's Bay, ON
K0J 1B0

February 8, 2011

Dear Pat Pilgrim:

RE: 2010 Annual Reports required by Ontario Regulations

Attached please find the 2010 Summary Report for the Barry's Bay Drinking Water System. This report is completed based on the information we have in our records in accordance with Schedule 22 of O.Reg 170/03, under the Safe Drinking Water Act. This schedule requires a Summary Report to be prepared no later than March 31st of each year for the preceding calendar year.

Any orders that you have received directly from the Ministry of the Environment (MOE) should be reviewed. Where noncompliance with the Order is evident and it is not included in the attached 2010 Summary Report, then we recommend that this information be added.

After your review and inclusion of any additional information, this Summary Report is to be provided to the members of the municipal council. It is also important to record and keep on record that this document was reviewed in council (resolution of council).

Also attached is the Section 11 Annual Report. This report is prepared to satisfy the requirements of O.Reg 170/03 section 11. It should also be noted that a copy of this report is no longer required to be submitted to the MOE.

As part of the requirements of the Water Taking and Transfer Regulation (O. Reg 387/04) it is required that all the raw water daily flow volumes are submitted electronically for review by the MOE. A copy of the data that was submitted is attached.

Section 12 of O. Reg. 170/03, requires that these reports be made available for inspection by any member of the public during normal business hours, without charge. The reports are to be made available for inspection at the office of the municipality.

Sincerely,

Vanessa Greatrix
Process and Compliance Technician
Ontario Clean Water Agency

cc: Jeremy Manning, OCWA
Brian Symondson, OCWA
Copy to file

Barry's Bay Drinking Water System

2010 Annual Water Reports

Prepared By
Vanessa Greatrix
Process and Compliance Technician
Ottawa Valley Hub



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

This document contains three different annual reports required for the Barry's Bay Drinking Water System; 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), and the Summary of the raw water values that were submitted to the Ministry of the Environment (as per Ontario Regulation 387/04 (Water Taking and Transfer))

Contents

Foreword	1
Schedule 22 Report	2
Summary of Non-Compliance	2
Summary of Non-Compliance Identified in a Ministry Inspection:	2
Flows.....	2
Raw Water Flows.....	2
<i>Annual Record of Water Taking</i>	3
Treated Water Flows	3
Ontario Regulation 170/03, Section 11, Annual Report	4
System Information.....	4
Drinking Water Systems that receive drinking water from system:	4
Brief System Description	4
Treatment Chemicals used during the reporting year:	4
Summary of Adverse Reports:.....	4
Regulatory Sample Results Summary	4
Microbiological Testing (170/03, Sch.10, Sch.11 or Sch.12):	4
Operational Testing (170/03, Sch.7, Sch.8 or Sch.9):	5
<i>On-Line</i>	5
<i>In-House</i>	5
<i>Laboratory</i>	5
Summary of additional samples:	5
Summary of inorganic parameters tested or most recent sample result:.....	5
Summary of Lead Sampling:	6
Summary of Organic parameters tested or most recent result.....	6
Maintenance Summary	7
Ontario Regulation 387/04, Water Taking and Transfer Data	9

Foreword

This document contains three different annual reports required for the Barry’s Bay Drinking Water System;

- Summary Report as per Schedule 22 of the Ontario Regulation 170/03
- Section 11 Annual Report, as per Section 11 of Ontario Regulation 170/03
- Summary of the raw water values 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 and on the municipality internet site.

Schedule 22 Report

This report is required to be completed and provided in the case of a drinking-water system owned by a municipality, the members of the municipal council;

Summary of Non-Compliance

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	1 Total Coliform in the Distribution System	28-Oct-10	Resample and test	Complete

Summary of Non-Compliance Identified in a Ministry Inspection:

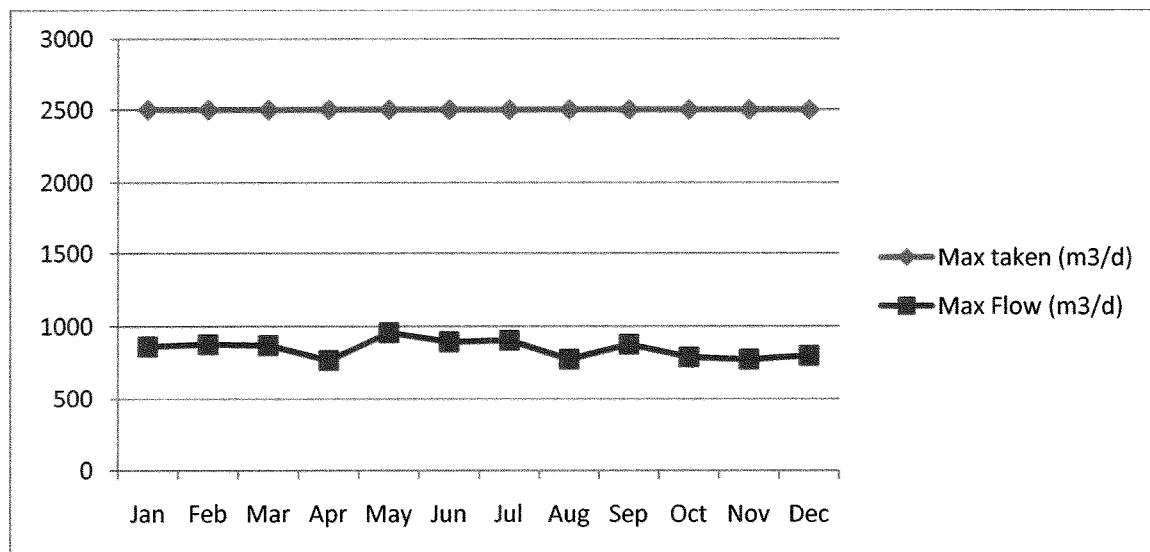
There were no non-compliance identified in the 2010 Ministry of Environment Inspection.

Flows

The Barry’s Bay Drinking Water System is operating on average under half the rated capacity.

Raw Water Flows

The Raw Water flow are regulated under the Permit to Take Water.



Annual Record of Water Taking

Ontario Clean Water Agency
 Agence Ontarienne Des Eaux

Annual Record Of Surface Water Taking
 Relevé annuel des prises d'eau de surface

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): 07P4106 Source: Lake Kamaniskeg
 Location: RW - Raw Water

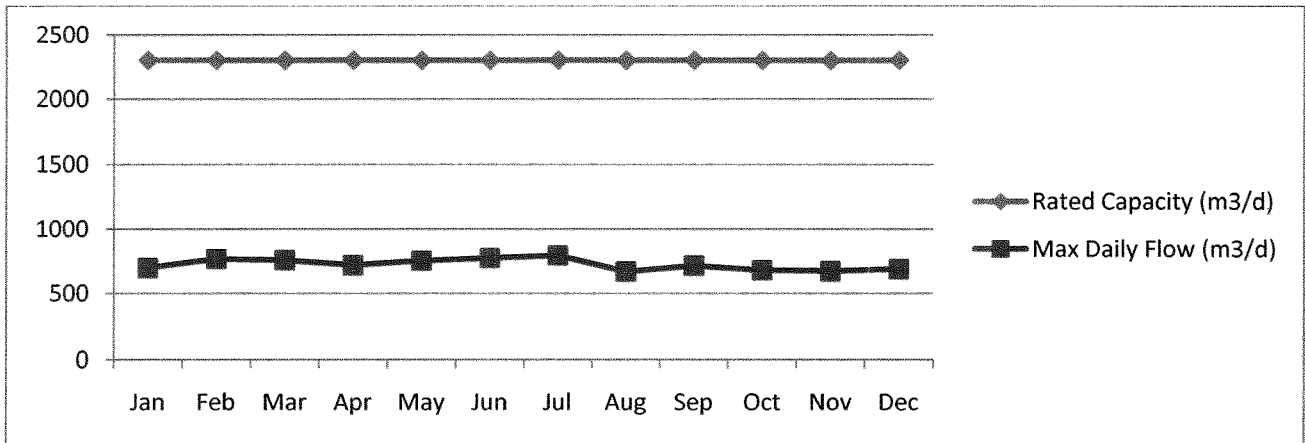
Name of Permittee: Town of Barry's Bay Mailing Address: 117 Lakeshore Dr.
 Nom du titulaire du permis Adresse postale

Location Of Taking: Twp. or Municipality: Concession: Lot:
 Lieu de la prise d'eau Canton ou municipalité Barry's Bay 5 28

	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 ->
Total Hours of Taking	261.9	232.0	249.5	261.7	304.3	258.7	302.7	280.9	275.9	256.8	228.2	252.7	3,165.3	263.78		
Avg Daily Taking(m3)	420.61	416.29	406.61	440.93	495.74	435.47	493.1	458.94	465.7	417.94	393.7	409.94		437.91		2,500.0
Total Amt of Taking(m3)	13,039.0	11,656.0	12,605.0	13,228.0	15,368.0	13,064.0	15,286.0	14,227.0	13,971.0	12,956.0	11,811.0	12,708.0	159,919.0			
Max Daily Flow(m3)	861.0	877.0	868.0	765.0	955.0	892.0	902.0	772.0	874.0	788.0	773.0	797.0			955.0	2,500.0
Avg Daily Rate of Taking(L/sec)	5.39	5.82	5.03	5.47	6.13	5.6	5.71	5.49	5.58	5.17	5.26	5.45		5.49		
Peak Daily Rate of Taking(L/sec)	14.2	14.3	14.2	14.2	14.2	14.4	14.4	14.4	14.5	14.6	14.1	14.2			14.6	34.5
Peak Daily Rate of Taking(L/min)	852.0	858.0	852.0	852.0	852.0	864.0	864.0	864.0	870.0	876.0	846.0	852.0			876.0	1,600.0

Treated Water Flows

The Treated Water flows are regulated under the Municipal Licence.



Ontario Regulation 170/03, Section 11, Annual Report

System Information

Drinking Water System Name:	Barry’s Bay Drinking Water System
Drinking Water System Number:	210000942
System Owner:	Township of Madawaska Valley
Operating Authority:	Ontario Clean Water Agency
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2010 – December 31, 2010

This system does not serve more than 10,000 residence and the annual reports will be available to residence at the Madawaska Valley Township Municipal Office. Notification will be at the Municipal Office and copies provided free of charge if requested. The Madawaska Valley Township Municipal Office is located at 85 Bay Street in the Town of Barry’s Bay.

Drinking Water Systems that receive drinking water from system:

There are no systems that receive water from this facility.

Brief System Description

The Barry’s Bay Water Treatment Plant is a direct filtration plant. The plant utilized the coagulation, flocculation and filtration processes. Alum is added to assist coagulation and soda ash for pH adjustment. Filter effluent is disinfected using Ultraviolet light and then chlorine gas is added before entering the clearwell. This facility has the ability to add polymer to aid flocculation and to add ammonia sulphate for chloramination but does not utilize these processes at this time.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Alum	Coagulant	Kemira
Soda Ash	pH Adjustment	Quadra
Chlorine Gas	Disinfection	Brenntag

Summary of Adverse Reports:

Date	AWQI #	Cause			Corrective Action Taken
		Parameter	Result	Exceedance of	
28-Oct-10	98878	Total Coliform	1	O. Reg 170/03	Resample and Test.

Regulatory Sample Results Summary

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

Location	Number of Samples	E.coli Results (min) - (max)	Total Coliform Results (min) – (max)	Number of HPC Samples	HPC Results (min) - (max)
Raw - RW	52	0-3	0-240	N/A	N/A
Treated - TW	52	0-0	0-0	52	0-3

Distribution - DW	149	0-0	0-1	149	0-5
-------------------	-----	-----	-----	-----	-----

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

On-Line

	Range of Results (min # - max #)
Filter #1 Turbidity	0.01-0.61 NTU
Filter #2 Turbidity	0.01-0.66 NTU
Filter #3 Turbidity	0.04-0.82 NTU
Treated Free Chlorine	0.01-2.32 mg/L
Treated Turbidity	0.11-2.0 NTU
Distribution Free Chlorine	0.45-1.55 mg/L
Fluoride	Fluoride is not added at this facility

*turbidity spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O.Reg 170/03

In-House

Parameter	# of grab samples taken	Range of Results (min # - max #)
Treated Free Chlorine	245	0.9-2.12 mg/L
Treated Turbidity	245	0.07-0.15 NTU
Treated pH	245	6.56-7.44
Treated Colour	245	0-1 TCU
Treated Aluminum	245	0-0.02 mg/L
Distribution Free Chlorine	149	0.24-1.47 mg/L

Laboratory

Parameter	# of grab samples taken	Range of Results (min # - max #)
Fluoride	Fluoride is not used at this facility	
Treated Alkalinity	12	16-28 mg/L
Treated Colour	12	>3->3 TCU
Treated Conductivity	12	115-167 uS/cm
Treated pH	12	7.07-7.43

Summary of additional samples:

Legal Document	Date of Issuance	Parameter	Date Sampled	Result	Unit of measure
There is no additional sampling required for this facility.					

Summary of inorganic parameters tested or most recent sample result:

MAC = Maximum Allowable Concentration as per O.Reg 169/03

BDL = Below the laboratory detection level

Parameter	Sample Date	Result Value	Exceedance
-----------	-------------	--------------	------------

Antimony: Sb (ug/L) - TW	11-Jan-10	0.02	No
Arsenic: As (ug/L) - TW	11-Jan-10	0.2	No
Barium: Ba (ug/L) - TW	11-Jan-10	16.1	No
Boron: B (ug/L) - TW	11-Jan-10	6.4	No
Cadmium: Cd (ug/L) - TW	11-Jan-10	<0.003	No
Chromium: Cr (ug/L) - TW	11-Jan-10	<0.5	No
Mercury: Hg (ug/L) - TW	11-Jan-10	<0.02	No
Selenium: Se (ug/L) - TW	11-Jan-10	<1.0	No
Sodium: Na (mg/L) - TW	08-Jan-09	23	No
Uranium: U (ug/L) - TW	11-Jan-10	0.017	No
Fluoride Residual: Mean (mg/L) - TW	22-Jan-08	<0.1	No
1 st Quarter Nitrite (mg/L)	05-Jan-10	<0.005 mg/L	No
2 nd Quarter Nitrite (mg/L)	06-Apr-10	<0.005 mg/L	No
3 rd Quarter Nitrite (mg/L)	06-Jul-10	<0.005 mg/L	No
4 th Quarter Nitrite (mg/L)	05-Oct-10	<0.005 mg/L	No
1 st Quarter Nitrate (mg/L)	05-Jan-10	0.065 mg/L	No
2 nd Quarter Nitrate (mg/L)	06-Apr-10	0.08 mg/L	No
3 rd Quarter Nitrate (mg/L)	06-Jul-10	0.099 mg/L	No
4 th Quarter Nitrate (mg/L)	05-Oct-10	0.13 mg/L	No

Summary of Lead Sampling:

This system is under reduced sampling. No sampling required until December 2011.

Summary of Organic parameters tested or most recent result

MAC = Maximum Allowable Concentration as per O.Reg 169/03

BDL = Below the laboratory detection level

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L) - TW	11-Jan-10	<0.11	No
Aldicarb (ug/L) - TW	11-Jan-10	<0.3	No
Aldrin + Dieldrin (ug/L) - TW	11-Jan-10	<0.067	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	11-Jan-10	<0.12	No
Azinphos-methyl (ug/L) - TW	11-Jan-10	<0.21	No
Bendiocarb (ug/L) - TW	11-Jan-10	<0.13	No
Benzene (ug/L) - TW	11-Jan-10	<0.32	No
Benzo(a)pyrene (ug/L) - TW	11-Jan-10	<0.004	No
Bromoxynil (ug/L) - TW	11-Jan-10	<0.33	No
Carbaryl (ug/L) - TW	11-Jan-10	<0.16	No
Carbofuran (ug/L) - TW	11-Jan-10	<0.37	No
Carbon Tetrachloride (ug/L) - TW	11-Jan-10	<0.16	No
Chlordane:Total (ug/L) - TW	11-Jan-10	<0.11	No
Chlorpyrifos (ug/L) - TW	11-Jan-10	<0.18	No
Cyanazine (ug/L) - TW	11-Jan-10	<0.18	No
Diazinon (ug/L) - TW	11-Jan-10	<0.081	No
Dicamba (ug/L) - TW	11-Jan-10	<0.2	No
1,2-Dichlorobenzene (ug/L) - TW	11-Jan-10	<0.41	No
1,4-Dichlorobenzene (ug/L) - TW	11-Jan-10	<0.36	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L) - TW	11-Jan-10	<0.14	No
1,2-Dichloroethane (ug/L) - TW	11-Jan-10	<0.35	No

1,1-Dichloroethylene (ug/L) - TW	11-Jan-10	<0.33	No
Dichloromethane (ug/L) - TW	11-Jan-10	<0.35	No
2,4-Dichlorophenol (ug/L) - TW	11-Jan-10	<0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	11-Jan-10	<0.19	No
Diclofop-methyl (ug/L) - TW	11-Jan-10	<0.4	No
Dimethoate (ug/L) - TW	11-Jan-10	<0.12	No
Dinoseb (ug/L) - TW	11-Jan-10	<0.36	No
Diquat (ug/L) - TW	11-Jan-10	<1.0	No
Diuron (ug/L) - TW	11-Jan-10	<0.087	No
Glyphosate (ug/L) - TW	11-Jan-10	<6.0	No
Heptachlor+Hepachlor Epoxide (ug/L) - TW	11-Jan-10	<0.11	No
Lindane: (ug/L) - TW	11-Jan-10	0.056	No
Malathion (ug/L) - TW	11-Jan-10	<0.091	No
Methoxychlor (ug/L) - TW	11-Jan-10	<0.14	No
Metolachlor (ug/L) - TW	11-Jan-10	<0.092	No
Metribuzin (ug/L) - TW	11-Jan-10	<0.12	No
Monochlorobenzene (ug/L) - TW	11-Jan-10	<0.3	No
Paraquat (ug/L) - TW	11-Jan-10	<1.0	No
Parathion (ug/L) - TW	11-Jan-10	<0.18	No
Pentachlorophenol (ug/L) - TW	11-Jan-10	<0.15	No
Phorate (ug/L) - TW	11-Jan-10	<0.11	No
Picloram (ug/L) - TW	11-Jan-10	<0.25	No
Polychlorinated Bichenysl(PCB) (ug/L) - TW	11-Jan-10	<0.04	No
Prometryne (ug/L) - TW	11-Jan-10	<0.23	No
Simazine (ug/L) - TW	11-Jan-10	<0.15	No
THM (ug/L) - DW	Annual Running Average	42.5 ug/L	No
Temephos (ug/L) - TW	11-Jan-10	<0.31	No
Terbufos (ug/L) - TW	11-Jan-10	<0.12	No
Tetrachloroethylene (ug/L) - TW	11-Jan-10	<0.35	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	11-Jan-10	<0.14	No
Triallate (ug/L) - TW	11-Jan-10	<0.1	No
Trichloroethylene (ug/L) - TW	11-Jan-10	<0.43	No
2,4,6-Trichlorophenol (ug/L) - TW	11-Jan-10	<0.25	No
2,4,5-Trichlorophenoxy acetic acid (ug/L) - TW	11-Jan-10	<0.22	No
Trifluralin (ug/L) - TW	11-Jan-10	<0.12	No
Vinyl Chloride (ug/L) - TW	11-Jan-10	<0.17	No

Maintenance Summary

Routine scheduled maintenance is captured in OCWA’s Workplace Management System. The maintenance items described below are outside the scope of routine scheduled maintenance:

Work Order #	Brief Summary
2207568	pH probe replacement
2040281	SCADA filter upgrades as per MOE guidelines
2043805	Replacement parts for soda ash and alum feed pumps

1935142	Annual water tower safety inspection
2189360	Replaced Cl2 Leak detection power supply
2029531	Filter #3 high plenum pressure raised, new Ethernet card installed and filter runtime register created.
2059559	Purchased a Back-up Hach 1720E turbidimeter
2208897	Watermain break - 21 St. Francis Memorial Hospital Drive.

Ontario Regulation 387/04, Water Taking and Transfer Data

2010 Data was submitted electronically on January 11, 2011 under permit #87-P-4106.

Raw flows are in m3/d

Jan	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	0	406	406	861	218	499	397	293	293	293	820	319	531	307	673	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	0	673	211	481	468	330	378	378	378	841	416	322	319	764	0	764

Feb	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	289	285	685	346	338	338	338	829	257	654	312	624	0	624	0	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	877	240	479	446	446	0	820	339	432	302	678	0	678			

Mar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	365	348	459	446	431	431	0	832	308	411	384	418	418	418	218	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	439	384	409	457	457	0	868	293	418	435	379	379	379	661	307	453

Apr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	518	0	518	518	518	312	607	375	609	0	609	396	410	497	371	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	348	348	348	765	238	624	454	520	520	520	330	576	554	506	319	

May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	319	319	767	278	537	400	485	485	0	955	266	548	337	739	0	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	739	455	500	479	589	562	562	562	562	438	775	369	513	513	513	802

Jun	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	241	692	313	732	0	732	394	555	579	448	370	370	370	667	270	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	475	475	353	353	353	883	165	645	235	500	500	0	892	0	502	

Ontario Clean Water Agency – Barry’s Bay Drinking Water System
 2010 Annual Water Reports

Rev.: 0

Issued: 08-Feb-11

Page | 10

Jul	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	502	494	494	494	697	410	777	414	397	397	397	654	332	431	493	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	489	489	489	524	402	296	849	325	325	325	902	284	734	374	548	548

Aug	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	548	548	144	772	396	572	572	572	240	765	377	575	409	409	409	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	757	185	661	196	493	493	493	249	421	546	270	595	595	0	702	263

Sep	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	800	265	503	0	503	503	874	290	555	320	320	320	789	586	719	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	540	365	365	365	588	289	504	694	324	324	324	798	272	470	402	

Oct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	577	0	577	609	304	552	263	468	468	468	468	280	449	391	458	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	458	0	788	284	338	493	499	499	499	407	584	290	672	271	271	271

Nov	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	755	217	417	372	493	493	0	720	223	352	352	712	0	712	211	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	426	392	336	460	460	0	773	327	385	360	542	0	542	449	330	

Dec	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	420	374	443	0	737	414	395	431	303	509	0	686	464	456	487	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	487	339	339	339	797	285	650	299	426	0	561	561	0	793	138	575