



Annual Summary Report

March 25, 2008

Lou Zarlenga
Manager of Public Services
Corporation of the Town of Amherstburg
P.O. Box 159
271 Sandwich St. S,
Amherstburg, Ontario
Canada N9V 2Z3

Dear Mr. Zarlenga:

Re: Safe Drinking Water Act, O. Reg. 170/03 Schedule 22 Summary Report

Attached is the 2007 Summary Report for the Amherstburg Water Treatment Plant. This report has been completed based on the information obtained from the water treatment plant records and in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year. This report covers the period of January 1, 2007 to December 31, 2007.

Please remember that any Orders that you have received directly from the MOE should be reviewed. Where non-compliance with the Order is evident and it is not included in the attached 2007 Summary Report, then we recommend that this information be added to the Summary Report. Note: Schedule 22-2 (a) specifies that the summary report is given to, in the case of a drinking water system owned by a municipality, the members of the municipal council for the Town of Amherstburg, and is not intended for distribution to the Ministry of the Environment.

After your review and inclusion of any additional information, these Summary Reports are to be provided to the members of the municipal council. Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires the Summary Reports be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system. Please be advised, a copy of this report shall be given to the municipality by March 31.

Sincerely,

Bev Mollard
Regional Manager, Southwestern Region
Ontario Clean Water Agency

SUMMARY REPORTS FOR MUNICIPALITIES

Report

This report is a summary of water quality information for the Amherstburg WTF, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1, 2007 to December 31, 2007. The Amherstburg WTF is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of The Corporation of the Town of Amherstburg.

Who gets a copy of the Summary Report?

- in the case of a drinking-water system owned by a municipality, the members of the municipal council;
- in the case of a drinking-water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- in the case of a drinking-water system owned by a corporation, the board of directors of the corporation.

What must the Summary Report contain?

The report must,

- 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
- for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The following table 1 lists the requirements that the system failed to meet and the measures taken to correct the failure:

Drinking Water Legislation	List the requirement(s) the system failed to meet	Specify the duration of the failure (i.e. date(s))	Describe the measures taken to correct the failure	Status (complete or outstanding)
Safe Drinking Water Act	None to report			
Ontario Regulations (eg. O.Reg 170/03, O.Reg 435/93, O.Reg 903	<u>O.Reg. 169/03</u> Schedule 1 Item (3): <u>Microbiological Parameter</u> Total coliforms <u>Standard (expressed as a maximum)</u> Not detectable	May 17. 1 Total coliform present in a distribution sample.	(i) Called local medical officer of health for instructions. (ii) Flushed mains at site, up stream, downstream 2 consecutive days.	Completed May 22, 07
System Certificate of Approval #8120-53VMF5	None to report	_____	_____	_____
Provincial Officer's Order	None to report	_____	_____	_____

Table 1

What must the Summary 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 and daily instantaneous peak flow rates.

Attached please find a copy of the quantities and flow rates report of the water supplied for Amherstburg WTF during 2007.

2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval.

By comparison, the rated capacity and flow rates for raw flow and treated water did not exceed the legislative requirement. Max day treated flows exceeded 80% of the rated treated capacity for the months of June, July, and August.

Flow	Requirement	Maximum Daily Flow	Requirement	Maximum Flow Rate
2007	Maximum Allowable (per day)	Maximum Achieved (per day)	Maximum Allowable (per minute)	Maximum Achieved (per minute)
Raw Flow	22,900,000 L/d Permit to Take Water (#02-P-1254)	19,500,000 L/d	15,903 L/min Permit to Take Water (#02-P-1254)	15,179 L/min
Treated Flow	18,184 m ³ /d C of A (#8120-53VMF5)	16,501 m ³ /d	-	-

Table 2

When Does the Summary 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 31.

End



Ontario Clean Water Agency
Monthly Process Data Report

Printed on: 2/20/2008
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Municipality: Town of Amherstburg formerly: Top of Malden, Top of Anderson, Town of Amherstburg

Facility: [2813] - Amherstburg Water Treatment Plant & Distribution System

Works: [210000143] - Amherstburg Water Treatment Plant & Distribution System

Classification: Class 2 Water Distribution, Class 3 Water Treatment

Water Source: Detroit River

Period: 01/01/2007 to 12/31/2007
Served Population: 20,699
Total Design Capacity(m³/day): 16,184.0

Raw Water Flows - Raw Water	Jan/2007	Feb/2007	Mar/2007	Apr/2007	May/2007	Jun/2007	Jul/2007	Aug/2007	Sep/2007	Oct/2007	Nov/2007	Dec/2007	Summary
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Raw Flow: Sum (m ³ /d)	9,781,367	9,973,026	9,928,712	9,677,411	10,750,418	14,120,667	14,197,066	12,501,711	11,461,616	16,042,609	9,756,614	9,793,871	10,989,179
Min	31.0	23.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	30.0
Max	11,123.0	12,693.3	13,088.6	10,624.3	15,740.3	18,973.3	19,920.6	17,380.8	13,228.0	17,756.0	10,763.3	10,480.3	15,693.3
Min	9,564.0	9,997.3	9,970.3	7,468.0	9,670.0	9,349.0	11,620.0	9,160.0	9,690.0	9,600.0	8,830.0	8,056.0	6,570.0

Raw Flow: Peak (L/min/h)

Avg	7,246,877	7,198.8	7,793,903	7,482,057	9,124,151	10,903,133	11,102,366	9,647,129	8,432,867	7,460,699	7,199,967	7,260,712	8,302,167
Min	31.0	23.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	30.0
Max	13,892.0	7,818.3	12,508.6	14,840.3	14,904.0	14,596.0	14,295.0	15,179.0	16,527.0	10,598.0	10,671.0	9,721.0	15,179.0
Min	6,470.0	6,661.0	6,450.0	6,366.0	6,006.0	6,098.0	6,294.0	6,062.0	6,802.0	6,753.0	6,402.0	6,682.0	6,006.0

Treated Water Flows - Treated Water

Treated Flow (m ³ /d)	6,333,833	8,114,573	8,294,452	8,613.0	9,912,151	13,006.0	13,432,981	11,078,228	10,168,167	8,641,298	6,363.1	6,389,032	6,716,274
Min	31.0	23.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	30.0
Max	9,294.0	9,107.0	8,880.0	9,589.0	13,100.0	16,501.0	16,261.0	15,480.0	12,444.0	6,710.0	9,006.0	9,175.0	16,691.0
Min	7,750.0	8,111.0	7,526.0	7,624.0	8,270.0	9,206.0	10,270.0	9,192.0	8,770.0	9,000.0	7,820.0	7,678.0	8,111.0

Note: * Calculation not verifiable. At least one result reported as * and at least one result reported as *

-1 Analysis result less than detectable limit



Ontario Clean Water Agency Performance Assessment Report - Surface Water Supply

Printed on: 2/25/2008
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Municipality: Town of Amherstburg formerly (Twp of Malden, Twp of Anderdon, Town of Amherstburg)
 Facility: [5913] - Amherstburg Water Treatment Plant & Distribution System
 Works: [210300149] - Amherstburg Water Treatment Plant & Distribution System
 Classification: Class 2 Water Distribution, Class 3 Water Treatment
 Water Source: Detroit River

Period: 3/10/2007 to 12/31/2007
 Served Population: 20,599
 Total Design Capacity(m³/day): 18,104.0
 Raw Group Selected: RW
 Effluent Group Selected: TW

Item	Jan/2007	Feb/2007	Mar/2007	Apr/2007	May/2007	Jun/2007	Jul/2007	Aug/2007	Sep/2007	Oct/2007	Nov/2007	Dec/2007	Total	Avg	Max	Criteria
Raw: Total Flow(m ³ /mth)	303,223.0	279,245.0	307,174.0	280,922.0	394,553.0	423,821.0	449,410.0	372,053.0	343,540.0	371,530.0	297,650.0	303,610.0	4,010,095.0	10,886.2	18,500.0	16,384.0
Raw: Avg Day Flow(m ³ /day)	9,781.4	8,673.0	9,908.7	8,677.4	10,780.4	14,120.7	14,497.1	12,001.7	11,451.6	10,642.9	9,755.0	9,793.8	10,480.0	10,886.2	18,500.0	16,384.0
Raw: Max Day Flow(m ³ /day)	11,133.0	12,683.0	13,669.0	10,624.0	15,740.0	18,973.0	19,500.0	17,860.0	13,288.0	10,795.0	10,783.0	259,440.0	3,540,440.1			
Treat: Total Flow(m ³ /mth)	259,540.0	228,688.0	256,810.0	255,405.0	307,277.0	390,171.0	419,410.0	343,425.0	304,685.0	274,079.0	251,483.0	259,440.0	3,460,440.1	9,766.3	18,500.0	16,384.0
Treat: Avg Day Flow(m ³ /day)	8,553.6	8,174.0	8,284.5	8,513.5	10,512.2	13,005.0	13,212.6	11,078.2	10,160.2	9,641.3	8,383.1	8,383.1	9,766.3	9,766.3	18,500.0	16,384.0
Treat: Max Day Flow(m ³ /day)	9,294.0	9,107.0	9,950.0	9,950.0	13,100.0	16,501.0	16,351.0	15,480.0	12,444.0	9,210.0	9,005.0	9,175.0	18,500.0			
Phys: Chlorine Demand(mg/L)																
Raw: Max Turbidity(NTU)																
Treat: Min Turbidity(NTU)	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Treat: Max Turbidity(NTU)	0.13	0.09	0.09	0.09	0.09	0.09	0.04	0.04	0.08	0.03	0.03	0.07	0.07	0.07	0.07	0.07
Treat: Min Filter Turb(NTU) [1]	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Treat: Max Filter Turb(NTU) [1]	0.46	0.75	0.4	0.24	0.18	0.08	0.05	0.04	0.06	0.07	0.06	0.26	0.26	0.26	0.26	0.26
Treat: Max Nitrite(mg/L)	0.07															
Treat: Max Nitrate(mg/L)	1.2															
Chlor: Max Lead(mg/L)																
Chlor: Avg THM(mg/L)	31.0						22.0									10.0
Met: Total D																
Treat: Min Free Cl ₂ Resid(mg/L)	0.86	0.68	0.99	0.66	0.62	0.62	0.21	0.65	0.96	1.03	0.89	0.95	0.95	1.13	1.28	1.59
Treat: Max Free Cl ₂ Resid(mg/L)	1.59	1.53	1.59	1.54	1.47	1.59	1.43	1.26	1.37	1.41	1.39	1.45	1.45	1.41	1.28	1.59
Chlor: Min Free Cl ₂ Resid(mg/L)	0.45	0.63	0.59	0.5	0.63	0.64	0.68	0.6	0.61	0.62	0.61	0.69	0.69	0.71	0.71	0.69
Chlor: Max Free Cl ₂ Resid(mg/L)	1.23	1.00	1.17	1.12	1.18	1.22	1.1	0.07	1.1	1.27	1.10	1.2	1.2	1.02	1.27	1.45
Raw: Min Total Dissolved Solids(mg/L)	5.0	4.0	3.0	4.0	3.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Raw: Max Total Dissolved Solids(mg/L)	5.0	4.0	3.0	4.0	3.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
Raw: Min Total Hardness(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw: Max Total Hardness(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw: Min Total Solids(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw: Max Total Solids(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw: Min Total Suspended Solids(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Raw: Max Total Suspended Solids(mg/L)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Group Selected: RW - Raw Water
 Group Selected: TW - Treated Water
 up Selected: -
 calculation not verifiable. At least one result reported as < and at least one result reported >.
 analysis result less than detectable limit



**Ontario Clean Water Agency
Monthly Process Data Report**

Printed on: 2/29/2008
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Municipality: Town of Amherstburg formerly (Twp of Malden, Twp of Anderdon, Twp of Amherstburg)
 Facility: [5819] - Amherstburg Water Treatment Plant & Distribution System
 Works: [210000149] - Amherstburg Water Treatment Plant & Distribution System
 Classification: Class 2 Water Distribution, Class 3 Water Treatment
 Water Source: Detroit River

Period: 01/01/2007 to 12/31/2007
 Serviced Population: 20,599
 Total Design Capacity(m³/day): 18,184.0

	Jan/2007	Feb/2007	Mar/2007	Apr/2007	May/2007	Jun/2007	Jul/2007	Aug/2007	Sep/2007	Oct/2007	Nov/2007	Dec/2007	Summary ->
Raw WaterFlows - Raw Water													
Raw Flow: Sum (m³/d)													
Avg	9,761.367	9,973.026	9,908.742	9,677.4	10,790.419	14,120.667	14,497.087	12,001.71	11,451.6	10,042.903	9,755.0	9,793.671	10,988.178
Cnt	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	366.0
Max	11,133.0	12,683.0	13,668.0	10,624.0	15,740.0	18,973.0	19,500.0	17,960.0	13,238.0	10,796.0	10,763.0	10,480.0	19,600.0
Min	8,964.0	8,887.0	6,970.0	7,468.0	8,670.0	9,349.0	11,520.0	9,480.0	9,660.0	8,600.0	6,620.0	8,066.0	6,970.0
Raw Flow: Peak (L/min)													
Avg	7,245.677	7,185.6	7,783.903	7,452.657	8,124.161	10,803.133	11,102.366	9,547.129	8,432.867	7,460.969	7,199.867	7,200.742	8,302.167
Cnt	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	366.0
Max	13,892.0	7,818.0	12,606.0	14,840.0	14,604.0	14,596.0	14,256.0	15,179.0	10,327.0	10,966.0	10,671.0	9,721.0	15,179.0
Min	6,470.0	6,561.0	6,490.0	6,366.0	6,096.0	6,966.0	8,384.0	6,982.0	6,802.0	6,763.0	6,402.0	6,682.0	6,056.0
Treated WaterFlows - Treated Water													
Treated Flow (m³/d)													
Avg	8,333.836	8,174.576	8,294.452	8,613.6	9,912.161	13,005.7	13,432.681	11,078.226	10,156.167	8,841.269	8,383.1	8,369.032	9,716.274
Cnt	31.0	28.0	31.0	30.0	31.0	30.0	31.0	31.0	30.0	31.0	30.0	31.0	366.0
Max	9,264.0	9,107.0	8,860.0	9,699.0	13,100.0	16,501.0	16,361.0	15,460.0	12,444.0	9,710.0	9,006.0	9,176.0	16,601.0
Min	7,760.0	8,111	7,526.0	7,624.0	8,370.0	9,206.0	10,370.0	9,193.0	8,770.0	8,060.0	7,820.0	7,678.0	8,111

Note: ? Calculation not verifiable. At least one result reported as < and at least one result reported >.
 -1 Analysis result less than detectable limit



Ontario Clean Water Agency Performance Assessment Report - Surface Water Supply

Printed on: 2/29/2008
d_par_swt

Municipality: Town of Amherstburg formerly (Twp of Malden, Twp of Anderdon, Town of Amherstburg)
 Facility: [5819] - Amherstburg Water Treatment Plant & Distribution System
 Works: [210000149] - Amherstburg Water Treatment Plant & Distribution System
 Classification: Class 3 Water Distribution, Class 3 Water Treatment
 Water Source: Detroit River

Period: 01/01/2007 to 12/31/2007
 Serviced Population: 20,599
 Total Design Capacity(m³/day): 18,184.0
 Raw Group Selected: RW
 Effluent Group Selected: TW

	Jan/2007	Feb/2007	Mar/2007	Apr/2007	May/2007	Jun/2007	Jul/2007	Aug/2007	Sep/2007	Oct/2007	Nov/2007	Dec/2007	<- Total ->	<- Avg. ->	<- Max. ->	<- Criteria ->
Flow																
Raw: Total Flow(m ³ /mth)	303,223.0	279,245.0	307,171.0	290,322.0	334,503.0	423,620.0	449,410.0	372,053.0	343,548.0	311,330.0	292,650.0	303,610.0	4,010,685.0			
Raw: Avg. Day Flow(m ³ /day)	9,781.4	9,973.0	9,908.7	9,677.4	10,790.4	14,120.7	14,497.1	12,001.7	11,451.6	10,042.9	9,755.0	9,793.9	10,988.2			
Raw: Max. Day Flow(m ³ /day)	11,133.0	12,663.0	13,668.0	10,624.0	15,740.0	18,973.0	19,500.0	17,960.0	13,238.0	10,795.0	10,763.0	10,480.0	19,500.0			
Treat: Total Flow(m ³ /mth)	258,349.0	228,888.1	256,818.0	255,405.0	307,277.0	390,171.0	416,410.0	343,425.0	304,685.0	274,079.0	251,483.0	259,440.0	3,546,440.1			18,184.0
Treat: Avg. Day Flow(m ³ /day)	8,333.8	8,174.6	8,284.5	8,513.5	9,912.2	13,005.7	13,432.6	11,078.2	10,156.2	8,841.3	8,383.1	8,369.0	9,716.3			
Treat: Max. Day Flow(m ³ /day)	9,254.0	9,107.0	8,850.0	9,559.0	13,100.0	16,501.0	16,351.0	15,460.0	12,444.0	9,710.0	9,005.0	9,175.0	16,501.0			
Physical/Chemical Parameters																
Raw: Max. Turbidity(NTU)					56.4	42.0	42.1	44.3	36.5	39.3	108.9	134.6	33.46			134.6
Treat: Min. Turbidity(NTU)	0.03	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02	0.03	0.03	0.04	0.04			0.04
Treat: Max. Turbidity(NTU)	0.13	0.05	0.08	0.09	0.09	0.04	0.04	0.04	0.06	0.03	0.05	0.07	0.04			0.13
Treat: Min. Filler Turb.(NTU) []	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.03			0.03
Treat: Max. Filler Turb.(NTU) []	0.46	0.75	0.4	0.24	0.19	0.09	0.06	0.04	0.06	0.07	0.06	0.26	0.07			0.75
Treat: Max. Nitrite(mg/L)	0.01			<	0.01		<			<			<			0.01
Treat: Max. Nitrate(mg/L)	1.2			0.98			0.32			0.2			0.68			1.2
Dist.: Max. Lead(ug/L)					1.53		0.71						1.04			1.53
Dist.: Avg. THM(ug/L)	31.0			22.0			26.0			25.0			26.0			100.0
Disinfection																
Treat: Min. Free CL2 Resid.(mg/L)	0.99	0.88	0.98	0.88	0.93	0.9	0.99	0.85	0.96	1.03	0.89	0.95	1.13			0.6
Treat: Max. Free CL2 Resid.(mg/L)	1.59	1.53	1.59	1.54	1.47	1.58	1.43	1.28	1.37	1.41	1.39	1.45	1.29			1.59
Dist.: Min. Free CL2 Resid.(mg/L)	0.45	0.61	0.59	0.5	0.63	0.64	0.66	0.6	0.61	0.63	0.61	0.49	0.71			0.05
Dist.: Max. Free CL2 Resid.(mg/L)	1.23	1.09	1.17	1.12	1.19	1.22	1.1	0.97	1.1	1.27	1.19	1.2	1.02			1.27
No. Of Bacti Sample Collected																
Raw	5.0	4.0	3.0	4.0	5.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	51.0			5.0
Treated	5.0	4.0	3.0	4.0	5.0	4.0	5.0	4.0	4.0	5.0	4.0	4.0	51.0			5.0
Treat: Adverse													0			0
Dist.: Adverse	0	0	0	0	1.0	0	0	0	0	0	0	0	1.0			1.0

Legend:
 Raw Group Selected: RW - Raw Water
 Effluent Group Selected: TW - Treated Water
 Filter Group Selected: -
 Note: ? Calculation not verifiable. At least one result reported as < and at least one result reported as >.
 -1 Analysis result less than detectable limit