QMS Document Last Revision Date: January 5, 2018

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

#### Nottawa 2018 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 2018

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 <a href="https://www.clearview.ca">www.clearview.ca</a>

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 27/28 Side Road, 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 335 m<sup>3</sup>. There are approximately 137 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: None

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	Parameter	Result	Unit of	Corrective Action	Corrective
Date			Measure		Action Date
N/A	N/A	N/A	N/A	N/A	N/A

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

Sample Type	Number of	Range of E.coli Or	Range of Total	Number of HPC	Range of HPC Results
	Samples	Fecal	Coliform	Samples	(min #)-
		Results	Results		(max #)
		(min #)-	(min #)-		
		(max #)	(max #)		CFU/100 mL
		CFU/100 mL	CFU/100 mL		
Raw - Well # 1	52	0 – 0	0 – 0	0	NA
Raw - Well # 2	52	0 – 0	0 – 0	0	NA
Raw – Well # 3	52	0 - 0	0 – 0	0	NA
Treated	52	0 – 0	0 – 0	52	<10 - 40
Distribution	104	0 – 0	0 – 0	28	<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	420	0.22 - 1.37	mg/L
Chlorine	8760	0.45 - 1.97	mg/L
Turbidity			
Raw – Well # 1	12	0.82 – 1.62	NTU
Raw - Well # 2	12	0.65 – 1.70	NTU
Raw - Well # 3	12	0.91 – 2.00	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	0	NA	mg/L	NA

#### Samples required under Schedule 13

Parameter	Last Date Sampled	Result	Unit of Measure
THM's (annual running average)	10/16/2018	0.0479	mg/L
HAA's (annual running average)	10/16/2018	0.0305	mg/L
Nitrate	10/16/2018	0.3	mg/L
Nitrite	10/16/2018	< 0.1	mg/L
Sodium	10/14/2014	37.2	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 37.2 mg/L

# APPENDIX A INORGANIC PARAMETERS (SCHEDULE 23)



Final Report

C.O.C.: DWCV161206D REPORT No. B16-36455

**Report To:** 

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

Attention: Todd Patton

DATE RECEIVED: 06-Dec-16

DATE REPORTED: 09-Dec-16
SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

110 West Beaver Creek Rd Unit 14

Richmond Hill ON L4B 1J9

Tel: 289-475-5442 Fax: 289-562-1963

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

P.O. NUMBER: Sch.23 WATERWORKS NO. 260005411

	Client I.D.		NOTT Treated				
			Sample I.D.		B16-36455-1		
			Date Collect	ed	06-Dec-16		
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			
Antimony	mg/L	0.0001	EPA 200.8	08-Dec-16/O	< 0.0001		
Arsenic	mg/L	0.0001	EPA 200.8	08-Dec-16/O	0.0003		
Barium	mg/L	0.001	SM 3120	08-Dec-16/O	0.102		
Boron	mg/L	0.005	SM 3120	08-Dec-16/O	0.038		
Cadmium	mg/L	0.00002	EPA 200.8	08-Dec-16/O	< 0.00002		
Chromium	mg/L	0.002	SM 3120	08-Dec-16/O	< 0.002		
Mercury	mg/L	0.00002	SM 3112 B	09-Dec-16/O	< 0.00002		
Selenium	mg/L	0.001	EPA 200.8	08-Dec-16/O	< 0.001		
Uranium	mg/L	0.00005	EPA 200.8	08-Dec-16/O	0.00199		
Free Chlorine	mg/L		n/a	06-Dec-16/R	1.27		

<sup>1</sup> Free Chlorine results provided by client.

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

Christine Burke Lab Manager

# APPENDIX B ORGANIC PARAMETERS (SCHEDULE 24)



**Final Report** 

C.O.C.: DWC180213T REPORT No. B18-03857

**Report To:** 

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

**Attention:** Todd Patton

DATE RECEIVED: 13-Feb-18
DATE REPORTED: 05-Mar-18

SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

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

Fax: 705-252-5746

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

P.O. NUMBER:

WATERWORKS NO. 260005411

			Client I.D.:		NOTT Treated		OD	ws
			Sample I.D.:		B18-03857-1		Objective	Type of
			Date Collecte	Date Collected:		12-Feb-18		Objective
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

**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



**Final Report** 

C.O.C.: DWC180213T REPORT No. B18-03857

**Report To:** 

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

**Attention:** Todd Patton

DATE RECEIVED: 13-Feb-18

DATE REPORTED: 05-Mar-18

SAMPLE MATRIX: Drinking Water

**Caduceon Environmental Laboratories** 

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

Fax: 705-252-5746

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

P.O. NUMBER:

WATERWORKS NO. 260005411

			Client I.D.:		NOTT Treated	OD	ODWS	
			Sample I.D.:		B18-03857-1		Type of	
			Date Collecte	d:	12-Feb-18	Objective	Objective	
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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Christine Burke Lab Manager



**Final Report** 

C.O.C.: DWC180213T **REPORT No. B18-03857** 

**Report To:** 

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**Attention:** Todd Patton

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

			Client I.D.:		NOTT Treated	OD	ws
			Sample I.D.:		B18-03857-1	Ohioativa	Type of
			Date Collected:		12-Feb-18	Objective	Objective
Parameter	Units	R.L.	Reference Method	Date/Site Analyzed			

Free chlorine results provided by client.

**ODWS - Ontario Drinking Water Standards** 

AO - Aesthetic Objectives

IMAC - Interim Maximum Acceptable Concentration

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

Christine Burke Lab Manager

The analytical results reported herein refer to the samples as received. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.