



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	210000149
Drinking-Water System Name:	Amherstburg Water Treatment Plant
Drinking-Water System Owner:	Corporation of the Town of Amherstburg
Drinking-Water System Category:	Large municipal residential system
Period being reported:	January 1, 2013 to December 31, 2013

<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 [x] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No []</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;"> <p>Amherstburg Area Water Treatment Plant Town of Amherstburg</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:</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 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

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 [x] No []



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

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method _____

Describe your Drinking-Water System

A surface water treatment plant, with a rated capacity of 18,184 cubic meters per day, consisting of:

1. An intake crib 155 meters into the Detroit River and connected through a 900mm pipe to the Low Lift Pumping Station.
2. A low lift pumping station equipped with wet well, three vertical turbine pumps, a coarse bar screen, an automatic traveling screen and two 50mm chlorine solution feed lines and a chlorine diffuser.
3. A solids-contact upflow clarifier with overflow chamber, chemical feed line, sludge blow off line, sludge scraper and recirculation system.
4. Four rapid sand filters with dual media of anthracite and silica sand including a backwash system.
5. A filter effluent clearwell with transfer conduit to the reservoir.
6. A 14900m³ underground storage reservoir.
7. A high lift pumping station equipped with three vertical turbine pumps, a chlorine solution feed line/diffuser and a filter backwash pump.

List all water treatment chemicals used over this reporting period

1. Aluminum Sulphate
2. Powdered Activated carbon
3. Chlorine gas
4. Polymer (Nalco 8103)
5. Polymer (Nalco 7763)
6. Polymer (Nalco 8181)

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

Installed:

1. Variable Frequency Drive for #2 High Lift Pump – \$16,540.43

Repaired:

1. Rewind and rebuild #3 High Lift Pump Motor – \$16,968.48
2. Remove, Overhaul and Install #3 High Lift Pump – \$37,447.68
3. Roof Replacement - \$19,882.37

Replace:

1. 16” Gate Valve on #3 High Lift Pump – \$5,731.22
2. Control Check Valve on #3 High Lift Pump – \$18,138.72
3. Pressure Regulator/Surge Valve – \$13,340.74
4. 10” Gate Valve – \$8,741.69
5. Exhaust Fan in Carbon Room - \$1,933.47
6. Insurance deductible for lightning strike - \$5000.00

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
June 9, 2013	Total Coliform Count of 16 at sample station #58	16	cfu/100 mls	Resampled upstream and downstream	July 12, 2013
November 8, 2013	Filter over 1 NTU for more than 15 minutes	Over 1 NTU for 16 minutes	NTU	Filter taken out of service and backwashed	November 8, 2013

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	53	2 – 3350	24 – 11400	0	0 - 0
Treated	53	0 - 0	0 - 0	53	<10 - <10
Distribution	427	0 - 0	0 - 0	215	<10 - 20

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	8760	0.01 – 2.0	NTU
Chlorine	8760	0.93 – 1.54	mg/L

***NOTE:** For continuous monitors use 8760 as the number of samples.*

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
License Number 026-101 Dated on 03/12/2010	Nitrilotriacetic Acid	07/11/2013	<0.03	mg/L
	Backwash/wastewater Suspended Solid	12/05/2013	108	mg/L
	Free Chlorine	12/05/2013	1.10	mg/L
	Backwash/wastewater Suspended Solid	11/12/2013	226	mg/L
	Free Chlorine	11/12/2013	1.12	mg/L
	Backwash/wastewater Suspended Solid	10/7/2013	144	mg/L
	Free Chlorine	10/7/2013	1.11	mg/L
	Backwash/wastewater Suspended Solid	09/09/2013	143	mg/L
	Free Chlorine	09/09/2013	0.65	mg/L
	Backwash/wastewater Suspended Solid	08/13/2013	93	mg/L
	Free Chlorine	08/13/2013	1.08	mg/L
	Backwash/wastewater Suspended Solid	07/09/2013	54	mg/L
	Free Chlorine	07/09/2013	0.96	mg/L
	Backwash/wastewater Suspended Solid	06/05/2013	682	mg/L
Free Chlorine	06/05/2013	0.06	mg/L	
Backwash/wastewater Suspended Solid	05/06/2013	67	mg/L	
Free Chlorine	05/06/2013	0.26	mg/L	
Backwash/wastewater Suspended Solid	04/09/2013	218	mg/L	
Free Chlorine	04/09/2013	0.16	mg/L	
Backwash/wastewater Suspended Solid	03/04/2013	384	mg/L	
Free Chlorine	03/04/2013	0.03	mg/L	
Backwash/wastewater Suspended Solid	02/04/2013	640	mg/L	
Free Chlorine	02/04/2013	0.19	mg/L	
Backwash/wastewater Suspended Solid	01/09/2013	588	mg/L	
Free Chlorine	01/09/2013	0.03	mg/L	

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	07/11/2013	0.10	µg/L	No
Arsenic	07/11/2013	0.6	µg/L	No
Barium	07/11/2013	15.6	µg/L	No
Boron	07/11/2013	19	µg/L	No
Cadmium	07/11/2013	0.008	µg/L	No
Chromium	07/11/2013	0.5	µg/L	No
Mercury	07/11/2013	<0.01	µg/L	No
Sodium	07/11/2013	7.48	µg/L	No
*Lead	07/11/2013	0.24 (Distribution)	µg/L	No
Selenium	07/11/2013	<1	µg/L	No
Uranium	07/11/2013	0.026	µg/L	No
Fluoride	07/11/2013	0.08	mg/L	No
Nitrite	10/01/2013 07/09/2013 04/09/2013 01/02/2013	<0.003 <0.003 <0.003 <0.005	mg/L	No
Nitrate	10/01/2013 07/09/2013 04/09/2013 01/02/2013	0.171 0.828 1.61 0.726	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	Exempted from lead program for the period			
Distribution	1	0.24-0.24	µg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	07/12/2013	<0.02	µg/L	No
Aldicarb	07/12/2013	<0.01	µg/L	No
Aldrin + Dieldrin	07/12/2013	<0.01	µg/L	No
Atrazine + N-dealkylated metabolites	07/12/2013	0.12	µg/L	No
Azinphos-methyl	07/12/2013	<0.02	µg/L	No
Bendiocarb	07/12/2013	<0.01	µg/L	No
Benzene	07/12/2013	<0.32	µg/L	No
Benzo(a)pyrene	07/12/2013	<0.004	µg/L	No
Bromoxynil	07/12/2013	<0.33	µg/L	No
Carbaryl	07/12/2013	<0.01	µg/L	No
Carbofuran	07/12/2013	<0.01	µg/L	No
Carbon Tetrachloride	07/12/2013	<0.16	µg/L	No
Chlordane (Total)	07/12/2013	<0.01	µg/L	No
Chlorpyrifos	07/12/2013	<0.02	µg/L	No
Cyanazine	07/12/2013	<0.03	µg/L	No
Diazinon	07/12/2013	<0.02	µg/L	No
Dicamba	07/12/2013	<0.20	µg/L	No
1,2-Dichlorobenzene	07/12/2013	<0.41	µg/L	No
1,4-Dichlorobenzene	07/12/2013	<0.36	µg/L	No
Dichlorodiphenyltri chloroethane (DDT) + metabolites	07/12/2013	<0.01	µg/L	No
1,2-Dichloroethane	07/12/2013	<0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	07/12/2013	<0.33	µg/L	No
Dichloromethane	07/12/2013	<0.35	µg/L	No
2-4 Dichlorophenol	07/12/2013	<0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	07/12/2013	<0.19	µg/L	No
Diclofop-methyl	07/12/2013	<0.40	µg/L	No
Dimethoate	07/12/2013	<0.03	µg/L	No
Dinoseb	07/12/2013	<0.36	µg/L	No
Diquat	07/12/2013	<1	µg/L	No
Diuron	07/12/2013	<0.03	µg/L	No
Glyphosate	07/12/2013	<1	µg/L	No

Heptachlor + Heptachlor Epoxide	07/12/2013	<0.1	µg/L	No
Lindane	07/12/2013	<0.01	µg/L	No
Malathion	07/12/2013	<0.02	µg/L	No
Methoxychlor	07/12/2013	<0.01	µg/L	No
Metolachlor	07/12/2013	0.10	µg/L	No
Metribuzin	07/12/2013	<0.02	µg/L	No
Monochlorobenzene	07/12/2013	<0.30	µg/L	No
Paraquat	07/12/2013	<1	µg/L	No
Parathion	07/12/2013	<0.02	µg/L	No
Pentachlorophenol	07/12/2013	<0.15	µg/L	No
Phorate	07/12/2013	<0.01	µg/L	No
Picloram	07/12/2013	<1	µg/L	No
Polychlorinated Biphenyls(PCB)	07/12/2013	<0.04	µg/L	No
Prometryne	07/12/2013	<0.03	µg/L	No
Simazine	07/12/2013	<0.01	µg/L	No
THM (NOTE: show latest annual average)	2013	29.0 (Dist.Sys.)	µg/L	No
Temephos	07/12/2013	<0.01	µg/L	No
Terbufos	07/12/2013	<0.01	µg/L	No
Tetrachloroethylene	07/12/2013	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	07/12/2013	<0.14	µg/L	No
Triallate	07/12/2013	<0.01	µg/L	No
Trichloroethylene	07/12/2013	<0.44	µg/L	No
2,4,6-Trichlorophenol	07/12/2013	<0.25	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	07/12/2013	<0.22	µg/L	No
Trifluralin	07/12/2013	<0.02	µg/L	No
Vinyl Chloride	07/12/2013	<0.17	µg/L	No

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
N/A			