

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

## Part III Form 2 Section 11. ANNUAL REPORT

Drinking-Water System Number:	220007150
Drinking-Water System Name:	Grimsby Water Treatment Plant
Drinking-Water System Owner:	Regional Municipality of Niagara
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	Jan01/06 – Dec 31/06

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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; width: fit-content;">                 Grimsby Water Treatment Plant                  300 North Service Road                  Grimsby, Ontario                  L3M 4E8             </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:  <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px auto;"></div> </p> <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> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px auto;"></div>
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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
Town of Grimsby	260001851
Town of Lincoln (Beamsville)	2600043319
Town of West Lincoln	260002876

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.

- [ X ] Public access/notice via the web
- [ X ] Public access/notice via Government Office
- [ ] Public access/notice via a newspaper
- [ X ] Public access/notice via Public Request
- [ ] Public access/notice via a Public Library
- [ ] Public access/notice via other method \_\_\_\_\_

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## Describe your Drinking-Water System

The Grimsby Water Treatment Plant is a conventional surface water treatment plant which incorporates zebra mussel control, traveling screens, coagulation, flocculation, sedimentation, filtration, and disinfection in its process. The Grimsby Water treatment supplies water to the towns of Grimsby, Lincoln and West Lincoln in the Regional Municipality of Niagara. The Grimsby Water Treatment Plant is located on Lot 115, Concession 1, in North Grimsby. (NAD 27:UTM Zone 17:614699.0m E., and 4784764.00 N.)

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

Sodium Hypochlorite, Aluminum Sulphate, Clarion A-10

## Were any significant expenses incurred to?

- [yes] Install required equipment
- [No] Repair required equipment
- [yes] Replace required equipment

## Please provide a brief description and a breakdown of monetary expenses incurred

Smithville Reservoir and Pumping Station design and construction-\$4,000,000  
 Park Road trunk watermain design and construction-\$5,000,000

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
August 19, 2006	Distribution Chlorine Low Chlorine Residual	0.05	mg/l	Two litres of sodium hypchlorite added to each reservoir cell. Verified operation of sodium hypochlorite metering pumps	August 19, 2006

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	52	<2 - 20	<2 - > 400	0	n/a
Treated	52	0	0	52	0-6
Distribution	208	0	0	208	0-23

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

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Grimsby Water Treatment Plant	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity	8760	0.05-1.99
Chlorine	8760	0.20-2.0
Chlorine Residual Distribution System	8760	0.12-2.00
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
C of A # 7774-6DNHGT	Total suspended solids	2006 Annual Average	39.6	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	Nov 7/06	<0.2	µg/l	0
Arsenic	Nov 7/06	<0.5	µg/l	0
Barium	Nov 7/06	0.0214	µg/l	0
Boron	Nov 7/06	0.0240	µg/l	0
Cadmium	Nov 7/06	<0.06	µg/l	0
Chromium	Nov 7/06	<2.0	µg/l	0
Lead	Nov 7/06	0.05	µg/l	0
Mercury	Nov 7/06	<0.02	µg/l	0
Selenium	Nov 7/06	<3.0	µg/l	0
Sodium	Nov 7/06	12.8	mg/l	0
Uranium	Nov 7/06	0.12	mg/l	0
Fluoride	Dec 11/06	0.11	mg/l	0
Nitrite	Dec 11/06	<0.005	mg/l	0
Nitrate	Dec 11/06	0.433	mg/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	Nov 7/06	<0.11	µg/l	0
Aldicarb	Nov 7/06	<0.30	µg/l	0
Aldrin + Dieldrin	Nov 7/06	<0.067	µg/l	0
Atrazine + N-dealkylated metabolites	Nov 7/06	<0.12	µg/l	0
Azinphos-methyl	Nov 7/06	<2.1	µg/l	0
Bendiocarb	Nov 7/06	<0.13	µg/l	0

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<b>Benzene</b>	Nov 7/06	<b>&lt;0.37</b>	µg/l	<b>0</b>
<b>Benzo(a)pyrene</b>	Nov 7/06	<b>&lt;0.004</b>	µg/l	<b>0</b>
<b>Bromoxynil</b>	Nov 7/06	<b>&lt;0.33</b>	µg/l	<b>0</b>
<b>Carbaryl</b>	Nov 7/06	<b>&lt;0.16</b>	µg/l	<b>0</b>
<b>Carbofuran</b>	Nov 7/06	<b>&lt;0.37</b>	µg/l	<b>0</b>
<b>Carbon Tetrachloride</b>	Nov 7/06	<b>&lt;0.41</b>	µg/l	<b>0</b>
<b>Chlordane (Total)</b>	Nov 7/06	<b>&lt;0.11</b>	µg/l	<b>0</b>
<b>Chlorpyrifos</b>	Nov 7/06	<b>&lt;0.18</b>	µg/l	<b>0</b>
<b>Cyanazine</b>	Nov 7/06	<b>&lt;0.18</b>	µg/l	<b>0</b>
<b>Diazinon</b>	Nov 7/06	<b>&lt;0.018</b>	µg/l	<b>0</b>
<b>Dicamba</b>	Nov 7/06	<b>&lt;0.20</b>	µg/l	<b>0</b>
<b>1,2-Dichlorobenzene</b>	Nov 7/06	<b>&lt;0.50</b>	µg/l	<b>0</b>
<b>1,4-Dichlorobenzene</b>	Nov 7/06	<b>&lt;0.21</b>	µg/l	<b>0</b>
<b>Dichlorodiphenyltrichloroethane (DDT) + metabolites</b>	Nov 7/06	<b>&lt;0.14</b>	µg/l	<b>0</b>
<b>1,2-Dichloroethane</b>	Nov 7/06	<b>&lt;0.43</b>	µg/l	<b>0</b>
<b>1,1-Dichloroethylene (vinylidene chloride)</b>	Nov 7/06	<b>&lt;0.41</b>	µg/l	<b>0</b>
<b>Dichloromethane</b>	Nov 7/06	<b>&lt;0.34</b>	µg/l	<b>0</b>
<b>2-4 Dichlorophenol</b>	Nov 7/06	<b>&lt;0.15</b>	µg/l	<b>0</b>
<b>2,4-Dichlorophenoxy acetic acid (2,4-D)</b>	Nov 7/06	<b>&lt;0.19</b>	µg/l	<b>0</b>
<b>Diclofop-methyl</b>	Nov 7/06	<b>&lt;0.40</b>	µg/l	<b>0</b>
<b>Dimethoate</b>	Nov 7/06	<b>&lt;.12</b>	µg/l	<b>0</b>
<b>Dinoseb</b>	Nov 7/06	<b>&lt;0.36</b>	µg/l	<b>0</b>
<b>Diquat</b>	Nov 7/06	<b>&lt;1.0</b>	µg/l	<b>0</b>
<b>Diuron</b>	Nov 7/06	<b>&lt;0.087</b>	µg/l	<b>0</b>
<b>Glyphosate</b>	Nov 7/06	<b>&lt;6.0</b>	µg/l	<b>0</b>
<b>Heptachlor + Heptachlor Epoxide</b>	Nov 7/06	<b>&lt;0.11</b>	µg/l	<b>0</b>
<b>Lindane (Total)</b>	Nov 7/06	<b>&lt;0.056</b>	µg/l	<b>0</b>
<b>Malathion</b>	Nov 7/06	<b>&lt;0.091</b>	µg/l	<b>0</b>
<b>Methoxychlor</b>	Nov 7/06	<b>&lt;0.14</b>	µg/l	<b>0</b>
<b>Metolachlor</b>	Nov 7/06	<b>&lt;0.092</b>	µg/l	<b>0</b>
<b>Metribuzin</b>	Nov 7/06	<b>&lt;0.12</b>	µg/l	<b>0</b>
<b>Monochlorobenzene</b>	Nov 7/06	<b>&lt;0.58</b>	µg/l	<b>0</b>
<b>Paraquat</b>	Nov 7/06	<b>&lt;1.0</b>	µg/l	<b>0</b>
<b>Parathion</b>	Nov 7/06	<b>&lt;0.18</b>	µg/l	<b>0</b>
<b>Pentachlorophenol</b>	Nov 7/06	<b>&lt;0.15</b>	µg/l	<b>0</b>
<b>Phorate</b>	Nov 7/06	<b>&lt;0.11</b>	µg/l	<b>0</b>
<b>Picloram</b>	Nov 7/06	<b>&lt;0.25</b>	µg/l	<b>0</b>
<b>Polychlorinated Biphenyls(PCB)</b>	Nov 7/06	<b>&lt;0.04</b>	µg/l	<b>0</b>
<b>Prometryne</b>	Nov 7/06	<b>&lt;0.23</b>	µg/l	<b>0</b>
<b>Simazine</b>	Nov 7/06	<b>&lt;0.15</b>	µg/l	<b>0</b>
<b>THM</b> (NOTE: show latest annual average)	Annual Average	<b>40.75</b>	µg/l	<b>0</b>
<b>Temephos</b>	Nov 7/06	<b>&lt;0.31</b>	µg/l	<b>0</b>
<b>Terbufos</b>	Nov 7/06	<b>&lt;0.12</b>	µg/l	<b>0</b>
<b>Tetrachloroethylene</b>	Nov 7/06	<b>&lt;0.45</b>	µg/l	<b>0</b>
<b>2,3,4,6-Tetrachlorophenol</b>	Nov 7/06	<b>&lt;0.14</b>	µg/l	<b>0</b>
<b>Triallate</b>	Nov 7/06	<b>&lt;0.10</b>	µg/l	<b>0</b>
<b>Trichloroethylene</b>	Nov 7/06	<b>&lt;0.38</b>	µg/l	<b>0</b>
<b>2,4,6-Trichlorophenol</b>	Nov 7/06	<b>&lt;0.25</b>	µg/l	<b>0</b>
<b>2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)</b>	Nov 7/06	<b>&lt;0.22</b>	µg/l	<b>0</b>

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Trifluralin	Nov 7/06	<0.12	µg/l	0
Vinyl Chloride	Nov 7/06	>0.17	µg/l	0

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

(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)