THE TOWN OF DEEP RIVER
ONTARIO, CANADA

DEEP RIVER DRINKING WATER SYSTEM
2014 ANNUAL REPORT

Prepared by:

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Ottawa Valley Hub

02/12/2015

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Foreword

This document contains three different reports required for the Deep River Drinking Water System:

- Section 11, Annual Report, as per the SDWA, 2002- Section 11 of the Ontario Regulation 170/03
- Summary Report, as per the SDWA, 2002- Schedule 22 of the 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, OWRA, 1990- Water Taking.

Section 12 of Ontario Regulation 170/03 of the SDWA, 2002, 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.

SECTION 11

ANNUAL REPORT 2014

Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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

System Information:

Drinking Water System Name:	Deep River Drinking Water System
Municipal Drinking Water Licence #	189-101, Issue # 1
Drinking Water Works Permit #	189-201, Issue # 1
Drinking Water System Number:	220000923
System Owner:	Deep River, The Corporation of the Town of
Operating Authority:	Ontario Clean Water Agency
Drinking Water System Category:	Large Municipal Residential
DWQMS Status (SAI Global Certified- File # 1634171-01)	Full Scope/Entire DWQMS (December 15, 2012)
Reporting Period:	January 1, 2014 – December 31, 2014

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

Town of Deep River
100 River Road, Box 400
Deep River, ON
K0J 1P0

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

Name	Drinking Water System Number
No other systems receive water from this system.	

Provide a brief description of the System:

There are three Actiflo units that provide coagulation, flocculation and sedimentation. PAS-8 and polymer are added in the Actiflo process. Filtration is provided by dual media filters. Post disinfection is provided using chlorine gas. pH is adjusted using caustic soda both before the Actiflo process and as the treated water enters the distribution system.

What Treatment Chemicals were used during the Reporting Year:

Chemical Name	Use	Supplier
Alum/PAS-8	Coagulant	Kemira
Fluoride	Fluoridation	Brenntag
Chlorine Gas	Disinfection	Brenntag

Caustic Soda	pH Adjustment	ClearTech
Magnifloc LT27AG	Actiflo	BASF Canada Ltd
Centrifuge Polymer (Zetag 8140)	Lamella Clarifier & Centrifuge Process	BASF Canada Ltd
Silica Sand	Actiflo Process	John Meunier

Summary of any Reports made to the Ministry under subsection 18 (1) of the Act or Section 16-4 of Schedule 16:

DRINKING WATER LEGISLATION	AWQI #	Cause			STATUS
		PARAMETER /EQUIPMENT FAILURE	DURATION	CORRECTIVE ACTION TAKEN	
SDWA 170/03	120640	Loss of Water Pressure with tower out of service for repairs	19-Sept-14	Restored pressure once power was returned.	Completed
SDWA 170/03	118862	Quarterly TTHM average exceedance of 101 ug/L	14-Jul-14	No further action required, as per Health Unit directions.	Completed
SDWA 170/03	117039	TTHM exceedance of 113 ug/L	22-Apr-14	This was the re-sample of AWQI #116750. Waiting for further instructions from Health Unit.	Completed
SDWA 130/03	116750	Quarterly average exceedance of TTHM's with a result of 108 ug/L	9-Apr-14	Re-sampled as instructed by Health Unit.	Completed
SDWA 170/03	115751	TTHM exceedance of RAA with a result of 105 ug/L	14-Jan-14	Re-sampled and result came back at 83.1 mg/L.	Completed

Does your Drinking-Water System serve more than 10 000 people?
NO

Is your annual report available to the public at no charge on a web site on the internet?
YES

Indicate how you notified system users that your annual report is available, and is free of charge?

Capacity Assessment of the Deep River Drinking Water System:

Year	2010	2011	2012	2013	2014
Av. Day Flow (m^3/d)	3 159.01	2 869.83	2 661.46	2 424.02	2 904.30
Design Capacity (m^3/d)	13 638.0	13 638.0	13 638.0	13 638.0	13 638.0
% of Capacity (based on av. day flows)	23.2	21.0	19.5	17.8	21.3
Max. Day Flow (m^3/d)	6 332.9	6 013.0	5 231.4	7 950.2	7 606.60
% of Capacity (based on max. day flows)	46.4	44.1	38.4	58.3	55.8

In 2014, the average day flow was at approximately 21.3 % of the current plant design, and the maximum day flow was at approximately 55.8 % of the plant design of 13 638.0 m^3/d.

Regulatory Sample Results Summary:

Microbiological Testing (Ont. Reg. 170/03, Sch. 10, Sch. 11, or Sch. 12 & Ont. Reg. 169/03 Standards – Not Detectable):

	# of E-coli Samples Taken	E-Coli Results (min-max)	# of Total Coliform Samples Taken	Total Coliform Results (min-max)	# of HPC Samples Taken	HPC Results (min-max)
Raw	52	0 - 7	52	0 - 56	52	18 - 500
Treated	52	0 - 0	52	0 - 0	52	1 - 500
Distribution	212	0 - 0	212	0 - 0	125	0 - 19

Operational Testing, On-Line (Ont. Reg. 170/03, Sch. 7, Sch. 8 or Sch. 9):

Parameter	Ont. Reg. 170/03 Standard	Range of Results (min # - max #)
Filter #1 Turbidity	1 NTU	0.026 – 0.370 NTU
Filter #2 Turbidity	1 NTU	0.055 – 0.311 NTU
Filter #3 Turbidity	1 NTU	0.008 – 0.307 NTU
Treated Free Chlorine	0.05 mg/L – 4 mg/L	1.043 – 2.865 mg/L *
Treated Fluoride	1.5 mg/L***	0.15 – 0.85 mg/L**
Distribution Free Chlorine	0.2 mg/L – 4.0 mg/L	0.14 – 1.730 mg/L

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

** Fluoride On-Line Analyzer functioning as of August 2009 at plant.

*** Where fluoride is added to drinking water, it is recommended that the concentration be adjusted to 0.5 – 0.8 mg/L which is the optimum level for the control of tooth decay. Where supplies contain naturally occurring fluoride at levels higher than 1.5 mg/L, but less than 2.4 mg/L, the Ministry of Health and Long Term Care recommends an approach through the local boards of health to raise public and professional awareness to control excessive exposure to fluoride from other sources (taken from the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines, June 2006, MOE PIBS 4449e01).

Summary of Additional Non-Required Samples, In-House:

Parameter	# of grab samples taken	Ont. Reg. 170/03 / Ont. Reg. 169/03 Standard (MAC), as applicable	Range of Results (min # - max #)
Filter #1 Turbidity	52	1 NTU	0.080 – 0.300 NTU
Filter #2 Turbidity	52	1 NTU	0.082 – 0.290 NTU
Filter #3 Turbidity	52	1 NTU	0.095 – 0.290 NTU
Treated Water Turbidity	52	1 NTU	0.148 – 0.279 NTU
Treated Water pH	248	6.0 – 8.5 (OG)	5.530 – 7.990
Treated Water Alkalinity	49	30 – 500 mg/L (OG)*	12 – 28 mg/L
Treated Water Aluminum	49	0.1 mg/L (OG)	0.001 – 0.039 mg/L
Treated Water Conductivity	12	300 – 500 uS/cm	111 – 130 uS/cm
Treated Water Colour	53	5 TCU (AO)**	0 – 1 TCU
Treated Water Fluoride	248	1.5 mg/L	0.18 – 0.83 mg/L
Treated Water Free Chlorine	248	0.05 mg/L – 4.0 mg/L	1.43 – 2.50 mg/L
Treated Water Total Chlorine	248	0.25 mg/L – 3.0 mg/L	1.63 – 2.70 mg/L
Distribution Free Chlorine	257	0.2 mg/ L – 4.0 mg/L	0.14 – 2.02 mg/L

* (OG) - Operational Guidelines- are established for parameters that, if not controlled, may negatively affect the efficient and effective treatment, disinfection and distribution of the water.

**(AO) – Aesthetic Objectives- are established for parameters that may impair the taste, odour or colour of water, or which may interfere with good water quality control practices (taken from the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines, MOE PIBS 4449e01, June 2006).

Laboratory:

Parameter	# of grab samples taken	Ont. Reg. 170/03 / Ont. Reg. 169/03 Standard (MAC), as applicable	Range of Results (min # - max #)
Treated Water Alkalinity	12	30 - 500 mg/L (OG)	14 – 28 mg/L
Treated Water Colour	12	5 TCU (AO)	< 2 – 2 TCU
Treated Water Conductivity	12	300 – 500 uS/cm	111 – 127 uS/cm
Treated Water Fluoride	12	1.5 mg/L	0.52 – 0.64 mg/L
Treated Water pH	12	6.5 - 8.5 (OG)	6.83 – 7.55
Treated Water Total Dissolved Solids	12	500 mg/L (AO)	30 – 90 mg/L
Treated Water Hardness	12	80 -100 mg/L (OG)	17 – 28 mg/L
Treated Water Aluminum	12	0.1 mg/L (OG)	0.050 – 0.150 mg/L
Treated Water Iron	12	0.30 mg/L (AO)	0.030 – 0.040 mg/L
Distribution Water Alkalinity	12	30 - 500 mg/L (OG)	14 – 28 mg/L
Distribution Water Colour	12	5 TCU (AO)	< 2 – 2 mg/L
Distribution Water Conductivity	12	300 – 500 uS/cm	112 – 129 uS/cm
Distribution Fluoride	14	1.5 mg/L	0.50 – 0.68 mg/L
Distribution pH	12	6.5 – 8.5 (OG)	6.78 – 7.56
Distribution Water Total Dissolved Solids	14	500 mg/L (AO)	40 – 100 mg/L
Distribution Water Hardness	14	80 – 100 mg/L (OG)	17 – 28 mg/L

Distribution Water Aluminum	12	0.1 mg/L (OG)	0.05 – 0.10 mg/L
Distribution Water Iron	14	0.30 mg/L (AO)	0.030 – 0.160 mg/L

Summary of Additional Samples:

Reason	Date of Issuance	Parameter	Date Sampled	Result/ Range	Unit of measure
MDWL #189-101	31-Jan-2011	Backwash Effluent Suspended Solids	Monthly	< 2 – 10*	mg/L

*The annual average for Backwash Effluent Suspended Solids is 2.8 mg/L, which is below the limit of 25 mg/L.

Summary of Inorganic Parameters Tested or Most Recent Sample Result:

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

Parameter	Sample Date	Result	Ont. Reg. 169/03 Standard (MAC)	Exceedence of MAC	Exceedence of ½ MAC
Antimony	Jan 07/14	< 0.5 ug/L	6 ug/L	No	No
Arsenic	Jan 07/14	< 1.0 ug/L	25 ug/L	No	No
Barium	Jan 07/14	< 10.0 ug/L	1000 ug/L	No	No
Boron	Jan 07/14	< 10.0 ug/L	5000 ug/L	No	No
Cadmium	Jan 07/14	< 0.1 ug/L	5 ug/L	No	No
Chromium	Jan 07/14	< 1.0 ug/L	50 ug/L	No	No
Mercury	Jan 07/14	< 0.1 ug/L	1 ug/L	No	No
Selenium	Jan 07/14	< 1.0 ug/L	10 ug/L	No	No
Sodium	Jan 07/14	14.0 mg/L	20 mg/L	No	Yes*
Uranium	Jan 07/14	< 1.0 ug/L	20 ug/L	No	No
Fluoride Residual: Mean	Dec 2/14	0.60 mg/L	1.5 mg/L	No	No
1st Quarter Nitrite	Jan 7/2014	< 0.1 mg/L	1 mg/L	No	No
2nd Quarter Nitrite	Apr 1/14	< 0.1 mg/L	1 mg/L	No	No
3rd Quarter Nitrite	Jul 2/14	< 0.1 mg/L	1 mg/L	No	No
4th Quarter Nitrite	Oct 7/14	0.1 mg/L	1 mg/L	No	No
1st Quarter Nitrate	Jan 7/2014	0.24 mg/L	10 mg/L	No	No
2nd Quarter Nitrate	Apr 1/14	0.19 mg/L	10 mg/L	No	No
3rd Quarter Nitrate	Jul 2/14	0.18 mg/L	10 mg/L	No	No
4th Quarter Nitrate	Oct 7/14	0.20 mg/L	10 mg/L	No	No

*Sodium is required to be tested every 60 months. The local Medical Officer of Health is notified when the sodium concentration equals or exceeds 20 mg/L, so this information may be passed on to local physicians for their use with patients on sodium restricted diets. The aesthetic objective for sodium in drinking water is 200 mg/L at which it can be detected by a salty taste.

Summary of Organic Parameters Tested or Most Recent Result:

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

(Results Inserted on Next Page)

Drinking-Water System Number: *6097*
Drinking-Water System Name: *DEEP RIVER DRINKING WATER SYSTEM*
Drinking-Water System Owner: *Title Holder: Municipality*
Drinking-Water System Category: *Large Municipal Residential*
Period being reported: *01/2014* *12/2014*

Table 6

Summary of Organic parameters sampled during this reporting period or the most recent sample results

TREATED WATER	Sample Date (mm/dd/yyyy)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Alachlor (ug/L) - TW	1/7/2014	< 1.0	5.00	No	No
Aldicarb (ug/L) - TW	1/7/2014	< 9.0	9.00	No	Yes
Aldrin+Dieldrin (ug/L) - TW	1/7/2014	< 0.012	0.70	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	1/7/2014	< 0.2	5.00	No	No
Azinphos-methyl (ug/L) - TW	1/7/2014	< 2.0	20.00	No	No
Bendiocarb (ug/L) - TW	1/7/2014	< 2.0	40.00	No	No
Benzene (ug/L) - TW	1/7/2014	< 0.5	5.00	No	No
Benzo(a)pyrene (ug/L) - TW	1/7/2014	< 0.01	0.01	No	Yes
Bromoxynil (ug/L) - TW	1/7/2014	< 0.5	5.00	No	No
Carbaryl (ug/L) - TW	1/7/2014	< 5.0	90.00	No	No
Carbofuran (ug/L) - TW	1/7/2014	< 5.0	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	1/7/2014	< 0.2	5.00	No	No
Chlordane: Total (ug/L) - TW	1/7/2014	< 0.018	7.00	No	No
Chlorpyrifos (ug/L) - TW	1/7/2014	< 1.0	90.00	No	No
Cyanazine (ug/L) - TW	1/7/2014	< 1.0	10.00	No	No
Diazinon (ug/L) - TW	1/7/2014	< 1.0	20.00	No	No
Dicamba (ug/L) - TW	1/7/2014	< 1.0	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	1/7/2014	< 0.4	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	1/7/2014	< 0.4	5.00	No	No
DDT + metabolites (ug/L) - TW	1/7/2014	< 0.024	30.00	No	No
1,2-Dichloroethane (ug/L) - TW	1/7/2014	< 0.2	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	1/7/2014	< 0.5	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) -	1/7/2014	< 4.0	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	1/7/2014	< 0.5	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) -	1/7/2014	< 1.0	100.00	No	No
Diclofop-methyl (ug/L) - TW	1/7/2014	< 1.0	9.00	No	No
Dimethoate (ug/L) - TW	1/7/2014	< 2.5	20.00	No	No
Dinoseb (ug/L) - TW	1/7/2014	< 1.0	10.00	No	No
Diquat (ug/L) - TW	1/7/2014	< 5.0	70.00	No	No
Diuron (ug/L) - TW	1/7/2014	< 10.0	150.00	No	No
Glyphosate (ug/L) - TW	1/7/2014	< 10.0	280.00	No	No
Heptachlor+hepachlor epoxide (ug/L) - TW	1/7/2014	< 0.012	3.00	No	No
Lindane (ug/L) - TW	1/7/2014	< 0.006	4.00	No	No
Malathion (ug/L) - TW	1/7/2014	< 5.0	190.00	No	No
Methoxychlor (ug/L) - TW	1/7/2014	< 0.006	900.00	No	No
Metolachlor (ug/L) - TW	1/7/2014	< 1.0	50.00	No	No
Metribuzin (ug/L) - TW	1/7/2014	< 5.0	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - T	1/7/2014	< 0.2	80.00	No	No
Paraquat (ug/L) - TW	1/7/2014	< 5.0	10.00	No	No
Parathion (ug/L) - TW	1/7/2014	< 1.0	50.00	No	No
PCB (ug/L) - TW	1/7/2014	< 0.1	3.00	No	No
Pentachlorophenol (ug/L) - TW	1/7/2014	< 0.5	60.00	No	No
Phorate (ug/L) - TW	1/7/2014	< 1.0	2.00	No	No
Picloram (ug/L) - TW	1/7/2014	< 5.0	190.00	No	No
Prometryne (ug/L) - TW	1/7/2014	< 1.0	1.00	No	Yes
Simazine (ug/L) - TW	1/7/2014	< 1.0	10.00	No	No
Temephos (ug/L) - TW	1/7/2014	< 10.0	280.00	No	No
Terbufos (ug/L) - TW	1/7/2014	< 1.0	1.00	No	Yes
Tetrachloroethylene (ug/L) - TW	1/7/2014	< 0.3	30.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	1/7/2014	< 0.5	100.00	No	No
Triallate (ug/L) - TW	1/7/2014	< 1.0	230.00	No	No
Trichloroethylene (ug/L) - TW	1/7/2014	< 0.3	50.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	1/7/2014	< 0.5	5.00	No	No
2,4,5-T (ug/L) - TW	1/7/2014	< 1.0	280.00	No	No
Trifluralin (ug/L) - TW	1/7/2014	< 1.0	45.00	No	No
Vinyl Chloride (ug/L) - TW	1/7/2014	< 0.2	2.00	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average -	1/1/2014	96.9	100.00	No	Yes

Summary of Lead Sampling: (Ont. Reg. 169/03 Standard = 10 ug/L or 0.01 mg/L MAC)

Reduced Sampling: Distribution Samples Only Required (Dec 15th-Apr 15th & Jun 15th-Oct 15th annually): Taken from 3 hydrants for Deep River DWS.

Distribution Samples-

Date Sampled	pH Results		Alkalinity Results		Lead Results	
	Max Result	Min Result	Max Result	Min Result	Max Result	Min Result
10-Apr-14	7.70	7.20	24	24	Not Required This Year	Not Required This Year
21-Oct-14	7.60	7.40	15	15	Not Required This Year	Not Required This Year

Facility Work Order Status:

Preventative Work Orders Completed	269
Operational Work Orders Completed	23
Weekly Maintenance Work Orders Completed	44
Capital Work Orders Completed	9
Corrective Work Orders Completed	8

Maintenance Summary:

Brief Description - Summary of Expenses Incurred for Installations, Repairs or Replacements:

- Costs associated with gas analyzer meter inspections performed by Hetek.
- Miscellaneous capital items required for repair and maintenance at the plant.
- Replacement of chlorine cylinder rubber gaskets.
- Installation of new transmission line for low lift pumps #1 & #2, and at water tower, by Christie & Walther.
- Costs associated with new HACH CL17 installed for clear well.
- Repair of motor for maturation mixer #2.
- Costs associated with the inspection of diesel fuel back-up generators and fuel storage tanks.

- Replacement of turbidity sensors at the water plant.
- Costs associated with TSSA inspections.
- Costs for annual fire extinguishers and emergency lighting inspected by Dion.
- Flow meter calibrations by contractor.
- Repairs required for the centrifuge conveyors.

Distribution Activities for 2014:

Background: OCWA is responsible for the operation of the water treatment plant and water storage facility (1 tower), and the distribution system that OCWA assumed responsibility on April 1st, 2011.

- Deep River Water Treatment Plant is a Class 3 Facility.
- Deep River Distribution System is a Class 1 System.

Distribution Summary:

1. OCWA Operators attended to 13 water main breaks during 2014:
    - January 17, 2014: 2A Laurier Avenue
    - January 26, 2014: 44 Rutherford Avenue
    - February 15, 2014: 12 Iberville Street
    - February 17, 2014: 20 Faraday Crescent
    - February 21, 2014: behind Credit Union
    - August 14, 2014: 72 Beach Avenue (also valve replacement)
    - September 21, 2014: 70 Beach Avenue
    - September 26, 2014: 22 Laurier Avenue
    - October 2, 2014: Ridge Road & Frontenac Crescent
    - November 10, 2014: Summer Street& Parkdale Avenue
    - November 29, 2014: Avon Road& Frontenac Crescent
    - December 18, 2014: 22 Laurier Avenue
    - December 29, 2014: Ridge Road & Rutherford Avenue

2. Hydrant Flushing was performed on approx. 237 hydrants between April to November 2014. The spring session started on April 22nd and was completed on May 8th. The fall session started on October 9th and was completed on November 3rd. Thawing and pumping of non-draining hydrants, and installing anti-freeze to winterize the hydrants, started on October 15th, 2014 and was completed by November 6th, 2014.

3. As part of the Community Lead Sampling program, alkalinity and pH were sampled from three distribution hydrants during the Winter Period (December 15, 2013 to April 15, 2014) and Summer Period (July 15, 2014 to October 15, 2014). Hydrant (distribution plumbing) samples were collected under the reduced sampling

requirement. These samples were collected on April 10th, 2014 and October 21st, 2014. The October samples were originally done before the October 15th deadline, but due to using the wrong bottle size for collection, sampling was re-done on October 21st, 2014.

4. Due to major maintenance work performed on the tower this year, the tower was taken out of service on September 21st, 2014, where it was drained, repaired, super-chlorinated, re-filled and put back into service on October 6th, 2014.

5. Water Service Inspections (including water turn on/offs, locates, pressure/flow testing, hydrant flushing, piping installations, hydrant replacements, valve locates/exercising, tapping of pipes, collecting bacti samples for new pipe installations, winterizing hydrants, service leaks, installing backflow preventers, etc.) were performed on many homes in the newer subdivisions, and with renovations to older homes/facilities within the Town of Deep River. The numbers are as follows: (Total of 78 Inspections)

Chadwick Drive – 3
Glendale Avenue- 6
Banting Drive- 3
Laurier Avenue- 2
Cartier Circle - 1
Highway #17 West- 4
Greenwood Road- 1
Highway #17 East- 3
Dalton Street- 2
Frontenac Crescent- 3
Maple Street- 2
Mountain View Gardens- 1
Summit Street- 1
Grouse Park- 1
Home Hardware- 5
Hillcrest Avenue- 2
Faraday Crescent - 3
Lasalle Drive - 1
Parkdale Avenue- 1
Islamic Temple- 1
Golf Course & Lawn Bowling Club- 1
Pine Point Road- 2
Spruce Crescent- 1
Claremount Road-1
Highland Crescent - 1
Yacht & Tennis Club- 2
Beach Avenue- 2
Beattie Crescent- 1
Thomson Crescent - 1
Forest Avenue- 1
Lamure Beach- 1
Wolfe Avenue- 4
Marina- 1
Tweedsmuir Place-2
Deep River Road- 1
Rutherford Avenue- 4
Campus (Summerfest) - 2
Laurence Hall- 1
Iberville Street- 2
Legion- 1

SUMMARY REPORT

2014

DEEP RIVER DRINKING WATER SYSTEM

2014 SUMMARY REPORTS FOR MUNICIPALITIES

Report:

This report is a summary of water quality information for the Deep River Drinking Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2014 to December 31, 2014. The Deep River Drinking Water System is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by the Ontario Clean Water Agency on behalf of the Town of Deep River.

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	AWQI #	Cause			STATUS
		PARAMETER/ EQUIPMENT FAILURE	DURATION	CORRECTIVE ACTION TAKEN	
SDWA 170/03	120640	Loss of Water Pressure with tower out of service for repairs	19-Sept-14	Restored pressure once power was returned.	Completed
SDWA 170/03	118862	Quarterly TTHM average exceedance of 101 ug/L	14-Jul-14	No further action required, as per Health Unit directions.	Completed
SDWA 170/03	117039	TTHM exceedance of 113 ug/L	22-Apr-14	This was the re-sample of AWQI #116750. Waiting for further instructions from Health Unit.	Completed

SDWA 130/03	116750	Quarterly average exceedance of TTHM's with a result of 108 ug/L	9-Apr-14	Re-sampled as instructed by Health Unit.	Completed
SDWA 170/03	115751	TTHM exceedance of RAA with a result of 105 ug/L	14-Jan-14	Re-sampled and result came back at 83.1 mg/L.	Completed

The Ministry of Environment Annual Inspection Reports:

The Ministry of Environment conducted their annual site visit for the 2013-2014 reporting year on January 8th, 2014. The final inspection report was received on March 25th, 2015. We received 100% with no Required Actions. There was one Recommendation for the Town of Deep River to review the distribution system to identify possible medium to higher risk locations that should be equipped with backflow prevention devices.

The inspector returned on Jan. 28th, 2015 to conduct the annual site visit for 2014-2015 reporting year. The draft results have not been received, as yet.

Summary of 2014 Community Complaints/Service Forms:

- February 10, 2014: G.C. Laurence Building – yellow-coloured water.
- June 12, 2014: 45 Beach Avenue – green-coloured water in bath tub.
- August 18, 2014: 67 Beach Avenue – water hammer noise in house service.
- December 2, 2014: 10 Newton Crescent – ongoing colour problem of water.

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.
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.

DEEP RIVER DRINKING WATER SYSTEM

2014 SUMMARY REPORTS FOR MUNICIPALITIES

Attached is a copy of the Annual Record of Water Taking for the Deep River Drinking Water System. This document contains all required flow information. Also, attached is the confirmation for the submission into the MOE WTRS for the 2014 reporting period.

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 31st.

Facility Flow Summary

Drinking-Water System Number: *6097*
Drinking-Water System Name: *DEEP RIVER DRINKING WATER SYSTEM*
Drinking-Water System Owner: *Title Holder: Municipality*
Drinking-Water System Category: *Large Municipal Residential*
Municipal Drinking Water License: *189-101*
Period being reported: *Jan-14* *Dec-14*

Raw Water

Raw Water (Source Name) *Raw Water*
Source Type: *RIVER*
Drinking Water Permit to Take Water No: *8528-9ECQPJ*

Treated Water

Treated Water (Source Name) *Treated Water*

Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)	Number of Days of Water Taking	Daily Run Hours, Total	Well Level, Minimum	Well Level, Maximum	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan	67387.90	2173.80	2728.40			31				57865.70	1866.64	2306.00		
Feb	63206.80	2257.39	2791.10			28				56532.60	2019.02	2646.40		
Mar	67594.00	2180.45	3084.00			31				61429.40	1981.59	2342.00		
Apr	62523.90	2084.13	2609.60			30				57991.40	1933.05	2286.50		
May	84138.20	2714.14	4522.40			31				71065.20	2292.43	3181.10		
Jun	113975.40	3799.18	5750.20			30				101130.70	3371.02	4500.60		
Jul	106854.00	3446.90	4416.90			31				99456.90	3208.29	4003.10		
Aug	106359.50	3430.95	5445.40			31				96309.20	3106.75	3916.90		
Sep	138794.10	4626.47	7463.80			30				113545.80	3784.86	6550.90		
Oct	110887.40	3577.01	7606.60			31				101022.20	3258.78	6602.00		
Nov	68300.60	2276.69	3228.80			30				61453.50	2048.45	2514.00		
Dec	70819.00	2284.48	2946.20			31				61848.90	1995.13	2494.40		
Total	1060840.80	34851.59	52593.40			365				939651.50	30866.00	43343.90		
Avg	88403.40	2904.30	4382.78			30				78304.29	2572.17	3611.99		
Max	138794.10	4626.47	7606.60			31				113545.80	3784.86	6602.00		
Criteria														

ANNUAL WATER TAKING AND TRANSFER REPORT - SUBMITTED DATA TO MOECC, FOR THE YEAR OF 2014

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: JANUARY

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,706.5000	2	1,964.7000	3	1,669.1000	4	2,630.2000
5	2,216.4000	6	2,081.3000	7	2,184.5000	8	2,037.6000
9	1,909.0000	10	2,465.5000	11	2,728.4000	12	1,783.3000
13	2,082.7000	14	2,082.7000	15	2,696.1000	16	2,513.4000
17	2,245.7000	18	1,780.8000	19	2,135.6000	20	2,427.2000
21	2,270.9000	22	1,673.6000	23	2,269.4000	24	2,024.4000
25	2,534.6000	26	2,316.8000	27	2,012.8000	28	1,581.3000
29	2,248.5000	30	1,943.5000	31	2,171.4000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: FEBRUARY

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,588.8000	2	2,231.0000	3	2,472.5000	4	1,952.3000
5	1,969.2000	6	2,171.7000	7	2,358.3000	8	2,498.3000
9	2,082.9000	10	1,966.4000	11	2,230.2000	12	2,005.9000
13	2,199.8000	14	2,791.1000	15	2,540.0000	16	2,260.2000
17	2,059.0000	18	2,453.0000	19	2,047.3000	20	2,526.1000
21	2,277.9000	22	2,373.7000	23	2,501.6000	24	2,294.0000
25	2,130.6000	26	2,087.5000	27	2,017.6000	28	2,119.9000

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: MARCH

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,530.7000	2	2,027.8000	3	2,207.3000	4	2,290.4000
5	1,959.6000	6	2,206.2000	7	2,094.2000	8	2,094.2000
9	1,929.0000	10	2,111.6000	11	2,282.6000	12	2,102.8000
13	2,133.8000	14	1,786.5000	15	2,603.2000	16	2,378.2000
17	2,021.1000	18	2,245.8000	19	2,099.2000	20	1,280.7000
21	3,084.0000	22	1,806.1000	23	2,910.3000	24	1,713.4000
25	2,204.2000	26	2,212.8000	27	2,119.2000	28	2,483.5000
29	1,899.6000	30	2,591.0000	31	2,185.0000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: APRIL

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	1,927.4000	2	2,228.3000	3	1,777.9000	4	2,128.0000
5	2,018.4000	6	2,174.9000	7	2,134.1000	8	2,122.6000
9	2,088.6000	10	2,119.0000	11	1,919.9000	12	1,872.9000
13	1,880.5000	14	2,327.9000	15	1,504.4000	16	2,289.8000
17	1,729.3000	18	1,938.0000	19	1,895.5000	20	2,413.8000
21	2,305.4000	22	2,008.9000	23	2,070.1000	24	2,609.6000
25	2,381.0000	26	1,737.3000	27	2,151.2000	28	2,301.3000
29	2,268.0000	30	2,199.9000				

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: MAY

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,889.9000	2	2,081.5000	3	1,655.9000	4	2,280.1000
5	2,258.2000	6	2,835.6000	7	2,732.9000	8	2,368.2000
9	2,430.5000	10	2,618.4000	11	2,571.5000	12	2,581.3000
13	2,894.3000	14	2,005.6000	15	2,232.9000	16	2,007.1000
17	2,442.0000	18	2,473.9000	19	4,137.1000	20	2,511.1000
21	3,266.3000	22	3,412.4000	23	3,029.8000	24	2,756.4000
25	2,852.0000	26	3,025.0000	27	2,900.3000	28	2,498.0000
29	2,761.5000	30	3,106.1000	31	4,522.4000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: JUNE

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	3,325.9000	2	3,599.3000	3	2,092.9000	4	4,198.1000
5	3,406.6000	6	4,819.9000	7	4,896.2000	8	5,750.2000
9	4,186.8000	10	4,843.2000	11	3,521.7000	12	3,997.6000
13	3,229.2000	14	3,064.2000	15	3,583.4000	16	3,440.3000
17	3,091.8000	18	3,284.2000	19	3,401.4000	20	3,599.7000
21	3,675.9000	22	4,215.4000	23	3,763.4000	24	2,901.5000
25	2,651.1000	26	4,249.9000	27	3,969.2000	28	4,395.8000
29	4,353.8000	30	4,466.8000				

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: JULY

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	3,790.3000	2	4,175.2000	3	3,086.9000	4	3,191.8000
5	4,067.6000	6	3,900.9000	7	3,772.8000	8	2,756.0000
9	2,713.8000	10	3,323.1000	11	3,476.4000	12	4,416.9000
13	2,668.8000	14	3,581.6000	15	3,098.3000	16	2,996.7000
17	3,372.2000	18	3,724.7000	19	3,904.7000	20	3,147.4000
21	3,551.7000	22	3,356.4000	23	3,737.0000	24	3,998.6000
25	3,998.6000	26	3,193.2000	27	2,968.7000	28	3,055.7000
29	3,448.4000	30	3,300.9000	31	3,078.7000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: AUGUST

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	3,114.9000	2	3,545.2000	3	3,766.4000	4	5,445.4000
5	3,106.0000	6	3,255.5000	7	3,910.4000	8	3,761.1000
9	3,967.1000	10	4,111.0000	11	3,094.8000	12	3,002.5000
13	3,465.9000	14	2,829.0000	15	3,436.1000	16	2,939.9000
17	3,395.5000	18	3,253.4000	19	3,393.0000	20	3,275.4000
21	3,235.5000	22	3,235.5000	23	2,904.2000	24	3,387.4000
25	3,870.8000	26	3,576.2000	27	2,969.6000	28	3,955.1000
29	2,883.7000	30	3,064.0000	31	3,209.0000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: SEPTEMBER

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	3,464.0000	2	3,558.6000	3	3,568.6000	4	3,409.0000
5	3,414.4000	6	3,340.2000	7	3,949.4000	8	3,885.2000
9	3,551.2000	10	3,506.7000	11	4,558.0000	12	2,805.4000
13	3,316.9000	14	3,151.8000	15	3,752.6000	16	3,848.6000
17	4,709.9000	18	4,474.5000	19	3,846.9000	20	2,494.9000
21	7,463.8000	22	6,797.4000	23	6,900.1000	24	6,783.8000
25	6,436.8000	26	6,418.9000	27	6,403.1000	28	6,316.3000
29	6,000.0000	30	6,667.1000				

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: OCTOBER

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	6,193.6000	2	7,606.6000	3	5,959.3000	4	6,447.1000
5	6,617.8000	6	3,931.9000	7	3,301.1000	8	2,684.4000
9	3,492.1000	10	2,879.0000	11	2,353.3000	12	2,757.0000
13	2,630.0000	14	4,208.1000	15	4,541.8000	16	4,685.3000
17	2,752.1000	18	2,753.8000	19	2,740.9000	20	2,839.0000
21	2,634.4000	22	2,987.0000	23	2,750.7000	24	2,272.6000
25	2,802.1000	26	2,167.0000	27	3,017.8000	28	2,797.2000
29	2,734.0000	30	2,792.6000	31	2,557.8000		

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: NOVEMBER

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,667.1000	2	2,157.1000	3	3,228.8000	4	2,098.1000
5	1,931.2000	6	2,662.9000	7	2,107.8000	8	2,039.9000
9	2,678.8000	10	2,246.0000	11	2,210.0000	12	1,976.0000
13	2,514.1000	14	1,934.9000	15	2,521.1000	16	2,148.4000
17	2,550.7000	18	2,277.2000	19	2,204.2000	20	2,349.9000
21	2,085.0000	22	1,996.8000	23	2,718.1000	24	2,470.7000
25	1,703.1000	26	2,243.1000	27	2,097.8000	28	2,056.2000
29	2,413.6000	30	2,012.0000				

Water Taking Data

Permit Number:	8528-9ECQPJ	Source Name:	Ottawa River
Year:	2014	Last Update:	2015/02/09

Month: DECEMBER

Unit of Measurement: Cubic meters Method of Determination: Metered

Date	Amount	Date	Amount	Date	Amount	Date	Amount
1	2,417.8000	2	2,287.0000	3	1,936.1000	4	2,219.9000
5	2,272.3000	6	2,579.8000	7	2,137.4000	8	2,413.0000
9	2,146.6000	10	2,481.4000	11	2,946.2000	12	2,586.8000
13	2,356.7000	14	2,488.6000	15	2,029.4000	16	2,049.0000
17	1,979.4000	18	2,826.9000	19	1,778.7000	20	2,793.0000
21	1,985.8000	22	2,033.0000	23	2,509.9000	24	2,204.4000
25	2,146.0000	26	2,301.2000	27	1,664.7000	28	2,315.0000
29	2,146.7000	30	2,134.7000	31	2,651.6000		

Ontario

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: 8528-9ECQPJ
Permit Holder: THE CORPORATION OF THE TOWN OF DEEP RIVER.
Received on:Feb 9, 2015 1:25 PM

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

DEEP2 RIVER2 | 2015/02/09
version: v4.2.0.3
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