



2022 Annual Drinking Water System Summary Report

Tillsonburg Drinking Water System

1. GENERAL INFORMATION

Oxford County (the County) prepares a report summarizing system operation and water quality for every municipal drinking water system annually. The reports detail the latest water quality testing results, water quantity statistics and any adverse conditions that may have occurred for the previous year. They are available for review by the end of February on the County website at www.oxfordcounty.ca/drinkingwater or by contacting the Public Works Department.

All efforts have been made to ensure the information presented in this report is accurate. If you have any questions or comments concerning the report please contact the County at the address and phone number listed below or by email at water@oxfordcounty.ca.

Drinking Water System:	Tillsonburg Drinking Water System
Drinking Water System Number:	220000683
Reporting Period:	January 1, 2022 – December 31, 2022

Drinking Water System Owner & Contact Information:

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1.1 System Description

The Tillsonburg Water System is a Large Municipal Water system as defined by Ontario Regulation (O.Reg.) 170/03 and services a population of approximately 19,120. The system consists of ten well sources, seven of which are classified as GUDI (Groundwater Under Direct Influence of surface water) with effective in-situ filtration (wells 1A, 2, 4, 5, 7A, 9 and 10) and three are secure groundwater wells (wells 6A, 11 and 12). The treatment for each site is summarized below.

<i>Treatment Facility</i>	<i>Wells</i>	<i>Treatment</i>
Mall Rd. WTF	1A & 2	Filtration for iron removal and disinfection with ultraviolet (UV) and chlorine gas.
Fairview WTF	4, 5 & 7A	Disinfection with chlorine gas (Well 4 and Well 5) and sodium hypochlorite (Well 7A), disinfection with UV and secondary disinfection with sodium hypochlorite.
Plank Line WTF	6A	Disinfection with chlorine gas.
Bell Mill Rd. WTF	9, 10 & 11	Filtration for iron removal and disinfection with UV and chlorine gas.
Rokeby Rd. WTF	12	Disinfection with chlorine gas.

The treatment facilities each house high lift pumps, monitoring and treatment equipment for the supply wells. Three standby generators are available to run Mall Rd, Fairview and Bell Mill facilities in the event of a power failure. Water storage and system pressure is provided by a 9,100 m³ reservoir located north of the Town of Tillsonburg. Fairview WTF boosts water to the north service area which is at a higher elevation.

In 2022, approximately 4,556 kg of chlorine gas and 7,800 L of sodium hypochlorite were used in the water treatment process. The chemicals are certified to meet standards set by the Standards Council of Canada or American National Standards Institute.

The system is maintained by licensed water system operators, who operate treatment and monitoring equipment and collect samples as specified by the Regulation. Alarms automatically notify operators in the event of a failure of critical operational requirements.

1.2 Major Expenses

In 2022, the Tillsonburg Drinking Water System had forecasted operating and maintenance expenditures of approximately \$2,800,000.

In addition to regular operational and maintenance expenditures, Capital improvement projects for Tillsonburg totaled \$1,660,000 for improvements to water treatment systems and replacement of distribution mains in the Tillsonburg Drinking Water System.

Town of Tillsonburg Capital improvement projects included:

- \$ 970,000 watermain replacements
- \$ 225,000 well rehabilitations
- \$ 125,000 standby power
- \$ 97,000 boosted pressure watermain
- \$ 73,000 bulk water station

Capital Improvement projects for all County systems included:

- \$ 625,000 to develop Countywide SCADA Master Plan for all water systems
- \$ 150,000 to develop Countywide Water Servicing Master Plan for all water systems

2. MICROBIOLOGICAL TESTING

2.1 E. coli and Total Coliform

Bacteriological tests for *E. coli* and total coliforms are required weekly from the raw and treated water at the facility and from the distribution system. Extra samples are taken after major repairs or maintenance work. Any *E. coli* or total coliform results above 0 in treated water sample must be reported to the Ministry of Environment, Conservation and Parks (MECP) and Medical Officer of Health (MOH). Resamples and any other required actions are taken as quickly as possible. The results from the 2022 sampling program are shown on the table below. There were no adverse test results from 641 treated water samples in this reporting period.

	<i>Number of Samples</i>	<i>Range of E. coli Results Min - Max MAC = 0</i>	<i>Range of Total Coliform Results Min - Max MAC = 0</i>
Raw	468	0	0
Treated	260	0	0
Distribution	381	0	0

2.2 Heterotrophic Plate Count (HPC)

HPC analyses are required from the treated and distribution water. The tests are required weekly for treated water and for 25% of the required distribution system bacteriological samples. HPC should be less than 500 colonies per 1 mL. Results over 500 colonies per 1 mL may indicate a change in water quality but it is not considered an indicator of unsafe water. 2022 results are shown in the following table.

	<i>Number of Samples</i>	<i>Range of HPC Min - Max</i>
Treated	260	0 - 12
Distribution	102	0 – 480

3. CHEMICAL TESTING

The Safe Drinking Water Act requires periodic testing of the water for approximately 60 different chemical parameters. The latest results for all parameters are provided in Appendix A. The sampling frequency varies for different types and sizes of water systems and chemical parameters. If the concentration of a parameter is above half of the Maximum Allowable Concentration (MAC) under the Ontario Drinking Water Quality Standards, an increased testing frequency of once every three months is required by the Regulation. Where concerns regarding a parameter exist, the MECP can also require additional sampling be undertaken.

Information on the health effects and allowable limits of components in drinking water may be found on the MECP web page through the link provided in Appendix A. Additional information on common chemical parameters specific to the Tillsonburg Drinking Water System is provided below.

3.1 Sodium

When sodium levels are above 20 mg/L the MECP and MOH are notified. Southwestern Public Health maintains an information page on sodium in drinking water at https://www.swpublichealth.ca/en/partners-and-professionals/resources/Health-Care-Providers/Alerts-Advisories-Updates/Advisories/ADV_HIA-Sodium-20201203.pdf in order to help people on sodium restricted diets control their sodium intake. The sodium level in water from the Tillsonburg Fairview WTF is 40.8 mg/L. Well 6A at Plank Line has sodium at 39.3 mg/L, however it was not operational in 2022. All other water treatment facilities water supply is under 20 mg/L.

3.2 Hardness

This is an aesthetic parameter that may affect the appearance of the water but is not related to health. Well water commonly has high levels of hardness and other minerals from being in contact with underground rock formations. Many households have water softeners to help reduce white calcium deposits and improve the efficiency of soaps. This information is included here to help set the water softener at the level recommended by the manufacturer. Samples for hardness are collected at a minimum every 3 years from raw water. The hardness of the wells was tested in 2022 and ranged from 253 - 377 mg/L (15 - 22 grains/gallon).

3.3 Additional Testing Required by MECP

None.

4. OPERATIONAL MONITORING

4.1 Chlorine Residual

Free chlorine levels of the treated water are monitored continuously at the discharge point of the Water Treatment Facility. In the distribution system, free chlorine is checked twice weekly at various locations. As a target, free chlorine residual within the distribution system should be above 0.20 mg/L. A free chlorine level lower than 0.05 mg/L must be reported and corrective action taken. There were no reportable incidents in 2022. A summary of the chlorine residual readings is provided in the table below in section 4.3.

4.2 Nitrate

Nitrate levels are continuously monitored at the discharge point of the Fairview Water Treatment Facility. A nitrate level higher than 10.0 mg/L must be reported and corrective action taken. There were 2 reportable incidents in 2022. Corrective actions taken are summarized in section 6.2. A summary of Fairview facility's nitrate level readings is provided in the table below in section 4.3.

4.3 Turbidity

Turbidity of treated water is continuously monitored at the treatment facility as a change in turbidity can indicate an operational problem. As a minimum, turbidity for each well is required to be tested monthly. Turbidity is measured in nephelometric turbidity units (NTU). Under O.Reg. 170/03 turbidity in groundwater from a secure well or a well with effective in-situ filtration is not reportable however turbidity should be < 1 NTU at the treatment plant and < 5 NTU in the distribution system. A summary of the monitoring results for 2022 is provided in the following table.

<i>Parameter</i>	<i>Number of Tests or Monitoring Frequency</i>	<i>Range of Results (Min – Max) and Average</i>
Bell Mill Road WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.62 - 4.00) 1.49
Well 9 turbidity before treatment (NTU)	50	(0.33 – 22.0) 3.06
Well 10 turbidity before treatment (NTU)	50	(0.51 – 24.1) 5.21
Well 11 turbidity before treatment (NTU)	46	(0.20 – 27.5) 2.67
Turbidity after treatment (NTU)	Continuous	(0.02 – 5.00) 0.09
Fairview WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.31 – 2.41) 1.22
Nitrate level after treatment (mg/L)	Continuous	(1.76 – 11.18) 5.47
Well 4 turbidity before treatment (NTU)	49	(0.08 – 3.73) 0.41
Well 5 turbidity before treatment (NTU)	49	(0.06 – 1.29) 0.26

<i>Parameter</i>	<i>Number of Tests or Monitoring Frequency</i>	<i>Range of Results (Min – Max) and Average</i>
Well 7A turbidity before treatment (NTU)	50	(0.13 – 6.33) 0.96
Mall Road WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.90 – 3.11) 1.55
Well 1A turbidity before treatment (NTU)	50	(0.13 – 6.33) 0.77
Well 2 turbidity before treatment (NTU)	49	(0.10 – 3.70) 0.76
Turbidity after treatment (NTU)	Continuous	(0.02 – 4.00) 0.05
Plank Line WTF		
Chlorine residual after treatment (mg/L)	Continuous	Not running in 2022
Well 6A turbidity before treatment (NTU)	NA	Not running in 2022
Turbidity after treatment (NTU)	Continuous	Not running in 2022
Rokeby Road WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.71 – 2.54) 1.22
Well 12 turbidity before treatment (NTU)	50	(0.09 – 1.25) 0.39
Turbidity after treatment (NTU)	Continuous	(0.03 – 4.00) 0.08
Distribution System		
Chlorine residual in distribution (mg/L)	Continuous	(0.22 – 1.56) 0.93

4.4 Ultra Violet (UV) Disinfection

Supply wells that have been classified as being GUDI require “enhanced disinfection” through ultra violet light (UV) followed by chlorination. A minimum UV dosage of 40 mJ/cm² is maintained to inactivate any microorganisms that may be present from contact with surface water. Insufficient dosage of UV lasting more than 10 minutes must be reported as inadequate disinfection. There were no occurrences of inadequate UV disinfection in 2022.

5. WATER QUANTITY

Continuous monitoring of flow rates from supply wells into the treatment system and from the Water Treatment Facility into the distribution system is required by O.Reg. 170/03. The Municipal Drinking Water License and Permit to Take Water (PTTW) issued by the MECP regulate the amount of water that can be utilized over a given time period. A summary of the 2022 flows are provided in the table below and presented graphically in Appendix B.

<i>Flow Summary</i>	<i>Municipal Drinking Water Licence (m³/day)</i>	<i>2022 Max Daily Flow (m³/day)</i>	<i>2022 Average Daily Flow (m³/day)</i>	<i>2022 Average Monthly Flow (m³/month)</i>	<i>2022 Total Yearly Flow (m³/year)</i>
Mall Rd WTF	3,600	2,102	1,743	53,012	636,146
Fairview WTF	6,307	4,764	1,753	53,327	639,929
Plank Ln. WTF	982	0	0	0	0
Bell Mill Rd WTF	3,931	2,325	1,720	52,319	627,824
Rokeby Rd WTF	1,310	1,234	407	12,377	148,528
Tillsonburg DWS*	16,130	10,003	5,623	171,036	2,052,427

*DWS stands for Drinking Water System

A review of the available supply capacity and the anticipated growth forecasted for the community indicates that the system has sufficient capacity over the 20 year planning horizon.

Firm Capacity of this system is rated at 10,627 m³/day. Firm Capacity is defined as the removal of the highest producing well in an emergency or operational / maintenance situation with the ability to transport a maximum of 100 m³/day if necessary to maintain system integrity. This system comprises of 10 supply wells, seven of which are GUDI. The GUDI wells contribute 6,739 m³/day to the firm capacity.

6. NON-COMPLIANCE FINDINGS AND ADVERSE RESULTS

This section documents any known incidents of non-compliance or adverse results and the associated correction actions taken to resolve the issue. Non-compliance issues are typically identified by either the Operating Authority or the MECP Drinking Water Inspectors. The issues and associated required actions are documented by the Inspectors in the system's Annual Inspection Report. All non-compliance issues are investigated, corrective actions taken and documented using the County's Drinking Water Quality Management System (DWQMS) procedures.

6.1 Non-Compliance Findings

At the time this report was drafted, the results of the 2022 annual inspection by the MECP had not been finalized.

6.2 Adverse Results

Any adverse results from bacteriological, chemical samples or observations of operational conditions that indicate adverse water quality are reported as required and corrective actions are taken. Tillsonburg had 2 AWQIs related to nitrate concentrations (greater than 10 mg/L) in the treated water reported to the MECP and MOH in July, 2022. Both AWQIs occurred when the online nitrate analyzer at the Fairview water treatment facility detected a nitrate concentration above acceptable ODWS levels and locked out as designed within two minutes. More conservative lock out procedures were adopted following these incidents to shut down prior to any amount of water exceeding the ODWS level from reaching the analyzer.

APPENDIX A: SUMMARY OF CHEMICAL RESULTS

UNDERSTANDING CHEMICAL TEST RESULTS

The following tables summarize the laboratory results of the chemical testing the County is required to complete. Different types of parameters are required to be tested for at different frequencies as noted below. Explanations on the health impacts of these parameters can be found in the MECP document PSIB 4449e01 titled “Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines” available at https://cvc.ca/wp-content/uploads/2011/03/std01_079707.pdf.

Results are shown as concentrations with units of either milligrams per litre (mg/L) or micrograms per litre (µg/L). 1 mg/L is equal to 1000 µg/L. The Maximum Acceptable Concentration (MAC) is the highest amount of a parameter that is acceptable in Municipal drinking water and can be found in the MECP Drinking Water Standards. The Method Detection Limit (MDL) is the lowest amount to which the laboratory can confidently measure. A result of “ND” stands for “Not Detected” and means that the concentration of the chemical is lower than the laboratory’s equipment is capable of measuring. In the event that some samples results are ND, and other results are above the MDL, the value of the MDL will be used in place of the ND where an average result must be calculated. Where all collected samples are ND the average sample result will be assumed to be ND.

Nitrate and nitrite samples are required every 3 months in normal operation.

<i>Parameter</i>	<i>Number of Tests or monitoring frequency</i>	<i>Result Range (Min – Max) Average (mg/L)</i>	<i>MAC (mg/L)</i>	<i>MDL (mg/L)</i>
Nitrite			1.0	0.003
Bell Mill Road WTF	4	ND		
Fairview WTF	44	ND – 0.08 (ND)		
Mall Road WTF	4	ND		
Plank Line WTF +	NA	NA		
Rokeyby Road WTF	5	ND		
Nitrate			10.0	0.006
Bell Mill Road WTF	4	(3.38 – 4.44) 3.84		
Fairview WTF	44*	(5.14 – 9.12) 6.41		
Mall Road WTF	4	(2.02 – 2.38) 2.18		
Plank Line WTF +	NA	NA		
Rokeyby Road WTF	5	(4.94 – 5.92) 5.42		

*Additional samples are taken at Fairview WTF to confirm accuracy of the continuously monitored nitrate analyzer.
+ Plank Ln. WTF not running in 2022

Trihalomethane (THM) and total Haloacetic Acids (HAA) are by-products of the disinfection process. The samples are required every 3 months from the distribution system.

<i>Parameter</i>	<i>Annual Average</i>	<i>Result Value (µg/L)</i>	<i>MAC (µg/L)</i>	<i>MDL (µg/L)</i>
Trihalomethane (THM)	2022	31.0	100	0.37
Haloacetic Acids (HAA)	2022	5.9	80	5.3

The following Table summarizes the most recent test results for Sodium and Fluoride. Testing and reporting any adverse results is required every 5 years.

<i>Parameter</i>	<i>Sample Date</i>	<i>Result Value (mg/L)</i>	<i>MAC (mg/L)</i>	<i>MDL (mg/L)</i>
Sodium			20*	0.01
Bell Mill Road WTF	August 16, 2021	6.5		
Fairview WTF	May 27, 2019	40.8		
Mall Road WTF	August 16, 2021	11.1		
Plank Line WTF +	August 22, 2016	39.3		
Rokeyby Road WTF	August 16, 2021	2.6		
Fluoride			1.5**	0.06
Bell Mill Road WTF	August 16, 2021	0.07		
Fairview WTF	May 27, 2019	0.35		
Mall Road WTF	August 16, 2021	ND		
Plank Line WTF +	August 22, 2016	1.51		
Rokeyby Road WTF	August 16, 2021	ND		

*Sodium levels between 20 – 200 mg/L must be reported every 5 years

**Natural levels of fluoride between 1.5 – 2.4 mg/L must be reported every 5 years.

+ Not running in 2022.

The following Table summarizes the most recent results for the Lead Testing Program. Lead samples are taken every 3 years. Levels of alkalinity and pH are monitored twice per year in the distribution system to ensure water quality is consistent and does not facilitate leaching of lead into the water.

<i>Parameter</i>	<i>Result Range (Min - Max)</i>	<i>Number of Samples</i>	<i>Acceptable Level</i>
Distribution Alkalinity 2022	180 - 252	8	30 – 500mg/L
Distribution pH 2022	7.41 – 7.76	8	6.5 – 8.5
Distribution Lead 2021	0.08 – 1.32	8	10 µg/L MAC

Table (A) summarizes 2022 Schedule 23 test results for Bell Mill Rd., Fairview and Mall Rd. Testing is required annually for GUDI wells.

<i>(A) Parameter</i>	<i>Results (µg/L) Bell Mill Rd. WTF (Nov. 21, 2022)</i>	<i>Results (µg/L) Fairview WTF (Nov. 21, 2022)</i>	<i>Results (µg/L) Mall Rd. WTF (Nov. 21, 2022)</i>	<i>MAC (µg/L)</i>	<i>MDL (µg/L)</i>
Antimony	ND	ND	ND	6	0.6
Arsenic	ND	2.9	0.2	10	0.2
Barium	35.9	210	71.8	1000	0.02
Boron	18	88	18	5000	2
Cadmium	0.005	0.011	0.017	5	0.003
Chromium	0.24	0.3	0.15	50	0.08

(A) Parameter	Results (µg/L) Bell Mill Rd. WTF (Nov. 21, 2022)	Results (µg/L) Fairview WTF (Nov. 21, 2022)	Results (µg/L) Mall Rd. WTF (Nov. 21, 2022)	MAC (µg/L)	MDL (µg/L)
Mercury	ND	ND	ND	1	0.01
Selenium	0.33	0.38	0.31	50	0.04
Uranium	0.664	0.314	2.31	20	0.002

Table (B) summarizes the most recent Schedule 23 test results for Plank Ln. and Rokeby Rd. Testing is required every 3 years for secure, Non-GUDI wells.

(B) Parameter	Results (ug/L) Plank Line WTF June 6/16 +	Results (ug/L) Rokeby Road WTF May 30/22	MAC (µg/L)	MDL (µg/L)
Antimony	ND	ND	6	0.6
Arsenic	10.0	ND	10	0.2
Barium	52.4	26.7	1000	0.02
Boron	153	23	5000	2
Cadmium	ND	0.008	5	0.003
Chromium	3.94	0.68	50	0.08
Mercury	ND	ND	1	0.01
Selenium	0.09	0.39	50	0.04
Uranium	0.185	1.31	20	0.002

+ Plank Ln. WTF not running in 2022

Table (C) summarizes 2022 Schedule 24 Organic parameters test results for Bell Mill Rd., Fairview and Mall Rd. Testing is required annually for GUDI wells.

(C) Parameter	Results (µg/L) Bell Mill Rd. WTF (Nov. 21, 2022)	Results (µg/L) Fairview WTF (Nov. 21, 2022)	Results (µg/L) Mall Rd. WTF (Nov. 21, 2022)	MAC (µg/L)	MDL (µg/L)*
Alachlor	ND	ND	ND	5	0.02
Atrazine + N-dealkylatedmetabolites	ND	ND	ND	5	0.01
Azinphos-methyl	ND	ND	ND	20	0.05
Benzene	ND	ND	ND	1	0.32
Benzo(a)pyrene	ND	ND	ND	0.01	0.004
Bromoxynil	ND	ND	ND	5	0.33
Carbaryl	ND	ND	ND	90	0.05
Carbofuran	ND	ND	ND	90	0.01
Carbon Tetrachloride	ND	ND	ND	2	0.17
Chlorpyrifos	ND	ND	ND	90	0.02
Diazinon	ND	ND	ND	20	0.02
Dicamba	ND	ND	ND	120	0.20
1,2-Dichlorobenzene	ND	ND	ND	200	0.41
1,4-Dichlorobenzene	ND	ND	ND	5	0.36
1,2-Dichloroethane	ND	ND	ND	5	0.35
1,1-Dichloroethylene (vinylidene chloride)	ND	ND	ND	14	0.33
Dichloromethane	ND	ND	ND	50	0.35
2-4 Dichlorophenol	ND	ND	ND	900	0.15

(C) Parameter	Results (µg/L) Bell Mill Rd. WTF (Nov. 21, 2022)	Results (µg/L) Fairview WTF (Nov. 21, 2022)	Results (µg/L) Mall Rd. WTF (Nov. 21, 2022)	MAC (µg/L)	MDL (µg/L)*
2,4-Dichlorophenoxy acetic acid (2,4-D)	ND	ND	ND	100	0.19
Diclofop-methyl	ND	ND	ND	9	0.40
Dimethoate	ND	ND	ND	20	0.06
Diquat	ND	ND	ND	70	1
Diuron	ND	ND	ND	150	0.03
Glyphosate	ND	ND	ND	280	1
Malathion	ND	ND	ND	190	0.02
2-methyl-4chlorophenoxyacetic acid (MCPA)	ND	ND	ND	100	0.12
Metolachlor	ND	ND	ND	50	0.01
Metribuzin	ND	ND	ND	80	0.02
Monochlorobenzene	ND	ND	ND	80	0.30
Paraquat	ND	ND	ND	10	1
Pentachlorophenol	ND	ND	ND	60	0.15
Phorate	ND	ND	ND	2	0.01
Picloram	ND	ND	ND	190	1
Polychlorinated Biphenyls(PCB)	ND	ND	ND	3	0.04
Prometryne	ND	ND	ND	1	0.03
Simazine	ND	ND	ND	10	0.01
Terbufos	ND	ND	ND	1	0.01
Tetrachloroethylene	ND	ND	ND	10	0.35
2,3,4,6-Tetrachlorophenol	ND	ND	ND	100	0.20
Triallate	ND	ND	ND	230	0.01
Trichloroethylene	ND	ND	ND	5	0.44
2,4,6-Trichlorophenol	ND	ND	ND	5	0.25
Trifluralin	ND	ND	ND	45	0.02
Vinyl Chloride	ND	ND	ND	1	0.17

*2022 Method Detection Limit (MDL) Stated

Table (D) and Rokeby Rd. Testing is required every 3 years for secure, Non-GUDI wells. Plank Ln. WTF has not run since 2016.

(D) Parameter	Results (µg/L) Plank Ln. WTF June 6, 2016 +	Results (µg/L) Rokeby Rd. WTF June 7, 2021	MAC (µg/L)	Plank MDL (µg/L)	Rokeby MDL (µg/L)
Alachlor	ND	ND	5	0.02	0.02
Atrazine + N-dealkylatedmetabolites	ND	0.02	5	0.01	0.01
Azinphos-methyl	ND	ND	20	0.01	0.05
Benzene	ND	ND	1	0.32	0.32
Benzo(a)pyrene	ND	ND	0.01	0.004	0.004
Bromoxynil	ND	ND	5	0.33	0.33
Carbaryl	ND	ND	90	0.05	0.05
Carbofuran	ND	ND	90	0.01	0.01
Carbon Tetrachloride	ND	ND	2	0.16	0.17

<i>(D) Parameter</i>	<i>Results (µg/L) Plank Ln. WTF June 6, 2016 +</i>	<i>Results (µg/L) Rokey Rd. WTF June 7, 2021</i>	<i>MAC (µg/L)</i>	<i>Plank MDL (µg/L)</i>	<i>Rokey MDL (µg/L)</i>
Chlorpyrifos	ND	ND	90	0.002	0.02
Diazinon	ND	ND	20	0.02	0.02
Dicamba	ND	ND	120	0.02	0.20
1,2-Dichlorobenzene	ND	ND	200	0.20	0.41
1,4-Dichlorobenzene	ND	ND	5	0.41	0.36
1,2-Dichloroethane	ND	ND	5	0.36	0.35
1,1-Dichloroethylene (vinylidene chloride)	ND	ND	14	0.35	0.33
Dichloromethane	ND	ND	50	0.33	0.35
2-4 Dichlorophenol	ND	ND	900	0.35	0.15
2,4-Dichlorophenoxy acetic acid (2,4-D)	ND	ND	100	0.15	0.19
Diclofop-methyl	ND	ND	9	0.19	0.40
Dimethoate	ND	ND	20	0.40	0.06
Diquat	ND	ND	70	0.03	1
Diuron	ND	ND	150	1	0.03
Glyphosate	ND	ND	280	0.03	1
Malathion	ND	ND	190	1	0.02
2-methyl- 4chlorophenoxyacetic acid (MCPA) *	*	ND	100	0.02	0.12
Metolachlor	ND	ND	50	0.12	0.01
Metribuzin	ND	ND	80	0.01	0.02
Monochlorobenzene	ND	ND	80	0.02	0.30
Paraquat	ND	ND	10	0.30	1
Pentachlorophenol	ND	ND	60	1	0.15
Phorate	ND	ND	2	0.15	0.01
Picloram	ND	ND	190	0.01	1
Polychlorinated Biphenyls(PCB)	ND	ND	3	1	0.04
Prometryne	ND	ND	1	0.04	0.03
Simazine	ND	ND	10	0.03	0.01
Terbufos	ND	ND	1	0.01	0.01
Tetrachloroethylene	ND	ND	10	0.01	0.35
2,3,4,6-Tetrachlorophenol	ND	ND	100	0.35	0.20
Triallate	ND	ND	230	0.14	0.01
Trichloroethylene	ND	ND	5	0.01	0.44
2,4,6-Trichlorophenol	ND	ND	5	0.43	0.25
Trifluralin	ND	ND	45	0.25	0.02
Vinyl Chloride	ND	ND	1	0.02	0.17

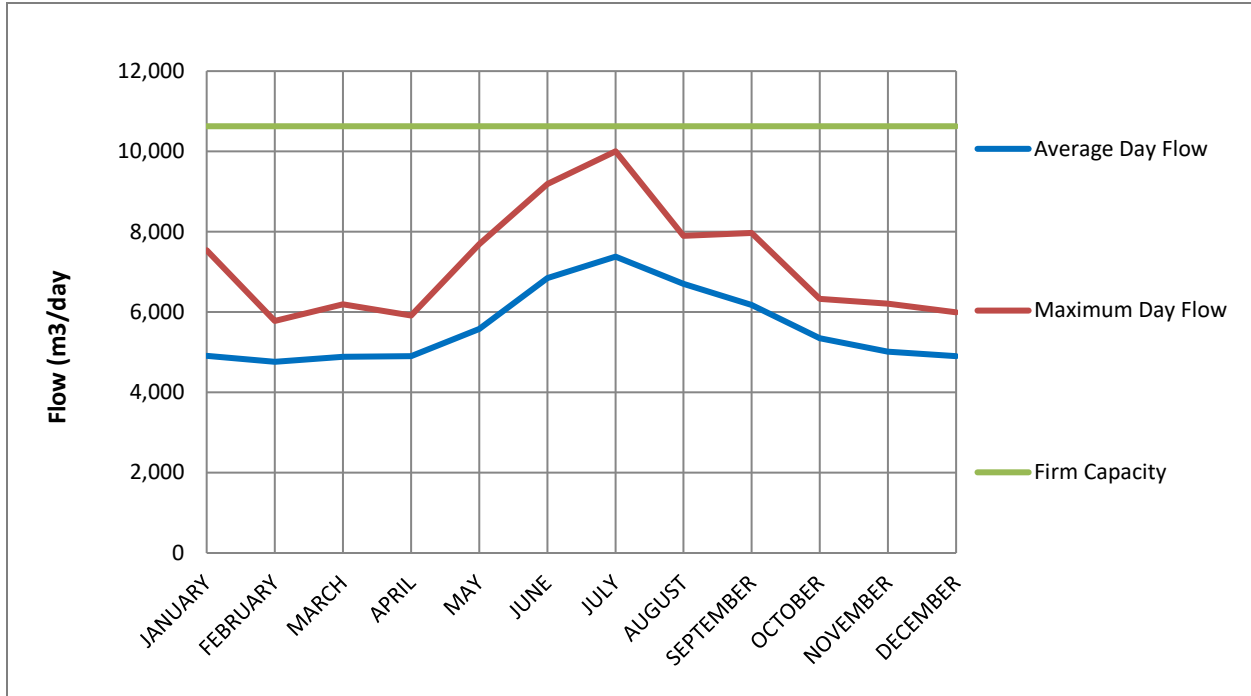
+ Plank Ln. WTF not running in 2022

* MCPA was added in 2017

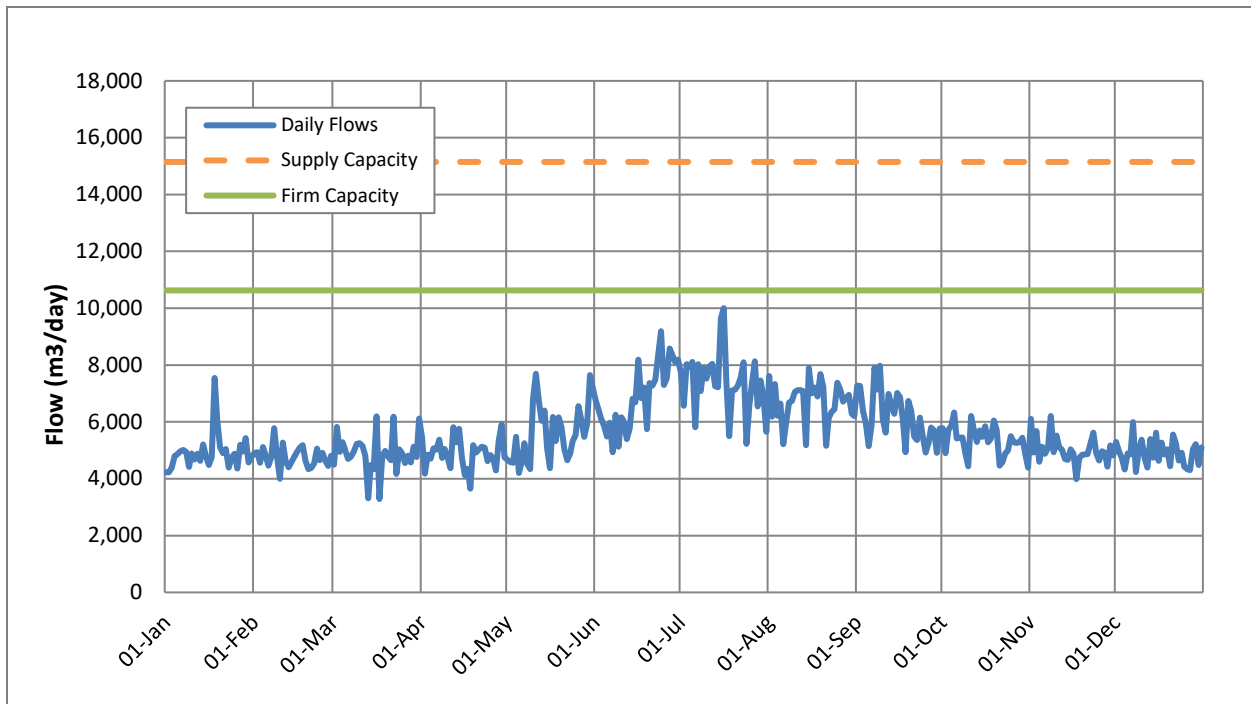
APPENDIX B: WATER QUANTITY SUMMARY

Tillsonburg Drinking Water System Firm Capacity 10,627 m³/ day
Tillsonburg Drinking Water System Supply Capacity 15,300 m³/ day

Average vs Maximum Daily Flow Rates



2022 Daily Flow



2022 Total Production by Well

