North Dundas Drinking Water System

Waterworks # 210000728
System Category – Large Municipal Residential

Annual Report

Township of North Dundas

Reporting Period of January 1st – December 31st 2019

Issued: February 26, 2020

Revision: 0

Operating Authority:

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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Report Availability

As North Dundas' Drinking Water System is considered a large municipal residential system under O. Reg. 170/03, this report must be made available to the public. It can be found at the municipal office located at 636 St. Lawrence Street, Winchester, Ontario and on the Township's website (https://northdundas.com).

Compliance Report Card

Compliance Event	# of Events
Ministry of Environment Inspections	1
Ministry of Labour Inspections	0
QEMS External Audit	1
AWQI's/BWA	0/0
Non-Compliance	0
Spills	0
Watermain Breaks	2

System Process Description

Raw Source

North Dundas's Drinking Water System is supplied by a total of eight groundwater production wells located throughout the municipality.

Chesterville Well #5 is a 12.2 m deep drilled groundwater production well equipped with a submersible pump rated at 23 L/sec at 35 m total dynamic head (TDH). The well is located approximately 3.8 km west of Chesterville and 600 m north of Highway 43.

Chesterville Well #6 is a 12.2 m deep drilled groundwater production well equipped with a submersible pump rated at 30.3 L/sec at 34.1 m TDH. The well is located approximately 3.8 km west of Chesterville and 600 m north of Highway 43.

Winchester Well #1 is a 57.9 m deep drilled well equipped with a submersible pump rated at 8.7 L/s at 69.5 m TDH. The well is located in Winchester at the south end of St. Lawrence Street.

Winchester Well #5 is a 28.0 m deep drilled well equipped with a submersible pump rated at 7.6 L/s at 70 m TDH. The well is located west of Winchester, along County Road 31.

Winchester Well #6 is a 15.9 m deep drilled well equipped with a submersible pump rated at 8.3 L/s at 69.5 m TDH. The well is located west of Winchester, along Spruit Road.

Winchester Well Field #7 consists of three gravel packed wells (7a, 7b, 7c), each with a depth of 12-15 m and each equipped with a submersible pump rated at 11.4 L/s at 45 m TDH. The wells are located north east of Winchester along Thompson Road.

Treatment

Sodium hypochlorite is used for both primary and secondary disinfection. Each treatment facility has two chemical feed pumps (one duty and one standby). Water leaving each treatment facility is continuously monitored for flow and free chlorine residual.

Distribution

The distribution systems in both Chesterville and Winchester were originally constructed in 1960. Watermains installed prior to 1973 are composed of asbestos cement, while newer pipes are composed of ductile iron or PVC. The distribution system contains a total of approximately 50 kilometers of distribution piping. Chesterville and Winchester's distribution systems operate independently of one another.

Chesterville's elevated storage tank and reservoir accommodate Chesterville's peak hour demands and fire flows. The elevated tank is fabricated entirely of steel and has a storage capacity of 568 m^3. The reservoir consists of two equally sized underground cells and a suction well with a total capacity of 530 m^3.

Winchester's elevated storage tank and reservoir accommodate Winchester's peak hour demands and fire flows. The elevated tank is fabricated of steel and mounted on a concrete pedestal. It has a storage capacity of 2300 m^3. The reservoir is an on-ground stainless steel baffled tank with an effective capacity of 400 m^3.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag/Jutzi

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
None to report.						

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
None to report.				

Non-Compliance Identified in a Ministry Inspection

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
None to report.				

Flows

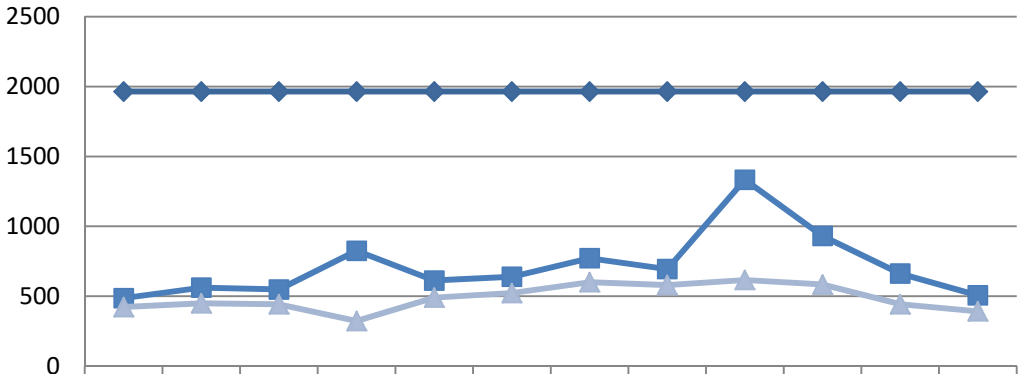
Raw water flows are regulated under the applicable Permit to Take Water (PTTW).

Chesterville Well #5 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #3380-AC3QF9. The confirmation can be found attached in Appendix A.

Chesterville Well #5 - Flows

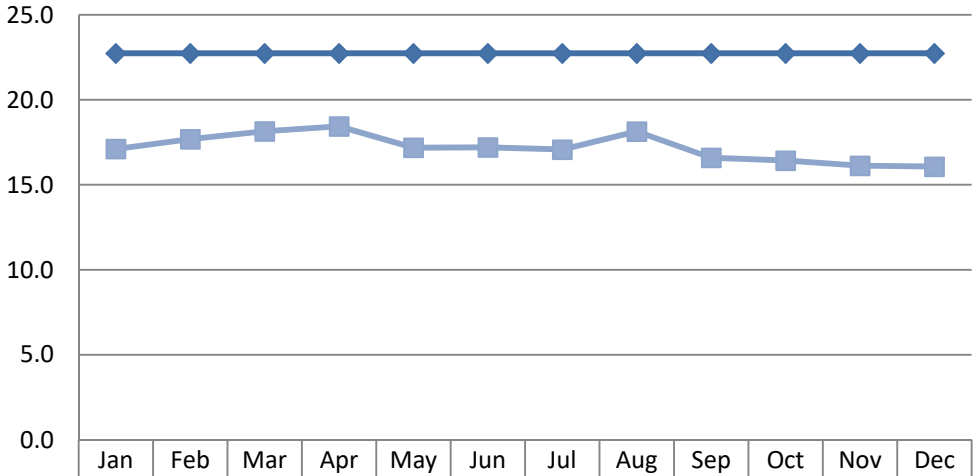
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964
Max Flow (m3/d)	486	561	548	825	612	639	772	694	1333	931	662	506
Avg Flow (m3/d)	422	449	442	323	490	523	600	579	616	584	443	392

Chesterville Well #5 - Maximum Flow Rates

Max. Allowable Rate - PTTW



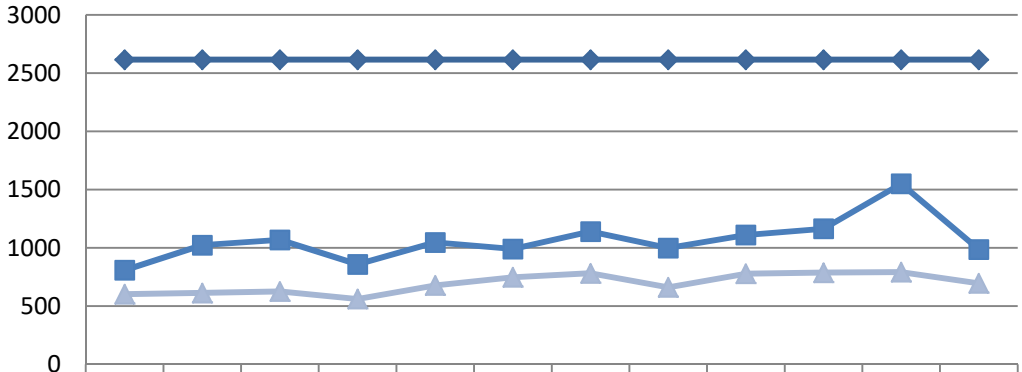
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
Max Rate (L/s)	17.1	17.7	18.1	18.4	17.2	17.2	17.1	18.1	16.6	16.4	16.1	16.1

Chesterville Well #6 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #3380-AC3QF9. The confirmation can be found attached in Appendix A.

Chesterville Well #6 - Flows

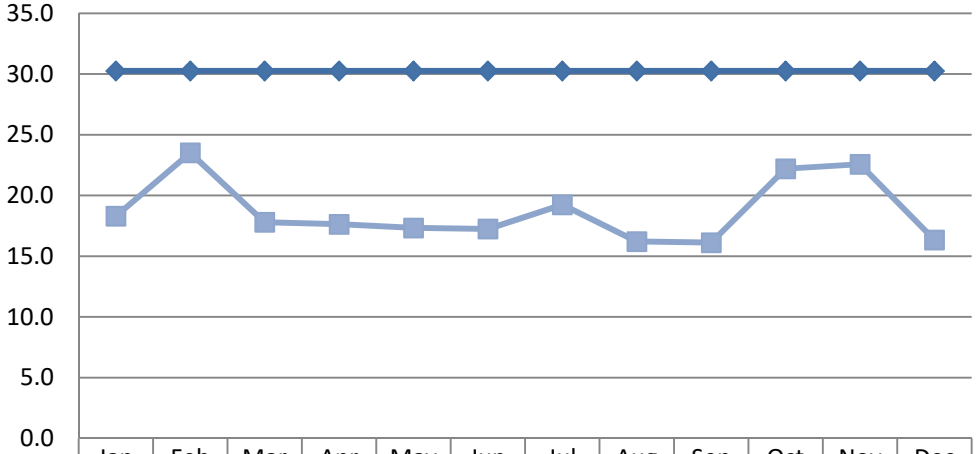
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	2615	2615	2615	2615	2615	2615	2615	2615	2615	2615	2615	2615
Max Flow (m3/d)	808	1023	1068	858	1046	990	1140	998	1110	1164	1550	986
Avg Flow (m3/d)	602	612	625	561	677	748	781	661	777	787	791	695

Chesterville Well #6 - Maximum Flow Rates

Max. Allowable Rate - PTTW



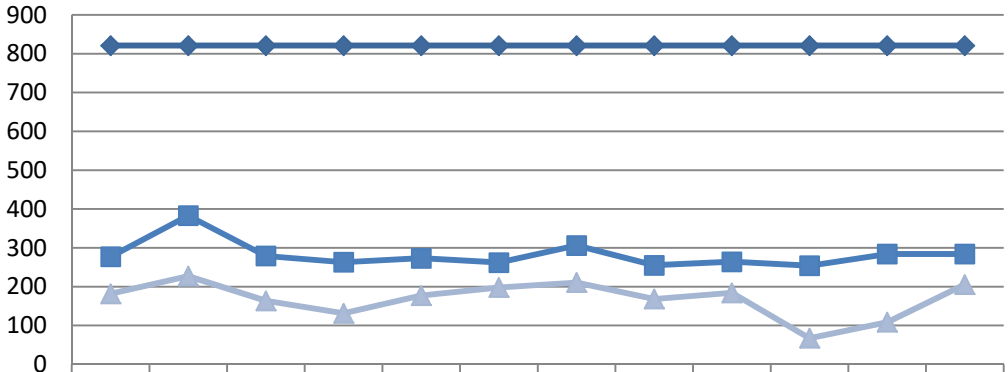
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3	30.3
Max Rate (L/s)	18.3	23.5	17.8	17.6	17.3	17.2	19.2	16.2	16.1	22.2	22.6	16.3

Winchester Well #1 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #4175-9C3GPW. The confirmation can be found attached in Appendix A.

Winchester Well #1 - Flows

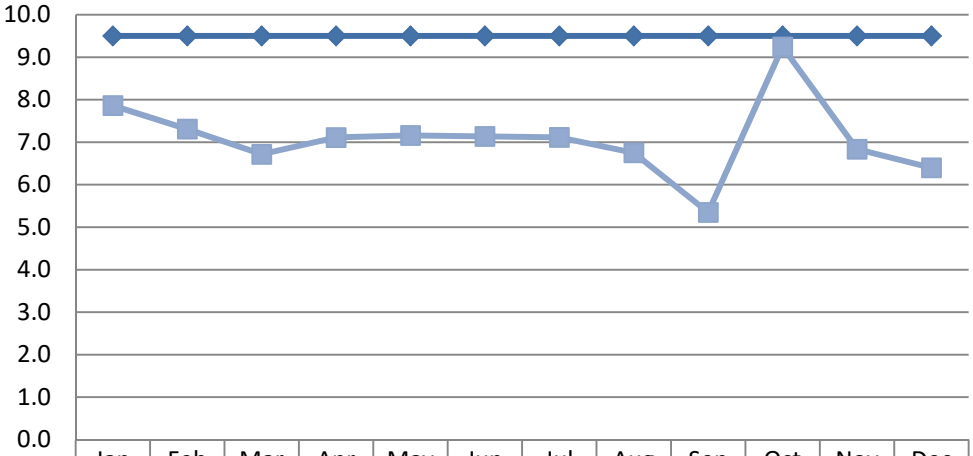
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	821	821	821	821	821	821	821	821	821	821	821	821
Max Flow (m3/d)	277	383	279	263	273	262	306	255	264	254	284	284
Avg Flow (m3/d)	182	227	164	131	177	198	211	168	184	67	108	206

Winchester Well #1 - Maximum Flow Rates

Max. Allowable Rate - PTTW



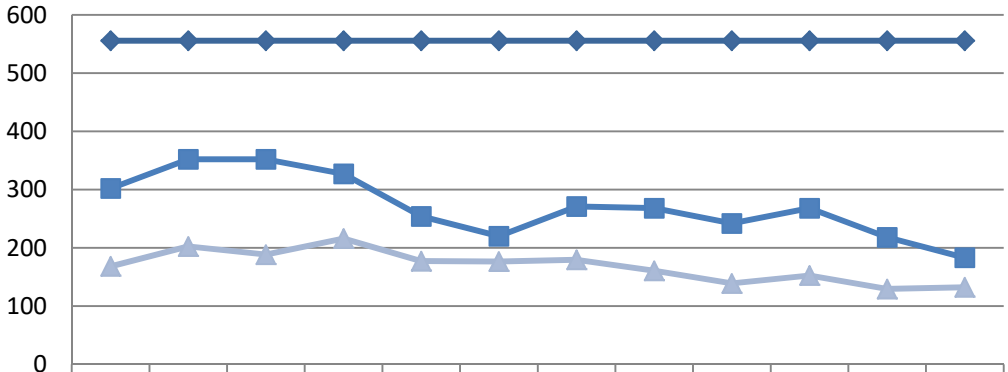
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Max Rate (L/s)	7.9	7.3	6.7	7.1	7.2	7.1	7.1	6.8	5.3	9.2	6.8	6.4

Winchester Well #5 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #2181-838S8E. The confirmation can be found attached in Appendix A.

Winchester Well #5 - Flows

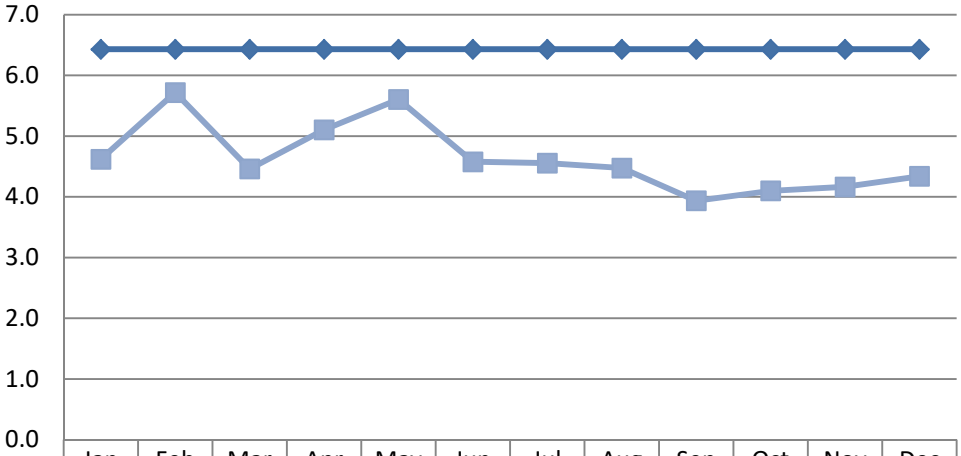
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	556	556	556	556	556	556	556	556	556	556	556	556
Max Flow (m3/d)	302	352	352	327	254	220	271	268	242	268	218	183
Avg Flow (m3/d)	168	202	188	216	177	176	179	161	139	153	129	132

Winchester Well #5 - Maximum Flow Rates

Max. Allowable Rate - PTTW



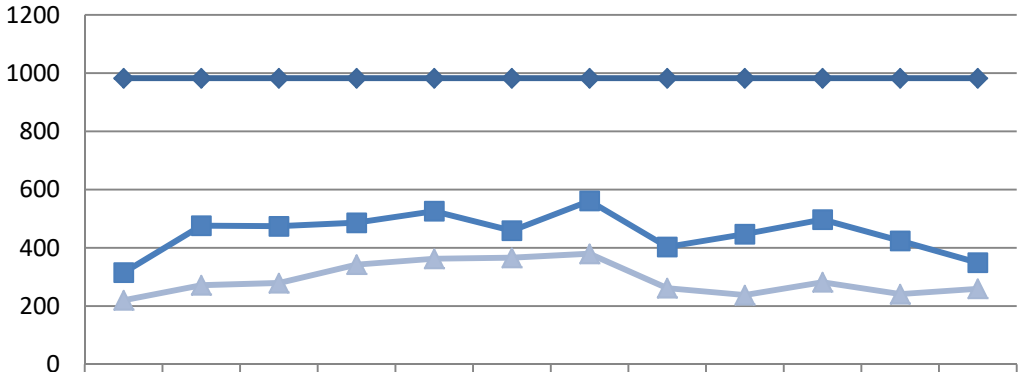
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Max Rate (L/s)	4.6	5.7	4.5	5.1	5.6	4.6	4.6	4.5	3.9	4.1	4.2	4.3

Winchester Well #6 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #0088-9C3JG4. The confirmation can be found attached in Appendix A.

Winchester Well #6 - Flows

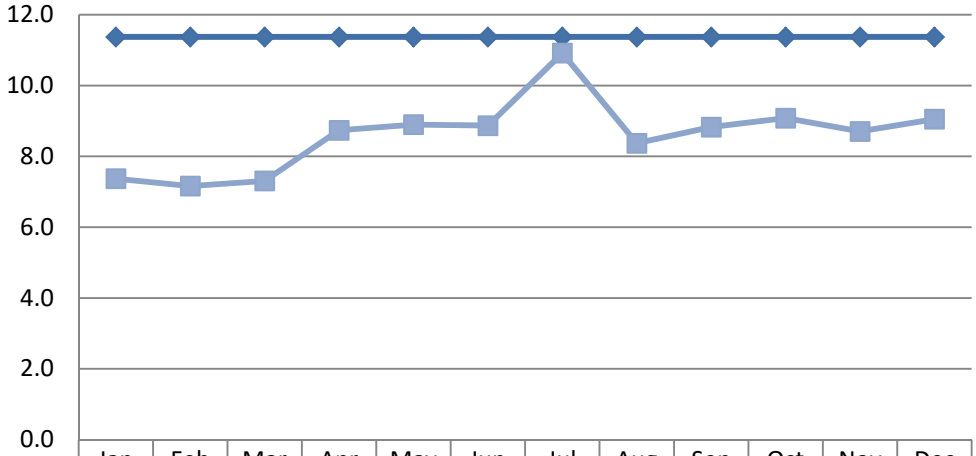
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	982	982	982	982	982	982	982	982	982	982	982	982
Max Flow (m3/d)	315	476	474	486	526	459	561	403	447	497	424	349
Avg Flow (m3/d)	220	272	279	343	362	366	380	262	238	282	241	259

Winchester Well #6 - Maximum Flow Rates

Max. Allowable Rate - PTTW



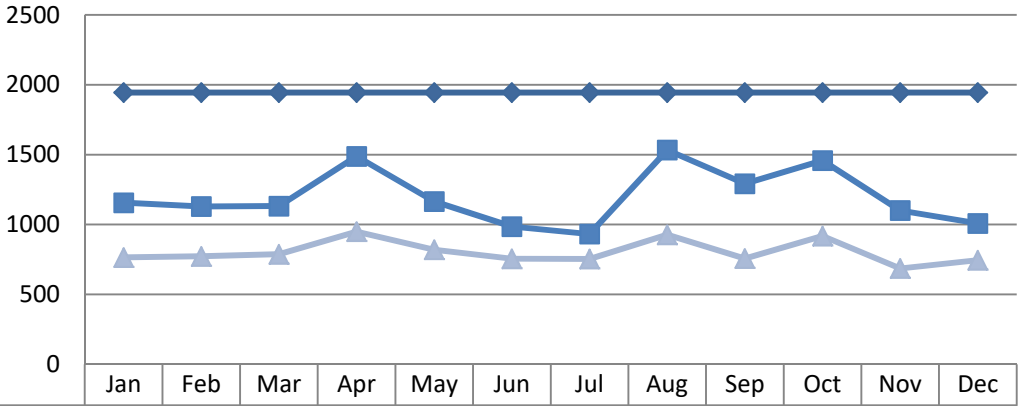
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
Max Rate (L/s)	7.4	7.2	7.3	8.7	8.9	8.9	10.9	8.4	8.8	9.1	8.7	9.1

Well Field #7 Raw Water Flows

Raw flow data for 2019 was submitted to the Ministry electronically under Permit #0816-838SXR. The confirmation can be found attached in Appendix A.

Winchester Well Field #7 - Flows

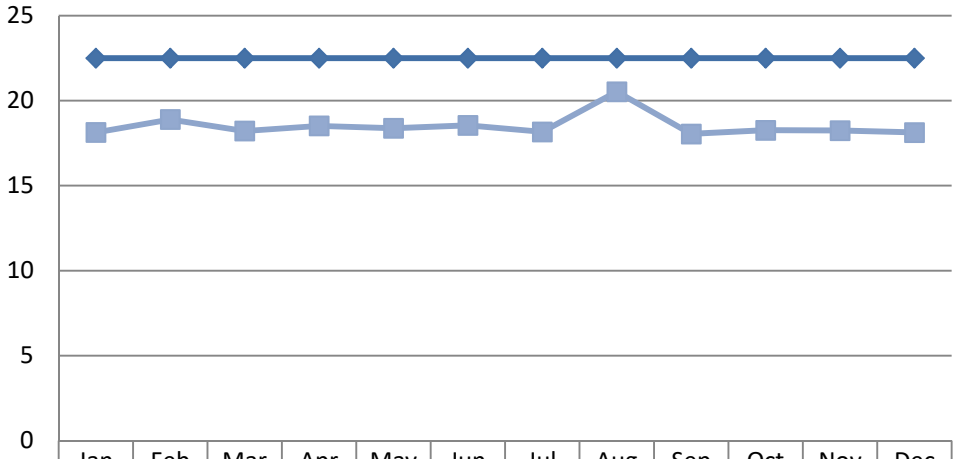
Max. Allowable Flow - PTTW



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m3/d)	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944
Max Flow (m3/d)	1156	1129	1132	1488	1165	985	932	1533	1292	1458	1100	1008
Avg Flow (m3/d)	764	772	787	949	820	755	754	927	757	917	686	745

Winchester Well Field #7 - Maximum Flow Rates

Max. Allowable Rate - PTTW



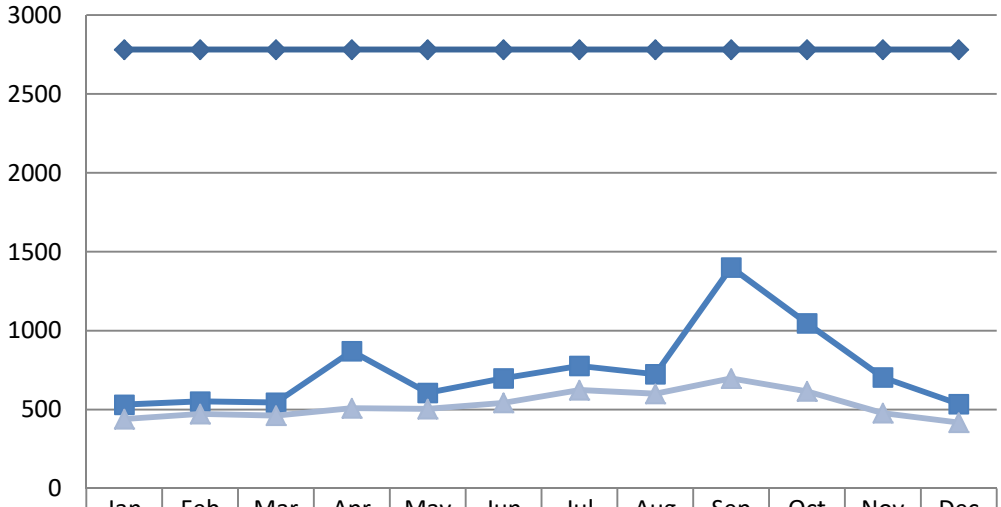
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable Rate (L/sec)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Max Rate (L/s)	18.1	18.9	18.2	18.5	18.4	18.5	18.2	20.5	18.0	18.3	18.2	18.1

Treated Water Flows

Treated water flows are regulated under the Municipal Drinking Water Licence (MDWL).

Chesterville Reservoir - Daily Treated Flows

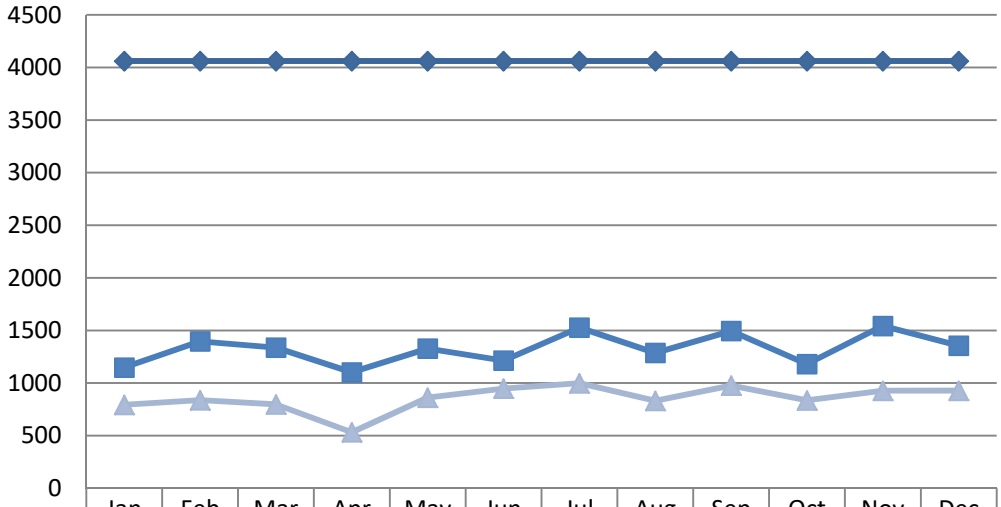
Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m3/d)	2781	2781	2781	2781	2781	2781	2781	2781	2781	2781	2781	2781
Max Flow (m3/d)	531	551	544	870	606	698	777	724	1401	1047	704	535
Avg Flow (m3/d)	439	472	462	508	504	543	623	600	697	616	478	417

Winchester Reservoir - Treated Flows

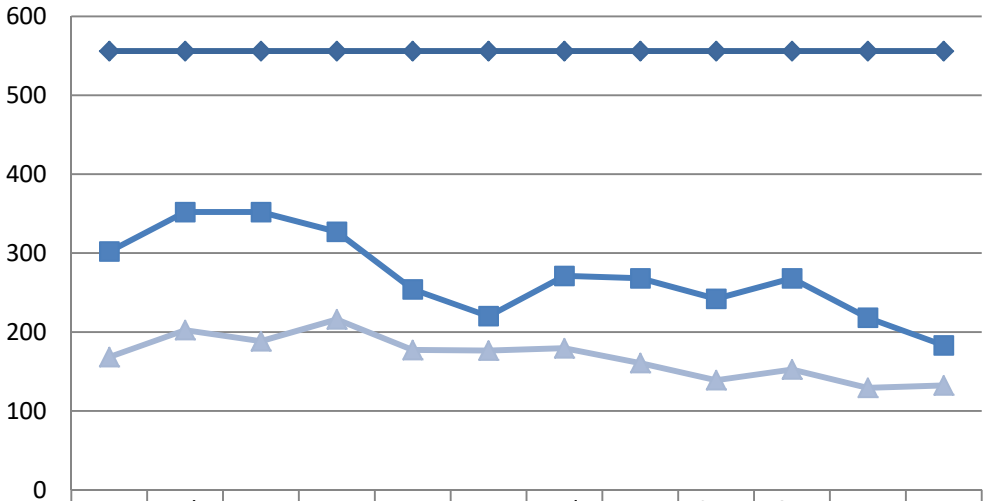
Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m3/d)	4060	4060	4060	4060	4060	4060	4060	4060	4060	4060	4060	4060
Max Flow (m3/d)	1148	1396	1337	1102	1328	1214	1527	1287	1495	1180	1543	1355
Avg Flow (m3/d)	793	837	797	533	862	948	998	831	977	836	927	927

Winchester Well #5 - Treated Flows

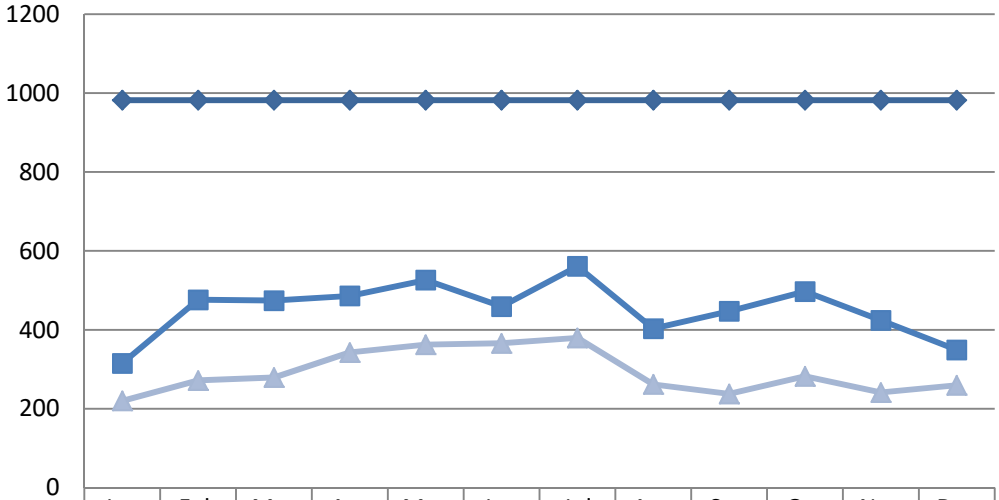
Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m3/d)	556	556	556	556	556	556	556	556	556	556	556	556
Max Flow (m3/d)	302	352	352	327	254	220	271	268	242	268	218	183
Avg Flow (m3/d)	168	202	188	216	177	176	179	161	139	153	129	132

Winchester Well #6 - Treated Flows

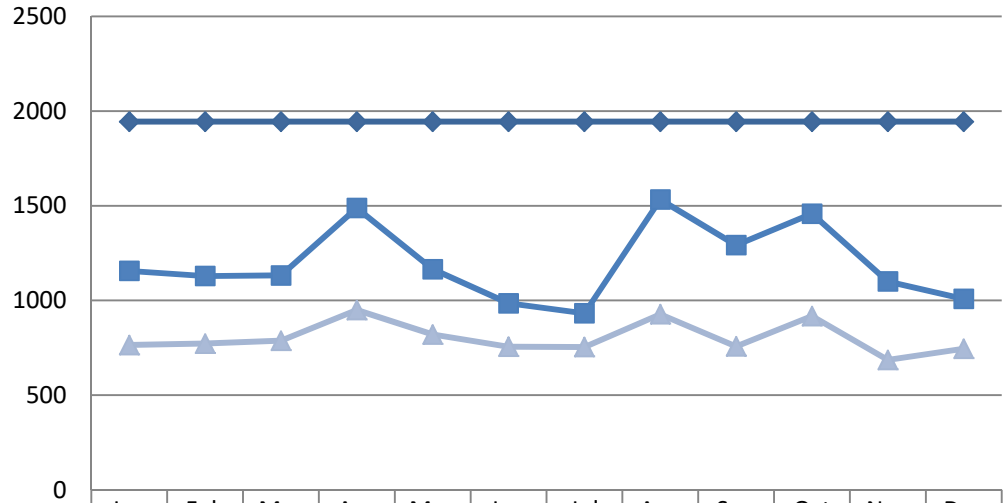
Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m3/d)	982	982	982	982	982	982	982	982	982	982	982	982
Max Flow (m3/d)	315	476	474	486	526	459	561	403	447	497	424	349
Avg Flow (m3/d)	220	272	279	343	362	366	380	262	238	282	241	259

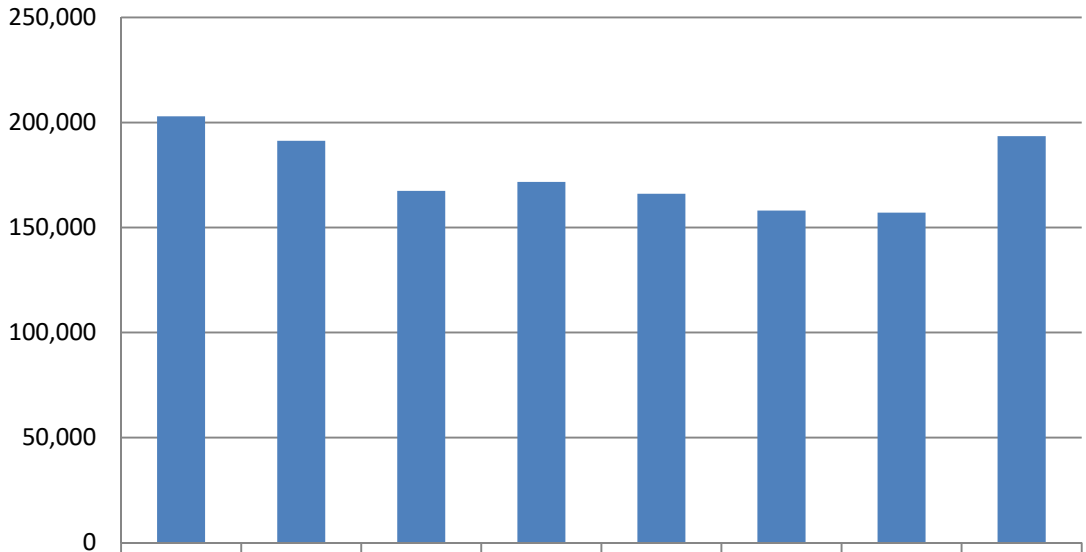
Winchester Well Field #7 - Treated Flows

Rated Capacity - MDWL



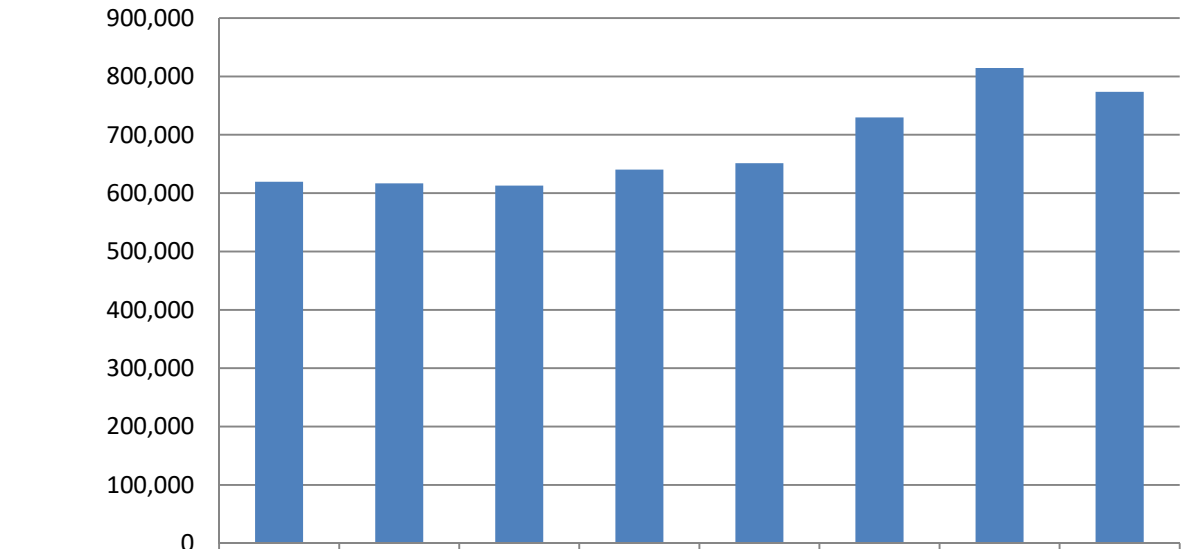
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m3/d)	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944	1944
Max Flow (m3/d)	1156	1129	1132	1488	1165	985	932	1533	1292	1458	1100	1008
Avg Flow (m3/d)	764	772	787	949	820	755	754	927	757	917	686	745

Chesterville DWS - Annual Total Flow Comparison



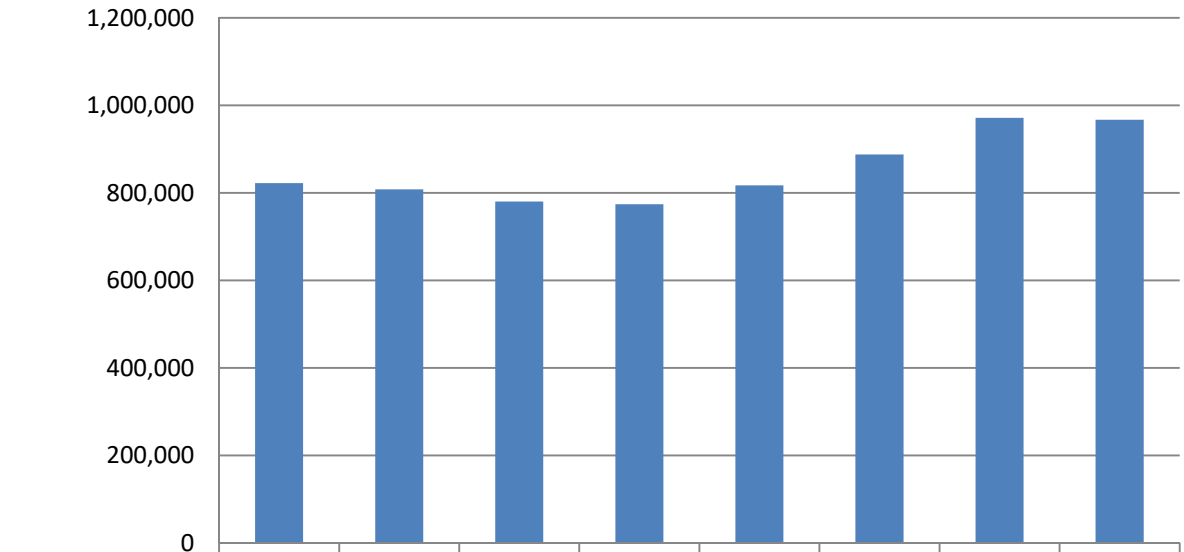
	2012	2013	2014	2015	2016	2017	2018	2019
Flow Total (m3)	202,903	191,286	167,417	171,733	166,070	158,061	157,106	193,476

Winchester DWS - Annual Total Flow Comparison



	2012	2013	2014	2015	2016	2017	2018	2019
Flow Total (m3)	619,569	616,702	612,939	640,325	651,295	729,727	814,554	773,503

North Dundas DWS - Annual Total Flow Comparison



	2012	2013	2014	2015	2016	2017	2018	2019
Flow Total (m3)	822,472	807,988	780,356	773,936	817,365	887,788	971,660	966,979

Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Water	418	0	0	0	2	n/a	n/a
Treated Water	265	0	0	0	0	0	40
Distribution Water	212	0	0	0	0	0	111

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, In-House (NTU) - RW1 (WW1)	12	0.15	0.76
Turbidity, In-House (NTU) - RW2 (WW5)	12	0.09	0.21
Turbidity, In-House (NTU) - RW3 (WW6)	12	0.11	0.26
Turbidity, In-House (NTU) - RW4 (WW7A)	12	0.20	0.78
Turbidity, In-House (NTU) - RW5 (WW7B)	12	0.08	0.30
Turbidity, In-House (NTU) - RW6 (WW7C)	12	0.14	0.29
Turbidity, In-House (NTU) - RW8 (CW5)	12	0.12	0.61
Turbidity, In-House (NTU) - RW9 (CW6)	12	0.19	0.67
Free Chlorine Residual, On-Line (mg/L) - TW1 (CWRes)	8760	0.79	1.91
Free Chlorine Residual, On-Line (mg/L) - TW2 (WWRes)	8760	0.57	4.62
Free Chlorine Residual, On-Line (mg/L) - TW3 (WW5)	8760	0.55	5.00
Free Chlorine Residual, On-Line (mg/L) - TW4 (WW6)	8760	0.60	2.48
Free Chlorine Residual, On-Line (mg/L) - TW5 (WW7)	8760	0.55	5.00
Free Chlorine Residual, On-Line (mg/L) - DW1 (WW)	8760	0.71	3.10
Free Chlorine Residual, On-Line (mg/L) - DW3 (CW)	8760	0.21	1.94
Free Chlorine Residual, In-House (mg/L) - DW1 (WW)	53	0.81	1.61
Free Chlorine Residual, In-House (mg/L) - DW2 (WW)	53	0.63	1.76
Free Chlorine Residual, In-House (mg/L) - DW3 (CW)	53	0.79	1.44
Free Chlorine Residual, In-House (mg/L) - DW4 (CW)	53	0.86	1.75

NOTE: Spikes recorded by on-line instrumentation may result from air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 60 months. Nitrate and Nitrite are tested quarterly and metals are tested every 36 months as required under O. Reg. 170/03. In the event any parameter exceeds half the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Below the laboratory detection level

**Note: There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.*

Chesterville Reservoir

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/01/22	0.09	6.0	No	No
Arsenic: As (ug/L) - TW	2018/01/22	1.1	10.0	No	No
Barium: Ba (ug/L) - TW	2018/01/22	131	1000.0	No	No
Boron: B (ug/L) - TW	2018/01/22	14	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/01/22	0.008	5.0	No	No
Chromium: Cr (ug/L) - TW	2018/01/22	0.10	50.0	No	No
Mercury: Hg (ug/L) - TW	2018/01/22	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2018/01/22	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2018/01/22	0.582	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2017/01/30	0.11	1.5	No	No
Nitrite (mg/L) - TW	2019/01/07	0.006	1.0	No	No
Nitrite (mg/L) - TW	2019/04/08	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/07	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2019/04/08	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	<MDL 0.006	10.0	No	No
Sodium: Na (mg/L) - TW	2017/01/30	34.3	20*	n/a	n/a

Winchester Reservoir

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<MDL 0.02	6.0	No	No
Arsenic: As (ug/L) - TW	2018/02/01	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2018/02/01	112	1000.0	No	No
Boron: B (ug/L) - TW	2018/02/01	250	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/02/01	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2018/02/01	0.11	50.0	No	No
Mercury: Hg (ug/L) - TW	2018/02/01	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2018/02/01	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2018/02/01	0.526	20.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Additional Inorganics					
Fluoride (mg/L) - TW	2017/02/06	0.14	1.5	No	No
Nitrite (mg/L) - TW	2019/01/02	< 0.10	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/02	< 0.10	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	0.036	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	0.084	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	0.014	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/06	41.4	20*	n/a	n/a

Winchester Well #5

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/06/11	<MDL 0.02	6.0	No	No
Arsenic: As (ug/L) - TW	2018/06/11	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2018/06/11	99.7	1000.0	No	No
Boron: B (ug/L) - TW	2018/06/11	724	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/06/11	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2018/06/11	0.11	50.0	No	No
Mercury: Hg (ug/L) - TW	2018/06/11	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2018/06/11	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2018/06/11	0.047	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2017/02/06	0.28	1.5	No	No
Nitrite (mg/L) - TW	2019/01/02	< 0.10	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.10	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	0.007	1.0	No	No
Nitrate (mg/L) - TW	2019/01/02	< 0.10	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	0.007	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	0.015	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/06	121	20*	n/a	n/a

Winchester Well #6

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<MDL 0.02	6.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Arsenic: As (ug/L) - TW	2018/02/01	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2018/02/01	59.8	1000.0	No	No
Boron: B (ug/L) - TW	2018/02/01	143	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/02/01	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2018/02/01	0.09	50.0	No	No
Mercury: Hg (ug/L) - TW	2018/02/01	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2018/02/01	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2018/02/01	1.26	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2017/02/06	0.26	1.5	No	No
Nitrite (mg/L) - TW	2019/01/02	< 0.10	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/02	0.26	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2019/07/02	0.506	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	<MDL 0.006	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/06	16.8	20*	n/a	n/a

Winchester Well Field #7

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<MDL 0.02	6.0	No	No
Arsenic: As (ug/L) - TW	2018/02/01	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2018/02/01	143	1000.0	No	No
Boron: B (ug/L) - TW	2018/02/01	31	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/02/01	0.003	5.0	No	No
Chromium: Cr (ug/L) - TW	2018/02/01	0.09	50.0	No	No
Mercury: Hg (ug/L) - TW	2018/02/01	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2018/02/01	0.05	50.0	No	No
Uranium: U (ug/L) - TW	2018/02/01	0.853	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2017/02/06	0.09	1.5	No	No
Nitrite (mg/L) - TW	2019/01/02	< 0.10	1.0	No	No
Nitrite (mg/L) - TW	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/07/02	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2019/01/02	0.27	10.0	No	No
Nitrate (mg/L) - TW	2019/04/01	0.034	10.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Nitrate (mg/L) - TW	2019/07/02	0.189	10.0	No	No
Nitrate (mg/L) - TW	2019/10/07	0.261	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/06	8.42	20*	n/a	n/a

Schedule 15 Sampling:

Chesterville Distribution

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	4	4	204	212	n/a	n/a
pH	4	4	7.80	7.87	n/a	n/a
Lead (ug/l)	2	2	0.02	0.02	10	0

Winchester Distribution

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	2	2	243	290	n/a	n/a
pH	2	2	7.45	7.66	n/a	n/a
Lead (ug/l)	2	2	0.04	0.04	10	0

Organic Parameters

These parameters are tested every 36 months as a requirement under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Below the laboratory detection level

Chesterville Reservoir

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/01/22	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/01/22	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/01/22	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2018/01/22	<MDL 0.32	1.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Benzo(a)pyrene (ug/L) - TW	2018/01/22	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2018/01/22	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2018/01/22	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2018/01/22	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/01/22	<MDL 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/01/22	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2018/01/22	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2018/01/22	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/01/22	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/01/22	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/01/22	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/01/22	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/01/22	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/01/22	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/01/22	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/01/22	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2018/01/22	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2018/01/22	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2018/01/22	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2018/01/22	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2018/01/22	<MDL 0.02	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/01/22	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2018/01/22	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2018/01/22	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/01/22	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2018/01/22	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2018/01/22	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/01/22	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2018/01/22	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2018/01/22	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2018/01/22	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2018/01/22	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2018/01/22	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/01/22	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/01/22	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2018/01/22	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/01/22	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/01/22	<MDL 0.25	5.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Trifluralin (ug/L) - TW	2018/01/22	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/01/22	<MDL 0.17	1.00	No	No

Winchester Reservoir

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/02/01	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/02/01	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/02/01	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2018/02/01	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/02/01	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2018/02/01	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2018/02/01	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2018/02/01	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/02/01	<MDL 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/02/01	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2018/02/01	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2018/02/01	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/02/01	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/02/01	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/02/01	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/02/01	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2018/02/01	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2018/02/01	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2018/02/01	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2018/02/01	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2018/02/01	<MDL 0.02	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/02/01	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2018/02/01	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2018/02/01	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/02/01	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2018/02/01	<MDL 1.0	10.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
PCB (ug/L) - TW	2018/02/01	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2018/02/01	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2018/02/01	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2018/02/01	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2018/02/01	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2018/02/01	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/02/01	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2018/02/01	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2018/02/01	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/02/01	<MDL 0.17	1.00	No	No

Winchester Well #5

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/06/11	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/06/11	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/06/11	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2018/06/11	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/06/11	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2018/06/11	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2018/06/11	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2018/06/11	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/06/11	<MDL 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/06/11	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2018/06/11	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2018/06/11	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/06/11	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/06/11	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/06/11	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/06/11	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/06/11	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/06/11	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/06/11	<MDL 0.19	100.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Diclofop-methyl (ug/L) - TW	2018/06/11	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2018/06/11	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2018/06/11	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2018/06/11	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2018/06/11	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2018/06/11	<MDL 0.02	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/06/11	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2018/06/11	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2018/06/11	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/06/11	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2018/06/11	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2018/06/11	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/06/11	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2018/06/11	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2018/06/11	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2018/06/11	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2018/06/11	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2018/06/11	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/06/11	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/06/11	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2018/06/11	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/06/11	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/06/11	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2018/06/11	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/06/11	<MDL 0.17	1.00	No	No

Winchester Well #6

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/02/01	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/02/01	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/02/01	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2018/02/01	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/02/01	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2018/02/01	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2018/02/01	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2018/02/01	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/02/01	<MDL 0.16	2.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Chlorpyrifos (ug/L) - TW	2018/02/01	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2018/02/01	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2018/02/01	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/02/01	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/02/01	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/02/01	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/02/01	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2018/02/01	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2018/02/01	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2018/02/01	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2018/02/01	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2018/02/01	<MDL 0.02	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/02/01	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2018/02/01	0.12	50.00	No	No
Metribuzin (ug/L) - TW	2018/02/01	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/02/01	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2018/02/01	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2018/02/01	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2018/02/01	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2018/02/01	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2018/02/01	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2018/02/01	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2018/02/01	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/02/01	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2018/02/01	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2018/02/01	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/02/01	<MDL 0.17	1.00	No	No

Winchester Wellfield #7

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/02/01	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/02/01	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/02/01	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2018/02/01	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/02/01	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2018/02/01	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2018/02/01	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2018/02/01	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/02/01	<MDL 0.16	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/02/01	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2018/02/01	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2018/02/01	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/02/01	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/02/01	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/02/01	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/02/01	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/02/01	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2018/02/01	<MDL 0.03	20.00	No	No
Diquat (ug/L) - TW	2018/02/01	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2018/02/01	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2018/02/01	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2018/02/01	<MDL 0.02	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/02/01	<MDL 0.12	100.00	No	No
Metolachlor (ug/L) - TW	2018/02/01	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2018/02/01	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/02/01	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2018/02/01	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2018/02/01	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2018/02/01	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2018/02/01	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2018/02/01	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2018/02/01	<MDL 0.01	10.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Terbufos (ug/L) - TW	2018/02/01	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/02/01	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/02/01	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2018/02/01	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/02/01	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/02/01	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2018/02/01	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/02/01	<MDL 0.17	1.00	No	No

Distribution samples are tested quarterly for THM's and HAA's in accordance with O. Reg. 170/03.

Chesterville Distribution

	Sample Year	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Distribution Water					
Trihalomethane (THM): Total (ug/L) Annual Average - DW	2019	17.8	100	No	No
Haloacetic Acid (HAA): Total (ug/L) Annual Average - DW	2019	< 5.3	80	No	No

Winchester Distribution

	Sample Year	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Distribution Water					
Trihalomethane (THM): Total (ug/L) Annual Average - DW	2019	32.7	100	No	No
Haloacetic Acid (HAA): Total (ug/L) Annual Average - DW	2019	6.3	80	No	No

Additional Legislated Samples

No additional sampling required.

Major Maintenance Summary

Description
- Performed camera inspection of Well #5 (Chesterville) - Replaced pump and motor in Well #5 (Chesterville) - Performed full inspection (interior & exterior) of elevated water storage tank (Chesterville) - Installed sump pump at tower (Chesterville) - Installed emergency lighting (Chesterville) - Repaired service line leaks on Main St., Queen St., and Victoria St. (Chesterville) - Cleaned and inspected reservoir (Winchester) - Performed underwater video inspection of elevated storage tank interior (Winchester) - Upgraded piping at Well #1 (Winchester) - Installed sump pump at Well #1 (Winchester) - Rehabilitated Well #1 (Winchester) - Installed automatic transfer switch for generator at Well #7 (Winchester) - Rebuilt high lift pump at reservoir (Winchester) - Repaired water main break along Well #7 transmission line (Winchester) - Repaired water main break on Clarence Street (Winchester) - Repaired service line on Main St. (Winchester) - Upgraded emergency lighting and alarm dialers (Winchester) - Repaired/replaced curb stops and main valves (Chesterville & Winchester) - Installed cathodic protection (Chesterville & Winchester) - Purchased chlorine pump repair kits (Chesterville & Winchester) - Rebuilt 18 hydrants (Chesterville & Winchester) - Upgraded Inet Radios (Chesterville & Winchester)

Appendix A

WTRS Submission Confirmation

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 3380-AC3QF9
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.
Received on:Feb 10, 2020 12:58 PM

This confirmation indicates that your data has been received by the Ministry,but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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NORTH2 DUNDAS2 | 2020/02/10
version: v4.5.0.21 (build#: 22)
Last modified: 2018/09/18

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 4175-9C3GPW
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.
Received on:Feb 10, 2020 12:48 PM

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NORTH2 DUNDAS2 | 2020/02/10
version: v4.5.0.21 (build#: 22)
Last modified: 2018/09/18

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 2181-838S8E
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.
Received on:Feb 10, 2020 12:49 PM

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NORTH2 DUNDAS2 | 2020/02/10
version: v4.5.0.21 (build#: 22)
Last modified: 2018/09/18

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0088-9C3JG4
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.
Received on:Feb 10, 2020 12:50 PM

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version: v4.5.0.21 (build#: 22)
Last modified: 2018/09/18

Ontario

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Location: WTRS / WT DATA / Edit Submitted WT Records WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0816-838SXR
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.
Received on:Feb 10, 2020 2:07 PM

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