

#### Ministry of the Ministère de Environment l'Environnement

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

| Part III | For | rm 2          |               |
|----------|-----|---------------|---------------|
| Section  | 11. | <b>ANNUAL</b> | <b>REPORT</b> |

| <b>Drinking-Water System Number:</b>   | 210000728                       |
|--|---------------------------------|
| <b>Drinking-Water System Name:</b>     | Chesterville                    |
| <b>Drinking-Water System Owner:</b>    | <b>Township of North Dundas</b> |
| <b>Drinking-Water System Category:</b> | Large Municipal Residential     |
| Period being reported:                 | January 1 to December 31, 2004  |

| Residential or Small Municipal Residential  | Complete for all other Categories.   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Does your Drinking-Water System serve more than 10,000 people? Yes [] No [x]  Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No []  Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.  Available at the Township of North Dundas Office, 636 St. Lawrence Street, Winchester, Ontario and on their website www.northdundas.com | Number of Designated Facilities served:  Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ] N/A [X]  Number of Interested Authorities you report to:  Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ] N/A [X] |  |  |  |  |  |  |
| List Drinking-Water Systems, which receisystem:   | ve all of their drinking water from your   |  |  |  |  |  |  |
| 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 [ ] N/A [x]   |  |  |  |  |  |  |  |
| 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  |  |  |  |  |  |  |  |
| [ ] Public access/notice via Public Request   |  |  |  |  |  |  |  |
| [ ] Public access/notice via a Public Libra<br>[ ] Public access/notice via other method  | 1 y  |  |  |  |  |  |  |
| L 11 upite access/notice via other method   |  |  |  |  |  |  |  |

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

## **Describe your Drinking-Water System**

Groundwater is pumped from the source well and Sodium Hypochlorite is added. From the wells it travels 3.7 kilometers through a feeder main to a reservoir/contact tank where sufficient time for disinfection is provided. As water is used throughout the distribution system, the water level in the elevated tank falls to a preset limit and a pump at the reservoir starts. This pump draws water from the reservoir/contact tank and refills the elevated tank.

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

Sodium Hypochlorite was used at an average dosage rate of 1.62 mg/L.

## Were any significant expenses incurred to?

- [x] Install required equipment
- [x] Repair required equipment
- [x] Replace required equipment

#### Describe

Purchased and installed a low temperature alarm in the valve chamber of the elevated water tower. Cleaned and inspected the water reservoir. Rebuilt 8 fire hydrants in the distribution system.

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<br>Date | Parameter       | Result | Unit of<br>Measure | Corrective Action | Corrective<br>Action Date |
|------------------|-----------------|--------|--------------------|-------------------|---------------------------|
| May 12/04        | HPC             | >500   | Cts/1ml            | Resample          | May 12/04                 |
| May 26/04        | Total Coliforms | 1      | Cts/100ml          | Resample          | May 27/04                 |
| July 20/04       | Background      | >200   | Cts/100ml          | Resample          | July 20/04                |
| July 20/04       | Background      | >200   | Cts/100ml          | Resample          | July 20/04                |
| July 20/04       | Background      | >200   | Cts/100ml          | Resample          | July 20/04                |
| July 20/04       | HPC             | >500   | Cts/1ml            | Resample          | July 20/04                |
| August 4/04      | Total Coliform  | 1      | Cts/100ml          | Resample          | August 4/04               |
| August 11/04     | HPC             | >500   | Cts/1ml            | Resample          | August 12/04              |

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Microbiological testing done under section 8 (2) during this reporting period

|              | Number of<br>Samples | Range<br>of E.Coli<br>or Fecal<br>Results<br>(#-#) | Range of<br>Total<br>Coliform<br>Results<br>(#-#) | Number<br>of HPC<br>Samples | Range<br>of HPC<br>Results<br>(#-#) | Number of<br>Background<br>Samples | Range of<br>Background<br>Samples<br>(#-#) |
|--------------|----------------------|--|---|-----------------------------|-------------------------------------|------------------------------------|--|
| Raw          | 156                  | 0-0  | 0-0   | 0                           | 0                                   | 52                                 | 0->200                                     |
| Treated      | 162                  | 0-0  | 0-0   | 40                          | 0>500                               | 15                                 | 0-0  |
| Distribution | 406                  | 0-0  | 0-1   | 51                          | 0->500                              | 22                                 | 0->200                                     |

# Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

|                          | Number  | Range of Results |
|--------------------------|---------|------------------|
|                          | of Grab | (#-#)            |
|                          | Samples |                  |
| <b>Turbidity Treated</b> | 8760    | 0.143-5.01 NTU's |
| Turbidity Raw            | 12      | 0.12-0.58 NTU's  |
| Chlorine                 | 8760    | 0.3-2.4          |

**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 or order.

| Date of order or C of A | Parameter | Date Sampled | Result | Unit of Measure |
|-------------------------|-----------|--------------|--------|-----------------|
| N/A                     |           |              |        |                 |
|                         |           |              |        |                 |

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

| Parameter | Minimum Maximum |             | Minimum  | Maximum  | Unit of | Exceedance |
|-----------|-----------------|-------------|----------|----------|---------|------------|
|           | Sample Date     | Sample Date | Value    | Value    | Measure |            |
| Antimony  | 12/9/03         | 12/9/03     | < 0.6    | < 0.6    | ug / L  | No         |
| Arsenic   | 01/20/03        | 01/20/03    | < 0.001  | < 0.001  | mg / L  | No         |
| Barium    | 01/20/03        | 01/20/03    | 0.12     | 0.12     | mg / L  | No         |
| Boron     | 01/20/03        | 01/20/03    | < 0.05   | < 0.05   | mg / L  | No         |
| Cadmium   | 01/20/03        | 01/20/03    | < 0.0001 | < 0.0001 | mg / L  | No         |
| Chromium  | 01/20/03        | 01/20/03    | 0.002    | 0.002    | mg / L  | No         |
| Copper    | 01/20/03        | 01/20/03    | 0.007    | 0.007    | mg / L  | No         |
| Iron      | 01/20/03        | 01/20/03    | 0.05     | 0.05     | mg / L  | No         |
| Lead      | 01/28/04        | 01/28/04    | < 0.001  | < 0.001  | mg / L  | No         |
| Mercury   | 01/20/03        | 01/20/03    | < 0.0001 | < 0.0001 | mg / L  | No         |
| Selenium  | 01/20/03        | 01/20/03    | < 0.001  | < 0.001  | mg / L  | No         |
| Uranium   | 01/20/03        | 01/20/03    | < 0.001  | < 0.001  | mg / L  | No         |
| Fluoride  | 01/20/03        | 01/20/03    | 0.15     | 0.15     | mg / L  | No         |
| Nitrite   | 01/28/04        | 10/25/04    | <0.1     | <0.1     | mg / L  | No         |
| Nitrate   | 01/28/04        | 10/25/04    | <0.1     | <0.1     | mg / L  | No         |



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

| Summary of Organic                                  |                           |                           |                  |                  |                    | ost recent |
|---|---------------------------|---------------------------|------------------|------------------|--------------------|------------|
| Parameter   | Minimum<br>Sample<br>Date | Maximum<br>Sample<br>Date | Minimum<br>Value | Maximum<br>Value | Unit of<br>Measure | Exceedance |
| Alachlor  | 12/9/03                   | 01/20/03                  | <0.11            | <0.5             | ug / L             | No         |
| Aldicarb  | 12/9/03                   | 01/20/03                  | <0.3             | <5               | ug / L             | No         |
| Aldrin + Dieldrin                                   | 01/20/03                  | 12/9/03                   | <0.012           | < 0.067          | ug / L             | No         |
| Atrazine + N-dealkylated                            | 12/9/03                   | 01/20/03                  | <0.12            | <1.0             | ug / L             | No         |
| metobolites   | ,,,,,,                    |                           |                  |                  | ug / L             | 110        |
| Azinphos-methyl                                     | 12/9/03                   | 01/20/03                  | < 0.21           | <2               | ug / L             | No         |
| Bendiocarb  | 12/9/03                   | 01/20/03                  | < 0.13           | <2               | ug / L             | No         |
| Benzene   | 01/20/03                  | 01/20/03                  | <0.5             | <0.5             | ug / L             | No         |
| Benzo(a)pyrene                                      | 12/9/03                   | 12/9/03                   | < 0.004          | < 0.004          | ug / L             | No         |
| Bromoxynil  | 01/20/03                  | 01/20/03                  | < 0.5            | < 0.5            | ug / L             | No         |
| Carbaryl  | 12/9/03                   | 01/20/03                  | < 0.16           | <5               | ug / L             | No         |
| Carbofuran  | 12/9/03                   | 01/20/03                  | < 0.37           | <5               | ug / L             | No         |
| Carbon Tetrachloride                                | 01/20/03                  | 01/20/03                  | <0.9             | <0.9             | ug / L             | No         |
| Chlordane (Total)                                   | 01/20/03                  | 12/9/03                   | < 0.012          | <0.11            | ug / L             | No         |
| Chlorpyrifos  | 01/20/03                  | 01/20/03                  | < 0.18           | <1               | ug / L             | No         |
| Cyanazine   | 12/9/03                   | 01/20/03                  | <0.18            | <1               | ug / L             | No         |
| Diazinon  | 12/9/03                   | 01/20/03                  | < 0.081          | <1               | ug / L             | No         |
| Dicamba   | 01/20/03                  | 01/20/03                  | <1               | <1               | ug / L             | No         |
| 1,2-Dichlorobenzene                                 | 01/20/03                  | 01/20/03                  | <0.4             | <0.4             | ug / L             | No         |
| 1,4-Dichlorobenzene                                 | 01/20/03                  | 01/20/03                  | <0.4             | < 0.4            | ug / L             | No         |
| Dichlorodiphenyltrichloroethane (DDT) + metabolites | 01/20/03                  | 12/9/03                   | <0.024           | <0.14            | ug / L             | No         |
| 1,2-Dichloroethane                                  | 01/20/03                  | 01/20/03                  | <0.7             | <0.7             | ug / L             | No         |
| 1,1-Dichloroethylene (vinylidene chloride)          | 01/20/03                  | 01/20/03                  | <0.5             | <0.5             | ug / L             | No         |
| Dichloromethane                                     | 01/20/03                  | 01/20/03                  | <4               | <4               | ug / L             | No         |
| 2-4 Dichlorophenol                                  | 12/9/03                   | 01/20/03                  | < 0.15           | <0.5             | ug / L             | No         |
| 2,4-Dichlorophenoxy acetic acid (2,4-D)             | 12/9/03                   | 01/20/03                  | <0.11            | <1               | ug / L             | No         |
| Diclofop-methyl                                     | 12/9/03                   | 01/20/03                  | < 0.13           | < 0.9            | ug / L             | No         |
| Dimethoate  | 12/9/03                   | 01/20/03                  | <0.12            | <2.5             | ug / L             | No         |
| Dinoseb   | 12/9/03                   | 01/20/03                  | < 0.084          | <1               | ug / L             | No         |
| Diquat  | 12/9/03                   | 01/20/03                  | <1               | <7               | ug / L             | No         |
| Diuron  | 12/9/03                   | 01/20/03                  | < 0.087          | <10              | ug / L             | No         |
| Glyphosate  | 12/9/03                   | 01/20/03                  | <6               | <10              | ug / L             | No         |
| Heptachlor + Heptachlor<br>Epoxide                  | 01/20/03                  | 12/9/03                   | <0.012           | <0.11            | ug / L             | No         |
| Lindane (Total)                                     | 01/20/03                  | 12/9/03                   | < 0.006          | < 0.056          | ug / L             | No         |
| Malathion   | 12/9/03                   | 01/20/03                  | < 0.091          | <5               | ug / L             | No         |
| Methoxychlor  | 01/20/03                  | 12/9/03                   | < 0.024          | < 0.14           | ug / L             | No         |
| Metolachlor   | 12/9/03                   | 01/20/03                  | < 0.092          | <0.5             | ug / L             | No         |
| Metribuzin  | 12/9/03                   | 01/20/03                  | < 0.12           | <5               | ug / L             | No         |
| Monochlorobenzene                                   | 01/20/03                  | 01/20/03                  | <0.2             | <0.2             | ug / L             | No         |
| Paraquat  | 12/9/03                   | 01/20/03                  | <1               | <1               | ug / L             | No         |
| Parathion   | 12/9/03                   | 01/20/03                  | < 0.18           | <1               | ug / L             | No         |
| Pentachlorophenol                                   | 12/9/03                   | 01/20/03                  | < 0.15           | <0.5             | ug / L             | No         |
| Phorate   | 12/9/03                   | 01/20/03                  | < 0.11           | <0.5             | ug / L             | No         |
| Picloram  | 12/9/03                   | 01/20/03                  | < 0.2            | <5               | ug / L             | No         |



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| Polychlorinated Biphenyls(PCB) | 12/9/03  | 01/20/03 | < 0.04 | < 0.05 | ug / L | No |
|--------------------------------|----------|----------|--------|--------|--------|----|
| Promethyne                     | 12/9/03  | 01/20/03 | < 0.23 | < 0.25 | ug / L | No |
| Simazine                       | 12/9/03  | 01/20/03 | < 0.15 | <1     | ug / L | No |
| THM                            | 04/21/04 | 01/28/04 | 5.6    | 12.0   | ug / L | No |
| (NOTE: show latest quarterly   |          |          |        |        |        |    |
| average)                       |          |          |        |        |        |    |
| Temephos                       | 12/9/03  | 01/20/03 | < 0.31 | <10    | ug / L | No |
| Terbufos                       | 01/20/03 | 01/20/03 | < 0.12 | < 0.7  | ug / L | No |
| Tetrachloroethylene            | 01/20/03 | 01/20/03 | < 0.3  | < 0.3  | ug / L | No |
| 2,3,4,6-Tetrachlorophenol      | 12/9/03  | 01/20/03 | < 0.14 | <0.5   | ug / L | No |
| Triallate                      | 12/9/03  | 01/20/03 | < 0.10 | <1     | ug / L | No |
| Trichloroethylene              | 01/20/03 | 01/20/03 | < 0.3  | < 0.3  | ug / L | No |
| 2,4,6-Trichlorophenol          | 12/9/03  | 01/20/03 | < 0.25 | < 0.5  | ug / L | No |
| 2,4,5-Trichlorophenoxy acetic  | 12/9/03  | 01/20/03 | < 0.14 | <1     | ug / L | No |
| acid (2,4,5-T)                 |          |          |        |        |        |    |
| Trifluralin                    | 12/9/03  | 01/20/03 | < 0.12 | <1     | ug / L | No |
| Vinyl Chloride                 | 01/20/03 | 01/20/03 | < 0.5  | <0.5   | 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       |              |                 |                |

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