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 2018

Issued: February 20, 2019

Revision: 0

Operating Authority:



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	2
Ministry of Labour Inspections	0
QEMS External Audit	1
AWQI's/BWA	0/0
Non-Compliance	0
Spills	0
Watermain Breaks	3

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	

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Summary of Non-Compliance

Adverse Water Quality Incidents

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

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

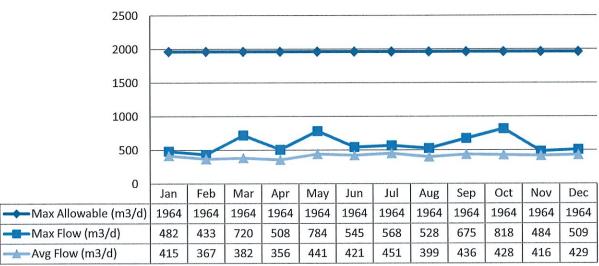
Raw water flows are regulated under the applicable Permit to Take Water (PTTW).

Chesterville Well #5 Raw Water Flows

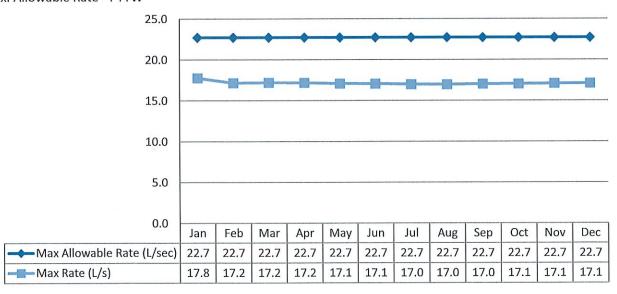
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #3380-AC3QF9. The confirmation can be found attached in Appendix A.

Chesterville Well #5 - Flows

Max. Allowable Flow - PTTW



Chesterville Well #5 - Maximum Flow Rates

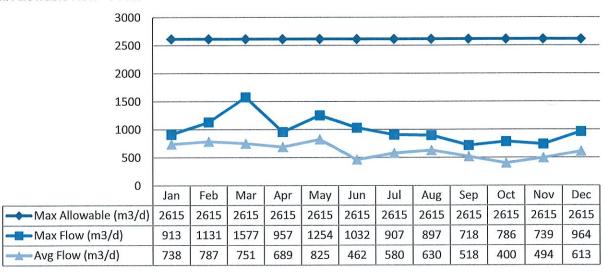


Chesterville Well #6 Raw Water Flows

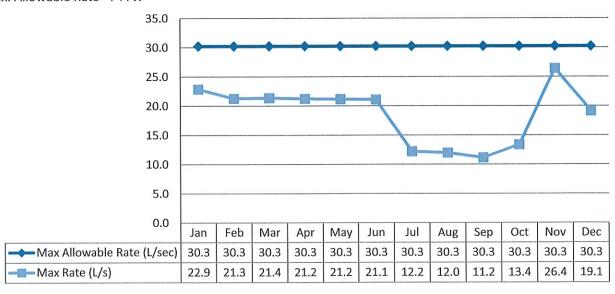
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #3380-AC3QF9. The confirmation can be found attached in Appendix A.

Chesterville Well #6 - Flows

Max. Allowable Flow - PTTW



Chesterville Well #6 - Maximum Flow Rates

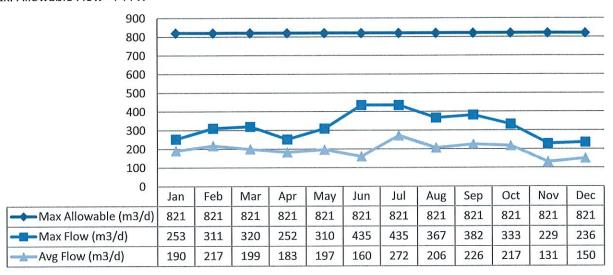


Winchester Well #1 Raw Water Flows

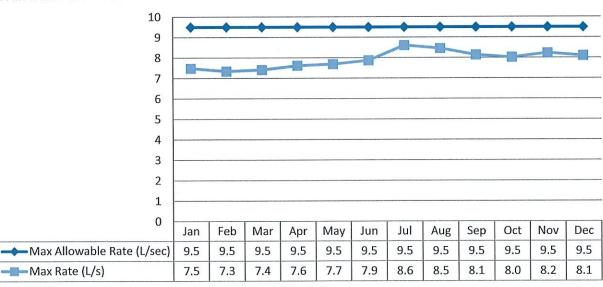
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #4175-9C3GPW. The confirmation can be found attached in Appendix A.

Winchester Well #1 - Flows

Max. Allowable Flow - PTTW



Winchester Well #1 - Maximum Flow Rates

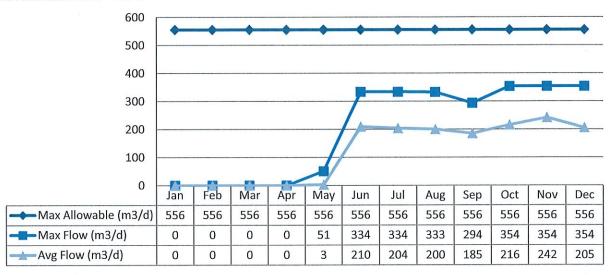


Winchester Well #5 Raw Water Flows

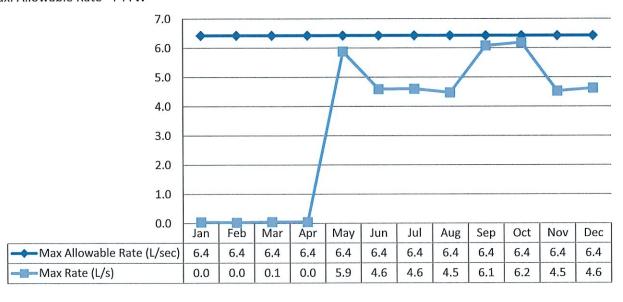
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #2181-838S8E. The confirmation can be found attached in Appendix A.

Winchester Well #5 - Flows

Max. Allowable Flow - PTTW



Winchester Well #5 - Maximum Flow Rates



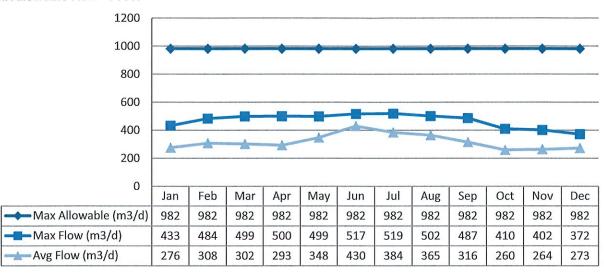
^{*}Note: Well #5 was offline for maintenance for the first few months of 2018.

Winchester Well #6 Raw Water Flows

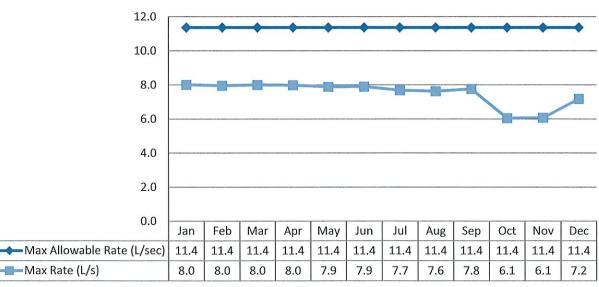
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #0088-9C3JG4. The confirmation can be found attached in Appendix A.

Winchester Well #6 - Flows

Max. Allowable Flow - PTTW



Winchester Well #6 - Maximum Flow Rates



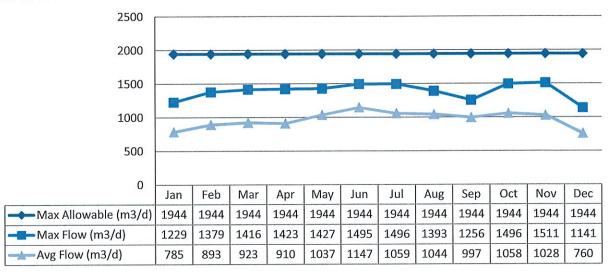
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Well Field #7 Raw Water Flows

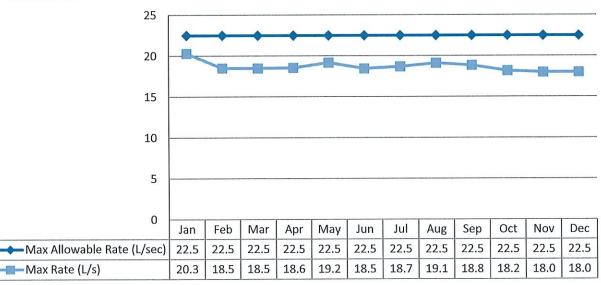
Raw flow data for 2018 was submitted to the Ministry electronically under Permit #0816-838SXR. The confirmation can be found attached in Appendix A.

Winchester Well Field #7 - Flows

Max. Allowable Flow - PTTW



Winchester Well Field #7 - Maximum Flow Rates

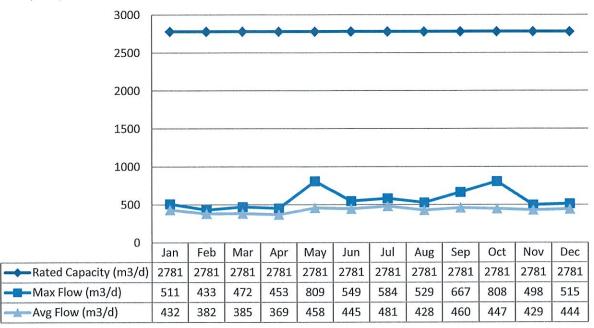


Treated Water Flows

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

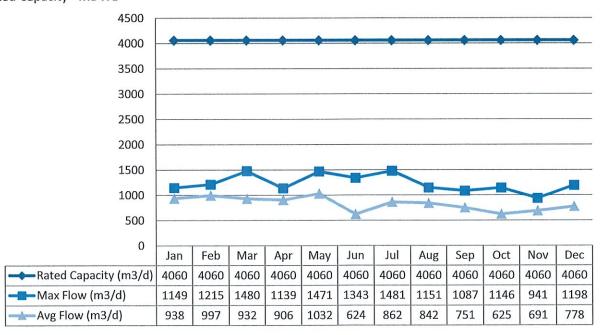
Chesterville Reservoir - Daily Treated Flows

Rated Capacity - MDWL



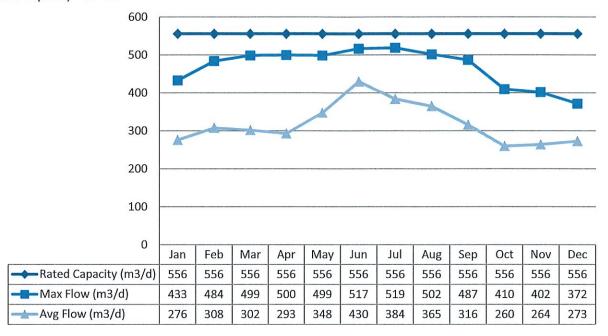
Winchester Reservoir - Treated Flows

Rated Capacity - MDWL



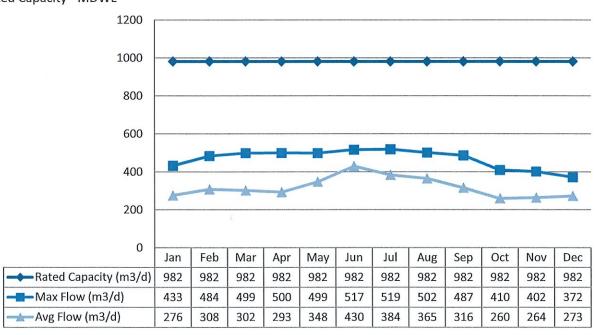
Winchester Well #5 - Treated Flows

Rated Capacity - MDWL



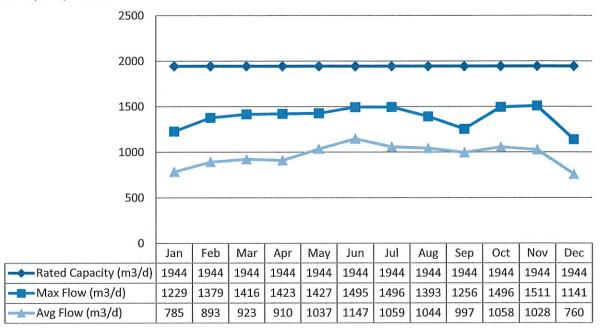
Winchester Well #6 - Treated Flows

Rated Capacity - MDWL

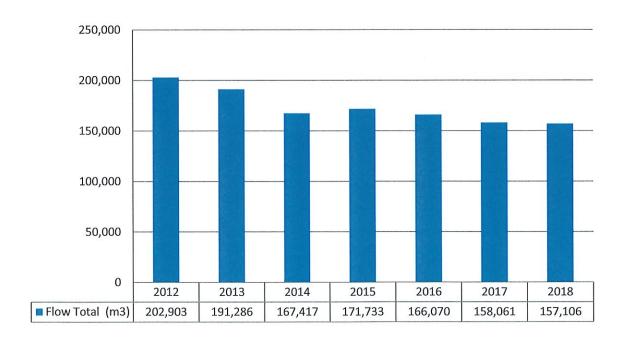


Winchester Well Field #7 - Treated Flows

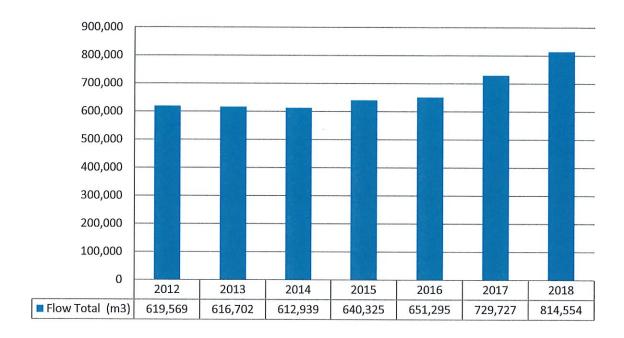
Rated Capacity - MDWL



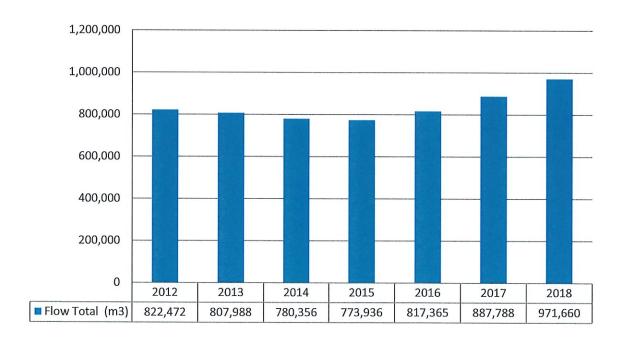
Chesterville DWS - Annual Total Flow Comparison



Winchester DWS - Annual Total Flow Comparison



North Dundas DWS - Annual Total Flow Comparison



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.	Coli Results	DESCRIPTION OF THE PARTY OF THE	otal Coliform sults	Range of H	IPC Results
		Min	Max	Min	Max	Min	Max
Raw Water	393	0	0	0	7	n/a	n/a
Treated Water	238	0	0	0	0	0	145
Distribution Water	209	0	0	0	0	0	800

Operational Testing

	No. of Samples	Range o	f Results
	Collected	Minimum	Maximum
Turbidity, In-House (NTU) - RW1 (WW1)	12	0.15	0.39
Turbidity, In-House (NTU) - RW2 (WW5)	8	0.10	0.33
Turbidity, In-House (NTU) - RW3 (WW6)	12	0.10	0.21
Turbidity, In-House (NTU) - RW4 (WW7A)	12	0.19	0.57
Turbidity, In-House (NTU) - RW5 (WW7B)	12	0.09	0.32
Turbidity, In-House (NTU) - RW6 (WW7C)	12	0.15	0.37
Turbidity, In-House (NTU) - RW8 (CW5)	12	0.10	0.46
Turbidity, In-House (NTU) - RW9 (CW6)	12	0.09	0.55
Free Chlorine Residual, On-Line (mg/L) - TW1 (WW1)	8760	0.76	2.45
Free Chlorine Residual, On-Line (mg/L) - TW2 (WW5)	8760	0.65	3.06
Free Chlorine Residual, On-Line (mg/L) - TW3 (WW6)	8760	0.51	5.00
Free Chlorine Residual, On-Line (mg/L) - TW4 (WWRes)	8760	0.52	3.10
Free Chlorine Residual, On-Line (mg/L) - TW5 (CWRes)	8760	0.47	5.00
Free Chlorine Residual, On-Line (mg/L) - DW1 (WW)	8760	0.44	2.40
Free Chlorine Residual, On-Line (mg/L) - DW3 (CW)	8760	0.55	1.80
Free Chlorine Residual, In-House (mg/L) - DW1 (WW)	52	0.82	1.79
Free Chlorine Residual, In-House (mg/L) - DW2 (WW)	52	0.86	1.86
Free Chlorine Residual, In-House (mg/L) - DW3 (CW)	52	0.60	1.45
Free Chlorine Residual, In-House (mg/L) - DW4 (CW)	52	0.80	1.57

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	Comple Book	MAG	No. of Ex	ceedances
	(yyyy/mm/dd)	Sample Result	MAC	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<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (ug/L) - TW	2018/01/22	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	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	0.06	1.5	No	No
Nitrite (mg/L) - TW	2018/01/22	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/04/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/07/30	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/10/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2018/01/22	<mdl 0.006<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Nitrate (mg/L) - TW	2018/04/09	<mdl 0.006<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Nitrate (mg/L) - TW	2018/07/30	<mdl 0.006<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Nitrate (mg/L) - TW	2018/10/09	0.020	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/06	33.4	20*	n/a	n/a

Winchester Reservoir

	Sample Date	County Donald	MAG	No. of Exc	eedances
	(yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<mdl 0.02<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (ug/L) - TW	2018/02/01	<mdl 0.2<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (ug/L) - TW	2018/02/01	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Uranium: U (ug/L) - TW	2018/02/01	0.526	20.0	No	No

	Sample Date	Commis Desuit	MAC	No. of Ex	ceedances
	(yyyy/mm/dd)	Sample Result	IVIAC	MAC	1/2 MAC
Additional Inorganics					
Fluoride (mg/L) - TW	2017/02/06	0.14	1.5	No	No
Nitrite (mg/L) - TW	2018/02/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/04/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/07/04	<mdl 0.10<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/10/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2018/02/01	0.044	10.0	No	No
Nitrate (mg/L) - TW	2018/04/09	0.065	10.0	No	No
Nitrate (mg/L) - TW	2018/07/04	<mdl 0.10<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Nitrate (mg/L) - TW	2018/10/01	0.014	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/21	38.8	20*	n/a	n/a

Winchester Well #5

	Sample Date	C. I. D. II	1446	No. of Ex	ceedances
	(yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (ug/L) - TW	2018/06/11	<mdl 0.2<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (ug/L) - TW	2018/06/11	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	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	2018/06/11	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/07/04	<mdl 0.10<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/10/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2018/06/11	0.011	10.0	No	No
Nitrate (mg/L) - TW	2018/07/04	<0.10	10.0	No	No
Nitrate (mg/L) - TW	2018/10/01	<mdl 0.555<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Sodium: Na (mg/L) - TW	2017/02/21	114	20*	n/a	n/a

Winchester Well #6

	Sample Date	Canada Danda	DAAC	MAC No. of Exce	
	(yyyy/mm/dd)	Sample Result	IVIAC	MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<mdl 0.02<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (ug/L) - TW	2018/02/01	<mdl 0.2<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Barium: Ba (ug/L) - TW	2018/02/01	59.8	1000.0	No	No

	Sample Date	Comple Besult	MAG	No. of Exc	eedances
	(yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Boron: B (ug/L) - TW	2018/02/01	143	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2018/02/01	<mdl 0.003<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (ug/L) - TW	2018/02/01	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	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	2018/02/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/04/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/07/04	<mdl 0.10<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/10/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2018/02/01	0.214	10.0	No	No
Nitrate (mg/L) - TW	2018/04/09	0.065	10.0	No	No
Nitrate (mg/L) - TW	2018/07/04	0.17	10.0	No	No
Nitrate (mg/L) - TW	2018/10/01	<mdl 0.006<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	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	Carralla Danash	DAAG	No. of Ex	ceedances
	(yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2018/02/01	<mdl 0.02<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (ug/L) - TW	2018/02/01	<mdl 0.2<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	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<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	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	2018/02/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/04/09	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/07/04	<mdl 0.10<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW	2018/10/01	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW	2018/02/01	0.162	10.0	No	No
Nitrate (mg/L) - TW	2018/04/09	0.069	10.0	No	No
Nitrate (mg/L) - TW	2018/07/04	0.19	10.0	No	No
Nitrate (mg/L) - TW	2018/10/01	0.22	10.0	No	No

	Sample Date	Carrala Danile	2446	No. of Exc	eedances
	(yyyy/mm/dd)	Sample Result	MAC	MAC	1/2 MAC
Sodium: Na (mg/L) - TW	2017/02/06	8.42	20*	n/a	n/a

Schedule 15 Sampling:

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

plumbing samples were collected.

Distribution Contain	Number of Sampling	Number of Samples	Range o	f Results	MAC	Number of
Distribution System	Points	Number of Samples	Minimum	Maximum	(ug/L)	Exceedances
Alkalinity (mg/L)	8	8	42	294	n/a	n/a
рН	8	8	7.10	8.16	n/a	n/a
Lead (ug/l)	-	-	-		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 Sample Result	MAC		nber of edances	
	(yyyy/mm/dd)			MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Benzene (ug/L) - TW	2018/01/22	<mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/01/22	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Carbaryl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbofuran (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/01/22	<mdl 0.16<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Diazinon (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Dicamba (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl>	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl>	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl>	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl>	900.00	No	No

	Sample Date	Sample Result	MAC		nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) -	2018/01/22	<mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/01/22	<mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl>	9.00	No	No
Dimethoate (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Diquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl>	70.00	No	No
Diuron (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl>	150.00	No	No
Glyphosate (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl>	280.00	No	No
Malathion (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/01/22	<mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Metolachlor (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
Metribuzin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/01/22	<mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Paraquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
PCB (ug/L) - TW	2018/01/22	<mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl>	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl>	60.00	No	No
Phorate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Picloram (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
Prometryne (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Simazine (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
Terbufos (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Triallate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl>	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Trifluralin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl>	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/01/22	<mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No

Winchester Reservoir

	Sample Date	Sample Recilit	MAC	THE PERSON NAMED AND	nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Benzene (ug/L) - TW	2018/01/22	<mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/01/22	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Carbaryl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No

	Sample Date	Sample Result	MAC	1,000,000,000,000,000,000	nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC
Carbofuran (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/01/22	<mdl 0.16<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Diazinon (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Dicamba (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl>	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl>	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl>	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl>	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/01/22	<mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/01/22	<mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl>	9.00	No	No
Dimethoate (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Diquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl>	70.00	No	No
Diuron (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl>	150.00	No	No
Glyphosate (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl>	280.00	No	No
Malathion (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/01/22	<mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Metolachlor (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
Metribuzin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/01/22	<mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Paraquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
PCB (ug/L) - TW	2018/01/22	<mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl>	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl>	60.00	No	No
Phorate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Picloram (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
Prometryne (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Simazine (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
Terbufos (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Triallate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl>	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Trifluralin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl>	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/01/22	<mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No

Winchester Well #5

	Sample Date	Sample Result	MAC	HERTO WAS TRUMPEDED	nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/06/11	<mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Benzene (ug/L) - TW	2018/06/11	<mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/06/11	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2018/06/11	<mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Carbaryl (ug/L) - TW	2018/06/11	<mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbofuran (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/06/11	<mdl 0.16<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Diazinon (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Dicamba (ug/L) - TW	2018/06/11	<mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl>	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/06/11	<mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl>	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/06/11	<mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/06/11	<mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/06/11	<mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl>	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/06/11	<mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/06/11	<mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl>	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) -	2018/06/11	<mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/06/11	<mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl>	9.00	No	No
Dimethoate (ug/L) - TW	2018/06/11	<mdl 0.03<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Diquat (ug/L) - TW	2018/06/11	<mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl>	70.00	No	No
Diuron (ug/L) - TW	2018/06/11	<mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl>	150.00	No	No
Glyphosate (ug/L) - TW	2018/06/11	<mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl>	280.00	No	No
Malathion (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/06/11	<mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Metolachlor (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
Metribuzin (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/06/11	<mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Paraquat (ug/L) - TW	2018/06/11	<mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
PCB (ug/L) - TW	2018/06/11	<mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl>	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/06/11	<mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl>	60.00	No	No
Phorate (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Picloram (ug/L) - TW	2018/06/11	<mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
Prometryne (ug/L) - TW	2018/06/11	<mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Simazine (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No

	Sample Date	Sample Result	Sample Date Sample Result MAC Ex		Tel Continues	nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC	
Terbufos (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No	
Tetrachloroethylene (ug/L) - TW	2018/06/11	<mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No	
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/06/11	<mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No	
Triallate (ug/L) - TW	2018/06/11	<mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl>	230.00	No	No	
Trichloroethylene (ug/L) - TW	2018/06/11	<mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No	
2,4,6-Trichlorophenol (ug/L) - TW	2018/06/11	<mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No	
Trifluralin (ug/L) - TW	2018/06/11	<mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl>	45.00	No	No	
Vinyl Chloride (ug/L) - TW	2018/06/11	<mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No	

Winchester Well #6

	Sample Date	Sample Result	MAC		nber of edances
	(yyyy/mm/dd)			MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Benzene (ug/L) - TW	2018/01/22	<mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/01/22	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Carbaryl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbofuran (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/01/22	<mdl 0.16<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Diazinon (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Dicamba (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl>	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl>	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl>	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl>	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2018/01/22	<mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/01/22	<mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl>	9.00	No	No
Dimethoate (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Diquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl>	70.00	No	No
Diuron (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl>	150.00	No	No
Glyphosate (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl>	280.00	No	No
Malathion (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/01/22	<mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Metolachlor (ug/L) - TW	2018/01/22	0.12	50.00	No	No
Metribuzin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/01/22	<mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Paraquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
PCB (ug/L) - TW	2018/01/22	<mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl>	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl>	60.00	No	No
Phorate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Picloram (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
Prometryne (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Simazine (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
Terbufos (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Triallate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl>	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Trifluralin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl>	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/01/22	<mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No

Winchester Wellfield #7

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Self Cale Self	nber of edances
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Azinphos-methyl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Benzene (ug/L) - TW	2018/01/22	<mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2018/01/22	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Carbaryl (ug/L) - TW	2018/01/22	<mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbofuran (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2018/01/22	<mdl 0.16<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Chlorpyrifos (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl>	90.00	No	No
Diazinon (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Dicamba (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl>	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl>	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2018/01/22	<mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No

	Sample Date	Sample Result	MAC	Number of Exceedances	
	(yyyy/mm/dd)	Sample Result		MAC	1/2 MAC
1,1-Dichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl>	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl>	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) -	2018/01/22	<mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Diclofop-methyl (ug/L) - TW	2018/01/22	<mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl>	9.00	No	No
Dimethoate (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl>	20.00	No	No
Diquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl>	70.00	No	No
Diuron (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl>	150.00	No	No
Glyphosate (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl>	280.00	No	No
Malathion (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
2-Methyl-4-Chlorophenoxyacetic Acid (MCPA) (ug/L) - TW	2018/01/22	<mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Metolachlor (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl>	50.00	No	No
Metribuzin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2018/01/22	<mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl>	80.00	No	No
Paraquat (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
PCB (ug/L) - TW	2018/01/22	<mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl>	3.00	No	No
Pentachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl>	60.00	No	No
Phorate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl>	2.00	No	No
Picloram (ug/L) - TW	2018/01/22	<mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl>	190.00	No	No
Prometryne (ug/L) - TW	2018/01/22	<mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Simazine (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
Terbufos (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2018/01/22	<mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl>	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2018/01/22	<mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl>	100.00	No	No
Triallate (ug/L) - TW	2018/01/22	<mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl>	230.00	No	No
Trichloroethylene (ug/L) - TW	2018/01/22	<mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2018/01/22	<mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl>	5.00	No	No
Trifluralin (ug/L) - TW	2018/01/22	<mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl>	45.00	No	No
Vinyl Chloride (ug/L) - TW	2018/01/22	<mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl>	1.00	No	No

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

Chesterville Distribution

Distribution Water	Sample Date	Sample Result	МАС	No. of Exceedances	
	(yyyy/mm/dd)			MAC	1/2 MAC
Trihalomethane (THM): Total (ug/L) Annual Average - DW	2018/01/01	17.8	100	No	No

Haloacetic Acid (HAA): Total (ug/L) Annual Average - DW	2018/01/01	<5.3	n/a	n/a	n/a
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Winchester Distribution

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Distribution Water					
Trihalomethane (THM): Total (ug/L) Annual Average - DW	2018/01/01	34.5	100	No	No
Haloacetic Acid (HAA): Total (ug/L) Annual Average - DW	2018/01/01	9.6	n/a	n/a	n/a

Additional Legislated Samples

No additional sampling required.

Major Maintenance Summary

Description

- Rebuilt 16 fire hydrants
- Upgraded radios and SCADAPak at Well #5 and Well #6 (Chesterville)
- Rehabilitated Well #6 (Chesterville)
- Repaired two watermain breaks along Queen St. and one on Main St. (Chesterville)
- Replaced pressure gauge on Well #1 discharge line (Winchester)
- Replaced Well #5 pump motor and wiring (Winchester)
- Repaired flow meter after lightning strike at Well #5 (Winchester)
- Replaced Well #6 flow control valve (Winchester)
- Replaced packing on main shut off valve at Well #7 (Winchester)
- Replaced alarm dialer keypad at Well #7 and water tower (Winchester)
- Replaced sump pump at Reservoir (Winchester)
- Replaced generator battery at Well #1 and Reservoir (Winchester)
- Repaired damaged hydrant along Highway 31 (Winchester)
- Purchased and installed new chlorine pumps (2)
- Repaired/replaced curb stops and main valves
- Installed cathodic protection
- Purchased chlorine pump repair kits

Appendix A

WTRS Submission Confirmation



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: Jan 22, 2019 2:31 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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chesterville 3380/ACTOR9



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: Jan 22, 2019 2:54 PM

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WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 2181-83858E

Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.

Received on:Jan 22, 2019 2:57 PM

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WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0088-9C33G4

Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.

Received on: Jan 22, 2019 2:59 PM

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WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0816-8385XR

Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NORTH DUNDAS.

Received on:Jan 22, 2019 3:02 PM

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