THE CORPORATION OF THE TOWNSHIP OF KING
Report to Committee of the Whole

Monday, March 21, 2022

Public Works Department - Capital Division
Report Number PW-ENV-2022-001
2021 Water Summary Report

RECOMMENDATION(S):

The Director of Public Works respectfully submits the following recommendation(s):

1. Report Number PW-ENV-2022-001 be received.

REPORT HIGHLIGHTS:

- Public Works Department has prepared an Annual Report for each of the four municipal drinking water systems as required under Section 11 of O.Reg.170/03.
- Regulatory sampling within the Township met all applicable requirements with the exception of 2 Adverse Water Quality Incidents (AWQI).
- Accreditation can continue to be offered to the Township.

PURPOSE:

This report is to inform Council that the Public Works Department has prepared an Annual Report for each of the four municipal drinking water systems as required under Section 11 of O.Reg.170/03 using the standard Ministry of the Environment Conservation and Parks (MECP) templates. Annual Reports will be posted on the Township website and are available to the public at no cost. This report also fulfills the requirement to provide members of Council with an Annual Summary Report as outlined in Schedule 22 of O.Reg.170/03.

BACKGROUND:

Annual Summary Report for Council

The Annual Summary Report is to enable the owner of the water systems to assess the capability of meeting the existing and planned uses of the systems. The required contents of the Summary Report for municipal Council members are specified in Schedule 22 of O.Reg. 170/03.

The Summary Report must provide the following information to decision makers:

1. List the requirements of the Safe Drinking Water Act, the regulations, the system's approval, drinking water works permit, municipal drinking water license, and any orders applicable to the system that were not met at any time during the period covered by the report.
2. For each requirement that was not met, specify the duration of the failure and the measures that were taken to correct the failure.

3. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
4. A comparison of the summary referred to in paragraph (c) to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water license, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4) of O.Reg. 170/03, to the flow rates specified in the written agreement.

This Summary Report for council members is made available on the Township website and copies are available free of charge from the Public Works Department.

Standard of Care Provision of the Safe Drinking Water Act

The Standard of Care provisions of the Safe Drinking Water Act, 2002, came into force on December 31, 2012. The MECP guideline, Taking Care of Your Drinking Water (as amended), provides members of municipal councils with general information in regards to the Standard of Care provisions.

As per the Section 19 of the Safe Drinking Water Act, the owner of the municipal drinking water system shall:

1. Exercise the level of care, diligence and skill in respect of a municipal drinking water system that a reasonably prudent person would be expected to exercise in a similar situation; and
2. Act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the municipal drinking water system.

ANALYSIS:

King City

The King City Distribution system currently services a population of approximately 8,500 people and consists of roughly 77 kilometers of watermains and approximately 2,316 connections. The King City system is classified as a Large Municipal Residential System – Class 1.

Water Quality

Regulatory sampling within King City met all applicable requirements. There were no Adverse Water Quality Incidents (AWQI) in 2021.

Water Systems Capacity Assessment

The maximum daily flow of 6,003 m^3 occurred on August 27, 2021 with an overall average daily flow of 2,589 m^3, for the reporting period from January 2021 to December 2021 (statistical flow data provided by the Region of York).

Water System Upgrades/Repairs

There were 2 leak repairs required within the King City DWS.

Nobleton

The Nobleton Distribution system currently services a population of approximately 6,300 people and consists of approximately 49 kilometers of watermains with approximately 1,955 connections. The Nobleton system is classified as a Large Municipal Residential System – Class 1.

Water Quality

Regulatory sampling within Nobleton met all applicable requirements. There were no AWQI's in 2021.

Water Systems Capacity Assessment/Repairs

The maximum daily flow of 4,166 m³ occurred on February 02, 2021 with an overall average daily flow of 1,991 m³, for the reporting period from January 2021 to December 2021 (statistical flow data provided by the Region of York).

Water System Upgrades/ Repairs

There were 2 leak repairs required within the Nobleton DWS, these repairs were due to a Contractor strike.

Approximately 1 km of new watermain was installed and commissioned within the Via Motto development.

Schomberg

The Schomberg Distribution system services a population of approximately 2,900 people and consists of approximately 16 kilometers of watermains and approximately 863 connections. The Schomberg system is classified as a Large Municipal Residential System – Class 1.

There are 6 residential service connections within the Schomberg Drinking Water System that service residents of the Town of New Tecumseth on the north side of Highway 9. As indicated in the Recommendations Section, staff will forward a copy of the Annual Water Quality Report for Schomberg to the Town of New Tecumseth.

Water Quality

The Schomberg DWS experienced the following AWQI:

Total Coliform – July 13, 2021 - Presence

Staff responded to this AWQI by flushing and re-sampling upstream, downstream and at the location of the adverse. The AWQI was resolved on July 15, 2021.

There is an enhanced monitoring and sampling plan in place for the operations departments of both the Township and the Region to monitor and manage the nitrification challenges within the Schomberg DWS. The Township is continuing annual watermain swabbing throughout the Schomberg DWS.

The Region is currently investigating opportunities to revise the current treatment processes/technologies in place within the Schomberg system to better address the on-going nitrification (biological filtration pilot program).

The Township and the Region also worked together to obtain the approval of a Regulatory Relief from the MECP to increase the maximum concentration of Chloramines. This is reflected in Schedule D of Schomberg's Municipal Drinking Water License, Issue 4.

Water Systems Capacity Assessment

The maximum daily flow of 3,262 m³ occurred on June 10, 2021 with an overall average daily flow of 2,048 m³, for the reporting period from January 2021 to December 2021 (statistical flow data provided by the Region of York).

Water System Upgrades/Repairs

There were 3 leak repairs required within the Schomberg DWS.

Approximately 400 m of ductile iron watermain was replaced with PVC, along Brownsville Crt..

Ansnorveldt

The Ansnorveldt Distribution system services a population of approximately 170 people and consists of roughly 1.3 kilometers of watermains and approximately 53 connections. The Ansnorveldt system is classified as a Small Municipal Residential System – Class 1.

Water Quality

The Ansnorveldt DWS experienced the following AWQI's:

Total Coliforms – June 22, 2021 – Presence

Staff responded to this AWQI by flushing and re-sampling upstream, downstream and at the location of the adverse. The AWQI was resolved on June 24, 2021.

Water Systems Capacity Assessment

The maximum daily flow of 103 m³ occurred on March 23, 2021 with an overall average daily flow of 45 m³, for the reporting period from January 2021 to December 2021 (statistical flow data provided by the Region of York).

Water System Upgrades/ Repairs

There were no repairs or upgrades within the Ansnorveldt DWS.

Water Systems Capacity Assessment

The Township of King receives all of its drinking water from York Region. The Township does not have a written agreement with York Region that specifies flow rates or limits for the provision of drinking water and therefore is not able to provide a comparison under schedule 22-2(3)2.

Municipal Drinking Water License Program

Accreditation

The Township received re-accreditation by SAI Global in 2019, re-accreditation is required every 3 years, in between the re-accreditation audits, surveillance audits are conducted. SAI Global conducted the Township's 2021 surveillance audit.

This Audit Report identified no non-conformities and provided three Opportunities for Improvement that staff has responded to accordingly. As such, accreditation can continue to be offered to the Township.

Municipal Drinking Water License

The Schomberg Municipal Drinking Water Licenses was updated in June 2021 to include the Regulatory Relief as noted above. The Township Licenses are to be renewed every five (5) years.

Drinking Water Works Permits

No updates during reporting period.

Regulatory Changes

- In June, 2021, The MECP updated the Safe Drinking Water Act. No major impacts to the Township Drinking Water Systems.
- In December, 2021, The MECP updated O. Reg. 170/03 – Drinking Water Systems. No major impacts to the Township Drinking Water Systems.
- In March 2021, Health Canada introduced a new Canadian Drinking Water Quality Guideline of 50 µg/L for the chemical 1,4-dioxane. Ontario does not currently have an Ontario Drinking Water Quality Standard for 1,4-dioxane but is undertaking additional monitoring for 1,4-dioxane around landfill sites to better understand the implications of adopting the Canadian Drinking Water Quality Guideline as an Ontario Drinking Water Quality Standard.
- The MECP is considering additional steps to help municipalities protect their drinking water systems from cyber attacks, such as the development of a Best Management Practices document on cyber security specific to measures that should be taken at municipal drinking water systems.

FINANCIAL CONSIDERATIONS:

There are no financial impacts related to this report. All operations and capital works within water and wastewater are funded by the water and wastewater user rate.

ALIGNMENT TO STRATEGIC PLAN:

The 2019-2022 Corporate Strategic Plan was formally adopted by Council on September 21, 2020 which emphasizes all of the ICSP Pillars (Financial, Economic, Socio-Cultural and Environmental) and is also aligned with the long-term vision defined in the Official Plan. The 2019-2022 Corporate Strategic Plan aims to ensure staff initiatives focus on current Term of Council priorities in support of the Township's long-term vision to 2031.

This report is in alignment with the CSP's Priority Area(s), associated Objective(s) and/or Key Action(s):

Cultivating Safe, Healthy and Resilient Communities

Promoting Public Safety
- Manage Organizational Risk

Strengthening Resilience
- Strengthen Environmental Systems

The contents of this report are aligned with the 2019-2022 CSP Priority Area: **Cultivating Safe, Healthy and Resilient Communities**. Under this Priority Area, there are two associated Objective(s) for which this report is aligned. The first Objective is **Promoting Public Safety** and its associated Key Action to **Manage Organizational and Community Risk**. The second Objective is **Strengthening Resilience**, and its associated Key Action to **Strengthen Environmental Systems**. The annual summary report provides reassurance of compliant operation of the Township's four Drinking Water Systems, ensuring appropriate service levels and security to our residents and communicating the systems' performance to Council.

CONCLUSION:

The Township of King continues to provide safe municipal drinking water to all our residents, businesses, and visitors through the Ansnorveldt, King City, Nobleton, and Schomberg water distribution systems.

Current operational performance and the on-going implementation of the Drinking Water Quality Management System is effective.

ATTACHMENTS:

King City Annual Report (2021)
Nobleton Annual Report (2021)
Schomberg Annual Report (2021)
Ansnorveldt Annual Report (2021)

Prepared By:

Daniel Wilkinson
Project Manager - Environment

Recommended By:

Samantha Fraser
Director of Public Works

Approved for Submission By:

Daniel Kostopoulos
Chief Administrative Officer

Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

ANNUAL REPORT

Drinking-Water System Number:	**260005138**
Drinking-Water System Name:	King City
Drinking-Water System Owner:	Township of King
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2021 to December 31, 2021

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** Township of King 2585 King Road King City, ON L7B 1A1 www.king.ca	**Number of Designated Facilities served:** **Did you provide a copy of your annual report to all Designated Facilities you serve?** **Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?** **Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [X] NA

Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web

[X] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[X] Public access/notice via other method: Standard of Care Update Bulletin to Council

Describe your Drinking-Water System

Distribution System Class 1
Receives treated water from York Region Water System (Lake-Based Water).
Secondary disinfection is provided by chloramination and has been measured as combined chlorine residual (chloramines).

List all water treatment chemicals used over this reporting period

Refer to York Region Annual Report for the King City Water Supply System.

Were any significant expenses incurred to?

[ ] Install required equipment
[X] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Jan. 7, 2021 – WM Leak repair on Hambly Ave. - $5000.00
May 5, 2021 – WM Leak repair on Patricia Dr.- $7000.00

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

There were no reportable incidents in the King City DWS

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	N/A				
Treated	N/A				
Distribution	208	Absent	Absent	104	0-30

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report

	Number of Grab Samples	Range of Results (min #)-(max #)
Chloramine	367	1.14 – 2.12 (Combined)
Fluoride (If the DWS provides fluoridation)	N/A	

__NOTE__: For continuous monitors use 8760 as the number of samples.

__NOTE__: Record the unit of measure if it is __not__ milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument:

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Schedule C of License 121-103 Issue 3.	NDMA	Quarterly	<.0009	µg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results. Township values reflect the latest sample. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				

Chromium				
***Lead**				
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite	Nov. 29, 2021	<0.05	mg/L	None
Nitrate	Nov. 29, 2021	<0.50	mg/L	None

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results - mg/L (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution (Alkalinity)	6	93.10-94.40	None

Note that all four of the Township Drinking Water Systems are subject to the "exemption" protocols

Summary of Organic parameters sampled during this reporting period or the most recent sample results. Township values an average of the sample results for the Report year. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metobolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				

1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Haloacetic Acid (HAA)	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	<8.0	µg/L	None
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM **(**NOTE**:** show latest annual average**)**	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	19.65	µg/L	None
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				

Trifluralin				
Vinyl Chloride				

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample

Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

ANNUAL REPORT

Drinking-Water System Number:	**260002577**
Drinking-Water System Name:	Nobleton
Drinking-Water System Owner:	Township of King
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2021 to December 31, 2021

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** Township of King 2585 King Road King City, ON L7B 1A1 www.king.ca	**Number of Designated Facilities served:** **Did you provide a copy of your annual report to all Designated Facilities you serve?** **Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?** **Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [X] NA

Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web

[X] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[X] Public access/notice via other method: Standard of Care Update Bulletin to Council

Describe your Drinking-Water System

Distribution System Class 1 Receives all treated water from Region of York water treatment plant and groundwater wells. Secondary disinfection is provided through the maintenance of chlorine residual.

List all water treatment chemicals used over this reporting period

Refer to York Region Annual Report for the Nobleton Water Supply System.

Were any significant expenses incurred to?

[ ] Install required equipment
[X] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Jan. 13, 2021- WM leak repair at Hazelbury Dr. & Cain Crt. – Contractor Error and Repair (No Costs to Township)
Feb. 3, 2021- WM leak repair on Robb Crt. – Contractor Error and Repair (No Costs to Township)

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

There were no reportable incidents in the Nobleton DWS

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	N/A				
Treated	N/A				
Distribution	204	Absent	Absent	96	0-3

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report

	Number of Grab Samples	Range of Results (min #)-(max #)
Chlorine	357	098-1.88 (free)
Fluoride (If the DWS provides fluoridation)	N/A	

NOTE: For continuous monitors use 8760 as the number of samples.

***NOTE**: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument:

Not Applicable

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

Summary of Inorganic parameters tested during this reporting period or the most recent sample results. Township values reflect the latest sample. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				

Chromium				
***Lead**				
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite	Nov. 29, 2021	<0.05	mg/L	None
Nitrate	Nov. 29, 2021	<0.50	mg/L	None

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results - mg/L (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution (Alkalinity and pH for both sessions)	6	247-255	None

Note that all four of the Township Drinking Water Systems are subject to the "exemption" protocols

Summary of Organic parameters sampled during this reporting period or the most recent sample results. Township values an average of the sample results for the Report year. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metobolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				

Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Haloacetic Acid (HAA)	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	9.2	µg/L	None
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM **(**NOTE**:** show latest annual average**)**	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	24.48	µg/L	None
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				

2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				
Trifluralin				
Vinyl Chloride				

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample

Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

ANNUAL REPORT

Drinking-Water System Number:	**260005151**
Drinking-Water System Name:	Schomberg
Drinking-Water System Owner:	Township of King
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2021 to December 31, 2021

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** Township of King 2585 King Road King City, ON L7B 1A1 www.king.ca	**Number of Designated Facilities served:** **Did you provide a copy of your annual report to all Designated Facilities you serve?** **Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?** **Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [X] NA

Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web

[X] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[X] Public access/notice via other method: Standard of Care Update Bulletin to Council

Describe your Drinking-Water System

Distribution System Class 1
Receives all treated water from Region of York water treatment plant and groundwater wells. Secondary disinfection was provided by chloramination and has been measured as combined chlorine residual (chloramines).

List all water treatment chemicals used over this reporting period

Refer to York Region Annual Report for the Schomberg Water Supply System.

Were any significant expenses incurred to?

[ ] Install required equipment
[X] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

April 21, 2021 – WM leak repair at Highway 27 & Proctor Rd.- $10,000
June 10, 2021 – WM leak repair at Magnum Dr. & Proctor Rd. - $5000
July 12, 2021 – Service leak repair on Roselena Dr. - $6000.00

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
July 13, 2021	TC	Present	Absent/Present	Flushed and resampled, up-stream, down-stream and at adverse location.	July 15, 2021

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	N/A				
Treated	N/A				
Distribution	156	Absent	Absent-Present	78	0-42

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report

	Number of Grab Samples	Range of Results (min #)-(max #)
Chloramine	367	1.15-*3.39
Fluoride (If the DWS provides fluoridation)	N/A	

NOTE: For continuous monitors use 8760 as the number of samples.

*Regulatory Relief granted by MECP for Max. Concentration of Chloramines of 4.0 mg/L per Schedule D of License 121-101 Issue 4.

***NOTE**: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument:

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Schedule C of License 121-101 Issue 4.	NDMA	Quarterly	<.0009	µg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results. Township values reflect the latest sample. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				

Chromium				
***Lead**				
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite	Nov. 29. 2021	0.43	mg/L	None
Nitrate	Nov. 29. 2021	<0.50	mg/L	None

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results - mg/L (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution (Alkalinity)	4	303-315	None

Note that all four of the Township Drinking Water Systems are subject to the "exemption" protocols

Summary of Organic parameters sampled during this reporting period or the most recent sample results. Township values an average of the sample results for the Report year. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metobolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				

1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Haloacetic Acid (HAA)	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	<8.0	µg/L	None
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM **(**NOTE**:** show latest annual average**)**	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	3.95	µg/L	None
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				

Trifluralin				
Vinyl Chloride				

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample
Nitrite	0.88	mg/L	Mar. 01 ,2021
Nitrite	0.72	mg/L	Jun. 07, 2021

Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

ANNUAL REPORT

Drinking-Water System Number:	**260034372**
Drinking-Water System Name:	Ansnorveldt
Drinking-Water System Owner:	Township of King
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1, 2021 to December 31, 2021

Complete if your Category is Large Municipal Residential or Small Municipal Residential	***Complete for all other Categories.***
Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** Township of King 2585 King Road King City, ON L7B 1A1 www.king.ca	**Number of Designated Facilities served:** **Did you provide a copy of your annual report to all Designated Facilities you serve?** **Yes [ ] No [ ]** **Number of Interested Authorities you report to:** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?** **Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
Yes [ ] No [X] NA

Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web

[X] Public access/notice via Government Office
[ ] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[X] Public access/notice via other method: Report to Council

Describe your Drinking-Water System

Distribution System Class 1
Receives all treated water from Region of York water treatment plant and groundwater wells.
Secondary disinfection is provided through the maintenance of chlorine residual.

List all water treatment chemicals used over this reporting period

Refer to York Region Annual Report for the Ansnorveldt Water Supply System.

Were any significant expenses incurred to?

[ ] Install required equipment
[ ] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

N/A

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
June 22, 2021	Total Coliform	Present	Present/ Absent	Flushed and re-sampled up-stream, down-stream and at adverse location.	June 24, 2021

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	N/A				
Treated	N/A				
Distribution	104	Absent	Absent – Present	104	0-13

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report

	Number of Grab Samples	Range of Results (min #)-(max #)
Chlorine	210	0.57-2.02
Fluoride (If the DWS provides fluoridation)	N/A	

NOTE: For continuous monitors use 8760 as the number of samples.

***NOTE**: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument:
Not Applicable

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A				

Summary of Inorganic parameters tested during this reporting period or the most recent sample results. Township values reflect the latest sample. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
***Lead**				
Mercury				

Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite	Nov. 29, 2021	<0.05	mg/L	No
Nitrate	Nov. 29, 2021	<0.50	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results - mg/L (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution (Alkalinity)	2	165-171	0

Note that all four of the Township Drinking Water Systems are subject to the "exemption" protocols

Summary of Organic parameters sampled during this reporting period or the most recent sample results. Township values an average of the sample results for the Report year. Refer to York Region's Annual Report, available on their website, for complete test results.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metobolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				

Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2-4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Haloacetic Acid (HAA)	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	11.475	µg/L	None
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM **(**NOTE**:** show latest annual average**)**	Mar.1/21 Jun.7/21 Aug.30/21 Nov.29/21	57.13	µg/L	None
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				

Trifluralin				
Vinyl Chloride				

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards

Parameter	Result Value	Unit of Measure	Date of Sample
THM	57.13	µg/L	Running Average