Hemlock Utility
SERVICES LTD.

HEMLOCK UTILITY SERVICES LTD. 2025

ANNUAL WATER SYSTEM REPORT

Reporting Period:

January 1, 2025 – December 31, 2025

Executive Summary

The Hemlock Water System supplies drinking water to residents, businesses, and visitors throughout Hemlock Valley. During 2025, Hemlock Utility Services Ltd. continued to focus on providing a safe, reliable, and sustainable supply of drinking water while maintaining compliance with the British Columbia Drinking Water Protection Act, Drinking Water Protection Regulation, and Fraser Health operating requirements.

Throughout the year, routine water quality monitoring was conducted across the water system, including bacteriological sampling, chlorine residual testing, turbidity monitoring, and operational monitoring of treatment processes. Results confirmed that the water supplied to customers met applicable drinking water quality requirements. Regular testing and monitoring continue to play an important role in protecting public health and ensuring system reliability.

A Chemical analysis was completed in November 2025 to confirm compliance with the Guidelines for Canadian Drinking Water Quality (GCDWQ). In addition to verification monitoring, continuous operational monitoring by online instrumentation is provided for key parameters to ensure that system performance remains within acceptable limits.

Throughout 2025, Hemlock Utility Services continued to invest in the operation, maintenance, and improvement of water system infrastructure. Activities included water quality monitoring, leak repairs, emergency preparedness planning, and continued work toward long-term system improvements, including Well No. 1 and the development of a water system capacity strategy.

Hemlock Utility Services Ltd. remains committed to continuous improvement, regulatory compliance, environmental stewardship, and providing high-quality drinking water to the residents and businesses of Hemlock Valley. We appreciate the support and cooperation of our customers and look forward to continuing to serve the community in the years ahead.

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1 Introduction

Hemlock Utility Services Ltd. owns and operates the Hemlock Water System, which provides potable drinking water to residents, businesses, and visitors throughout Hemlock Valley. The utility is responsible for the operation, maintenance, monitoring, and management of the water system to ensure that safe and reliable drinking water is delivered to customers.

The Hemlock Water System is operated by qualified personnel and is regulated under British Columbia's Drinking Water Protection Act (DWPA) and Drinking Water Protection Regulation (DWPR). These regulations establish requirements and responsibilities intended to protect public health and ensure that drinking water supplied to customers meets applicable drinking water quality standards.

Section 15 of the Drinking Water Protection Act requires water suppliers to make water quality monitoring results available to the public. Section 10 of the Drinking Water Protection Regulation further requires that an annual report be prepared and made publicly available within six months following the end of each calendar year.

This Annual Water Quality Report fulfills those requirements for the Hemlock Water System and provides a summary of water quality monitoring, operational activities, maintenance programs, and system improvements completed during 2025.

The remainder of this report includes a description of the water system (Section 2), an overview of the water quality monitoring program and results (Section 3), a summary of operations and maintenance activities completed during 2025 (Section 4), and conclusions regarding system performance (Section 5). Detailed water quality monitoring results are included in the appendices.

2. Water System Description

2.1 Overview

The Hemlock Water System provides potable drinking water to residents, businesses, and visitors throughout Hemlock Valley. The system serves approximately 155 service connections, including residential properties, commercial businesses, strata developments, and the Sasquatch Mountain Resort.

The system is owned and operated by Hemlock Utility Services Ltd., which is responsible for the operation, maintenance, monitoring, and long-term planning of the water system.

2.2 Water Source

The Hemlock Water System obtains its drinking water from Cohen Creek, a surface water source located within the surrounding watershed. Source water quality is monitored regularly to identify potential changes that may impact treatment processes or drinking water quality.

Protecting source water quality remains an important component of the utility's multi-barrier approach to drinking water safety.

2.3 Water Treatment

The Hemlock Water System obtains its drinking water from Cohen Creek, a surface water source located within the surrounding watershed. Source water quality is monitored regularly to identify potential changes that may impact treatment processes or drinking water quality.

The treatment process utilizes a multi-barrier approach consisting of:

Filtration

Ultraviolet (UV) Disinfection

Chlorination

These treatment processes work together to remove or reduce contaminants, provide effective disinfection, and maintain a disinfectant residual throughout the distribution system.

2.4 Distribution System

Following treatment, drinking water is delivered throughout Hemlock Valley through a network of water infrastructure assets, including water mains, 155 service connections, 21 fire hydrants, 6 pressure-reducing valve (PRV) stations, 1 balancing tank, and monitoring and control equipment. The distribution system is designed to provide reliable water service and fire protection throughout the community.

2.6 Future System Improvements

Hemlock Utility Services continues to evaluate and implement improvements to support long-term system reliability, water quality, and future community growth. Key initiatives include ongoing water system capacity planning, development of Well No. 1, source water protection initiatives, infrastructure renewal, and continued implementation of asset management practices.

3.1 Water Quality Monitoring Overview

Hemlock Utility Services Ltd. conducts routine drinking water quality monitoring in accordance with regulatory requirements. The purpose of routine monitoring is to confirm that drinking water delivered to customers complies with applicable drinking water quality standards and to verify that the water system is operating safely and within normal operating limits.

Routine monitoring practices are based on the requirements of the British Columbia Drinking Water Protection Act, Drinking Water Protection Regulation, and Fraser Health operating permit requirements. Monitoring activities include collecting water samples at various locations throughout the system, including the source water supply, Water Treatment Plant, and distribution system.

Water quality monitoring includes both verification monitoring and operational monitoring. Verification monitoring consists of laboratory analysis performed by accredited laboratories to confirm compliance with drinking water quality requirements. Operational monitoring consists of routine field testing and continuous online monitoring used to assess treatment performance and distribution system operation.

Table 3-1 summarizes the primary water quality monitoring activities completed during 2025.

Parameter	Water Treatment Plant - Treated Water	Distribution System
Total Coliform & E. Coli	Routine	Weekly
Free Chlorine Residual	Continuous	Daily
Turbidity	Continuous	-
Chemical Parameters	As Required	As Required

The acceptable limits for drinking water quality parameters are generally based on the Guidelines for Canadian Drinking Water Quality (GCDWQ), the Drinking Water Protection Regulation, Fraser Health requirements, and applicable operating permit conditions.

Analysis of verification monitoring samples is conducted by accredited laboratories and results are reviewed by utility staff to confirm compliance and identify potential water quality concerns. Operational monitoring is performed using field instruments and online monitoring equipment and allows for rapid detection of changes in treatment performance or distribution system conditions.

Detailed water quality monitoring results for 2025 are presented in the appendices of this report.

3.2 Water Quality Results Summary

Schedule A of the British Columbia Drinking Water Protection Regulation establishes standards for the bacteriological quality of potable water in British Columbia:

- No detectable E. coli per 100 millilitres (mL).
- At least 90 percent of samples must have no detectable total coliform bacteria per 100 mL, and no sample may contain more than 10 total coliform bacteria per 100 mL.

A total of 52 bacteriological samples were collected and analyzed from locations throughout the distribution system during 2025. No E. coli were detected in any samples collected during the reporting period. Routine monitoring for Total Coliforms confirmed the continued effectiveness of treatment and distribution system operations.

One bacteriological exceedance was recorded during 2025. The exceedance was investigated, follow-up sampling was completed in accordance with Fraser Health requirements, and subsequent results confirmed the continued safety and integrity of the drinking water system.

Chlorine residual monitoring was conducted throughout the year at the Water Treatment Plant and within the distribution system to verify that an adequate disinfectant residual was maintained. Turbidity monitoring was performed continuously at the Water Treatment Plant to assess treatment performance and ensure treated water quality objectives were achieved.

In addition to routine microbiological monitoring, chemical and operational monitoring was conducted as required to verify compliance with the Guidelines for Canadian Drinking Water Quality (GCDWQ).

Based on the results of monitoring completed during 2025, the Hemlock Water System continued to provide safe and reliable drinking water to customers and met the applicable requirements of the British Columbia Drinking Water Protection Act, Drinking Water Protection Regulation, and Fraser Health operating permit requirements.

Detailed water quality monitoring results are provided in the appendices of this report.

Appendix A – Metals in Drinking Water

Appendix B - Bacteriological Results

Appendix C – Chemical Analysis Results

4. Operations and Maintenance

4.1 Overview

Hemlock Utility Services Ltd. is responsible for the operation, maintenance, monitoring, and improvement of the Hemlock Water System. Throughout 2025, routine inspections, preventative maintenance, repairs, water quality monitoring, and infrastructure improvement activities were completed to ensure the continued delivery of safe and reliable drinking water.

Regular maintenance and monitoring activities are essential for protecting public health, maintaining regulatory compliance, preserving infrastructure assets, and ensuring reliable water service throughout the community.

4.2 System Improvements

During 2025, Hemlock Utility Services continued work on several initiatives intended to improve the reliability, sustainability, and long-term performance of the water system, including:

- Water system capacity planning initiatives
- Continued development of Well No. 1
- Water system mapping and record updates
- Source water protection initiatives
- Ongoing leak reduction and infrastructure improvement activities
- Continued work towards implementation of metered water rates

These initiatives will support the long-term reliability, sustainability, and regulatory compliance of the Hemlock Water System.

5. Conclusion

Results from the 2025 water quality monitoring program demonstrate that the drinking water supplied by the Hemlock Water System met the requirements of the British Columbia Drinking Water Protection Act, Drinking Water Protection Regulation, and Fraser Health operating permit requirements.

Hemlock Utility Services Ltd. continues to pursue improvements to the water system through ongoing infrastructure maintenance, source water protection initiatives, water quality monitoring, and long-term planning activities. Routine operational testing and preventative maintenance programs help ensure the reliability and safety of the drinking water supply while protecting public health and supporting regulatory compliance.

Hemlock Utility Services remains committed to providing safe, reliable, and sustainable drinking water to the residents, businesses, and visitors of Hemlock Valley.

The utility would like to thank its customers, staff, contractors, and regulatory partners for their ongoing support and contributions toward maintaining a safe and dependable drinking water system.

fraserhealth Better health. Best in health care.

February 4, 2026

Water System Operators

Re: Metals in Drinking Water – "Flush" Message in Annual Reports

Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until you notice a change in temperature. *(This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.)* The more time water has been sitting in your home's pipes, the more lead it may contain.

Use only water from the cold tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.

The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants.

If you have any questions, please contact our Drinking Water Program at 604-870-7903 or 604-870-7900.

Sincerely,

Emily McGuire
Manager, Drinking Water Program
Fraser Health Authority
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Appendix B - Bacteriological Results

Hemlock Water System - Bacteriological Monitoring Summary	
Facility Name	Hemlock Water System
Date Range	Jan 1, 2025 to Dec 31, 2025
Operator	Nicholas McDermott
Report Source	Fraser Health Authority Sample Range Report
Total Samples	52
Total Coliform Positive	1
E. coli Positive	0
Fecal Coliform Positive	0
Total Coliform % Positive	1.92%
E. coli % Positive	0.00%

Annual Water Report Table	Result
Water Quality Objective	0 E. coli detected
E. coli Detected	No
Total Coliform Detected	Yes
Total Coliform Corrective Action	Follow-up sample satisfactory
Appendix Included	Yes

Notes
LT1 means less than 1. The Fraser Health report identified one total coliform detection and no E. coli detections.

Sampling Site	Date Collected	Total Coliform	E. coli	Notes
Subdivision 6	2025-02-18 8:00 AM	LT1	LT1	
Subdivision 6	2025-04-15 8:30 AM	LT1	LT1	
Subdivision 6	2025-05-13 8:00 AM	LT1	LT1	
Subdivision 6	2025-11-12 9:00 AM	LT1	LT1	
Subdivision 6	2025-12-03 10:00 AM	LT1	LT1	
Subdivision 5	2025-01-28 7:00 AM	LT1	LT1	
Subdivision 5	2025-03-25 8:30 AM	LT1	LT1	
Subdivision 5	2025-09-02 8:29 AM	LT1	LT1	
Day Lodge	2025-02-25 8:30 AM	LT1	LT1	
Day Lodge	2025-03-18 9:00 AM	LT1	LT1	
Day Lodge	2025-04-08 9:00 AM	LT1	LT1	
Day Lodge	2025-06-11 8:00 AM	LT1	LT1	
Day Lodge	2025-07-02 10:30 AM	LT1	LT1	
Day Lodge	2025-07-15 8:16 AM	LT1	LT1	
Day Lodge	2025-08-05 8:45 AM	LT1	LT1	
Day Lodge	2025-09-24 9:15 AM	LT1	LT1	
Day Lodge	2025-10-14 8:30 AM	LT1	LT1	
Day Lodge	2025-12-08 9:00 AM	LT1	LT1	
Condos	2025-04-29 7:00 AM	LT1	LT1	
Condos	2025-07-22 9:45 AM	LT1	LT1	
Condos	2025-08-26 9:45 AM	LT1	LT1	
Condos	2025-11-03 9:00 AM	LT1	LT1	
Condos	2025-12-15 8:30 AM	LT1	LT1	
Maintenance Shop	2025-01-07 8:29 AM	LT1	LT1	
Maintenance Shop	2025-02-04 8:29 AM	LT1	LT1	
Maintenance Shop	2025-04-01 8:00 AM	LT1	LT1	
Maintenance Shop	2025-04-22 7:30 AM	LT1	LT1	
Maintenance Shop	2025-05-20 8:00 AM	LT1	LT1	
Maintenance Shop	2025-06-24 7:00 AM	LT1	LT1	
Maintenance Shop	2025-07-09 10:00 AM	LT1	LT1	
Maintenance Shop	2025-08-12 9:00 AM	LT1	LT1	
Maintenance Shop	2025-09-16 7:45 AM	LT1	LT1	
Maintenance Shop	2025-10-07 8:15 AM	LT1	LT1	
Maintenance Shop	2025-11-25 8:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-01-14 8:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-02-11 7:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-03-04 8:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-05-06 8:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-05-21 8:30 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-06-17 7:00 AM	LT1	LT1	
Treatment Room - Post Chlorination	2025-10-21 8:31 AM	4	LT1	Total coliform detected
Treatment Room - Post Chlorination	2025-10-27 9:00 AM	LT1	LT1	Follow-up sample satisfactory
Treatment Room - Post Chlorination	2025-12-15 8:30 AM	LT1	LT1	
Subdivision 4	2025-01-21 9:00 AM	LT1	LT1	
Subdivision 4	2025-03-11 8:29 AM	LT1	LT1	
Subdivision 4	2025-05-27 7:00 AM	LT1	LT1	
Subdivision 4	2025-07-29 8:00 AM	LT1	LT1	
Subdivision 4	2025-08-19 8:44 AM	LT1	LT1	
Subdivision 4	2025-09-09 9:45 AM	LT1	LT1	
Subdivision 4	2025-10-01 8:30 AM	LT1	LT1	
Reservoir	2025-06-03 8:00 AM	LT1	LT1	
Reservoir	2025-11-18 9:00 AM	LT1	LT1	

Hemlock Water System - Chemical Analysis Summary			
Client	Hemlock Utility Services Ltd.	Total results entered	72
Sample Description	Hydrant at Condos / 8.6 °C	E. coli detected	No
Sample Date	2025-11-13	Total Coliform detected	No
Sample Time	18:20	Health-based MAC exceedances	0
Date Received	2025-11-14	Aesthetic/operational exceedances or notes	4
Date Reported	2025-11-19		
Laboratory	Element Materials Technology - Vancouver/Surrey		
Guideline Source	Health Canada Guidelines for Canadian Drinking Water Quality, August 2024		

Notes

Category	Analyte	Units	Result	Numeric Result / DL	Qualifier	Nominal DL	Guideline Limit	Guideline Comments
Trace Metals Dissolved	Titanium Dissolved	mg/L	0.004	0.004		0.002		
Trace Metals Dissolved	Aluminum Dissolved	mg/L	0.039	0.039		0.001	0.1 OG, 2.9 MAC	Below OG
Trace Metals Dissolved	Antimony Dissolved	mg/L	<0.00002	0.00002	<	0.00002	0.006	Below MAC
Trace Metals Dissolved	Arsenic Dissolved	mg/L	<0.0001	0.0001	<	0.0001	0.010	Below MAC
Trace Metals Dissolved	Barium Dissolved	mg/L	0.011	0.011		0.0001	2.0	Below MAC
Trace Metals Dissolved	Beryllium Dissolved	mg/L	<0.00005	0.00005	<	0.00005		
Trace Metals Dissolved	Bismuth Dissolved	mg/L	<0.0001	0.0001	<	0.0001		
Trace Metals Dissolved	Boron Dissolved	mg/L	0.002	0.002		0.002	5	Below MAC
Trace Metals Dissolved	Cadmium Dissolved	mg/L	<0.00001	0.00001	<	0.00001	0.007	Below MAC
Trace Metals Dissolved	Chromium Dissolved	mg/L	0.00006	0.00006		0.00005	0.05	Below MAC
Trace Metals Dissolved	Cobalt Dissolved	mg/L	<0.00002	0.00002	<	0.00002		
Trace Metals Dissolved	Copper Dissolved	mg/L	<0.0005	0.0005	<	0.0005	1 AO, 2 MAC	Below AO
Trace Metals Dissolved	Iron Dissolved	mg/L	0.16	0.16		0.002	0.1	Above AO
Trace Metals Dissolved	Lead Dissolved	mg/L	0.00005	0.00005		0.00001	0.005	Below MAC
Trace Metals Dissolved	Lithium Dissolved	mg/L	<0.0005	0.0005	<	0.0005		
Trace Metals Dissolved	Manganese Dissolved	mg/L	0.002	0.002		0.001	0.02 AO, 0.12 MAC	Below AO
Trace Metals Dissolved	Molybdenum Dissolved	mg/L	0.00009	0.00009		0.00002		
Trace Metals Dissolved	Nickel Dissolved	mg/L	<0.0002	0.0002	<	0.0002		
Trace Metals Dissolved	Selenium Dissolved	mg/L	<0.0002	0.0002	<	0.0002	0.05	Below MAC
Trace Metals Dissolved	Silver Dissolved	mg/L	<0.00001	0.00001	<	0.00001		
Trace Metals Dissolved	Strontium Dissolved	mg/L	0.012	0.012		0.0001	7.0	Below MAC
Trace Metals Dissolved	Tellurium Dissolved	mg/L	<0.00005	0.00005	<	0.00005		
Trace Metals Dissolved	Thallium Dissolved	mg/L	<0.00001	0.00001	<	0.00001		
Trace Metals Dissolved	Thorium Dissolved	mg/L	<0.00005	0.00005	<	0.00005		
Trace Metals Dissolved	Tin Dissolved	mg/L	<0.0001	0.0001	<	0.0001		
Trace Metals Dissolved	Uranium Dissolved	mg/L	<0.00001	0.00001	<	0.00001	0.02	Below MAC
Trace Metals Dissolved	Vanadium Dissolved	mg/L	0.00007	0.00007		0.00005		
Trace Metals Dissolved	Zinc Dissolved	mg/L	0.0019	0.0019		0.0005	5.0	Below AO
Trace Metals Dissolved	Zirconium Dissolved	mg/L	<0.0001	0.0001	<	0.0001		
Metals Extractable	Aluminum Extractable	mg/L	0.050	0.05		0.001	0.1 OG, 2.9 MAC	Below OG
Metals Extractable	Antimony Extractable	mg/L	0.00002	0.00002		0.00002	0.006	Below MAC
Metals Extractable	Arsenic Extractable	mg/L	<0.0001	0.0001	<	0.0001	0.010	Below MAC
Metals Extractable	Barium Extractable	mg/L	0.011	0.011		0.0001	2.0	Below MAC
Metals Extractable	Boron Extractable	mg/L	0.005	0.005		0.002	5	Below MAC
Metals Extractable	Cadmium Extractable	mg/L	<0.00001	0.00001	<	0.00001	0.007	Below MAC
Metals Extractable	Chromium Extractable	mg/L	0.00008	0.00008		0.00005	0.05	Below MAC
Metals Extractable	Copper Extractable	mg/L	0.0005	0.0005		0.0005	1 AO, 2 MAC	Below AO
Metals Extractable	Lead Extractable	mg/L	0.00005	0.00005		0.00001	0.005	Below MAC
Metals Extractable	Selenium Extractable	mg/L	<0.0002	0.0002	<	0.0002	0.05	Below MAC
Metals Extractable	Strontium Extractable	mg/L	0.012	0.012		0.0001	7.0	Below MAC
Metals Extractable	Uranium Extractable	mg/L	<0.00001	0.00001	<	0.00001	0.02	Below MAC
Metals Extractable	Vanadium Extractable	mg/L	0.00033	0.00033		0.00005		
Metals Extractable	Zinc Extractable	mg/L	0.0014	0.0014		0.0005	5.0	Below AO
Microbiological Analysis	Total Coliforms Enzyme Substrate Test	MPN/100 mL	<1.0	1	<	1	0 per 100 mL	Below MAC
Microbiological Analysis	Escherichia coli Enzyme Substrate Test	MPN/100 mL	<1.0	1	<	1	0 per 100 mL	Below MAC
Physical and Aggregate Properti	Colour	True Colour units	7	7		5		
Physical and Aggregate Properti	Turbidity	NTU	1.07	1.07		0.1		
Routine Water	pH	pH units	6.38	6.38		0.01	7.0-10.5	Below Recommended Range
Routine Water	Temp. of observed pH	°C	20.7	20.7				
Routine Water	Electrical Conductivity at 25 °C	µS/cm	44	44		1		
Routine Water	Calcium Dissolved	mg/L	4.0	4		0.01		
Routine Water	Magnesium Dissolved	mg/L	0.58	0.58		0.02		
Routine Water	Potassium Dissolved	mg/L	0.10	0.1		0.04		
Routine Water	Silicon Dissolved	mg/L	2.2	2.2		0.005		
Routine Water	Sodium Dissolved	mg/L	2.9	2.9		0.1	200	Below AO
Routine Water	Sulfur Dissolved	mg/L	2.0	2		0.02		
Routine Water	Calcium Extractable	mg/L	3.5	3.5		0.01		
Routine Water	Iron Extractable	mg/L	0.18	0.18		0.004	0.1	Above AO
Routine Water	Magnesium Extractable	mg/L	0.54	0.54		0.02		
Routine Water	Manganese Extractable	mg/L	0.003	0.003		0.001	0.02 AO, 0.12 MAC	Below AO
Routine Water	Potassium Extractable	mg/L	<0.04	0.04	<	0.04		
Routine Water	Silicon Extractable	mg/L	2.2	2.2		0.005		
Routine Water	Sodium Extractable	mg/L	2.7	2.7		0.1	200	Below AO
Routine Water	T-Alkalinity as CaCO3	mg/L	6	6		5		
Routine Water	Chloride Dissolved	mg/L	3.10	3.1		0.05	250	Below AO
Routine Water	Fluoride Dissolved	mg/L	<0.01	0.01	<	0.01	1.5	Below MAC
Routine Water	Nitrate - N Dissolved	mg/L	0.03	0.03		0.01	10	Below MAC
Routine Water	Nitrite - N Dissolved	mg/L	<0.01	0.01	<	0.01	1.0	Below MAC
Routine Water	Sulfate (SO4) Dissolved	mg/L	6.8	6.8		0.1	500	Below AO
Routine Water	Hardness as CaCO3 (dissolved)	mg/L	12	12		5		
Routine Water	Hardness as CaCO3 (extractable)	mg/L	11.0	11		1		
Routine Water	Total Dissolved Solids Extractable	mg/L	26	26		1	500	Below AO