

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2024 (year)

Water System Harrison Highlands

Water System Owner District of Kent

Primary Contact Name (Operator or Manager) Steven Nuttall

Phone Number (Operator or Manager) 604-796-9145

E-mail (Operator or Manager) snuttall@kentbc.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: UF Membrane

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? 49

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?

(date) 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
pH	Low	Lab holding time exceeded/ sample temperature 23.5

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? no

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: 24-Jun-2025	COMPLETED BY: Steven Nuttall
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fraserhealth

Better health.
Best in health care.

January 25, 2025

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 1-866-749-7900.

Sincerely,

Alex Kwan
Acting Manager, Drinking Water Program
Fraser Health Authority
HPLand@fraserhealth.ca

Sample Range Report

Fraser Health Authority

Facility Name: Harrison Highlands Water System

Date Range: Jan 1 2024 to Dec 31 2024

Operator Steve Nuttall
PO Box 70
Agassiz, BC V0M 1A0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Reservoir, 1849</u>				
<u>Lougheed Hwy</u>				
	1-2-2024 11:35:00 AM	LT1	LT1	
	1-23-2024 10:55:00 AM	LT1	LT1	
	2-20-2024 11:25:00 AM	LT1	LT1	
	3-18-2024 10:50:00 AM	LT1	LT1	
	4-8-2024 10:40:00 AM	LT1	LT1	
	4-29-2024 11:00:00 AM	LT1	LT1	
	5-21-2024 9:58:00 AM	LT1	LT1	
	6-11-2024 9:30:00 AM	LT1	LT1	
	7-2-2024 8:45:00 AM	LT1	LT1	
	7-15-2024 10:20:00 AM	LT1	LT1	
	7-30-2024 10:25:00 AM	LT1	LT1	
	8-19-2024 10:00:00 AM	LT1	LT1	
	9-9-2024 10:05:00 AM	LT1	LT1	
	9-16-2024 8:30:00 AM	LT1	LT1	
	10-7-2024 10:45:00 AM	LT1	LT1	
	10-15-2024 10:25:00 AM	LT1	LT1	
	10-21-2024 10:45:00 AM	LT1	LT1	
	10-28-2024 11:30:00 AM	LT1	LT1	
	11-18-2024 11:20:00 AM	LT1	LT1	
	11-26-2024 11:30:00 AM	LT1	LT1	

12-17-2024 10:15:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

Woodside Blvd 1,
1849 Lougheed Hwy

1-8-2024 10:35:00 AM	LT1	LT1	
2-5-2024 11:10:00 AM	LT1	LT1	
2-26-2024 8:15:00 AM	LT1	LT1	
3-25-2024 10:45:00 AM	LT1	LT1	
4-15-2024 11:10:00 AM	LT1	LT1	
5-7-2024 11:40:00 AM	LT1	LT1	
5-27-2024 10:35:00 AM	LT1	LT1	
6-17-2024 11:00:00 AM	LT1	LT1	
7-23-2024 9:55:00 AM	LT1	LT1	
8-6-2024 11:40:00 AM	LT1	LT1	
8-26-2024 11:15:00 AM	LT1	LT1	
9-23-2024 10:37:00 AM	LT1	LT1	
11-4-2024 11:10:00 AM	LT1	LT1	
12-2-2024 12:05:00 PM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

Woodside Blvd 2,
1849 Lougheed Hwy

1-16-2024 11:05:00 AM	QRWRT	QRWRT	
2-12-2024 12:15:00 PM	LT1	LT1	
3-11-2024 11:35:00 AM	LT1	LT1	
4-2-2024 11:00:00 AM	LT1	LT1	
4-23-2024 10:05:00 AM	LT1	LT1	
5-13-2024 11:10:00 AM	LT1	LT1	
6-4-2024 11:15:00 AM	LT1	LT1	
6-24-2024 10:55:00 AM	LT1	LT1	

7-8-2024 10:30:00 AM	LT1	LT1
8-13-2024 10:00:00 AM	LT1	LT1
9-3-2024 9:45:00 AM	LT1	LT1
10-1-2024 11:00:00 AM	LT1	LT1
11-12-2024 10:00:00 AM	LT1	LT1
12-9-2024 11:25:00 AM	<u>LT1</u>	<u>LT1</u>
Total Positive:	0	0

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% 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 coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/1	
Total number of samples:	49	

Comments:

Environmental Health Officer
Jan 14 2025

FOR FURTHER INFORMATION PLEASE CALL: Jeniene Lutz (604) 870-7900

Analytical Report

Bill To: District of Kent Waste Water Box 70 1088 Tramner Road Agassiz, BC, Canada V0M 1A0 Attn: Accounts Payable	Project ID: Project Name: Harrison Highland Water System Project Location: LSD: P.O.: 27281 Proj. Acct. code:	Lot ID: 1745872 Control Number: Date Received: Jul 16, 2024 Date Reported: Jul 22, 2024 Report Number: 3025573 Report Type: Final Report
Sampled By:		
Company:		

Reference Number	1745872-1
Sample Date	July 16, 2024
Sample Time	09:30
Sample Location	
Sample Description	Reservoir / 9.8 °C
Sample Matrix	Drinking Water


Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
Metals Extractable					
Aluminum	Extractable mg/L	0.001	0.001	0.1 OG; 2.9 MAC	Below OG
Antimony	Extractable mg/L	<0.00002	0.00002	0.006	Below MAC
Arsenic	Extractable mg/L	0.0001	0.0001	0.010	Below MAC
Barium	Extractable mg/L	0.0005	0.0001	2.0	Below MAC
Boron	Extractable mg/L	0.012	0.002	5	Below MAC
Cadmium	Extractable mg/L	<0.00001	0.00001	0.007	Below MAC
Chromium	Extractable mg/L	<0.00005	0.00005	0.05	Below MAC
Copper	Extractable mg/L	0.016	0.0005	1 AO; 2 MAC	Below AO
Lead	Extractable mg/L	0.0015	0.00001	0.005	Below MAC
Selenium	Extractable mg/L	<0.0002	0.0002	0.05	Below MAC
Strontium	Extractable mg/L	0.017	0.0001	7.0	Below MAC
Uranium	Extractable mg/L	<0.00001	0.00001	0.02	Below MAC
Vanadium	Extractable mg/L	<0.00005	0.00005		
Zinc	Extractable mg/L	0.016	0.0005	5.0	Below AO
Microbiological Analysis					
Total Coliforms	Enzyme Substrate Test MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Escherichia coli	Enzyme Substrate Test MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Physical and Aggregate Properties					
Colour	True Colour units	9	5		
Turbidity	NTU	<0.10	0.1	0.1/0.3/1.0 OG	
Routine Water					
pH		6.78	0.01	7.0-10.5	Below Range
pH - Holding Time		Exceeded			
Temp. of observed pH	°C	23.5			
Electrical Conductivity	at 25 °C µS/cm	43	1		
Calcium	Extractable mg/L	5.7	0.01		
Iron	Extractable mg/L	<0.004	0.004	0.3	Below AO
Magnesium	Extractable mg/L	0.17	0.02		
Manganese	Extractable mg/L	<0.001	0.001	0.02 AO; 0.12 MAC	Below AO
Potassium	Extractable mg/L	0.13	0.04		
Silicon	Extractable mg/L	2.9	0.005		
Sodium	Extractable mg/L	2.0	0.1	200	Below AO
T-Alkalinity	as CaCO3 mg/L	11	5		
Chloride	Dissolved mg/L	3.00	0.05	250	Below AO
Fluoride	Dissolved mg/L	0.04	0.01	1.5	Below MAC
Nitrate - N	Dissolved mg/L	<0.01	0.01	10	Below MAC

Analytical Report

Bill To: District of Kent Waste Water Box 70 1088 Tramner Road Agassiz, BC, Canada V0M 1A0 Attn: Accounts Payable Sampled By: Company:	Project ID: Project Name: Harrison Highland Water System Project Location: LSD: P.O.: 27281 Proj. Acct. code:	Lot ID: 1745872 Control Number: Date Received: Jul 16, 2024 Date Reported: Jul 22, 2024 Report Number: 3025573 Report Type: Final Report
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Reference Number	1745872-1
Sample Date	July 16, 2024
Sample Time	09:30
Sample Location	
Sample Description	Reservoir / 9.8 °C
Sample Matrix	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
Routine Water - Continued					
Nitrite - N	Dissolved mg/L	<0.01	0.01	1	Below MAC
Sulfate (SO4)	Dissolved mg/L	3.7	0.1	500	Below AO
Hardness	as CaCO3 (extractable) mg/L	15	1		
Total Dissolved Solids	Extractable mg/L	29	1	500	Below AO

Approved by: 
 Rachel Eden, B. Sc.
 Operations Manager

Methodology and Notes

Bill To: District of Kent Waste Water Box 70 1088 Tramner Road Agassiz, BC, Canada V0M 1A0	Project ID: Project Name: Harrison Highland Water System Project Location: LSD: P.O.: 27281 Proj. Acct. code:	Lot ID: 1745872 Control Number: Date Received: Jul 16, 2024 Date Reported: Jul 22, 2024 Report Number: 3025573 Report Type: Final Report
Attn: Accounts Payable		
Sampled By: Company:		

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Jul 17, 2024	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Jul 17, 2024	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Jul 17, 2024	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Jul 16, 2024	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Jul 22, 2024	Element Vancouver
Total and E-Coli - Colilert - DW (VAN)	APHA	Enzyme Substrate Test, APHA 9223 B	Jul 16, 2024	Element Vancouver
Trace Metals (extractable) in Water (VAN)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Jul 17, 2024	Element Vancouver
True Color in water (VAN)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Jul 17, 2024	Element Vancouver
Turbidity - Water (VAN)	APHA	* Turbidity - Nephelometric Method, 2130 B	Jul 17, 2024	Element Vancouver

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

Guidelines

Guideline Description	Health Canada GCDWQ
Guideline Source	Guidelines for Canadian Drinking Water Quality, Health Canada, Sept 2020
Guideline Comments	MAC = Maximum Acceptable Concentration AO = Aesthetic Objective OG = Operational Guideline for Water Treatment Plants (does not apply to private groundwater wells). Refer to Health Canada for complete guidelines at www.hc-sc.gc.ca

Comments:

- The analysis of water sample 1745872-1 is below Maximum Acceptable Concentrations for the chemical and bacteriological health related guidelines specified by the June 2024 Guidelines for Canadian Drinking Water Quality for the parameters tested.

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.