

March 6, 2023

Dear: Water System Operator

Re: Annual Reporting Requirements for Permitted Water Systems

Please find enclosed a copy of the 2022 Range Report for your water system. This report contains a summary of the bacteriological water quality results for the samples submitted through Fraser Health from your water system within the 2022 calendar year. As per the Drinking Water Protection Act the report is required to be made available to all users by June 30th 2022.

Please email david.fowler@fraserhealth.ca if you would like to request a copy of the Annual Report Template.

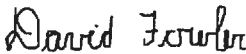
The following are reminders for all water system operators:

- a) As drinking water testing has been deemed an essential service, all health units continue to remain open for sample drop-off on their regular designated days.
- b) Please do not use expired requisition forms as this will result in the samples either not being processed or results not being returned properly from the lab. Please discard all expired requisition forms. The expiration date is located on the bottom of the form.
- c) Please do not modify sample sites or other sections on the requisition forms. Key information is contained in the barcode and the lab is unable to include handwritten information. Please contact david.fowler@fraserhealth.ca to request any changes to your requisition forms.
- d) Ensure the lead flush message provided is included with your Annual Report.
- e) The coding system from BCCDC has recently changed.

QRWRT indicates that the sample exceeded the 30 hour hold time. This could be due to courier issues or an incorrect date being recorded by the operator on the requisition forms. Water systems will still be given credit for the sample collected and a qualitative result is provided to Fraser Health. If there is bacteria detected, a separate email will be sent to the operator from Fraser Health.

REJCT DELAY3 indicates that the sample has been rejected as it has been too long in transit. No results will be provided for this sample.

Sincerely,



David Fowler
Environmental Health Officer, Fraser Health Authority
David.fowler@fraserhealth.ca

February 1, 2022

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

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2022 (year)

Water System Vedder River Campground

Water System Owner Fraser Valley Regional District

Primary Contact Name (Operator or Manager) Dave Roblin

Phone Number (Operator or Manager) 604-798-5426

E-mail (Operator or Manager) droblin@fvrd.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

- Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

- Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

- Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

- Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

- Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website
 Other (specify details)

Drinking Water System Annual Report

How do you Inform the System Users of the Annual Report?

- Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website
 Other (specify details)

COMPLIANCE WITH OPERATING PERMIT

List the conditions that have been placed on your Operating Permit (if you have conditions, these will be stated on your permit):

Are you in compliance with the conditions listed on your Operating Permit? Yes No N/A

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period? 32
 What is the minimum required sampling frequency for this system? (#samples/month) 4

Additional sampling details:

Was the minimum required sampling frequency achieved? Yes No

Comments:

Bacteriological summary attached to this report? Yes No

If no, how do the users of the system view the results?

WATER QUALITY STANDARDS FOR POTABLE WATER

| Parameter: | Standard: | Did this system meet standard? | |
|---|---|---|-----------------------------|
| Escherichia coli (for all samples) | No detectable <i>Escherichia coli</i> per 100ml | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Total Coliform Bacteria (if only 1 sample collected in a 30 day period) | No detectable total coliform bacteria per 100ml | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Total Coliform Bacteria (if more than 1 sample collected in a 30 day period) | No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

| Date | TC/100ml | E.coli/100ml | Reason | Corrective Action |
|------|----------|--------------|--------|-------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system? Don't Know Never If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality? Yes No

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

| Parameter | Result | Corrective Action / Treatment / Comments |
|-----------|--------|--|
| | | |
| | | |
| | | |
| | | |

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:
 Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

| Additional Testing & Reason for Sampling | Corrective Action Taken |
|--|-------------------------|
| | |
| | |
| | |

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste; odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

| Date | Water Quality Complaint | Corrective Action / Treatment |
|------|-------------------------|-------------------------------|
| | | |
| | | |
| | | |

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

| Incident Date | Type of Operational Problem | Corrective Action Taken |
|---------------|-----------------------------|-------------------------|
| | | |
| | | |
| | | |

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

| Major Upgrades/Expenses | Details |
|-----------------------------------|---------|
| Improvements required by DWO | |
| Additions/changes to system | |
| Purchase or install new equipment | |
| Equipment repair or replacement | |
| Annual maintenance of system | |
| Specialist report | |
| Other | |

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

| Future Upgrades or Improvements | Estimated Date of Completion |
|---------------------------------|------------------------------|
| | |
| | |

| | |
|------------------------------|----------------------------|
| DATE COMPLETED: June 14 2023 | COMPLETED BY: Dave Rooblin |
|------------------------------|----------------------------|

Analytical Report

| | | |
|---|--|--|
| Bill To: Fraser Valley Regional District 1 - 45950 Cheam Ave. Chilliwack, BC, Canada V2P 1N6 | Project ID: Project Name: Chem/Phys Project Location: Southside LSD: P.O.: | Lot ID: 1654378 Control Number: Date Received: May 30, 2023 Date Reported: Jun 6, 2023 Report Number: 2878161 |
| Attn: Accounts Payable Sampled By: L. Adamik Company: FVRD | Proj. Acct. code: | |

| | |
|---------------------------|--|
| Reference Number | 1654378-1 |
| Sample Date | May 30, 2023 |
| Sample Time | 07:30 |
| Sample Location | |
| Sample Description | Vedder River Campground Well 1 / 10.6 °C |
| Sample Matrix | Drinking Water |

| Analyte | Units | Result | Nominal Detection Limit | Guideline Limit | Guideline Comments |
|--|--------------------------------|---------|-------------------------|-------------------|--------------------|
| Metals Extractable | | | | | |
| Silicon | Extractable mg/L | 3.42 | 0.05 | | |
| Aluminum | Extractable mg/L | <0.002 | 0.002 | 0.1 OG; 2.9 MAC | Below OG |
| Antimony | Extractable mg/L | <0.0002 | 0.0002 | 0.006 | Below MAC |
| Arsenic | Extractable mg/L | <0.0002 | 0.0002 | 0.01 | Below MAC |
| Barium | Extractable mg/L | 0.007 | 0.001 | 2.0 | Below MAC |
| Boron | Extractable mg/L | 0.005 | 0.002 | 5 | Below MAC |
| Cadmium | Extractable mg/L | 0.00001 | 0.00001 | 0.007 | Below MAC |
| Chromium | Extractable mg/L | <0.0005 | 0.0005 | 0.05 | Below MAC |
| Copper | Extractable mg/L | 0.001 | 0.001 | 1 AO; 2 MAC | Below AO |
| Lead | Extractable mg/L | <0.0001 | 0.0001 | 0.005 | Below MAC |
| Selenium | Extractable mg/L | 0.0003 | 0.0002 | 0.05 | Below MAC |
| Strontium | Extractable mg/L | 0.068 | 0.001 | 7.0 | Below MAC |
| Uranium | Extractable mg/L | <0.0005 | 0.0005 | 0.02 | Below MAC |
| Vanadium | Extractable mg/L | 0.0004 | 0.0001 | | |
| Zinc | Extractable mg/L | 0.002 | 0.001 | 5 | Below AO |
| Physical and Aggregate Properties | | | | | |
| Colour | Apparent, Potable Colour units | <5 | 5 | 15 | Below AO |
| Turbidity | NTU | 0.5 | 0.1 | 0.1/0.3/1.0 OG | |
| Routine Water | | | | | |
| pH | | 7.49 | 1 | 7.0-10.5 | Within OG Range |
| Electrical Conductivity | at 25 °C µS/cm | 96 | 1 | | |
| Calcium | Extractable mg/L | 15.3 | 0.2 | | |
| Magnesium | Extractable mg/L | 1.5 | 0.2 | | |
| Sodium | Extractable mg/L | 1.5 | 0.4 | 200 | Below AO |
| Potassium | Extractable mg/L | 0.7 | 0.4 | | |
| Iron | Extractable mg/L | <0.01 | 0.01 | 0.3 | Below AO |
| Manganese | Extractable mg/L | <0.005 | 0.005 | 0.02 AO; 0.12 MAC | Below AO |
| Chloride | Dissolved mg/L | 1.2 | 0.4 | 250 | Below AO |
| Fluoride | mg/L | <0.05 | 0.05 | 1.5 | Below MAC |
| Nitrate - N | mg/L | 0.18 | 0.01 | 10 | Below MAC |
| Nitrite - N | mg/L | <0.005 | 0.005 | 1 | Below MAC |
| Sulfate (SO4) | Extractable mg/L | 8.0 | 0.9 | 500 | Below AO |
| T-Alkalinity | as CaCO3 mg/L | 38 | 5 | | |
| Total Dissolved Solids | mg/L | 51 | 1 | 500 | Below AO |
| Hardness | as CaCO3 mg/L | 44.2 | | | |

Analytical Report

| | | |
|---|--|--|
| Bill To: Fraser Valley Regional District 1 - 45950 Cheam Ave. Chilliwack, BC, Canada V2P 1N6 | Project ID: Project Name: Chem/Phys Project Location: Southside LSD: P.O.: | Lot ID: 1654378 Control Number: Date Received: May 30, 2023 Date Reported: Jun 6, 2023 Report Number: 2878161 |
| Attn: Accounts Payable Sampled By: L. Adamik Company: FVRD | Proj. Acct. code: | |

| | |
|---------------------------|--|
| Reference Number | 1654378-2 |
| Sample Date | May 30, 2023 |
| Sample Time | 07:45 |
| Sample Location | |
| Sample Description | Vedder River Campground Well 2 / 10.6 °C |
| Sample Matrix | Drinking Water |

| Analyte | Units | Result | Nominal Detection Limit | Guideline Limit | Guideline Comments |
|--|--------------------------------|----------|-------------------------|-------------------|--------------------|
| Metals Extractable | | | | | |
| Silicon | Extractable mg/L | 3.27 | 0.05 | | |
| Aluminum | Extractable mg/L | <0.002 | 0.002 | 0.1 OG; 2.9 MAC | Below OG |
| Antimony | Extractable mg/L | <0.0002 | 0.0002 | 0.006 | Below MAC |
| Arsenic | Extractable mg/L | <0.0002 | 0.0002 | 0.01 | Below MAC |
| Barium | Extractable mg/L | 0.007 | 0.001 | 2.0 | Below MAC |
| Boron | Extractable mg/L | 0.004 | 0.002 | 5 | Below MAC |
| Cadmium | Extractable mg/L | <0.00001 | 0.00001 | 0.007 | Below MAC |
| Chromium | Extractable mg/L | <0.0005 | 0.0005 | 0.05 | Below MAC |
| Copper | Extractable mg/L | 0.002 | 0.001 | 1 AO; 2 MAC | Below AO |
| Lead | Extractable mg/L | <0.0001 | 0.0001 | 0.005 | Below MAC |
| Selenium | Extractable mg/L | 0.0003 | 0.0002 | 0.05 | Below MAC |
| Strontium | Extractable mg/L | 0.072 | 0.001 | 7.0 | Below MAC |
| Uranium | Extractable mg/L | <0.0005 | 0.0005 | 0.02 | Below MAC |
| Vanadium | Extractable mg/L | 0.0003 | 0.0001 | | |
| Zinc | Extractable mg/L | 0.002 | 0.001 | 5 | Below AO |
| Physical and Aggregate Properties | | | | | |
| Colour | Apparent, Potable Colour units | <5 | 5 | 15 | Below AO |
| Turbidity | NTU | 0.3 | 0.1 | 0.1/0.3/1.0 OG | |
| Routine Water | | | | | |
| pH | | 7.46 | 1 | 7.0-10.5 | Within OG Range |
| Electrical Conductivity | at 25 °C µS/cm | 96 | 1 | | |
| Calcium | Extractable mg/L | 15.7 | 0.2 | | |
| Magnesium | Extractable mg/L | 1.5 | 0.2 | | |
| Sodium | Extractable mg/L | 1.5 | 0.4 | 200 | Below AO |
| Potassium | Extractable mg/L | 0.6 | 0.4 | | |
| Iron | Extractable mg/L | <0.01 | 0.01 | 0.3 | Below AO |
| Manganese | Extractable mg/L | <0.005 | 0.005 | 0.02 AO; 0.12 MAC | Below AO |
| Chloride | Dissolved mg/L | 2.0 | 0.4 | 250 | Below AO |
| Fluoride | mg/L | <0.05 | 0.05 | 1.5 | Below MAC |
| Nitrate - N | mg/L | 0.18 | 0.01 | 10 | Below MAC |
| Nitrite - N | mg/L | <0.005 | 0.005 | 1 | Below MAC |
| Sulfate (SO4) | Extractable mg/L | 8.3 | 0.9 | 500 | Below AO |
| T-Alkalinity | as CaCO3 mg/L | 39 | 5 | | |
| Total Dissolved Solids | mg/L | 53 | 1 | 500 | Below AO |
| Hardness | as CaCO3 mg/L | 45.5 | | | |