Town of The Blue Mountains

Water Section Operations Update January 1, 2025 to April 30, 2025

Water and Wastewater Services Division

Town of The Blue Mountains
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Executive Summary

This report provides an overview of the Town's drinking water system and reports on water quality issues for the period of January 1, 2025, to April 30, 2025.

Ensuring the safety and quality of the Town's drinking water system is not only the responsibility of the Water Operators who operate and maintain the system but also the Members of Municipal Council and Municipal Officials who exercise decision-making authority regarding the system.

The Safe Drinking Water Act, 2002 (SDWA) includes a statutory standard of care for individuals who have oversight responsibilities for municipal drinking water systems. The SDWA does not require Municipal Officials and Councillors to be experts in drinking water but does require officials to be informed.

Ontario Regulation 170/03 specifies guidelines for the number of samples to be taken, the frequency of sampling and the actions to be taken if any of the sample results indicate adverse water quality. Samples were collected in accordance with regulatory requirements.

Operators are required to undertake training in accordance with Ontario Regulation 128/04. Several Operators completed training during this reporting period, including MECP mandatory training. Staff evaluate training opportunities to ensure meaningful and applicable training is undertaken.

An inspection of the Town's Drinking Water System was initiated on January 31, 2025. The primary focus of the inspection was to confirm compliance with MECP legislation as well as evaluating conformance with Ministry drinking water policies and guidelines during the inspection period. The Blue Mountains' Drinking Water System received 100% rating for the 2024-25 reporting period.

Several maintenance activities were completed at the Thornbury Water Treatment Plant and throughout the distribution system, including valve operation and calibration of flow monitoring and monitoring equipment.

Work on (2) two capital projects was underway during this reporting period. Both the improvements to the Happy Valley Reservoirs and the installation of the chlorine line from the Water Treatment Plant to the intake crib commenced during this reporting period. Both projects are on task and anticipated to be complete by the end of Q2.

Introduction

This report provides an overview of the Town's drinking water system activities for the period of January 1, 2025, to April 30, 2025. The Town continues to provide quality drinking water to Town residents and visitors in compliance with regulatory requirements.

This report will address the following:

- System Information
- Raw, Treated and Distribution Water Quality Data
- Staff Training
- Ministry of Environment, Conservation and Parks Inspection
- Water Treatment Plant and Water Booster Station Maintenance Summary
- Distribution System Summary
- Summary of Plant Flows
- Watermain Break Summary
- Incidents of Adverse Water Quality
- Water Quality Concerns / Resident Complaints

System Information

Drinking Water System Number:	220001762
Drinking Water System Name:	The Blue Mountains Drinking Water System
Drinking Water System Owner:	Town of The Blue Mountains
Drinking Water System Category:	Large Municipal Residential
Water Treatment Subsystem Class:	Class 2 Certificate No. 1758
Water Distribution Subsystem Class:	Class 3 Certificate No. 1759
Municipal Drinking Water License:	111-101
Municipal Drinking Water Permit:	111-201

Raw, Treated and Distribution Water Quality Data

Ontario Regulation 170/03 specifies guidelines for the number of samples to be taken, the frequency of sampling and the actions to be taken if any of the sample results indicate adverse water quality.

Schedule 10 of Ontario Regulation 170/03 requires weekly sampling and testing for E. Coli, Total Coliform and Heterotrophic Plate Count (HPC).

Weekly samples are collected for raw and treated water from the WTP and analyzed by an accredited laboratory.

Overviews of the raw and treated sampling data for the period of January 1, 2024, to April 30, 2025 are presented in Tables 1 and 2 respectively.

Table 1 – Raw Water

Parameter	Result Range (Min-Max)	Parameter Limit
E. Coli	0 to 6[1]	N/A
Total Coliform	0 to 130	N/A

Table 2 – Treated Water

Parameter	Result Range (Min-Max)	Parameter Limit
E. Coli	0	0
Total Coliform	0	0

[1] Results were due to high turbidity events. Raw Water E. Coli and Total Coliform sample collected returned No Data: Overgrown with Target Bacteria (NDOGT) and not included in results above.

Parameter	Result Range (Min-Max)	Parameter Limit
HPC	0 to 1	N/A

Drinking water quality is further monitored throughout the distribution system by a comprehensive sampling and analysis program involving weekly sampling at designated sampling stations as well as reservoirs and booster stations.

An overview of the distribution sampling data for the period of January 1, 2025, to April 30, 2025 is presented in Table 3:

Table 3 – Distribution

Parameter	Number of Samples	Result Range (Min – Max	Parameter Limit
E. Coli	170	0	0 cfu/100 mg/l
Total Coliform	170	0	0 cfu/100 mg/l
HPC	148	0 to 5	N/A

Staff Training

In accordance with Ontario Regulation 128/04, all water treatment and distribution Operators possess operating licenses appropriate to the class of the facility where they are employed. As the Town's distribution system is a Class 3 subsystem, Operators are required to complete a minimum of 26 hours of on-the-job practical training and 14 hours of formal Continuing Education Units (CEU) training per year.

A summary of the courses attended from January 1, 2025, to April 30, 2025 by Operators is provided in Table 4:

Table 4 – Operator Training

Operator Name	Training Course Completed
Mike Boyd	• Working at Heights
Stephanie Cole	• A 1 Day Chlorine Gas Course
Rob Gilchrist	• Occupational Health & Safety Awareness Training for Workers - Ontario
Kevin McGuire	• A 1 Day Chlorine Gas Course • Working at Heights
Allan Scott	• Mandatory Certificate Renewal Course (2024-2026) • Working at Heights

Ministry of Environment, Conservation and Parks Inspection

An inspection of the Town's Drinking Water System was initiated on January 31, 2025. The primary focus of the inspection was to confirm compliance with 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.

The Inspection Report includes an Inspection Summary Rating Record which is designed to encourage drinking water systems to strive for continuous improvement. Based on the MECP established rating methodology, The Blue Mountains' Drinking Water System received **100%** rating for the 2024-25 reporting period.

Water Treatment Plant and Water Booster Station Maintenance Summary

The following provides a breakdown of the maintenance performed at the Water Treatment Plant and Distribution Facilities from January 1, 2025, to April 30, 2025.

Thornbury Water Treatment Plant

- Clean in Place (CIP) completed on Racks 1, 2 and 3
- Maintenance and cleaning completed on Trident Filter
- Wellness check completed on Pall Operating System by Third Party Contractor
- Broken fiber repaired on Rack 2
- Annual Calibration of Reference Sensor completed by Third Party Contractor
- Preventative Maintenance Kits completed on Chlorinators and Injectors
- New Air Release completed on feed header
- Annual Calibration of Flow Meters, Chlorine and Turbidity Analyzers by Third Party Contractors
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- Replaced 2" swing check valve on air scrub line
- Annual Generator Maintenance completed by Third Party Contractor
- Installation of new pre chlorine line from the raw well to the intake crib by Third Party Contractor
- Replaced various valves on Rack 1 and 2
- Monthly Maintenance

10th Line Booster Station

- New lighting fixtures installed
- Annual Calibration of Chlorine Analyzers and Flow Meters by Third Party Contractors
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- PLC and Truck Fill Updates
- Generator maintenance by Third Party Contractor
- New tubing installed from pumps to injector

Thornbury Reservoir

- New lighting fixtures installed
- Annual Calibration of Chlorine Analyzers and Flow Meters by Third Party Contractor
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor

Camperdown Reservoir

- New lighting fixtures installed
- Cleaned solenoid body and screens on Pump # 2
- Annual Calibration of Chlorine Analyzers and Flow Meters by Third Party Contractor
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- Repaired chlorine leak on upper zone discharge line
- Generator maintenance by Third Party Contractor

Arrowhead Road Booster Station

- New lighting fixtures installed
- Cleaned solenoid body and screens on Pump # 2
- Annual Calibration of Chlorine Analyzers and Flow Meters by Third Party Contractor
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- Third Party Contractor installed new solenoid and performed troubleshooting for mechanical interlock
- New E-light battery
- New Pump # 1 hour meter installed by Third Party Contractor
- Generator maintenance by Third Party Contractor

Happy Valley Booster Station

- New lighting fixtures installed
- Repaired leak on chlorine pump # 2
- Annual Calibration of Chlorine Analyzers and Flow Meters by Third Party Contractor
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- Confined Space Entry for monthly injector maintenance, valve operation, isolation of south cell and draining for repairs by Third Party Contractor

Mountain Road Booster Station

- Third party Contractor addressed Pump 1 issue and checked Variable Frequency Drive (VFD) setpoints
- Annual Calibration of Chlorine analyzers and Flow Meters by Third Party Contractor
- Annual Inspection of Fire Extinguishers and Emergency Lights by Third Party Contractor
- (2) Two membranes installed on chlorine analyzer

- Chlorine leak repaired on Pump # 2

In April 2025, improvements to the south reservoir cell at Happy Valley commenced. The general scope of work saw the repair of the existing exposed interior and exterior concrete walls and roof slab of the south reservoir cells, replacement of the sealant material at the joint between the roof slab and the perimeter walls of the cells and chemical injection of cracks in the perimeter walls of the south reservoir cell.

Also in April 2025, the installation of a new chlorine line from the Water Treatment Plant to the intake crib was also initiated. The intake line is a critical element of the Town's drinking water system. This is where the process of disinfecting the Town's drinking water begins. The chlorine line was approaching the end of its useful life and required replacement. The project is anticipated to be completed by the end of June 2025.

Distribution System Summary

The following table provides a breakdown of the Water Meter Field Service calls for January 1, 2025, to April 30, 2025:

Table 5 – Water Meter Field Services Summary

Nature of Call	**Number of Calls**
Replace water meters – frozen	2
Repair Meter Other (leaks, reversed, etc.)	2
Water Meter Inspections (re-inspections, renovations, new construction)	17
Billing Verification, Hand Deliveries, Datalogs (notices, bills)	21
Install/Repair Radio Units	6
Customer Meetings (usage, pressure, complaints, etc.)	11
Closing Readings	48
Water Turn On	15
Plumbing Inspections	3
Meetings with Contractors, Business Owners, Site Management (Backflow requirements, unauthorized connections, losses etc.)	6

The following table provides a breakdown of the Water Distribution Work Orders completed for January 1, 2025, to April 30, 2025.

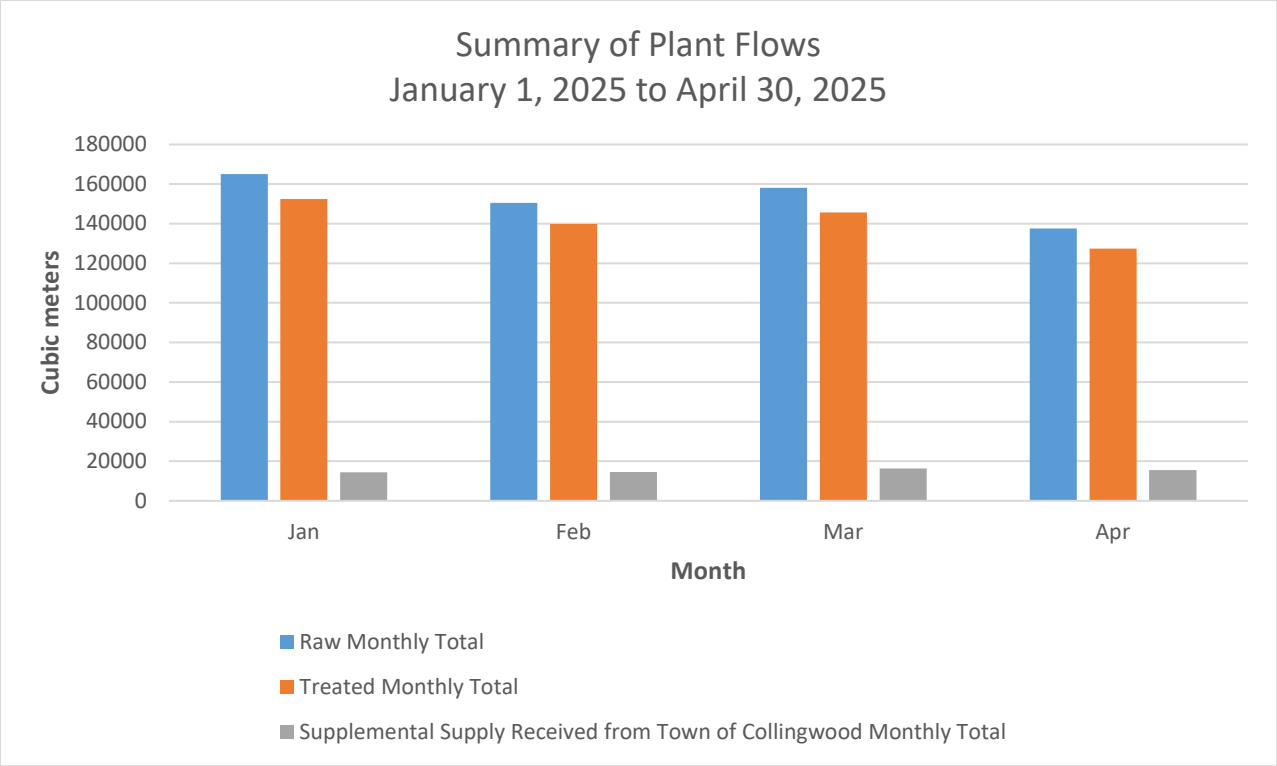
Table 6 – Distribution Work Orders

Work Order Description	
Watermain Repairs	1
Watermain Dig Site Clean up	2
Service Connection Repairs	3
Valves operated (Curb Stop Valves, Main Valves and Hydrant Valves)	260
Valves Repaired	1
Automatic Flushing Stations – Winterizing or Repairs	3
Sample Stations Winterizing or Repairs	4
Dead End Flushing – Number of Hydrants Flushed	233
Fire Hydrant Repairs from Inspections	5
Fire Hydrants Painted or Winterized	7
Water and Sewer locates completed	340
GPS Unit	24
Number of Days Shovelling Fire Hydrants	7 days
Chamber Inspections	97
Chamber Repairs	4
Confined Space Entries	13
New Construction	2

Summary of Plant Flows

A summary of the WTP Raw, Treated and supplemental flow supply received from the Town of Collingwood is presented in Graph 1:

Graph 1:



Watermain Break Summary

Watermain breaks are typically reported by the public, Town Staff or discovered during visual inspections by Operators. In most instances, watermain breaks are repaired by Operators and, at times, with the assistance of outside contractors or Staff from the Town's Roads Department.

For the period of January 1, 2025, to April 30, 2025, there was (1) one watermain break.

On April 15, 2025 the Stone Zack Lane Air Release Valve (ARV) coupling outside of the chamber failed due to corroded bolts. Staff replaced (2) two couplings with stainless steel bolts. The repair was completed with limited disruption to residents.

Incidents of Adverse Water Quality

This section describes all Adverse Water Quality Incidents (AWQI). This term refers to any treated water test result that does not meet a provincial water quality standard or a situation where disinfection of the Town's drinking water may be compromised. A single AWQI does not necessarily mean that the system's drinking water is unsafe – it indicates that, on at least one occasion, a water quality standard was not met.

The Town's drinking water system is operated in accordance with Ontario Regulation 170/03 and Operators follow the direction of this regulation when dealing with incidents of adverse drinking water. There were no incidents of drinking water during this reporting period.

Water Quality Concerns / Resident Complaints

Staff record information relating to the water quality issues on the Resident Water Quality Concern Form. If required, Operators attend the location of concern to collect samples or assess the nature of the concern.

The ongoing analysis of the water quality data is useful in determining if the water quality is changing throughout the distribution system over time. As an example, taste and odor complaints may indicate that the watermain in an area is deteriorating.

A summary of the water quality concerns from residents received during the period of January 1, 2025, to April 30, 2025 is included in Table 7 below:

Table 7 – Water Quality Concerns

Water Quality Concern	Date(s)	Number of Occurrences	Resolution / Comment
Taste & Odour	April 7, 2025	1	• Bacteriological sample collected and returned 0 EC/TC. Operator ran tap and didn't notice chlorine odour
Odour	February 15, 2025 March 3, 2025	2	• Chlorine residual collected and within normal range. Operator didn't notice odour and suggested homeowner check household drains as running slow • Chlorine residual collected and within normal range.
Low Water Pressure	January 23, 2025 January 30, 2025 March 27, 2025	3	• Pressures checked and found to be within normal range • Pressures checked and found to be within normal range • Homeowner advised to check internal PRV and make necessary adjustments
High Water Pressure	January 20, 2025	1	• Homeowner advised to contact Plumber to install a new shut off valve and PRV
Leak Investigation	February 11, 2025	1	• Operators attended site and confirmed no leak or break at location