



# 2023 DRINKING WATER SUMMARY REPORT



## EXECUTIVE SUMMARY

The “Drinking Water Summary Report” is prepared for members of Town Council in order to meet the requirements outlined in Schedule 22 of Drinking Water Systems Regulation O. Reg. 170/03 under the Safe Drinking Water Act. The report provides information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system. The report provides summary information on the operation of both the Ballantrae/Musselman’s Lake Drinking Water System and the Community of Stouffville Drinking Water System.

## MECP INSPECTION FINDINGS: DECEMBER 9, 2022 - DECEMBER 23, 2023

The annual inspection from the MECP of the Town’s drinking water systems were conducted from December 22, 2023 to January 25, 2024. The Ballantrae/Musselman’s Lake system was given an Inspection Rating of 100% and a Risk Rating of 0%. There was no change from the 2022 inspection where the Ballantrae/Musselman’s Lake system received an Inspection Rating of 100% and a Risk Rating of 0%. No further action was required by the MECP.

The Stouffville system was given an Inspection Rating of 94.12% and a Risk Rating of 5.88%. This was increased from the 2022 inspection where both systems received an Inspection Rating of 100% and a Risk Rating of 0% at the time of inspection. At the time of inspection, one Chain of Custody form did not record chlorine residual results with one of the microbiological samples. The Water/Wastewater Supervisor conducted training exercises on January 22, 2024 and February 8, 2024 to review the proper sampling process and completion of Chain of Custody forms. Future Chain of Custody forms will also be reviewed by the Water/Wastewater Supervisor to ensure that each submission is properly completed. The MECP also recommended the addition of a mandatory field to the digital sampling form to include the time each sample was collected. This field was added to the digital form on January 31, 2024. No further action was required from the MECP.

There have been no further identified non-compliances from December 9, 2022 – December 22, 2023 for either system.

## INCIDENTS OF ADVERSE WATER QUALITY JANUARY 1 – DECEMBER 31, 2023

There were two reported incidents of adverse water quality in the Stouffville Distribution System. A sample taken May 2, 2023 found a presence of Total Coliform (TC) and E. coli, which exceeds the Provincial Standard at the Chasmer Court sampling tail. The system was flushed and resampled May 3, 2023 and found to meet the Provincial Drinking Water Standards. No further action was required (AWQI #161878). A sample taken October 28, 2023 found a presence of Total Coliform (TC), which exceeds the Provincial Standard at the sample tail on Lloyd Street. The system was flushed and resampled November 2, 2023 and found to meet the Provincial Drinking Water Standards. No further action was required (AWQI #163916).

There were no reported incidents of adverse water quality in the Ballantrae/Musselman’s Lake Distribution System.

## SUPPLY SYSTEM CAPACITY AND OPERATIONS

The Regional Municipality of York is responsible for the supply of water (production and treatment). All systems operated below the maximum rated capacity of the system.

Information about the supply and treatment of the systems is available on York Region’s website at [www.york.ca/drinkingwater](http://www.york.ca/drinkingwater).

## BALLANTRAE/MUSSELMAN'S LAKE - [GROUNDWATER]

York Region operates three wells and one elevated tank servicing the community of Ballantrae/Musselman's Lake. Water withdrawal from each of the wells is regulated by a Permit to Take Water issued by the Ministry of the Environment, Conservation and Parks (MECP).

The Town of Whitchurch-Stouffville owns and operates the water distribution system consisting of approximately 47 kilometres of watermain, 305 valves, 360 fire hydrants and 17 sampling stations.

### Raw Water Source Description

Wells draw water from the deep aquifer. Groundwater quality meets the Ontario Drinking Water Quality Standard. Aesthetic parameters such as iron and operational parameters including hardness fall outside the optimal operating range, which is common in deep aquifers in York Region. York Region staff use raw water test results to determine the best water treatment.

### Water Treatment

Water from the Ballantrae/Musselman's Lake wells is treated by the addition of chlorine for disinfection and sodium silicate to sequester iron to reduce potential staining of plumbing fixtures and laundry. Disinfection is maintained in the distribution system by the presence of free chlorine residual.

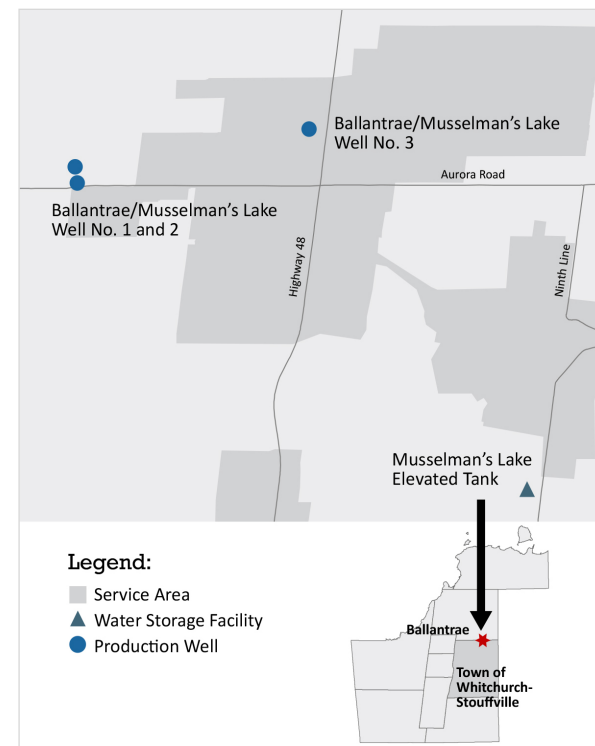
Treatment processes throughout the facility are monitored by online analyzers equipped with alarms and lockouts to alert operational staff of conditions requiring attention.

Town of Whitchurch-Stouffville staff sample and test the water in the distribution system in accordance with all MECP requirements.

For information related to water quality and system performance, please refer to the York Region website [www.york.ca/drinkingwater](http://www.york.ca/drinkingwater)

### Summary of Approvals and Permits

Municipal Drinking Water License No.:	132-101
Issue Number:	Issue 4
Issue Date:	June 15, 2021
Expiry Date:	June 24, 2026
Drinking Water Works Permit Number:	132-201
Issue Number:	Issue 3
Issue Date:	June 15, 2021
Operational Plan Number:	132-401
Financial Plan Number:	132-301A
MECP Waterworks Number:	260006737
System Classification:	Class 1 Large Municipal Residential



## STOUFFVILLE - [ SURFACE + GROUNDWATER ]

York Region operates five wells servicing the community of Stouffville. Water withdrawal from each of the wells is regulated by a Permit to Take Water issued by the Ministry of the Environment, Conservation and Parks. Groundwater supply is supplemented with water from Lake Ontario via the City of Toronto treatment and supply system.

The Town of Whitchurch-Stouffville owns and operates the water distribution system consisting of approximately 200 kilometres of watermain, 1650 valves, 1150 hydrants and 48 sampling stations. The distribution system is separated into three pressure districts controlled by a system of closed valves and pressure reducing valves. A separate system distributes municipal drinking water to approximately 20 properties along Highway 48 at Bloomington Road.

Currently, there are two reservoirs and two elevated tanks servicing Stouffville.

### Raw Water Source Description

Wells draw water from two separate aquifers: shallow and deep aquifers. Groundwater quality meets the Ontario Drinking Water Quality Standard. Groundwater in the shallow aquifer wells (Wells No. 3, 5 and 6) show higher chloride, sulphate and sodium concentrations in comparison to Wells No. 1 and 2, which are in the deep aquifer. Concentrations remain within safe limits and trends are monitored on an ongoing basis. Aesthetic

parameters such as iron and operational parameters including hardness fall outside the optimal operating range, which is common in deep aquifers in York Region. York Region staff uses raw water test results to determine the best water treatment.

### Water Treatment

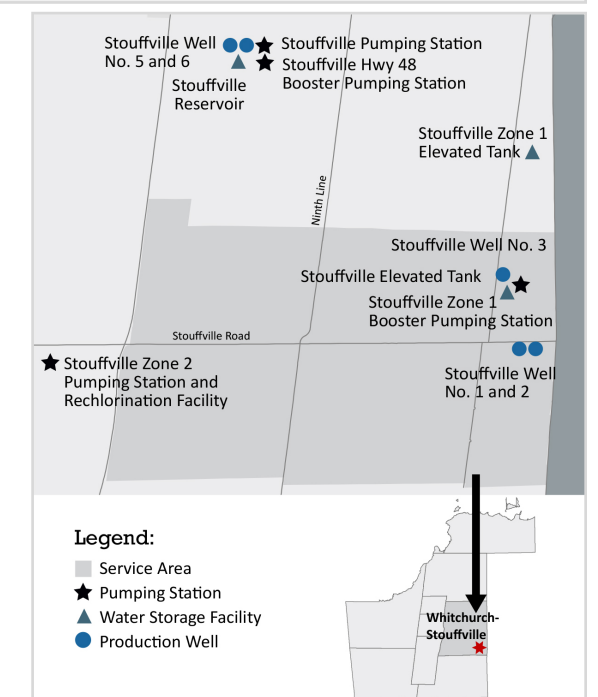
Water treatment for Stouffville wells includes the addition of chlorine for disinfection. At Wells No. 5 and 6, an ultraviolet light system achieves primary disinfection of the raw water prior to addition of chlorine to maintain residual levels. At the Zone 2 pumping station, disinfection of the lake-based water is converted from chloramine to free chlorine. Treatment processes throughout the system are continuously monitored and are equipped with alarms and automatic lockouts. Disinfection is maintained in the distribution system by the presence of free chlorine residual.

Town of Whitchurch-Stouffville staff sample and test the water in the distribution system in accordance with all MECP requirements.

For information related to water quality and system performance, please refer to the York Region website [www.york.ca/drinkingwater](http://www.york.ca/drinkingwater)

### Summary of Approvals and Permits

Municipal Drinking Water License No.:	132-101
Issue Number:	Issue 3
Issue Date:	June 15, 2021
Expiry Date:	June 14, 2026
Drinking Water Works Permit Number:	132-201
Issue Number:	Issue 4
Issue Date:	June 15, 2021
Operational Plan Number:	132-401
Financial Plan Number:	132-301A
MECP Waterworks Number:	260006737
System Classification:	Class 1 Large Municipal Residential





The Town of Whitchurch-Stouffville  
111 Sandiford Drive, Stouffville, Ontario, L4A 0Z8  
Telephone: (905) 640-1900 Toll Free: (855) 642-8696