

Somerset/Knob Hill Distribution System

Waterworks # 260046137
System Category – Small Municipal Residential (Stand Alone Distribution System)

Annual Water Report

Prepared For: The Township of Ramara

Reporting Period of January 1st – December 31st, 2022

Issued: February 24, 2023

Revision: 0

Operating Authority:



This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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Report Availability

This system does not serve more than 10,000 residence and the annual reports will be available to residents at the Township Of Ramara Administration Office and on the Township’s website at www.ramara.ca. Notification that reports are available free of charge will be made on the Township of Ramara website. The Township of Ramara Administration Office is located at 2297 Highway 12, Brechin, ON L0K 1B0.

Compliance Report Card

Drinking Water System Number: 260046137

Drinking Water System Name: Somerset/ Knob Hill Water Distribution System

Drinking Water System Owner: Township of Ramara

Drinking Water System Category: Small Municipal Residential (Stand Alone Distribution System)

Period Being Reported: January 1, 2022 - December 31, 2022

	# of Events	Date	Details
Health & Safety			
Number of Incidents	0		
Drinking Water			
MECP Inspections	2	December 09, 2021	Unannounced – Detailed Drinking Water Inspection – no rating available at time of issuance in 2021 annual report- Final Inspection Rating of 100%
		June 28, 2022	Announced – Focused Drinking Water Inspection – Final Inspection Rating of 100%
AWQI’s	1	August 29, 2022	Potential contamination upon repairing a watermain leak
Number of Non-Compliances	0		
Number of Boil Water Advisories	1	August 29, 2022	Precautionary Boil Water advisory issued due potential contamination upon repairing a watermain leak. The advisory was issued to the 8 residential homes affected.

System Process Description

Raw Source

The distribution system receives treated water from the Township of Severn's Washago Water Treatment Plant (DWS No. 220005161) which receives its raw water from Lake Couchiching. The Township of Severn's Washago Water Treatment Plant is a Large Municipal Residential drinking water system that provides disinfection with sodium hypochlorite, coagulation and flocculation with alum and a cationic polymer and multi-media filtration.

Distribution System

The distribution system consists of approximately 700m of 50mm diameter watermain, including a watermain that conveys treated water across the Severn River. There are three sample stations installed in the distribution system and one blow-off.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
No chemicals are used.		

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
August 29, 2022	159769	Distribution	Potential for contamination upon repairing a watermain leak	A portion of the system was isolated to complete the repair/ installation of new pipe. The portion had to be isolated for a longer period of time, causing potential for contamination	O. Reg 170/03	Precautionary boil water advisory issued for the affected residents. Watermain repaired, samples collected

Non-Compliance

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.				

Non-Compliance Identified in a Ministry Inspection:

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliances identified in a Ministry Inspection during this period.				

Flows

Treated Water Flows

Daily water use is monitored by a magnetic flow meter owned and operated by the Township of Severn. Flow meter readings are collected by operations staff throughout the year to monitor water consumption. Based on the readings collected in 2022 the estimated average daily flow is: 6.06 m³/day. The estimated total annual flows for 2022 is: 2222.22 m³. Based on 20 connected lots, with an estimated population of 52 residents (based on the average population of 2.6 people per dwelling). The estimated per capita average water consumption is: 117L/p/day.

Note: The flow meter did not allow reads to occur from approximately September 29, 2022-January 13, 2023. During this time, the daily flows were averaged using the meter read in January 2023.

Note: There was a leak in August, which showed higher water usage until it was located and repaired.

Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E. Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Water	No Raw Water Samples Required.						
Treated	No Treated Water Samples Required.						
Distribution	28	0	0	0	0	0	2

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Distribution Water Chlorine	109	0.85	1.94
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

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

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested annually as required under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Method Detection Limit

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedances	
				MAC	1/2 MAC
No requirement to sample inorganics in the system.					

Schedule 15 Sampling:

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (ug/L)	Number of Exceedances
Alkalinity (mg/L)	2	83	119	N/A	N/A
pH	2	7.8	8.0	N/A	N/A
Lead (ug/l)	2	0.11	0.33	10	0

Note: Samples shown above are reflective of the 2022 lead sampling period.

Organic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average - DW	2022	45.8	100	No	No
HAA Total (ug/L) Annual Average - DW	2022	27.3	80	No	No

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

MDL = Method Detection Limit

Additional Legislated Samples

Municipal Drinking Water License	Parameter	Date Sampled	Result	Unit of Measure
No additional legislated samples.				

Inorganic or Organic Parameter Exceedances

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
No exceedances.			

Major Maintenance Summary incurred to install, repair or replace required equipment

Item #	Description
1	New service installation 8256 Rama Rd
2	Water leak repair Knob Hill
3	Curb stop repair 7779 Somerset Drive