

Drinking-Water Systems Regulation O. Reg. 170/03

ANNUAL REPORT (Section 11)

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, 2010 to December 31, 2010

<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 [<input checked="" type="checkbox"/>] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [<input checked="" type="checkbox"/>] 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;"> Amherstburg Water Treatment Plant Town of Amherstburg </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 [] 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 fluoride feed line/diffuser, 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. Hydrofluosilicic acid
5. Polymer (Nalco 8103)
6. Polymer (Nalco 8184)
7. Polymer (Nalco 7763)
8. 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

<p>Installed: 1) Garage Door & Opener - \$1,356.00</p> <p>Repaired: 1) High Lift Pump #2 - \$18,256.88 2) Low Lift Pump #1 - \$22,939.00 3) CL-17 Spare & Parts - \$4,180.84 4) Unit Heaters - \$7,522.10 5) Mono Rail - \$1,723.02 6) Clarifier Motor - \$1,022.65 7) Roof Drain Lines above Filters & Asbestos Removal - \$13,782.61</p> <p>Replaced: 1) Allen Bradley Flow Meter Unit - \$3,729.00 2) E&H Recorders for Filters #1 & #2 - \$2,034.00 3) E&H Recorders for Filters #3 & #4 - \$2,034.00 4) E&H Recorders for Plant Flows - \$2,034.00 5) Alum Pump - \$4,079.30 6) Coagulant Aid Pump - \$5,418.35 6) 3" Pneumatic butterfly valve - \$4,294.50</p>
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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
01/2010 03/2010 04/2010 07/2010	Free Chlorine Residual Missed	Non Compliance	mg/L	Adjusted sampling schedule to reflect sampling requirements since previous sampling schedule did not.	12/01/2010
01/2010 02/2010 03/2010 04/2010 05/2010 06/2010 07/2010 08/2010	95% Turbidity Rule	Non Compliance	%	Created a monthly form to review and sign off on the sampling schedule.	09/01/2010
10/2010	Monthly Composite Backwash & Free Chlorine Residual Missed	Non Compliance	mg/L	Staff meeting addressing non-compliance, staff to follow sampling schedule.	11/2010
09/08/2010	72 hour filter turbidity review	Non Compliance	NTU	Staff meeting addressing non-compliance, staff to follow SOP OCWA-C6-09.	09/2010

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 #)	Number of Background Samples	Range of Background Results (min #)-(max #)
Raw	52	18 – 250	38 – 7,750	0	0 - 0	52	36 - 9,550
Treated	52	0 - 0	0 - 0	52	0 - <10	52	0 - 0
Distribution	416	0 - 0	0 - 0	208	<10 - 10	416	0 - 3

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 #)
Turbidity	8760	0.02 – 0.22 NTU
Chlorine	8760	0.59 – 4.01 mg/L
Fluoride (If the DWS provides fluoridation)	8760	0.13 – 0.94 mg/L

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

NOTE: Record the unit of measure if it is not milligrams per litre.

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
C of A #0896-7JHHW8 Dated on 09/22/2008	Nitritotriacetic Acid	07/09/2010	<0.03	mg/L
	Backwash/wastewater			
	Suspended Solid	12/07/2010	1530	mg/L
	Free Chlorine	12/07/2010	0.46	mg/L
	Suspended Solid	11/09/2010	398	mg/L
	Free Chlorine	11/09/2010	0.42	mg/L
C of A 1001-7ZDRCJ Dated on 01/11/2010	Suspended Solid	10/2010	N/A	mg/L
	Free Chlorine	10/2010	N/A	mg/L
	Suspended Solid	09/16/2010	420	mg/L
	Free Chlorine	09/16/2010	0.16	mg/L
	Suspended Solid	08/23/2010	561	mg/L
	Free Chlorine	08/23/2010	0.08	mg/L

License Number 026-101 Dated on 03/12/2010	Suspended Solid Free Chlorine	07/06/2010 07/06/2010	128 N/A	mg/L mg/L
	Suspended Solid Free Chlorine	06/08/2010 06/08/2010	400 0.08	mg/L mg/L
	Suspended Solid Free Chlorine	05/03/2010 05/03/2010	932 0	mg/L mg/L
	Suspended Solid Free Chlorine	04/13/2010 04/13/2010	176 N/A	mg/L mg/L
	Suspended Solid Free Chlorine	03/10/2010 03/10/2010	74 N/A	mg/L mg/L
	Suspended Solid Free Chlorine	02/09/2010 02/09/2010	264 0.90	mg/L mg/L
	Suspended Solid Free Chlorine	01/07/2010 01/07/2010	143 N/A	mg/L 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	07/09/2010	0.06	µg/L	No
Arsenic	07/09/2010	0.4	µg/L	No
Barium	07/09/2010	13.6	µg/L	No
Boron	07/09/2010	86	µg/L	No
Cadmium	07/09/2010	0.005	µg/L	No
Chromium	07/09/2010	<0.5	µg/L	No
Lead	07/09/2010	2.06(dist.sys.)	µg/L	No
Mercury	07/09/2010	<0.02	µg/L	No
Selenium	07/09/2010	<1	µg/L	No
Sodium	N/A	N/A	µg/L	N/A
Uranium	07/09/2010	0.012	µg/L	No
Fluoride	07/09/2010	0.60	mg/L	No
Nitrite	10/05/2010	<0.005	mg/L	No
	07/09/2010	<0.005		
	04/06/2010	<0.005		
	01/05/2010	<0.005		
Nitrate	10/05/2010	0.237	mg/L	No
	07/09/2010	0.371		
	04/06/2010	0.935		
	01/05/2010	0.426		

***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 #)	Number of Exceedances
Distribution	1	2.06 ug/L-Min 2.06 ug/L-Max	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	07/09/2010	<0.02	µg/L	No
Aldicarb	07/09/2010	<0.01	µg/L	No
Aldrin + Dieldrin	07/09/2010	<0.01	µg/L	No
Atrazine + N-dealkylated metabolites	07/09/2010	0.04	µg/L	No
Azinphos-methyl	07/09/2010	<0.02	µg/L	No
Bendiocarb	07/09/2010	<0.01	µg/L	No
Benzene	07/09/2010	<0.32	µg/L	No
Benzo(a)pyrene	07/09/2010	<0.004	µg/L	No
Bromoxynil	07/09/2010	<0.33	µg/L	No
Carbaryl	07/09/2010	<0.01	µg/L	No
Carbofuran	07/09/2010	<0.01	µg/L	No
Carbon Tetrachloride	07/09/2010	<0.16	µg/L	No
Chlordane (Total)	07/09/2010	<0.01	µg/L	No
Chlorpyrifos	07/09/2010	<0.02	µg/L	No
Cyanazine	07/09/2010	<0.03	µg/L	No
Diazinon	07/09/2010	<0.02	µg/L	No
Dicamba	07/09/2010	<0.20	µg/L	No
1,2-Dichlorobenzene	07/09/2010	<0.41	µg/L	No
1,4-Dichlorobenzene	07/09/2010	<0.36	µg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	07/09/2010	<0.01	µg/L	No
1,2-Dichloroethane	07/09/2010	<0.35	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	07/09/2010	<0.33	µg/L	No
Dichloromethane	07/09/2010	<0.35	µg/L	No
2-4 Dichlorophenol	07/09/2010	<0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	07/09/2010	<0.19	µg/L	No
Diclofop-methyl	07/09/2010	<0.40	µg/L	No
Dimethoate	07/09/2010	<0.03	µg/L	No
Dinoseb	07/09/2010	<0.36	µg/L	No
Diquat	07/09/2010	<1	µg/L	No

Diuron	07/09/2010	<0.03	µg/L	No
Glyphosate	07/09/2010	<6	µg/L	No
Heptachlor + Heptachlor Epoxide	07/09/2010	<0.1	µg/L	No
Lindane (Total)	07/09/2010	<0.01	µg/L	No
Malathion	07/09/2010	<0.02	µg/L	No
Methoxychlor	07/09/2010	<0.01	µg/L	No
Metolachlor	07/09/2010	<0.02	µg/L	No
Metribuzin	07/09/2010	<0.02	µg/L	No
Monochlorobenzene	07/09/2010	<0.30	µg/L	No
Paraquat	07/09/2010	<1	µg/L	No
Parathion	07/09/2010	<0.02	µg/L	No
Pentachlorophenol	07/09/2010	<0.15	µg/L	No
Phorate	07/09/2010	<0.01	µg/L	No
Picloram	07/09/2010	<0.25	µg/L	No
Polychlorinated Biphenyls(PCB)	07/09/2010	<0.04	µg/L	No
Prometryne	07/09/2010	<0.03	µg/L	No
Simazine	07/09/2010	<0.01	µg/L	No
THM (NOTE: show latest annual average)	2010	27.5 (Dist.Sys.)	µg/L	No
Temephos	07/09/2010	<0.01	µg/L	No
Terbufos	07/09/2010	<0.01	µg/L	No
Tetrachloroethylene	07/09/2010	<0.35	µg/L	No
2,3,4,6-Tetrachlorophenol	07/09/2010	<0.14	µg/L	No
Triallate	07/09/2010	<0.01	µg/L	No
Trichloroethylene	07/09/2010	<0.43	µg/L	No
2,4,6-Trichlorophenol	07/09/2010	0.56	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	07/09/2010	<0.22	µg/L	No
Trifluralin	07/09/2010	<0.02	µg/L	No
Vinyl Chloride	07/09/2010	<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
None			

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)