Water Operations

Annual Summary Report

~ Innisfil Heights Drinking Water System ~

DWS # 220005081

~ Town of Innisfil ~

Reporting Year - 2025

Revised March 6, 2026

InnServices Utilities Inc.

Innisfil Heights Drinking Water System

Introduction

Effective January 1, 2016, the Town of Innisfil transferred ownership of its municipal drinking water systems to InnServices Utilities Inc. (InnServices). InnServices is a municipal service corporation, wholly owned by the Town of Innisfil, charged with the responsibility to operate, maintain, and expand the municipal drinking water systems that service the Town of Innisfil.
The Innisfil Heights Drinking Water System services a population of approximately 400, on 120 residential connections. There is a mix of commercial and industrial properties as well, with 58 commercial and 21 industrial connections. The distribution system is comprised of approximately 21 kilometers of polyvinylchloride piping, 156 hydrants and 538 gate valves and curb stop valves.
The system relies on 2 drilled wells as its source of groundwater. The wells feed into the reservoir and distribution system. The reservoir is equipped with a bulk water transfer station for water haulers.

InnServices has prepared this Summary Report for the operations conducted during the 2024 calendar year.

This Summary Report has been prepared to meet the following commitments:

- To provide InnServices Utilities Inc. Board of Directors, as "Owners" of the drinking water system, a summary of the operations and maintenance of the Innisfil Heights Drinking Water System that took place during the reporting period of January 1 to December 31, 2025.
- To provide a status update of the systems capabilities and capacities as of December 31, 2025.
- To satisfy the requirements of O. Reg 170/03 Section 11, and
- To satisfy the requirements of O. Reg. 170/03 Schedule 22
- Submitted to the InnServices Board of Directors and publicly posted in accordance with the Safe Drinking Water Act, 2002

The Annual Summary Report identifies specific details regarding the overall quality of the drinking water submitted to the Ministry of the Environment Conservation and Parks (MECP) for the Innisfil Heights Drinking Water System and is available on the InnServices website (https://innservices.co/regulatory) and at InnServices Headquarters at 7251 Yonge St., Innisfil, Ontario.

This report provides information to the InnServices Board of Directors related to the operations, maintenance, drinking water quality, and system capacities of the Innisfil Heights DWS, which aids decision making related to system expansion needs, and assists the Board in meeting their Statutory Standard of Care requirements. This report is provided to the Board of Directors by March 31 annually.

MECP Approvals

The Innisfil Heights Drinking Water System is classified as a Large Municipal Residential drinking water system, as defined by Ontario Regulation 170/03.

The **Safe Drinking Water Act, 2002** requires that the Owner of a municipal drinking water system have MECP approvals in the form of a Drinking Water Works Permit (DWWP) and a Municipal Drinking Water Licence (MDWL). The DWWP provides a description of the overall system and provides the authority to establish or alter the drinking water system. The MDWL provides the authority to use or operate the system.

The Innisfil Heights DWS operated under:

DWWP # 120-205, Issue #5, issued December 15, 2020
MDWL # 120-105, Issue #3, issued December 15, 2020

Upon expiry, new approvals were in effect:

DWWP # 120-205, Issue #6, issued December 10, 2025
MDWL # 120-105, Issue #4, issued December 10, 2025

For the reporting period covered in this report, InnServices Utilities Inc. was defined as the Operating Authority of the Innisfil Heights Drinking Water System.

InnServices Utilities Inc. has established and maintains accreditation to the Drinking Water Quality Management Standard Version 2-2017 (DWQMS) under Certificate of Accreditation # 0162550, issued December 13, 2024, by SAI Global.

Drinking Water System

The Innisfil Heights Drinking Water system relies on two drilled wells as its source of groundwater.
Sodium hypochlorite is used for primary disinfection.

A 200-kilowatt standby generator at the pump house and a 250-kilowatt generator at the reservoir ensures that the system is provided with water in the event of a power failure.
An in-ground water storage reservoir has a capacity of 2200 cubic meters and is also equipped with a bulk water transfer station for water haulers.

Significant expenses incurred in relation to installation, repair or replacement of required equipment amounted to approximately $30,103.20:

Item	Cost $
Wellhouse valves and piping	30,103.20
Total	**30,103.20**

Analytical Laboratory Water Quality Monitoring

Bacteriological Analysis

Bacteriological testing is completed to verify that no microbiological contamination of the treated drinking water can be detected. Raw water is also analyzed to inform operations of the level of microbiological contamination the drinking water system is contending with. Bacteriological monitoring for the reporting period was conducted as required by Ontario Regulation 170/03 as amended.
SGS Environmental Services, Lakefield, Ontario, conducted the bacteriological analysis of the drinking water.

Microbiological testing done under the Schedule 10 of Regulation 170/03, during the reporting period:

	Number of Samples	Range of E. Coli Results (Min #) – (Max #) CFU/100mL	Range of Total Coliform Results (Min #) – (Max #) CFU/100mL	Range of HPC Results (Min #) – (Max #) CFU/1mL
Raw	102	0-0	0-1	n/a
Treated	52	0-0	0-0	0-2
Distribution	208	0-0	0-0	0-3

- No Data: Overgrown with Target Bacteria

Chemical Analysis

Chemical analysis of this water supply is conducted as required by Ontario Regulation 170/03.
SGS Environmental Services, Lakefield, Ontario, conducted the required chemical analyses for the drinking water system during the reporting period. This lab as well as any laboratories to which they sub-contract certain types of analyses are licensed by the MECP and accredited by the Canadian Association for Laboratory Accreditation (CALA) and/or Standard Council Canada (SCC).
There was one (1) item of non-compliance with Schedule 7-4. of O. Reg. 170/03. Operations had missed a raw water turbidity grab sample, which is required monthly. This was reported to the MECP (incident # 1-EV6AJM). Corrective action was prescribed, and preventive measures were put in place.
A summary of all analytical results for Organic and Inorganic testing is attached in Appendix A.

Continuous Water Quality Monitoring

Free Chlorine Residual

The Innisfil Heights Drinking Water System utilizes NSF® certified 12% sodium hypochlorite to meet primary disinfection requirements and provide an adequate chlorine residual for secondary disinfection requirements.

A requirement of O. Reg. 170/03 and the Procedure for Disinfection of Drinking Water in Ontario is that the chlorine residual must be recorded at the point directly after primary disinfection is achieved, at a frequency of every 5 minutes. Grab samples are taken and analyzed for free chlorine residual (FCR) when microbiological samples are taken throughout the distribution system. Ontario Regulation 170/03 requires that sufficient residual be available in the water to achieve a residual of greater than 0.05 mg/L at all points in the distribution system.

Zero (0) incidents of non-compliance with the Procedure for Disinfection of Drinking Water in Ontario occurred during the reporting period.

A summary of the chlorination monitoring that took place directly after primary disinfection is achieved is depicted below:

	Number of GrabSamples	**Range of Results (Min #)- (Max #)**	**Unit of Measure**
Turbidity	N/A	N/A	N/A
Chlorine	8760	0.0-5.00	mg/L

All instances where Free Chlorine Residual (FCR) was less than 0.60 mg/L were investigated and confirmed to be isolated instantaneous readings, or coincide with a power outage, calibration activities, and/or appropriate corrective actions were taken to remove non-compliant water from the system before reaching the first consumer.

Plant Flow Monitoring

Raw Water Takings

The Innisfil Heights Drinking Water System utilizes groundwater wells as its raw water source. The raw water takings from groundwater wells are authorized by the MECP through a Permit to Take Water PTTW # 6777-B4GNWB, issued December 10,2025.

Annual raw water takings were reported to the electronic Water Taking Recording System (WTRS).

There were zero (0) items of non-compliance with the Permit to Take Water.

Table 1 below provides a summary of the Innisfil Heights Drinking Water System’s raw water takings for the reporting period.

Table 1: Summary of Raw Water Takings

	Units	Well #2	Well #3
PTTW Daily Maximum	**(m³/day)**	**2,937.60**	**3,110.40**
Maximum Day	(m³/day)	994	981
Average Day	(m³/day)	248	286
Total AnnualTakings	(m³)	90,377	104,838

Performance Summary

The volume of daily treated water delivered to the distribution system is authorized by the MECP through the designation of a Rated Capacity within the Municipal Drinking Water License (MDWL). The Treated Water volume is essentially the same as the Raw Water Takings. The well system is operating at approximately 8.58% of the rated capacity of 3,110.4m³/day. At the maximum flow, treated water demand flow in 2025 was 31.96% of the rated capacity.

There were zero (0) incidents of non-compliance related to the rated capacity occurred during the reporting period.

Table 2, provides a summary of the Innisfil Heights Drinking Water System's treated water demand for the reporting period.

Table 2: Summary of Treated Water Demand

	Innisfil Heights WellSystem
System Rated Capacity(m³/day)	3,110
Maximum Day (m³/day)	994
Average Day (m³/day)	267
Total Annual Water Takings (m³)	195,214
System Performance- ratedcapacity	8.58%
System Performance-atMaximum Flow	31.96%

Distribution Flow Monitoring

The Innisfil Heights Drinking Water System (DWS) produces water for distribution to homes and businesses within the Innisfil Heights area of the Town of Innisfil (TOI).

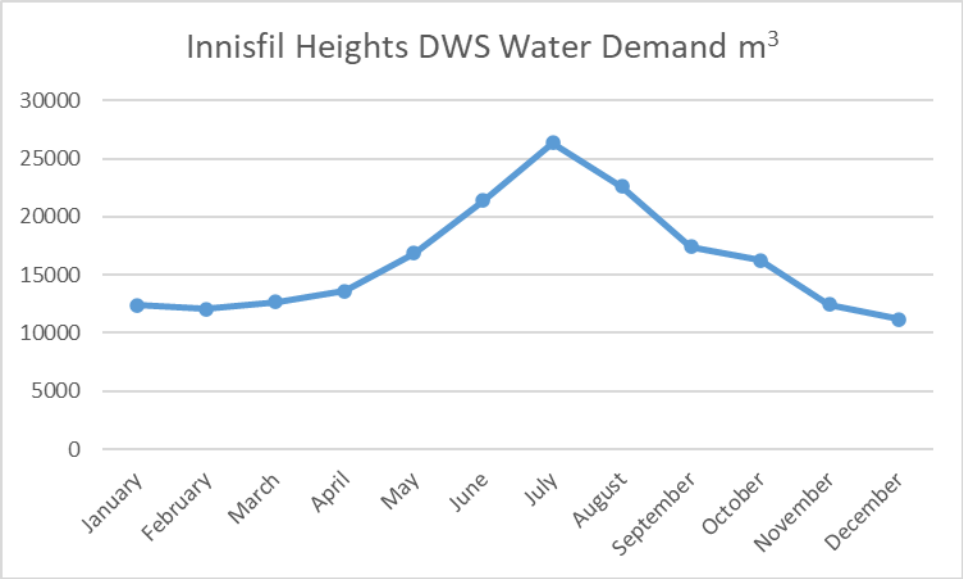
Table 3 and Graph 1 (below and following page), demonstrate the monthly volumes of drinking water directed toward the Innisfil Heights distribution systems during the reporting period.

Table 3: Monthly Water Production

Month	Treated Water Produced (m^3)
January	12,374
February	12,045
March	12,668
April	13,605
May	16,862
June	21,389
July	26,342
August	22,592
September	17,426
October	16,275
November	12,443
December	11,193
Annual Total	**195,214**

The following graph provides a visual display of the information provided in Table 3

Graph 1: Monthly Water Demand



Distribution Sampling

Based on results of community lead sampling program conducted, Innisfil Heights DWS has qualified for reduced sampling protocol as per O. Reg .170/03 Schedule 15.1. Under this protocol, only alkalinity and pH are required from 2 sampling points for each summer and winter period. Lead is tested in the distribution system every third 12-month period.

Location Type	**Number of Samples**	**Range of Alkalinity Results Min. – Max.**	**Range of Lead Results**	**Number of Exceedances**
		Aesthetic Objective30-500 Mg/L	*Maximum Concentration10 µg/L (2023)*	
Distribution	4	188-201 Mg/L	0.09-0.15 µg/L	0

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are sampled on a quarterly basis in accordance with O. Reg. 170/03 Schedule 13. The most recent sample results:

Parameter	*Sample Date*	*Result Value*	*Maximum Allowable Concentration*
THM (latest rolling annual average)	Nov 24, 2025	21.25 µg/L	100 µg/L
HAA (latest rolling annual average)	Nov 24, 2025	5.30 µg/L	80 µg/L

Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards. (Lead and THM only)

Parameter	*Result Value*	*Unit of Measure*	*Date of Sample*
N/A			

Service Disruptions

There was one (1) service disruption in the Innisfil Heights Drinking Water System during the reporting period. The disruption occurred on March 25, 2025, to facilitate a planned tie-in on 9th Line. The interruption began at 08:30 and was resolved by 16:17 the same day. This event was classified as a Category 1 service disruption. All work was completed as scheduled, and normal system operation was restored without any impact on water quality or consumer safety.

MECP Annual Inspection

The primary focus of the inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water policies and guidelines during the inspection period. The Ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management practices.

MECP inspection was conducted on February 10, 2026, which covered the period of January 12, 2025, to February 10, 2026.

There was one (1) item of noncompliance identified during the inspection.

This year the Innisfil Heights drinking water system received an Inspection Risk Rating of 2.45%, resulting in a Compliance Rating of 97.55%.

No Provincial Officer's Orders were issued in the report as a result of the conducted inspection.

Compliance Summary

During the reporting period, the Innisfil Heights Drinking Water System continued to operate reliably; however, one monitoring-related non-compliance was identified.
Operators did not review continuous monitoring test results within the required 72-hour timeframe. Specifically, data and operational trending from April 17 to April 20, 2025, were examined by a certified operator on April 21, 2025, exceeding the mandated review window. No anomalies or operational concerns were identified in any of the data at the time of review. InnServices notified the Ministry of the delayed review on April 22, 2025, in accordance with regulatory requirements.

Despite this administrative and monitoring deficiency, there were no impacts on treated water quality, and the system continued to supply safe drinking water throughout the reporting period.

Appendix A – Chemical Analysis

Testing for both organic and inorganic parameters is required at least once every 36 months when the raw water supply is sourced from groundwater. The most recent sample was collected on November 04, 2024, and the next scheduled sampling will take place in November 2027.

Innisfil Heights DWS Results

MDL: Method Detection Limit, or minimum measured concentration that can be reported with 99% confidence
µg/L: micrograms per liter
All results were well below the maximum threshold with most being below the Method Detection Limit.

Inorganic Parameter	Result Value	Unit of Measure
Antimony	0.6 <MDL	µg/L
Arsenic	0.6	µg/L
Barium	94.2	µg/L
Boron	15	µg/L
Cadmium	0.003 <MDL	µg/L
Chromium	0.12	µg/L
Mercury	0.01 <MDL	µg/L
Selenium	0.06	µg/L
Uranium	0.126	µg/L

Organic Parameter	Result Value	Unit of Measure
Alachlor	0.02 <MDL	µg/L
Atrazine + N-dealkylated metabolites	0.01 <MDL	µg/L
Azinphos-methyl	0.05 <MDL	µg/L
Benzene	0.32 <MDL	µg/L
Benzo(a)pyrene	0.004 <MDL	µg/L
Bromoxynil	0.33 <MDL	µg/L
Carbaryl	0.05 <MDL	µg/L
Carbofuran	0.01 <MDL	µg/L
Carbon Tetrachloride	0.17 <MDL	µg/L
Chlorpyrifos	0.02 <MDL	µg/L
Diazinon	0.02 <MDL	µg/L
Dicamba	0.20 <MDL	µg/L
1,2-Dichlorobenzene	0.41 <MDL	µg/L
1,4-Dichlorobenzene	0.36 <MDL	µg/L
1,2-Dichloroethane	0.35 <MDL	µg/L
1,1-Dichloroethylene (vinylidene chloride)	0.33 <MDL	µg/L

Dichloromethane	0.35 <MDL	µg/L
2-4 Dichlorophenol	0.15 <MDL	µg/L
2,4-Dichlorophenoxy acetic acid (2,4-D)	0.19 <MDL	µg/L
Diclofop-methyl	0.40 <MDL	µg/L
Dimethoate	0.06 <MDL	µg/L
Diquat	1 <MDL	µg/L
Diuron	0.03 <MDL	µg/L
Glyphosate	1 <MDL	µg/L
Malathion	0.02 <MDL	µg/L
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	0.00012 <MDL	mg/L
Metolachlor	0.01 <MDL	µg/L
Metribuzin	0.02 <MDL	µg/L
Monochlorobenzene	0.3 <MDL	µg/L
Paraquat	1 <MDL	µg/L
Pentachlorophenol	0.15 <MDL	µg/L
Phorate	0.01 <MDL	µg/L
Picloram	1 <MDL	µg/L
Polychlorinated Biphenyls(PCB)	0.04 <MDL	µg/L
Prometryne	0.03 <MDL	µg/L
Simazine	0.01 <MDL	µg/L
Terbufos	0.01 <MDL	µg/L
Tetrachloroethylene	0.35 <MDL	µg/L
2,3,4,6-Tetrachlorophenol	0.20 <MDL	µg/L
Triallate	0.01 <MDL	µg/L
Trichloroethylene	0.44 <MDL	µg/L
2,4,6-Trichlorophenol	0.25 <MDL	µg/L
Trifluralin	0.02 <MDL	µg/L
Vinyl Chloride	0.17 <MDL	µg/L

One water sample is taken every 60 months to test for Sodium and Fluoride

Parameter	*Date of Sample*	*Result*	*Unit of Measure*	*Exceedance*
Sodium	18-Nov-2021	19.5	mg/L	No
Fluoride	18-Nov-2021	0.12	mg/L	No

One water sample is taken every 3 months and tested for nitrate and nitrite

Parameter	*Date of latest Sample*	*Result*	*Unit of Measure*	*Exceedance*
Nitrite	Nov. 24, 2025	<0.003	mg/L	No
Nitrate	Nov. 24, 2025	<0.006	mg/L	No