THE MUNICIPALITY OF

KINCARDINE

great energy. balanced life.

# Scott Point Drinking Water System

## 2025 Annual Water Summary Report

# 1. INTRODUCTION AND BACKGROUND

The municipality owns and operates drinking water systems to provide residents with safe, potable water. These municipal drinking water systems are regulated under various legislation and legal documents including the Safe Drinking Water Act and Ontario Regulation 170/03 Drinking Water Systems. O. Reg. 170 requires that the municipality complete an annual water report (Section 11) and an annual summary report (Schedule 22). The information required for each of these reports has been combined into this one report. This annual water summary report will be made available for inspection as per O. Reg. 170 subsection 12 (4).

The reports are available free of charge on the municipal website at www.kincardine.ca or by contacting the Environmental Services Department at waterservice@kincardine.ca. Requests will also be received in person or by telephone at the Municipal Administration Centre (1475 Concession 5, 519-396-3468) or the Environmental Services Office (155 Durham Street, Kincardine, 519-396-4660).

## 1.1. System Description

| | |
|---|---|
| **Drinking-Water System Number:** | 220007043 |
| **Drinking-Water System Name:** | Scott Point Drinking Water System |
| **Drinking-Water System Owner:** | Municipality of Kincardine |
| **Drinking-Water System Category:** | Small Municipal Residential |
| **Period being reported:** | Year 2025 |

The Scott Point Drinking Water System (DWS) consists of a well and a treatment system. The Scott's Point Well #1 was a non-GUDI well (which means that it is a secure well and not under the influence of surface water) with a capacity of 0.9 L/s. Well #1 was decommissioned and replaced with Scott's Point Well #2 on April 9, 2024. Well #2 is a drilled well approximately 73.2m deep and is equipped with a pump rated at 0.9L/s. Well #2 is currently designated as provisional groundwater and will be further evaluated by the ministry based on the on-going two-year routine EC/TC sampling results in the raw well water. The treatment works consists of a raw water flow meter, sodium hypochlorite (NSF approved) for disinfection, an oxidation tank and two multi-media pressure filters for iron removal, a 45 $m^3$ baffled reservoir and a treated water flow meter. There is on-line monitoring of treated water for free chlorine residual. Pressure for the distribution system is supplied by pressure storage tanks. Two high lift pumps supply water to the pressure tanks and distribution system as well as the backwash filters. The backwash wastewater is directed to a two-stage tank buried on municipal property. The water system serves less than 40 households. There is a backup generator on-site.

### 1.2. Major Expenses

The system incurred expenses necessary to install, repair or replace required equipment as follows:

| | |
|---|---|
| Treatment Upgrades | $1,117 |
| Distribution Repairs | $5,789 |
| Building Maintenance | $643 |

## 2. WATER QUALITY MONITORING

Each municipal drinking water system is required to do testing to ensure that the water supplied to consumers is safe for consumption. Some of these tests such as chlorine residuals are done on site while others, like microbiological testing, must be performed by a licenced laboratory.

### 2.1. Microbiological Testing

O. Reg. 170 Schedule 11, requires the Scott Point DWS to take a minimum of one sample per month of raw water from the well, and one sample every two weeks of distribution water and have them tested for Escherichia coli (E. coli) and total coliforms (TC). The distribution samples must also be tested for heterotrophic plate count (HPC). Our internal sampling schedule exceeds the minimum requirements by having operations staff collect one treated and one distribution sample every week and have them tested for E. coli, total coliform and HPC.

Any E. coli or total coliform results above zero (0) in treated or distribution water must be reported to the Ministry of the Environment, Conservation and Parks (MECP) and Medical Officer of Health (MOH).

Heterotrophic plate count is a colony count of general bacteria population. There is no adverse limit for HPC samples. Results over 500 colonies per 1 mL may indicate a change in water quality but it is not considered an indicator of unsafe water.

The results from the 2025 sampling program are shown in the table below.

Scott's Point Well #2

| Water Source | Number of TC/EC Samples | Range of Total Coliform Results (#-#) | Range of E. coli Results (#-#) | Number of HPC Samples | Range of HPC Results (#-#) |
|---|---|---|---|---|---|
| **Raw** | 27 | 0 – 0 | 0 – 0 | 0 | -- |
| **Treated** | 52 | 0 – 0 | 0 – 0 | 52 | 0 – 10 |
| **Distribution** | 52 | 0 – 0 | 0 – 0 | 52 | 0 – 10 |

### 2.2. Chemical Testing

O. Reg 170 Schedule 13 requires periodic testing of the water for chemical parameters. The Scott Point DWS is required to test for nitrite/nitrates on a quarterly basis. With Well #2 being placed

online in 2024, the trihalomethanes and haloacetic acids are required to be tested for 12 consecutive quarters before reduced sampling can be applied. The tables below outline other inorganic and organic parameters that are required to be tested every five years and include the date and result of the most recent test. Any result displayed as less than (<) are below the method detection limit of the lab.

Sodium and fluoride levels exceed the Ontario Drinking Water Quality Standards, but they are naturally occurring in the groundwater and do not need to be tested more frequently than every five years.

If the concentration of a parameter is above half of the Maximum Acceptable Concentration (MAC) under the Ontario Drinking Water Quality Standards, an increased testing frequency of once every three months is required by O. Regulation 170. There were no parameters above the half MAC that were required to be tested for quarterly in 2025.

Scott's Point Well #2

| Inorganic Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Antimony** | April 29/24 | <0.6 | µg/L | No |
| **Arsenic** | April 29/24 | <0.2 | µg/L | No |
| **Barium** | April 29/24 | 9.45 | µg/L | No |
| **Boron** | April 29/24 | 206 | µg/L | No |
| **Cadmium** | April 29/24 | 0.031 | µg/L | No |
| **Chromium** | April 29/24 | 0.48 | µg/L | No |
| **Mercury** | April 29/24 | <0.01 | µg/L | No |
| **Selenium** | April 29/24 | 0.04 | µg/L | No |
| **Sodium** | July 22/22 | 40 | mg/L | Yes |
| **Uranium** | April 29/24 | 2.51 | µg/L | No |
| **Fluoride** | July 22/22 | 1.7 | mg/L | Yes |
| **Nitrite** | Jan 14/25<br>April 14/25<br>July 14/25<br>October 6/25 | < 0.003<br>< 0.003<br>< 0.003<br>< 0.003 | mg/L | No |
| **Nitrate** | Jan 14/25<br>April 14/25<br>July 14/25<br>October 6/25 | 0.009<br>0.009<br>< 0.006<br>0.007 | mg/L | No |

Scott's Point Well #2

| Organic Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|---|---|---|---|
| **Alachlor** | April 29/24 | <0.02 | µg/L | No |
| **Atrazine + N-dealkylated metabolites** | April 29/24 | <0.01 | µg/L | No |
| **Azinphos-methyl** | April 29/24 | <0.05 | µg/L | No |
| **Benzene** | April 29/24 | <0.32 | µg/L | No |
| **Benzo(a)pyrene** | April 29/24 | <0.004 | µg/L | No |
| **Bromoxynil** | April 29/24 | <0.33 | µg/L | No |
| **Carbaryl** | April 29/24 | <0.05 | µg/L | No |
| **Carbofuran** | April 29/24 | <0.01 | µg/L | No |
| **Carbon Tetrachloride** | April 29/24 | <0.17 | µg/L | No |
| **Chlorpyrifos** | April 29/24 | <0.02 | µg/L | No |
| **Diazinon** | April 29/24 | <0.02 | µg/L | No |
| **Dicamba** | April 29/24 | <0.20 | µg/L | No |
| **1,4-Dichlorobenzene** | April 29/24 | <0.36 | µg/L | No |
| **1,2-Dichlorobenzene** | April 29/24 | <0.41 | µg/L | No |
| **1,2-Dichloroethane** | April 29/24 | <0.35 | µg/L | No |
| **1,1-Dichloroethylene (vinylidene chloride)** | April 29/24 | <0.33 | µg/L | No |
| **Dichloromethane** | April 29/24 | <0.35 | µg/L | No |
| **2-4 Dichlorophenol** | April 29/24 | <0.15 | µg/L | No |
| **2,4-Dichlorophenoxy acetic acid (2,4-D)** | April 29/24 | <0.19 | µg/L | No |
| **Diclofop-methyl** | April 29/24 | <0.40 | µg/L | No |
| **Dimethoate** | April 29/24 | <0.06 | µg/L | No |
| **Diquat** | April 29/24 | <1 | µg/L | No |
| **Diuron** | April 29/24 | <0.03 | µg/L | No |
| **Glyphosate** | April 29/24 | <1 | µg/L | No |
| **Malathion** | April 29/24 | <0.02 | µg/L | No |
| **2 methyl-4-chlorophenoxyacetic acid (MCPA)** | April 29/24 | <0.00012 | µg/L | No |
| **Metolachlor** | April 29/24 | <0.01 | µg/L | No |
| **Metribuzin** | April 29/24 | <0.02 | µg/L | No |
| **Monochlorobenzene** | April 29/24 | <0.3 | µg/L | No |
| **Paraquat** | April 29/24 | <1 | µg/L | No |
| **Pentachlorophenol** | April 29/24 | <0.15 | µg/L | No |
| **Phorate** | April 29/24 | <0.01 | µg/L | No |
| **Picloram** | April 29/24 | <1 | µg/L | No |
| **Polychlorinated Biphenyls (PCB)** | April 29/24 | <0.04 | µg/L | No |
| **Prometryne** | April 29/24 | <0.03 | µg/L | No |
| **Simazine** | April 29/24 | <0.01 | µg/L | No |
| **Terbufos** | April 29/24 | <0.01 | µg/L | No |
| **Tetrachloroethylene** | April 29/24 | <0.35 | µg/L | No |
| **2,3,4,6-Tetrachlorophenol** | April 29/24 | <0.20 | µg/L | No |
| **Triallate** | April 29/24 | <0.01 | µg/L | No |
| **Trichloroethylene** | April 29/24 | <0.44 | µg/L | No |
| **2,4,6-Trichlorophenol** | April 29/24 | <0.25 | µg/L | No |
| **Trifluralin** | April 29/24 | <0.02 | µg/L | No |
| **Vinyl Chloride** | April 29/24 | <0.17 | µg/L | No |

Trihalomethane (THM) distribution sampling is required quarterly and must also be expressed as a running annual average. The limit as set in the Ontario Drinking Water Quality Standards is 100 ug/L. Trihalomethanes are a by-product of the disinfection process. Below are the results of the 2025 THM sampling.

| Date Sampled | THM Result Value (µg/L) | Running Annual Average (µg/L) | Exceedance |
|---|---|---|---|
| Jan 14/25 | 16 | 16.8 | No |
| April 15/25 | 14 | 16.5 | No |
| July 14/25 | 17 | 15.8 | No |
| October 6/25 | 16 | 15.8 | No |

Haloacetic Acids (HAA) distribution sampling is required quarterly and must also be expressed as a running annual average. The limit as set in the Ontario Drinking Water Quality Standards is 80 ug/L. Haloacetic acids are a by-product of the disinfection process. Below are the results of the 2025 HAA sampling.

| Date Sampled | HAA Result Value (µg/L) | Running Annual Average (µg/L) | Exceedance |
|---|---|---|---|
| Jan 14/25 | < 5.3 | 5.3 | No |
| April 14/25 | < 5.3 | 5.3 | No |
| July 14/25 | < 5.3 | 5.3 | No |
| October 6/25 | < 5.3 | 5.3 | No |

The Scott Point DWS does not have significant levels of lead and so is currently under a reduced-sampling program. Under this sampling program, O. Reg 170 Schedule 15.1 requires sampling for lead every three years and lead-related parameters (pH and alkalinity) every year. Only PH and Alkalinity sampling was completed in 2025, below are the results.

| Date Sampled | Location Type | Number of Samples | Parameter | Results |
|---|---|---|---|---|
| March 24, 2025 | Distribution | 1 | Lead (ug/L) | -- |
| | | | pH | 7.6 |
| | | | Alkalinity (mg/L) | 94 |
| August 11, 2025 | Distribution | 1 | Lead (ug/L) | -- |
| | | | pH | 7.9 |
| | | | Alkalinity (mg/L) | 99 |

## 2.3. Operational Monitoring

Sodium hypochlorite is used for primary and secondary disinfection. The free chlorine residual is monitored continuously on the treated water and must be checked a minimum of twice per week in the distribution system.

As a target, the free chlorine residual in the distribution system should be above 0.20 mg/L. A distribution free chlorine level lower than 0.05 mg/L must be reported and corrective action taken.

Our internal sampling schedule exceeds the minimum requirements by having operations staff collect one distribution free chlorine residual every day.

| Free Chlorine Residual | Number of Grab Samples | Range of Results (#-#) |
|---|---|---|
| **Treated Water** | Continuous monitoring | 0.00 – 5.00 |
| **Distribution Water** | 364 | 0.58 – 1.73 |

Notes:

1. Monthly lockout valve testing causes false min residuals to be recorded for treated water.
2. Feb 18-No Distribution sample due to extreme weather and road closures.
3. Jan 11-Low cl2 alarm caused a min of 0.43 to be recorded.
4. Jan 13-Low cl2 alarm and analyzer maintenance caused false min residual of 0mg/L and a false max of 5mg/L to be recorded.
5. Feb 6-Alarm testing caused false min residual of 0.35mg/L to be recorded
6. Oct 17-Analyzer maintenance caused a false min residual of 0mg/L and a false max of 5mg/L to be recorded.
7. Nov 10-Maintenance on site caused a min residual of 0.16mg/L to be recorded.

O. Reg 170 Schedule 7 requires that turbidity in the raw water is tested at least once every month. Consistent turbidity results greater than 5 NTU could indicate surface water influence on the well. Below are the results for 2025.

| Raw Water | Number of Grab Samples | Range of Results (#-#) |
|---|---|---|
| **Turbidity** | 49 | 0.11 – 0.63 |

## 3. WATER QUANTITY

The following tables list the quantities and flow rates of the water supplied to the distribution system during the reporting period covered by this report, including monthly average and maximum daily flows and a comparison to the rated capacity specified in the system Municipal Drinking Water Licence. The rated capacity of the treatment system is 77.76 $m^3$/day. There is no maximum flow rate specified for water supplied to the distribution system.

| Month | Total Treated Flow (m3) | Average Daily Flow ($m^3$/day) | % Average Day/Rated Capacity ($m^3$/day) | Maximum Daily Flow ($m^3$/day) | % Maximum Day/Rated Capacity ($m^3$/day) |
|---|---|---|---|---|---|
| **January** | 416 | 13 | 17% | 17 | 22% |
| **February** | 371 | 13 | 17% | 16 | 21% |
| **March** | 443 | 14 | 18% | 18 | 23% |
| **April** | 427 | 14 | 18% | 25 | 32% |
| **May** | 482 | 16 | 20% | 24 | 31% |
| **June** | 519 | 17 | 22% | 23 | 30% |
| **July** | 656 | 21 | 27% | 33 | 42% |
| **August** | 641 | 21 | 27% | 33 | 43% |
| **September** | 557 | 19 | 24% | 53 | 68% |
| **October** | 535 | 17 | 22% | 32 | 42% |
| **November** | 542 | 18 | 23% | 36 | 47% |
| **December** | 490 | 16 | 20% | 19 | 24% |
| **Annual** | **6,078** | **17** | **21%** | **53** | **68%** |

| Month | Average Daily Flow Rate (L/s) | Maximum Daily Flow Rate (L/s) |
|---|---|---|
| **January** | 0.16 | 1.67 |
| **February** | 0.15 | 2.15 |
| **March** | 0.17 | 2.32 |
| **April** | 0.16 | 2.58 |
| **May** | 0.18 | 1.50 |
| **June** | 0.20 | 2.50 |
| **July** | 0.25 | 2.22 |
| **August** | 0.24 | 2.08 |
| **September** | 0.22 | 2.31 |
| **October** | 0.20 | 2.41 |
| **November** | 0.21 | 2.50 |
| **December** | 0.18 | 2.26 |
| **Annual** | **0.19** | **2.58** |

## 4. ADVERSE WATER QUALITY INCIDENTS AND NON-COMPLIANCE FINDINGS

Any adverse results from microbiological samples, chemical samples or observations of operational conditions that indicate adverse water quality are reported to the Spills Action Centre (SAC) of the Ministry of the Environment, Conservation and Parks and the Medical Officer of Health (MOH). All adverse conditions are responded to immediately and corrective actions taken. There were no reportable incidents in 2025.

The annual Ministry of the Environment, Conservation and Parks Inspection took place on December 18, 2025, for the period of January 20, 2025, to December 12, 2025. There were no non-compliance issues noted in the report.

O. Reg 170 Schedule 22 requires the municipality to identify any requirements of the Act, Regulations, Drinking Water Works Permit, Municipal Drinking Water Licence and any Order that the system failed to meet during the reporting period. There was one issue identified in 2025.

| **Drinking Water Legislation** | **Requirements the System Failed to Meet** | **Duration** | **Corrective Actions** |
|---|---|---|---|
| Permit to Take Water 5320-D2EUDW | No static well depth taken the week of August 25, 2025 (Weekly requirement) | 1 week | Reminded staff of requirement<br>Updated SOP012<br>Updated log sheet- staff recording it daily now |