



**OPTIONAL ANNUAL REPORT TEMPLATE**

<b>Drinking-Water System Number:</b>	220004803
<b>Drinking-Water System Name:</b>	Marmora Water Treatment Plant
<b>Drinking-Water System Owner:</b>	The Corporation of the Municipality of Marmora and Lake
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2008 to December 31, 2008

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>Municipal Office, Environmental Dept. Office, via the web.</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;"> <p>NONE</p> </div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;"> <p>NONE</p> </div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></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
NONE	

**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 a newspaper

**Describe your Drinking-Water System**

Surface water dual train conventional filtration plant. Primary disinfection is achieved through static in-line mixer for coagulation (using PAC), flocculation, clarification, dual media filtration, followed by GAC polishing filtration. Pathogenic inactivation is achieved using Ultra Violet light application. Secondary disinfection is achieved using sodium hypochlorite. Backwash water is directed to a backwash holding tank, and ultimately disposed of in the sanitary sewer. This facility has on-line continuous, alarmed monitoring for free chlorine residual and filter effluent turbidity. The facility is also equipped with plant lock outs in the event of a UV failure, disinfection failure or in the event that the filter effluent exceeds 0.80 NTU for >10 minutes.

**List all water treatment chemicals used over this reporting period**

Sodium Hypochlorite – 12%  
Polyaluminum chloride  
Polymer (Magnafloc LT27a)

**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**

- Annual flow monitors calibration, approx \$1,000.00
- Spare parts and rebuild kits for chem. Feed pumps, approx \$1500.00
- Annual UV maintenance sensors, bulbs, approx \$2,000.00
- Membrane caps & spare free chlorine probe, approx \$1,200.00
- Portable UV sensor kits, approx \$1,000.00
- Lab equipment, approx \$8,000.00



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
11-Feb-08	Treated Turbidity	1.2	NTU	Review of trending found this occurred during backwash (no adverse)	11-Feb-08
03-Oct-08	Plumbing Lead Exceedances	51.3	Mg/l	Notify home owner, Health Unit, supply home with educational information	03-Oct-08

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	0-42	23-840	7	97-1440
Treated	53	0-0	0-0	52	0-2
Distribution	137	0-0	0-0	100	0-45

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, Filter Effluent #1	8760	0.00-5.0 NTU
Turbidity, Filter Effluent #2	8760	0.00-5.0 NTU
Free Chlorine, Treated	8760	0.00-5.00
Free Chlorine, Distribution	373	0.73-2.2
Fluoride (If the DWS provides fluoridation)	n/a	n/a

*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

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

Parameter	Sample Type (DW, TW, RAW)	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	TW	Jan 7, 2008	0.02<MDL	ug/L	no
Arsenic	TW	Jan 7, 2008	0.3	ug/L	no
Barium	TW	Jan 7, 2008	35.1	ug/L	No
Boron	TW	Jan 7, 2008	9.3	ug/L	No
Cadmium	TW	Jan 7, 2008	0.013	ug/L	No
Chromium	TW	Jan 7, 2008	0.5<MDL	ug/L	No
*Lead					
Mercury	TW	Jan 7, 2008	0.02<MDL	ug/L	No
Selenium	TW	Jan 7, 2008	1<MDL	ug/L	No
Sodium	TW	Jan 7, 2008	6.35	mg/L	No
Uranium	TW	Jan 7, 2008	0.001<MDL	ug/L	No
Fluoride	TW	Jan 7, 2008	0.06<MDL	mg/L	no
Nitrite	TW	Jan 7, 2008	<0.005	mg/L	No
	TW	April 7, 2008	<0.005	mg/l	No
	TW	July 14, 2008	<0.005	mg/l	No
	TW	Oct 14, 2008	<0.005	mg/l	No
Nitrate	TW	Jan 7, 2008	0.055	mg/L	No
	TW	April 7, 2008	0.161	mg/l	No
	TW	July 14, 2008	0.059	mg/l	No
	TW	Oct 14, 2008	0.025	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 #)	Number of Exceedances
Plumbing	25	0.0001-0.0513	2



Distribution	4	0.00003-0.00028	0
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**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

Parameter	Sample Type (DW, TW, RAW)	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	TW	Jan 7, 2008	0.11 <MDL	ug/l	no
Aldicarb	TW	Jan 7, 2008	0.3 <MDL	ug/l	no
Aldrin + Dieldrin	TW	Jan 7, 2008	0.067 <MDL	ug/l	no
Atrazine + N-dealkylated metabolites	TW	Jan 7, 2008	0.12 <MDL	ug/l	no
Azinphos-methyl	TW	Jan 7, 2008	0.21 <MDL	ug/l	no
Bendiocarb	TW	Jan 7, 2008	0.13 <MDL	ug/l	no
Benzene	TW	Jan 7, 2008	0.37 <MDL	ug/l	no
Benzo(a)pyrene	TW	Jan 7, 2008	0.004 <MDL	ug/l	no
Bromoxynil	TW	Jan 7, 2008	0.33 <MDL	ug/l	no
Carbaryl	TW	Jan 7, 2008	0.16 <MDL	ug/l	no
Carbofuran	TW	Jan 7, 2008	0.37 <MDL	ug/l	no
Carbon Tetrachloride	TW	Jan 7, 2008	0.41 <MDL	ug/l	no
Chlordane (Total)	TW	Jan 7, 2008	0.11 <MDL	ug/l	no
Chlorpyrifos	TW	Jan 7, 2008	0.18 <MDL	ug/l	no
Cyanazine	TW	Jan 7, 2008	0.18 <MDL	ug/l	no
Diazinon	TW	Jan 7, 2008	0.081 <MDL	ug/l	no
Dicamba	TW	Jan 7, 2008	0.20 <MDL	ug/l	no
1,2-Dichlorobenzene	TW	Jan 7, 2008	0.50 <MDL	ug/l	no



1,4-Dichlorobenzene	TW	Jan 7, 2008	0.21 <MDL	ug/l	no
Dichlorodiphenyltrichloroethane (DDT) + metabolites	TW	Jan 7, 2008	0.14 <MDL	ug/l	no
1,2-Dichloroethane	TW	Jan 7, 2008	0.43 <MDL	ug/l	no
1,1-Dichloroethylene (vinylidene chloride)	TW	Jan 7, 2008	0.41 <MDL	ug/l	no
Dichloromethane	TW	Jan 7, 2008	0.34 <MDL	ug/l	no
2-4 Dichlorophenol	TW	Jan 7, 2008	0.15 <MDL	ug/l	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	TW	Jan 7, 2008	0.19 <MDL	ug/l	no
Diclofop-methyl	TW	Jan 7, 2008	0.40 <MDL	ug/l	no
Dimethoate	TW	Jan 7, 2008	0.12 <MDL	ug/l	no
Dinoseb	TW	Jan 7, 2008	0.36 <MDL	ug/l	no
Diquat	TW	Jan 7, 2008	1 <MDL	ug/l	no
Diuron	TW	Jan 7, 2008	0.087 <MDL	ug/l	no
Glyphosate	TW	Jan 7, 2008	6 <MDL	ug/l	no
Heptachlor + Heptachlor Epoxide	TW	Jan 7, 2008	0.11 <MDL	ug/l	no
Lindane (Total)	TW	Jan 7, 2008	0.056 <MDL	ug/l	no
Malathion	TW	Jan 7, 2008	0.091 <MDL	ug/l	no
Methoxychlor	TW	Jan 7, 2008	0.14 <MDL	ug/l	no
Metolachlor	TW	Jan 7, 2008	0.092 <MDL	ug/l	no
Metribuzin	TW	Jan 7, 2008	0.12 <MDL	ug/l	no
Monochlorobenzene	TW	Jan 7, 2008	0.58 <MDL	ug/l	no
Paraquat	TW	Jan 7, 2008	1 <MDL	ug/l	no
Parathion	TW	Jan 7, 2008	0.18 <MDL	ug/l	no



<b>Pentachlorophenol</b>	TW	Jan 7, 2008	0.15 <MDL	ug/l	no
<b>Phorate</b>	TW	Jan 7, 2008	0.11 <MDL	ug/l	no
<b>Picloram</b>	TW	Jan 7, 2008	0.25 <MDL	ug/l	no
<b>Polychlorinated Biphenyls(PCB)</b>	TW	Jan 7, 2008	0.04 <MDL	ug/l	no
<b>Prometryne</b>	TW	Jan 7, 2008	0.23 <MDL	ug/l	no
<b>Simazine</b>	TW	Jan 7, 2008	0.15 <MDL	ug/l	no
<b>THM</b> (NOTE: show latest annual average)	DW – Booster Stn	Average of Jan 7, April 7, July 14, Oct 14, 2008	25	ug/l	no
<b>Temephos</b>	TW	Jan 7, 2008	0.31 <MDL	ug/l	no
<b>Terbufos</b>	TW	Jan 7, 2008	0.12 <MDL	ug/l	no
<b>Tetrachloroethylene</b>	TW	Jan 7, 2008	0.45 <MDL	ug/l	no
<b>2,3,4,6-Tetrachlorophenol</b>	TW	Jan 7, 2008	0.14 <MDL	ug/l	no
<b>Triallate</b>	TW	Jan 7, 2008	0.10 <MDL	ug/l	no
<b>Trichloroethylene</b>	TW	Jan 7, 2008	0.38 <MDL	ug/l	no
<b>2,4,6-Trichlorophenol</b>	TW	Jan 7, 2008	0.25 <MDL	ug/l	no
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	TW	Jan 7, 2008	0.22 <MDL	ug/l	no
<b>Trifluralin</b>	TW	Jan 7, 2008	0.12 <MDL	ug/l	no
<b>Vinyl Chloride</b>	TW	Jan 7, 2008	0.17 <MDL	ug/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	n/a	n/a	n/a