

2023 Annual Drinking Water System Summary Report

Oxford South 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 information required for Annual Reports and Summary Reports under Ontario Regulation (O. Reg.) 170/03 of the *Safe Drinking Water Act* including 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: Drinking Water System Number: Reporting Period: Oxford South Drinking Water System 220000601 January 1, 2023 – December 31, 2023

Drinking Water System Owner & Contact Information:

Oxford County Public Works Department - Water Services P.O. Box 1614 21 Reeve Street Woodstock, ON N4S 7Y3 Telephone: 519-539-9800 Toll Free: 866-537-7778 Email: water@oxfordcounty.ca

1.1 System Description

The Oxford South Drinking Water System (DWS) is a large municipal residential water system as defined by O. Reg. 170/03 and serves a population of approximately 6,001. Transmission watermains interconnect the communities of Otterville, Springford, and Norwich.

The system consists of seven secure groundwater wells and four Water Treatment Facilities (WTFs) as follows:

Treatment Facility	Location	Wells	Treatment
Pitcher Street	Norwich	N2 and N5	Filtration for iron removal and disinfection with sodium hypochlorite
Main Street	Norwich	N4	Iron sequestering with sodium silicate and disinfection with sodium hypochlorite
Otterville	Otterville	O3 and O4	Disinfection with sodium hypochlorite
Springfield	Springfield	S4 and S5	Disinfection with sodium hypochlorite

The treatment facilities each house high lift pumps, and monitoring and treatment equipment for the supply wells. A 1,818 m³ water tower at Norwich and a 1,440 m³ water tower in Otterville provide storage and maintain pressure in the system.

In 2023, approximately 15,170 L of sodium hypochlorite and 3,770 kg of sodium silicate were used in the water treatment process. These chemicals are certified to meet standards set by the Standards Council of Canada or American National Standards Institute.

Standby generators are available at Norwich Pitcher Street and Otterville to run the facilities in the event of a power failure. The system is maintained by licensed water system operators, who operate treatment and monitoring equipment and collect samples as specified by O. Reg. 170/03. Alarms automatically notify operators in the event of failure of critical operational requirements. The Oxford South DWS does not supply drinking water to any other drinking water systems. A bulk water station is located in Norwich at 6 Pitcher Street for customer convenience.

1.2 Major Expenses

Planning for major drinking water system expenses is included within Oxford County's Water Services Master Plan and managed according to our Asset Management and Capital Replacement Program.

The Oxford South Drinking Water System is one of 14 water systems that have revenues and expenses pooled for economy of scale purposes. The systems are combined into the Township water financial system and in 2023 had an operating and maintenance expenditures of approximately \$4,100,000.

In addition to regular operational and maintenance expenditures, Capital Improvement Projects for the Townships systems totaled \$4,100,000 for improvements to water treatment systems and replacement of distribution mains in the Township System.

Township Capital Improvement Projects included:

- \$3,000,000 for Norwich Tower Paint & Rehab;
- \$413,000 repair and maintenance on wells, water pump stations, and water treatment facilities;
- \$ 70,000 for facilities improvements; and
- \$ 50,000 distribution replacements.

Capital Improvement projects for all systems included:

- \$390,000 to develop Countywide SCADA Master Plan for all water systems
- \$70,000 to develop Countywide Water Servicing Master Plan for all water systems
- \$38,000 to develop the County Development Charges Technical Study

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 the Maximum Allowable Concentration (MAC) of 0 colonies per 100 mL in treated water samples 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 annual sampling program are shown on the following table. There were two adverse test results from 417 treated water samples taken in 2023. The corrective for which is summarized in section 6.2.

Source	Number of Samples	Range of E. coli Min - Max MAC = 0 (colonies / 100 mL)	Range of Total Coliform Min - Max MAC = 0 (colonies / 100 mL)
Raw	339	0	0 – 110
Treated	198	0 – NDOGN	0 – NDOGN
Distribution	219	0	0 – 1

*No Data, Overgrown Non-target bacteria (NDOGN) occurs when the total coliform/*E.coli* plate is overgrown with non-target bacteria.

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. Annual results are shown in the following table.

Source	Number of Samples	Range of HPC Min – Max (colonies / mL)
Treated	196	0 – 518
Distribution	60	0 – 3

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 O. Reg. 170/03. 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 Oxford South DWS is provided below.

3.1 Sodium

Sodium levels in drinking water are tested once every five years. The aesthetic objective is 200 mg/L meaning at levels less than this, sodium will not impair the taste of the water. The latest test results are provided in Appendix 'A'.

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/advisories-alerts-andinformation.aspx#2024 in order to help people on sodium restricted diets control their sodium intake.

3.2 Fluoride

Oxford County does not add fluoride to the water at any of its drinking water systems though naturally occurring concentrations of fluoride may be present in some systems. Fluoride levels are sampled once every five years. The latest test results are provided in Appendix 'A'.

Fluoride levels under 2.4 mg/L are considered safe for consumption however at levels between 1.5 and 2.4 mg/L fluoride may cause staining or pitting of teeth in children less than six years old. When fluoride levels above 1.5 mg/L the MECP and MOH are notified. Further information on fluoride can be found on the Southwestern Public

Health web page at https://www.swpublichealth.ca/en/partners-and-professionals/advisories-alerts-and-information.aspx#2024.

3.3 Hardness, Iron, and Manganese

These are aesthetic parameters 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 three years from raw or treated water. The hardness for the Oxford South system was tested in 2022, the Oxford South system hardness depends on the wells being used.

- Norwich well water is considered very hard. Results ranged from 286 328 mg/L (17 19 grains/gallon).
- Otterville well water is also considered very hard. Results ranged from 291 299 mg/L (17 grains/gallon).
- Springford well water is considered medium hard. Results ranged from 87 91 mg/L (5 grains/gallon)

Iron levels less than 0.30 mg/L are not considered to cause aesthetic problems such as discoloured water.

- Iron is less than 0.08 mg/L at the Otterville facility and the Springford facility.
- Iron is removed by filtration at the Norwich Pitcher St. facility and in 2023 iron levels averaged 0.15mg/L.
- Iron is kept in solution at the Norwich Main St. facility by addition of sodium silicate. In 2023, the Norwich Main St. facility iron was 0.33 mg/L.

Manganese is commonly found in conjunction with iron and also causes discoloured water. Currently, levels of manganese under 0.05 mg/L are not considered to cause aesthetic issues. However, a new aesthetic objective of 0.02 mg/L has been proposed though not yet take effect.

- Manganese is less than 0.02 mg/L at the Otterville facility and Norwich Pitcher Street facility.
- The latest result for Springford facility manganese is 0.03 mg/L.
- In 2023, the Norwich Main St. facility manganese levels averaged 0.05 mg/L.

3.4 Required Additional Testing

Under O. Reg. 170/03, additional quarterly sampling is required when a parameter listed in Schedule 23 or 24 exceeds half of the MAC. Raw water from well N2 and N5 is

successfully treated below the MAC for arsenic. Though not required, the County still takes additional samples to confirm filter efficiency for arsenic removal. Springford treated water exceeds the half MAC for arsenic (5 μ g/L) but is successfully kept below the MAC. Quarterly test results are summarized in Appendix 'A'.

No additional testing requirements are listed in the Municipal Drinking Water Licence.

4. OPERATIONAL MONITORING

4.1 Chlorine Residual

Free chlorine levels of the treated water are continuously monitored at the discharge point of the WTF and in the distribution system. Distribution system free chlorine residuals are also checked weekly at various locations during sampling. 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. A summary of the chlorine residual readings is provided in the table below. There were no reportable incidents in 2023.

4.2 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 annual monitoring results is provided in the following table.

Parameter	Number of Tests or Monitoring Frequency	Range of Results (Min – Max) and Average
Norwich Main St. E WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.62 – 4.48) 1.47
Well N4 turbidity before treatment (NTU)	52	(0.09 – 1.74) 0.33
Turbidity after treatment (NTU)	Continuous	(0.03 – 4.00) 0.07
Norwich Pitcher St. WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.51 – 2.95) 1.40
Well N2 turbidity before treatment (NTU)	52	(0.15 – 1.92) 0.46
Well N5 turbidity before treatment (NTU)	52	(0.12 – 1.60) 0.44
Turbidity after treatment (NTU)	Continuous	(0.03 – 4.00) 0.16
Otterville WTF		
Chlorine residual after treatment (mg/L)	Continuous	(0.41 – 2.04) 1.36
Well O3 turbidity before treatment (NTU)	52	(0.08 – 1.48) 0.27
Well O4 turbidity before treatment (NTU)	52	(0.09 – 1.61) 0.32
Turbidity after treatment (NTU)	Continuous	(0.07 – 4.00) 0.10
Springford WTF		

Parameter	Number of Tests or Monitoring Frequency	Range of Results (Min – Max) and Average			
Chlorine residual after treatment (mg/L)	Continuous	(0.19 – 4.00) 1.23			
Well S4 turbidity before treatment (NTU)	37	(0.12 – 2.51) 0.47			
Well S5 turbidity before treatment (NTU)	42	(0.1 – 1.91) 0.34			
Turbidity after treatment (NTU)	Continuous	(0.04 – 4.03) 0.35			
Distribution System					
Chlorine residual in distribution (mg/L)	Continuous	(0.39 – 2.26) 1.27			

5. WATER QUANTITY

Continuous monitoring of flow rates from supply wells into the treatment system and from the WTF into the distribution system is required by O. Reg. 170/03. The Permit to Take Water (PTTW) and Municipal Drinking Water License (MDWL) issued by the MECP regulate the amount of water that can be utilized over a given time period. Terms used to evaluate capacity and current values for the Ingersoll DWS are provided in the following table.

Capacity Term	Description	Capacity (m³/day)
Supply Capacity	The limiting capacity of either the PTTW or MDWL.	6,054
Dynamic Supply Capacity	Accounts for any current constraints on the water supply (such as offline wells, reduced well capacity, water quality considerations).	6,054
Firm Capacity	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 m ³ /day to maintain system integrity if appropriate.	3,764
Dynamic Firm Capacity	Considers the removal of the largest production well and other current system constraints. Trucked in water may be considered for some systems.	3,444

This system consist of seven supply wells. Dynamic Capacity conditions consider reduced well capacities. Under the Firm Capacity conditions Well 4 in Norwich is removed. The Dynamic Firm Capacity assumes Well 4 in Norwich is offline and assumes that both Springford wells are not in service as they are frequently offline in the warmer months and not a reliable supply.

A summary comparing flows in 2023 to current capacities is provided in the table below and presented graphically in Appendix 'B'.

Flow Summary	Supply Capacity (m³/day)	Dynamic Supply Capacity (m³/day)	Max Daily Flow (m³/day)	Average Daily Flow (m³/day)	Average Monthly Flow (m³/month)	Total Yearly Flow (m³/year)
Springford WTF	321	321	76	15	443	5,316
Otterville WTF	1,310	1,310	1,053	280	8,512	102,146
Norwich Main St. WTF	2,289	2,289	797	335	10,182	122,189
Norwich Pitcher St. WTF	2,134	2,134	1,812	577	17,552	210,627
Oxford South DWS *Values may not sum	6,054	6,054	2,671	1,206	36,690	440,278

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

The annual MECP inspection took place in September 2023. There were no noncompliance findings and the 2023 Inspection Report Rating was 100%.

6.2 Adverse Results

Any adverse bacteriological or chemical results or observations of operational conditions that may indicate adverse water quality are reported as required and corrective actions are taken. There were two adverse water quality results in 2023.

- A bacteriological sample result taken from Pitcher Street WTF on July 4, 2023 was reported by the lab as NDOGN. The result was reported to the MECP and MOH. Two consecutive sets of resamples were collected at the site and from two downstream locations. All re-samples were determined to be acceptable by ODWS.
- A bacteriological sample result taken from the distribution system on July 24, 2023 was found to have total coliforms of 62 CFU/100 mL. The result was reported to the MECP and MOH. Resamples were collected at the site and from an upstream and downstream location. All re-samples were determined to be acceptable by ODWS.

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 (μ g/L). 1 mg/L is equal to 1000 μ g/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.

Parameter	Number of Tests	Result Range (Min – Max) Average (mg/L)	MAC (mg/L)	MDL (mg/L)
Nitrite				
Norwich Main St. WTF	4	ND	1.0	0.003
Norwich Pitcher St. WTF	4	ND	1.0	0.003
Otterville WTF	16	ND	1.0	0.003
Springford WTF	4	ND	1.0	0.003
Nitrate				
Norwich Main St. WTF	4	(ND – 0.128) 0.044	10.0	0.006
Norwich Pitcher St. WTF	4	ND	10.0	0.006
Otterville WTF	16	(6.11 – 8.41) 7.46	10.0	0.006
Springford WTF	4	(0.005 – 0.042) 0.015	10.0	0.006

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

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

Parameter	Annual Average	Result Value (µg/L)	MAC (µg/L)	MDL (µg/L)
Trihalomethane (THM)	2023	16.5	100	0.37
Haloacetic Acids (HAA)	2023	ND	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 five years.

Parameter	Sample Date	Result Value (mg/L)	MAC (mg/L)	MDL (mg/L)
Sodium				
Norwich Main St. WTF	May 27/2019	17.9	20.0*	0.01
Norwich Pitcher St. WTF	Feb 19/2019	23.2	20.0*	0.01
Otterville WTF	May 27/2019	34.0	20.0*	0.01
Springford WTF	May 30/2022	52.5	20.0*	0.01
Fluoride				
Norwich Main St. WTF	Aug. 16/2021	0.93	1.5**	0.006
Norwich Pitcher St. WTF	Aug 16/2021	0.89	1.5**	0.006
Otterville WTF	April 24/2021	0.08	1.5**	0.006
Springford WT	May 30/2022	1.57	1.5**	0.006

*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.

The following Table summarizes the most recent results for the Lead Testing Program. Lead samples are taken every three 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.

Parameter	Result Range (Min - Max)	Number of Samples	Acceptable Level
Distribution Alkalinity 2023	208 – 260 mg/L	6	30 – 500 mg/L
Distribution pH 2023	7.51 – 7.81	6	6.5 - 8.5
Distribution Lead 2021	0.03 – 1.31 µg/L	6	10 µg/L MAC

The following Tables summarize the most recent test results for Schedule 23 parameters for each facility. Testing is required every three years for secure groundwater wells in large systems.

Parameter	Results (µg/L) Norwich Pitcher St. Nov. 27, 2023	Results (μg/L) Norwich Main St. Nov. 27, 2023	Results (µg/L) Otterville WTF May 30, 2022	Results (μg/L) Springford WTF May 29, 2023	MAC (µg/L)	MDL (µg/L
Antimony	ND	ND	ND	ND	6	0.6
Arsenic	2.2*	1.4	0.3	5.3*	10	0.2
Barium	174	208	33	102	1000	0.02
Boron	86	60	42	207	5000	2
Cadmium	ND	0.005	0.010	ND	5	0.003
Chromium	0.17	0.10	0.72	0.16	50	0.08
Mercury	ND	ND	ND	ND	1	0.01

Parameter	Results (µg/L) Norwich Pitcher St. Nov. 27, 2023	Results (µg/L) Norwich Main St. Nov. 27, 2023	Results (µg/L) Otterville WTF May 30, 2022	Results (μg/L) Springford WTF May 29, 2023	MAC (µg/L)	MDL (μg/L
Selenium	ND	0.09	0.37	0.05	50	0.04
Uranium	0.084	0.329	0.554	0.053	20	0.002

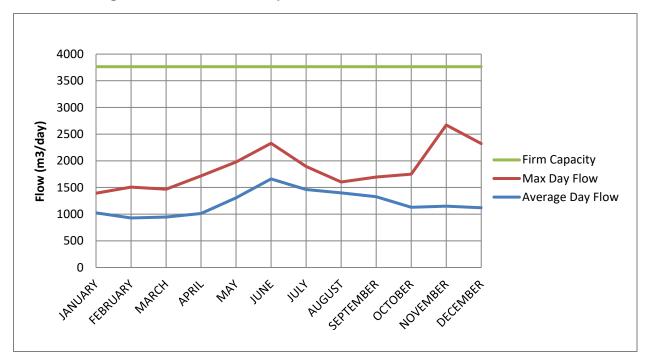
*Annual average of all samples collected in 2023

The following Table summarizes the most recent test results for Schedule 24 parameters. Testing is required every three years for secure groundwater wells in large systems.

Parameter	Results (µg/L) Norwich Pitcher St. Nov.27, 2023	Results (μg/L) Norwich Main St. Nov.27, 2023	Results (µg/L) Otterville WTF June 7, 2021	Results (µg/L) Springford WTF May29, 2023	MAC (μg/L)	MDL (µg/L)
Alachlor	ND	ND	ND	ND	5	0.02
Atrazine + N- dealkylatedmetoboli tes	ND	ND	ND	ND	5	0.01
Azinphos-methyl	ND	ND	ND	ND	20	0.05
Benzene	ND	ND	ND	ND	1	0.32
Benzo(a)pyrene	ND	ND	ND	ND	0.01	0.004
Bromoxynil	ND	ND	ND	ND	5	0.33
Carbaryl	ND	ND	ND	ND	90	0.05
Carbofuran	ND	ND	ND	ND	90	0.01
Carbon Tetrachloride	ND	ND	ND	ND	2	0.17
Chlorpyrifos	ND	ND	ND	ND	90	0.02
Diazinon	ND	ND	ND	ND	20	0.02
Dicamba	ND	ND	ND	ND	120	0.20
1,2- Dichlorobenzene	ND	ND	ND	ND	200	0.41
1,4- Dichlorobenzene	ND	ND	ND	ND	5	0.36
1,2-Dichloroethane	ND	ND	ND	ND	5	0.35
1,1- Dichloroethylene (vinylidene chloride)	ND	ND	ND	ND	14	0.33
Dichloromethane	ND	ND	ND	ND	50	0.35
2-4 Dichlorophenol	ND	ND	ND	ND	900	0.15
2,4- Dichlorophenoxy acetic acid (2,4-D)	ND	ND	ND	ND	100	0.19
Diclofop-methyl	ND	ND	ND	ND	9	0.40
Dimethoate	ND	ND	ND	ND	20	0.06
Diquat	ND	ND	ND	ND	70	1
Diuron	ND	ND	ND	ND	150	0.03
Glyphosate	ND	ND	ND	ND	280	1
Malathion	ND	ND	ND	ND	190	0.02

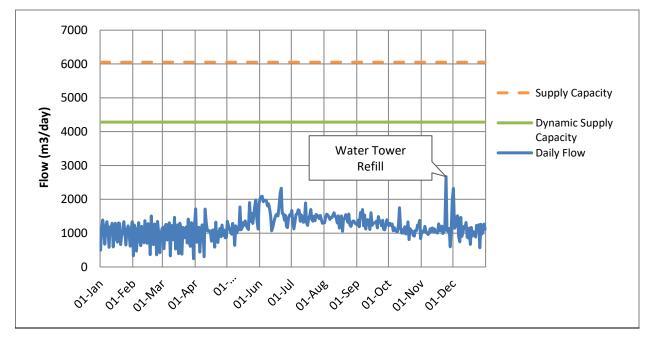
Parameter	Results (μg/L) Norwich Pitcher St. Nov.27, 2023	Results (μg/L) Norwich Main St. Nov.27, 2023	Results (µg/L) Otterville WTF June 7, 2021	Results (µg/L) Springford WTF May29, 2023	MAC (µg/L)	MDL (µg/L)
2-methyl- 4chlorophenoxyacet ic acid (MCPA)	ND	ND	ND	ND	100	0.12
Metolachlor	ND	ND	ND	ND	50	0.01
Metribuzin	ND	ND	ND	ND	80	0.02
Monochlorobenzen e	ND	ND	ND	ND	80	0.30
Paraquat	ND	ND	ND	ND	10	1
Pentachlorophenol	ND	ND	ND	ND	60	0.15
Phorate	ND	ND	ND	ND	2	0.01
Picloram	ND	ND	ND	ND	190	1
Polychlorinated Biphenyls(PCB)	ND	ND	ND	ND	3	0.04
Prometryne	ND	ND	ND	ND	1	0.03
Simazine	ND	ND	ND	ND	10	0.01
Terbufos	ND	ND	ND	ND	1	0.01
Tetrachloroethylene	ND	ND	ND	ND	10	0.35
2,3,4,6- Tetrachlorophenol	ND	ND	ND	ND	100	0.20
Triallate	ND	ND	ND	ND	230	0.01
Trichloroethylene	ND	ND	ND	ND	5	0.44
2,4,6- Trichlorophenol	ND	ND	ND	ND	5	0.25
Trifluralin	ND	ND	ND	ND	45	0.02
Vinyl Chloride	ND	ND	ND	ND	1	0.17

APPENDIX 'B': WATER QUANTITY SUMMARY



2023 Average vs Maximum Daily Flow Rates

2023 Daily Flow



In 2023 the Supply Capacity and the Dynamic Supply Capacity were the same for Oxford South

2023 Total Production by Well

