



***PETAWAWA DRINKING WATER
SYSTEM
2012 ANNUAL REPORT***

Prepared by:
Brenda Royce
**Process and Compliance Technician
Ottawa Valley Hub
01/24/2013**



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

Foreword

This document contains three different reports required for the Petawawa 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, SDWA, 2002- Water Taking and Transfer.

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 2012



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

System Information:

Drinking Water System Name	Petawawa Drinking Water System
Municipal Drinking Water License #	199-101, Issue #1
Drinking Water Works Permit #	199-201, Issue #1
Drinking Water System Number	210002101
System Owner	Town of Petawawa
Operating Authority	Ontario Clean Water Agency
Drinking Water System Category	Large Municipal Residential
DWQMS Status (SAI Global Certified- File # 1634127-01)	Full Scope/ Entire DWQMS – December 15, 2012
Reporting Period	January 1, 2012 – December 31, 2012

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

Town of Petawawa 1111 Victoria Street Petawawa, ON K8H 2E6

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

Name	Drinking Water System Number
CFB Petawawa	Federal jurisdiction

Provide a brief description of the system:

Petawawa Water Treatment Plant is a conventional water treatment system using PAS-8 as the primary and polymer as the secondary coagulant to achieve coagulation, flocculation, and sedimentation. Pre and post pH adjustment with soda ash is also utilized during the water treatment process. Dual media filters provide filtration and chlorine gas is used for disinfection. Fluoridation is also practiced.

What Treatment Chemicals were used during the Reporting Year:

Chemical Name	Use	Supplier
PAS-8	Coagulant	Kemira
Fluoride	Fluoridation	Brenntag
Soda Ash Dense	pH Adjustment	Quadra & CCC
Chlorine Gas	Disinfection	Brenntag
Superfloc A-100 Flocculant (Polymer)	Coagulant Aid	Kemira

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	105408	Lead exceedance at 24 Park Drive and 1 Harry Street	19-Mar-12 to 30-Mar-12	Re-sampling was performed at both locations. Results received back from lab on March 29, 2012 all were within lead MAC. No further action required.	Completed
SDWA 170/03	106071	Fluoride exceedance of 1.81 mg/L due to analyzer malfunction	23-May-12	The tubing and reagent was replaced in the fluoride analyzer, then primed and put back in service. Bench test performed with result of 0.61 mg/L.	Completed
SDWA 170/03	105923	Loss of trending to SCADA due to a power disruption.	10-May-12	Analyzer scaling needed to be corrected to all turbidity analyzers. Once scaling was reset, everything was reading correctly. MOE inspector was informed and confirmed resolution.	Completed
SDWA 170/03	107268	Overgrown Total Coliforms at STS Tower & 2 TC at Herman Street/John Street	19-Jul-12 to 24-Jul-12	Flushed lines and re-sampled at both locations. Lab results indicated no presence of TC's at either location received on July 24 th . No further action required.	Completed
SDWA 170/03	108076	Total Coliform result of 18 at Herman Street/Laroche Crescent & TC of 2 at BPS #2	22-Aug-12 to 28-Aug-12	Flushed distribution lines and re-sampled at both locations, and upstream and downstream locations. Lab results from Aug. 27 th , showed no presence of TCs at either locations. No further action required.	Completed
SDWA 170/03	108189	Total Coliform result of 91 from distribution sample at Base Tower	29-Aug-12 to 4-Sep-12	Re-sampled from location and upstream and downstream locations. Re-sample showed no presence of TC. No further action required.	Completed

Does your Drinking-Water System serve more than 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?

- Notice via Government Office
- Town of Petawawa internet Web-Site

Capacity Assessment of the Petawawa Drinking Water System:

Year	2008	2009	2010	2011	2012
Av. Day Flow (m ³ /d)	5 865.25	6 037.59	6 494.87	6 248.97	7 166.06
Design Capacity (m ³ /d)	21 500.0	21 500.0	21 500.0	21 500.0	21 500.0
% of Capacity (based on av. day flows)	27.2	28.1	30.2	29.1	33.3
Max. Day Flow (m ³ /d)	8 885.0	11 201.0	13 113.0	10 952.0	13 860.0
% of Capacity (based on max. day flows)	41.3	52.1	61.0	50.9	64.5

In 2012, the average day flow was at approximately 33.3 % of the current plant design, and the maximum day flow was at approximately 64.5 % of the plant design of 21 500.0 m³/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	0-25	50	0-120	0	0
Treated	53	0-0	53	0-0	53	0-37
Distribution	356	0-0	356	0-91	356	0-69

Operational Testing (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	0.001 – 1.99 NTU
Filter #2 Turbidity	1 NTU	0.002 – 1.93 NTU

Filter #3 Turbidity	1 NTU	0.029 – 2.0 NTU
Treated Free Chlorine	0.05 mg/L – 4 mg/L	0.75 – 2.85 mg/L*
Distribution Free Chlorine**	0.2 mg/L – 4.0 mg/L	0 – 3.67 mg/L*
Fluoride	1.5 mg/L***	0 – 3.0 mg/L

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

**Includes all Booster Stations (2) and Tower (4) samples.

***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 #)
Treated Water Free Chlorine	104	0 mg/L – 1.0 mg/L	1.1 – 2.08 mg/L
Treated Water Fluoride	113	1.5 mg/L	0.31 – 0.72 mg/L
Treated Water Turbidity	104	1 NTU	0.064 – 1.12 NTU
Treated Water Alkalinity	104	30 – 500 mg/L (OG)*	15 – 38 mg/L
Treated Water Aluminum	104	0.1 mg/L (OG)	0 – 0.016 mg/L
Treated Water Colour	104	5 TCU (AO)**	0 – 4.0 TCU
Treated Water pH	104	6.5 – 8.5 (OG)	6.44 – 7.64
Distribution Free Chlorine	825	0.2 mg/L – 4.0 mg/L	0 – 2.0 mg/L
Filter #1 Turbidity	104	1 NTU	0.068 – 0.408 NTU
Filter #2 Turbidity	104	1 NTU	0.074 – 0.275 NTU
Filter #3 Turbidity	105	1 NTU	0.07 – 0.544 NTU

* (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	52	30 – 500 mg/L (OG)	16 – 42 mg/L
Treated Water Colour	52	5 TCU (AO)	2 – 6 TCU
Treated Water Conductivity	50	300 – 500 uS/cm	124 – 163 uS/cm
Treated Water pH	52	6.5 – 8.5 (OG)	6.59 – 7.48

Treated Water Total Dissolved Solids	52	500 mg/L (AO)	50 – 160 mg/L
Treated Water Hardness	52	80 – 100 mg/L (OG)	7 – 28 mg/L
Treated Water Fluoride	52	1.5 mg/L	0.4 – 0.66 mg/L
Distribution Water Alkalinity	214	30 – 500 mg/L (OG)	9.333 – 47 mg/L
Distribution Water Colour	214	5 TCU (AO)	< 2.0 – 5.0 TCU
Distribution Water Conductivity	204	300 – 500 uS/cm	53.667 – 181.0 uS/cm
Distribution Water pH	214	6.5 – 8.5 (OG)	2.333 – 7.60
Distribution Water Total Dissolved Solids	214	500 mg/L (AO)	30.0 – 170.0 mg/L
Distribution Water Hardness	214	80 – 100 mg/L (OG)	3.333 – 31.0 mg/L

Summary of Additional Samples:

Reason	Date of Issuance/Complaint	Parameter	Date Sampled	Result
Certificate of Approval # 7373-7H2K93	30-Sep-08	Backwash Effluent Suspended Solids	3-Jan-12	2.0 mg/L
			2-Apr-12	3.0 mg/L
			5-Jul-12	< 2.0 mg/L
			1-Oct-12	< 2.0 mg/L*

*The annual average for Backwash Effluent Suspended Solids is 2.3 mg/L which is below the limit of 25 mg/L.

Summary of Inorganic Parameters Tested or Most Recent Sample Results:

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 10/12	< 0.5 ug/L	6 ug/L	No	No
Arsenic	Jan 10/12	< 1.0 ug/L	25 ug/L	No	No
Barium	Jan 10/12	< 10.0 ug/L	1000 ug/L	No	No
Boron	Jan 10/12	< 10.0 ug/L	5000 ug/L	No	No
Cadmium	Jan 10/12	< 0.1 ug/L	5 ug/L	No	No
Chromium	Jan 10/12	< 1.0 ug/L	50 ug/L	No	No
Mercury	Jan 10/12	< 0.1 ug/L	1 ug/L	No	No
Selenium	Jan 10/12	< 1.0 ug/L	10 ug/L	No	No
Sodium	Jan 10/11	20 mg/L	20 mg/L	No	Yes*
Uranium	Jan 10/12	< 1.0 ug/L	20 ug/L	No	No
Fluoride Residual: Mean	Dec 27/12	0.66 mg/L	1.5 mg/L	No	No
1 st Quarter Nitrite	Jan 3/12	< 0.1 mg/L	1 mg/L	No	No
2 nd Quarter Nitrite	Apr 2/12	< 0.1 mg/L	1 mg/L	No	No
3 rd Quarter Nitrite	Jul 5/12	< 0.1 mg/L	1 mg/L	No	No
4 th Quarter Nitrite	Oct 1/12	< 0.1 mg/L	1 mg/L	No	No
1 st Quarter Nitrate	Jan 3/12	0.2 mg/L	10 mg/L	No	No
2 nd Quarter Nitrate	Apr 2/12	0.14 mg/L	10 mg/L	No	No
3 rd Quarter Nitrate	Jul 5/12	0.2 mg/L	10 mg/L	No	No
4 th Quarter Nitrate	Oct 1/12	0.2 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 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 200mg/L at which it can be detected by a salty taste (taken from the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines, June 2006, MOE PIBS 4449e01).

Summary of Organic Parameters Tested or Most Recent Result:

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

Parameter	Sample Date	Result (ug/L)	Ont. Reg. 169/03 Standard (MAC)	Exceedence of MAC	Exceedence of ½ MAC
Alachlor	Jan 3, 2012	< 0.5	5 ug/L	No	No
Aldicarb	Jan 3, 2012	< 5.0	9 ug/L	No	No
Aldrin + Dieldrin	Jan 3, 2012	< 0.01	0.7 ug/L	No	No
Atrazine + N-Dealkylated metabolites	Jan 3, 2012	< 0.2	5 ug/L	No	No
Azinphos-methyl	Jan 3, 2012	< 2.0	20 ug/L	No	No
Bendiocarb	Jan 3, 2012	< 2.0	40 ug/L	No	No
Benzene	Jan 3, 2012	< 0.5	5 ug/L	No	No
Benzo(a)pyrene	Jan 3, 2012	< 0.01	0.01 ug/L	No	No
Bromoxynil	Jan 3, 2012	< 0.5	5 ug/L	No	No
Carbaryl	Jan 3, 2012	< 5.0	90 ug/L	No	No
Carbofuran	Jan 3, 2012	< 5.0	90 ug/L	No	No
Carbon Tetrachloride	Jan 3, 2012	< 0.5	5 ug/L	No	No
Chlordane (Total)	Jan 3, 2012	< 0.02	7 ug/L	No	No
Chlorpyrifos	Jan 3, 2012	< 1.0	90 ug/L	No	No
Cyanazine	Jan 3, 2012	< 1.0	10 ug/L	No	No
Diazinon	Jan 3, 2012	< 1.0	20 ug/L	No	No
Dicamba	Jan 3, 2012	< 1.0	120 ug/L	No	No
1,2-Dichlorobenzene	Jan 3, 2012	< 0.4	200 ug/L	No	No
1,4-Dichlorobenzene	Jan 3, 2012	< 0.4	5 ug/L	No	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Jan 3, 2012	< 0.02	30 ug/L	No	No
1,2-Dichloroethane	Jan 3, 2012	< 0.2	5 ug/L	No	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 3, 2012	< 0.5	14 ug/L	No	No
Dichloromethane	Jan 3, 2012	< 4.0	50 ug/L	No	No
2,4-Dichlorophenol	Jan 3, 2012	< 0.5	900 ug/L	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 3, 2012	< 1.0	100 ug/L	No	No
Diclofop-methyl	Jan 3, 2012	< 0.9	9 ug/L	No	No
Dimethoate	Jan 3, 2012	< 2.5	20 ug/L	No	No
Dinoseb	Jan 3, 2012	< 1.0	10 ug/L	No	No
Diquat	Jan 3, 2012	< 5.0	70 ug/L	No	No
Diuron	Jan 3, 2012	< 10.0	150 ug/L	No	No
Glyphosate	Jan 3, 2012	< 10.0	280 ug/L	No	No
Heptachlor + Heptachlor Epoxide	Jan 3, 2012	< 0.01	3 ug/L	No	No
Lindane (Total)	Jan 3, 2012	< 0.01	4 ug/L	No	No
Malathion	Jan 3, 2012	< 5.0	190 ug/L	No	No
Methoxychlor	Jan 3, 2012	< 0.02	900 ug/L	No	No
Metolachlor	Jan 3, 2012	< 0.5	50 ug/L	No	No
Metribuzin	Jan 3, 2012	< 5.0	80 ug/L	No	No
Monochlorobenzene	Jan 3, 2012	< 0.2	80 ug/L	No	No
Paraquat	Jan 3, 2012	< 5.0	10 ug/L	No	No
Parathion	Jan 3, 2012	< 1.0	50 ug/L	No	No
Pentachlorophenol	Jan 3, 2012	< 0.5	60 ug/L	No	No
Phorate	Jan 3, 2012	< 0.5	2 ug/L	No	No

Picloram	Jan 3, 2012	< 5.0	190 ug/L	No	No
Polychlorinated Biphenyls (PCB)	Jan 3, 2012	< 0.1	3 ug/L	No	No
Prometryne	Jan 3, 2012	< 0.25	1 ug/L	No	No
Simazine	Jan 3, 2012	< 1.0	10 ug/L	No	No
THM (Treated) (NOTE: show latest annual average)	2012	37.5	100 ug/L	No	No
THM (Distribution) (NOTE: show latest annual average)	2012	67.9	100 ug/L	No	Yes
Temephos	Jan 3, 2012	< 10.0	280 ug/L	No	No
Terbufos	Jan 3, 2012	< 0.4	1 ug/L	No	No
Tetrachloroethylene	Jan 3, 2012	< 0.3	30 ug/L	No	No
2,3,4,6-Tetrachlorophenol	Jan 3, 2012	< 0.5	100 ug/L	No	No
Triallate	Jan 3, 2012	< 1.0	230 ug/L	No	No
Trichloroethylene	Jan 3, 2012	< 0.3	50 ug/L	No	No
2,4,6-Trichlorophenol	Jan 3, 2012	< 0.5	5 ug/L	No	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Jan 3, 2012	< 1.0	280 ug/L	No	No
Trifluralin	Jan 3, 2012	< 0.4	45 ug/L	No	No
Vinyl Chloride	Jan 3, 2012	< 0.2	2 ug/L	No	No

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

Reduced Sampling: Round #5 – December 15/11 to April 15/12

Residential Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		Lead Sample #2		pH	
			Max Result (mg/L)	Min Result (mg/L)	Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result
31	1	2	0.011	< 0.001	0.008	< 0.001	7.60	6.80

Non-Residential Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		Lead Sample #2		pH	
			Max Result (mg/L)	Min Result (mg/L)	Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result
3	1	2	0.009	< 0.001	0.011	< 0.001	7.44	7.15

Distribution Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		pH		Alkalinity	
			Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result	Max Result	Min Result
4	0	0	< 0.001	< 0.001	7.46	7.01	41	32

Reduced Sampling: Round #6 – June 15/12 to October 15/12

Residential Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		Lead Sample #2		pH	
			Max Result (mg/L)	Min Result (mg/L)	Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result
30	0	2	0.008	< 0.001	0.002	< 0.001	8.00	7.30

Non-Residential Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		Lead Sample #2		pH	
			Max Result (mg/L)	Min Result (mg/L)	Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result
3	0	2	0.009	< 0.001	0.007	< 0.001	7.70	7.20

Distribution Samples-

# of Samples	# Adverse MAC (> 0.01 mg/L)	# Exceed 1/2 MAC (0.005 mg/L)	Lead Sample #1		pH		Alkalinity	
			Max Result (mg/L)	Min Result (mg/L)	Max Result	Min Result	Max Result	Min Result
4	0	0	0.002	< 0.001	7.80	7.40	42	36

Facility Work Order Status:

Preventative Work Orders Completed	488
Operational Work Orders Completed	50
Weekly Maintenance Orders Completed	1 441
Capital Work Orders Completed	29
Corrective Work Orders Completed	35

Maintenance Summary:

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

- Purchase of pressure test kit and Red B Gone for Petawawa distribution system.
- Miscellaneous capital items purchased for the repair and maintenance of the water treatment plant.

- Labour costs for the installation of stainless steel piping and valves in the filter gallery of the water plant.
- Labour costs associated for Valley Compressor maintenance performed.
- Purchase of a backflow preventer test kit.
- Purchase of a spare chlorine analyzer.
- Replacement of air dryer for the Petawawa WTP, as old unit was deemed uneconomical to repair.
- Replacement of the air compressor to upgrade current unit.
- Yearly service costs for GAL Power service.
- Replacement of DC drive unit, as required as a spare for the dart controllers for the soda ash feed system.
- Replacement of electric solenoid valves required for the high lift pumps.
- Purchase of repair kits for high lift pump electric check valves.
- Replacement of faulty disconnects and torquing of service connections to the high lift pumps.
- Replacement of bypass valve at Booster station #2, where bolts had deteriorated that the gland cap was no longer secure and leaks developed.
- Purchase of back-up generator for Town Tower.
- Purchase of diaphragm-type trash pump for distribution activities.
- Costs for X-Site to hydrovac distribution isolation valves.
- Replacement of turbidity analyzer for filter #3, where current unit lost its ability to retain its setpoints due to old age)
- SCADA system repairs by ASPEC Automation.
- Emergency repair of discharge header for the Petawawa WTP.
- Emergency repair of soft start for the high lift pump #2, as main board defective.
- Purchase of solenoid valve for poly feed system.
- Replacement of colorimeter cells for CL17 chlorine analyzers.
- Costs for intake and outfall inspections.
- Spare parts purchased for boiler system components.
- Replacement contactor purchased for flash mixer.
- Replacement of chlorine leak detection system.
- Costs for Landmark Inspections of the Town and Township Tower water storage tanks.
- Replacement of cable reel for the chlorine transfer hoist, as current unit was hit by lightning.

Distribution Activities for 2011:

Background: OCWA is responsible for the operation of the water treatment plant, booster stations (2), water storage facilities - (4) towers; currently (3), as South Townsite Tower was decommissioned in October 2012, and the distribution system that OCWA assumed responsibility for on January 1st, 2011.

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

Distribution Summary:

1. OCWA Operators attended to four watermain breaks during 2012:
 - November 5, 2012: John Street; Cause – service leaks for two homes on John Street.
 - August 22, 2012: Mohns Ave.; Cause - appeared to be a hole in the 18- inch pipe and lots of gravel in pipe and couplings.
 - May 22, 2012: Booster Station #2; Cause – valve leaking.
 - January 31, 2012: 2050-2121 Petawawa Blvd.; Cause – broken pipe saddle.
2. Hydrant Flushing was performed on 438 hydrants between May to October 2012. Hydrants were winterized on October 2nd, 9th, 10th, 11th, and November 20th, 2012.
3. The decommissioning and draining of the South Townsite Tower started on October 23rd, 2012.
4. The Community Lead Sampling Program was conducted during March 12th to 20th for the Winter Period of December 15th to April 15th, 2012 and again during September 10th to September 20th for the Summer Period of June 15th to October 15th, 2012.
5. Bacti samples were collected 24 times for new distribution lines being put into service in the Town of Petawawa.
6. Water Service Inspections (including water turn on/off, new home piping inspections, backflow preventer installations, charging/pressure and flow testing, locates, exercising valves, opening curb stops, assisting contractors, etc.) were performed during 2012 on numerous homes (both single dwelling and duplexes) and businesses within the Town of Petawawa. The number of visits to these locations for such inspections are as follows: (Total of 450 Inspections) -
 - Bedard Avenue: 13
 - Boulder Creek Trail: 6
 - Renfrew Street: 2
 - Leeder Lane: 5
 - Oak Street: 7
 - Nick Street: 7
 - Laurentian Highlands: 24
 - Herman Street (@John St./Laroche Cres.): 171
 - Winston Avenue: 43
 - Victoria Street: 23
 - Greenvale Crescent: 22
 - Schwantz Road (@ Laurentian Drive): 1
 - Radtke Road: 1
 - Butler Blvd.: 3
 - John Street: 3
 - James Street: 6
 - Turning Stone Crescent: 5

- Beck Street: 1
- Pinehurst Estates: 2
- Armstrong Road: 15
- Wolfe Avenue: 4
- Petawawa Blvd. (@Wendy's/Limestone Trail/Bridge construction work): 23
- Derek Drive: 3
- Bayshore Drive: 1
- Mohns Avenue: 17
- Edward Street: 1
- Harry Street: 2
- Algonquin Street: 1
- Maple Avenue: 3
- Alfred Street: 3
- Golf Course Road: 1
- Fred Street: 2
- Highland Park Drive: 2
- Portage: 1
- BPS #1: 1
- BPS #2: 3
- South Townsite Tower: 2
- Township Tower: 1
- William Thomas Drive: 5
- Lisa Crescent: 1
- Laroche Crescent (@James Street): 7
- Violet Street: 2
- Florence Street: 2
- Our Lady of Sorrows School: 2

SUMMARY REPORT

2012

PETAWAWA DRINKING WATER SYSTEM

2012 SUMMARY REPORTS FOR MUNICIPALITIES

Report:

This report is a summary of water quality information for the Petawawa Drinking Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2012 to December 31, 2012. The Petawawa 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 Town of Petawawa.

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 #	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)
SDWA 170/03	105408	Lead exceedance at 24 Park Drive and 1 Harry Street	19-Mar-12 to 30-Mar-12	Re-sampling was performed at both locations. Results received back from lab on March 29, 2012 all were within lead MAC. No further action required.	Completed
SDWA 170/03	106071	Fluoride exceedance of 1.81 mg/L due to analyzer malfunction	23-May-12	The tubing and reagent was replaced in the fluoride analyzer, then primed and put back in service. Bench test performed with result of 0.61 mg/L.	Completed

**PETAWAWA DRINKING WATER SYSTEM
2012 SUMMARY REPORTS FOR MUNICIPALITIES**

Drinking Water Legislation	AWQI #	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)
SDWA 170/03	105923	Loss of trending to SCADA due to a power disruption.	10-May-12	Analyzer scaling needed to be corrected to all turbidity analyzers. Once scaling was reset, everything was reading correctly. MOE inspector was informed and confirmed resolution.	Completed
SDWA 170/03	107268	Overgrown Total Coliforms at STS Tower & 2 TC at Herman Street/John Street	19-Jul-12 to 24-Jul-12	Flushed lines and re-sampled at both locations. Lab results indicated no presence of TC's at either location received on July 24 th . No further action required.	Completed
SDWA 170/03	108076	Total Coliform result of 18 at Herman Street/Laroche Crescent & TC of 2 at BPS #2	22-Aug-12 to 28-Aug-12	Flushed distribution lines and re-sampled at both locations, and upstream and downstream locations. Lab results from Aug. 27 th , showed no presence of TCs at either locations. No further action required.	Completed
SDWA 170/03	108189	Total Coliform result of 91 from distribution sample at Base Tower	29-Aug-12 to 4-Sep-12	Re-sampled from location and upstream and downstream locations. Re-sample showed no presence of TC. No further action required.	Completed

[2011 – 2012 Petawawa DWS MOE Inspection:](#)

The Ministry of Environment conducted their annual site visit for the 2011 - 2012 reporting year on February 7th, 2012. The MOE Drinking Water Inspector had no 'Actions Required' or 'Recommended Actions' identified in the inspection report. The final report was received on March 19th, 2012 with an Inspection Rating of 100%.

[Summary of Community Complaints/Service Forms for 2012:](#)

- December 28, 2012: Roy Street – low water pressure in house.
- November 21, 2012: Albert Street – sulphur odour of water.
- November 2, 2012: Spruce Street – high odour/taste of chlorine.
- October 25, 2012: John Street – noise through curb stop.
- September 14, 2012: Arrowhead Road – sulphur odour of water.

PETAWAWA DRINKING WATER SYSTEM

2012 SUMMARY REPORTS FOR MUNICIPALITIES

- August 28, 2012: Mohns Avenue – water had to be turned off for repair in area-disrupted her business/loss of revenue.
- August 16, 2012: James Street – no water pressure due to construction in area.
- August 1, 2012: Lisa Crescent – low water pressure.
- July 31, 2012: Herman Street – low water pressure due to construction in area.
- July 25, 2012: Pinehurst Estates – pink colour in watering dishes, bird bath, and shower curtain.
- July 18, 2012: James Street – low water pressure.
- July 12, 2012: Dundonald Drive - dark colour of water.
- July 5, 2012: Highland Park Drive – problem with pressure relief valve.
- July 4, 2012: Victoria Street – leaking hot water tank/AC unit.
- June 18, 2012: Turning Stone Crescent – low outside water pressure.
- June 4, 2012: Pine Place – odour of water.
- March 20, 2012: Herman Street – odour of water and skin rash from water.
- January 10, 2012: Morning Star Street – dark colour 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. 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 is a copy of the Annual Record of Water Taking for the Petawawa Drinking Water System. This document contains all required flow information.

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.

Annual Record Of Surface Water Taking
Relève 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 dresser 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: 2012 Permit No (N° de permis): 2136-5ZDPP5 Source: Alumette Lake (Ottawa River)
Location: RW - Raw Water

Name of Permittee: 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 Town of Petawawa

	Jan/2012	Feb/2012	Mar/2012	Apr/2012	May/2012	Jun/2012	Jul/2012	Aug/2012	Sep/2012	Oct/2012	Nov/2012	Dec/2012	<- Total ->	<- Avg. ->	<- Max. ->	<- Criteria ->
Total Hours of Taking	401.0	341.0	348.0	351.0	465.0	465.0	612.0	394.0	341.0	324.0	269.0	321.0	4,652.0	387.67		
Avg Daily Taking(m3)	5,416.26	5,418.41	5,635.13	6,012.1	7,735.29	9,378.93	11,845.87	8,384.74	6,806.63	6,254.42	5,792.87	5,704.71	7,032.12	7,032.12		21,500.0
Total Amt of Taking(m3)	167,904.0	157,134.0	174,689.0	180,363.0	239,794.0	281,366.0	367,222.0	259,927.0	204,189.0	193,887.0	173,789.0	176,846.0	2,577,122.0			
Max Daily Flow(m3)	6,358.0	6,599.0	6,397.0	6,878.0	12,409.0	13,566.0	14,319.0	11,910.0	9,132.0	7,832.0	7,182.0	6,655.0			14,319.0	21,500.0
Avg Daily Rate of Taking(L/Sec)	62.69	62.71	69.22	69.58	89.53	108.55	137.1	97.05	78.78	72.39	67.05	66.03		81.5		
Peak Daily Rate of Taking(L/Sec)	229.82	158.9	155.65	155.63	255.28	228.13	227.15	224.08	221.15	223.85	238.9	232.48			255.28	248.84
Peak Daily Rate of Taking(L/min)	13,777.0	9,534.0	9,339.0	9,338.0	15,317.0	13,688.0	13,629.0	13,445.0	13,269.0	13,431.0	14,334.0	13,949.0			15,317.0	14,930.4

**ANNUAL WATER TAKING AND TRANSFER
REPORT - SUBMITTED DATA TO MOE,
FOR THE YEAR OF 2012**

Annual Water Taking Report
 For the Year 2012

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
March															
RW - Raw Water															
	5,605,000	6,081,000	5,372,000	5,864,000	6,224,000	4,981,000	6,200,000	6,006,000	6,238,000	6,397,000	5,418,000	5,574,000	5,069,000	5,847,000	5,466,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
RW - Raw Water															
	5,326,000	5,317,000	5,233,000	5,588,000	5,603,000	5,719,000	6,156,000	5,588,000	5,040,000	5,497,000	5,424,000	5,706,000	5,496,000	5,866,000	5,148,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
April															
RW - Raw Water															
	5,611,000	6,240,000	5,675,000	5,691,000	5,704,000	5,523,000	5,528,000	5,101,000	5,442,000	5,790,000	6,751,000	6,349,000	6,285,000	6,510,000	6,147,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
May															
RW - Raw Water															
	6,441,000	6,146,000	5,855,000	6,764,000	5,321,000	6,354,000	7,602,000	7,284,000	5,740,000	5,877,000	6,263,000	6,751,000	6,416,000	7,629,000	9,217,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
June															
RW - Raw Water															
	8,634,000	6,561,000	7,519,000	6,885,000	7,979,000	7,654,000	8,675,000	8,806,000	9,835,000	11,416,000	10,728,000	9,781,000	1,645,000	12,409,000	11,582,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
June															
RW - Raw Water															
	8,951,000	6,904,000	6,206,000	7,135,000	7,203,000	9,336,000	7,601,000	7,056,000	7,424,000	7,250,000	9,445,000	11,356,000	6,369,000	8,010,000	9,914,000
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Annual Water Taking Report
For the Year 2012

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water															
9,290,000	9,357,000	9,345,000	8,698,000	9,218,000	11,383,000	11,756,000	11,174,000	10,266,000	8,939,000	9,788,000	12,194,000	13,566,000	13,341,000	12,893,000	
July															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water															
11,302,000	10,351,000	13,194,000	10,537,000	11,825,000	13,224,000	12,718,000	12,061,000	12,182,000	13,398,000	13,465,000	13,882,000	14,319,000	13,555,000	12,140,000	
August															
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water															
9,766,000	12,588,000	11,392,000	11,555,000	12,565,000	11,249,000	11,125,000	12,215,000	10,166,000	10,205,000	10,908,000	9,508,000	10,858,000	10,111,000	11,417,000	13,441,000
September															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water															
9,806,000	9,252,000	10,697,000	10,937,000	10,313,000	7,369,000	9,974,000	7,569,000	8,871,000	6,721,000	6,702,000	6,244,000	6,885,000	7,740,000	7,942,000	
October															
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water															
7,223,000	8,513,000	7,328,000	6,990,000	6,849,000	8,233,000	7,350,000	7,631,000	7,907,000	7,597,000	8,280,000	8,549,000	7,832,000	11,910,000	11,195,000	9,518,000
November															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
RW - Raw Water															
7,099,000	7,594,000	8,160,000	9,132,000	8,045,000	6,240,000	7,797,000	7,553,000	5,824,000	6,522,000	7,470,000	7,362,000	5,516,000	8,275,000	6,306,000	
December															
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
RW - Raw Water															
5,694,000	6,731,000	7,312,000	6,441,000	7,178,000	6,922,000	6,015,000	5,890,000	6,098,000	6,365,000	7,055,000	6,572,000	6,279,000	5,682,000	5,130,000	

Water Taking Data submitted successfully.**Confirmation:**

Thank you for submitting your water taking data online.

Permit Number: 2136-5ZDPP5

Permit Holder: THE CORPORATION OF THE TOWN OF PETAWAWA.

Received on: Jan 24, 2013 10:58 AM

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

Regards
Helen D'Apice

From: Brenda Royce [<mailto:BRoyce@ocwa.com>]

Sent: January 24, 2013 10:31 AM

To: D'Apice, Helen (ENE)

Subject: XML files for WTRS

Good Morning Helen,

Please find attached the XML files for my water facilities, Petawawa and Deep River. If you could please upload them into the WTRS and provide the confirmations, I would appreciate it. Thanks again for your help with this task, and hope you have a great day.

Brenda Royce

Brenda Royce
Process & Compliance Technician
[Ontario Clean Water Agency](#)
Ottawa Valley Hub
560 Abbie Lane
Petawawa, ON
K8H 2X2
613-687-2141(W)
613-687-7138(F)
613-633-3696(C)
broyce@ocwa.com