

## **Ontario Drinking-Water Systems Regulation O. Reg. 170-03 (s)11**

### **Nottawa 2019 Annual Report**

Drinking-Water System Number: 260005411  
Drinking-Water System Name: Nottawa Drinking Water System  
Drinking-Water System Owner: The Corporation of the Township of Clearview  
Drinking-Water System Category: Large Municipal Residential  
Period being reported: January – December 2019

This Drinking-Water System does not serve more than 10,000 people.

This annual report is available to the public at no charge on the Clearview website at [www.clearview.ca](http://www.clearview.ca)

The Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection at the Clearview Municipal Office 217 Gideon Street, Stayner and at the Clearview public works building at 5833 County Road 96, Stayner.

No other Drinking Water Systems receive their drinking water from this system.

This annual report is available free of charge on our web-site, and at the locations listed above. Notice of the report availability is provided on the Clearview web-site and on digital signboards throughout Clearview. Report availability is also advertised in the local newspaper.

Description of the system:

The water source for this system is three groundwater source wells. Disinfection is provided with sodium hypochlorite. ClearHib5 (blended phosphates) is used to sequester iron. Water storage is in two celled concrete reservoir with a total capacity of 388 m<sup>3</sup>. There are approximately 138 active service connections. There are 24 hydrants throughout the system that provide minimal fire protection.

Chemicals used for treatment include 12% Sodium Hypochlorite and ClearHib 5 blended phosphates.

Significant expenses incurred to install, repair, or replace equipment:

Reservoir Level Sensors - \$5000

HMI Screen - \$4500

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 |
|----------------|-----------|------------------|-----------------|---|------------------------|
| Aug. 29, 2019  | Sodium    | 36.2             | mg/L            | Resample  | Sept. 3, 2019          |
| Aug. 29, 2019  | Sodium    | 36.5             | mg/L            | Resample  | Sept. 3, 2019          |
| Sept. 18, 2019 | TC / EC   | Overgrown target | Count / 100 mL  | Resample  | Sept. 18, 2019         |
| Oct. 23, 2019  | Pressure  | Low              | PSI             | <ul style="list-style-type: none"> <li>Restored system pressure.</li> <li>Checked free chlorine levels in distribution system.</li> </ul> | Oct. 23, 2019          |

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

| Sample Type    | Number of Samples | Range of E.coli Or Fecal Results (min #)-(max #)<br>CFU/100 mL | Range of Total Coliform Results (min #)-(max #)<br>CFU/100 mL | Number of HPC Samples | Range of HPC Results (min #)-(max #)<br>CFU/100 mL |
|----------------|-------------------|--|---|-----------------------|--|
| Raw - Well # 1 | 53                | 0 - 0  | 0 - 0   | 0                     | NA   |
| Raw - Well # 2 | 53                | 0 - 0  | 0 - 0   | 0                     | NA   |
| Raw - Well # 3 | 53                | 0 - 0  | 0 - 0   | 0                     | NA   |
| Treated        | 53                | 0 - 0  | 0 - 0   | 53                    | <10 - 150  |
| Distribution   | 106               | 0 - NDGRT  | 0 - NDOGT   | 29                    | <10 - 60   |

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

| Parameter       | Number of Grab Samples | Range of Results (min #)-(max #) | Unit of Measure |
|-----------------|------------------------|----------------------------------|-----------------|
| System Chlorine | 416                    | 0.27 - 1.56                      | mg/L            |
| Chlorine        | 8760                   | 0.33 - 3.18                      | mg/L            |
| Turbidity       |                        |                                  |                 |
| Raw - Well # 1  | 12                     | 0.89 - 1.90                      | NTU             |
| Raw - Well # 2  | 12                     | 0.99 - 1.50                      | NTU             |
| Raw - Well # 3  | 12                     | 0.86 - 1.68                      | NTU             |

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

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 #) | Unit of Measure | Number of Exceedances |
|---------------|-------------------|--|-----------------|-----------------------|
| Plumbing      | 0                 | NA                                     | mg/L            | NA                    |
| Distribution  | 2                 | 0.00023 – 0.00078                      | mg/L            | NA                    |

Samples required under Schedule 13

| Parameter                      | Last Date Sampled | Result | Unit of Measure |
|--------------------------------|-------------------|--------|-----------------|
| THM's (annual running average) | 10/22/2019        | 0.0387 | mg/L            |
| HAA's (annual running average) | 10/22/2019        | 0.0331 | mg/L            |
| Nitrate                        | 10/22/2019        | 0.4    | mg/L            |
| Nitrite                        | 10/22/2019        | <0.1   | mg/L            |
| Sodium                         | 08/28/2019        | 36.2   | mg/L            |
| Fluoride                       | 07/18/2017        | <0.1   | mg/L            |

The most recent sample results of Inorganic parameters tested during this reporting period

– Appendix – A

The most recent sample results of Organic parameters sampled during this reporting period. – Appendix – B

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards. – Sodium 36.2 mg/L

**APPENDIX A**  
**INORGANIC PARAMETERS**  
**(SCHEDULE 23)**

C.O.C.: DW191203S23C

REPORT No. B19-39042

**Report To:**

**Clearview, Township of**  
 217 Gideon Street, Box 200  
 Stayner Ontario L0M 1S0 Canada

**Attention:** Todd Patton

**Caduceon Environmental Laboratories**

112 Commerce Park Drive  
 Barrie ON L4N 8W8  
 Tel: 705-252-5743  
 Fax: 705-252-5746

DATE RECEIVED: 03-Dec-19  
 DATE REPORTED: 09-Dec-19  
 SAMPLE MATRIX: Drinking Water

JOB/PROJECT NO.: Nottawa (McKean W.S.)  
 P.O. NUMBER: NO Schedule 23  
 WATERWORKS NO. 260005411

|                        |              |  |                  |                          |
|------------------------|--------------|--|------------------|--------------------------|
| <b>Client I.D.:</b>    | NOTT Treated |  | <b>ODWS</b>      |                          |
| <b>Sample I.D.:</b>    | B19-39042-1  |  | <b>Objective</b> | <b>Type of Objective</b> |
| <b>Date Collected:</b> | 03-Dec-19    |  |                  |                          |

| Parameter     | Units | R.L.     | Reference Method | Date/Site Analyzed |            |  |             |          |
|---------------|-------|----------|------------------|--------------------|------------|--|-------------|----------|
| Antimony      | mg/L  | 0.0001   | EPA 200.8        | 06-Dec-19/O        | < 0.0001   |  | 0.006,0.006 | IMAC,MAC |
| Arsenic       | mg/L  | 0.0001   | EPA 200.8        | 06-Dec-19/O        | 0.0002     |  | 0.025,0.01  | IMAC,MAC |
| Barium        | mg/L  | 0.001    | SM 3120          | 05-Dec-19/O        | 0.095      |  | 1           | MAC      |
| Boron         | mg/L  | 0.005    | SM 3120          | 05-Dec-19/O        | 0.045      |  | 5,5         | IMAC,MAC |
| Cadmium       | mg/L  | 0.000015 | EPA 200.8        | 06-Dec-19/O        | < 0.000015 |  | 0.005       | MAC      |
| Chromium      | mg/L  | 0.002    | SM 3120          | 05-Dec-19/O        | < 0.002    |  | 0.05        | MAC      |
| Mercury       | mg/L  | 0.00002  | SM 3112 B        | 06-Dec-19/O        | < 0.00002  |  | 0.001       | MAC      |
| Selenium      | mg/L  | 0.001    | EPA 200.8        | 06-Dec-19/O        | < 0.001    |  | 0.05        | MAC      |
| Uranium       | mg/L  | 0.00005  | EPA 200.8        | 06-Dec-19/O        | 0.00150    |  | 0.02        | MAC      |
| Free Chlorine | mg/L  |          | n/a              | 03-Dec-19/B        | 1.04       |  |             |          |

1 Free chlorine results provided by client.

ODWS - Ontario Drinking Water Standards  
 AO - Aesthetic Objectives  
 IMAC - Interim Maximum Acceptable Concentration  
 MAC - Maximum Acceptable Concentration  
 OG - Operational Guidelines

R.L. = Reporting Limit

Test methods may be modified from specified reference method unless indicated by an \*

Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Christine Burke  
 Lab Manager

**APPENDIX B**  
**ORGANIC PARAMETERS**  
**(SCHEDULE 24)**

C.O.C.: DW180213T

REPORT No. B18-03857

**Report To:**

**Clearview, Township of**  
 217 Gideon Street, Box 200  
 Stayner Ontario L0M 1S0 Canada

**Attention:** Todd Patton

**Caduceon Environmental Laboratories**

112 Commerce Park Drive  
 Barrie ON L4N 8W8  
 Tel: 705-252-5743  
 Fax: 705-252-5746

DATE RECEIVED: 13-Feb-18

JOB/PROJECT NO.: Nottawa (McKean W.S.)

DATE REPORTED: 05-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 260005411

|                        |              |                  |                          |
|------------------------|--------------|------------------|--------------------------|
| <b>Client I.D.:</b>    | NOTT Treated | <b>ODWS</b>      |                          |
| <b>Sample I.D.:</b>    | B18-03857-1  | <b>Objective</b> | <b>Type of Objective</b> |
| <b>Date Collected:</b> | 12-Feb-18    |                  |                          |

| Parameter                            | Units | R.L.  | Reference Method | Date/Site Analyzed |         |  |         |        |
|--------------------------------------|-------|-------|------------------|--------------------|---------|--|---------|--------|
| Benzene                              | µg/L  | 0.5   | EPA 8260         | 14-Feb-18/O        | < 0.5   |  | 1       | MAC    |
| Carbon Tetrachloride                 | µg/L  | 0.2   | EPA 8260         | 14-Feb-18/O        | < 0.2   |  | 2       | MAC    |
| Dichlorobenzene, 1,2-                | µg/L  | 0.1   | EPA 8260         | 14-Feb-18/O        | < 0.1   |  | 3,200   | AO,MAC |
| Dichlorobenzene, 1,4-                | µg/L  | 0.2   | EPA 8260         | 14-Feb-18/O        | < 0.2   |  | 1,5     | AO,MAC |
| Dichloroethane, 1,2-                 | µg/L  | 0.1   | EPA 8260         | 14-Feb-18/O        | < 0.1   |  | 5       | IMAC   |
| Dichloroethene, 1,1-                 | µg/L  | 0.1   | EPA 8260         | 14-Feb-18/O        | < 0.1   |  | 14      | MAC    |
| Dichloromethane (Methylene Chloride) | µg/L  | 0.3   | EPA 8260         | 14-Feb-18/O        | < 0.3   |  | 50      | MAC    |
| Monochlorobenzene (Chlorobenzene)    | µg/L  | 0.2   | EPA 8260         | 14-Feb-18/O        | < 0.2   |  | 80      | MAC    |
| Tetrachloroethylene                  | µg/L  | 0.2   | EPA 8260         | 14-Feb-18/O        | < 0.2   |  | 10      | MAC    |
| Trichloroethylene                    | µg/L  | 0.1   | EPA 8260         | 14-Feb-18/O        | < 0.1   |  | 5       | MAC    |
| Vinyl Chloride                       | µg/L  | 0.2   | EPA 8260         | 14-Feb-18/O        | < 0.2   |  | 1       | MAC    |
| Alachlor                             | µg/L  | 0.3   | EPA 8270         | 02-Mar-18/K        | < 0.3   |  | 5       | IMAC   |
| Atrazine + Metabolites               | µg/L  | 0.5   | Calc.            | 02-Mar-18/K        | < 0.5   |  | 5       | IMAC   |
| Azinphos-methyl                      | µg/L  | 1     | EPA 8270         | 02-Mar-18/K        | < 1     |  | 20      | MAC    |
| Benzo(a)pyrene                       | µg/L  | 0.005 | EPA 8270         | 02-Mar-18/K        | < 0.005 |  | 0.01    | MAC    |
| Bromoxynil                           | µg/L  | 0.3   | EPA 8270         | 02-Mar-18/K        | < 0.3   |  | 5       | IMAC   |
| Carbaryl                             | µg/L  | 3     | EPA 8270         | 02-Mar-18/K        | < 3     |  | 90      | MAC    |
| Carbofuran                           | µg/L  | 1     | EPA 8270         | 02-Mar-18/K        | < 1     |  | 90      | MAC    |
| Chlorpyrifos                         | µg/L  | 0.5   | EPA 8270         | 02-Mar-18/K        | < 0.5   |  | 90      | MAC    |
| Diazinon                             | µg/L  | 1     | EPA 8270         | 02-Mar-18/K        | < 1     |  | 20      | MAC    |
| Dicamba                              | µg/L  | 5     | EPA 8270         | 02-Mar-18/K        | < 5     |  | 120     | MAC    |
| Dichlorophenol, 2,4-                 | µg/L  | 0.1   | EPA 8270         | 02-Mar-18/K        | < 0.1   |  | 0.3,900 | AO,MAC |

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Christine Burke  
 Lab Manager

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C.O.C.: DW180213T

REPORT No. B18-03857

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DATE REPORTED: 05-Mar-18

P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 260005411

|                        |              |                  |                          |
|------------------------|--------------|------------------|--------------------------|
| <b>Client I.D.:</b>    | NOTT Treated | <b>ODWS</b>      |                          |
| <b>Sample I.D.:</b>    | B18-03857-1  |                  |                          |
| <b>Date Collected:</b> | 12-Feb-18    |                  |                          |
|                        |              | <b>Objective</b> | <b>Type of Objective</b> |

| Parameter                                 | Units | R.L. | Reference Method | Date/Site Analyzed |        |  |       |        |
|---|-------|------|------------------|--------------------|--------|--|-------|--------|
| Dichlorophenoxy acetic acid, 2,4- (2,4-D) | µg/L  | 5    | EPA 8270         | 02-Mar-18/K        | < 5    |  | 100   | IMAC   |
| Diclofop-methyl                           | µg/L  | 0.5  | EPA 8270         | 02-Mar-18/K        | < 0.5  |  | 9     | MAC    |
| Dimethoate                                | µg/L  | 1    | EPA 8270         | 02-Mar-18/K        | < 1    |  | 20    | IMAC   |
| Diquat                                    | µg/L  | 5    | EPA 549.1        | 22-Feb-18/K        | < 5    |  | 70    | MAC    |
| Diuron                                    | µg/L  | 5    | EPA 8270         | 02-Mar-18/K        | < 5    |  | 150   | MAC    |
| Glyphosate                                | µg/L  | 25   | EPA 547          | 22-Feb-18/K        | < 25   |  | 280   | IMAC   |
| Malathion                                 | µg/L  | 5    | EPA 8270         | 02-Mar-18/K        | < 5    |  | 190   | MAC    |
| Metolachlor                               | µg/L  | 3    | EPA 8270         | 02-Mar-18/K        | < 3    |  | 50    | IMAC   |
| Metribuzin                                | µg/L  | 3    | EPA 8270         | 02-Mar-18/K        | < 3    |  | 80    | MAC    |
| Paraquat                                  | µg/L  | 1    | EPA 549.1        | 22-Feb-18/K        | < 1    |  | 10    | IMAC   |
| Pentachlorophenol                         | µg/L  | 0.1  | EPA 8270         | 02-Mar-18/K        | < 0.1  |  | 30,60 | AO,MAC |
| Phorate                                   | µg/L  | 0.3  | EPA 8270         | 02-Mar-18/K        | < 0.3  |  | 2     | IMAC   |
| Picloram                                  | µg/L  | 5    | EPA 8270         | 02-Mar-18/K        | < 5    |  | 190   | IMAC   |
| Poly-Chlorinated Biphenyls (PCB's)        | µg/L  | 0.05 | EPA 8082         | 20-Feb-18/K        | < 0.05 |  | 3     | IMAC   |
| Prometryne                                | µg/L  | 0.1  | EPA 8270         | 02-Mar-18/K        | < 0.1  |  | 1     | IMAC   |
| Simazine                                  | µg/L  | 0.5  | EPA 8270         | 02-Mar-18/K        | < 0.5  |  | 10    | IMAC   |
| Terbufos                                  | µg/L  | 0.3  | EPA 8270         | 02-Mar-18/K        | < 0.3  |  | 1     | IMAC   |
| Tetrachlorophenol, 2,3,4,6-               | µg/L  | 0.1  | EPA 8270         | 02-Mar-18/K        | < 0.1  |  | 1,100 | AO,MAC |
| Triallate                                 | µg/L  | 10   | EPA 8270         | 02-Mar-18/K        | < 10   |  | 230   | MAC    |
| Trichlorophenol 2,4,6-                    | µg/L  | 0.1  | EPA 8270         | 02-Mar-18/K        | < 0.1  |  | 2,5   | AO,MAC |
| Trifluralin                               | µg/L  | 0.5  | EPA 8270         | 02-Mar-18/K        | < 0.5  |  | 45    | IMAC   |
| MCPA                                      | µg/L  | 10   | EPA 8151A        | 01-Mar-18/K        | < 10   |  | 0.1   | MAC    |
| Free Chlorine                             | mg/L  |      | n/a              | 13-Feb-18/B        | 1.07   |  |       |        |

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie



Christine Burke  
 Lab Manager

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P.O. NUMBER:

SAMPLE MATRIX: Drinking Water

WATERWORKS NO. 260005411

|                        |              |  |                  |                          |
|------------------------|--------------|--|------------------|--------------------------|
| <b>Client I.D.:</b>    | NOTT Treated |  | <b>ODWS</b>      |                          |
| <b>Sample I.D.:</b>    | B18-03857-1  |  | <b>Objective</b> | <b>Type of Objective</b> |
| <b>Date Collected:</b> | 12-Feb-18    |  |                  |                          |

| Parameter | Units | R.L. | Reference Method | Date/Site Analyzed |
|-----------|-------|------|------------------|--------------------|
|-----------|-------|------|------------------|--------------------|

1 Free chlorine results provided by client.

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