

# 2024 Annual Drinking Water System Quality Report for Ansnorveldt DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 260002213

**Drinking Water System Name:** Ansnorveldt DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Ansnorveldt DWS serves approximately 120 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Ansnorveldt DWS:**

Ansnorveldt Distribution System (260034372)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## **Description of the Ansnorveldt DWS**

### **Introduction:**

Ansnorveldt is located in King Township. The residential community served by the Ansnorveldt Drinking Water System is centred on Dufferin Street, north of Highway 9. Local groundwater is naturally high in minerals. York Region operates the water supply, while the Township of King maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Groundwater

### **Water treatment description:**

Two wells share one pumphouse. Water is disinfected with chlorine. No other treatment chemicals are used. Raw water test results show the good health of the aquifer and help staff confirm optimal treatment. Water is stored and kept fresh on site for high demand times. Operators test the water and inspect the process regularly. Online analyzers continuously monitor treatment and water flow. When analyzers detect an issue, the system pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Chlorine (Sodium Hypochlorite)

### **Brief description and breakdown of monetary expenses incurred:**

\$85,857 for for pump maintenance, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	106	0
Total Coliforms	106	0

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	53	0
Heterotrophic Plate Count	53	14
Total Coliforms	53	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Free Chlorine	mg/L	8,760	1.46	0.62	2.63
Turbidity (Treated)	NTU	8,760	0.17	0.12	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	4	0.245	0.230	0.260
Haloacetic Acids (Treated)	ug/L	5	10.625	<8.000	11.000
Nitrate (Treated)	mg/L	4	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	4	0.050	<0.050	<0.050
Sodium	mg/L	1	41.500	41.500	41.500
Trihalomethanes (Treated)	ug/L	4	47.450	41.400	58.100

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
 Test Parameter **Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Unit</b>	<b>Samples</b>		<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	1	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	1	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	1	0.1300	0.1300	0.1300	1
Boron	mg/L	1	0.1400	0.1400	0.1400	5
Cadmium	mg/L	1	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	1	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	1	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	1	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	1	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Unit	Samples		Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	3	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	3	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	3	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	3	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	1	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	1	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	1	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	1	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	1	5.000	<5.000	<5.000	100
Alachlor	ug/L	1	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	1	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	1	0.300	<0.300	<0.300	20
Benzene	ug/L	3	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	1	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	1	0.400	<0.400	<0.400	5
Carbaryl	ug/L	1	3.000	<3.000	<3.000	90
Carbofuran	ug/L	1	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	3	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	1	0.200	<0.200	<0.200	90
Diazinon	ug/L	1	0.200	<0.200	<0.200	20
Dicamba	ug/L	1	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	3	10.600	<4.000	23.800	50
Diclofop-methyl	ug/L	1	0.400	<0.400	<0.400	9
Dimethoate	ug/L	1	0.300	<0.300	<0.300	20
Diquat	ug/L	1	1.000	<1.000	<1.000	70
Diuron	ug/L	1	3.000	<3.000	<3.000	150
Glyphosate	ug/L	1	25.000	<25.000	<25.000	280
Malathion	ug/L	1	0.200	<0.200	<0.200	190
Metolachlor	ug/L	1	0.200	<0.200	<0.200	50
Metribuzin	ug/L	1	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	3	0.100	<0.100	<0.100	80
Paraquat	ug/L	1	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	1	0.400	<0.400	<0.400	60
Phorate	ug/L	1	0.200	<0.200	<0.200	2
Picloram	ug/L	1	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	1	0.100	<0.100	<0.100	3
Prometryne	ug/L	1	0.200	<0.200	<0.200	1
Simazine	ug/L	1	0.200	<0.200	<0.200	10
Terbufos	ug/L	1	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	3	0.300	<0.300	<0.300	10
Triallate	ug/L	1	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	3	0.100	<0.100	<0.100	5
Trifluralin	ug/L	1	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	3	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Aurora DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002440

**Drinking Water System Name:** Aurora DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Aurora DWS serves approximately 64,470 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Aurora DWS:**

Town of Aurora Distribution System (260003227); Newmarket Distribution System (260003188)

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**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Aurora DWS

### Introduction:

The Town of Aurora is located in the centre of York Region. Local groundwater is naturally high in minerals, and is blended with Lake Ontario water from the York DWS. York Region operates the water supply, while the Town of Aurora maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### Raw water source:

Groundwater

### Profile of water in distribution system:

Blended - Lake and Groundwater

### Water treatment description:

Aurora DWS includes six wells, six storage facilities, and three booster pumping stations. Chlorine provides disinfection, and chloramine provides a secondary residual. Two facilities also re-chloramine to boost the residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities. When a significant process or water quality issue is detected, the system automatically pauses operation until an operator takes action.

### List of water treatment chemicals used in this system:

Chlorine gas; Ammonia solution (Ammonium Sulphate); Sodium Silicate

### Brief description and breakdown of monetary expenses incurred:

\$3,756,175 for for standby power generator replacement construction, watermain repairs and upgrades, well rehabilitation and pump maintenance, design of treatment facility upgrades, design and construction of storage facility upgrades, design of valve chamber upgrades, construction of new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

<b>Incident Description</b>	<b>Incident Date</b>	<b>Adverse Test Result</b>	<b>Corrective Action</b>	<b>Corrective Action Date</b>
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	Jan 13, 2024	3.92 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.	Jan 13, 2024
Sodium > 20.0 mg/L	Apr 17, 2024	20.2 mg/L	Operator attended site. Resample taken.	Apr 25, 2024

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	229	0
Total Coliforms	229	4

**Treated Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	107	0
Heterotrophic Plate Count	106	19
Total Coliforms	107	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Combined Chlorine	mg/L	8,760	2.50	0.00	4.91
Turbidity (Treated)	NTU	8,760	0.06	0.02	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	86	0.529	<0.050	0.700
Haloacetic Acids (Distribution)	ug/L	24	8.138	<8.000	8.800
Nitrate (Treated)	mg/L	8	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	79	0.510	0.460	0.660
Nitrite (Treated)	mg/L	8	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	78	0.049	<0.003	<0.050
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	2	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0011	<0.0009	0.0016
Sodium	mg/L	9	17.256	11.000	20.900
Trihalomethanes (Treated)	ug/L	2	6.200	4.000	8.400
Trihalomethanes (Distribution)	ug/L	24	18.096	11.600	27.100

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	8	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	8	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	8	0.0393	0.0220	0.0980	1
Boron	mg/L	8	0.0236	0.0220	0.0270	5
Cadmium	mg/L	8	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	8	0.0050	<0.0050	0.0052	0.05
Mercury	ug/L	8	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	8	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	8	0.0003	<0.0001	0.0004	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	14	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	14	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	14	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	14	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	2	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	2	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	2	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	2	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	2	5.000	<5.000	<5.000	100
Alachlor	ug/L	2	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	2	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	2	0.300	<0.300	<0.300	20
Benzene	ug/L	14	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	2	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	2	0.400	<0.400	<0.400	5
Carbaryl	ug/L	2	3.000	<3.000	<3.000	90
Carbofuran	ug/L	2	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	14	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	2	0.200	<0.200	<0.200	90
Diazinon	ug/L	2	0.200	<0.200	<0.200	20
Dicamba	ug/L	2	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	14	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	2	0.400	<0.400	<0.400	9
Dimethoate	ug/L	2	0.300	<0.300	<0.300	20
Diquat	ug/L	2	1.000	<1.000	<1.000	70
Diuron	ug/L	2	3.000	<3.000	<3.000	150
Glyphosate	ug/L	2	25.000	<25.000	<25.000	280
Malathion	ug/L	2	0.200	<0.200	<0.200	190
Metolachlor	ug/L	2	0.200	<0.200	<0.200	50
Metribuzin	ug/L	2	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	14	0.100	<0.100	<0.100	80
Paraquat	ug/L	2	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	2	0.400	<0.400	<0.400	60
Phorate	ug/L	2	0.200	<0.200	<0.200	2
Picloram	ug/L	2	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	2	0.100	<0.100	<0.100	3
Prometryne	ug/L	2	0.200	<0.200	<0.200	1
Simazine	ug/L	2	0.200	<0.200	<0.200	10
Terbufos	ug/L	2	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	14	0.300	<0.300	<0.300	10
Triallate	ug/L	2	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	14	0.100	<0.100	<0.100	5
Trifluralin	ug/L	2	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	14	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Ballantrae/Musselman's Lake DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220008658

**Drinking Water System Name:** Ballantrae/Musselman's Lake DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Ballantrae/Musselman's Lake DWS serves approximately 4,630 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Ballantrae/Musselman's Lake DWS:**

Ballantrae-Musselman's Lake Distribution System (260006737)

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**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## **Description of the Ballantrae/Musselman's Lake DWS**

### **Introduction:**

The communities of Ballantrae and Musselman's Lake are centered on Aurora Road and Highway 48 in Whitchurch-Stouffville. Local groundwater is naturally high in minerals. York Region operates the water supply, while the Town of Whitchurch-Stouffville maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Groundwater

### **Water treatment description:**

Ballantrae-Musselman's Lake system includes three wells and one storage facility. Chlorine provides disinfection and maintains a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. The storage facility holds treated water and maintains pressure. Tests confirm good ground water quality. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When a significant process or water quality issue is detected, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Chlorine (Sodium Hypochlorite and Chlorine gas); Sodium Silicate

### **Brief description and breakdown of monetary expenses incurred:**

\$1,221,125 for for pump maintenance, construction of treatment and storage facility upgrades, design of storage facility rehabilitation, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	153	0
Total Coliforms	153	0

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	106	0
Heterotrophic Plate Count	106	19
Total Coliforms	106	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Free Chlorine	mg/L	8,760	1.56	0.00	3.28
Turbidity (Treated)	NTU	8,760	0.07	0.01	10.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	12	0.084	<0.050	0.130
Haloacetic Acids (Distribution)	ug/L	4	21.250	19.000	25.000
Nitrate (Treated)	mg/L	8	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	4	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	8	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
Sodium	mg/L	3	12.010	9.430	14.800
Trihalomethanes (Treated)	ug/L	2	5.450	5.100	5.800
Trihalomethanes (Distribution)	ug/L	4	30.625	25.300	35.500

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	3	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	3	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	3	0.0760	0.0520	0.0980	1
Boron	mg/L	3	0.0147	<0.0100	0.0210	5
Cadmium	mg/L	3	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	3	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	3	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	3	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	3	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	4	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	4	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	2	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	2	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	2	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	2	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	2	5.000	<5.000	<5.000	100
Alachlor	ug/L	2	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	2	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	2	0.300	<0.300	<0.300	20
Benzene	ug/L	4	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	2	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	2	0.400	<0.400	<0.400	5
Carbaryl	ug/L	2	3.000	<3.000	<3.000	90
Carbofuran	ug/L	2	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	4	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	2	0.200	<0.200	<0.200	90
Diazinon	ug/L	2	0.200	<0.200	<0.200	20
Dicamba	ug/L	2	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	4	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	2	0.400	<0.400	<0.400	9
Dimethoate	ug/L	2	0.300	<0.300	<0.300	20
Diquat	ug/L	2	1.000	<1.000	<1.000	70
Diuron	ug/L	2	3.000	<3.000	<3.000	150
Glyphosate	ug/L	2	25.000	<25.000	<25.000	280
Malathion	ug/L	2	0.200	<0.200	<0.200	190
Metolachlor	ug/L	2	0.200	<0.200	<0.200	50
Metribuzin	ug/L	2	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	4	0.100	<0.100	<0.100	80
Paraquat	ug/L	2	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	2	0.400	<0.400	<0.400	60
Phorate	ug/L	2	0.200	<0.200	<0.200	2
Picloram	ug/L	2	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	2	0.100	<0.100	<0.100	3
Prometryne	ug/L	2	0.200	<0.200	<0.200	1
Simazine	ug/L	2	0.200	<0.200	<0.200	10
Terbufos	ug/L	2	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	4	0.300	<0.300	<0.300	10
Triallate	ug/L	2	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	4	0.100	<0.100	<0.100	5
Trifluralin	ug/L	2	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	4	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Georgina DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 260026156

**Drinking Water System Name:** Georgina DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Treatment III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Georgina DWS serves approximately 9,350 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Georgina DWS:**

Keswick-Sutton Distribution System (260062686)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Georgina DWS

### **Introduction:**

The communities of Keswick and Sutton, and other lakeshore communities are located on the south shore of Lake Simcoe. Surface water from Lake Simcoe supplies these communities. The Keswick sub-system supplies the other half of this larger system. York Region operates the water supply, while the Town of Georgina maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Lake Simcoe

### **Profile of water in distribution system:**

Lake Simcoe

### **Water treatment description:**

The Georgina DWS includes one water treatment plant and one storage facility. Incoming water is screened and chlorine addition prevents mussel growth. Membrane filtration removes particles. Granular activated carbon improves taste and controls odour. UV light and chlorine are used for disinfection. Fluoride is added at levels recommended by Ontario's Chief Medical Officer of Health. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When a significant process or water quality issue is detected, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Chlorine gas and Aqueous Ammonia for disinfection; Granular activated carbon (for taste and odour control); Non water treatment chemical: Hydrofluosilicic Acid applied; Filtration membranes cleaned with sodium hypochlorite, citric acid, sodium hydroxide, sodium bisulfite; Dechlorination of membrane filter and GAC washwater with sulphur dioxide.

### **Brief description and breakdown of monetary expenses incurred:**

\$3,886,543 for for treatment facility rehabilitation and upgrades design and upgrades, storage facility replacement design, design of valve chamber upgrades, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	51	0
Total Coliforms	51	11

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	53	0
Heterotrophic Plate Count	53	16
Total Coliforms	53	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	8,760	0.69	0.20	1.49
Free Chlorine	mg/L	8,760	1.65	0.00	2.39
Turbidity (Raw)	NTU	8,760	0.37	0.00	10.00
Turbidity (Treated)	NTU	8,760	0.03	0.00	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Free Chlorine Backwash	mg/L	8,760	0.007	0.000	0.500
Haloacetic Acids (Treated)	ug/L	2	8.700	8.000	9.400
Haloacetic Acids (Distribution)	ug/L	4	18.500	13.000	23.000
Microcystin (Raw)	ug/L	36	0.150	<0.150	<0.150
Microcystin (Treated)	ug/L	36	0.150	<0.150	<0.150
Nitrate (Treated)	mg/L	4	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	4	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	4	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
Sodium	mg/L	2	35.700	35.600	35.800
Total Suspended Solids Backwash	mg/L	8,760	1.458	0.000	40.000
Trihalomethanes (Treated)	ug/L	14	19.446	10.600	25.700
Trihalomethanes (Distribution)	ug/L	14	30.381	20.300	38.600

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	2	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	2	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	2	0.0270	0.0270	0.0270	1
Boron	mg/L	2	0.0160	0.0150	0.0170	5
Cadmium	mg/L	2	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	2	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	2	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	2	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	2	0.0004	0.0004	0.0004	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	15	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	15	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	15	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	15	0.113	<0.100	<0.200	5
2,3,4,6-Tetrachlorophenol	ug/L	1	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	1	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	1	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	1	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	1	5.000	<5.000	<5.000	100
Alachlor	ug/L	1	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	1	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	1	0.300	<0.300	<0.300	20
Benzene	ug/L	15	0.107	<0.100	0.200	1
Benzo(a)pyrene	ug/L	1	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	1	0.400	<0.400	<0.400	5
Carbaryl	ug/L	1	3.000	<3.000	<3.000	90
Carbofuran	ug/L	1	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	15	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	1	0.200	<0.200	<0.200	90
Diazinon	ug/L	1	0.200	<0.200	<0.200	20
Dicamba	ug/L	1	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	15	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	1	0.400	<0.400	<0.400	9
Dimethoate	ug/L	1	0.300	<0.300	<0.300	20
Diquat	ug/L	1	1.000	<1.000	<1.000	70
Diuron	ug/L	1	3.000	<3.000	<3.000	150
Glyphosate	ug/L	1	25.000	<25.000	<25.000	280
Malathion	ug/L	1	0.200	<0.200	<0.200	190
Metolachlor	ug/L	1	0.200	<0.200	<0.200	50
Metribuzin	ug/L	1	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	15	0.100	<0.100	<0.100	80
Paraquat	ug/L	1	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	1	0.400	<0.400	<0.400	60
Phorate	ug/L	1	0.200	<0.200	<0.200	2
Picloram	ug/L	1	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	1	0.100	<0.100	<0.100	3
Prometryne	ug/L	1	0.200	<0.200	<0.200	1
Simazine	ug/L	1	0.200	<0.200	<0.200	10
Terbufos	ug/L	1	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	15	0.300	<0.300	<0.300	10
Triallate	ug/L	1	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	15	0.100	<0.100	<0.100	5
Trifluralin	ug/L	1	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	15	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Holland Landing DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220004046

**Drinking Water System Name:** Holland Landing DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Holland Landing DWS serves approximately 11,780 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Holland Landing DWS:**

Holland Landing/Queensville/Sharon Distribution System (260001747)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Holland Landing DWS

### Introduction:

Holland Landing is located in western East Gwillimbury. Local groundwater is naturally high in minerals, and is blended with Lake Ontario water and connected groundwater systems from the York DWS. York Region operates the water supply, and the Town of East Gwillimbury maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### Raw water source:

Groundwater

### Profile of water in distribution system:

Blended - Lake and Groundwater

### Water treatment description:

Holland Landing DWS includes two wells, two storage facilities (elevated tanks), and one booster pumping station. Chlorine provides disinfection, and chloramine provides a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### List of water treatment chemicals used in this system:

Chlorine gas; Ammonia solution (Ammonium Sulphate); Sodium Silicate

### Brief description and breakdown of monetary expenses incurred:

\$977,670 for well rehabilitation and pump maintenance, new treatment facility design, hydro servicing installation, valve chamber upgrades design, new watermain design, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

Test Parameter	Count of Samples	Count of Presence
E. Coli	106	0
Total Coliforms	106	0

**Treated Samples**

Test Parameter	Count of Samples	Count of Presence
E. Coli	106	0
Heterotrophic Plate Count	106	13
Total Coliforms	106	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Combined Chlorine	mg/L	8,760	2.52	0.00	3.42
Turbidity (Treated)	NTU	8,760	0.07	0.04	3.87

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

## **Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter <sup>2 3</sup></b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Fluoride	mg/L	12	0.211	0.190	0.240
Haloacetic Acids (Distribution)	ug/L	4	8.100	<8.000	8.400
Nitrate (Treated)	mg/L	8	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	4	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	8	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	2	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0009	<0.0009	<0.0009
Sodium	mg/L	7	21.357	19.700	22.700
Trihalomethanes (Treated)	ug/L	2	9.350	7.300	11.400
Trihalomethanes (Distribution)	ug/L	4	14.925	12.200	17.400

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	3	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	3	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	3	0.1567	0.1400	0.1800	1
Boron	mg/L	3	0.0510	0.0490	0.0550	5
Cadmium	mg/L	3	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	3	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	3	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	3	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	3	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	4	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	4	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	2	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	2	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	2	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	2	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	2	5.000	<5.000	<5.000	100
Alachlor	ug/L	2	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	2	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	2	0.300	<0.300	<0.300	20
Benzene	ug/L	4	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	2	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	2	0.400	<0.400	<0.400	5
Carbaryl	ug/L	2	3.000	<3.000	<3.000	90
Carbofuran	ug/L	2	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	4	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	2	0.200	<0.200	<0.200	90
Diazinon	ug/L	2	0.200	<0.200	<0.200	20
Dicamba	ug/L	2	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	4	15.500	<4.000	36.400	50
Diclofop-methyl	ug/L	2	0.400	<0.400	<0.400	9
Dimethoate	ug/L	2	0.300	<0.300	<0.300	20
Diquat	ug/L	2	1.000	<1.000	<1.000	70
Diuron	ug/L	2	3.000	<3.000	<3.000	150
Glyphosate	ug/L	2	25.000	<25.000	<25.000	280
Malathion	ug/L	2	0.200	<0.200	<0.200	190
Metolachlor	ug/L	2	0.200	<0.200	<0.200	50
Metribuzin	ug/L	2	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	4	0.100	<0.100	<0.100	80
Paraquat	ug/L	2	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	2	0.400	<0.400	<0.400	60
Phorate	ug/L	2	0.200	<0.200	<0.200	2
Picloram	ug/L	2	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	2	0.100	<0.100	<0.100	3
Prometryne	ug/L	2	0.200	<0.200	<0.200	1
Simazine	ug/L	2	0.200	<0.200	<0.200	10
Terbufos	ug/L	2	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	4	0.300	<0.300	<0.300	10
Triallate	ug/L	2	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	4	0.100	<0.100	<0.100	5
Trifluralin	ug/L	2	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	4	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Keswick DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 210003280

**Drinking Water System Name:** Keswick DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Treatment III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Keswick DWS serves approximately 31,770 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Keswick DWS:**

Keswick-Sutton Distribution System (260062686)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Keswick DWS

### Introduction:

The community of Keswick is located on the east shore of Cook's Bay in the Town of Georgina. The Keswick sub-system is part of the larger Georgina DWS. Surface water from Lake Simcoe and Cook's Bay supplies this community. York Region operates the water supply, and the Town of Georgina maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### Raw water source:

Lake Simcoe

### Profile of water in distribution system:

Lake Simcoe

### Water treatment description:

The Keswick DWS includes one Water Treatment Plant and three storage/rechlorination facilities. Lake water is screened and chlorine prevents mussel growth on the intake pipe. Filtration removes particles. Granular activated carbon improves water taste, and chlorine disinfects it. Fluoride is added at levels recommended by Ontario's Chief Medical Officer of Health. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities and automatically pause operation if an issue is detected.

### List of water treatment chemicals used in this system:

Chlorine gas; Carbon Dioxide (pH control); Polyaluminum Chloride (coagulation); Granular activated carbon (for taste and odour control); Non water treatment chemical: Hydrofluosilicic Acid applied

### Brief description and breakdown of monetary expenses incurred:

\$313,680 for for treatment facility upgrades design and construction, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	52	8
Total Coliforms	52	35

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	53	0
Heterotrophic Plate Count	53	12
Total Coliforms	53	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	8,760	0.68	0.20	1.45
Free Chlorine	mg/L	8,760	1.43	0.00	3.36
Turbidity (Raw)	NTU	8,760	0.46	0.09	25.00
Turbidity (Treated)	NTU	8,760	0.06	0.00	3.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

## Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Haloacetic Acids (Treated)	ug/L	2	16.000	13.000	19.000
Haloacetic Acids (Distribution)	ug/L	12	29.250	18.000	42.000
Microcystin (Raw)	ug/L	44	0.150	<0.150	<0.150
Microcystin (Treated)	ug/L	43	0.150	<0.150	<0.150
Nitrate (Treated)	mg/L	4	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	12	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	4	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	12	0.050	<0.050	<0.050
Sodium	mg/L	4	37.975	36.000	40.500
Total Suspended Solids Backwash	mg/L	13	8.585	4.300	15.500
Trihalomethanes (Treated)	ug/L	14	19.667	6.500	37.100
Trihalomethanes (Distribution)	ug/L	42	37.450	16.400	57.600

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	4	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	4	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	4	0.0293	0.0290	0.0300	1
Boron	mg/L	4	0.0178	0.0160	0.0200	5
Cadmium	mg/L	4	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	4	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	4	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	4	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	4	0.0003	<0.0001	0.0004	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	29	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	29	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	29	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	29	0.103	<0.100	<0.200	5
2,3,4,6-Tetrachlorophenol	ug/L	1	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	1	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	1	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	1	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	1	5.000	<5.000	<5.000	100
Alachlor	ug/L	1	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	1	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	1	0.300	<0.300	<0.300	20
Benzene	ug/L	29	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	1	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	1	0.400	<0.400	<0.400	5
Carbaryl	ug/L	1	3.000	<3.000	<3.000	90
Carbofuran	ug/L	1	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	29	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	1	0.200	<0.200	<0.200	90
Diazinon	ug/L	1	0.200	<0.200	<0.200	20
Dicamba	ug/L	1	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	29	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	1	0.400	<0.400	<0.400	9
Dimethoate	ug/L	1	0.300	<0.300	<0.300	20
Diquat	ug/L	1	1.000	<1.000	<1.000	70
Diuron	ug/L	1	3.000	<3.000	<3.000	150
Glyphosate	ug/L	1	25.000	<25.000	<25.000	280
Malathion	ug/L	1	0.200	<0.200	<0.200	190
Metolachlor	ug/L	1	0.200	<0.200	<0.200	50
Metribuzin	ug/L	1	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	29	0.100	<0.100	<0.100	80
Paraquat	ug/L	1	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	1	0.400	<0.400	<0.400	60
Phorate	ug/L	1	0.200	<0.200	<0.200	2
Picloram	ug/L	1	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	1	0.100	<0.100	<0.100	3
Prometryne	ug/L	1	0.200	<0.200	<0.200	1
Simazine	ug/L	1	0.200	<0.200	<0.200	10
Terbufos	ug/L	1	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	29	0.300	<0.300	<0.300	10
Triallate	ug/L	1	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	29	0.100	<0.100	<0.100	5
Trifluralin	ug/L	1	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	29	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for King City DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002299

**Drinking Water System Name:** King City DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The King City DWS serves approximately 8,990 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the King City DWS:**

King City Distribution System (260005138)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the King City DWS

### **Introduction:**

King City is a community in south-eastern King Township. King City DWS provides water from Lake Ontario through the York DWS. Two wells are installed but are currently offline. York Region operates the water supply, and King Township maintains and distributes water to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Blended - Lake and Groundwater

### **Water treatment description:**

King City DWS includes two wells, one pumping station, and two storage facilities. If the wells are used for supply, chlorine provides disinfection, and chloramine provides a secondary residual. Sodium silicate can be added to sequester naturally occurring iron and manganese. Wells are currently offline. Storage facilities hold treated water and maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Water in King City comes pre-treated from the York DWS. Well facilities were not run for supply, but can apply Chlorine gas and Ammonia solution (Ammonium Sulphate) for chloramination and Sodium Silicate. Wells are currently offline.

### **Brief description and breakdown of monetary expenses incurred:**

\$345,632 for for valve chamber upgrades design, treatment and storage facility rehabilitation design, new regional remote operations center construction, general maintenance and repairs.

2024 King City DWS - O. Reg. 170/03 Section 11 Report

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

<b>Incident Description</b>	<b>Incident Date</b>	<b>Adverse Test Result</b>	<b>Corrective Action</b>	<b>Corrective Action Date</b>
Sodium > 20.0 mg/L	Apr 10, 2024	23.1 mg/L	Operator attended site. Resample taken.	Apr 17, 2024

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	0	0
Total Coliforms	0	0

### Treated Samples

Note: no treated results are available for the reporting period as the wells were not operational.

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Combined Chlorine	mg/L	8,760	1.80	0.00	2.54

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	8	0.601	0.540	0.660
Haloacetic Acids (Distribution)	ug/L	8	9.513	<8.000	11.000
Nitrate (Distribution)	mg/L	8	0.528	<0.500	0.570
Nitrite (Distribution)	mg/L	8	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0011	<0.0009	0.0017
Sodium	mg/L	3	21.300	19.300	23.100
Trihalomethanes (Distribution)	ug/L	9	21.663	12.900	28.900

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	2	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	2	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	2	0.0235	0.0230	0.0240	1
Boron	mg/L	2	0.0240	0.0230	0.0250	5
Cadmium	mg/L	2	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	2	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	2	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	2	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	2	0.0003	0.0003	0.0003	0.02

**Summary of organic parameters tested pursuant to  
Schedule 24 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

**Not Applicable**  
**Schedule 24 sampling is not applicable to the King City DWS  
as the wells were offline.**

# 2024 Annual Drinking Water System Quality Report for Kleinburg DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002360

**Drinking Water System Name:** Kleinburg DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Kleinburg DWS serves approximately 7,720 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Kleinburg DWS:**

Vaughan Distribution System (260003097)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Kleinburg DWS

### **Introduction:**

Kleinburg is a village in the City of Vaughan. Kleinburg DWS provides water from Lake Ontario through the York DWS. Two wells are maintained as an emergency backup water source. York Region operates the water supply, and the City of Vaughan maintains and distributes water to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Blended - Lake and Groundwater

### **Water treatment description:**

Kleinburg DWS includes two wells, one storage facility and two booster pumping stations. Chlorine provides disinfection, and chloramine provides a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. The storage facility holds treated water and helps the booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Water in Kleinburg comes pre-treated from the York DWS. Well facilities were not run for supply, but can apply Chlorine gas and Ammonia solution (Ammonium Sulphate) for chloramination and Sodium Silicate. Treatment systems and well performance are tested regularly in case they are ever needed for backup capacity.

### **Brief description and breakdown of monetary expenses incurred:**

\$107,999 for pump maintenance, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	98	0
Total Coliforms	98	0

### Treated Samples

Note: no treated results are available for the reporting period as the wells were not operational.

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Combined Chlorine	mg/L	8,760	1.97	0.31	3.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	4	0.610	0.560	0.660
Haloacetic Acids (Distribution)	ug/L	4	10.250	<8.000	13.000
Nitrate (Distribution)	mg/L	4	0.533	<0.500	0.580
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0009	<0.0009	<0.0009
Sodium	mg/L	3	22.867	22.300	23.300
Trihalomethanes (Distribution)	ug/L	4	23.475	13.400	29.700

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	1	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	1	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	1	0.0220	0.0220	0.0220	1
Boron	mg/L	1	0.0240	0.0240	0.0240	5
Cadmium	mg/L	1	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	1	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	1	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	1	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	1	0.0004	0.0004	0.0004	0.02

**Summary of organic parameters tested pursuant to  
Schedule 24 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

**Not Applicable**

**Schedule 24 sampling is not applicable to the Kleinburg DWS  
as the wells were available for backup capacity but were not used for supply.**

# 2024 Annual Drinking Water System Quality Report for Mount Albert DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220006543

**Drinking Water System Name:** Mount Albert DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Mount Albert DWS serves approximately 6,290 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Mount Albert DWS:**

Mount Albert Distribution System (260002265)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## **Description of the Mount Albert DWS**

### **Introduction:**

The village of Mount Albert is located in the east side of Town of East Gwillimbury around Mount Albert Road, between Highway 48 and York Durham Line. Local groundwater is naturally high in minerals. York Region operates the water supply, while the Town of East Gwillimbury maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Groundwater

### **Water treatment description:**

Mount Albert DWS includes three wells and two storage facilities. Chlorine provides disinfection and maintains a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and maintain pressure. Tests confirm good groundwater quality. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Chlorine (Sodium Hypochlorite and Chlorine gas); Sodium Silicate

### **Brief description and breakdown of monetary expenses incurred:**

\$434,942 for for design of treatment facility upgrades and replacements and watermain alteration, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	159	0
Total Coliforms	159	0

**Treated Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	106	0
Heterotrophic Plate Count	106	18
Total Coliforms	106	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Free Chlorine	mg/L	8,760	1.52	0.00	3.96
Turbidity (Treated)	NTU	8,760	0.06	0.02	2.07

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	12	0.063	<0.050	0.070
Haloacetic Acids (Distribution)	ug/L	4	8.000	<8.000	<8.000
Nitrate (Treated)	mg/L	8	1.999	<0.500	3.550
Nitrate (Distribution)	mg/L	4	2.143	1.950	2.380
Nitrite (Treated)	mg/L	8	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
Sodium	mg/L	3	12.167	11.000	13.000
Trihalomethanes (Treated)	ug/L	2	3.400	1.200	5.600
Trihalomethanes (Distribution)	ug/L	4	17.350	13.200	20.300

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	3	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	3	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	3	0.0583	0.0530	0.0630	1
Boron	mg/L	3	0.0100	<0.0100	<0.0100	5
Cadmium	mg/L	3	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	3	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	3	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	3	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	3	0.0039	<0.0001	0.0071	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	4	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	4	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	2	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	2	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	2	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	2	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	2	5.000	<5.000	<5.000	100
Alachlor	ug/L	2	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	2	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	2	0.300	<0.300	<0.300	20
Benzene	ug/L	4	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	2	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	2	0.400	<0.400	<0.400	5
Carbaryl	ug/L	2	3.000	<3.000	<3.000	90
Carbofuran	ug/L	2	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	4	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	2	0.200	<0.200	<0.200	90
Diazinon	ug/L	2	0.200	<0.200	<0.200	20
Dicamba	ug/L	2	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	4	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	2	0.400	<0.400	<0.400	9
Dimethoate	ug/L	2	0.300	<0.300	<0.300	20
Diquat	ug/L	2	1.000	<1.000	<1.000	70
Diuron	ug/L	2	3.000	<3.000	<3.000	150
Glyphosate	ug/L	2	25.000	<25.000	<25.000	280
Malathion	ug/L	2	0.200	<0.200	<0.200	190
Metolachlor	ug/L	2	0.200	<0.200	<0.200	50
Metribuzin	ug/L	2	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	4	0.100	<0.100	<0.100	80
Paraquat	ug/L	2	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	2	0.400	<0.400	<0.400	60
Phorate	ug/L	2	0.200	<0.200	<0.200	2
Picloram	ug/L	2	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	2	0.100	<0.100	<0.100	3
Prometryne	ug/L	2	0.200	<0.200	<0.200	1
Simazine	ug/L	2	0.200	<0.200	<0.200	10
Terbufos	ug/L	2	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	4	0.300	<0.300	<0.300	10
Triallate	ug/L	2	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	4	0.100	<0.100	<0.100	5
Trifluralin	ug/L	2	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	4	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Newmarket DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002413

**Drinking Water System Name:** Newmarket DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Newmarket DWS serves approximately 93,690 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Newmarket DWS:**

Holland Landing/Queensville/Sharon Distribution System (260001747); Newmarket Distribution System (260003188); Town Of Aurora Distribution System (260003227); Yonge-Green Lane Distribution System (260087685)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Newmarket DWS

### Introduction:

The Town of Newmarket is located centrally in York Region. Groundwater from the Newmarket wells is blended with water from Lake Ontario and groundwater from Aurora from the York DWS. York Region operates the water supply, and the Town of Newmarket maintains and distributes water to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### Raw water source:

Groundwater

### Profile of water in distribution system:

Blended - Lake and Groundwater

### Water treatment description:

Newmarket DWS includes five wells, six storage facilities, and two booster pumping stations. Chlorine provides disinfection, and chloramine provides a secondary residual. Two of these facilities can re-chloramine to boost the residual but only one is currently in use. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### List of water treatment chemicals used in this system:

Chlorine (Sodium Hypochlorite and Chlorine gas); Ammonia solution (Ammonium Sulphate); Sodium Silicate

### Brief description and breakdown of monetary expenses incurred:

\$4,474,341 for for pump maintenance, valve chamber upgrades design and new meter chamber construction, treatment facility upgrades design, storage facility upgrades and rehabilitation construction, new treatment facility design, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

<b>Incident Description</b>	<b>Incident Date</b>	<b>Adverse Test Result</b>	<b>Corrective Action</b>	<b>Corrective Action Date</b>
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	Jan 8, 2024	4.03 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.	Jan 8, 2024

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	248	0
Total Coliforms	248	2

**Treated Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	147	0
Heterotrophic Plate Count	146	20
Total Coliforms	147	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Combined Chlorine	mg/L	8,760	2.64	0.00	4.04
Turbidity (Treated)	NTU	8,760	0.05	0.02	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	63	0.430	0.140	0.610
Haloacetic Acids (Distribution)	ug/L	17	8.169	<8.000	9.100
Nitrate (Treated)	mg/L	11	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	52	0.522	<0.500	0.710
Nitrite (Treated)	mg/L	11	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	52	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	3	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	7	0.0009	<0.0009	0.0012
Sodium	mg/L	7	18.400	15.200	20.200
Trihalomethanes (Treated)	ug/L	3	6.833	6.800	6.900
Trihalomethanes (Distribution)	ug/L	18	19.263	10.900	23.800

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	7	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	7	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	7	0.0949	0.0230	0.1900	1
Boron	mg/L	7	0.0299	0.0230	0.0390	5
Cadmium	mg/L	7	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	7	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	7	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	7	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	7	0.0002	<0.0001	0.0004	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	12	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	12	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	12	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	12	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	3	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	3	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	3	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	3	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	3	5.000	<5.000	<5.000	100
Alachlor	ug/L	3	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	3	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	3	0.300	<0.300	<0.300	20
Benzene	ug/L	12	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	3	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	3	0.400	<0.400	<0.400	5
Carbaryl	ug/L	3	3.000	<3.000	<3.000	90
Carbofuran	ug/L	3	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	12	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	3	0.200	<0.200	<0.200	90
Diazinon	ug/L	3	0.200	<0.200	<0.200	20
Dicamba	ug/L	3	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	12	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	3	0.400	<0.400	<0.400	9
Dimethoate	ug/L	3	0.300	<0.300	<0.300	20
Diquat	ug/L	3	1.000	<1.000	<1.000	70
Diuron	ug/L	3	3.000	<3.000	<3.000	150
Glyphosate	ug/L	3	25.000	<25.000	<25.000	280
Malathion	ug/L	3	0.200	<0.200	<0.200	190
Metolachlor	ug/L	3	0.200	<0.200	<0.200	50
Metribuzin	ug/L	3	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	12	0.100	<0.100	<0.100	80
Paraquat	ug/L	3	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	3	0.400	<0.400	<0.400	60
Phorate	ug/L	3	0.200	<0.200	<0.200	2
Picloram	ug/L	3	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	3	0.100	<0.100	<0.100	3
Prometryne	ug/L	3	0.200	<0.200	<0.200	1
Simazine	ug/L	3	0.200	<0.200	<0.200	10
Terbufos	ug/L	3	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	12	0.300	<0.300	<0.300	10
Triallate	ug/L	3	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	12	0.100	<0.100	<0.100	5
Trifluralin	ug/L	3	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	12	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Nobleton DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002306

**Drinking Water System Name:** Nobleton DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Nobleton DWS serves approximately 7,370 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Nobleton DWS:**

Nobleton Distribution System-260002577

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Nobleton DWS

### **Introduction:**

Nobleton is located in King Township, and the municipal drinking water system is centered on King Road and Highway 27. Local groundwater is naturally high in minerals. Tests confirm ground water quality. York Region operates the water supply, while King Township maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Groundwater

### **Water treatment description:**

Nobleton DWS includes five wells, two storage facilities, and one booster pumping station. Chlorine provides disinfection and maintains a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help the booster station maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Chlorine (Sodium Hypochlorite and Chlorine gas); Sodium Silicate

### **Brief description and breakdown of monetary expenses incurred:**

\$1,858,432 for for well rehabilitation and pump maintenance, treatment facility upgrades, design and construction, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	160	0
Total Coliforms	160	1

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	144	0
Heterotrophic Plate Count	144	24
Total Coliforms	144	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Free Chlorine	mg/L	8,760	1.80	0.00	4.36
Turbidity (Treated)	NTU	8,760	0.07	0.02	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	20	0.123	0.110	0.150
Haloacetic Acids (Distribution)	ug/L	8	9.050	<8.000	13.000
Nitrate (Treated)	mg/L	12	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	8	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	12	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	8	0.050	<0.050	<0.050
Sodium	mg/L	7	18.671	12.600	25.400
Trihalomethanes (Treated)	ug/L	5	10.000	4.800	18.900
Trihalomethanes (Distribution)	ug/L	8	23.263	6.600	35.600

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	5	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	5	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	5	0.2260	0.1900	0.2800	1
Boron	mg/L	5	0.0326	0.0270	0.0420	5
Cadmium	mg/L	5	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	5	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	5	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	5	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	5	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	9	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	9	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	9	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	9	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	3	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	3	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	3	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	3	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	3	5.000	<5.000	<5.000	100
Alachlor	ug/L	3	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	3	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	3	0.300	<0.300	<0.300	20
Benzene	ug/L	9	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	3	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	3	0.400	<0.400	<0.400	5
Carbaryl	ug/L	3	3.000	<3.000	<3.000	90
Carbofuran	ug/L	3	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	9	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	3	0.200	<0.200	<0.200	90
Diazinon	ug/L	3	0.200	<0.200	<0.200	20
Dicamba	ug/L	3	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	7	4.143	<4.000	5.000	50
Diclofop-methyl	ug/L	3	0.400	<0.400	<0.400	9
Dimethoate	ug/L	3	0.300	<0.300	<0.300	20
Diquat	ug/L	3	1.000	<1.000	<1.000	70
Diuron	ug/L	3	3.000	<3.000	<3.000	150
Glyphosate	ug/L	3	25.000	<25.000	<25.000	280
Malathion	ug/L	3	0.200	<0.200	<0.200	190
Metolachlor	ug/L	3	0.200	<0.200	<0.200	50
Metribuzin	ug/L	3	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	9	0.100	<0.100	<0.100	80
Paraquat	ug/L	3	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	3	0.400	<0.400	<0.400	60
Phorate	ug/L	3	0.200	<0.200	<0.200	2
Picloram	ug/L	3	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	3	0.100	<0.100	<0.100	3
Prometryne	ug/L	3	0.200	<0.200	<0.200	1
Simazine	ug/L	3	0.200	<0.200	<0.200	10
Terbufos	ug/L	3	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	9	0.300	<0.300	<0.300	10
Triallate	ug/L	3	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	9	0.100	<0.100	<0.100	5
Trifluralin	ug/L	3	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	9	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Schomberg DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220004901

**Drinking Water System Name:** Schomberg DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply II, Water Treatment II

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Schomberg DWS serves approximately 2,530 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Schomberg DWS:**

Schomberg Distribution System (260005151)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Schomberg DWS

### **Introduction:**

Schomberg is located within the Township of King around the intersections of Highway 27 and Highway 9, just south of the border with Simcoe County. Local groundwater is naturally high in minerals. Tests confirm ground water quality. York Region operates the water supply, while King Township maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit.

### **Raw water source:**

Groundwater

### **Profile of water in distribution system:**

Groundwater

### **Water treatment description:**

Schomberg DWS includes one Water treatment Plant, three wells and one storage/rechloramination facility. Naturally occurring methane is removed through pre-oxidation with chlorine followed by air stripping. Potassium permanganate is added for iron and manganese removal using media filtration. Water is disinfected with UV light, followed by chlorine which combines with naturally occurring ammonia to form chloramines to provide a secondary residual. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

Potassium Permanganate; Chlorine gas (forms chloramine when it combines with naturally occurring ammonia)

### **Brief description and breakdown of monetary expenses incurred:**

\$208,298 for well rehabilitation and pump maintenance, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

<b>Incident Description</b>	<b>Incident Date</b>	<b>Adverse Test Result</b>	<b>Corrective Action</b>	<b>Corrective Action Date</b>
Combined Chlorine Residual > 4.0 mg/L (Regulatory Relief Sites)	Oct 2, 2024	4.04 mg/L	Operator attended site, facility restored to normal operation. Compliant grab sample taken.	Oct 2, 2024

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	158	0
Total Coliforms	158	0

**Treated Samples**

<b>Test Parameter</b>	<b>Count of Samples</b>	<b>Count of Presence</b>
E. Coli	53	0
Heterotrophic Plate Count	53	9
Total Coliforms	53	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Combined Chlorine	mg/L	8,760	3.35	0.00	4.77
Turbidity (Treated)	NTU	8,760	0.23	0.08	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	8	0.154	0.150	0.160
Haloacetic Acids (Distribution)	ug/L	4	8.525	8.000	8.900
Nitrate (Treated)	mg/L	4	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	4	0.523	<0.500	0.550
Nitrite (Treated)	mg/L	4	0.113	0.100	0.130
Nitrite (Distribution)	mg/L	4	0.305	0.270	0.340
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	1	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0012	0.0010	0.0014
Sodium	mg/L	2	21.000	20.400	21.600
Trihalomethanes (Treated)	ug/L	1	5.100	5.100	5.100
Trihalomethanes (Distribution)	ug/L	4	4.525	4.000	4.800

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	2	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	2	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	2	0.1200	0.1200	0.1200	1
Boron	mg/L	2	0.0575	0.0570	0.0580	5
Cadmium	mg/L	2	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	2	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	2	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	2	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	2	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	3	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	3	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	3	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	3	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	1	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	1	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	1	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	1	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	1	5.000	<5.000	<5.000	100
Alachlor	ug/L	1	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	1	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	1	0.300	<0.300	<0.300	20
Benzene	ug/L	3	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	1	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	1	0.400	<0.400	<0.400	5
Carbaryl	ug/L	1	3.000	<3.000	<3.000	90
Carbofuran	ug/L	1	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	3	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	1	0.200	<0.200	<0.200	90
Diazinon	ug/L	1	0.200	<0.200	<0.200	20
Dicamba	ug/L	1	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	3	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	1	0.400	<0.400	<0.400	9
Dimethoate	ug/L	1	0.300	<0.300	<0.300	20
Diquat	ug/L	1	1.000	<1.000	<1.000	70
Diuron	ug/L	1	3.000	<3.000	<3.000	150
Glyphosate	ug/L	1	25.000	<25.000	<25.000	280
Malathion	ug/L	1	0.200	<0.200	<0.200	190
Metolachlor	ug/L	1	0.200	<0.200	<0.200	50
Metribuzin	ug/L	1	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	3	0.100	<0.100	<0.100	80
Paraquat	ug/L	1	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	1	0.400	<0.400	<0.400	60
Phorate	ug/L	1	0.200	<0.200	<0.200	2
Picloram	ug/L	1	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	1	0.100	<0.100	<0.100	3
Prometryne	ug/L	1	0.200	<0.200	<0.200	1
Simazine	ug/L	1	0.200	<0.200	<0.200	10
Terbufos	ug/L	1	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	3	0.300	<0.300	<0.300	10
Triallate	ug/L	1	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	3	0.100	<0.100	<0.100	5
Trifluralin	ug/L	1	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	3	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Sharon/Queensville DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 260001955

**Drinking Water System Name:** Sharon/Queensville DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Sharon/Queensville DWS serves approximately 10,910 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Sharon/Queensville DWS:**

Holland Landing/Queensville/Sharon Distribution System (260001747); Newmarket Distribution System (260003188)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Sharon/Queensville DWS

### Introduction:

Queensville and Sharon are in the Town of East Gwillimbury. Local groundwater is naturally high in minerals, and is blended with Lake Ontario water from the York DWS. York Region operates the water supply, and the Town of East Gwillimbury maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### Raw water source:

Groundwater

### Profile of water in distribution system:

Blended - Lake and Groundwater

### Water treatment description:

Sharon-Queensville DWS includes four wells and one storage facility (elevated tank). Chlorine provides disinfection, and chloramine provides a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. The storage facility holds treated water and helps to maintain pressure. Tests confirm good groundwater quality. Operators test the water and inspect the process. Online analyzers continuously monitor treatment and water flow. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### List of water treatment chemicals used in this system:

Chlorine gas; Ammonia solution (Ammonium Sulphate); Sodium Silicate

### Brief description and breakdown of monetary expenses incurred:

\$1,237,798 for for well rehabilitation and pump maintenance, treatment facility upgrades design, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

**Microbiological testing completed under  
Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

**Raw Samples**

Test Parameter	Count of Samples	Count of Presence
E. Coli	200	0
Total Coliforms	200	1

**Treated Samples**

Test Parameter	Count of Samples	Count of Presence
E. Coli	106	0
Heterotrophic Plate Count	106	19
Total Coliforms	106	0

**Operational testing completed under Schedule 7  
of O. Reg. 170/03 during this reporting period**

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Combined Chlorine	mg/L	8,760	2.66	0.00	4.18
Turbidity (Treated)	NTU	8,760	0.04	0.02	4.99

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	12	0.203	0.190	0.220
Haloacetic Acids (Distribution)	ug/L	4	10.425	9.700	11.000
Nitrate (Treated)	mg/L	8	0.500	<0.500	<0.500
Nitrate (Distribution)	mg/L	4	0.500	<0.500	<0.500
Nitrite (Treated)	mg/L	8	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	4	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	2	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0009	<0.0009	<0.0009
Sodium	mg/L	3	21.967	21.300	22.400
Trihalomethanes (Treated)	ug/L	2	16.550	16.000	17.100
Trihalomethanes (Distribution)	ug/L	4	19.350	16.000	22.200

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	3	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	3	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	3	0.1400	0.1400	0.1400	1
Boron	mg/L	3	0.0447	0.0430	0.0470	5
Cadmium	mg/L	3	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	3	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	3	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	3	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	3	0.0001	<0.0001	<0.0001	0.02

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	4	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	4	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	4	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	2	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	2	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	2	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	2	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	2	5.000	<5.000	<5.000	100
Alachlor	ug/L	2	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	2	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	2	0.300	<0.300	<0.300	20
Benzene	ug/L	4	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	2	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	2	0.400	<0.400	<0.400	5
Carbaryl	ug/L	2	3.000	<3.000	<3.000	90
Carbofuran	ug/L	2	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	4	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	2	0.200	<0.200	<0.200	90
Diazinon	ug/L	2	0.200	<0.200	<0.200	20
Dicamba	ug/L	2	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	4	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	2	0.400	<0.400	<0.400	9
Dimethoate	ug/L	2	0.300	<0.300	<0.300	20
Diquat	ug/L	2	1.000	<1.000	<1.000	70
Diuron	ug/L	2	3.000	<3.000	<3.000	150
Glyphosate	ug/L	2	25.000	<25.000	<25.000	280
Malathion	ug/L	2	0.200	<0.200	<0.200	190
Metolachlor	ug/L	2	0.200	<0.200	<0.200	50
Metribuzin	ug/L	2	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	4	0.100	<0.100	<0.100	80
Paraquat	ug/L	2	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	2	0.400	<0.400	<0.400	60
Phorate	ug/L	2	0.200	<0.200	<0.200	2
Picloram	ug/L	2	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	2	0.100	<0.100	<0.100	3
Prometryne	ug/L	2	0.200	<0.200	<0.200	1
Simazine	ug/L	2	0.200	<0.200	<0.200	10
Terbufos	ug/L	2	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	4	0.300	<0.300	<0.300	10
Triallate	ug/L	2	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	4	0.100	<0.100	<0.100	5
Trifluralin	ug/L	2	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	4	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for Stouffville DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 220002333

**Drinking Water System Name:** Stouffville DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution and Supply III, Water Treatment I

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The Stouffville DWS serves approximately 38,120 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

**List all Drinking Water Systems which receive their drinking water from the Stouffville DWS:**

Stouffville Distribution System (260003162)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the Stouffville DWS

### Introduction:

Stouffville is a community in the Town of Whitchurch-Stouffville. Local groundwater is naturally high in minerals, and blends with Lake Ontario water from the York DWS. York Region operates the water supply, while the Town maintains water quality and distributes it to users. The Province governs York Region's operations with Acts and Regulations, a Permit to Take Water, a Municipal Drinking Water License and an operating Permit. Lake Ontario water is purchased with supply agreements.

### Raw water source:

Groundwater

### Profile of water in distribution system:

Blended - Lake and Groundwater

### Water treatment description:

Stouffville DWS includes five wells, three storage facilities, and four booster pumping stations (one of these booster stations is within York DWS and converts chloramines to free chlorine for the Stouffville DWS). Chlorine provides disinfection and maintains a secondary residual. Sodium silicate is added to sequester naturally occurring iron and manganese. Storage facilities hold treated water and help booster stations maintain pressure. Operators test the water and inspect the process. Online analyzers continuously monitor the facilities. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### List of water treatment chemicals used in this system:

Chlorine (Sodium Hypochlorite and Chlorine gas); Sodium Silicate

### Brief description and breakdown of monetary expenses incurred:

\$203,752 for well rehabilitation and pump maintenance, valve chamber upgrades design, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## Microbiological testing completed under Schedule 10 of O. Reg. 170/03

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### Raw Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	265	0
Total Coliforms	265	0

### Treated Samples

Test Parameter	Count of Samples	Count of Presence
E. Coli	159	0
Heterotrophic Plate Count	160	19
Total Coliforms	159	0

## Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period

Test Parameter	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Free Chlorine	mg/L	8,760	1.81	0.00	3.57
Turbidity (Treated)	NTU	8,760	0.04	0.01	5.00

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

## Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	40	0.102	<0.050	0.180
Haloacetic Acids (Treated)	ug/L	4	8.000	<8.000	<8.000
Haloacetic Acids (Distribution)	ug/L	8	8.463	<8.000	9.800
Nitrate (Treated)	mg/L	12	1.182	<0.500	2.860
Nitrate (Distribution)	mg/L	28	0.544	<0.500	0.740
Nitrite (Treated)	mg/L	12	0.050	<0.050	<0.050
Nitrite (Distribution)	mg/L	28	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Treated)	ug/L	3	0.0009	<0.0009	<0.0009
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	4	0.0009	<0.0009	<0.0009
Sodium	mg/L	5	49.580	26.600	84.900
Trihalomethanes (Treated)	ug/L	6	6.717	1.500	12.800
Trihalomethanes (Distribution)	ug/L	8	20.050	15.300	27.600

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	5	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	5	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	5	0.1230	0.0950	0.1500	1
Boron	mg/L	5	0.0232	0.0120	0.0430	5
Cadmium	mg/L	5	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	5	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	5	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	5	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	5	0.0018	<0.0001	0.0030	0.02

2024 Stouffville DWS - O. Reg. 170/03 Section 11 Report

## Summary of organic parameters tested pursuant to Schedule 24 of O. Reg. 170/03

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter	Test Unit	No. of Samples	Average	Minimum	Maximum	ODWS Limit
1,1-dichloroethylene (vinylidene chloride)	ug/L	9	0.300	<0.300	<0.300	14
1,2-(o-dcb) Dichlorobenzene	ug/L	9	0.100	<0.100	<0.100	200
1,2-Dichloroethane	ug/L	9	0.100	<0.100	<0.100	5
1,4-(p-dcb) Dichlorobenzene	ug/L	9	0.100	<0.100	<0.100	5
2,3,4,6-Tetrachlorophenol	ug/L	3	0.500	<0.500	<0.500	100
2,4,6-Trichlorophenol	ug/L	3	0.500	<0.500	<0.500	5
2,4-Dichlorophenol	ug/L	3	0.700	<0.700	<0.700	900
2,4-dichlorophenoxyacetic acid (2,4-D)	ug/L	3	0.800	<0.800	<0.800	100
2-methyl-4-chlorophenoxyacetic acid	ug/L	3	5.000	<5.000	<5.000	100
Alachlor	ug/L	3	0.400	<0.400	<0.400	5
Atrazine + N-dealkylated metabolites	ug/L	3	0.200	<0.200	<0.200	5
Azinphos-methyl	ug/L	3	0.300	<0.300	<0.300	20
Benzene	ug/L	9	0.100	<0.100	<0.100	1
Benzo(a)pyrene	ug/L	3	0.010	<0.010	<0.010	0.01
Bromoxynil	ug/L	3	0.400	<0.400	<0.400	5
Carbaryl	ug/L	3	3.000	<3.000	<3.000	90
Carbofuran	ug/L	3	3.000	<3.000	<3.000	90
Carbon Tetrachloride	ug/L	9	0.200	<0.200	<0.200	2
Chlorpyrifos	ug/L	3	0.200	<0.200	<0.200	90
Diazinon	ug/L	3	0.200	<0.200	<0.200	20
Dicamba	ug/L	3	0.400	<0.400	<0.400	120
Dichloromethane	ug/L	9	4.000	<4.000	<4.000	50
Diclofop-methyl	ug/L	3	0.400	<0.400	<0.400	9
Dimethoate	ug/L	3	0.300	<0.300	<0.300	20
Diquat	ug/L	3	1.000	<1.000	<1.000	70
Diuron	ug/L	3	3.000	<3.000	<3.000	150
Glyphosate	ug/L	3	25.000	<25.000	<25.000	280
Malathion	ug/L	3	0.200	<0.200	<0.200	190
Metolachlor	ug/L	3	0.200	<0.200	<0.200	50
Metribuzin	ug/L	3	0.300	<0.300	<0.300	80
Monochlorobenzene	ug/L	9	0.100	<0.100	<0.100	80
Paraquat	ug/L	3	1.000	<1.000	<1.000	10
Pentachlorophenol	ug/L	3	0.400	<0.400	<0.400	60
Phorate	ug/L	3	0.200	<0.200	<0.200	2
Picloram	ug/L	3	0.700	<0.700	<0.700	190
Polychlorinated Biphenyls (PCBs)	ug/L	3	0.100	<0.100	<0.100	3
Prometryne	ug/L	3	0.200	<0.200	<0.200	1
Simazine	ug/L	3	0.200	<0.200	<0.200	10
Terbufos	ug/L	3	0.200	<0.200	<0.200	1
Tetrachloroethylene (perchloroethylene)	ug/L	9	0.300	<0.300	<0.300	10
Triallate	ug/L	3	4.000	<4.000	<4.000	230
Trichloroethylene	ug/L	9	0.100	<0.100	<0.100	5
Trifluralin	ug/L	3	0.006	<0.006	<0.006	45
Vinyl Chloride	ug/L	9	0.200	<0.200	<0.200	1

# 2024 Annual Drinking Water System Quality Report for York DWS

Prepared by The Regional Municipality of York pursuant to Section 11 of O. Reg. 170/03.

**Drinking Water System Number:** 260001929

**Drinking Water System Name:** York DWS

**Drinking Water System Owner:** The Regional Municipality of York

**Drinking Water System Category:** Large Municipal Residential

**Drinking Water System Classification:** Water Distribution IV

**Reporting period:** Jan 1, 2024 - Dec 31, 2024

**The York DWS serves approximately 906,650 people.**

(Population is the most recent available estimate based on Statistics Canada census data and building permits)

## **List all Drinking Water Systems which receive their drinking water from the York DWS:**

York DWS is the primary water source for: Markham Distribution System (220004162); Richmond Hill Distribution System (260001968); Vaughan Distribution System (260003097). The following systems are connected to or are sub-systems of the York DWS: York Drinking Water sub-system - Aurora (220002440); York Drinking Water sub-system - Holland Landing (220004046); King City Drinking Water System (220002299); Kleinburg Drinking Water System (220002360); York Drinking Water sub-system - Newmarket (220002413); York Drinking Water sub-system - Queensville (260001955); York Drinking Water sub-system - Stouffville (220002333); Town Of Aurora Distribution System (260003227); Town of Newmarket Distribution System (260003188)

This annual report is available to the public at no charge on York Region's website ([york.ca/drinkingwater](http://york.ca/drinkingwater)) and upon request. Accessible formats or communication supports are also available upon request. Please contact [AccessYork@york.ca](mailto:AccessYork@york.ca) or call 1-877-464-9675.

**A copy of York Region's annual report was provided to all Drinking Water System owners that are connected to and receive drinking water from York Region.**

**System users were notified that York Region's annual report is available free of charge by public access and notice through:**

- Media (internet, social media)
- Public requests at any time

**Summary report required under O. Reg. 170/03 Schedule 22 will be available for inspection at:**

The Regional Municipality of York  
Administrative Centre  
Public Works Department  
17250 Yonge Street, Newmarket ON L3Y 6Z1

## Description of the York DWS

### **Introduction:**

The cities of Vaughan, Markham, and Richmond Hill form the southern border of York Region. These three municipalities receive all their water from Lake Ontario through the York Drinking Water System (York DWS). In these areas, initial treatment of the source water is done by Peel Region and the City of Toronto. Kleinburg, in Vaughan, is its own sub-system. Communities north of Vaughan, Richmond Hill, and Markham that receive water from the York DWS are supplemented with groundwater from wells.

### **Raw water source:**

Lake Ontario

### **Profile of water in distribution system:**

Lake Ontario (some sub-systems can be supplemented with local groundwater)

### **Water treatment description:**

In Vaughan, Richmond Hill, and Markham, purchased water is pre-treated and disinfected by the City of Toronto and Peel Region. Twelve storage facilities hold water and help the eight booster stations maintain pressure. One of these facilities also provides re-chloramination to boost the chloramine residual, and another converts it to free chlorine for the Stouffville DWS. Regional Operators test the water and inspect the process. Test results from certified labs and equipment confirm good water quality. Online analyzers continuously monitor the facilities. When analyzers detect a significant process or water quality issue, the system automatically pauses operation until an operator takes action.

### **List of water treatment chemicals used in this system:**

York DWS water is purchased pre-treated from the City of Toronto and Peel Region. Key treatment chemicals used in the City of Toronto and Peel Region include Chlorine and Aqueous Ammonia for disinfection; Non water treatment chemical: Hydrofluosilicic Acid applied; York Region re-chloramination chemicals: Chlorine gas; Aqueous Ammonia.

### **Brief description and breakdown of monetary expenses incurred:**

\$26,544,710 for for valve chamber upgrades design, watermain repairs and rehabilitation, storage facility rehabilitation and upgrades design and construction, design and construction of servicing upgrades with new storage and pumping facilities and new watermains, standby power and fuel storage generator upgrades construction, new regional remote operations center construction, general maintenance and repairs.

**Notices submitted under Section 18(1) of the *Safe Drinking Water Act* or Section 16-4 of Schedule 16 of O. Reg. 170/03 and reported to MECP Spills Action Centre**

**Not Applicable**

**Intentionally blank. No notices were submitted for this report period.**

## **Microbiological testing completed under Schedule 10 of O. Reg. 170/03**

For additional distribution samples collected under Schedule 10, refer to the local municipality.

### **Not Applicable**

**York DWS does not have any raw water or treatment facilities, so there are no microbiological tests to report here. For more data, view the Open Dataset or refer to the local municipality.**

## **Operational testing completed under Schedule 7 of O. Reg. 170/03 during this reporting period**

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples <sup>1</sup></b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>
Combined Chlorine	mg/L	8,760	1.71	0.00	3.12
Free Chlorine	mg/L	8,760	1.85	0.00	3.98

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

**Summary of testing pursuant to Schedule 13 of O. Reg. 170/03 and sampling carried out in accordance with the requirement of an approval, order or other legal instrument**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect (i.e. the " $<$ " is omitted) and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

Test Parameter <sup>2 3</sup>	Test Unit	No. of Samples <sup>1</sup>	Average	Minimum	Maximum
Fluoride	mg/L	49	0.611	0.490	0.670
Haloacetic Acids (Distribution)	ug/L	48	8.219	<8.000	11.000
Nitrate (Distribution)	mg/L	49	0.512	<0.500	0.620
Nitrite (Distribution)	mg/L	49	0.050	<0.050	<0.050
N-Nitrosodimethylamine (NDMA) (Distribution)	ug/L	12	0.0009	<0.0009	0.0010
Sodium	mg/L	15	18.213	15.100	22.300
Trihalomethanes (Distribution)	ug/L	48	15.906	10.700	27.300

\*Lead testing under Schedule 15.1 is conducted by the local municipality - refer to local municipality reports for results. York Region occasionally collects samples tested for lead for non-regulatory research purposes.

<sup>1</sup> 8,760 is used as the number of samples for continuous analyzers.

<sup>2</sup> The Average for Haloacetic Acids and Trihalomethanes is calculated as the running annual average of quarterly results in accordance with O. Reg 170/03. The Minimum and Maximum values reflect individual test results.

<sup>3</sup> Where sampling for 'N-Nitrosodimethylamine (NDMA)' is required, locations were selected to represent the farthest points in the distribution system. For York DWS and sub-systems, representative sample locations were selected from across the interconnected sub-systems and include at least one facility from every subsystem.

**Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards**

**Not Applicable**  
**Intentionally blank. There were no applicable test results.**

**Summary of inorganic parameters tested pursuant to Schedule 23 of O. Reg. 170/03**

Values with a less than sign (" $<$ ") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to four decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

<b>Test Parameter</b>	<b>Test Unit</b>	<b>No. of Samples</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>ODWS Limit</b>
Antimony	mg/L	12	0.0005	<0.0005	<0.0005	0.006
Arsenic	mg/L	12	0.0010	<0.0010	<0.0010	0.01
Barium	mg/L	12	0.0218	0.0200	0.0230	1
Boron	mg/L	12	0.0223	0.0210	0.0250	5
Cadmium	mg/L	12	0.0001	<0.0001	<0.0001	0.005
Chromium	mg/L	12	0.0050	<0.0050	<0.0050	0.05
Mercury	ug/L	12	0.0500	<0.0500	<0.0500	1
Selenium	mg/L	12	0.0020	<0.0020	<0.0020	0.05
Uranium	mg/L	12	0.0004	0.0003	0.0004	0.02

**Summary of organic parameters tested pursuant to  
Schedule 24 of O. Reg. 170/03**

Values with a less than sign ("<") indicate that the test result is below the method detection limit from the accredited laboratory (i.e. non-detect). Average results include values which were returned as non-detect and are rounded to three decimals. For a complete set of results, see the open dataset available at [york.ca/drinkingwater](http://york.ca/drinkingwater).

**Not Applicable**  
**Schedule 24 sampling is not applicable to the York DWS**  
**as it has no active treatment facilities.**