CITY OF CHILLIWACK

2025 Annual Water Quality Report

Executive Summary

The City of Chilliwack has a population of approximately 112,500 and provides water to nearly 96,750 of these residents. Residents who are not serviced by the City's water utility access their water from private wells or other water providers. The City of Chilliwack's water is sourced from ten groundwater wells. Eight of the wells draw water from the Sardis-Vedder Aquifer and two of the wells draw water from the Marble Hill Aquifer. The Sardis-Vedder Aquifer provides 98.98% of the water supplied to Chilliwack residents, with the Marble Hill Aquifer providing the remaining 1.02 %.

Under the *Drinking Water Protection Act*, the City of Chilliwack is required to continually monitor water quality and make a report available to the public summarizing the results of the monitoring program. This report summarizes the 2025 water quality testing and monitoring results for the City of Chilliwack.

In 2025, source water quality met the requirements of *British Columbia Drinking Water Protection Regulations* (BC DWPR) and the Guidelines for Canadian Drinking Water Quality (GCDWQ).

The City follows sampling guidelines as outlined in Schedule B of the BC DWPR and meets the requirements for total coliforms and *E. coli* with very high-quality water.

City staff continue to seek improvement to the water supply and distribution systems. The City will continue to work closely with Fraser Health and the public to continue providing high quality water to our residents.

This report is available in hard copy at the City of Chilliwack's City Hall, 8550 Young Road, Chilliwack BC or as a PDF at chilliwack.com/waterquality.

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1.0 Acronyms

AO: Aesthetic Objective

BC DWPR: British Columbia Drinking Water Protection Regulation

E. coli: Escherichia coli

EOCP: Environmental Operators Certification Program

GCDWQ: Guidelines for Canadian Drinking Water Quality

MAC: Maximum Acceptable Concentration

Mg/L: Milligrams per liter

NTU: Nephelometric Turbidity Units

PPB: Parts Per Billion

PPM: Parts Per Million

PRV: Pressure Reducing Valve

SCADA: Supervisory Control and Data Acquisition

2.0 Introduction

The City of Chilliwack currently has a population of 112,500 residents, and supplies drinking water to approximately 96,750 of these residents. Residents who are not serviced by the City's water utility access their water from private wells or other water providers. The City of Chilliwack's water is sourced from ten groundwater wells. Eight of the wells draw water from the Sardis-Vedder Aquifer and two of the wells draw water from the Marble Hill Aquifer. The Sardis-Vedder Aquifer provides 98.98% of the water supplied to Chilliwack residents, with the Marble Hill Aquifer providing the remaining 1.02 %.

This report is available in hard copy at the City of Chilliwack's City Hall, 8550 Young Road, Chilliwack BC or as a PDF at chilliwack.com/water quality. All water suppliers are required to produce and publish an annual water quality report under the *BC Drinking Water Protection Regulations* (DWPR). This report provides a summary of the City's drinking water system and water quality results from the comprehensive sampling program conducted annually.

3.0 System Description

The City of Chilliwack encompasses a 261 km^2 area bounded by the Fraser River on the north, Boundary Road and the Vedder Canal on the west, FVRD Area D and E to the northeast and the Cultus Lake Park Board and FVRD Area H to the south. The City of Chilliwack also borders with Skwahla 2, Schelowat 1, Grass 15, Skowkale 10, Yakweakwioose 12, Tzeachten 13, Soowahlie, Skowkale 11, Skwali 3, Skwah 4, Shxwhá:y 5, Squiaala 8, Lackaway 2, Aitcheltich 9, Squiaala 7, and Kwaw-kwaw-a-pilt First Nations. The City provides water to many of these communities through servicing agreements. The City of Chilliwack does not provide water to the community of Yarrow, as Yarrow Waterworks provides water services to the community of Yarrow.

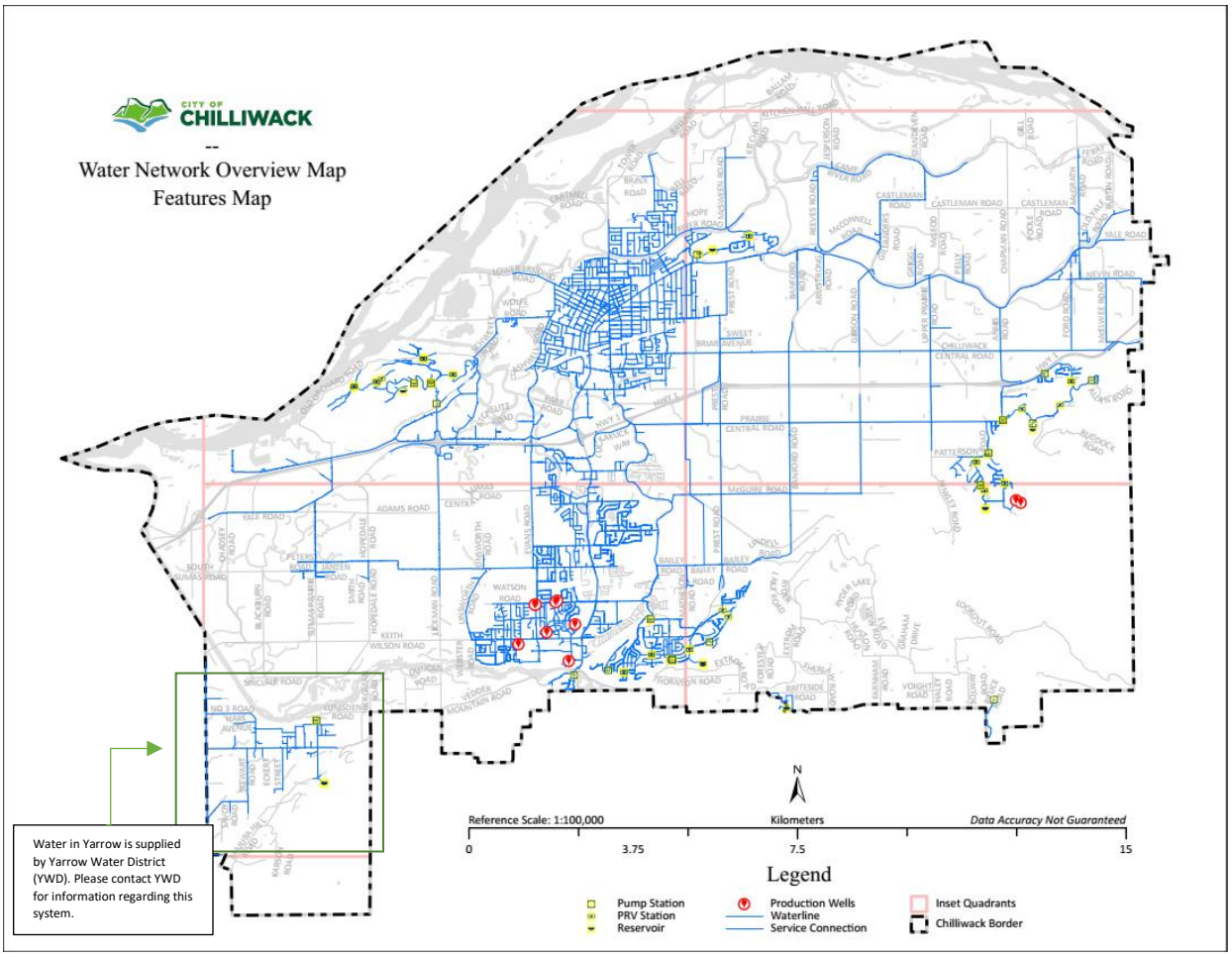

Figure 1: Map of Chilliwack's Drinking Water System

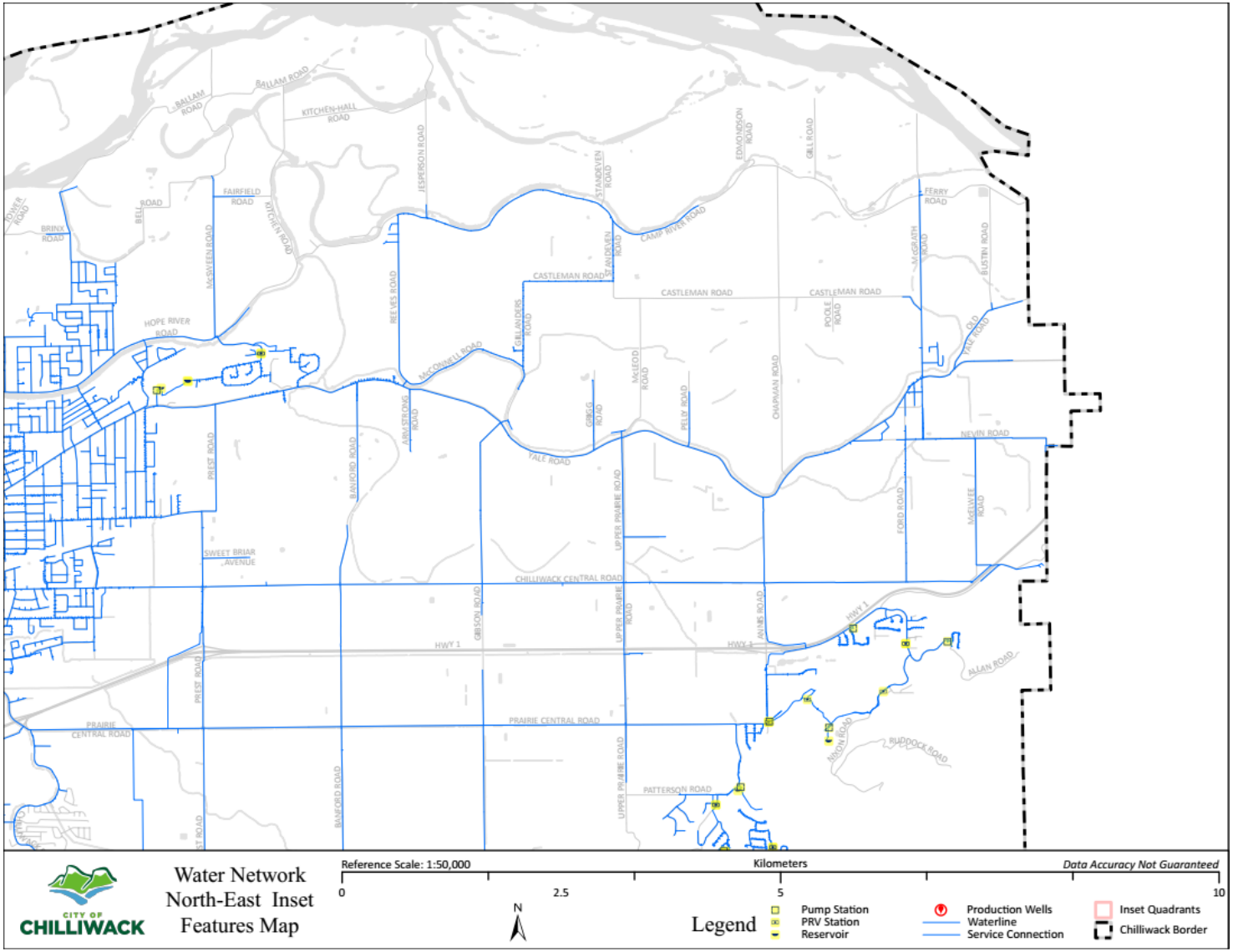

Figure 2: City of Chilliwack Water System (Northeast)

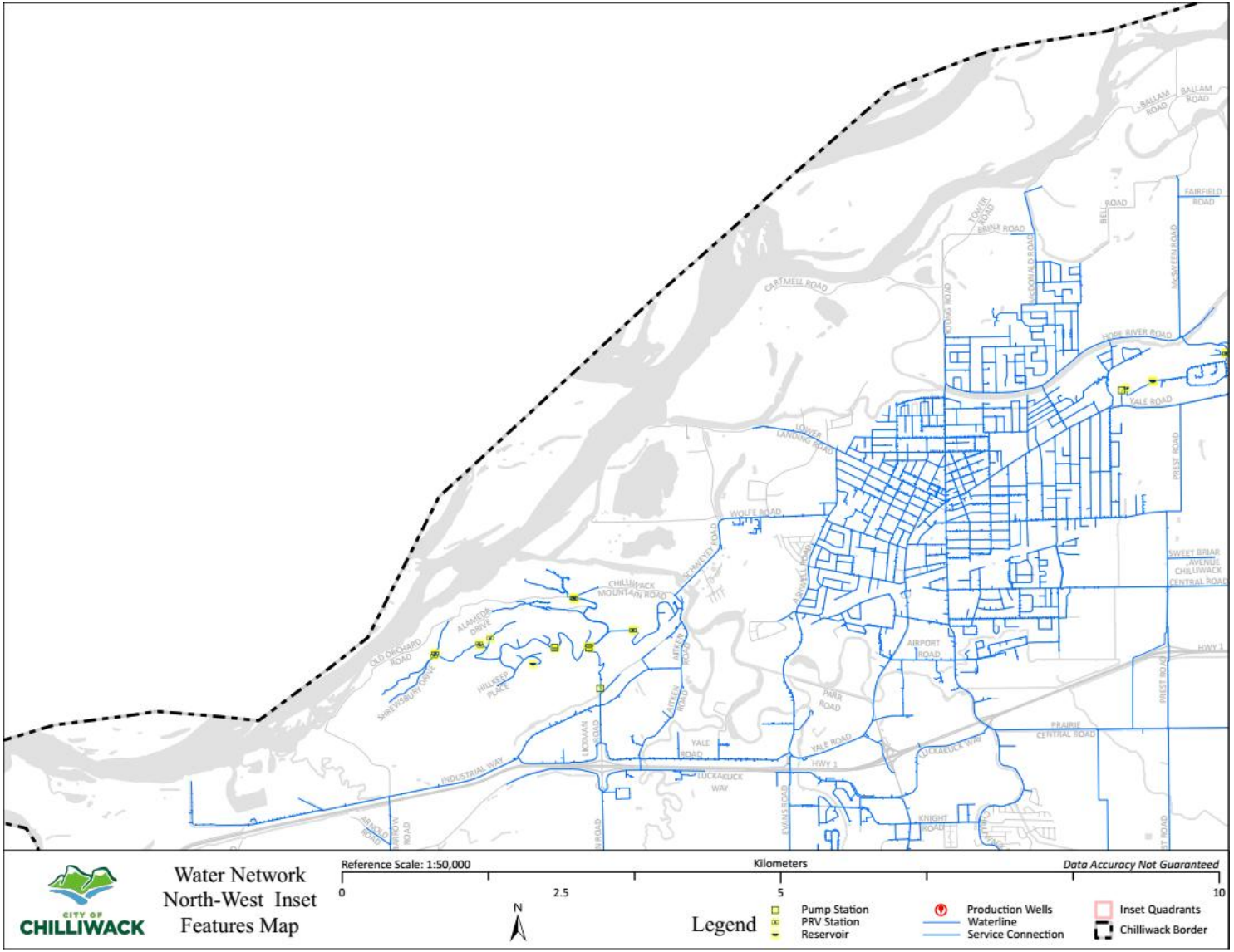

Figure 3: City of Chilliwack Drinking Water System (Northwest)

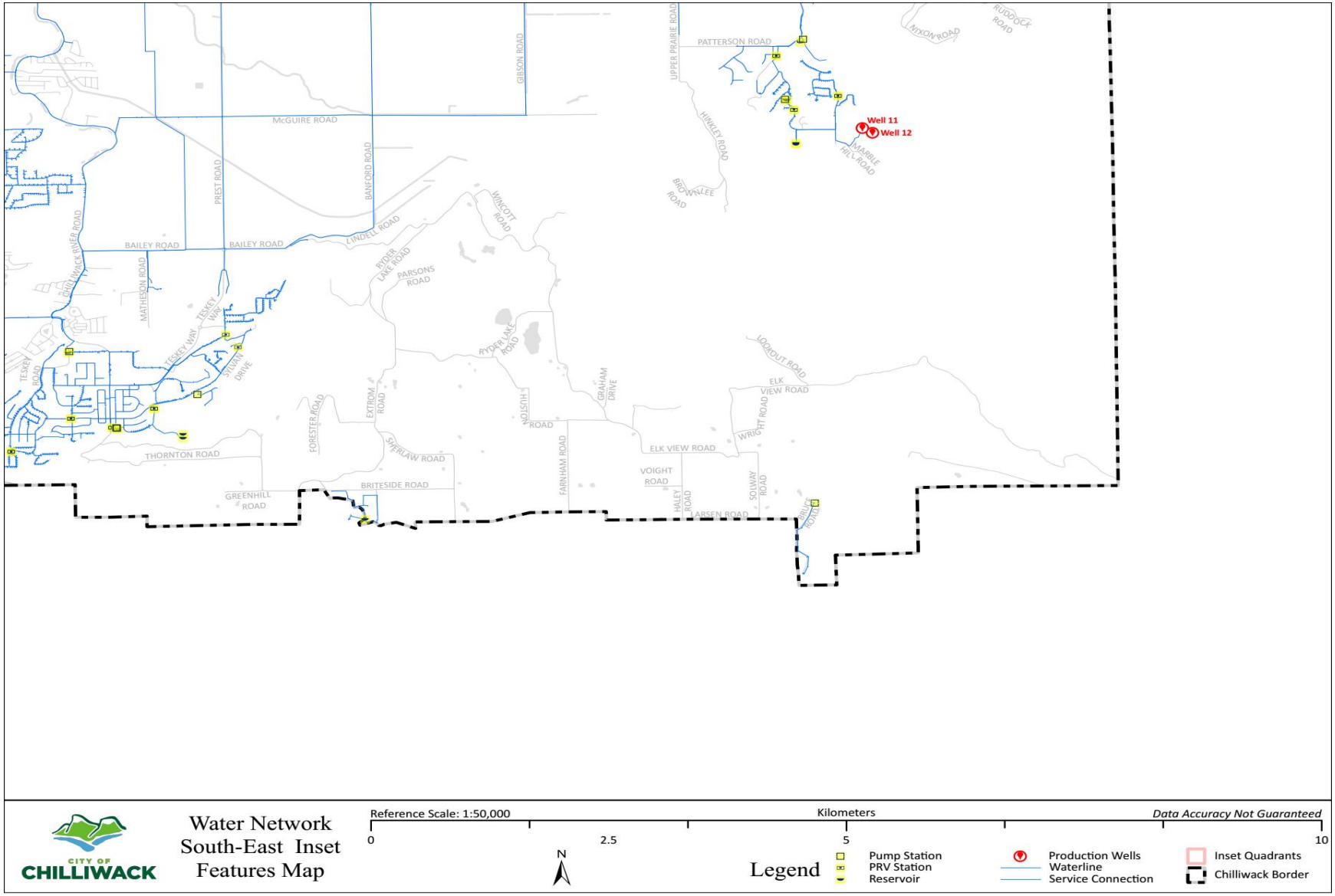

Figure 4: City of Chilliwack Drinking Water System (Southeast)

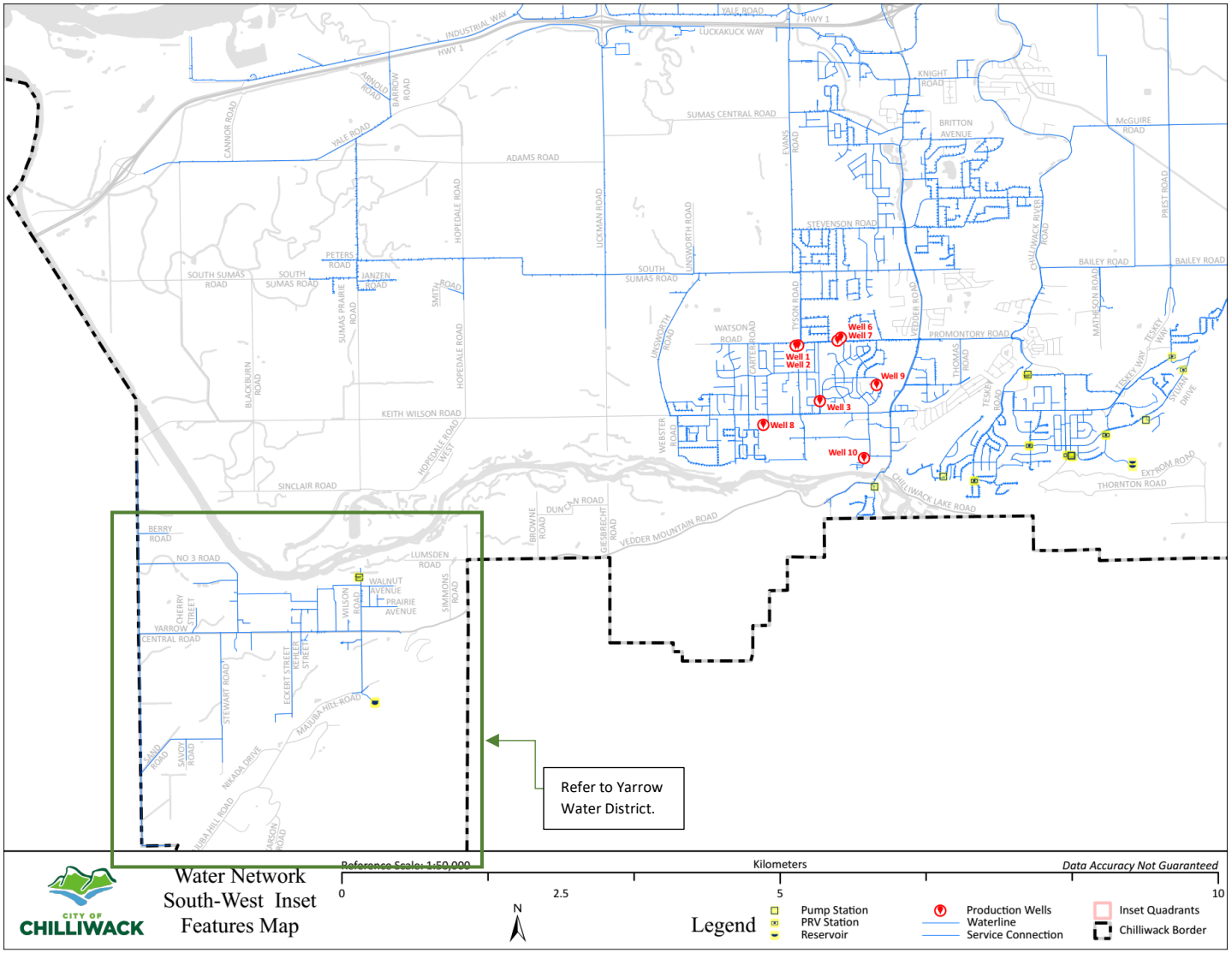

Figure 5: City of Chilliwack Drinking Water System (Southwest)

3.1 Source Water

The City of Chilliwack's drinking water is obtained from the Sardis-Vedder Aquifer and the Marble Hill Aquifer. In 2025, 98.98% of source water came from the Sardis-Vedder Aquifer, and 1.02% of source water came from the Marble Hill Aquifer.

The City monitors the quality of the untreated water from these sources through an extensive water sampling and monitoring program. Details and results of the source water monitoring program are provided in Section 6. Raw water quality meets all applicable guidelines and is protected by the City's Groundwater Protection Plan, which is enforced through the City's *Zoning Bylaw 2020, No. 5000*. Within the Groundwater Protection Area shown in Figure 6, activities which pose a risk of groundwater contamination are restricted and development is required to take specified measures to protect the aquifer. The Groundwater Protection Area is based on the 60-day capture zone of the production wells. Figure 6 outlines the extent of the Sardis-Vedder Aquifer, which is approximately 57.7 km^2 in area. Figure 7 outlines the extent of the Marble Hill Aquifer, which is approximately 0.7 km^2 in area. Both aquifers are defined as unconfined sand and gravel aquifers.

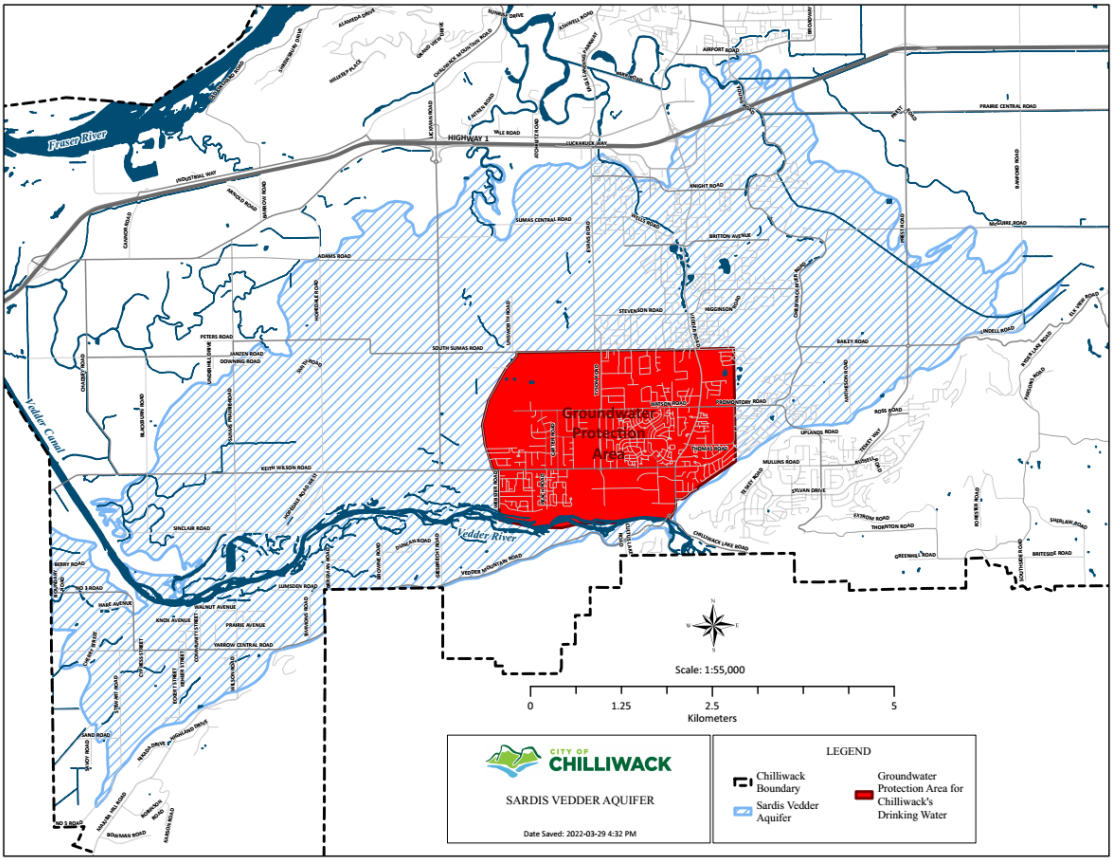

Figure 6: Map of Sardis-Vedder Aquifer

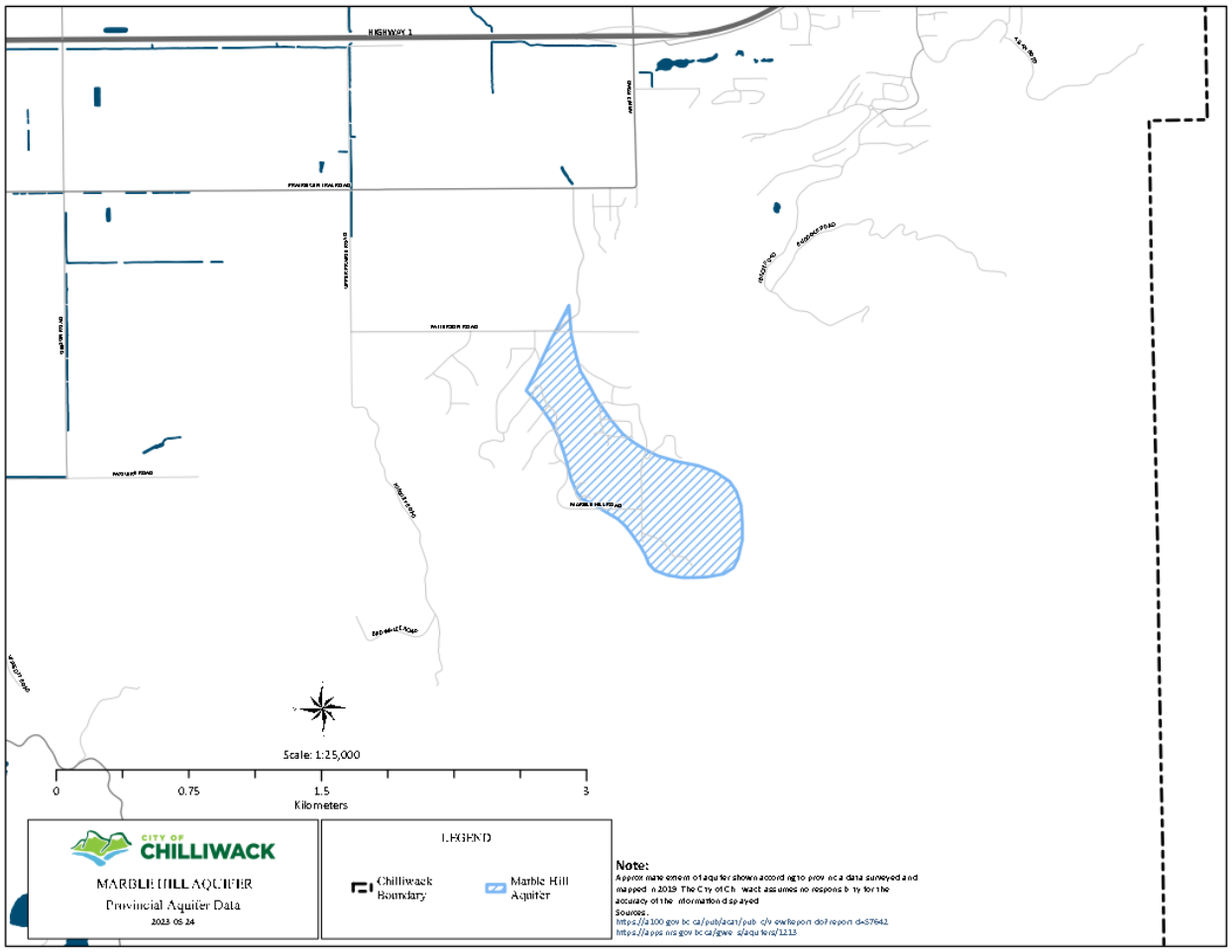

Figure 7: Map of Marble Hill Aquifer

3.2 Treatment System

The source water monitoring results show that the City's source water does not require treatment to make it safe to drink. Sodium hypochlorite is added to the water at the production wells to protect the drinking water from microbial contamination as it travels through the distribution system. Since protective chlorine levels in the water drop the further the water travels, the residual chlorine is monitored at 17 sampling locations. Continuous chlorine residual monitoring is tracked through SCADA software. City staff can log in remotely at any time to monitor residual chlorine levels.

3.3 Distribution System

The City of Chilliwack's water distribution system consists of 10 production wells, 15 booster pump stations, 12 reservoirs, over 482.7 km of water mains, 19 pressure reducing stations and over 5000 valves. The City obtained 45.6% of its drinking water from Wells #1, 2, 6, and 7 in 2025.

Table 1: City Well Data

Well Number	Well Identification #	Year Drilled	Rated Capacity (L/s)	Depth (m)	Aquifer
Well #1	17295	1973	45	30.5	Sardis-Vedder
Well #2	17293	1977	190	29.87	Sardis-Vedder
Well #3	17292	1964	250	34.2	Sardis-Vedder
Well #6	17297	2006	100	57.9	Sardis-Vedder
Well #7	17298	2006	125	52.5	Sardis-Vedder
Well #8	17299	2006	75	59.5	Sardis-Vedder
Well #9	35054	2007	250	65.2	Sardis-Vedder
Well #10	17294	1975	60	45.1	Sardis-Vedder
Well #11	41520	2015	30	78.5	Marble Hill
Well #12	41548	2015	35	53.3	Marble Hill

The City of Chilliwack has twelve reservoirs in six different pressure zones. The holding capacity varies from 260 m^3 to 19,000 m^3. The total holding capacity of all the reservoirs combined is 39,480 m^3.

Table 2: Reservoirs

Reservoirs	Location	Number of Tanks	Total Capacity (m^3)
Zone 1 Promontory	Uplands Road	1	4,300
Zone 2 Promontory	Promontory Road	2	3,160
Zone 3/4 Promontory	Goldspring Place	2	5,500
Zone 1 Mt Shannon	Quarry Road	1	19,000
Zone 2 Mt Shannon	Swallow Place	2	1,000
Zone 2 Chilliwack Mountain	Grandview Drive	3	2,000
Zone 3 Chilliwack Mountain	Grandview Drive	1	260
Zone 4 Chilliwack Mountain	Braken Drive	1	260
Zone 2 Marble Hill	Marble Hill Road	2	470
Zone 3 Marble Hill Reservoir	Marble Hill Road	2	930
Balancing Reservoir	Patterson Road	1	1,000
Falls Zone 1	Nixon Road	1	1,600
Total			**39,480**

Table 3: Pressure Reducing Stations

Station Name	Location
Sunrise	Chilliwack Mountain Sunrise Drive (Maple Hills Strata)
Shrewsbury	Chilliwack Mountain Shrewsbury Drive
Salmonberry	Chilliwack Mountain Salmonberry Drive
Honeysuckle	Chilliwack Mountain Honeysuckle Drive
Grandview Longthorn	Chilliwack Mountain Grandview Drive
Copper Ridge	Chilliwack Mountain Grandview Drive (Copper Ridge)
Promontory Rd	Promontory Hill Promontory Road – Zone 2 Reservoir
Promontory Rd	Promontory Hill Road – Zone 3
Bridlewood	Promontory Hill Teskey Road / Bridlewood Drive
Lutz	Promontory Hill Teskey Road / Lutz Road
Sylvan East/West	Promontory Hill Sylvan Drive
Skyline	Promontory Jinkerson Road and Skyline Drive
Chartwell	Mount Shannon Chartwell Drive
Marble Hill Rd	Marble Hill Road and Dickson Place
Marble Hill Zone 3B	Marble Hill Road Above Mount Archibald Place
Annis	Annis Road and Prairie Central
Bridlewood	Bridle Ridge Crescent
Nixon East/West	Nixon Road
Ramsay	Ramsay Place

Table 4: Booster Pump Stations

Station Name	Location
Allan Road	Allan Road
Annis Road	Annis Road
Chilliwack Mountain Zone 2 Booster Pump Station	Lickman Road, Grandview Drive
Chilliwack Mountain Zone 3 Booster Pump Station	Grand View Drive
Chilliwack Mountain Zone 4 Booster Pump Station	Grand View Drive
Fall court Booster Pump	Falls Boulevard
Hack Brown Booster Station	Unity Drive
Marble Hill Zone 2 Booster Pump Station	Patterson Road
Marble Hill Zone 3 Booster Pump Station	Marble Hill Road
Mount Shannon Zone 2 Booster Pump Station	Yale road
Promontory Zone 2 Booster Pump Station	Upland road
Promontory Zone 3 Booster Pump Station	Promontory road
Riverstone Booster Pump Station	Vedder Mountain Road
Sylvan Drive Booster Pump Station	Macfarlane Place
Weeden Drive Booster Pump Station	Weeden Drive

4.0 Water Quality Sampling Program & Results

4.1 Source Water Quality

The source water quality monitoring program helps ensure that drinking water provided by the City continues to meet all drinking water quality standards.

As outlined in sections 4.2 and 4.3, the City of Chilliwack's source water is sampled on a weekly basis for microbial parameters, three times a year for routine parameters, biannually for total sulfides, and annually for herbicides.

Health Canada publishes the Guidelines for Canadian Drinking Water Quality (GCDWQ). These guidelines are established in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water (CDW) and other federal government departments.

Each guideline was established on current, published scientific research related to health effects, aesthetic effects, and operational considerations. Health-based guidelines are established on the basis of comprehensive review of the known health effects associated with each contaminant, exposure levels, and the availability of treatment and analytical technologies. These guidelines are systematically reviewed to assess the need to update them.

It should be noted that no samples collected during 2025 were outside of acceptable limits under the GCDWQG. The maximum acceptable concentration (MAC) represents health related guidelines. Operational guidance (OG) values are established based on operational considerations. Aesthetic objective (AO) applies to certain substances that may affect acceptance by consumers but are not a health concern. An example of parameters that have an AO are copper and manganese. As low as reasonably achievable (ALARA) is MAC within reason.

4.2 Microbial Testing

The City of Chilliwack follows a water sampling and testing plan as set out in the BC DWPR to ensure the drinking water remains safe and of a high quality. Weekly water samples are collected by EOCP certified Water Distribution Operators and are tested at the BC Centre for Disease Control for microbiological parameters (total coliforms and *E. coli*).

Schedule B of the BC DWPR outlines the minimum number of water samples required based on the serviced population of 96,750. The City of Chilliwack is required to test the water supply for total coliforms and *E. coli* as set out in Schedule B (Table 5) as per the BC DWPR. The City of Chilliwack collected 1684 microbiology samples in 2025, with an average of 140 samples per month, which exceeds the required 91.

Table 4: Drinking Water Protection Regulations: Schedule A

Schedule A	
Parameter:	**Standard:**
Fecal coliform bacteria	No detectable fecal coliform bacteria per 100 ml
Escherichia coli (E. coli)	No detectable *E. coli* per 100 ml
Total coliform bacteria	
(a) 1 sample in a 30-day period	No detectable total coliform bacteria per 100 ml
(b) More than 1 sample in a 30-day period	At least 90% of the samples have no detectable total coliform bacteria per 100 ml and no sample has more than 10 total coliform bacteria per 100 ml

Table 5: Drinking Water Protection Regulations: Schedule B

Schedule B	
Frequency of Monitoring Samples for Prescribed Water Supply Systems	
Population Served by the Prescribed Water Supply System	Number of Samples Per Month:
Less than 5,000	4
5,000 to 90,000	1 per 1,000 of population
More than 90,000	90 plus 1 per 10,000 of population in excess of 90,000

There is a total of 43 sample locations divided into the west side of the City and the east side of the City. The weekly sampling rotates between each water sampling region. The weekly samples are tested for the following parameters:

- Total Coliforms
- *E. coli*

During 2025, of the 1684 samples collected, there were 5 samples that detected total coliforms which equates to 0.30% of the total samples collected.

Table 6: Summary of 2025 Microbial Results

Samples that contain total coliforms:	5	0.30% of total
Samples that contain *E. coli*:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliforms:	0	
Number of samples that contain total coliforms in last 30 days	0/108	
Total number of samples:	1684	

If *E. coli* or total coliforms are detected in a water sample, the following steps are taken:

- Immediately advise the following of the situation:
  - Utilities Superintendent Underground
  - Utilities Superintendent Electrical / Mechanical
- Immediately notify (by phone) the following of the existing situation, action being taken and potential impacts to health and environment
  - Drinking Water Officer (DWO)
  - Manager of Utilities - Engineering
  - Director of Utility Operations
- Immediately take two (2) sets of confirmatory samples at each of the following locations:
  - All locations with exceedances

    - Surrounding sections of the water distribution system based on discussions with the DWO
- Submit samples for detailed laboratory analysis to identify any:
    - Microbiological standard exceedances
    - Any other additional parameters as deemed appropriate (in consultation with the DWO)
- Inspect water for colour, odour and other visible contaminants

* *All sampling and testing should be done in accordance with Standard Operating Procedures (SOP)*

When all test results confirm that *E. coli* and total coliform counts are zero and any other parameters of concern are within acceptable standards, then notify:

- DWO
- Utilities Superintendent Underground
- Utilities Superintendent Electrical / Mechanical
- Manager of Utilities - Engineering
- Director of Utility Operations

The full water distribution system contamination (bacteriological) plan (ERP-W03) can be found in the City of Chilliwack's emergency response plan.

4.3 Routine Parameter Testing

Routine parameter testing is done three times per year to ensure the source water quality remains high. Sampling is conducted at eight locations, in February, May, and September annually. These locations are included in Figure 7. In total, 22 samples are collected annually for the parameters outlined in Table 7.

At the direction of the Fraser Health Authority, the City began testing for Perfluoroalkyl and Polyfluoroalkyl Substances (PFAs) in the drinking water system on an annual basis in 2025. In February 2025, Wells 2, 3, 7, 8, 9, 11, and 12 were tested for 28 different PFAs. Well 2 tested positive for 1 of 28 PFAs, specifically Perfluorobutanoic acid (PFBA). The concentration of PFBA was 8.1 ng/L, which is below the objective value of 30 ng/L established by Health Canada in collaboration with the Federal-Provincial-Territorial Committee on Drinking Water. An official guideline for PFAs is currently under development to be included in the GCDWQ. The detailed PFAs test results are available in Appendix B. Following the positive result at Well 2 in 2025, all ten production wells will be tested for PFAs in 2026, and potential sources are being investigated.

Table 7: Water Sampling and Testing Schedule

Parameter	Frequency
Physical Tests	February, May, September
Anions and Nutrients	February, May, September
Total Sulfides	May, September
Non-Chlorinated Phenolics	February, May, September
Total Metals	February, May, September
Dissolved Metals	February, May, September
Volatile Organic Compounds / VOC -Dry-cleaning / VOC – Fuels / VOC – THMs	February, May, September
Hydrocarbons	February, May, September
Polycyclic Aromatic Hydrocarbons	February, May, September
Phenolics	February, May, September
Carbamate Pesticides	February, May, September
Herbicides	February, May, September
Perfluoroalkyl and Polyfluoroalkyl Substances	February

The City's source water potable water quality analysis can be found in Appendix A. Samples were below the Maximum Acceptable Concentration (MAC) guidelines for all parameters tested.

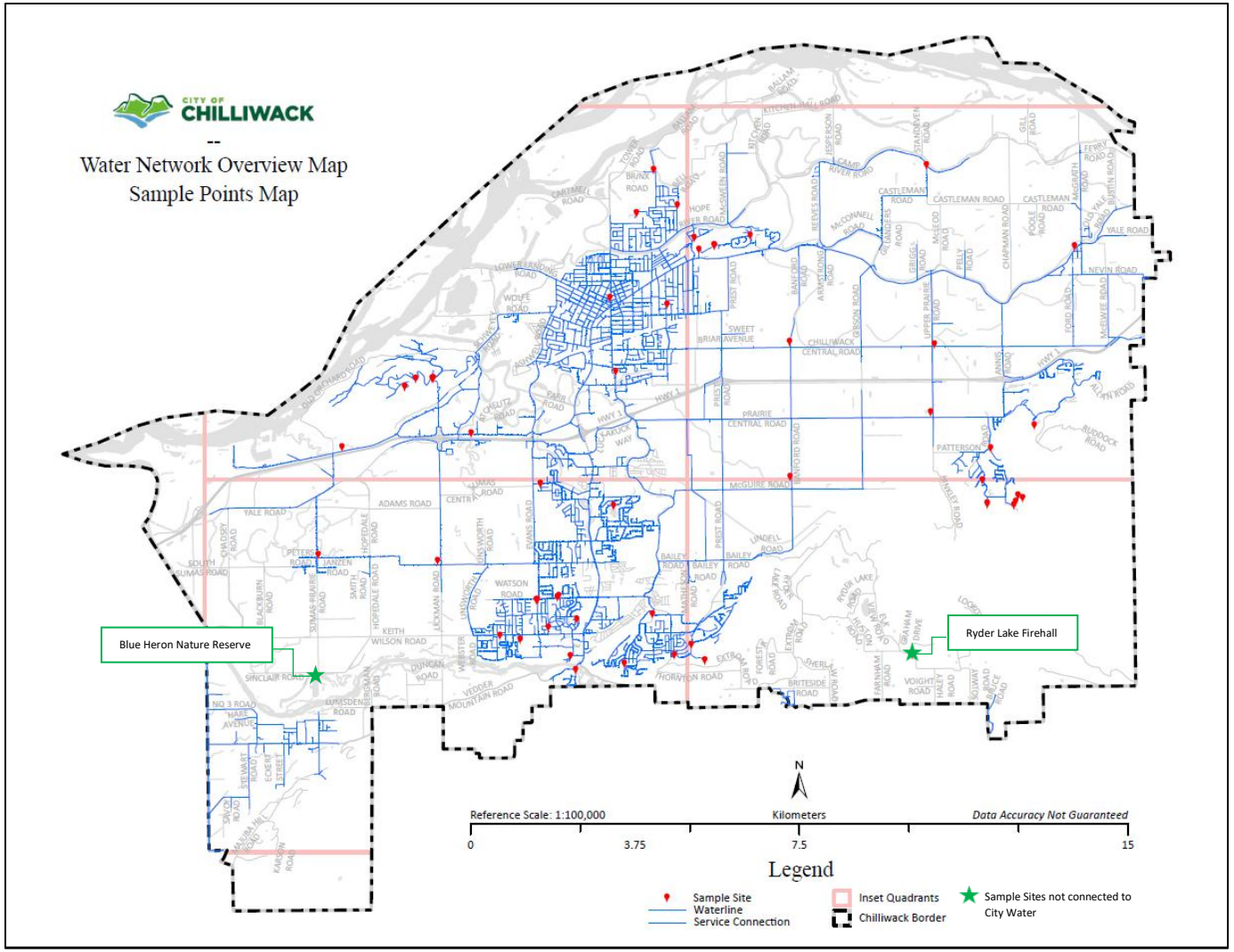

Figure 8: Map of Sampling Locations

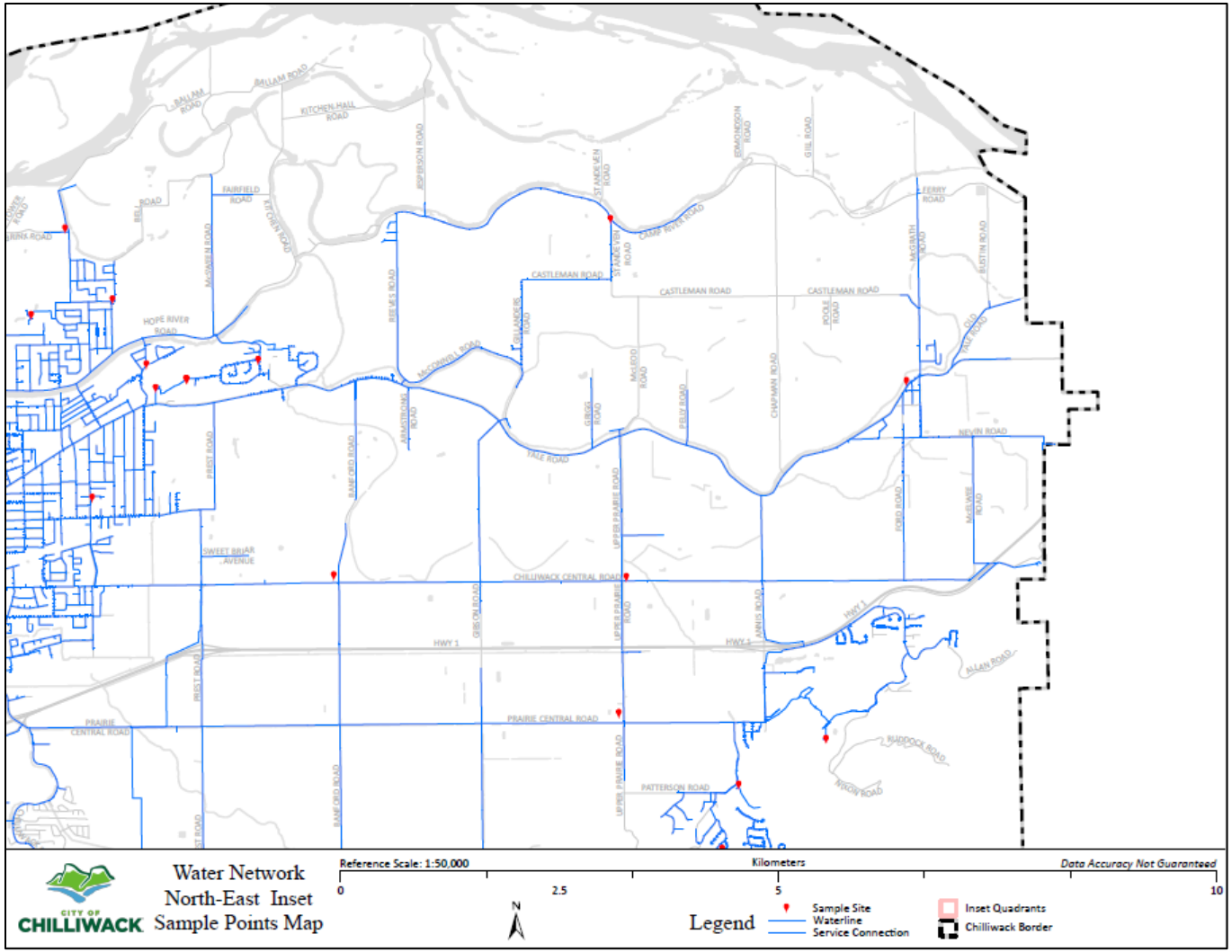

Figure 9: Map of Sampling Locations (Northeast)

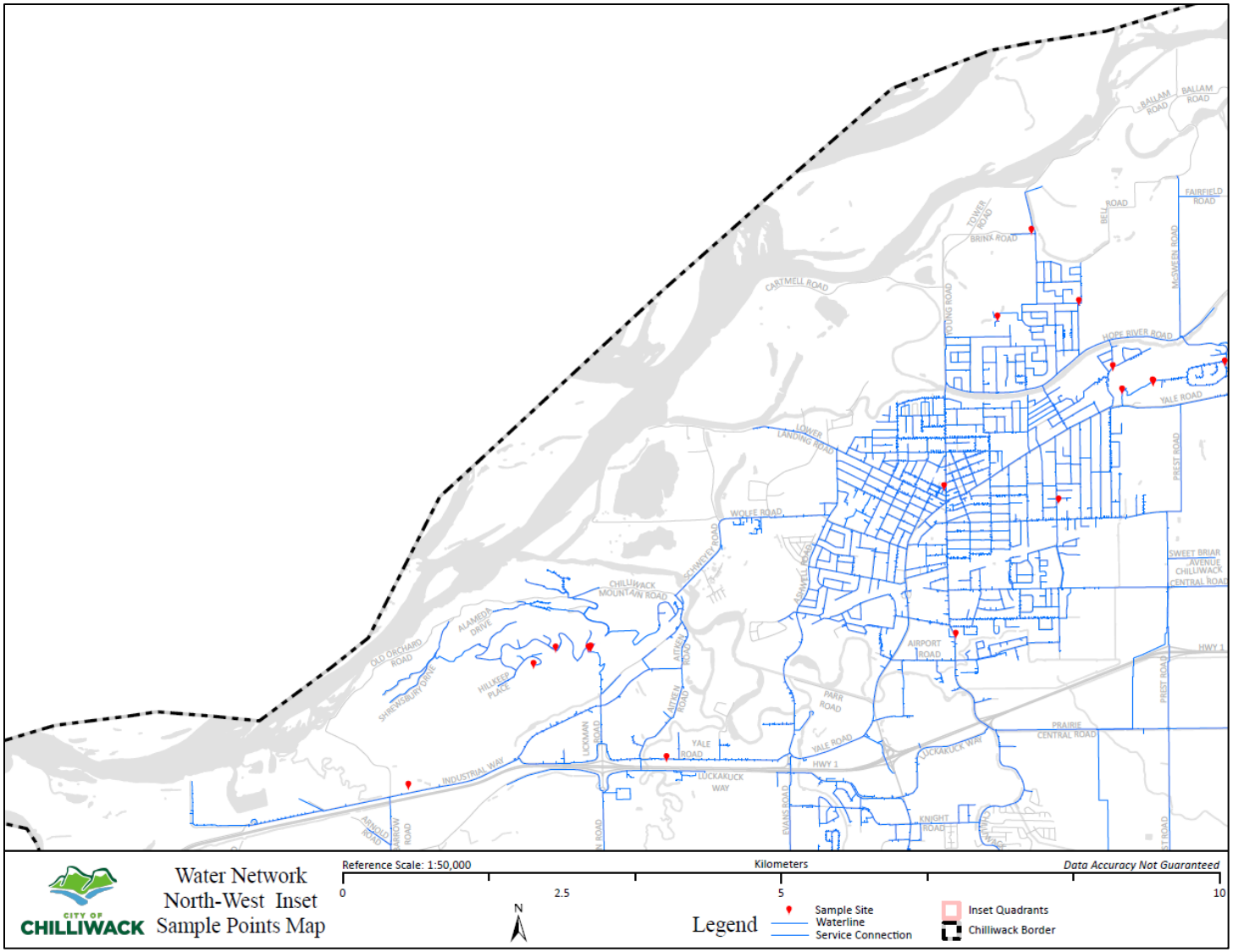

Figure 10: Map of Sampling Locations (Northwest)

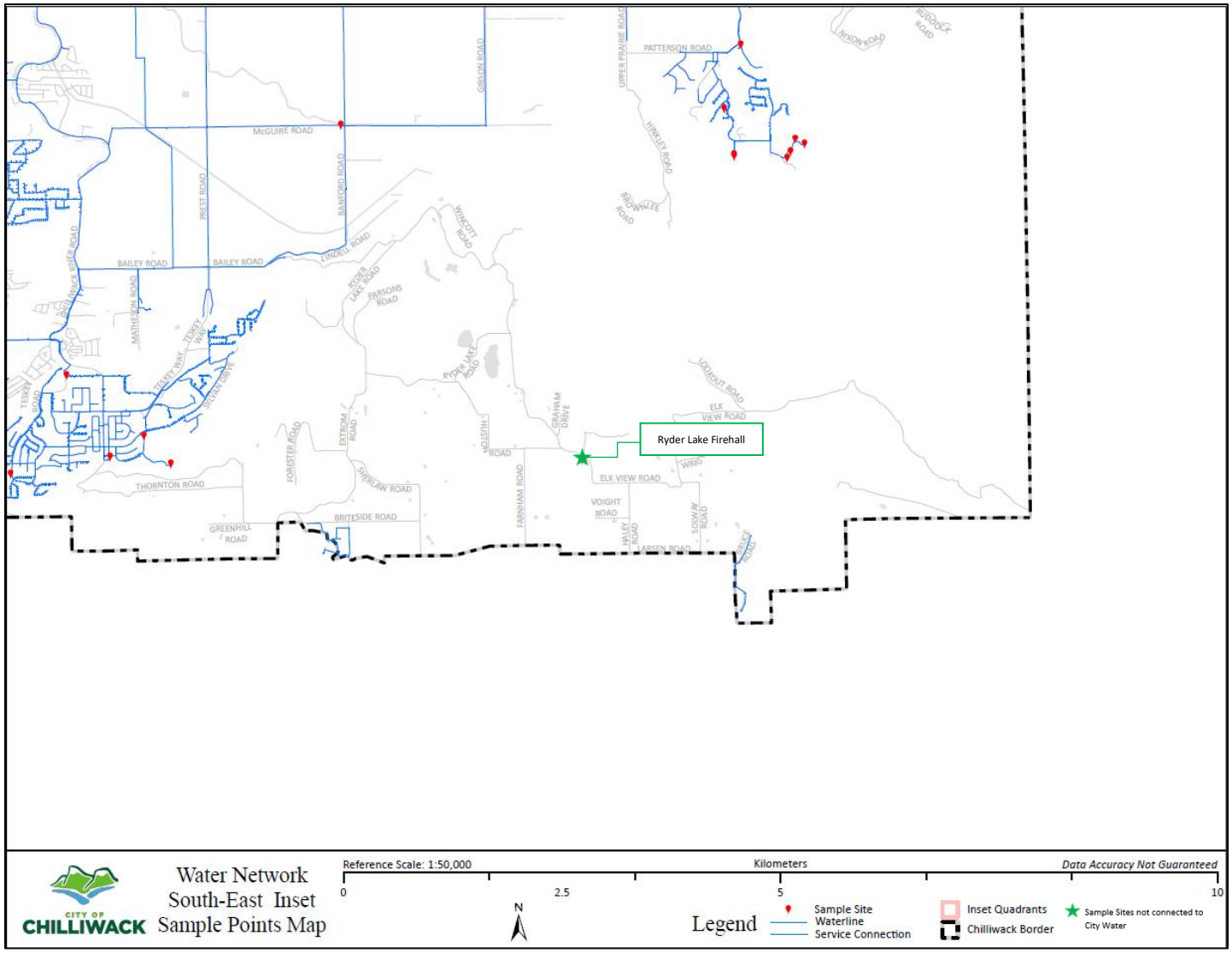

Figure 11: Map of Sampling Locations (Southeast)

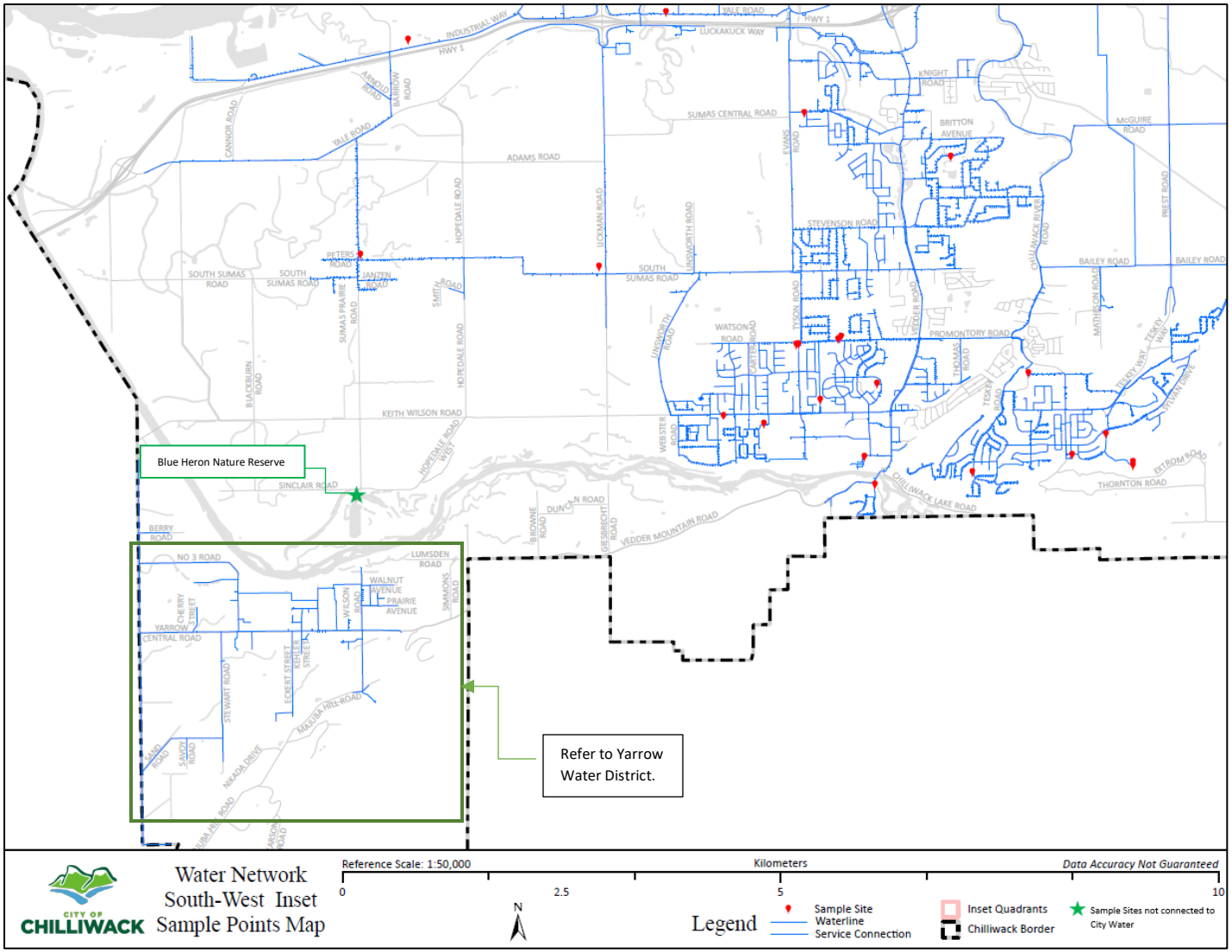

Figure 12: Map of Sampling Locations (Southwest)

5.0 Water Use, Water Production, & Water Conservation

5.1 Water Use

The City of Chilliwack is approaching 20,000 water service connections. Of those, 1,737 are Industrial, Commercial, and Institutional (IC&I) and 18,039 are residential. The services range from ¾“ to 12”, and 100% of the water services are metered. In 2025, there were 52 new water service connections between all residential, industrial, commercial, and institutional properties.

The total water consumption in 2025 was 11,899,438 m^3. This includes all residential, industrial, commercial, and institutional consumers. Residential consumption accounted for 8,244,185.83 m^3, while commercial and institutional consumption accounted for 1,717,014.73 m^3 and industrial consumption accounted for 1,938,237.58 m^3.

5.2 Water Production

The City of Chilliwack extracts and treats water from the Sardis-Vedder Aquifer and Marble-Hill Aquifer for residential, industrial, commercial, and institutional use. Water production for the City of Chilliwack is higher than water consumption as water lost through leaks or used for waterline flushing and routine infrastructure maintenance is not considered water consumption. The Annual Water Audit breaks down water usage and loss for 2025 and can be found in Appendix E.

The average daily water production in 2025 was 35,573 m^3 with a maximum daily production of 53,097 m^3 on July 16, 2025. There are seasonal variations of water production across the City, as water demand increases in the warmer months. The month with the lowest average daily production was November 2025 with an average of 29,382 m^3. The month with the highest average daily production was July 2025 with an average of 47,710 m^3.

Table 8 highlights the average daily production, maximum daily production and total volume of water produced broken down by month.

Table 8: 2025 Water Production Table (Average, Maximum and Total)

Month	Average Daily Production (m^3)	Maximum Daily Production (m^3)	Sum of Total Volume (m^3)
January	30,620	34,447	917,868
February	31,355	33,310	909,289
March	30,478	34,244	944,824
April	32,154	35,894	964,607
May	36,974	43,979	1,146,201
June	42,534	50,492	1,276,012
July	47,710	53,097	1,478,998
August	43,705	50,820	1,354,864
September	38,789	44,759	1,163,662
October	32,514	36,422	1,007,939
November	29,382	32,548	881,465
December	30,667	33,995	950,673
Year (Average, Max, Sum)	35,573	53,097	**12,996,402**

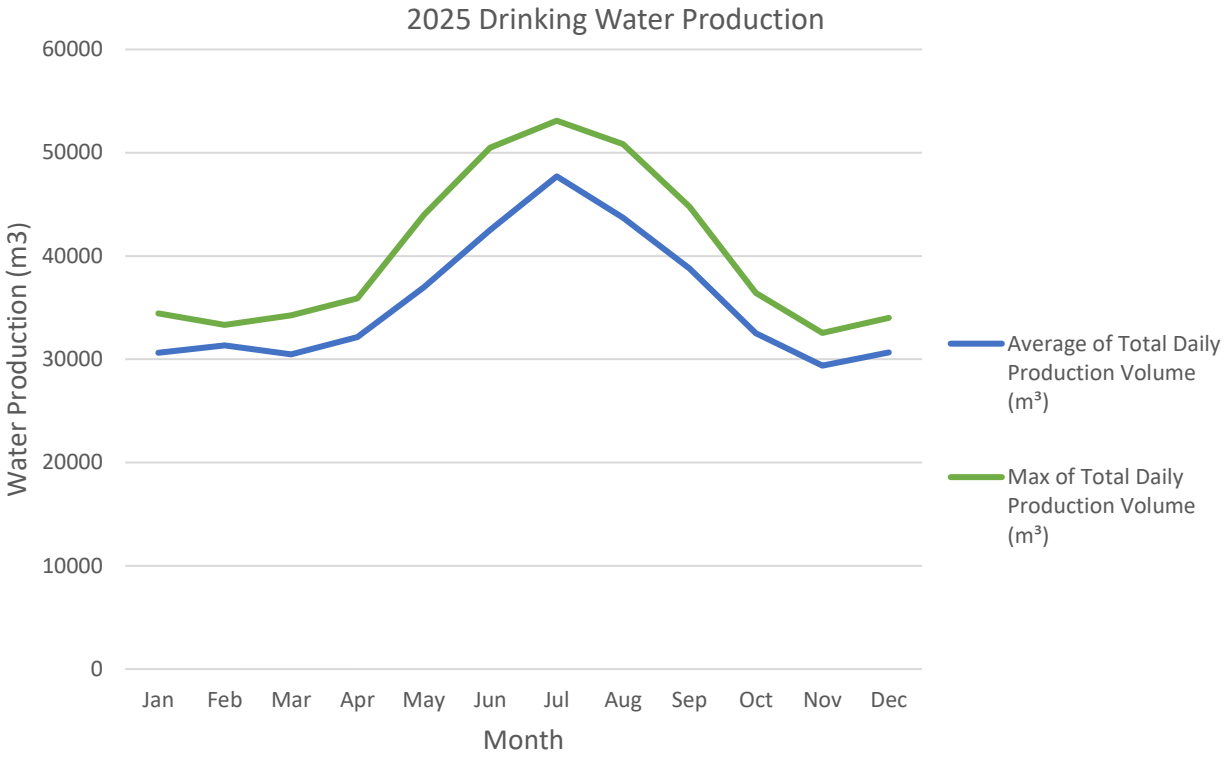

Figure 13: 2025 Drinking Water Production

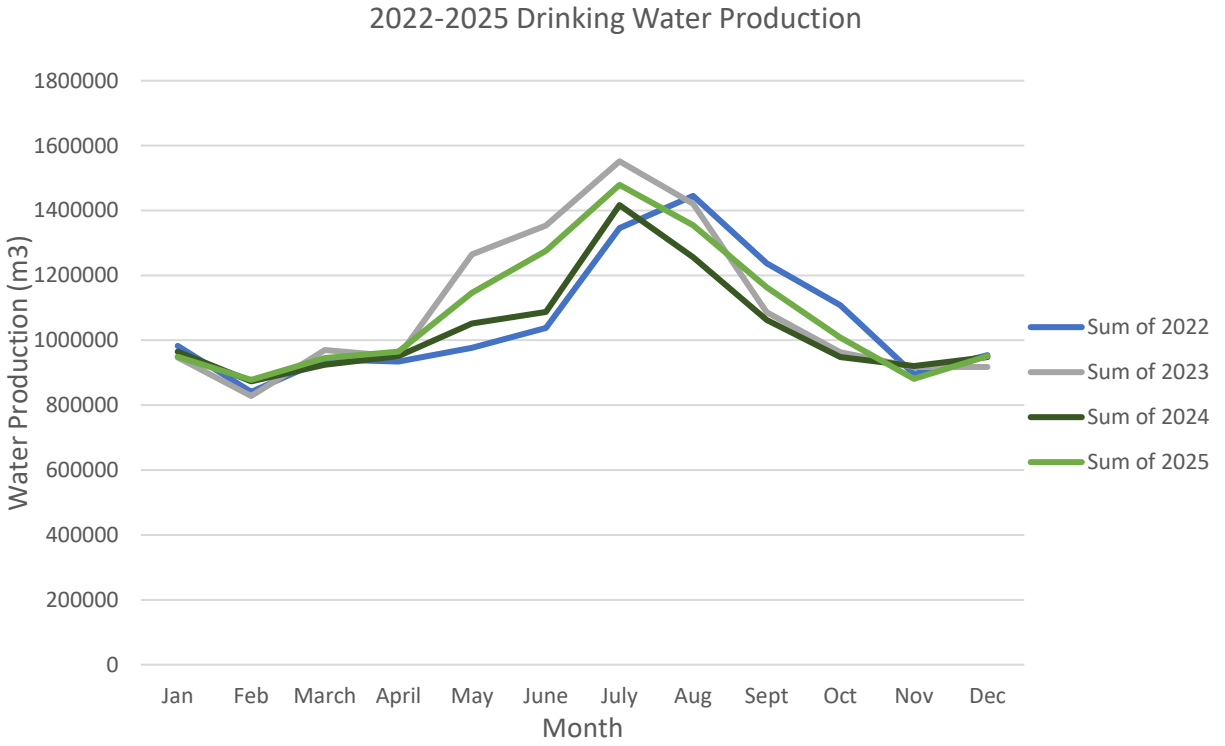

Figure 14: 2022 – 2025 Drinking Water Production Trend

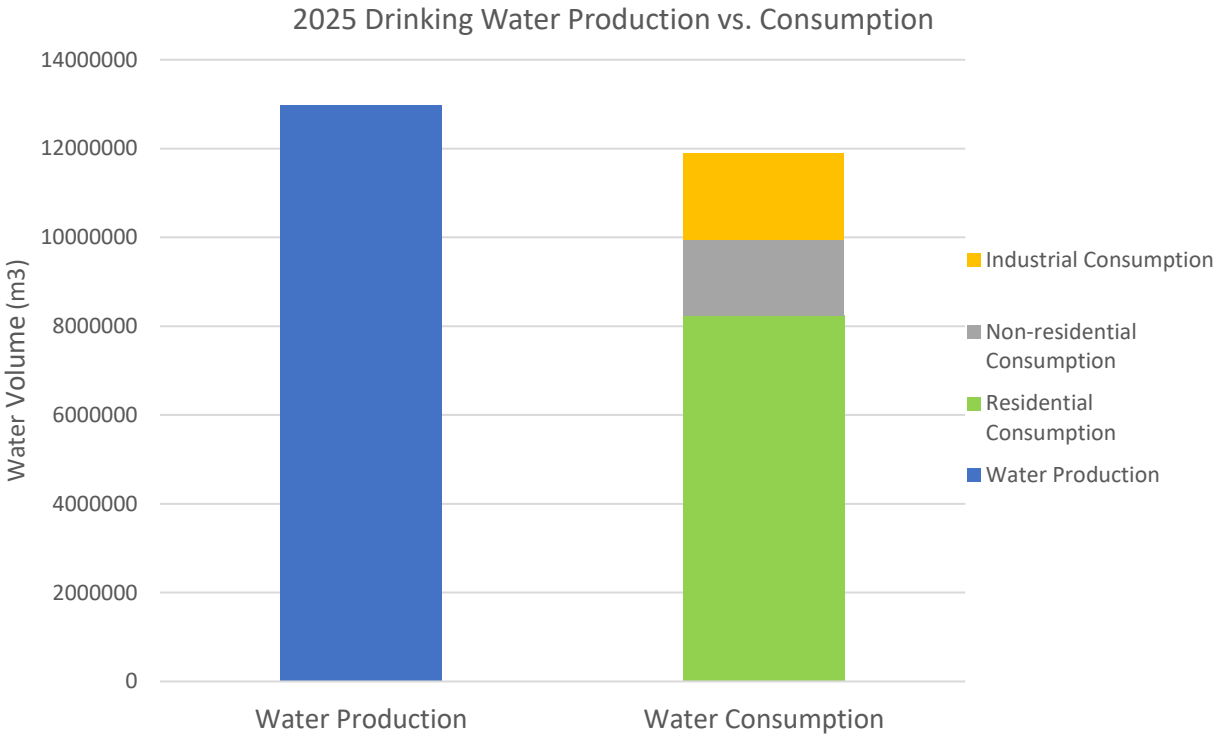

Figure 15: 2025 Drinking Water Production vs. Consumption

Note: Non-residential Consumption refers to commercial and institutional water consumption.

5.3 Water Conservation

Like all other municipalities in the Lower Mainland and most municipalities in BC, Chilliwack continues to enhance water efficiency during the summer months by implementing water restrictions.

Every year, the City of Chilliwack implements water restrictions to promote water conservation. All properties connected to the City's drinking water system are metered and sewer discharges are assessed based on 90% of metered water consumption. The following conservation measures and initiatives were implemented in 2025:

- The City maintained Stage 1 water restrictions from May 1 to October 15. No further restrictions were implemented in 2025, as the aquifer levels when input into the triggers

graph remained above the threshold for Stage 2. The full list of restrictions included in the Water Conservation Plan can be found in Appendix C.

- The City currently uses treated drinking water from the water distribution system to irrigate Fairfield Park. The plan is to reduce the consumption of treated drinking water at Fairfield Park by supplementing it with a dedicated irrigation well. First Nations consultation for the irrigation well began in 2025. A water use licence application is also under review with the Ministry of Water, Land and Resource Stewardship for the irrigation well.
- Public education programs through radio, advertisement, and press releases continued in 2025. The City issued 40 educational and two warning letters during Stage 1 water restrictions, and two irrigation leak letters outside of water restrictions.
- The City sent “Annual Stage 1 Water Restrictions in Effect" letters to School District #33, and to the following First Nations: Kwaw-Kwaw-Apilt First Nation, Shxwhay Village, Squiala First Nations, Tzeachten First Nations, Skwah First Nations, Tzeachten First Nations, and Sq’ewqeyl First Nations.
- The City provides a rebate (up to $80) for half the cost of a new rain barrel to residents with proof of purchase and installation of a new rain barrel. Thirteen rain barrel rebates were provided in 2025.
- The City provides a $50 low-flow toilet rebate to encourage residents to install highly efficient 6 L per flush (or less) toilets. Twenty-one low flow toilet rebates were provided in 2025.
- Subsidized outdoor water conservation kits can be purchased from the City. The outdoor water conservation kits include the following: garden spray nozzle, hose timer, and a moisture meter. Nine water conservation kits were sold in 2025.
- The “Good as Gold Contest” was held in 2025. The aim was to encourage residents to let their lawn go dormant throughout the watering restrictions period. The City received eight submissions in 2025 and three winners were chosen.

The City of Chilliwack actively promotes water conservation through advertisements (City website, social media, billboards, transit buses, radio announcements, City facility display boards, and canvassing).

Figure 16: Water Conservation Plan Advertisement

6.0 Source Water Protection

The City of Chilliwack has a Groundwater Protection Plan that was developed in 1997. This plan includes a list of recommendations that the City of Chilliwack has implemented to ensure source water protection. The City protects the aquifer through *Zoning Bylaw 2020, No. 5000*. The RS-CWA (community water supply area) zone provides specific regulations which requires approval by the City Engineering department for residential use or for an accessory dwelling unit to be constructed. In addition to *Zoning Bylaw 2020, No. 5000*, the Groundwater Protection Area is part of Development Permit Area No.1. The objective of this is to protect the City's source water supply from contamination, flow reduction, and quality degradation. The Development Permit Area No. 1 outlines the requirements for developments occurring within the RS-CWA zone.

The City of Chilliwack actively follows the recommendations outlined in the Groundwater Protection Plan. Public education is ongoing and delivered through multiple channels including but not limited to the City's website and presentations to school groups. The City of Chilliwack has signage around the Groundwater Protection Area that highlights the importance of protecting the groundwater in this region to residents and visitors. Programs such as Household Hazardous Waste Day, held annually in October, and the Product Care program at local bottle depots, offered year-round, provide options for residents to responsibly dispose of their hazardous waste. Additional recommendations outlined in the Groundwater Protection Plan are addressed as requirements in the Development Permit Area No. 1.

6.1 Cross Connection Control (CCC) Program

The City of Chilliwack's Cross Connection Control Program is intended to eliminate actual and potential cross connections within the City's water distribution system to maintain water quality. The program aids in protecting the public water system by requiring the installation of approved backflow prevention devices on private and public properties.

Currently the City is in the process of assessing all water service connections to determine their backflow requirements as well as the property owner's installation obligations.

To aid in accomplishing the goals of the CCC Program, the City of Chilliwack has developed a unique strategy for existing facilities. The City offers cost sharing for retro-fitting plumbing in order to bring the facility into compliance with the City's *Waterworks Regulation Bylaw 2004, No. 2995*.

7.0 Emergency Response and Contingency Plan Summary

The key elements of the City of Chilliwack's Water System Emergency Response Plan are:

- A list of potential emergency situations and events that may result in a significant service disruption;
- Procedures for responding to and recovering from the emergency situations so that operation of the water system is back to normal;
- Roles and responsibilities of water system staff and external support personnel. This includes identifying the lead person (Water Incident Commander);
- References and links to established procedures (such as building fire evacuation procedures) as required and Chilliwack's corporate emergency response plan;
- Identification of clean lines of communication and notifications to the public;
- Identification of external resources (e.g. contractors) available to the water system staff;
- An up-to-date list of contacts with contact information;
- Staff training and orientation related to the Emergency Response Procedures;
- Testing of procedures to ensure that they are appropriate; and,
- A mechanism for updating the plan.

Emergency response procedures are for situations that require actions above and beyond standard operating procedures (SOPs) for normal operations. This plan outlines steps to take in events such as flooding and other major natural disasters.

8.0 Operations and Maintenance Program

Operation and maintenance are important aspects of keeping the drinking water system operating efficiently. The City of Chilliwack performs systematic flushing of the water distribution system annually and flushes most dead-end water mains every 12 to 18 weeks. Flushing is the process of sending a rapid flow of water through the mains to clean them. This helps maintain water quality by removing sediment and stale water from the distribution system. The City also encourages water distribution mains to be looped to reduce dead-ends and maintain water quality. The *Land Development Bylaw 2014, No. 3055* Section 2.2.5 outlines Hydraulic Network Considerations.

The City of Chilliwack has 37 EOCP Certified Utilities Operators responsible for the operation and maintenance of the City's water transmission and distribution systems. Their EOCP certification levels are outlined in Table 9.

Table 9: EOCP Water Distribution – Certified Utility Operators

Certification Level	Number of Staff
Level 1	9
Level 2	14
Level 3	7
Level 4	7
Total Qualified Staff	**37**

Figure 17: Hydrant Flushing

9.0 2025 to 2035 Water System Capital Plan

Each year the City of Chilliwack prepares a 10-year Comprehensive Municipal Plan (CMP). The CMP identifies funds needed to maintain and reinvest in the City's infrastructure, maintain or enhance service levels, respond to the needs of the growing community, and fund all capital priorities without debt. The operating and capital programs for the water system are funded through the dedicated Water Fund with revenues from water system user fees and development cost charges. Water system user fees are set through the *Waterworks Regulation Bylaw No. 2995* and the *Development Cost Charge Bylaw 2000, No. 2689* which are reviewed annually. The Water System Capital Program for 2025 to 2035 (see Appendix D) identifies the capital investments planned for the City's water supply, distribution, storage, and pressure management infrastructure as well as capital investments needed to support ongoing operations. In 2025, the City completed a 1125m watermain extension on Hack-brown Road. The City also began the tendering process for construction of Chilliwack Mountain Zone 1 & Marble Hill Zone 2 Reservoirs and Sunset Drive PRV Station in 2025. The proponent for this project will be selected by May 2026 with project completion set for December 2027.

10.0 Water Capital Project 2025

In 2025, the City of Chilliwack completed one water capital project aimed at enhancing essential infrastructure and services for its residents. The project represented a significant investment in the community's future, addressing critical needs, and supporting growth and development in the Eastern Hillsides neighbourhood. The City continues to make progress to address locations that require watermain replacement and upgrades to support future housing and development needs.

Table 10: List of Water Capital Projects in 2025

Number	Name of Project	Description of Work	Estimated completion
1.	Hack-Brown Road	Design and installation of 1125m of Ø150mm HDPE water main along Hack-brown Road	Installed and completed in 2025

References

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Health Canada. (2024, August 9). *Objective for Canadian Drinking Water Quality Per – and Polyfluoralkyl Substances.*

https://www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/objective-drinking-water-quality-per-polyfluoroalkyl-substances/objective-for-canadian-drinking-water-quality-en-final.pdf

Appendix A: 2025 Potable Water Quality Analysis

PARAMETER	Canadian Guideline Limit	Reason Guideline Established		PW77-2 Well 1/2			PW64-3 Well 3			PW99-6 Well 6/7			PW99-8 Well 8			PW07-9 Well 9			PW75-10 Well 10		
				Feb	May	Sept	Feb	May	Sept	Feb	May	Sept	Feb	May	Sept	Feb	May	Sept	Feb	May	Sept
pH	6.5-8.5	AO	Conventional Parameters in Water	7.54	7.39	7.41	7.69	7.39	7.29	7.84	7.66	7.71	7.76	7.53	7.67	7.86	7.75	7.72			7.56
Conductivity (uS/cm)	-			120	120	120	110	130	110	130	130	130	110	120	110	140	140	140			140
True Colour (Col. Unit)	15	AO		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			<2.0
Turbidity (NTU)	1.0	OG		0.41	0.19	<0.10	0.29	0.23	<0.10	0.21	0.22	<0.10	0.19	0.43	0.14	0.15	0.37	<0.10			0.22
Hardness	-			46.0	46.3	48.5	46.6	46.7	48.9	53.2	49.8	56.4	47.4	44.8	50	60.2	53.6	63.4			61.2
Total Dissolved Solids	500	AO		60	84	80	58	94	76	68	86	76	56	80	64	76	92	80			100
Alkalinity as CaCO3	-		Dissolved Anions in Water	43	45	43	44	43	43	49	52	49	46	45	45	57	54	57			56
Chloride	250	AO		3.8	4.6	3.7	1.6	4.5	2.9	<1.0	<1.0	2	<1.0	<1.0	2	1.2	1.5	2.7			2.2
Sulphate	500	AO		7.9	8.1	7.4	7.3	7.7	7	8.8	9.2	8.5	7.4	7.5	7	9.4	9.4	8.7			7.3
Ammonia	-			<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015			<0.015
Nitrate	10	MAC		0.287	0.319	0.205	0.22	0.28	0.189	0.137	0.15	0.131	0.143	0.164	0.156	0.214	0.216	0.213			0.158
Nitrite	3	MAC		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050			<0.0050
Fluoride	1.5	MAC		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050			<0.050
Aluminum	0.1	OG	Total Metals	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0054	0.0058	0.0065	0.0077	0.0077	0.0099	0.0055	0.0055	0.0063			0.0043
Antimony	0.006	MAC		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050			<0.00050
Arsenic	0.01	MAC		0.00038	0.00022	0.00045	0.00017	0.00015	0.00022	0.0018	0.00133	0.00189	0.00064	0.00058	0.00065	0.00031	0.0003	0.00036			0.0002
Barium	2.0	MAC		0.0111	0.0107	0.0107	0.0109	0.0107	0.0109	0.0109	0.0099	0.0112	0.0088	0.0079	0.0092	0.0114	0.0097	0.0114			0.0116
Boron	5.0	MAC		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	Well 10 down for repairs.		<0.050
Cadmium	0.007	MAC		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010			<0.000010
Calcium	-			15.9	16	16.8	16.4	16.3	17.1	18.7	17.4	19.8	16.8	15.8	17.8	21.4	19	22.6			21.5
Chromium	0.05	MAC		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Copper	1.0	AO		0.00076	0.00123	0.00141	0.00252	0.00181	0.00144	0.00099	<0.00050	0.00078	<0.0005	0.00085	0.00058	<0.00050	<0.00050	0.00096			0.0008
Iron	0.1	AO		<0.010	<0.010	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010			<0.010
Lead	0.005	MAC		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020			<0.00020
Magnesium	-			1.5	1.55	1.56	1.37	1.46	1.46	1.58	1.53	1.7	1.3	1.3	1.35	1.62	1.5	1.71			1.86
Manganese	0.02	AO		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Mercury	0.001 mg/L	MAC		<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019	<0.0000019			<0.0000019
Nickel	-			<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010			<0.0010
Phosphorus	-			0.0075	0.0041	0.0076	<0.0030	0.0037	<0.0030	0.031	0.024	0.032	0.0067	0.0071	0.0065	0.0038	0.0048	<0.0035			0.0055
Potassium	-			0.733	0.694	0.778	0.619	0.618	0.655	0.794	0.722	0.806	0.572	0.561	0.601	0.663	0.613	0.667			0.719
Selenium	0.01	MAC		0.00025	0.00024	0.00029	0.0002	0.00022	0.00028	0.00039	0.00037	0.00041	0.00026	0.00022	0.00023	0.00038	0.00034	0.0004			0.00022
Silicon	-			3.79	3.33	4.05	3.46	2.99	3.59	4.03	3.41	4.17	3.25	2.89	3.51	3.65	3.15	3.83			3.98
Silver	-			<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020			<0.000020
Sodium	200	AO		3.69	2.59	3.62	1.89	2.02	2.47	1.46	1.3	1.53	1.26	1.16	1.36	1.58	1.35	1.62			2.15
Uranium	0.02	MAC		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0001	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010			<0.00010
Zinc	5.0	AO		<0.0050	<0.0050	0.0065	0.0075	0.005	0.0051	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050			<0.0050

NOTES:

Measurements are in mg/L unless otherwise indicated

Empty fields were not contained in analytical record.

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

OG = Operational Guideline

GBHNR = Great Blue Heron Nature Reserve

Exceeds limits

Appendix B: PFAs Laboratory Results

	UNITS	PW77-2 (Well 2)	PW64-3 (Well 3)	PW99-7 (Well 7)	PW99-8 (Well 8)	RDL
Perfluorinated Compounds						
Perfluorobutanoic acid (PFBA)	ng/L	8.1	<2.0	<2.0	<2.0	2.0
Perfluoropentanoic Acid (PFPeA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorohexanoic Acid (PFHxA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroheptanoic Acid (PFHpA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctanoic Acid (PFOA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorononanoic Acid (PFNA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorotridecanoic acid (PFTRDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorotetradecanoic acid(PFTEDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorobutanesulfonic acid (PFBS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoropentanesulfonic acid PFPes	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorohexanesulfonic acid(PFHxS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroheptanesulfonic acid PFHpS	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctanesulfonic acid (PFOS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorononanesulfonic acid (PFNS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
EtFOSAA	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
MeFOSAA	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
4:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
6:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
8:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
Hexafluoropropyleneoxide Dimer Acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
4,8-Dioxa-3H-Perfluorononanoic Acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
9Cl-PF3ONS (F-53B Major)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
11Cl-PF3OUdS (F-53B Minor)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0

	UNITS	PW07-9 (Well 9)	MHR 15-2 (Well #11)	MHR 15-6 (WELL #12)	Duplicate	RDL
Perfluorinated Compounds						
Perfluorobutanoic acid (PFBA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoropentanoic Acid (PFPeA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorohexanoic Acid (PFHxA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroheptanoic Acid (PFHpA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctanoic Acid (PFOA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorononanoic Acid (PFNA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorodecanoic Acid (PFDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroundecanoic Acid (PFUnA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorododecanoic Acid (PFDoA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorotridecanoic acid (PFTRDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorotetradecanoic acid(PFTEDA)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorobutanesulfonic acid (PFBS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoropentanesulfonic acid PFPes	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorohexanesulfonic acid(PFHxS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluoroheptanesulfonic acid PFHpS	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctanesulfonic acid (PFOS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorononanesulfonic acid (PFNS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorodecanesulfonic acid (PFDS)	ng/L	<2.0	<2.0	<2.0	<2.0	2.0
Perfluorooctane Sulfonamide (PFOSA)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
EtFOSAA	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
MeFOSAA	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
4:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
6:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
8:2 Fluorotelomer sulfonic acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
Hexafluoropropyleneoxide Dimer Acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
4,8-Dioxa-3H-Perfluorononanoic Acid	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
9Cl-PF3ONS (F-53B Major)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0
11Cl-PF3OUdS (F-53B Minor)	ng/L	<4.0	<4.0	<4.0	<4.0	4.0

Appendix C: Water Conservation Plan 2025

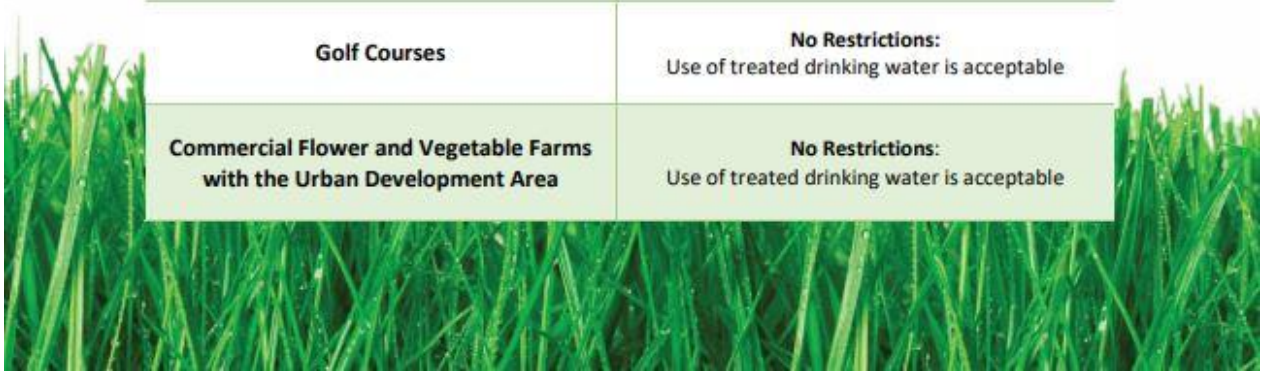
CITY OF CHILLIWACK

Stage 1 Water Conservation Plan

In effect: May 1st – October 15th

This stage can change at any time. Know what stage the City is in by visiting chilliwack.com/water or contacting the Engineering Department at 604.793.2907 or engineeringinfo@chilliwack.com.

Activity	Conservation Plan
Lawn Sprinkling	**Restricted:** Even addresses – Wednesday & Saturday Odd addresses – Thursday & Sunday 5 - 8am **or** 7 - 10pm
New Unestablished Lawns	**Restricted:** Three-week permit required for **daily** watering b/w 5 - 8am **or** 7 - 10pm
Gardens, Flowers, Shrubs and Trees	**Restricted:** Any time of day, watering using a hand-held container, hose with a spring-loaded shutoff nozzle, soaker hose or drip irrigation.
Pools, Spas, and Garden Ponds	**No Restrictions:** Use of treated drinking water is acceptable
Outdoor Impermeable Surface Washing (Sidewalks, Driveways, Buildings)	**Restricted:** Must use handheld container or a hose with a spring-loaded shutoff nozzle
Non-Recirculating and Recirculating Fountains and Water Features	**No Restrictions:** Use of treated drinking water is acceptable
Outdoor Vehicle and Boat Washing	**Restricted:** Must use handheld container or hose equipped with spring-loaded shutoff nozzle. Recommend washing vehicles and boats over grass or gravel.
Golf Courses	**No Restrictions:** Use of treated drinking water is acceptable
Commercial Flower and Vegetable Farms with the Urban Development Area	**No Restrictions:** Use of treated drinking water is acceptable



CITY OF CHILLIWACK

Stage 2 Water Conservation Plan

In effect if activated: at the discretion of the Director of Engineering

This stage can change at any time. Know what stage the City is in by visiting chilliwack.com/water or contacting the Engineering Department at 604.793.2907 or engineeringinfo@chilliwack.com.

Activity	Conservation Plan
Lawn Sprinkling	**Restricted:** Even addresses – Wednesday Odd addresses – Thursday 5 - 8am only
New Unestablished Lawns	**Restricted:** Two-week permit required for **daily** watering between 5 - 8am only
Gardens, Flowers, Shrubs & Trees	**Restricted:** Watering using a hand-held container, or hose with a shut off device or soaker hose.
Pools, Spas, and Garden Ponds	**No Restrictions:** Use of treated drinking water is acceptable
Outdoor Impermeable Surface Washing (Sidewalks, Driveways, Buildings)	**Restricted:** Washing for aesthetic purposes is prohibited, use of handheld container or hose with shutoff device can be used for painting, or health and safety.
Non-Recirculating and Recirculating Fountains and Water Features	**Prohibited:** All use of non-recirculating water features using treated drinking water is prohibited. Recirculating features can be used normally.
Outdoor Vehicle and Boat Washing	**Restricted:** Must use handheld container or hose equipped with spring-loaded shutoff device and should be washed over grass or gravel.
Golf Courses	**Restricted:** Water tee and green areas normally, fairway watering should be minimized to a maximum of **two** days per week.
Commercial Flower and Vegetable Farms with the Urban Development Area	**Restricted:** Limit use to minimum necessary levels.

CITY OF CHILLIWACK

Stage 3 Water Conservation Plan

In effect if activated: at the discretion of the Director of Engineering

This stage can change at any time. Know what stage the City is in by visiting chilliwack.com/water or contacting the Engineering Department at 604.793.2907 or engineeringinfo@chilliwack.com.

Activity	Conservation Plan
Lawn Sprinkling	**Prohibited**: All forms of lawn watering using treated drinking water are prohibited.
New Unestablished Lawns	**Prohibited:** No new permits issued or renewed. All forms of lawn watering using treated drinking water are prohibited.
Gardens, Flowers, Shrubs and Trees	**Restricted:** Watering using a hand-held container, or hose with a shut off device or soaker hose.
Pools, Spas, and Garden Ponds	**Prohibited:** All filling or topping up of pools, spas, or garden ponds using treated drinking water is prohibited.
Outdoor Impermeable Surface Washing (Sidewalks, Driveways, Buildings)	**Prohibited:** All forms of impermeable surface washing are prohibited unless required to comply with health regulations.
Non-Recirculating and Recirculating Fountains and Water Features	**Prohibited:** All use of fountains and water features using treated drinking water is prohibited.
Outdoor Vehicle and Boat Washing	**Prohibited:** All vehicle and boat washing using treated drinking water is prohibited. *exception for boat to prevent the spread of invasive species*
Golf Courses	**Restricted:** Use of treated drinking water at the discretion of the City.
Commercial Flower and Vegetable Farms with the Urban Development Area	**Restricted:** Use of treated drinking water at the discretion of the City

CITY OF CHILLIWACK

Stage 4 Water Conservation Plan

In effect if activated: at the discretion of the Director of Engineering

This stage can change at any time. Know what stage the City is in by visiting chilliwack.com/water or contacting the Engineering Department at 604.793.2907 or engineeringinfo@chilliwack.com

Activity	Conservation Plan
Lawn Sprinkling	**Prohibited**: All forms of lawn watering using treated drinking water are prohibited.
New Unestablished Lawns	**Prohibited:** No new permits issued or renewed. All forms of lawn watering using treated drinking water are prohibited.
Gardens, Flowers, Shrubs and Trees	**Prohibited:** At the discretion of the City.
Pools, Spas, and Garden Ponds	**Prohibited:** All filling or topping up of pools, spas, or garden ponds using treated drinking water is prohibited.
Outdoor Impermeable Surface Washing (Sidewalks, Driveways, Buildings)	**Prohibited:** Only for health and safety reasons, at the discretion of the City.
Non-Recirculating And Recirculating Fountains and Water Features	**Prohibited:** All use of fountains and water features using treated drinking water is prohibited.
Outdoor Personal Vehicle and Boat Washing	**Prohibited:** All vehicle and boat washing using treated drinking water is prohibited. *Exception of mirrors and license plates and for boats to prevent the spread of invasive species
Golf Courses	**Prohibited:** Use of treated drinking water at the discretion of the City.
Commercial flower and vegetable farms with the urban development area	**Prohibited:** Use of treated drinking water at the discretion of the City

Appendix D: 2025 to 2034 Water System Capital Plan

CITY OF CHILLIWACK

2025 Utilities CMP 10 Year Projections Section

FD No	Acct No	Function Title	Obj No	Object Title	CA_2025 EXP	CA_2026 EXP	CA_2027 EXP	CA_2028 EXP	CA_2029 EXP	CA_2030 EXP	CA_2031 EXP	CA_2032 EXP	CA_2033 EXP	CA_2034 EXP	CA_2035 EXP	UNFUNDED EXP
04	24183	Water Supply	2000	Well #5					1,025,000	3,080,000						
04	24189	Water Supply	2000	Chlorination System								60,000				
04	24190	Water Supply	2000	UV System - Production Wells			2,000,000									4,500,000
04	24196	Water Supply	2000	Additional Water Supply												4,100,000
04	24196	Water Supply	2000	Petawawa Rd. Production Well												1,700,000
		Water Supply Total					2,000,000		1,025,000	3,080,000		60,000				10,300,000
04	241119	Transmission Mains	2000	ECTM-Ph 4, Chwk Cent-Mt.Shan												5,250,000
04	24182	Transmission Mains	2000	Hwy 1 - Hack Brown Watermain	400,000											
04	24182	Transmission Mains	2000	Greendale Watermain Ph2&3												15,300,000
		Transmission Mains Total			400,000											20,550,000
04	24103	Distribution Mains	2000	Distribution Main Upgrading	2,430,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000		
04	241120	Distribution Mains	2000	Firemain Upgrading		675,000		675,000			675,000					
04	241776	Distribution Mains	2000	Eastern Hillsides Trunk Waterm												7,300,000
04	24197	Distribution Mains	2000	Meter Replacement	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000		
04	24198	Distribution Mains	2000	Water Meters	475,000	475,000	475,000	475,000	475,000	475,000	475,000	475,000	475,000	475,000		
04	241981	Distribution Mains	2000	Bulk Meter Upgrades	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000		
04	241984	Distribution Mains	2000	Air Valve Replacement	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
04	241985	Distribution Mains	2000	Cheam Ave.	400,000											
		Distribution Mains Total			3,855,000	3,000,000	2,325,000	3,000,000	2,325,000	2,325,000	3,000,000	2,325,000	2,325,000	2,325,000		7,300,000
04	241778	Water-Developer Cont	2000	Developer Projects	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000		
		Water-Developer Cont Total			1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000		
04	241560	Pump Stns, Storage, PRVs	2000	Marble Hill Storage Reservoir												3,500,000
04	241561	Pump Stns, Storage, PRVs	2000	Chwk Mtn Zone 3 Reservoir							1,150,000					
04	241561	Pump Stns, Storage, PRVs	2000	Chwk Mtn Zone 1 Reservoir	1,600,000	1,800,000										
04	241574	Pump Stns, Storage, PRVs	2000	PLC Upgrades	20,000	20,000	20,000									
		Pump Stns, Storage, PRVs Total			1,620,000	1,820,000	20,000				1,150,000					3,500,000
04	24162	Operations	2000	PC Purchases	80,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000		
04	24165	Operations	2000	Finance Systems (1/3)	145,000											
04	241661	Operations	2000	New Vehicles / Equipment	300,000	350,000	350,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000		
04	241667	Operations	2000	Water Meter AMI Equipment	300,000	300,000										
04	241668	Operations	2000	South Side Storage Building					300,000							
04	241709	Operations	2000	Fibre Optic Ntwk Expan 1/3				400,000								
04	241712	Operations	2000	Bypass Meter Upgrades	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000		
04	241713	Operations	2000	Meters - Interior to Exterior	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000		
04	241715	Operations	2000	Brine System Upgrade	100,000											
		Operations Total			1,075,000	815,000	515,000	765,000	665,000	365,000	365,000	365,000	365,000	365,000		

Appendix E: 2025 Annual Water Audit

Line	Item	Water Volume Total (m^3)
1	Uncorrected total water supply to distribution system	12,978,349
2	Adjustments to total water supply	-
2A	Source meter error (+ or -)	48,354
2B	Change in reservoir and tank storage (+ or -)	-409
2C	Other contributions or losses (+ or -)	-
3	Sum of adjustments	47,945
4	**Adjusted total water supply to the distribution system**	**13,026,294**
5	Uncorrected total metered water use	11,899,326
6	Adjustments due to meter reading lag time	-
7	Metered deliveries	11,899,326
8	Total sales meter error and system-service meter errors (+ or -)	-
8A	Residential meter error	47,597
8B	Large meter error	-
8C	Total	47,597
9	Corrected total metered water deliveries	11,899,326
10	Corrected total unmetered water	1,126,968
11	**Authorized unmetered water uses**	
11A	Firefighting and firefighting training	47,364
11B	Firefighting - fire truck (engines only) - minor fires	1,564
11C	Firefighting - Structure fires	506
11D	Flushing - flush truck	1,540
11E	Flushing - automatic	-
11F	Flushing - general flushes	61,200
11G	Sewer cleaning	-
11H	Street cleaning	-
11I	Schools	-
11J	Landscaping	-
	Parks	-
	Golf courses	-
	Cemeteries	-
	Playgrounds	-
	Highway median strips	-
	Other landscaping	-
11K	Decorative water facilities	-
11L	Swimming pools	-
11M	Construction sites	85,140
11N	Water quality and other testing (pressure testing pipe, water quality, etc.)	115
11P	Reservoir draining and cleaning	9,851
11Q	Water filling stations	7,547

11R	Other water use	-
12	**Total authorized unmetered water**	**214,827**
13	**Total water losses**	**912,141**
14	Identified water losses	-
14A	Accounting procedure errors	-
14B	Illegal connections	-
14C	Malfunctioning distribution system controls	-
14D	Reservoir seepage and leakage	-
14E	Evaporation	7,582
14F	Reservoir overflow	-
14G	Discovered leaks	264
14H	Thefts	-
15	Total identified water losses	7,846
16	Potential water system leakage	904,295
17	Potential recoverable leakage (assume 75%)	678,221
18	**Maximum leak percentage**	**6.94%**

Appendix F: Metals in Drinking Water – “Flush” Message in Annual Reports

fraserhealth Better health. Best in health care.

February 1, 2024

Water System Operators

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

Fraser Health has recently revised its metals at the tap "Flush" message and we are asking all water systems to please include the following health message with your next annual reports to your users.

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.

Sincerely,

Drinking Water Program
Fraser Health Authority
HPLand@fraserhealth.ca

Fraser Health Authority
Health Protection

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