

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

Section 11. ANNUAL REPORT.

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|--|------------------------------------|
| Drinking-Water System Number: | 210000728 |
| Drinking-Water System Name: | North Dundas Drinking Water System |
| Drinking-Water System Owner: | Township of North Dundas |
| Drinking-Water System Category: | Large Municipal Residential |
| Period being reported: | January 1 to December 31, 2017 |

| | |
|--|--|
| <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 municipal office located at 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 style="width: 100px; height: 20px;" 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 style="width: 100px; height: 20px;" 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> |
|--|--|

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 a 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 3.35 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 3 watermain breaks on County Rd. 3 – Well #7 transmission line (Winchester)
- Repaired watermain at corner of Queen St. and Ottawa St. (Winchester)
- Repaired watermain break on Highway 31 (Winchester)
- Repaired service box on Elizabeth St. (Chesterville)
- Repaired service on King St. (Chesterville)
- Purchased pump motor for Well #5 (Winchester)
- Repaired electrical cable on Well #5 (Winchester)
- Replaced high lift pump and motor at Reservoir (Winchester)
- Replaced pump motor, installed transducer and modified piping on Well #6 (Winchester)
- Repaired unit heater at Reservoir (Winchester)
- Replaced heater at Tower (Winchester)
- Replaced block heater on generator at Reservoir (Chesterville)
- Replaced generator batteries (both reservoirs & Winchester Well #6)
- Rebuilt 16 fire hydrants
- Repaired/replaced curb stops and main valves
- Installed cathodic protection
- Purchased chlorine pump repair kits
- Purchased chlorine analyzer for Well #6 (Winchester)
- Replaced UPS batteries
- Performed electrical and instrumentation upgrades

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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 |
|---------------|-----------|--------|-----------------|-------------------|------------------------|
| 01/30/2017 | Sodium | 34.3 | mg/L | Resample | 02/06/2017 |

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 | 385 | 0 - 1 | 0 - 45 | n/a | n/a |
| Treated | 229 | 0 - 0 | 0 - 0 | 229 | 0 - 24 |
| Distribution | 208 | 0 - 0 | 0 - 0 | 104 | 0 - 49 |

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 | 90 | 0.06 - 0.56 NTU |
| Treated Chlorine | 8760 | 0.50 - 5.00 mg/L |
| Distribution Chlorine | 8760 | 0.45 - 2.08 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 |
| 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 | 02/06/2017 | 02/06/2017 | 8.42 | 121 | mg / L | Yes |
| Uranium | 01/21/2015 | 01/21/2015 | 0.00037 | 0.001 | mg / L | No |
| Fluoride | 02/06/2017 | 02/06/2017 | 0.09 | 0.28 | mg / L | No |
| Nitrite | 01/03/2017 | 07/05/2017 | <0.003 | <0.10 | mg / L | No |
| Nitrate | 04/03/2017 | 01/03/2017 | <0.006 | 0.398 | mg / L | No |

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*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 | 8 | <0.01 - 0.1µg/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 | 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 |
| 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 |

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| | | | | |
|--|------------|-------|--------|----|
| 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 |
| Temphos | 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 |

| Distribution Water Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|-------------|--------------|-----------------|------------|
| THM (NOTE: show latest annual average) | 10/16/17 | 29.1 | µg / L | No |
| HAA (NOTE: show latest annual average) | 10/16/17 | 8.9 | 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 | | | |

North Dundas Drinking Water System
O. Reg. 170/03 Schedule 22 - Summary Report for Municipalities

This report is a summary of water quality information for the North Dundas Drinking Water System, published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation (O. Reg. 170/03) for the reporting period of January 1, 2017 to December 31, 2017. North Dundas' Drinking Water System is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by the Ontario Clean Water Agency on behalf of the Township of North Dundas.

Who gets a copy of the 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 report contain?

The report must:

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

The following table 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 | n/a | | | |
| Ontario Regulation 170/03 | n/a | | | |
| DWWP # 180-201 | n/a | | | |
| MDWL # 180-101 | n/a | | | |
| PTTW # 3380-AC3QF9 | n/a | | | |
| PTTW # 0088-9C3JG4 | n/a | | | |
| PTTW # 0816-838SXR | Condition 3.2 - maximum flow rate | 05/16/2017 | Exceedance was caused by drop in pressure associated with a watermain break. Well shut down upon discovery of the break. | Complete |
| PTTW # 4175-9C3GPW | n/a | | | |
| PTTW # 2181-83S8E | n/a | | | |
| Provincial Officer's Order | n/a | | | |

What else must the 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:

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

Attached please find the 2017 Performance Assessment Report and 2017 Annual Records of Water Taking which contain all required flow information.

When does the 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, 2018.

**ONTARIO CLEAN WATER AGENCY
WATER PLANT PERFORMANCE ASSESSMENT REPORT**

MUNICIPALITY: NORTH DUNDAS
PROJECT: NORTH DUNDAS DRINKING WATER SYSTEM
WORKS NUM.: 210000728

YEAR: 2017
WATER SOURCE: GROUNDWATER
DESIGN CAPACITY: 8,884 m³/d

DESCRIPTION: AN EIGHT WELL PUMPING SYSTEM WITH TWO STORAGE RESERVOIRS AND TWO ELEVATED STORAGE TANKS
DISINFECTION IS WITH SODIUM HYPOCHLORITE.

| MONTH | SYSTEM FLOWS (TREATED) | | | TREATED | | DISTRIBUTION | | BACTI (INDICATE NO. OF SAMPLES) | | | | RAW WATER | |
|----------|---------------------------|---------------------------|---------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--------------------------------------|------|---------|------|----------------|---------|
| | TOTAL | AVG DAY | MAX DAY | MIN FREE | MAX FREE | MIN FREE | MAX FREE | <i>E. coli</i> , Total Coliform, HPC | | | | <i>E. coli</i> | |
| | FLOW (m ³) | FLOW (m ³) | FLOW (m ³) | CL ₂ RESID. (mg/L) | CL ₂ RESID. (mg/L) | CL ₂ RESID. (mg/L) | CL ₂ RESID. (mg/L) | Safe | | Adverse | | ABSENT | PRESENT |
| | | | | | | | | TREAT | DIST | TREAT | DIST | | |
| JAN | 64,810 | 2,092 | 3,389 | 0.77 | 3.70 | 0.45 | 1.64 | 63 | 50 | 0 | 0 | 36 | 0 |
| FEB | 59,497 | 2,125 | 3,307 | 0.58 | 3.80 | 0.93 | 1.71 | 57 | 40 | 0 | 0 | 31 | 0 |
| MAR | 68,465 | 2,212 | 3,648 | 0.93 | 4.76 | 0.65 | 2.08 | 48 | 40 | 0 | 0 | 28 | 0 |
| APR | 72,475 | 2,416 | 3,532 | 0.78 | 5.00 | 0.81 | 1.92 | 48 | 40 | 0 | 0 | 28 | 1 |
| MAY | 80,933 | 2,611 | 4,275 | 0.50 | 2.75 | 0.95 | 1.58 | 60 | 50 | 0 | 0 | 35 | 0 |
| JUN | 80,265 | 2,676 | 3,863 | 0.50 | 5.00 | 0.76 | 1.59 | 48 | 40 | 0 | 0 | 28 | 0 |
| JUL | 82,190 | 2,651 | 3,594 | 0.59 | 3.41 | 0.69 | 1.49 | 60 | 50 | 0 | 0 | 35 | 0 |
| AUG | 80,806 | 2,607 | 4,233 | 0.68 | 5.00 | 0.70 | 1.48 | 60 | 40 | 0 | 0 | 32 | 0 |
| SEP | 75,144 | 2,505 | 4,025 | 0.68 | 4.54 | 0.72 | 1.39 | 60 | 40 | 0 | 0 | 32 | 0 |
| OCT | 78,220 | 2,523 | 4,599 | 0.51 | 5.00 | 0.48 | 1.42 | 75 | 50 | 0 | 0 | 40 | 0 |
| NOV | 70,886 | 2,363 | 3,498 | 0.60 | 3.14 | 0.71 | 1.89 | 60 | 40 | 0 | 0 | 32 | 0 |
| DEC | 74,097 | 2,390 | 3,463 | 0.55 | 4.51 | 0.60 | 1.76 | 48 | 40 | 0 | 0 | 28 | 0 |
| TOTAL | 887,788 | | | | | | | 687 | 520 | 0 | 0 | 385 | 1 |
| AVG | | 2,431 | | | | | | | | | | | |
| MIN | | | | 0.50 | | 0.45 | | | | | | | |
| MAX | | | 4,599 | | 5.00 | | 2.08 | | | | | | |
| CRITERIA | | | | Min CT | | 0.05 | 4.00 | | | | | | |

COMMENTS: MAX. DAY FLOWS INCLUDE DAYS HYDRANTS WERE FLUSHED (SPRING & FALL)

Facility Flow Summary

Drinking-Water System Number: 210000728
 Drinking-Water System Name: NORTH DUNDAS DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Municipality
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Well #1 Winchester
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 4175-9C3GPW

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 4265.00 | 137.58 | 183.00 | 8.21 |
| Feb | 4594.00 | 164.07 | 242.00 | 8.16 |
| Mar | 6161.00 | 198.74 | 318.00 | 8.36 |
| Apr | 5928.00 | 197.60 | 383.00 | 7.77 |
| May | 6821.00 | 220.03 | 374.00 | 7.79 |
| Jun | 6573.00 | 219.10 | 323.00 | 7.96 |
| Jul | 6786.00 | 218.90 | 312.00 | 7.68 |
| Aug | 5440.00 | 175.48 | 309.00 | 7.93 |
| Sep | 5701.00 | 190.03 | 334.00 | 7.75 |
| Oct | 5199.00 | 167.71 | 314.00 | 7.76 |
| Nov | 4936.00 | 164.53 | 208.00 | 7.77 |
| Dec | 3981.00 | 128.42 | 243.00 | 7.78 |
| Total | 66385.00 | | | |
| Avg | 5532.08 | 181.85 | | |
| Max | 6821.00 | | 383.00 | 8.36 |
| Criteria | | | 821.00 | 9.50 |

Facility Flow Summary

Drinking-Water System Number: 210000728
 Drinking-Water System Name: NORTH DUNDAS DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Municipality
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Well #5 Winchester
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 2181-83858E

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 322.00 | 10.39 | 237.00 | 5.97 |
| Feb | 3656.00 | 130.57 | 278.00 | 4.86 |
| Mar | 4735.00 | 152.74 | 277.00 | 4.57 |
| Apr | 4251.00 | 141.70 | 331.00 | 4.53 |
| May | 5056.00 | 163.10 | 334.00 | 4.53 |
| Jun | 5124.00 | 170.80 | 263.00 | 4.26 |
| Jul | 4772.00 | 153.94 | 214.00 | 4.25 |
| Aug | 4271.00 | 137.77 | 215.00 | 4.97 |
| Sep | 4347.00 | 144.90 | 209.00 | 5.12 |
| Oct | 4175.00 | 134.68 | 244.00 | 4.49 |
| Nov | 3549.00 | 118.30 | 157.00 | 4.45 |
| Dec | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 44258.00 | | | |
| Avg | 3688.17 | 121.57 | | |
| Max | 5124.00 | | 334.00 | 5.97 |
| Criteria | | | 556.00 | 6.43 |

Facility Flow Summary

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 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Well #6 Winchester
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 0088-9C3JG4

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 4822.00 | 155.55 | 328.00 | 7.01 |
| Feb | 1628.00 | 58.14 | 195.00 | 7.19 |
| Mar | 0.00 | 0.00 | 0.00 | 0.00 |
| Apr | 0.00 | 0.00 | 0.00 | 0.00 |
| May | 0.00 | 0.00 | 0.00 | 0.00 |
| Jun | 0.00 | 0.00 | 0.00 | 0.00 |
| Jul | 0.00 | 0.00 | 0.00 | 0.00 |
| Aug | 5712.00 | 184.26 | 514.00 | 7.84 |
| Sep | 7390.00 | 246.33 | 482.00 | 7.92 |
| Oct | 7090.00 | 228.71 | 512.00 | 7.84 |
| Nov | 5815.00 | 193.83 | 442.00 | 7.97 |
| Dec | 9021.00 | 291.00 | 492.00 | 8.04 |
| Total | 41478.00 | | | |
| Avg | 3456.50 | 113.15 | | |
| Max | 9021.00 | | 514.00 | 8.04 |
| Criteria | | | 982.00 | 11.37 |

Facility Flow Summary

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 Drinking-Water System Owner: Title Holder: Municipality
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Wellfield #7 Winchester
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 0816-838SXR

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 26197.00 | 845.06 | 1326.00 | 18.73 |
| Feb | 21981.00 | 785.04 | 1324.00 | 18.73 |
| Mar | 23602.00 | 761.35 | 1442.00 | 18.93 |
| Apr | 30367.00 | 1012.23 | 1536.00 | 18.78 |
| May | 28048.00 | 904.77 | 1440.00 | 24.25 |
| Jun | 30000.00 | 1000.00 | 1501.00 | 18.62 |
| Jul | 30163.00 | 973.00 | 1440.00 | 19.93 |
| Aug | 24355.00 | 785.65 | 1438.00 | 18.53 |
| Sep | 21798.00 | 726.60 | 1271.00 | 18.49 |
| Oct | 26617.00 | 858.61 | 1476.00 | 18.73 |
| Nov | 23942.00 | 798.07 | 1389.00 | 18.64 |
| Dec | 26525.00 | 855.65 | 1310.00 | 20.40 |
| Total | 313595.00 | | | |
| Avg | 26132.92 | 858.84 | | |
| Max | 30367.00 | | 1536.00 | 24.25 |
| Criteria | | | 1950.00 | 22.50 |

Facility Flow Summary

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 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Well #5 Chesterville
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 3380-AC3QF9

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (L/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 13585.00 | 438.23 | 507.00 | 17.18 |
| Feb | 11033.00 | 394.04 | 454.00 | 17.15 |
| Mar | 12221.00 | 394.23 | 486.00 | 17.17 |
| Apr | 12050.00 | 401.67 | 486.00 | 17.19 |
| May | 14091.00 | 454.55 | 925.00 | 17.20 |
| Jun | 12991.00 | 433.03 | 607.00 | 17.13 |
| Jul | 12698.00 | 409.61 | 520.00 | 17.21 |
| Aug | 12872.00 | 415.23 | 527.00 | 17.18 |
| Sep | 12677.00 | 422.57 | 517.00 | 17.27 |
| Oct | 13868.00 | 447.35 | 752.00 | 17.18 |
| Nov | 12264.00 | 408.80 | 961.00 | 17.32 |
| Dec | 12878.00 | 415.42 | 534.00 | 17.77 |
| Total | 153228.00 | | | |
| Avg | 12769.00 | 419.56 | | |
| Max | 14091.00 | | 961.00 | 17.77 |
| Criteria | | | 1960.00 | 22.73 |

Facility Flow Summary

Drinking-Water System Number: 210000728
 Drinking-Water System Name: NORTH DUNDAS DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Municipality
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 180-101
 Period being reported: January 1 - December 31, 2017

Raw Water

Raw Water (Source Name) Raw Well #6 Chesterville
 Source Type: Drilled
 Drinking Water Permit to Take Water No: 3380-AC3QF9

| Month | Monthly Flow Total (m3/month) | Daily Flow Average (m3/day) | Daily Flow Maximum (m3/day) | Daily Flow Peak Flow Rate (l/sec) |
|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------------|
| Jan | 14191.00 | 457.77 | 613.00 | 21.66 |
| Feb | 15393.00 | 549.75 | 810.00 | 21.70 |
| Mar | 20722.00 | 668.45 | 1068.00 | 22.21 |
| Apr | 19652.00 | 655.07 | 897.00 | 22.26 |
| May | 26499.00 | 854.81 | 1304.00 | 22.22 |
| Jun | 25090.00 | 836.33 | 1166.00 | 22.19 |
| Jul | 27199.00 | 877.39 | 1135.00 | 23.45 |
| Aug | 27612.00 | 890.71 | 1555.00 | 22.17 |
| Sep | 22843.00 | 761.43 | 1263.00 | 22.65 |
| Oct | 20794.00 | 670.77 | 1189.00 | 22.06 |
| Nov | 20142.00 | 671.40 | 828.00 | 22.42 |
| Dec | 21080.00 | 680.00 | 1010.00 | 22.15 |
| Total | 261217.00 | | | |
| Avg | 21768.08 | 714.49 | | |
| Max | 27612.00 | | 1555.00 | 23.45 |
| Criteria | | | 2615.00 | 30.25 |

Mr. James Mahoney
Supervisor, Ministry of the Environment and Climate Change
James.Mahoney@ontario.ca

February 8, 2018

Re: Notification of Flow Rate Exceedance - North Dundas DWS - PTTW #0816-838SXR

This letter provides written notification of non-compliance with respect to the flow rate specified under Condition 3.2 of PTTW #0816-838SXR issued for Wellfield #7 located at 13224 Thompson Road, in the Township of North Dundas.

On May 16, 2017 a watermain break along the Well #7 transmission line resulted in the PTTW maximum flow rate being exceeded as follows:

| Start Time | End Time | Duration (hh:mm) | Peak Flow Rate (L/min) | PTTW Max. Flow Rate (L/min) |
|------------|----------|------------------|------------------------|-----------------------------|
| 10:21 | 10:25 | 00:04 | 1455 | 1350 |
| 10:30 | 10:36 | 00:06 | 1411 | 1350 |

The flow rate exceedances were a direct result of the fluctuation in pressure caused by the watermain break. Operational staff responded on site and shut the well pumps off immediately upon discovery of the break. The concentration of free chlorine in the treated water remained above the minimum required to meet the CT value for disinfection during that time.

If you have any questions or concerns, please contact me at (613) 448-3098.

Sincerely,



Dawn Crump
Process & Compliance Technician
Seaway Valley Cluster

Cc: Angela Rutley, CAO, Township of North Dundas
Dan Belleau, Director of Public Works, Township of North Dundas
Stephane Barbarie, Senior Operations Manager, OCWA
Brenda Beaudoin, Provincial Officer, MOECC