

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

Drinking-Water System Number:	210000728
Drinking-Water System Name:	North Dundas DWS
Drinking-Water System Owner:	Township of North Dundas
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 to December 31, 2015

<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 [] No [x]</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; margin-top: 10px;"> <p>Available at the Township of North Dundas Office, 636 St. Lawrence Street, Winchester, Ontario and on their website www.northdundas.com</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input type="text"/></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: <input type="text"/></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>
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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
n/a	n/a

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]

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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

The North Dundas Drinking Water System consists of eight (8) groundwater production wells, five (5) pump houses each with chlorine disinfection equipment, two (2) storage reservoirs, and the distribution system consisting of two (2) elevated storage tanks and approximately 41.5 km of distribution piping. Sodium hypochlorite is used to provide primary and secondary disinfection.

List all water treatment chemicals used over this reporting period

Sodium hypochlorite was used at an average dosage rate of 3.71 mg/L.

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

Repaired watermain on Main St.(Chesterville)
 Purchased new battery for generator at Well 5/6 (Chesterville)
 Replaced damaged fire hydrant on King St. (Chesterville)
 Repaired services on Emma St. and Queen St. (Chesterville)
 Cleaned/redeveloped Well #6 (Chesterville)
 Cleared brush, trimmed trees at Well 5/6 and water tower (Chesterville)
 Purchased materials for cleaning/inspection of clear well at the reservoir (Chesterville)
 Repaired fuel lines on generator at Well #1 (Winchester)
 Replaced chlorine analyzer at Well #7 (Winchester)
 Installed VFD's on Well #5 and Well #6 (Winchester)
 Upgraded electrical service at Well #1 (Winchester)
 Repaired watermain, valve and hydrant at Ottawa St. & Main St. (Winchester)
 Repaired watermain on Bailey Ave. (Winchester)
 Repaired water service on Wickers Way (Winchester)
 Repaired hydrant at Arena (Winchester)
 Purchased chlorine pump rebuild kits
 Rebuilt 16 hydrants
 Installed cathodic protection on main valves and service laterals
 Rebuilt main valves and repaired curb stops

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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
02/10/2015	Low pressure (watermain break) - Chesterville	n/a	n/a	Precautionary BWA. Sample post repair for TC, E. Coli as per MOH	02/12/2015
06/26/2015	Low pressure (watermain break) - Winchester	n/a	n/a	Precautionary BWA. Sample post repair for TC, E. Coli as per MOH	06/27/2015
12/17/2015	Low pressure (watermain break) - Winchester	n/a	n/a	Precautionary BWA. Sample post repair for TC, E. Coli as per MOH	12/19/2015

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of <i>E. coli</i> Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	834	0-0	0-2	n/a	n/a
Treated	777	0-0	0-0	259	0-16
Distribution	539	0-0	0-0	104	0-1000

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	95	0.04-1.38 NTU
Chlorine	8760	0.16-5.00 mg/L

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

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
n/a				

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

Parameter	Minimum Sample Date	Maximum Sample Date	Minimum Value	Maximum Value	Unit of Measure	Exceedance
Antimony	01/21/2015	01/21/2015	<0.0001	<0.0001	mg / L	No
Arsenic	01/21/2015	01/21/2015	0.0008	0.0029	mg / L	No

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Barium	01/21/2015	01/21/2015	0.060	0.146	mg / L	No
Boron	01/21/2015	01/21/2015	0.014	0.384	mg / L	No
Cadmium	01/21/2015	01/21/2015	<0.00002	0.00002	mg / L	No
Chromium	01/21/2015	01/21/2015	<0.002	<0.002	mg / L	No
*Lead	n/a	n/a	n/a	n/a	mg / L	No
Mercury	01/21/2015	01/21/2015	<0.00002	<0.00002	mg / L	No
Selenium	01/21/2015	01/21/2015	0.001	0.007	mg / L	No
Sodium	01/09/2012	01/21/2015	7.82	102	mg / L	No
Uranium	01/21/2015	01/21/2015	0.00037	0.001	mg / L	No
Fluoride	01/09/2012	01/09/2012	0.08	0.25	mg / L	No
Nitrite	01/05/2015	10/05/2015	<0.003	<0.003	mg / L	No
Nitrate	01/12/2015	07/06/2015	<0.006	0.351	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	n/a	n/a	n/a
Distribution	n/a	n/a	n/a

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	01/21/2015	<0.3	µg / L	No
Aldicarb	01/21/2015	<3.0	µg / L	No
Aldrin + Dieldrin	01/21/2015	<0.02	µg / L	No
Azinphos-methyl	01/21/2015	<1.0	µg / L	No
Bendiocarb	01/21/2015	<3.0	µg / L	No
Benzene	01/21/2015	<0.5	µg / L	No
Benzo(a)pyrene	01/21/2015	<0.005	µg / L	No
Bromoxynil	01/21/2015	<0.3	µg / L	No
Carbaryl	01/21/2015	<3.0	µg / L	No
Carbofuran	01/21/2015	<1.0	µg / L	No
Carbon Tetrachloride	01/21/2015	<0.2	µg / L	No
Chlordane (Total)	01/21/2015	<0.04	µg / L	No
Chlorpyrifos	01/21/2015	<0.5	µg / L	No
Cyanazine	01/21/2015	<0.5	µg / L	No
Diazinon	01/21/2015	<1.0	µg / L	No
Dicamba	01/21/2015	<5.0	µg / L	No
1,2-Dichlorobenzene	01/21/2015	<0.1	µg / L	No
1,4-Dichlorobenzene	01/21/2015	<0.2	µg / L	No

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Dichlorodiphenyltrichloroethane (DDT) + metabolites	01/21/2015	<0.01	µg / L	No
1,2-Dichloroethane	01/21/2015	<0.1	µg / L	No
Dichloromethane	01/21/2015	<0.3	µg / L	No
2-4 Dichlorophenol	01/21/2015	<0.1	µg / L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	01/21/2015	<5.0	µg / L	No
Diclofop-methyl	01/21/2015	<0.5	µg / L	No
Dimethoate	01/21/2015	<1.0	µg / L	No
Dinoseb	01/21/2015	<0.5	µg / L	No
Diquat	01/21/2015	<5.0	µg / L	No
Diuron	01/21/2015	<5.0	µg / L	No
Glyphosate	01/21/2015	<25.0	µg / L	No
Heptachlor + Heptachlor Epoxide	01/21/2015	<0.1	µg / L	No
Lindane (Total)	01/21/2015	<0.1	µg / L	No
Malathion	01/21/2015	<5.0	µg / L	No
Methoxychlor	01/21/2015	<0.1	µg / L	No
Metolachlor	01/21/2015	<3.0	µg / L	No
Metribuzin	01/21/2015	<3.0	µg / L	No
Paraquat	01/21/2015	<1.0	µg / L	No
Parathion	01/21/2015	<3.0	µg / L	No
Pentachlorophenol	01/21/2015	<0.3	µg / L	No
Phorate	01/21/2015	<0.3	µg / L	No
Picloram	01/21/2015	<5.0	µg / L	No
Polychlorinated Biphenyls(PCB)	01/21/2015	<0.05	µg / L	No
Prometryne	01/21/2015	<0.1	µg / L	No
Simazine	01/21/2015	<0.5	µg / L	No
THM (NOTE: show latest annual average)	01/21/2015	12.4	µg / L	No
Temephos	01/21/2015	<10.0	µg / L	No
Terbufos	01/21/2015	<0.3	µg / L	No
Tetrachloroethylene	01/21/2015	<0.2	µg / L	No
2,3,4,6-Tetrachlorophenol	01/21/2015	<0.1	µg / L	No
Triallate	01/21/2015	<10.0	µg / L	No
Trichloroethylene	01/21/2015	<0.1	µg / L	No
2,4,6-Trichlorophenol	01/21/2015	<0.1	µg / L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	01/21/2015	<10.0	µg / L	No
Trifluralin	01/21/2015	<0.5	µg / L	No
Vinyl Chloride	01/21/2015	<0.2	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
n/a			