



**2022**

**DRINKING WATER QUALITY**

**FINAL REPORT | JUNE 2023**

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## EXECUTIVE SUMMARY

This report summarizes the District of West Vancouver's water quality program for 2022. The program operates under the protocol developed in the Water Quality and Reporting Plan for Metro Vancouver and Member Municipalities; where objectives and monitoring results are in accordance with the *Guidelines for Canadian Drinking Water Quality* (GCDWQ).

The District's water system treats and distributes potable water supplied from two local sources, namely Eagle Lake and Montizambert Creek, and distributes treated water received from Metro Vancouver (Capilano and/or Seymour watershed sources). Detailed information regarding the Metro Vancouver supply is available at <http://www.metrovancouver.org/services/water>.

Raw water from both Eagle Lake and Montizambert Creek sources were analyzed for bacteriological, physical, and chemical parameters. Bacteriological testing in 2022 indicates the source waters have a low presence of *Escherichia coli* (E. coli), giardia, and cryptosporidium with elevated levels in some cases.

Water throughout the distribution system was tested for bacteriological, physical, and chemical parameters. 574 samples were analyzed in 2022. All water sample results reported a turbidity of less than 5 NTU and a chlorine residual of no less than 0.2mg/L chlorine residual. Two samples had HPC counts that exceeded 500 CFU/mL. Elevated HPC is not an indication for water safety concerns but is an operational indicator of possible stagnation and potential degradation of water quality. Where HPC results exceeded 500 CFU/mL the water mains were flushed, and the turbidity readings and chlorine residuals were analyzed. The new samples show turbidity readings and chlorine residuals were well within the limits set by the GCDWQ. Additional monthly, quarterly and semi-annually testing for disinfection by-products, metals, and total organic carbons were within the Canadian Guidelines.

The report also contains Emergency Response Plans that outline the steps to take related to elevated E. coli, contamination, turbidity, and loss of disinfection.

## **1.0 INTRODUCTION**

This report summarizes the District of West Vancouver's water quality program for 2022. The purpose is to detail the municipality's efforts in maintaining high quality drinking water and to provide residents with the results of the sampling and analysis program.

Water suppliers in British Columbia are regulated by the Drinking Water Protection Act and the Drinking Water Protection Regulation (DWPR). The *Drinking Water Quality Annual Report* is a requirement of the Vancouver Coastal Health Authority (VCHA) in order to receive annual operating permits and is reviewed by the Medical Health Officer (MHO) for the North Shore. As requested by the MHO, this report shall be made public via a prominent web site posting at <http://www.westvancouver.ca>.

The District's water quality program is in accordance with the *Water Quality Monitoring and Reporting Plan for the GVRD and Member Municipalities, May 2000*, which was developed under the authority and direction of the Regional MHOs.

## **2.0 GENERAL DESCRIPTION**

The District of West Vancouver operates two local water supplies and a distribution system consisting of a network of intakes, two treatment plants, reservoirs, chlorination stations, pressure reducing valve (PRV) stations, pumps, hydrants and mains. The system is required to adequately receive, store, and transport potable water to all users in West Vancouver. Key facilities are connected by a telemetry system (SCADA) to a central computer, which monitors and identifies erroneous operating conditions and communicates to key personnel 24 hours a day, seven days a week.

## **3.0 SOURCE WATER WATERSHEDS**

### **3.1 General**

The municipality obtains water from three sources:

- Eagle Lake
- Montizambert Creek
- Metro Vancouver's Capilano / Seymour Watersheds.

From Capilano River to Horseshoe Bay, the water distribution system is fed by both Eagle Lake and Metro Vancouver source waters. While the distribution area for each source varies seasonally, in general, Eagle Lake water is received below the Upper Levels Highway, west of 29<sup>th</sup> Street and above the Upper Levels Highway east to the Chartwell neighbourhood. The municipality continues to optimize the use of the Eagle Lake source whenever supplies permit in order to reduce the purchase of bulk water from Metro Vancouver.

North of Horseshoe Bay at the northern municipal boundary, the Sunset Highlands neighbourhood is serviced by the Montizambert Creek source, except for the Seascapes multi-family development, which utilizes private wells.

### **3.2 Eagle Lake Treatment Plant**

Located above Cypress Falls Park, Eagle Lake source water flows by gravity through intake screens into the Eagle Lake treatment plant. The Eagle Lake facility is a Level 4 certified Suez membrane treatment plant and is compliant with the 4-3-2-1 multi-barrier approach as specified in the GCDWQ to ensure safe drinking water as mandated by the Health Authorities of British Columbia. When the lake level drops below the elevation of the intake screens, floating pumps are required to pump water from the lower lake levels to the treatment plant. This typically occurs during the late summer months.

Once the water enters the treatment facility, it passes through an automatic self-cleaning bar screen to remove any floating debris. The water is pH adjusted and coagulant is added to optimize the membrane filtration process. The coagulated water is then pumped and filtered through submerged membrane filters. Once filtered, sodium hypochlorite is added for disinfection. The fully treated water is stored in concrete reservoirs ready for distribution.

In an effort to ensure treatment objectives are being met, one quarter of the ultrafiltration hollow fiber membranes were replaced at Eagle Lake in 2022.

#### **3.2.1 Eagle Lake Water Treatment Plant Bypass and Optimization**

In the event of an operational emergency, the Eagle Lake plant may need to be bypassed in order to maintain water supply to the District's residents and for the provision of fire protection. In the event of a bypass, the source water will continue to be disinfected with sodium hypochlorite though at a higher dose to compensate for the loss of the filtration process. The chlorine contact time will be maintained during a bypass event.

All EOCP certified distribution and treatment staff are familiar with the details of the bypass procedure. The details of this procedure have been provided separately in the Eagle Lake Water Treatment Plant Emergency Response and Contingency Plan to VCHA.

The Eagle Lake Treatment Plant was not bypassed in 2022.

Eagle Lake optimization allows the District to increase the supply of Eagle Lake water into the distribution system during non-peak periods. The District SCADA system is used to automatically monitor and prompt any required changes to the system based on plant conditions such as clearwell levels and system demand. Standby personnel monitor the Eagle Lake Water Treatment Plant operation 24/7 and VCH is informed if there are any changes to operational procedures.

### **3.3 Montizambert Treatment Plant**

Located north of Horseshoe Bay, the Montizambert Treatment Plant is a Level 3 classified plant commissioned in September 2011. It is a Pall Membrane treatment plant compliant with the 4-3-2-1 multi-barrier approach as specified in the GCDWQ to ensure safe drinking water as mandated by the Health Authorities of British Columbia.

The source water from Montizambert Creek passes through a gravel filtration intake and a settling tank before entering the treatment facility. Coagulant is added once the water enters the plant and is mixed and pumped through the membrane filters. After the filtration process, sodium hypochlorite is added for disinfection and the water is stored in a concrete clearwell ready to be distributed.

#### **3.3.1 Montizambert Water Treatment Plant Bypass**

In the event of an operational emergency, the Montizambert Water Treatment Plant may need to be bypassed to maintain water supply to residents and for the provision of fire protection. The plant is capable of two different types of bypass, one with cartridge filters (3 microns nominal) and the second without. The use of cartridge filters will be determined on a case-by-case basis. For either procedure, the water will continue to be disinfected with sodium hypochlorite and adjusted to an appropriate dosage rate depending on the bypass process in place. The chlorine contact time is maintained during a bypass event.

All EOCP certified distribution and treatment staff are familiar with the details of the bypass procedure. This procedure has been provided separately in the Montizambert Creek Water Treatment Plant Emergency Response and Contingency plan to VCHA.

The Montizambert Water Treatment Plant was not bypassed in 2022.

### **3.4 Metro Vancouver**

Bulk treated water purchased by the District from Metro Vancouver is supplied from the Seymour and Capilano watersheds. This water enters the municipality's distribution system at five locations:

- Glenmore Dr. between Morven Dr. and Deep Dene Road
- Mathers Avenue and Capilano Road
- Keith Road and Upper Levels Highway
- Marine Drive and Capilano Road
- Capilano Road and Welch Street



### **3.5 Challenges**

Challenges to the quality and quantity of the source water include:

- maintaining a balance between public access for recreation (e.g. portions of the Baden Powell Trail above Eagle Lake) and security of the watershed for protection of drinking water quality
- physical disturbances in watersheds such as soil erosion into creeks, which lead to turbidity spikes
- vulnerability of open water sources to contamination from animal and human activity;
- maintaining creek flow supplementation for fish habitat during the summer months, when Eagle Lake level is low
- low flow conditions in Montizambert Creek during drier summer months
- climate change, heavy rainfall causing turbidity issues in winter months and potential for drought conditions in the summer months
- aging dam and intake infrastructure

### **4.0 REGULATIONS AND STANDARDS FOR SOURCE WATER AND THE DISTRIBUTION SYSTEM**

Both source waters and water within the distribution system are tested for microbiological, chemical, and physical parameters. For the purposes of the municipality's water quality sampling program, the locations monitoring Metro water are treated as 'distribution' sites and not 'source' sites although some Metro sample points are located close to the entry points to the municipal distribution system.

The Drinking Water Protection Regulation (DWPR) requires 1 sample/1000 residents on a monthly basis for cities with a population between 5,000 and 90,000 residents. During 2022, the District of West Vancouver had approximately 45,000 residents, which translates to a minimum of 540 samples required annually. The total number of samples collected by the District during 2022 was 574, which exceeds the requirements of the DWPR for the number of stations and samples required.

Further to the information outlined below, full details outlining the health-based guidelines for water quality in Canada, established on behalf of the Federal-Provincial-Territorial Committee on Drinking Water, is available on Health Canada's website.

#### **4.1 Microbiological Parameters**

Under the Guidelines for Canadian Drinking Water Quality (GCDWQ) the most vital guidelines are those dealing with microbiological contaminants. The District of West Vancouver follows the guidelines by taking the required samples at the regulated times.

Samples are taken monthly at the Montizambert and Eagle Lake sources for Cryptosporidium and Giardia. The treatment goal for these two parameters is a minimum of 3-log (99.9%) removal.

Escherichia coli (E. coli) samples are taken bi-weekly at the source and weekly throughout the distribution system. E. coli is an indicator of microbiological safety and the GCDWQ maximum allowable concentration within the distribution system is none detected per 100 mL sample. Heterotrophic Plate Count (HPC) is tested bi-weekly at the source as well as weekly throughout the distribution system. Although it is naturally occurring and has no limits under the guideline, it is a good monitoring tool for general bacteriological water quality.

Total Coliforms are sampled bi-weekly at the source and weekly throughout the distribution system. Total coliforms are not used as indicators of potential health effects from pathogenic microorganisms; instead, they are used as an operational tool to determine how well the drinking water treatment system is operating. When sampled in the distribution system, the GCDWQ states that no consecutive samples shall contain total coliform and that no more than 10% of samples taken contain total coliform. Total coliform detected in the distribution system can be an indication of re-growth of bacteria in distribution biofilms or intrusion of untreated water.

IG MicroMed Environmental Inc. conducted the analysis for Giardia and Cryptosporidium and Metro Vancouver Laboratories conducted analysis for TOC, Total Coliform, E. coli and HPC.

## **4.2 Physical Parameters**

### **4.2.1 Turbidity**

Turbidity describes the amount of suspended solids in water measured in nephelometric turbidity units (NTU). The presence of turbidity can have significant effects on both the microbiological quality of water and the detection of the bacteria and viruses. The target turbidity for treated water from the Eagle Lake and Montizambert Water Treatment Plants is 0.1 NTU or less in at least 99% of measurements per operational filter period or per month. Measurements greater than 0.1 NTU for a period greater than 15 minutes from an individual membrane unit will trigger a membrane integrity test and investigation. To ensure good operation of the distribution system, the Guidelines for Canadian Drinking Water Quality recommends turbidity levels of 1.0 NTU or less. At levels greater than 5.0 NTU, cloudiness becomes apparent.

### **4.2.2 Temperature**

The aesthetic guideline for temperature is 15°C. Typically, the temperature of drinking water for both the source water and the distribution system rises during summer months. District staff appreciate that higher temperatures in the distribution system can affect chlorine residuals and can contribute to bacterial re-growth. Tests are completed on a regular basis throughout the distribution system to ensure acceptable water quality.

### **4.2.3 Colour**

The physical parameter of colour is tested together with chemical parameters for Eagle Lake and Montizambert source water. With respect to colour, the GCDWQ specifies an aesthetic objective of less than 15 true colour units (TCU) for treated water.

### **4.3 Inorganic and Organic Chemical Parameters**

Testing of source waters for chemical parameters, including bromate, bromide, chlorate, chloride, and sodium is conducted semi-annually at both Eagle Lake and Montizambert Creek.

In the distribution system, chemical parameters tested include chlorine residual, pH, and disinfection by-products. Chlorine residual is measured at all sampling sites when bacteriological samples are collected; additionally, there are several online chlorine analyzers for continuous monitoring throughout the distribution system.

#### **4.3.1 Disinfection By-Products**

Disinfection by-products are formed when chlorine reacts with natural organic matter. The two main disinfection by-products of concern when disinfecting with sodium hypochlorite are trihalomethanes (THMs) and haloacetic acids (HAAs). THMs and HAAs are included in the GCDWQ with maximum acceptable concentration (MAC) of 0.1 mg/l and 0.08 mg/l respectively.

#### **4.3.2 pH**

The water's scale of acidity or alkalinity is measured in potential of hydrogen (pH). The GCDWQ recommends a pH in the range of 7.0 – 10.5 as a treatment objective.

It is recognized that acidic water will accelerate the corrosion of metal pipes as well as hinder the treatment process and the pH is adjusted to the 7.5 - 9.0 range for the Eagle Lake supply. Sodium hydroxide is used to achieve this objective. No adjustment is made to the Montizambert supply.

#### **4.3.3 Metals**

The District's water quality sampling and monitoring program includes semi-annual testing at four locations within the distribution system for a variety of metals. See appendix C-1 for results.

In some homes, where older plumbing and fixtures are present, small amounts of lead may be present due to the corrosion of metals. In these cases, Vancouver Coastal Health recommends running tap water to flush any lead originating from household plumbing or fixtures. See appendix C-6.

## 5.0 TESTING, SAMPLE ANALYSIS AND RESULTS

Microbiological testing was conducted at a total of 39 sampling sites including the Eagle Lake and Montizambert Creek source locations. The monitoring protocol dictates that 12 to 13 sites per week are sampled according to the following breakdown: 10% source water, 10% low flow/dead end locations, 40% medium flow locations, and 40% high flow locations. Table 1 outlines the District’s water sampling calendar.

**Table 1: Water Sampling Calendar**

Water Type	Parameter	Frequency
Sources Eagle Lake Montizambert Creek	Microbiological, Turbidity, Temperature	Bi-weekly
	Giardia, Cryptosporidium	Monthly
	Total Organic Carbon	Monthly
	Chemical, physical list	Semi-annually
Distribution System	Microbiological, Turbidity, Temperature	Weekly (not at every site)
	HAA’s, THM’s, pH	Quarterly
	Metals	Semi-annually

### 5.1 Sample Analysis – Source Water (untreated)

At Eagle Lake, 24 bi-weekly source water samples were tested. 22 samples had a most probable number (MPN) of less than 1 per 100 mL, and 2 samples had a presence of E. coli ranging from 1 to 10 MPN/100mLs. Testing for total coliforms had results ranging from 4 to 326 MPN/100mLs in the raw, untreated source water.

**Table 2A: Eagle Lake Source Water Microbiological and Physical Parameters**

Sample Name	Number of Samples	Ecoli MPN/100mLs			HPC CFU/mL			Temperature °C			Total Coliform MPN/100mLs			Turbidity NTU		
		Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
WEAG-LK1	25	<1	10	<1	64	770	244	4	22	10	4	326	43	0.19	1.1	0.37

At Montizambert Creek, 24 bi-weekly source water samples were tested. 20 samples had a most probable number (MPN) of less than 1 per 100 mL and four samples had a presence of E. coli ranging from 1 to 22 MPN/100mLs. Testing for total coliforms had results ranging from 2 to 461 MPN/100mLs in the raw, untreated source water.

**Table 2B: Montizambert Creek Source Water Microbiological and Physical Parameters**

Sample Name	Number of Samples	Ecoli MPN/100mLs			HPC CFU/mL			Temperature °C			Total Coliform MPN/100mLs			Turbidity NTU		
		Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
WMZ-CK1	24	<1	22	1.2	80	1400	302	4	15	10	2	461	124	0.31	4.6	1.14

Giardia and Cryptosporidium testing was conducted monthly for both sources. Results shown in appendix C indicate the presence of Giardia and Cryptosporidium in both water sources at multiple times through the year.

Source water chemistry testing is conducted at Eagle Lake and Montizambert on a semi-annual basis. Source water chemistry testing results are shown in Appendix B along with a full range of other chemicals parameters which are not included in the guidelines but are still monitored by the District.

## **5.2 Sample Analysis – Distribution System**

A map of the District’s water distribution system with sampling locations and an address list for the sampling sites is included in Appendix A. The naming convention for the sample number and sample bottle reflects a reference to either Metro Vancouver (WVR), Eagle Lake (WEAG) or Montizambert Creek (WMZ) as the water source. Depending on the hydraulic conditions, water may be provided from either Eagle Lake or Metro Vancouver for some locations.

574 distribution system samples were analyzed in 2022. All water sample results reported no less than 0.2mg/L chlorine residual and turbidity of no more than 5 NTU. There were no elevated samples for E. coli and one sample had a slightly elevated Total Coliforms count. Section 8.1 of this report outlines the response procedures in the event of a positive E. coli test result.

Two samples had HPC counts that exceeded 500 CFU/mL. Elevated HPC is not an indication for water safety concerns but is an operational indicator of possible stagnation and potential degradation of water quality. Where HPC results exceeded 500 CFU/mL the water mains were flushed, and the turbidity readings and chlorine residuals were analyzed. The new samples show turbidity readings and chlorine residuals were well within the limits set by the GCDWQ.

Table 3 and Table 4 below summarize the results by the sampling sites.

**Table 3: Distribution System Microbiological and Physical Parameters (WVR Sites)**

	Parameter	Chlorine Free mg/L			Temperature °C			HPC CFU/mL		Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU		
Sample Site	Guideline	No less than 0.2 mg/L			No more than 15 °C			None		None	None	No more than 5.0 NTU		
	# of Samples	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Result	Result	Min.	Max.	Avg.
WVR-711	13	0.49	0.96	0.71	4	18	9.8	<2	18	<1	<1	0.08	0.24	0.13
WVR-712	13	0.25	0.73	0.46	4	16	9.6	<2	4	<1	<1	0.10	0.25	0.15
WVR-718	11	0.43	0.76	0.56	6	20	12.6	<2	20	<1	<1	0.11	0.23	0.14
WVR-761	12	0.27	0.78	0.48	5	20	12.3	<2	86	<1	<1	0.12	0.61	0.25
WVR-764	12	0.66	1.10	0.81	5	17	11.0	<2	2	<1	<1	0.11	0.20	0.14
WVR-790	26	0.56	0.92	0.71	4	17	10.2	<2	10	<1	<1	0.11	0.21	0.14
WVR-791	14	0.50	0.93	0.76	4	16	9.2	<2	4	<1	<1	0.10	0.54	0.22
WVR-792	26	0.46	0.90	0.65	4	16	10.1	<2	8	<1	<1	0.12	0.31	0.17
WVR-793	14	0.28	0.73	0.49	4	16	9.7	<2	140	<1	<1	0.10	0.20	0.14
WVR-794	14	0.32	0.93	0.65	4	17	10.1	<2	16	<1	<1	0.10	0.27	0.17
WVR-795	14	0.33	0.95	0.64	4	17	10.2	<2	78	<1	<1	0.10	0.76	0.25
WVR-796	26	0.48	0.96	0.73	4	18	10.6	<2	24	<1	<1	0.10	0.28	0.15
WVR-797	12	0.32	0.77	0.60	5	18	11.4	<2	2000	<1	<1	0.11	0.45	0.22

**Table 4: Distribution System Microbiological and Physical Parameters (WEAG and WMZ Sites)**

	Parameter	Chlorine Free mg/L			Temperature °C			HPC CFU/mL		Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU		
Sample Site	Guideline	No less than 0.2 mg/L			No more than 15 °C			None		None	None	No more than 5.0 NTU		
	# of Samples	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Result	Result	Min.	Max.	Avg.
WEAG-710	11	0.86	1.53	1.22	4	21	11.5	<2	14	<1	<1	0.06	0.16	0.10
WEAG-716	24	0.48	1.07	0.77	4	22	12.4	<2	32	<1	<1	0.09	0.27	0.15
WEAG-719	24	0.36	1.26	0.79	4	22	11.0	<2	280	1	<1	0.10	0.88	0.30
WEAG-765	13	0.7	1.13	0.98	4	23	11.8	<2	130	<1	<1	0.09	0.29	0.18
WEAG-768	11	0.64	1.22	0.93	5	17	11.0	<2	70	<1	<1	0.07	0.16	0.10
WEAG-769	11	0.47	0.98	0.68	6	20	11.9	<2	120	<1	<1	0.10	0.57	0.20
WEAG-770	24	0.4	1.06	0.63	4	19	11.5	<2	18	<1	<1	0.11	0.25	0.15
WEAG-771	24	0.51	1.12	0.81	4	23	12.4	<2	18	<1	<1	0.08	0.42	0.18
WEAG-772	24	0.51	1.17	0.88	4	22	12.0	<2	74	<1	<1	0.07	0.34	0.16
WEAG-773	13	0.2	0.56	0.44	4	21	12.2	<2	72	<1	<1	0.10	0.26	0.14
WEAG-774	11	0.79	1.28	0.97	6	22	12.5	<2	92	<1	<1	0.07	0.17	0.12
WEAG-776	11	0.97	1.37	1.09	5	20	11.9	<2	4	<1	<1	0.06	0.12	0.08
WEAG-778	24	0.5	1.14	0.94	4	22	12.0	<2	12	<1	<1	0.09	0.30	0.18
WEAG-779	13	0.69	1.05	0.86	4	18	9.7	<2	36	<1	<1	0.06	0.16	0.11
WEAG-780	13	0.77	1.33	1.11	4	22	11.6	<2	10	<1	<1	0.08	0.22	0.15
WEAG-783	11	0.87	1.3	1.05	5	22	12.3	<2	60	<1	<1	0.07	0.16	0.11
WEAG-784	13	0.62	1.01	0.86	4	23	12.1	<2	28	<1	<1	0.11	0.38	0.20
WEAG-785	13	0.71	1.26	0.99	4	23	11.8	<2	38	<1	<1	0.09	0.52	0.20
WEAG-786	11	0.23	1	0.62	5	17	10.5	<2	6	<1	<1	0.09	0.16	0.13
WEAG-787	11	0.41	0.97	0.67	5	18	11.2	<2	20	<1	<1	0.08	0.19	0.12
WEAG-788	11	0.55	0.96	0.75	5	17	10.7	<2	2	<1	<1	0.07	0.24	0.12
WEAG-880	13	0.43	1.1	0.74	4	18	10.8	<2	34	<1	<1	0.10	0.41	0.19
WMZ-781	11	0.76	1.35	1.19	6	19	11.9	<2	<2	<1	<1	0.08	0.23	0.15
WMZ-782	13	0.23	1.46	1.15	4	18	10.7	<2	2	<1	<1	0.11	0.43	0.23

The semi-annual testing for metals within the distribution system are provided in Appendix C. All the sampling results were well within GCDWQ guidelines.

Disinfection by-products are formed when chlorine reacts with natural organic matters. The two main categories of disinfection by-products are trihalomethanes (THMs) and haloacetic acids (HAAs) which are monitored on a quarterly basis from 10 sample sites.

The test results are presented as a running quarterly average for total THMs and total HAAs in Appendix C. All the readings taken in 2022 are within normal levels.

The level of natural organic matter is typically characterized by measuring total organic carbon (TOC) in a laboratory. Organic carbons originate in water from partially dissolved organic matter such as algae, leaves, bark, wood and soil. These materials also cause a significant portion of the colour found in natural water sources. TOC levels are within expected levels.

A complete record of the water sampling results is in Appendix C.

### 5.3 Distribution System – Water Main Replacement

An additional factor in water quality is the timely replacement of water mains. Factors related to capacity, flow characteristics and internal pipe condition can all improve water quality. The following table highlights the mains replaced in 2022 and lists the mains to be replaced in 2023.

2022 Water Main Construction	2023 Planned Water Main Construction
A: Headland Drive - 320m	A: Keith Road: 58.8m
B: Caulfield Drive – 479m	B: Stone Crescent: 652m
C: St Andrews – 202m	C: Duchess Avenue 12-15th: 605m
D: 6200 block Marine Drive – 635.83m	D: Marine Dr: Nelson Ave to Keith – 234m
E: 4100 block Marine Drive – 512m	E: Taylor Way – 518m
F: Inglewood – 810.8 m (ongoing)	F: Ottawa Avenue – 234m
G: 26th St, 27th St, Ottawa, and Nelson – 854m (ongoing)	G: Rabbit Lane – 376m
	H: Eden Place – 130m
	I: Caulfield: Meadfeild to Rutland – 238m
	J: Woodgreen Drive – 278m
	K: Woodgreen C3 – 197m
	L: Southborough Watermain – 293m

## **6.0 PUBLIC NOTIFICATION**

### **6.1 Drinking Water Advisory/Boil Water Advisory**

2022 was free of significant turbidity events from the Metro Vancouver, Eagle Lake and Montizambert sources.

A single boil water advisory, lasting 24 hours, was issued to 11 residents on St. Andrews Place due to a water main break. The advisory was lifted following a negative bacterial sample result. Bottled water was provided to residents during the advisory.

### **6.2 General Drinking Water Quality Advisory**

There were no General Drinking Water Advisories issued in 2022.

## **7.0 OPERATOR QUALIFICATIONS AND TRAINING**

Further to the *Drinking Water Protection Act*, the Drinking Water Protection Regulation (DWPR) came into effect May 16, 2003. The regulation includes the classification of distribution and treatment systems and the qualification standards for persons operating these systems through the Environmental Operators Certification Program (EOCP).

The District's water distribution system is classified Level 4. The District is in compliance with EOCP's requirement to have at least one operator certified to the level of the facility. Nevertheless, the District continues to work towards having multiple operators certified to EOCP Level 4. The water treatment plants are assessed separately, and as noted in Sections 3.2 and 3.3.

### **7.1 Operator Qualifications**

The municipality has a distribution system staff of six operators and one supervisor and a treatment staff of two treatment operators and one supervisor.

In 2022, the District staff maintained the following certification levels:

#### **Water Distribution:**

- Level 4 – one supervisor
- Level 3 – two operators
- Level 2 – four operators
- Level 1 – none



## **Water Treatment:**

- Level 4 – one supervisor
- Level 3 – two operators
- Level 2 – 0 operators
- Level 1 – 0 operators

Staff are encouraged to take courses that will enable them to advance to higher EOCP certification levels. All operators are required to take a prescribed amount of education and training to keep their certifications in good standing.

## **8.0 EMERGENCY RESPONSE PLANS**

### **8.1 E. coli Positive Response**

If a sample analyzed by Metro Vancouver Laboratories is tested positive for E. coli, the following response plan will occur.

1. The municipality's water quality personnel and the MHO will be notified via the Metro laboratory.
2. Results of interim samples, if any, from the site will be examined. (Interim samples are any samples that may have been taken from the site in the period between when the E. coli positive sample was taken and when it was determined to be E. coli positive.)
3. Arrangements will be made for the immediate collection of a repeat sample including, where possible, samples from upstream and downstream of the E. coli positive sample location.
4. Water treatment personnel will be contacted to determine if an interruption of source water disinfection had occurred in the period before the E. coli positive sample was taken.
5. The chlorine residual for the sample noted on the sampler's Water Sample Data Sheet will be reviewed to determine if a localized loss of disinfectant residual has occurred.
6. All water utility personnel will be contacted to determine if there has been any loss of pressure or other unusual events that may have led to contaminants entering the water system.
7. The need for boil water advisory will be evaluated and if deemed necessary by the MHO, the VCHA and the municipality will carry out various means to inform the public. Metro Vancouver will be informed of this public advisory.
8. The MHO and District staff shall determine the extent of the boil water advisory.
9. Metro Labs will initiate procedures necessary for the identification of E.coli with standard biochemical tests.
10. The District will provide the MHO with repeat sample results and continue to sample until three consecutive samples show no E.coli detectable per 100mLs.

## **8.2 Chemical or Biological Contamination Response**

In the event of chemical or biological contamination, in either of the source waters (Eagle Lake, Montizambert Creek) or in the distribution system, the MHO will be immediately notified. The chemical will be identified and any public health risk factors associated with the chemical presence in the potable water will be determined. Steps will be taken to isolate the contaminated zone area and the level of contamination will be determined through water testing and sampling. Through consultation with the MHO, a public advisory will be communicated. All steps to ensure public health and safety including the banning of water usage will be undertaken if necessary.

## **8.3 Turbidity Response**

In general, turbidity has not been a persistent problem in the District's water supply (see Section 4.2.1), although on occasion, elevated levels can be experienced. Water quality has improved greatly with the introduction of the Eagle Lake and Montizambert Membrane Filtration Facilities, which produce treated water with turbidity of less than 0.1 NTU. As well, the commissioning of the Seymour-Capilano twin tunnels in 2015, which ensures all the water received from Metro Vancouver has gone through the Seymour-Capilano Filtration Plant has had a positive effect.

Since all water supply sources to the District of West Vancouver are currently filtered, an elevated turbidity event is very unlikely. Nevertheless, if an elevated turbidity event does occur, representatives from Metro Vancouver, the Health Authorities and local municipalities will review communications protocols. Meanwhile, the District continues to follow an existing turbidity response plan, which was developed in cooperation with the VCHA. The approach understands the need to increase and maintain chlorine dosage rates and residuals during periods of elevated turbidity while minimizing the levels of disinfection by-products whenever possible.

The following actions will be taken regarding turbidity in source waters.

1. The District will conduct regular sampling of Eagle Lake and Montizambert sources to monitor turbidity.
2. The District will take into consideration the effectiveness of increased chlorine dosage, the chlorine contact time, the source of turbidity, and the quality of the Metro Vancouver supply in its response to minimizing the amount of turbidity entering the water system.
3. A turbidity level of >1 NTU will be the trigger for municipal operational actions.
4. During turbidity events >1 NTU, the level of primary chlorination at Eagle Lake and Montizambert sources and at any secondary chlorination points will be increased accordingly.
5. During turbidity events of >5 NTU, a rigorous sampling program for microbiological activity throughout the distribution system will be conducted.
6. During turbidity events of >5 NTU, a public communication may be issued in consultation with the Health Authority.

7. During turbidity events >2 NTU and <3 NTU, the District will consider switching to the Metro Vancouver supply, depending on the turbidity of that supply.
8. During turbidity events >3 NTU, the District will switch to the Metro Vancouver supply, if possible, should the turbidity of that supply be <1 NTU.
9. Two consecutive days of turbidity <1 NTU shall pass before lowering chlorine dosage to pre-event levels.
10. During turbidity events of >5 NTU and while the Eagle Lake treatment plant is in bypass mode, the District may issue a boil water advisory in conjunction with the MHO to residents receiving such water.
11. After a turbidity event of >5 NTU, two consecutive days of turbidity <1 NTU shall pass before rescinding the water quality advisory.

#### **8.4 Response to Interruption of Secondary Disinfection**

The District's SCADA system constantly monitors the secondary chlorination stations. This system automatically alerts utility personnel of any disinfection failures, all of which are reported to VCH. Utility personnel carry out immediate repairs to equipment and if necessary, manual disinfection is established. Chlorine residual samples are taken at various points in the distribution system to ensure adequate free chlorine residual is present. In cases where chlorine residual is less than 0.2 mg/L, municipal crews will flush the affected area until the desired level is achieved.

Upon notification by Metro Vancouver Operations that an interruption in disinfection has occurred at Metro facilities, the municipality will immediately commence monitoring of chlorine residuals at strategic locations in the Metro Vancouver supply area. The monitoring will continue until disinfection is resumed and desired levels have been reached within the distribution system.

No manual disinfection protocol was implemented in 2022.

## **9.0 CONCLUSIONS**

Overall, the residents of West Vancouver enjoy a very high quality of drinking water. The protected nature of the Eagle Lake and Montizambert Creek watersheds and the very low levels of E. coli, giardia, and cryptosporidium in the raw source waters are key factors.

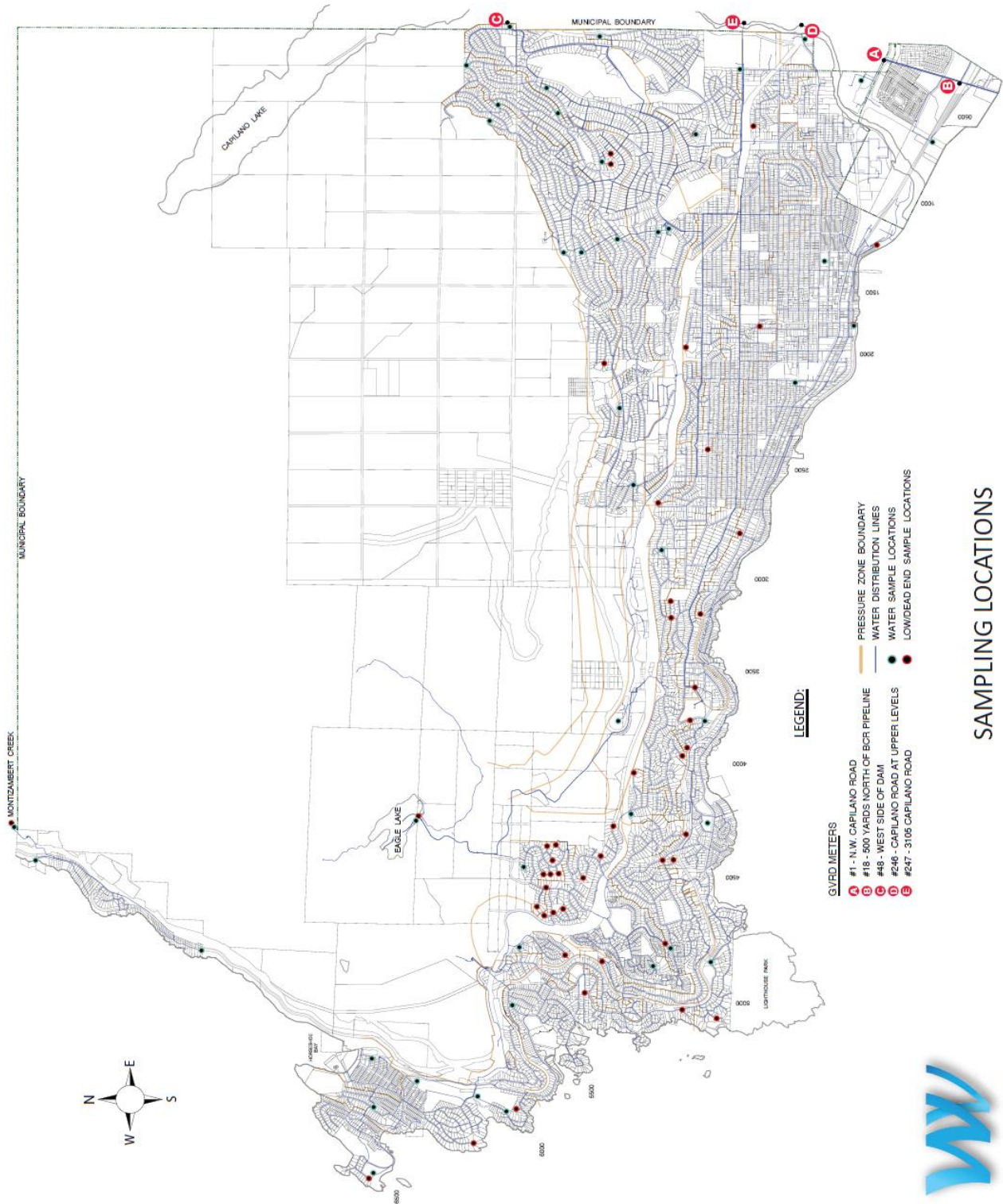
In 2022, the District's distribution water supply met all the requirements as outlined in the Guidelines for Canadian Drinking Water Quality.

District staff continues to take a balanced approach and employ best management practices in the operation and maintenance of the water system to maintain high water quality.

In closing, the District appreciates the good working relationship with public health staff and acknowledges the Health Authority as a partner in maintaining high quality drinking water in the municipality.

# APPENDIX A

## 1. Map of Water System Sampling Locations



## 2. Water Sampling Locations by Address

DISTRICT OF WEST VANCOUVER					
WATER SAMPLE LOCATIONS					
Supply Source	Address	Description	Flow Type	Sample #	Bottle #
<b>METRO VANCOUVER</b>	1020 Groveland Road	Sample Kiosk	High	DmWWR-711	G711
Require 12 samples	510 Ballantree Road	Sample Kiosk	Medium	DmWWR-712	G712
Bi-weekly	670 Holmbury Place (DBP Sample Only)	House	Low/Dead End	DmWWR-713	G713
	The Dale & Marine	Sample Kiosk	High	DmWWR-716	G716
	111 - 18th Street (DBP Sample Only)	Hydrant	Low/Dead End	DmWWR-717	G717
	885 - 22nd Street	Church	High	DmWWR-718	G718
	2600 Chelsea Court	Pump House	Medium	DmWWR-719	G719
	243 Rabbit Lane	Sample Kiosk	Low/Dead End	DmWWR-761	G761
	111 Bridge Road	Sample Kiosk	Medium	DmWWR-764	G764
	5459 West Vista Court	House	Low/Dead End	DmWWR-765	G765
	2185 Gisby Street	Sample Kiosk	Medium	DmWWR-768	G768
	1210 Chartwell Drive	Sample Kiosk	High	DmWWR-769	G769
	3828 Bayridge Avenue	Sample Kiosk	High	DmWWR-770	G770
	6406 Bruce St.	House	Medium	DmWWR-771	G771
	6470 Madrona Crescent	Reservoir	Medium	DmWWR-772	G772
	Whycliffe Park	Sample Kiosk	Low/Dead End	DmWWR-773	G773
	6117 Glen Eagles Drive	Sample Kiosk	High	DmWWR-774	G774
	3755 Cypress Bowl Road	Sample Kiosk	Medium	DmWWR-776	G776
	6190 Marine Drive	Sample Kiosk	Medium	DmWWR-778	G778
	1370 Burnside Road	Pump House	High	DmWWR-779	G779
	5634 Westhaven Road	Sample Kiosk	Medium	DmWWR-780	G780
	4520 Almondel Place	PRV Station	Medium	DmWWR-783	G783
	5759 Primrose Place	Sample Kiosk	Medium	DmWWR-784	G784
	4820 Headland Drive	Hydrant	High	DmWWR-785	G785
	1158 Millstream Road	Sample Kiosk	High	DmWWR-786	G786
	2711 Willoughby Road	Sample Kiosk	High	DmWWR-787	G787
	1551 Vinson Creek Road	Pump House	High	DmWWR-788	G788
	19 Glenmore Drive	Pump House	High	DmWWR-790	G790
	200 Keith Road	Klee Wyck Nursery	High	DmWWR-791	G791
	76 Bonnymuir Drive	Pump House	Medium	DmWWR-792	G792
	559 Kildonan Road	Sample Kiosk	Low/Dead End	DmWWR-793	G793
	702 Barnham Road	Sample Kiosk	Medium	DmWWR-794	G794
	620 Kenwood Road	Sample Kiosk	Medium	DmWWR-795	G795
	315 Mathers Avenue	House	High	DmWWR-796	G796
	395 Klahanie Court	Sample Kiosk	Medium	DmWWR-797	G797
	965 Cross Creek Road	Pump House	High	DmWWR-880	G880
	4778 Woodgreen Dr.	Sample Kiosk	High	DmWWR-710	G710
Sample locations may deviate slightly if sampling point is not accessible.					
Sampling Stations by Flow:	10% - Source	10% - Low Flow/Dead End	40% - Medium Flow	40% - High Flow	

DISTRICT OF WEST VANCOUVER					
WATER SAMPLE LOCATIONS					
Supply Source	Address	Description	Flow Type	Sample #	Bottle #
<b>Eagle Lake</b>	1020 Groveland Road	Sample Kiosk	High	DmWEAG-711	E711
Require 12/13 samples	510 Ballantree Road	Sample Kiosk	Medium	DmWEAG-712	E712
Bi - Weekly	670 Holmbury Place (DBP Sample Only)	House	Low/Dead End	DmWEAG-713	E713
	The Dale & Marine	Sample Kiosk	High	DmWEAG-716	E716
	2600 Chelsea Court	Pump House	Medium	DmWEAG-719	E719
	243 Rabbit Lane	Sample Kiosk	Low/Dead End	DmWEAG-761	E761
	5459 West Vista Court	House	Low	DmWEAG-765	E765
	2185 Gisby Street	Sample Kiosk	Medium	DmWEAG-768	E768
	4778 Woodgreen Drive	Sample Kiosk	High	DmWEAG-710	E710
	1210 Chartwell Drive	Sample Kiosk	High	DmWEAG-769	E769
	3828 Bayridge Avenue	Sample Kiosk	High	DmWEAG-770	E770
	6406 Bruce Street	House	Medium	DmWEAG-771	E771
	6470 Madrona Crescent	Reservoir	Medium	DmWEAG-772	E772
	Whycliffe Park	Sample Kiosk	Low/Dead End	DmWEAG-773	E773
	6117 Gleneagles Drive	Sample Kiosk	High	DmWEAG-774	E774
	3755 Cypress Bowl Road	Sample Kiosk	Medium	DmWEAG-776	E776
	6190 Marine Drive	Sample Kiosk	Medium	DmWEAG-778	E778
	1370 Burnside Road	Pump House	High	DmWEAG-779	E779
	5634 Westhaven Road	Sample Kiosk	Medium	DmWEAG-780	E780
	4520 Almond Place	PRV Station	Medium	DmWEAG-783	E783
	5759 Primrose Place	Sample Kiosk	Medium	DmWEAG-784	E784
	4820 Headland Drive	Hydrant	High	DmWEAG-785	E785
	1158 Millstream Road	Sample Kiosk	High	DmWEAG-786	E786
	2711 Willoughby Road	Sample Kiosk	High	DmWEAG-787	E787
	1551 Vinson Creek Road	Pump House	High	DmWEAG-788	E788
	19 Glenmore Drive	Pump House	High	DmWEAG-790	E790
	76 Bonnymuir Drive	Pump House	Medium	DmWEAG-792	E792
	559 Kildonan Road	Sample Kiosk	Low/Dead End	DmWEAG-793	E793
	702 Barnham Road	Sample Kiosk	Medium	DmWEAG-794	E794
	620 Kenwood Road	Sample Kiosk	Medium	DmWEAG-795	E795
	315 Mathers Avenue	House	High	DmWEAG-796	E796
	965 Cross Creek Road	Pump House	High	DmWEAG-880	E880
	Eagle Lake ***	Source	Source	DmWEAG-LK1	E-LK1
<b>Montizambert Creek</b>					
	8005 Pasco Road	Sample Kiosk	Dead End	DmWMTZ-781	MZ-781
	8995 Lawrence Way	Sample Kiosk	Dead End	DmWMTZ-782	MZ-782
	Montizambert Creek ***	Source	Source	DmWMZ-CK1	MZ-CK1
<b>Metals Analysis</b>					
Semi - annual	8995 Lawrence Way	Marina - Hose Bib		DmWMZ-782	MZ-782
	Gleneagles Elementary School	Internal Faucet		DmWEAG/MVR-789	E/G-789
	Cypress Park Elementary School	Internal Faucet		DmWEAG/MVR-798	E/G-798
	Hollyburn Elementary School	Internal Faucet		DmWVR-799	G-799
Sample locations may deviate slightly if sampling point is not accessible.					
*** Denotes source sites are sampled semi-annually for detailed analysis.					
Sampling Stations by Flow: 10% - Source    10% - Low Flow/Dead End    40% - Medium Flow    40% - High Flow					

## APPENDIX B

### 1. Source Water Quality – Eagle Lake

Sample Name	Sample Type	Sample Description	Sampled Date	Ecoli (MPN/100mLs)	HPC (CFU/mL)	Temperature (°C)	Total Coliform (MPN/100mLs)	Turbidity (NTU)
WEAG-LK1	Grab	Eagle Lake Source	17-Jan-22	<1	380	4	28	1.10
WEAG-LK1	Grab	Eagle Lake Source	31-Jan-22	<1	240	4	17	0.24
WEAG-LK1	Grab	Eagle Lake Source	14-Feb-22	<1	200	5	10	0.28
WEAG-LK1	Grab	Eagle Lake Source	23-Feb-22	<1	130	5	13	0.27
WEAG-LK1	Grab	Eagle Lake Source	28-Feb-22	<1	110	8	11	0.28
WEAG-LK1	Grab	Eagle Lake Source	14-Mar-22	<1	64	7	4	0.21
WEAG-LK1	Grab	Eagle Lake Source	28-Mar-22	<1	100	8	7	0.23
WEAG-LK1	Grab	Eagle Lake Source	11-Apr-22	<1	100	7	13	0.21
WEAG-LK1	Grab	Eagle Lake Source	25-Apr-22	<1	120	7	16	0.31
WEAG-LK1	Grab	Eagle Lake Source	9-May-22	<1	150	8	31	0.19
WEAG-LK1	Grab	Eagle Lake Source	25-May-22	<1	770	9	50	0.26
WEAG-LK1	Grab	Eagle Lake Source	6-Jun-22	1	390	10	47	0.30
WEAG-LK1	Grab	Eagle Lake Source	20-Jun-22	<1	200	10	34	0.32
WEAG-LK1	Grab	Eagle Lake Source	4-Jul-22	<1	330	11	58	0.29
WEAG-LK1	Grab	Eagle Lake Source	18-Jul-22	<1	280	14	179	0.36
WEAG-LK1	Grab	Eagle Lake Source	3-Aug-22	<1	340	22	50	0.23
WEAG-LK1	Grab	Eagle Lake Source	15-Aug-22	<1	420	21	17	0.25
WEAG-LK1	Grab	Eagle Lake Source	29-Aug-22	<1	230	21	23	0.27
WEAG-LK1	Grab	Eagle Lake Source	12-Sep-22	<1	140	18	19	0.35
WEAG-LK1	Grab	Eagle Lake Source	26-Sep-22	<1	88	14	10	0.42
WEAG-LK1	Grab	Eagle Lake Source	12-Oct-22	<1	110	14	28	0.55
WEAG-LK1	Grab	Eagle Lake Source	24-Oct-22	<1	94	10	32	0.82
WEAG-LK1	Grab	Eagle Lake Source	7-Nov-22	10	570	6	326	0.59
WEAG-LK1	Grab	Eagle Lake Source	21-Nov-22	<1	320	6	25	0.53
WEAG-LK1	Grab	Eagle Lake Source	8-Dec-22	<1	220	5	18	0.46



## 2. Source Water Quality – Montizambert Creek

Sample Name	Sample Type	Sample Description	Sampled date	Ecoli (MPN/100mLs)	HPC (CFU/mL)	Temperature (°C)	Total Coliform (MPN/100mLs)	Turbidity (NTU)
WMZ-CK1	Grab	Montizambert Creek Source Water	10-Jan-22	<1	250	4	17	0.66
WMZ-CK1	Grab	Montizambert Creek Source Water	24-Jan-22	<1	80	7	5	1.20
WMZ-CK1	Grab	Montizambert Creek Source Water	7-Feb-22	<1	98	7	2	1.20
WMZ-CK1	Grab	Montizambert Creek Source Water	7-Mar-22	<1	110	6	8	1.00
WMZ-CK1	Grab	Montizambert Creek Source Water	21-Mar-22	<1	86	6	8	1.70
WMZ-CK1	Grab	Montizambert Creek Source Water	4-Apr-22	1	280	9	26	3.30
WMZ-CK1	Grab	Montizambert Creek Source Water	20-Apr-22	<1	130	8	20	1.40
WMZ-CK1	Grab	Montizambert Creek Source Water	2-May-22	<1	340	7	22	1.40
WMZ-CK1	Grab	Montizambert Creek Source Water	16-May-22	1	400	10	29	1.70
WMZ-CK1	Grab	Montizambert Creek Source Water	30-May-22	22	480	9	88	1.80
WMZ-CK1	Grab	Montizambert Creek Source Water	13-Jun-22	<1	310	8	41	1.40
WMZ-CK1	Grab	Montizambert Creek Source Water	27-Jun-22	<1	370	11	69	0.85
WMZ-CK1	Grab	Montizambert Creek Source Water	11-Jul-22	<1	210	12	107	0.78
WMZ-CK1	Grab	Montizambert Creek Source Water	25-Jul-22	<1	230	15	194	0.63
WMZ-CK1	Grab	Montizambert Creek Source Water	8-Aug-22	<1	420	15	387	0.42
WMZ-CK1	Grab	Montizambert Creek Source Water	22-Aug-22	<1	300	15	345	0.41
WMZ-CK1	Grab	Montizambert Creek Source Water	7-Sep-22	<1	270	14	461	0.42
WMZ-CK1	Grab	Montizambert Creek Source Water	21-Sep-22	<1	200	12	179	0.47
WMZ-CK1	Grab	Montizambert Creek Source Water	3-Oct-22	<1	380	13	248	0.47
WMZ-CK1	Grab	Montizambert Creek Source Water	17-Oct-22	<1	240	12	260	0.36
WMZ-CK1	Grab	Montizambert Creek Source Water	31-Oct-22	5	1400	11	365	4.60
WMZ-CK1	Grab	Montizambert Creek Source Water	14-Nov-22	<1	200	6	43	0.46
WMZ-CK1	Grab	Montizambert Creek Source Water	29-Nov-22	<1	220	5	43	0.43
WMZ-CK1	Grab	Montizambert Creek Source Water	12-Dec-22	<1	240	6	17	0.31

### 3. Source Water Chemistry

Sample Name		1st Half	2nd Half	1st Half	2nd Half
Sample Description		WVR-EAGLE_LAKE	WVR-EAGLE_LAKE	WVR-MONT_CREEK	WVR-MONT_CREEK
Sampled date		Eagle Lake Source	Eagle Lake Source	Montizambert Creek Source Water	Montizambert Creek Source Water
Sampled date		2022-05-09 08:17	2022-11-07 09:03	2022-05-09 08:56	2022-11-07 08:24
Sample Type	Unit	GRAB	GRAB	GRAB	GRAB
Alkalinity as CaCO3	mg/L	2.4	2.5	2.6	1.6
Aluminum Dissolved	µg/L	99	77	39	10000
Aluminum Total	µg/L	105	35	2890	10500
Antimony Total	µg/L	<0.5	<0.5	<0.5	<0.5
Arsenic Total	µg/L	<0.5	<0.5	<0.5	<0.5
Barium Total	µg/L	2.6	3.6	1.4	1.8
Boron Total	µg/L	<10	<10	<10	<10
Cadmium Total	µg/L	<0.2	<0.2	<0.2	<0.2
Calcium Total	µg/L	857	8360	1430	1820
Carbon Organic - Dissolved	mg/L	N/A	2.2	N/A	1.8
Carbon Organic - Total	mg/L	2.3	2.6	2.3	2
Chloride	mg/L	0.6	1	2.4	7.8
Chromium Total	µg/L	<0.05	<0.05	0.14	0.1
Color - Apparent	ACU	15	20	22	19
Color - True	TCU	12	15	<1	10
Conductivity	µmhos/cm	10	13	15	27
Copper Total	µg/L	2.1	<0.5	17.5	25.4
Cyanide Total	mg/L	<0.02	<0.02	<0.02	<0.02
Fluoride	mg/L	<0.05	<0.05	<0.05	<0.05
Hardness as CaCO3	mg/L	2.8	21.8	4.3	5.6
Iron Dissolved	µg/L	22	91	<5	17
Iron Total	µg/L	29	8	25	21
Lead Total	µg/L	<0.5	<0.5	1.2	1.4
Magnesium Total	µg/L	157	222	186	245
Manganese Dissolved	µg/L	4	15.3	<0.5	0.8
Manganese Total	µg/L	4	10.6	0.6	0.9
Mercury Total	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel Total	µg/L	<0.5	<0.5	0.6	<0.5
Nitrogen - Ammonia as N	mg/L	<0.02	0.02	<0.02	<0.02
Nitrogen - Nitrate as N	mg/L	<0.01	0.09	0.01	0.04
Nitrogen - Nitrite as N	mg/L	<0.01	<0.01	<0.01	<0.01
pH	pH units	6.3	6.4	6.5	5.7
Phenol	mg/L	<0.005	<0.005	<0.005	<0.005
Phosphorus Dissolved	µg/L	<10	<10	<10	<10
Phosphorus Total	µg/L	<10	<10	<10	<10
Potassium Total	µg/L	78	235	92	153
Residue Total	mg/L	13	20	25	53
Residue Total Dissolved	mg/L	12	17	14	48
Residue Total Fixed	mg/L	7	11	14	33
Residue Total Volatile	mg/L	6	10	11	20
Selenium Total	µg/L	<0.5	<0.5	<0.5	<0.5
Silica as SiO2	mg/L	3.4	3.7	4.9	5.5
Silver Total	µg/L	<0.5	<0.5	<0.5	<0.5
Sodium Total	µg/L	773	1860	833	1110
Sulphate	mg/L	0.9	1.1	1.1	1.8
UV Absorbance 254 nm	Abs/cm	0.091	0.103	0.011	0.077
Zinc Total	µg/L	3.4	3.6	67.6	46.4

## APPENDIX C

### 1. Semi Annual Metals Monitoring Results – Water Distribution

			1st Half	2nd Half	1st Half	2nd Half
Sample Name			WEAG-789	WEAG-789	WMZ-782	WMZ-782
Sample Location			Gleneagles Elementary - 6350 Marine Drive	Gleneagles Elementary - 6350 Marine Drive	8995 Lawrence Way, Mtz Creek	8995 Lawrence Way, Mtz Creek
Sample Date			2022/05/03 8:25	2022/11/08 9:40	2022/05/03 8:05	2022/11/08 9:15
Canadian Guideline			Grab Sample	Grab Sample	Grab Sample	Grab Sample
Parameter	Limit	Reason				
Aluminium Total (µg/L)	100	Aesthetic	38	35	13	17
Antimony Total (µg/L)	6	Health	<0.5	<0.5	<0.5	<0.5
Arsenic Total (µg/L)	10 (ALARA)	Health	<0.5	<0.5	<0.5	<0.5
Barium Total (µg/L)	2000	Health	2.4	2.6	3.5	3.7
Boron Total (µg/L)	5000	Health	<10	<10	<10	<10
Cadmium Total (µg/L)	7	Health	<0.2	<0.2	<0.2	<0.2
Calcium Total (µg/L)	none		924	1560	1610	1930
Chromium Total (µg/L)	50	Health	<0.05	0.07	<0.05	0.09
Cobalt Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Copper Total (µg/L)	≤2000	Health	28.9	7.1	4.1	3.2
Iron Total (µg/L)	≤ 300	Aesthetic	12	7	193	178
Lead Total (µg/L)	5 (ALARA)	Health	<0.5	<0.5	<0.5	<0.5
Magnesium Total (µg/L)	none		143	193	192	230
Manganese Total (µg/L)	120	Health	1.2	7.2	1.4	1.7
Mercury Total (µg/L)	1.0	Health	<0.05	<0.05	<0.05	<0.05
Molybdenum Total (µg/L)	none		<0.5	0.7	<0.5	<0.5
Nickel Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Potassium Total (µg/L)	none		74	143	100	166
Selenium Total (µg/L)	50	Health	<0.5	<0.5	<0.5	<0.5
Silver Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Sodium Total (µg/L)	≤ 200,000	Aesthetic	3720	4750	4110	4380
Zinc Total (µg/L)	≤ 5000	Aesthetic	<3.0	<3.0	48.7	49.7

			1st Half	2nd Half	1st Half	2nd Half
Sample Name			WVR-798	WVR-798	WVR-799	WVR-799
Sample Location			Cypress Park Elementary	Cypress Park Elementary	Hollyburn Elementary	Hollyburn Elementary
Sample Date			2022/05/03 8:50	2022/11/08 9:21	2022/05/03 9:25	2022/11/08 9:50
Canadian Guideline			Grab Sample	Grab Sample	Grab Sample	Grab Sample
Parameter	Limit	Reason				
Aluminium Total (µg/L)	100	Aesthetic	36	38	27	30
Antimony Total (µg/L)	6	Health	<0.5	<0.5	<0.5	<0.5
Arsenic Total (µg/L)	10 (ALARA)	Health	<0.5	<0.5	<0.5	<0.5
Barium Total (µg/L)	2000	Health	2.2	2.8	2.1	2.6
Boron Total (µg/L)	5000	Health	<10	<10	<10	<10
Cadmium Total (µg/L)	7	Health	<0.2	<0.2	<0.2	<0.2
Calcium Total (µg/L)	none		8090	8060	7800	8160
Chromium Total (µg/L)	50	Health	<0.05	<0.05	<0.05	0.06
Cobalt Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Copper Total (µg/L)	≤2000	Health	18.6	20.0	15.8	14.9
Iron Total (µg/L)	≤ 300	Aesthetic	12	30	18	15
Lead Total (µg/L)	5 (ALARA)	Health	<0.5	<0.5	<0.5	<0.5
Magnesium Total (µg/L)	none		196	224	182	231
Manganese Total (µg/L)	120	Health	4.8	10.4	4.2	9.2
Mercury Total (µg/L)	1.0	Health	<0.05	<0.05	<0.05	<0.05
Molybdenum Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Nickel Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Potassium Total (µg/L)	none		150	235	142	227
Selenium Total (µg/L)	50	Health	<0.5	<0.5	<0.5	<0.5
Silver Total (µg/L)	none		<0.5	<0.5	<0.5	<0.5
Sodium Total (µg/L)	≤ 200,000	Aesthetic	1510	1800	1400	1800
Zinc Total (µg/L)	≤ 5000	Aesthetic	<3.0	3.2	<3.0	<3.0

2. 2022 Disinfection By-Products Quarterly Averages

Sample	Date Sampled	Total THM Quarterly Average (Guideline Limit 100 ppb)	Total HAA Quarterly Average (Guideline Limit 80 ppb)
WEAG-772	15-Feb-22	67	46
WEAG-772	11-May-22	61	39
WEAG-772	23-Aug-22	63	43
WEAG-772	16-Nov-22	60	36
WEAG-773	15-Feb-22	86	43
WEAG-773	11-May-22	83	40
WEAG-773	23-Aug-22	84	44
WEAG-773	16-Nov-22	81	43
WEAG-776	15-Feb-22	47	40
WEAG-776	11-May-22	41	35
WEAG-776	23-Aug-22	46	39
WEAG-776	16-Nov-22	43	27
WEAG-778	15-Feb-22	61	33
WEAG-778	11-May-22	56	29
WEAG-778	23-Aug-22	54	32
WEAG-778	16-Nov-22	49	34
WMZ-781	15-Feb-22	20	22
WMZ-781	11-May-22	14	15
WMZ-781	23-Aug-22	14	15
WMZ-781	16-Nov-22	14	14
WMZ-782	15-Feb-22	12	20
WMZ-782	11-May-22	8	10
WMZ-782	23-Aug-22	8	10
WMZ-782	16-Nov-22	8	10
WVR-713	15-Feb-22	26	19
WVR-713	11-May-22	36	28
WVR-713	23-Aug-22	35	28
WVR-713	16-Nov-22	35	27
WVR-716	15-Feb-22	64	46
WVR-716	11-May-22	60	43
WVR-716	23-Aug-22	59	49
WVR-716	16-Nov-22	56	42
WVR-717	15-Feb-22	25	15
WVR-717	11-May-22	25	13
WVR-717	23-Aug-22	24	15
WVR-717	16-Nov-22	23	14
WVR-764	15-Feb-22	21	15
WVR-764	11-May-22	21	14
WVR-764	23-Aug-22	20	14
WVR-764	16-Nov-22	20	12

### 3. Water Sampling Results

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WVR-711	1020 Groveland Road	5-Jan-22	GRAB	0.79	4	<2	<1	<1	0.1
WVR-711	1020 Groveland Road	31-Jan-22	GRAB	0.61	4	2	<1	<1	0.12
WVR-711	1020 Groveland Road	23-Feb-22	GRAB	0.83	6	<2	<1	<1	0.09
WVR-711	1020 Groveland Road	28-Feb-22	GRAB	0.96	8	4	<1	<1	0.14
WVR-711	1020 Groveland Road	28-Mar-22	GRAB	0.79	8	14	<1	<1	0.11
WVR-711	1020 Groveland Road	25-Apr-22	GRAB	0.65	9	2	<1	<1	0.08
WVR-711	1020 Groveland Road	25-May-22	GRAB	0.63	12	<2	<1	<1	0.11
WVR-711	1020 Groveland Road	20-Jun-22	GRAB	0.75	13	<2	<1	<1	0.1
WVR-711	1020 Groveland Road	18-Jul-22	GRAB	0.49	15	<2	<1	<1	0.12
WVR-711	1020 Groveland Road	12-Sep-22	GRAB	0.68	18	2	<1	<1	0.15
WVR-711	1020 Groveland Road	12-Oct-22	GRAB	0.63	16	18	<1	<1	0.2
WVR-711	1020 Groveland Road	7-Nov-22	GRAB	0.62	10	12	<1	<1	0.13
WVR-711	1020 Groveland Road	8-Dec-22	GRAB	0.76	5	<2	<1	<1	0.24
WVR-712	510 Ballantree Road	5-Jan-22	GRAB	0.73	4	<2	<1	<1	0.25
WVR-712	510 Ballantree Road	31-Jan-22	GRAB	0.36	4	<2	<1	<1	0.19
WVR-712	510 Ballantree Road	23-Feb-22	GRAB	0.61	6	<2	<1	<1	0.12
WVR-712	510 Ballantree Road	28-Feb-22	GRAB	0.46	8	<2	<1	<1	0.12
WVR-712	510 Ballantree Road	28-Mar-22	GRAB	0.46	8	<2	<1	<1	0.12
WVR-712	510 Ballantree Road	25-Apr-22	GRAB	0.52	8	4	<1	<1	0.15
WVR-712	510 Ballantree Road	25-May-22	GRAB	0.41	9	<2	<1	<1	0.12
WVR-712	510 Ballantree Road	20-Jun-22	GRAB	0.37	14	<2	<1	<1	0.1
WVR-712	510 Ballantree Road	18-Jul-22	GRAB	0.39	16	2	<1	<1	0.14
WVR-712	510 Ballantree Road	12-Sep-22	GRAB	0.4	16	2	<1	<1	0.17
WVR-712	510 Ballantree Road	12-Oct-22	GRAB	0.33	16	2	<1	<1	0.13
WVR-712	510 Ballantree Road	7-Nov-22	GRAB	0.25	10	<2	<1	<1	0.13
WVR-712	510 Ballantree Road	8-Dec-22	GRAB	0.65	6	<2	<1	<1	0.2
WVR-718	885 - 22nd Street	24-Jan-22	GRAB	0.5	7	<2	<1	<1	0.12
WVR-718	885 - 22nd Street	21-Mar-22	GRAB	0.53	6	<2	<1	<1	0.11
WVR-718	885 - 22nd Street	20-Apr-22	GRAB	0.64	9	<2	<1	<1	0.14
WVR-718	885 - 22nd Street	16-May-22	GRAB	0.62	11	2	<1	<1	0.23
WVR-718	885 - 22nd Street	13-Jun-22	GRAB	0.52	14	<2	<1	<1	0.11
WVR-718	885 - 22nd Street	11-Jul-22	GRAB	0.54	15	2	<1	<1	0.11
WVR-718	885 - 22nd Street	8-Aug-22	GRAB	0.76	18	<2	<1	<1	0.11
WVR-718	885 - 22nd Street	7-Sep-22	GRAB	0.43	20	<2	<1	<1	0.11
WVR-718	885 - 22nd Street	3-Oct-22	GRAB	0.54	18	6	<1	<1	0.17
WVR-718	885 - 22nd Street	31-Oct-22	GRAB	0.54	14	2	<1	<1	0.16
WVR-718	885 - 22nd Street	29-Nov-22	GRAB	0.57	7	20	<1	<1	0.15
WVR-719	2600 Chelsea Court	26-Sep-22	GRAB	0.65	17	50	<1	<1	0.26
WVR-719	2600 Chelsea Court	12-Oct-22	GRAB	0.59	17	450	<1	<1	0.72
WVR-761	243 Rabbit Lane	17-Jan-22	GRAB	0.36	5	<2	<1	<1	0.39
WVR-761	243 Rabbit Lane	14-Feb-22	GRAB	0.63	6	<2	<1	<1	0.28
WVR-761	243 Rabbit Lane	14-Mar-22	GRAB	0.27	7	4	<1	<1	0.61
WVR-761	243 Rabbit Lane	11-Apr-22	GRAB	0.53	9	16	<1	<1	0.23
WVR-761	243 Rabbit Lane	9-May-22	GRAB	0.37	10	8	<1	<1	0.3
WVR-761	243 Rabbit Lane	6-Jun-22	GRAB	0.35	14	24	<1	<1	0.15
WVR-761	243 Rabbit Lane	4-Jul-22	GRAB	0.56	16	<2	<1	<1	0.17
WVR-761	243 Rabbit Lane	3-Aug-22	GRAB	0.39	20	30	<1	<1	0.17
WVR-761	243 Rabbit Lane	29-Aug-22	GRAB	0.62	20	34	<1	<1	0.16
WVR-761	243 Rabbit Lane	26-Sep-22	GRAB	0.37	17	86	<1	<1	0.19
WVR-761	243 Rabbit Lane	24-Oct-22	GRAB	0.78	15	50	<1	<1	0.24
WVR-761	243 Rabbit Lane	21-Nov-22	GRAB	0.49	9	2	<1	<1	0.12

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WVR-764	111 Bridge Road	17-Jan-22	GRAB	0.86	5	<2	<1	<1	0.2
WVR-764	111 Bridge Road	14-Feb-22	GRAB	0.71	5	<2	<1	<1	0.17
WVR-764	111 Bridge Road	14-Mar-22	GRAB	1.1	7	<2	<1	<1	0.14
WVR-764	111 Bridge Road	11-Apr-22	GRAB	0.71	8	2	<1	<1	0.11
WVR-764	111 Bridge Road	9-May-22	GRAB	0.7	10	<2	<1	<1	0.13
WVR-764	111 Bridge Road	6-Jun-22	GRAB	0.77	12	<2	<1	<1	0.19
WVR-764	111 Bridge Road	4-Jul-22	GRAB	0.74	11	<2	<1	<1	0.13
WVR-764	111 Bridge Road	3-Aug-22	GRAB	0.81	17	<2	<1	<1	0.16
WVR-764	111 Bridge Road	29-Aug-22	GRAB	0.75	15	<2	<1	<1	0.12
WVR-764	111 Bridge Road	26-Sep-22	GRAB	1.02	17	<2	<1	<1	0.14
WVR-764	111 Bridge Road	24-Oct-22	GRAB	0.88	15	<2	<1	<1	0.11
WVR-764	111 Bridge Road	21-Nov-22	GRAB	0.66	10	<2	<1	<1	0.12
WVR-768	2185 Gisby Street	26-Sep-22	GRAB	0.74	17	14	<1	<1	0.1
WVR-779	1370 Burnside Road	15-Aug-22	GRAB	0.82	16	10	<1	<1	0.16
WVR-786	1158 Millstream Road	26-Sep-22	GRAB	0.65	16	4	<1	<1	0.11
WVR-787	2711 Willoughby Road	26-Sep-22	GRAB	0.77	17	4	<1	<1	0.12
WVR-788	1551 Vinson Creek Road	26-Sep-22	GRAB	0.55	16	<2	<1	<1	0.1
WVR-790	19 Glenmore Drive	5-Jan-22	GRAB	0.61	4	<2	<1	<1	0.14
WVR-790	19 Glenmore Drive	17-Jan-22	GRAB	0.71	5	<2	<1	<1	0.15
WVR-790	19 Glenmore Drive	31-Jan-22	GRAB	0.69	4	<2	<1	<1	0.14
WVR-790	19 Glenmore Drive	14-Feb-22	GRAB	0.71	7	2	<1	<1	0.2
WVR-790	19 Glenmore Drive	23-Feb-22	GRAB	0.77	5	<2	<1	<1	0.16
WVR-790	19 Glenmore Drive	28-Feb-22	GRAB	0.63	8	<2	<1	<1	0.13
WVR-790	19 Glenmore Drive	14-Mar-22	GRAB	0.81	7	<2	<1	<1	0.11
WVR-790	19 Glenmore Drive	28-Mar-22	GRAB	0.64	8	<2	<1	<1	0.11
WVR-790	19 Glenmore Drive	11-Apr-22	GRAB	0.58	10	<2	<1	<1	0.11
WVR-790	19 Glenmore Drive	25-Apr-22	GRAB	0.83	8	<2	<1	<1	0.11
WVR-790	19 Glenmore Drive	9-May-22	GRAB	0.58	10	<2	<1	<1	0.11
WVR-790	19 Glenmore Drive	25-May-22	GRAB	0.84	8	<2	<1	<1	0.16
WVR-790	19 Glenmore Drive	6-Jun-22	GRAB	0.56	13	<2	<1	<1	0.12
WVR-790	19 Glenmore Drive	20-Jun-22	GRAB	0.62	12	<2	<1	<1	0.16
WVR-790	19 Glenmore Drive	4-Jul-22	GRAB	0.66	12	<2	<1	<1	0.13
WVR-790	19 Glenmore Drive	18-Jul-22	GRAB	0.58	12	<2	<1	<1	0.16
WVR-790	19 Glenmore Drive	3-Aug-22	GRAB	0.65	17	6	<1	<1	0.11
WVR-790	19 Glenmore Drive	15-Aug-22	GRAB	0.8	14	<2	<1	<1	0.21
WVR-790	19 Glenmore Drive	29-Aug-22	GRAB	0.75	15	<2	<1	<1	0.13
WVR-790	19 Glenmore Drive	12-Sep-22	GRAB	0.69	16	<2	<1	<1	0.13
WVR-790	19 Glenmore Drive	26-Sep-22	GRAB	0.84	15	<2	<1	<1	0.13
WVR-790	19 Glenmore Drive	12-Oct-22	GRAB	0.65	16	4	<1	<1	0.17
WVR-790	19 Glenmore Drive	24-Oct-22	GRAB	0.91	14	10	<1	<1	0.13
WVR-790	19 Glenmore Drive	7-Nov-22	GRAB	0.69	10	<2	<1	<1	0.17
WVR-790	19 Glenmore Drive	21-Nov-22	GRAB	0.64	9	<2	<1	<1	0.12
WVR-790	19 Glenmore Drive	8-Dec-22	GRAB	0.92	6	<2	<1	<1	0.18
WVR-791	200 Keith Road	5-Jan-22	GRAB	0.61	4	<2	<1	<1	0.15
WVR-791	200 Keith Road	31-Jan-22	GRAB	0.76	4	<2	<1	<1	0.12
WVR-791	200 Keith Road	23-Feb-22	GRAB	0.77	5	2	<1	<1	0.1
WVR-791	200 Keith Road	28-Feb-22	GRAB	0.83	8	<2	<1	<1	0.15
WVR-791	200 Keith Road	28-Mar-22	GRAB	0.76	8	<2	<1	<1	0.18
WVR-791	200 Keith Road	25-Apr-22	GRAB	0.77	8	4	<1	<1	0.11
WVR-791	200 Keith Road	25-May-22	GRAB	0.72	9	<2	<1	<1	0.25
WVR-791	200 Keith Road	20-Jun-22	GRAB	0.78	10	2	<1	<1	0.29
WVR-791	200 Keith Road	18-Jul-22	GRAB	0.6	13	4	<1	<1	0.15
WVR-791	200 Keith Road	15-Aug-22	GRAB	0.93	15	<2	<1	<1	0.37
WVR-791	200 Keith Road	12-Sep-22	GRAB	0.8	16	<2	<1	<1	0.54

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WVR-791	200 Keith Road	12-Oct-22	GRAB	0.5	14	2	<1	<1	0.29
WVR-791	200 Keith Road	7-Nov-22	GRAB	0.89	9	<2	<1	<1	0.15
WVR-791	200 Keith Road	8-Dec-22	GRAB	0.9	6	<2	<1	<1	0.16
WVR-792	76 Bonnymuir Drive	5-Jan-22	GRAB	0.68	4	<2	<1	<1	0.17
WVR-792	76 Bonnymuir Drive	17-Jan-22	GRAB	0.72	5	<2	<1	<1	0.26
WVR-792	76 Bonnymuir Drive	31-Jan-22	GRAB	0.64	4	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	14-Feb-22	GRAB	0.66	7	<2	<1	<1	0.15
WVR-792	76 Bonnymuir Drive	23-Feb-22	GRAB	0.62	6	<2	<1	<1	0.16
WVR-792	76 Bonnymuir Drive	28-Feb-22	GRAB	0.81	8	<2	<1	<1	0.13
WVR-792	76 Bonnymuir Drive	14-Mar-22	GRAB	0.84	7	<2	<1	<1	0.15
WVR-792	76 Bonnymuir Drive	28-Mar-22	GRAB	0.59	8	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	11-Apr-22	GRAB	0.68	7	2	<1	<1	0.13
WVR-792	76 Bonnymuir Drive	25-Apr-22	GRAB	0.82	9	2	<1	<1	0.12
WVR-792	76 Bonnymuir Drive	9-May-22	GRAB	0.56	10	4	<1	<1	0.12
WVR-792	76 Bonnymuir Drive	25-May-22	GRAB	0.58	9	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	6-Jun-22	GRAB	0.59	11	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	20-Jun-22	GRAB	0.56	11	2	<1	<1	0.17
WVR-792	76 Bonnymuir Drive	4-Jul-22	GRAB	0.58	11	2	<1	<1	0.22
WVR-792	76 Bonnymuir Drive	18-Jul-22	GRAB	0.52	14	<2	<1	<1	0.13
WVR-792	76 Bonnymuir Drive	3-Aug-22	GRAB	0.67	16	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	15-Aug-22	GRAB	0.62	15	<2	<1	<1	0.29
WVR-792	76 Bonnymuir Drive	29-Aug-22	GRAB	0.62	15	<2	<1	<1	0.17
WVR-792	76 Bonnymuir Drive	12-Sep-22	GRAB	0.61	16	<2	<1	<1	0.14
WVR-792	76 Bonnymuir Drive	26-Sep-22	GRAB	0.69	15	<2	<1	<1	0.15
WVR-792	76 Bonnymuir Drive	12-Oct-22	GRAB	0.61	16	<2	<1	<1	0.15
WVR-792	76 Bonnymuir Drive	24-Oct-22	GRAB	0.9	14	<2	<1	<1	0.27
WVR-792	76 Bonnymuir Drive	7-Nov-22	GRAB	0.46	10	<2	<1	<1	0.13
WVR-792	76 Bonnymuir Drive	21-Nov-22	GRAB	0.5	9	8	<1	<1	0.31
WVR-792	76 Bonnymuir Drive	8-Dec-22	GRAB	0.8	6	<2	<1	<1	0.24
WVR-793	559 Kildonan Road	5-Jan-22	GRAB	0.73	4	<2	<1	<1	0.2
WVR-793	559 Kildonan Road	31-Jan-22	GRAB	0.46	4	<2	<1	<1	0.14
WVR-793	559 Kildonan Road	23-Feb-22	GRAB	0.6	6	2	<1	<1	0.15
WVR-793	559 Kildonan Road	28-Feb-22	GRAB	0.66	8	<2	<1	<1	0.15
WVR-793	559 Kildonan Road	28-Mar-22	GRAB	0.54	8	<2	<1	<1	0.11
WVR-793	559 Kildonan Road	25-Apr-22	GRAB	0.68	8	<2	<1	<1	0.1
WVR-793	559 Kildonan Road	25-May-22	GRAB	0.47	9	<2	<1	<1	0.13
WVR-793	559 Kildonan Road	20-Jun-22	GRAB	0.38	14	6	<1	<1	0.1
WVR-793	559 Kildonan Road	18-Jul-22	GRAB	0.28	15	12	<1	<1	0.12
WVR-793	559 Kildonan Road	15-Aug-22	GRAB	0.35	15	130	<1	<1	0.2
WVR-793	559 Kildonan Road	12-Sep-22	GRAB	0.33	16	140	<1	<1	0.16
WVR-793	559 Kildonan Road	12-Oct-22	GRAB	0.36	15	96	<1	<1	0.14
WVR-793	559 Kildonan Road	7-Nov-22	GRAB	0.33	8	<2	<1	<1	0.11
WVR-793	559 Kildonan Road	8-Dec-22	GRAB	0.71	6	<2	<1	<1	0.2
WVR-794	702 Barnham Road	5-Jan-22	GRAB	0.91	4	<2	<1	<1	0.1
WVR-794	702 Barnham Road	31-Jan-22	GRAB	0.61	4	2	<1	<1	0.14
WVR-794	702 Barnham Road	23-Feb-22	GRAB	0.93	6	<2	<1	<1	0.13
WVR-794	702 Barnham Road	28-Feb-22	GRAB	0.84	8	4	<1	<1	0.18
WVR-794	702 Barnham Road	28-Mar-22	GRAB	0.71	8	<2	<1	<1	0.13
WVR-794	702 Barnham Road	25-Apr-22	GRAB	0.81	9	<2	<1	<1	0.12
WVR-794	702 Barnham Road	25-May-22	GRAB	0.32	10	<2	<1	<1	0.2
WVR-794	702 Barnham Road	20-Jun-22	GRAB	0.57	13	<2	<1	<1	0.12
WVR-794	702 Barnham Road	18-Jul-22	GRAB	0.48	15	<2	<1	<1	0.2
WVR-794	702 Barnham Road	15-Aug-22	GRAB	0.64	17	<2	<1	<1	0.26
WVR-794	702 Barnham Road	12-Sep-22	GRAB	0.65	17	<2	<1	<1	0.27

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WVR-794	702 Barnham Road	12-Oct-22	GRAB	0.57	17	16	<1	<1	0.15
WVR-794	702 Barnham Road	7-Nov-22	GRAB	0.46	9	<2	<1	<1	0.14
WVR-794	702 Barnham Road	8-Dec-22	GRAB	0.64	5	<2	<1	<1	0.19
WVR-795	620 Kenwood Road	5-Jan-22	GRAB	0.91	4	<2	<1	<1	0.1
WVR-795	620 Kenwood Road	31-Jan-22	GRAB	0.51	4	<2	<1	<1	0.2
WVR-795	620 Kenwood Road	23-Feb-22	GRAB	0.95	6	2	<1	<1	0.13
WVR-795	620 Kenwood Road	28-Feb-22	GRAB	0.7	8	6	<1	<1	0.19
WVR-795	620 Kenwood Road	28-Mar-22	GRAB	0.63	8	<2	<1	<1	0.21
WVR-795	620 Kenwood Road	25-Apr-22	GRAB	0.55	9	2	<1	<1	0.13
WVR-795	620 Kenwood Road	25-May-22	GRAB	0.69	11	<2	<1	<1	0.21
WVR-795	620 Kenwood Road	20-Jun-22	GRAB	0.61	13	4	<1	<1	0.44
WVR-795	620 Kenwood Road	18-Jul-22	GRAB	0.59	15	2	<1	<1	0.18
WVR-795	620 Kenwood Road	15-Aug-22	GRAB	0.72	16	<2	<1	<1	0.23
WVR-795	620 Kenwood Road	12-Sep-22	GRAB	0.66	17	16	<1	<1	0.18
WVR-795	620 Kenwood Road	12-Oct-22	GRAB	0.61	17	8	<1	<1	0.22
WVR-795	620 Kenwood Road	7-Nov-22	GRAB	0.33	10	42	<1	<1	0.26
WVR-795	620 Kenwood Road	8-Dec-22	GRAB	0.52	5	78	<1	<1	0.76
WVR-796	315 Mathers Avenue	5-Jan-22	GRAB	0.61	4	<2	<1	<1	0.14
WVR-796	315 Mathers Avenue	17-Jan-22	GRAB	0.48	5	<2	<1	<1	0.18
WVR-796	315 Mathers Avenue	31-Jan-22	GRAB	0.73	4	18	<1	<1	0.14
WVR-796	315 Mathers Avenue	14-Feb-22	GRAB	0.65	6	<2	<1	<1	0.14
WVR-796	315 Mathers Avenue	23-Feb-22	GRAB	0.77	5	<2	<1	<1	0.21
WVR-796	315 Mathers Avenue	28-Feb-22	GRAB	0.92	8	<2	<1	<1	0.13
WVR-796	315 Mathers Avenue	14-Mar-22	GRAB	0.75	7	<2	<1	<1	0.12
WVR-796	315 Mathers Avenue	28-Mar-22	GRAB	0.76	8	<2	<1	<1	0.11
WVR-796	315 Mathers Avenue	11-Apr-22	GRAB	0.72	8	2	<1	<1	0.1
WVR-796	315 Mathers Avenue	25-Apr-22	GRAB	0.96	9	4	<1	<1	0.1
WVR-796	315 Mathers Avenue	9-May-22	GRAB	0.72	11	<2	<1	<1	0.11
WVR-796	315 Mathers Avenue	25-May-22	GRAB	0.74	10	<2	<1	<1	0.14
WVR-796	315 Mathers Avenue	6-Jun-22	GRAB	0.7	10	<2	<1	<1	0.14
WVR-796	315 Mathers Avenue	20-Jun-22	GRAB	0.65	10	<2	<1	<1	0.13
WVR-796	315 Mathers Avenue	4-Jul-22	GRAB	0.69	11	<2	<1	<1	0.24
WVR-796	315 Mathers Avenue	18-Jul-22	GRAB	0.49	15	2	<1	<1	0.21
WVR-796	315 Mathers Avenue	3-Aug-22	GRAB	0.72	17	<2	<1	<1	0.12
WVR-796	315 Mathers Avenue	15-Aug-22	GRAB	0.72	17	<2	<1	<1	0.14
WVR-796	315 Mathers Avenue	29-Aug-22	GRAB	0.53	18	24	<1	<1	0.22
WVR-796	315 Mathers Avenue	12-Sep-22	GRAB	0.7	17	<2	<1	<1	0.13
WVR-796	315 Mathers Avenue	26-Sep-22	GRAB	0.79	16	<2	<1	<1	0.15
WVR-796	315 Mathers Avenue	12-Oct-22	GRAB	0.72	16	<2	<1	<1	0.17
WVR-796	315 Mathers Avenue	24-Oct-22	GRAB	0.9	16	<2	<1	<1	0.15
WVR-796	315 Mathers Avenue	7-Nov-22	GRAB	0.79	10	2	<1	<1	0.14
WVR-796	315 Mathers Avenue	21-Nov-22	GRAB	0.7	11	<2	<1	<1	0.13
WVR-796	315 Mathers Avenue	8-Dec-22	GRAB	0.94	6	<2	<1	<1	0.28
WVR-797	395 Klahanie Court	17-Jan-22	GRAB	0.32	5	<2	<1	<1	0.21
WVR-797	395 Klahanie Court	14-Feb-22	GRAB	0.74	6	<2	<1	<1	0.15
WVR-797	395 Klahanie Court	14-Mar-22	GRAB	0.71	7	2	<1	<1	0.16
WVR-797	395 Klahanie Court	11-Apr-22	GRAB	0.65	8	2	<1	<1	0.11
WVR-797	395 Klahanie Court	9-May-22	GRAB	0.47	10	2	<1	<1	0.14
WVR-797	395 Klahanie Court	6-Jun-22	GRAB	0.33	12	2000	<1	<1	0.4
WVR-797	395 Klahanie Court	4-Jul-22	GRAB	0.63	12	240	<1	<1	0.17
WVR-797	395 Klahanie Court	3-Aug-22	GRAB	0.68	17	96	<1	<1	0.18
WVR-797	395 Klahanie Court	29-Aug-22	GRAB	0.77	18	66	<1	<1	0.18



Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WVR-797	395 Klahanie Court	26-Sep-22	GRAB	0.71	17	98	<1	<1	0.22
WVR-797	395 Klahanie Court	24-Oct-22	GRAB	0.56	15	2000	<1	<1	0.45
WVR-797	395 Klahanie Court	21-Nov-22	GRAB	0.67	10	6	<1	<1	0.22
WEAG-710	4782 Woodgreen Drive	24-Jan-22	GRAB	1.14	4	<2	<1	<1	0.09
WEAG-710	4782 Woodgreen Drive	21-Mar-22	GRAB	0.87	6	<2	<1	<1	0.12
WEAG-710	4782 Woodgreen Drive	20-Apr-22	GRAB	0.86	7	<2	<1	<1	0.06
WEAG-710	4782 Woodgreen Drive	16-May-22	GRAB	1.15	10	2	<1	<1	0.08
WEAG-710	4782 Woodgreen Drive	13-Jun-22	GRAB	1.24	12	2	<1	<1	0.08
WEAG-710	4782 Woodgreen Drive	11-Jul-22	GRAB	1.24	15	<2	<1	<1	0.09
WEAG-710	4782 Woodgreen Drive	8-Aug-22	GRAB	1.41	21	<2	<1	<1	0.07
WEAG-710	4782 Woodgreen Drive	7-Sep-22	GRAB	1.53	19	<2	<1	<1	0.09
WEAG-710	4782 Woodgreen Drive	3-Oct-22	GRAB	1.28	14	<2	<1	<1	0.16
WEAG-710	4782 Woodgreen Drive	31-Oct-22	GRAB	1.45	13	14	<1	<1	0.13
WEAG-710	4782 Woodgreen Drive	29-Nov-22	GRAB	1.2	6	10	<1	<1	0.09
WEAG-711	1020 Groveland Rd.	15-Aug-22	GRAB	0.72	17	6	<1	<1	0.18
WEAG-712	510 Ballantree Road	15-Aug-22	GRAB	0.5	15	<2	<1	<1	0.2
WEAG-716	The Dale & Marine	10-Jan-22	GRAB	0.81	4	2	<1	<1	0.15
WEAG-716	The Dale & Marine	24-Jan-22	GRAB	0.59	8	<2	<1	<1	0.13
WEAG-716	The Dale & Marine	7-Feb-22	GRAB	0.69	7	<2	<1	<1	0.23
WEAG-716	The Dale & Marine	7-Mar-22	GRAB	0.72	6	<2	<1	<1	0.12
WEAG-716	The Dale & Marine	21-Mar-22	GRAB	0.48	6	<2	<1	<1	0.12
WEAG-716	The Dale & Marine	4-Apr-22	GRAB	0.67	9	<2	<1	<1	0.12
WEAG-716	The Dale & Marine	20-Apr-22	GRAB	0.61	10	<2	<1	<1	0.14
WEAG-716	The Dale & Marine	2-May-22	GRAB	0.8	11	2	<1	<1	0.12
WEAG-716	The Dale & Marine	16-May-22	GRAB	0.66	11	<2	<1	<1	0.09
WEAG-716	The Dale & Marine	30-May-22	GRAB	0.56	13	<2	<1	<1	0.1
WEAG-716	The Dale & Marine	13-Jun-22	GRAB	0.64	13	2	<1	<1	0.09
WEAG-716	The Dale & Marine	27-Jun-22	GRAB	0.83	14	<2	<1	<1	0.13
WEAG-716	The Dale & Marine	11-Jul-22	GRAB	0.64	16	2	<1	<1	0.11
WEAG-716	The Dale & Marine	25-Jul-22	GRAB	0.87	19	20	<1	<1	0.1
WEAG-716	The Dale & Marine	8-Aug-22	GRAB	1.06	20	8	<1	<1	0.15
WEAG-716	The Dale & Marine	22-Aug-22	GRAB	0.75	22	6	<1	<1	0.21
WEAG-716	The Dale & Marine	7-Sep-22	GRAB	1.07	21	10	<1	<1	0.27
WEAG-716	The Dale & Marine	21-Sep-22	GRAB	1.02	16	14	<1	<1	0.23
WEAG-716	The Dale & Marine	3-Oct-22	GRAB	0.87	16	<2	<1	<1	0.12
WEAG-716	The Dale & Marine	17-Oct-22	GRAB	0.92	16	32	<1	<1	0.14
WEAG-716	The Dale & Marine	31-Oct-22	GRAB	1.01	14	8	<1	<1	0.12
WEAG-716	The Dale & Marine	14-Nov-22	GRAB	0.7	10	6	<1	<1	0.16
WEAG-716	The Dale & Marine	29-Nov-22	GRAB	0.71	7	<2	<1	<1	0.18
WEAG-716	The Dale & Marine	12-Dec-22	GRAB	0.86	8	4	<1	<1	0.23
WEAG-719	2600 Chelsea Court	5-Jan-22	GRAB	0.51	4	2	<1	<1	0.24
WEAG-719	2600 Chelsea Court	17-Jan-22	GRAB	0.37	5	<2	<1	<1	0.34
WEAG-719	2600 Chelsea Court	31-Jan-22	GRAB	0.51	4	8	<1	<1	0.58
WEAG-719	2600 Chelsea Court	14-Feb-22	GRAB	0.36	8	2	<1	<1	0.23
WEAG-719	2600 Chelsea Court	23-Feb-22	GRAB	0.64	6	2	<1	<1	0.88
WEAG-719	2600 Chelsea Court	28-Feb-22	GRAB	0.73	8	<2	<1	<1	0.24
WEAG-719	2600 Chelsea Court	14-Mar-22	GRAB	0.65	7	16	<1	<1	0.19
WEAG-719	2600 Chelsea Court	28-Mar-22	GRAB	0.85	8	6	<1	<1	0.16
WEAG-719	2600 Chelsea Court	11-Apr-22	GRAB	0.65	9	38	<1	<1	0.27
WEAG-719	2600 Chelsea Court	25-Apr-22	GRAB	0.62	9	280	<1	<1	0.55
WEAG-719	2600 Chelsea Court	9-May-22	GRAB	0.62	10	230	<1	<1	0.72
WEAG-719	2600 Chelsea Court	25-May-22	GRAB	0.5	13	8	1	<1	0.21
WEAG-719	2600 Chelsea Court	6-Jun-22	GRAB	1.09	12	<2	<1	<1	0.28

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-719	2600 Chelsea Court	20-Jun-22	GRAB	1.06	13	<2	<1	<1	0.18
WEAG-719	2600 Chelsea Court	4-Jul-22	GRAB	0.99	12	<2	<1	<1	<0.06
WEAG-719	2600 Chelsea Court	18-Jul-22	GRAB	0.9	15	2	<1	<1	0.16
WEAG-719	2600 Chelsea Court	3-Aug-22	GRAB	1.16	22	<2	<1	<1	0.11
WEAG-719	2600 Chelsea Court	15-Aug-22	GRAB	1.24	21	2	<1	<1	0.35
WEAG-719	2600 Chelsea Court	29-Aug-22	GRAB	0.7	20	<2	<1	<1	0.14
WEAG-719	2600 Chelsea Court	12-Sep-22	GRAB	0.98	20	<2	<1	<1	0.13
WEAG-719	2600 Chelsea Court	24-Oct-22	GRAB	0.79	15	2	<1	<1	0.14
WEAG-719	2600 Chelsea Court	7-Nov-22	GRAB	1.14	8	<2	<1	<1	0.1
WEAG-719	2600 Chelsea Court	21-Nov-22	GRAB	1.26	10	<2	<1	<1	0.48
WEAG-719	2600 Chelsea Court	8-Dec-22	GRAB	0.73	5	<2	<1	<1	0.11
WEAG-765	5459 West Vista Court	10-Jan-22	GRAB	0.97	4	4	<1	<1	0.26
WEAG-765	5459 West Vista Court	7-Feb-22	GRAB	0.86	7	<2	<1	<1	0.13
WEAG-765	5459 West Vista Court	7-Mar-22	GRAB	0.99	6	<2	<1	<1	0.11
WEAG-765	5459 West Vista Court	4-Apr-22	GRAB	0.99	9	4	<1	<1	0.09
WEAG-765	5459 West Vista Court	2-May-22	GRAB	1.01	10	6	<1	<1	0.13
WEAG-765	5459 West Vista Court	30-May-22	GRAB	0.7	12	2	<1	<1	0.12
WEAG-765	5459 West Vista Court	27-Jun-22	GRAB	1.01	15	16	<1	<1	0.15
WEAG-765	5459 West Vista Court	25-Jul-22	GRAB	1.07	19	4	<1	<1	0.17
WEAG-765	5459 West Vista Court	22-Aug-22	GRAB	0.98	23	40	<1	<1	0.24
WEAG-765	5459 West Vista Court	21-Sep-22	GRAB	1.13	16	<2	<1	<1	0.27
WEAG-765	5459 West Vista Court	17-Oct-22	GRAB	1.11	16	130	<1	<1	0.26
WEAG-765	5459 West Vista Court	14-Nov-22	GRAB	0.9	10	2	<1	<1	0.15
WEAG-765	5459 West Vista Court	12-Dec-22	GRAB	1.04	7	<2	<1	<1	0.29
WEAG-768	2185 Gisby Street	17-Jan-22	GRAB	1.14	5	2	<1	<1	0.13
WEAG-768	2185 Gisby Street	14-Feb-22	GRAB	1.06	6	<2	<1	<1	0.09
WEAG-768	2185 Gisby Street	14-Mar-22	GRAB	1.16	7	<2	<1	<1	0.12
WEAG-768	2185 Gisby Street	11-Apr-22	GRAB	0.82	9	<2	<1	<1	0.07
WEAG-768	2185 Gisby Street	9-May-22	GRAB	0.92	10	<2	<1	<1	0.1
WEAG-768	2185 Gisby Street	6-Jun-22	GRAB	0.92	13	<2	<1	<1	0.07
WEAG-768	2185 Gisby Street	4-Jul-22	GRAB	0.92	13	2	<1	<1	0.07
WEAG-768	2185 Gisby Street	3-Aug-22	GRAB	0.64	17	70	<1	<1	0.16
WEAG-768	2185 Gisby Street	29-Aug-22	GRAB	0.71	16	2	<1	<1	0.1
WEAG-768	2185 Gisby Street	24-Oct-22	GRAB	0.74	15	2	<1	<1	0.1
WEAG-768	2185 Gisby Street	21-Nov-22	GRAB	1.22	10	<2	<1	<1	0.13
WEAG-769	1210 Chartwell Drive	24-Jan-22	GRAB	0.92	7	<2	<1	<1	0.1
WEAG-769	1210 Chartwell Drive	21-Mar-22	GRAB	0.56	6	<2	<1	<1	0.26
WEAG-769	1210 Chartwell Drive	20-Apr-22	GRAB	0.54	8	<2	<1	<1	0.15
WEAG-769	1210 Chartwell Drive	16-May-22	GRAB	0.54	11	30	<1	<1	0.18
WEAG-769	1210 Chartwell Drive	13-Jun-22	GRAB	0.47	13	38	<1	<1	0.13
WEAG-769	1210 Chartwell Drive	11-Jul-22	GRAB	0.78	13	<2	<1	<1	0.14
WEAG-769	1210 Chartwell Drive	8-Aug-22	GRAB	0.98	20	120	<1	<1	0.57
WEAG-769	1210 Chartwell Drive	7-Sep-22	GRAB	0.71	17	<2	<1	<1	0.15
WEAG-769	1210 Chartwell Drive	3-Oct-22	GRAB	0.76	16	20	<1	<1	0.22
WEAG-769	1210 Chartwell Drive	31-Oct-22	GRAB	0.61	13	18	<1	<1	0.17
WEAG-769	1210 Chartwell Drive	29-Nov-22	GRAB	0.58	7	<2	<1	<1	0.14
WEAG-770	3828 Bayridge Avenue	10-Jan-22	GRAB	1.06	4	<2	<1	<1	0.24
WEAG-770	3828 Bayridge Avenue	24-Jan-22	GRAB	0.51	5	<2	<1	<1	0.14
WEAG-770	3828 Bayridge Avenue	7-Feb-22	GRAB	0.77	7	4	<1	<1	0.12
WEAG-770	3828 Bayridge Avenue	7-Mar-22	GRAB	0.75	6	<2	<1	<1	0.14
WEAG-770	3828 Bayridge Avenue	21-Mar-22	GRAB	0.56	6	<2	<1	<1	0.18
WEAG-770	3828 Bayridge Avenue	4-Apr-22	GRAB	0.66	9	<2	<1	<1	0.13
WEAG-770	3828 Bayridge Avenue	20-Apr-22	GRAB	0.59	9	2	<1	<1	0.13

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-770	3828 Bayridge Avenue	2-May-22	GRAB	0.63	10	2	<1	<1	0.12
WEAG-770	3828 Bayridge Avenue	16-May-22	GRAB	0.56	11	4	<1	<1	0.14
WEAG-770	3828 Bayridge Avenue	30-May-22	GRAB	0.6	10	4	<1	<1	0.13
WEAG-770	3828 Bayridge Avenue	13-Jun-22	GRAB	0.52	13	<2	<1	<1	0.11
WEAG-770	3828 Bayridge Avenue	27-Jun-22	GRAB	0.73	14	<2	<1	<1	0.25
WEAG-770	3828 Bayridge Avenue	11-Jul-22	GRAB	0.57	13	<2	<1	<1	0.16
WEAG-770	3828 Bayridge Avenue	25-Jul-22	GRAB	0.57	18	2	<1	<1	0.19
WEAG-770	3828 Bayridge Avenue	8-Aug-22	GRAB	0.72	18	<2	<1	<1	0.15
WEAG-770	3828 Bayridge Avenue	22-Aug-22	GRAB	0.66	19	2	<1	<1	0.12
WEAG-770	3828 Bayridge Avenue	7-Sep-22	GRAB	0.62	19	<2	<1	<1	0.17
WEAG-770	3828 Bayridge Avenue	21-Sep-22	GRAB	0.75	17	NA	<1	<1	0.16
WEAG-770	3828 Bayridge Avenue	3-Oct-22	GRAB	0.75	15	2	<1	<1	0.16
WEAG-770	3828 Bayridge Avenue	17-Oct-22	GRAB	0.52	16	6	<1	<1	0.12
WEAG-770	3828 Bayridge Avenue	31-Oct-22	GRAB	0.54	13	12	<1	<1	0.14
WEAG-770	3828 Bayridge Avenue	14-Nov-22	GRAB	0.4	9	4	<1	<1	0.18
WEAG-770	3828 Bayridge Avenue	29-Nov-22	GRAB	0.55	7	18	<1	<1	0.12
WEAG-770	3828 Bayridge Avenue	12-Dec-22	GRAB	0.63	8	<2	<1	<1	0.18
WEAG-771	6588 Royal Ave.	10-Jan-22	GRAB	0.51	4	8	<1	<1	0.18
WEAG-771	6588 Royal Ave.	24-Jan-22	GRAB	0.71	7	2	<1	<1	0.19
WEAG-771	6588 Royal Ave.	7-Feb-22	GRAB	0.76	7	2	<1	<1	0.16
WEAG-771	6588 Royal Ave.	7-Mar-22	GRAB	0.81	6	<2	<1	<1	0.15
WEAG-771	6588 Royal Ave.	21-Mar-22	GRAB	0.56	6	2	<1	<1	0.16
WEAG-771	6588 Royal Ave.	4-Apr-22	GRAB	0.84	9	6	<1	<1	0.42
WEAG-771	6588 Royal Ave.	20-Apr-22	GRAB	0.71	8	<2	<1	<1	0.13
WEAG-771	6588 Royal Ave.	2-May-22	GRAB	0.96	10	<2	<1	<1	0.12
WEAG-771	6588 Royal Ave.	16-May-22	GRAB	0.65	12	<2	<1	<1	0.1
WEAG-771	6588 Royal Ave.	30-May-22	GRAB	0.51	14	<2	<1	<1	0.11
WEAG-771	6588 Royal Ave.	13-Jun-22	GRAB	0.74	14	6	<1	<1	0.19
WEAG-771	6588 Royal Ave.	27-Jun-22	GRAB	0.97	14	2	<1	<1	0.11
WEAG-771	6588 Royal Ave.	11-Jul-22	GRAB	0.71	17	2	<1	<1	0.08
WEAG-771	6588 Royal Ave.	25-Jul-22	GRAB	0.96	18	<2	<1	<1	0.09
WEAG-771	6588 Royal Ave.	8-Aug-22	GRAB	0.74	22	<2	<1	<1	0.18
WEAG-771	6588 Royal Ave.	22-Aug-22	GRAB	0.65	23	8	<1	<1	0.13
WEAG-771	6588 Royal Ave.	7-Sep-22	GRAB	0.76	22	12	<1	<1	0.16
WEAG-771	6588 Royal Ave.	21-Sep-22	GRAB	1.12	16	2	<1	<1	0.33
WEAG-771	6588 Royal Ave.	3-Oct-22	GRAB	0.94	16	<2	<1	<1	0.25
WEAG-771	6588 Royal Ave.	17-Oct-22	GRAB	1.05	17	18	<1	<1	0.18
WEAG-771	6588 Royal Ave.	31-Oct-22	GRAB	1.02	13	14	<1	<1	0.36
WEAG-771	6588 Royal Ave.	14-Nov-22	GRAB	1.02	9	<2	<1	<1	0.23
WEAG-771	6588 Royal Ave.	29-Nov-22	GRAB	1	7	<2	<1	<1	0.18
WEAG-771	6588 Royal Ave.	12-Dec-22	GRAB	0.84	7	2	<1	<1	0.24
WEAG-772	6470 Madrona Crescent	10-Jan-22	GRAB	0.51	4	<2	<1	<1	0.23
WEAG-772	6470 Madrona Crescent	24-Jan-22	GRAB	0.78	7	<2	<1	<1	0.13
WEAG-772	6470 Madrona Crescent	7-Feb-22	GRAB	0.71	7	4	<1	<1	0.15
WEAG-772	6470 Madrona Crescent	7-Mar-22	GRAB	0.9	6	<2	<1	<1	0.14
WEAG-772	6470 Madrona Crescent	21-Mar-22	GRAB	0.58	6	<2	<1	<1	0.13
WEAG-772	6470 Madrona Crescent	4-Apr-22	GRAB	0.85	9	2	<1	<1	0.12
WEAG-772	6470 Madrona Crescent	20-Apr-22	GRAB	0.71	8	<2	<1	<1	0.15
WEAG-772	6470 Madrona Crescent	2-May-22	GRAB	0.98	10	2	<1	<1	0.14
WEAG-772	6470 Madrona Crescent	16-May-22	GRAB	0.69	12	2	<1	<1	0.13
WEAG-772	6470 Madrona Crescent	30-May-22	GRAB	0.52	14	12	<1	<1	0.13
WEAG-772	6470 Madrona Crescent	13-Jun-22	GRAB	0.75	14	<2	<1	<1	0.1
WEAG-772	6470 Madrona Crescent	27-Jun-22	GRAB	0.98	14	<2	<1	<1	0.13

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-772	6470 Madrona Crescent	11-Jul-22	GRAB	0.86	15	2	<1	<1	0.07
WEAG-772	6470 Madrona Crescent	25-Jul-22	GRAB	0.97	18	<2	<1	<1	0.1
WEAG-772	6470 Madrona Crescent	8-Aug-22	GRAB	1	22	<2	<1	<1	0.15
WEAG-772	6470 Madrona Crescent	22-Aug-22	GRAB	0.97	22	<2	<1	<1	0.12
WEAG-772	6470 Madrona Crescent	7-Sep-22	GRAB	1.17	20	<2	<1	<1	0.18
WEAG-772	6470 Madrona Crescent	21-Sep-22	GRAB	1.1	16	<2	<1	<1	0.34
WEAG-772	6470 Madrona Crescent	3-Oct-22	GRAB	0.95	15	<2	<1	<1	0.2
WEAG-772	6470 Madrona Crescent	17-Oct-22	GRAB	1.07	16	74	<1	<1	0.17
WEAG-772	6470 Madrona Crescent	31-Oct-22	GRAB	1.03	13	14	<1	<1	0.17
WEAG-772	6470 Madrona Crescent	14-Nov-22	GRAB	1.04	9	<2	<1	<1	0.23
WEAG-772	6470 Madrona Crescent	29-Nov-22	GRAB	1.02	6	<2	<1	<1	0.15
WEAG-772	6470 Madrona Crescent	12-Dec-22	GRAB	0.88	6	<2	<1	<1	0.23
WEAG-773	Whytcliffe Park	10-Jan-22	GRAB	0.48	4	2	<1	<1	0.14
WEAG-773	Whytcliffe Park	7-Feb-22	GRAB	0.4	7	2	<1	<1	0.11
WEAG-773	Whytcliffe Park	7-Mar-22	GRAB	0.4	6	<2	<1	<1	0.11
WEAG-773	Whytcliffe Park	4-Apr-22	GRAB	0.43	9	2	<1	<1	0.1
WEAG-773	Whytcliffe Park	2-May-22	GRAB	0.29	10	6	<1	<1	0.15
WEAG-773	Whytcliffe Park	30-May-22	GRAB	0.2	14	8	<1	<1	0.11
WEAG-773	Whytcliffe Park	27-Jun-22	GRAB	0.55	15	<2	<1	<1	0.11
WEAG-773	Whytcliffe Park	25-Jul-22	GRAB	0.51	19	<2	<1	<1	0.1
WEAG-773	Whytcliffe Park	22-Aug-22	GRAB	0.56	21	28	<1	<1	0.13
WEAG-773	Whytcliffe Park	21-Sep-22	GRAB	0.56	19	72	<1	<1	0.17
WEAG-773	Whytcliffe Park	17-Oct-22	GRAB	0.5	16	66	<1	<1	0.18
WEAG-773	Whytcliffe Park	14-Nov-22	GRAB	0.43	10	10	<1	<1	0.17
WEAG-773	Whytcliffe Park	12-Dec-22	GRAB	0.35	8	4	<1	<1	0.26
WEAG-774	6117 Gleneagles Drive	24-Jan-22	GRAB	0.82	6	<2	<1	<1	0.08
WEAG-774	6117 Gleneagles Drive	21-Mar-22	GRAB	0.79	6	92	<1	<1	0.11
WEAG-774	6117 Gleneagles Drive	20-Apr-22	GRAB	0.88	9	<2	<1	<1	0.07
WEAG-774	6117 Gleneagles Drive	16-May-22	GRAB	0.94	10	2	<1	<1	0.08
WEAG-774	6117 Gleneagles Drive	13-Jun-22	GRAB	0.81	13	2	<1	<1	0.1
WEAG-774	6117 Gleneagles Drive	11-Jul-22	GRAB	0.94	15	4	<1	<1	0.14
WEAG-774	6117 Gleneagles Drive	8-Aug-22	GRAB	1.05	22	6	<1	<1	0.14
WEAG-774	6117 Gleneagles Drive	7-Sep-22	GRAB	1.11	20	<2	<1	<1	0.15
WEAG-774	6117 Gleneagles Drive	3-Oct-22	GRAB	1.02	16	<2	<1	<1	0.14
WEAG-774	6117 Gleneagles Drive	31-Oct-22	GRAB	1.28	13	4	<1	<1	0.17
WEAG-774	6117 Gleneagles Drive	29-Nov-22	GRAB	1.02	7	<2	<1	<1	0.15
WEAG-776	3755 Cypress Bowl Road	24-Jan-22	GRAB	1.08	5	<2	<1	<1	0.11
WEAG-776	3755 Cypress Bowl Road	21-Mar-22	GRAB	1.06	6	<2	<1	<1	0.07
WEAG-776	3755 Cypress Bowl Road	20-Apr-22	GRAB	1.01	8	<2	<1	<1	0.08
WEAG-776	3755 Cypress Bowl Road	16-May-22	GRAB	1.07	10	<2	<1	<1	0.09
WEAG-776	3755 Cypress Bowl Road	13-Jun-22	GRAB	1.21	12	<2	<1	<1	0.06
WEAG-776	3755 Cypress Bowl Road	11-Jul-22	GRAB	1.02	15	<2	<1	<1	0.06
WEAG-776	3755 Cypress Bowl Road	8-Aug-22	GRAB	0.97	20	<2	<1	<1	0.09
WEAG-776	3755 Cypress Bowl Road	7-Sep-22	GRAB	1.18	20	<2	<1	<1	0.06
WEAG-776	3755 Cypress Bowl Road	3-Oct-22	GRAB	0.97	16	<2	<1	<1	0.11
WEAG-776	3755 Cypress Bowl Road	31-Oct-22	GRAB	1.37	13	<2	<1	<1	0.12
WEAG-776	3755 Cypress Bowl Road	29-Nov-22	GRAB	1.08	6	4	<1	<1	0.07
WEAG-778	6190 Marine Drive	10-Jan-22	GRAB	0.5	4	<2	<1	<1	0.22
WEAG-778	6190 Marine Drive	24-Jan-22	GRAB	0.92	6	<2	<1	<1	0.15
WEAG-778	6190 Marine Drive	7-Feb-22	GRAB	0.58	7	<2	<1	<1	0.27
WEAG-778	6190 Marine Drive	7-Mar-22	GRAB	1.03	6	<2	<1	<1	0.11
WEAG-778	6190 Marine Drive	21-Mar-22	GRAB	0.86	6	2	<1	<1	0.13
WEAG-778	6190 Marine Drive	4-Apr-22	GRAB	0.98	9	2	<1	<1	0.22

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-778	6190 Marine Drive	20-Apr-22	GRAB	0.84	9	2	<1	<1	0.14
WEAG-778	6190 Marine Drive	2-May-22	GRAB	1.13	9	<2	<1	<1	0.25
WEAG-778	6190 Marine Drive	16-May-22	GRAB	0.92	11	2	<1	<1	0.11
WEAG-778	6190 Marine Drive	30-May-22	GRAB	0.73	14	2	<1	<1	0.11
WEAG-778	6190 Marine Drive	13-Jun-22	GRAB	0.83	12	2	<1	<1	0.13
WEAG-778	6190 Marine Drive	27-Jun-22	GRAB	1.06	14	2	<1	<1	0.09
WEAG-778	6190 Marine Drive	11-Jul-22	GRAB	0.93	15	<2	<1	<1	0.18
WEAG-778	6190 Marine Drive	25-Jul-22	GRAB	0.97	18	<2	<1	<1	0.29
WEAG-778	6190 Marine Drive	8-Aug-22	GRAB	1.05	21	2	<1	<1	0.16
WEAG-778	6190 Marine Drive	22-Aug-22	GRAB	1	22	6	<1	<1	0.25
WEAG-778	6190 Marine Drive	7-Sep-22	GRAB	1.1	20	4	<1	<1	0.12
WEAG-778	6190 Marine Drive	21-Sep-22	GRAB	1.14	16	<2	<1	<1	0.15
WEAG-778	6190 Marine Drive	3-Oct-22	GRAB	1.07	15	<2	<1	<1	0.17
WEAG-778	6190 Marine Drive	17-Oct-22	GRAB	1.1	16	<2	<1	<1	0.12
WEAG-778	6190 Marine Drive	31-Oct-22	GRAB	1.13	13	<2	<1	<1	0.16
WEAG-778	6190 Marine Drive	14-Nov-22	GRAB	0.78	10	<2	<1	<1	0.24
WEAG-778	6190 Marine Drive	29-Nov-22	GRAB	0.9	6	12	<1	<1	0.19
WEAG-778	6190 Marine Drive	12-Dec-22	GRAB	0.98	8	<2	<1	<1	0.3
WEAG-779	1370 Burnside Road	5-Jan-22	GRAB	0.79	4	<2	<1	<1	0.1
WEAG-779	1370 Burnside Road	31-Jan-22	GRAB	0.95	4	<2	<1	<1	0.1
WEAG-779	1370 Burnside Road	23-Feb-22	GRAB	0.9	6	<2	<1	<1	0.09
WEAG-779	1370 Burnside Road	28-Feb-22	GRAB	0.98	8	<2	<1	<1	0.11
WEAG-779	1370 Burnside Road	28-Mar-22	GRAB	0.81	8	<2	<1	<1	0.1
WEAG-779	1370 Burnside Road	25-Apr-22	GRAB	1.05	8	<2	<1	<1	0.06
WEAG-779	1370 Burnside Road	25-May-22	GRAB	0.79	11	<2	<1	<1	0.09
WEAG-779	1370 Burnside Road	20-Jun-22	GRAB	0.79	13	2	<1	<1	0.15
WEAG-779	1370 Burnside Road	18-Jul-22	GRAB	0.69	15	4	<1	<1	0.1
WEAG-779	1370 Burnside Road	12-Sep-22	GRAB	0.78	18	36	<1	<1	0.16
WEAG-779	1370 Burnside Road	12-Oct-22	GRAB	0.72	16	<2	<1	<1	0.13
WEAG-779	1370 Burnside Road	7-Nov-22	GRAB	0.9	9	<2	<1	<1	0.11
WEAG-779	1370 Burnside Road	8-Dec-22	GRAB	0.97	6	<2	<1	<1	0.16
WEAG-780	5634 Westhaven Road	10-Jan-22	GRAB	0.77	4	4	<1	<1	0.17
WEAG-780	5634 Westhaven Road	7-Feb-22	GRAB	0.81	7	<2	<1	<1	0.08
WEAG-780	5634 Westhaven Road	7-Mar-22	GRAB	1.3	6	<2	<1	<1	0.09
WEAG-780	5634 Westhaven Road	4-Apr-22	GRAB	1.15	9	<2	<1	<1	0.22
WEAG-780	5634 Westhaven Road	2-May-22	GRAB	1.3	10	2	<1	<1	0.17
WEAG-780	5634 Westhaven Road	30-May-22	GRAB	0.95	11	<2	<1	<1	0.14
WEAG-780	5634 Westhaven Road	27-Jun-22	GRAB	1.16	13	10	<1	<1	0.08
WEAG-780	5634 Westhaven Road	25-Jul-22	GRAB	1.21	18	<2	<1	<1	0.1
WEAG-780	5634 Westhaven Road	22-Aug-22	GRAB	1.33	22	8	<1	<1	0.11
WEAG-780	5634 Westhaven Road	21-Sep-22	GRAB	1.25	16	<2	<1	<1	0.17
WEAG-780	5634 Westhaven Road	17-Oct-22	GRAB	1.1	17	<2	<1	<1	0.18
WEAG-780	5634 Westhaven Road	14-Nov-22	GRAB	1.05	10	<2	<1	<1	0.19
WEAG-780	5634 Westhaven Road	12-Dec-22	GRAB	1.04	8	2	<1	<1	0.21
WEAG-783	4520 Almondel Place	24-Jan-22	GRAB	1	5	6	<1	<1	0.13
WEAG-783	4520 Almondel Place	21-Mar-22	GRAB	0.87	6	<2	<1	<1	0.07
WEAG-783	4520 Almondel Place	20-Apr-22	GRAB	0.88	9	<2	<1	<1	0.08
WEAG-783	4520 Almondel Place	16-May-22	GRAB	0.97	11	2	<1	<1	0.08
WEAG-783	4520 Almondel Place	13-Jun-22	GRAB	1.13	12	2	<1	<1	0.1
WEAG-783	4520 Almondel Place	11-Jul-22	GRAB	1.08	15	<2	<1	<1	0.14
WEAG-783	4520 Almondel Place	8-Aug-22	GRAB	0.89	20	<2	<1	<1	0.16
WEAG-783	4520 Almondel Place	7-Sep-22	GRAB	1.3	22	8	<1	<1	0.14
WEAG-783	4520 Almondel Place	3-Oct-22	GRAB	1.15	15	<2	<1	<1	0.14

Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-783	4520 Almondel Place	31-Oct-22	GRAB	1.2	13	6	<1	<1	0.11
WEAG-783	4520 Almondel Place	29-Nov-22	GRAB	1.07	7	60	<1	<1	0.1
WEAG-784	5759 Primrose Place	10-Jan-22	GRAB	1	4	6	<1	<1	0.22
WEAG-784	5759 Primrose Place	7-Feb-22	GRAB	0.62	7	<2	<1	<1	0.3
WEAG-784	5759 Primrose Place	7-Mar-22	GRAB	0.95	6	4	<1	<1	0.13
WEAG-784	5759 Primrose Place	4-Apr-22	GRAB	0.81	9	<2	<1	<1	0.11
WEAG-784	5759 Primrose Place	2-May-22	GRAB	1.01	10	4	<1	<1	0.15
WEAG-784	5759 Primrose Place	30-May-22	GRAB	0.63	14	4	<1	<1	0.11
WEAG-784	5759 Primrose Place	27-Jun-22	GRAB	0.85	16	8	<1	<1	0.17
WEAG-784	5759 Primrose Place	25-Jul-22	GRAB	0.86	18	8	<1	<1	0.14
WEAG-784	5759 Primrose Place	22-Aug-22	GRAB	0.81	23	24	<1	<1	0.3
WEAG-784	5759 Primrose Place	21-Sep-22	GRAB	0.99	17	10	<1	<1	0.2
WEAG-784	5759 Primrose Place	17-Oct-22	GRAB	0.98	16	28	<1	<1	0.18
WEAG-784	5759 Primrose Place	14-Nov-22	GRAB	0.78	10	<2	<1	<1	0.19
WEAG-784	5759 Primrose Place	12-Dec-22	GRAB	0.89	7	<2	<1	<1	0.38
WEAG-785	4820 Headland Drive	10-Jan-22	GRAB	1.01	4	4	<1	<1	0.28
WEAG-785	4820 Headland Drive	7-Feb-22	GRAB	0.83	7	10	<1	<1	0.09
WEAG-785	4820 Headland Drive	7-Mar-22	GRAB	1.01	6	8	<1	<1	0.09
WEAG-785	4820 Headland Drive	4-Apr-22	GRAB	1	9	2	<1	<1	0.1
WEAG-785	4820 Headland Drive	2-May-22	GRAB	1.02	10	22	<1	<1	0.11
WEAG-785	4820 Headland Drive	30-May-22	GRAB	0.71	12	2	<1	<1	0.12
WEAG-785	4820 Headland Drive	27-Jun-22	GRAB	1.03	15	18	<1	<1	0.16
WEAG-785	4820 Headland Drive	25-Jul-22	GRAB	1.08	19	2	<1	<1	0.12
WEAG-785	4820 Headland Drive	22-Aug-22	GRAB	1	23	26	<1	<1	0.52
WEAG-785	4820 Headland Drive	21-Sep-22	GRAB	1.26	17	14	<1	<1	0.27
WEAG-785	4820 Headland Drive	17-Oct-22	GRAB	1	16	38	<1	<1	0.28
WEAG-785	4820 Headland Drive	14-Nov-22	GRAB	0.92	9	2	<1	<1	0.19
WEAG-785	4820 Headland Drive	12-Dec-22	GRAB	1.01	7	<2	<1	<1	0.24
WEAG-786	1158 Millstream Road	17-Jan-22	GRAB	0.23	5	<2	<1	<1	0.13
WEAG-786	1158 Millstream Road	14-Feb-22	GRAB	0.54	5	<2	<1	<1	0.14
WEAG-786	1158 Millstream Road	14-Mar-22	GRAB	0.66	7	<2	<1	<1	0.13
WEAG-786	1158 Millstream Road	11-Apr-22	GRAB	0.46	8	4	<1	<1	0.14
WEAG-786	1158 Millstream Road	9-May-22	GRAB	0.58	9	6	<1	<1	0.1
WEAG-786	1158 Millstream Road	6-Jun-22	GRAB	0.6	12	2	<1	<1	0.09
WEAG-786	1158 Millstream Road	4-Jul-22	GRAB	0.42	12	2	<1	<1	0.11
WEAG-786	1158 Millstream Road	3-Aug-22	GRAB	0.74	17	6	<1	<1	0.15
WEAG-786	1158 Millstream Road	29-Aug-22	GRAB	0.68	17	4	<1	<1	0.15
WEAG-786	1158 Millstream Road	24-Oct-22	GRAB	0.96	15	2	<1	<1	0.16
WEAG-786	1158 Millstream Road	21-Nov-22	GRAB	1	9	<2	<1	<1	0.13
WEAG-787	2711 Willoughby Road	17-Jan-22	GRAB	0.66	5	<2	<1	<1	0.09
WEAG-787	2711 Willoughby Road	14-Feb-22	GRAB	0.69	6	6	<1	<1	0.12
WEAG-787	2711 Willoughby Road	14-Mar-22	GRAB	0.53	7	<2	<1	<1	0.12
WEAG-787	2711 Willoughby Road	11-Apr-22	GRAB	0.63	9	<2	<1	<1	0.09
WEAG-787	2711 Willoughby Road	9-May-22	GRAB	0.85	10	<2	<1	<1	0.08
WEAG-787	2711 Willoughby Road	6-Jun-22	GRAB	0.46	13	<2	<1	<1	0.12
WEAG-787	2711 Willoughby Road	4-Jul-22	GRAB	0.41	13	2	<1	<1	0.1
WEAG-787	2711 Willoughby Road	3-Aug-22	GRAB	0.75	18	<2	<1	<1	0.15
WEAG-787	2711 Willoughby Road	29-Aug-22	GRAB	0.76	17	18	<1	<1	0.19
WEAG-787	2711 Willoughby Road	24-Oct-22	GRAB	0.67	15	20	<1	<1	0.12
WEAG-787	2711 Willoughby Road	21-Nov-22	GRAB	0.97	10	<2	<1	<1	0.13
WEAG-788	1551 Vinson Creek Road	17-Jan-22	GRAB	0.76	5	<2	<1	<1	0.12
WEAG-788	1551 Vinson Creek Road	14-Feb-22	GRAB	0.73	7	<2	<1	<1	0.1
WEAG-788	1551 Vinson Creek Road	14-Mar-22	GRAB	0.8	7	<2	<1	<1	0.12



Sample Name	Sample Description	Sampled Date	Sample Type	Chlorine Free mg/L	Temperature °C	HPC CFU/mL	Total Coliform CFU/100mLs	Ecoli CFU/100mLs	Turbidity NTU
WEAG-788	1551 Vinson Creek Road	11-Apr-22	GRAB	0.74	9	2	<1	<1	0.1
WEAG-788	1551 Vinson Creek Road	9-May-22	GRAB	0.59	10	<2	<1	<1	0.08
WEAG-788	1551 Vinson Creek Road	6-Jun-22	GRAB	0.65	12	<2	<1	<1	0.24
WEAG-788	1551 Vinson Creek Road	4-Jul-22	GRAB	0.55	12	<2	<1	<1	0.11
WEAG-788	1551 Vinson Creek Road	3-Aug-22	GRAB	0.78	15	<2	<1	<1	0.12
WEAG-788	1551 Vinson Creek Road	29-Aug-22	GRAB	0.83	17	<2	<1	<1	0.12
WEAG-788	1551 Vinson Creek Road	24-Oct-22	GRAB	0.96	15	<2	<1	<1	0.1
WEAG-788	1551 Vinson Creek Road	21-Nov-22	GRAB	0.9	9	<2	<1	<1	0.07
WEAG-880	965 Cross Creek Road	10-Jan-22	GRAB	0.74	4	6	<1	<1	0.18
WEAG-880	965 Cross Creek Road	7-Feb-22	GRAB	0.97	7	2	<1	<1	0.1
WEAG-880	965 Cross Creek Road	7-Mar-22	GRAB	0.75	6	<2	<1	<1	0.16
WEAG-880	965 Cross Creek Road	4-Apr-22	GRAB	0.5	9	<2	<1	<1	0.2
WEAG-880	965 Cross Creek Road	2-May-22	GRAB	0.58	10	16	<1	<1	0.41
WEAG-880	965 Cross Creek Road	30-May-22	GRAB	0.43	11	34	<1	<1	0.14
WEAG-880	965 Cross Creek Road	27-Jun-22	GRAB	0.81	12	<2	<1	<1	0.29
WEAG-880	965 Cross Creek Road	25-Jul-22	GRAB	0.78	14	<2	<1	<1	0.13
WEAG-880	965 Cross Creek Road	22-Aug-22	GRAB	0.7	16	<2	<1	<1	0.2
WEAG-880	965 Cross Creek Road	21-Sep-22	GRAB	0.78	16	<2	<1	<1	0.16
WEAG-880	965 Cross Creek Road	17-Oct-22	GRAB	0.76	18	14	<1	<1	0.21
WEAG-880	965 Cross Creek Road	14-Nov-22	GRAB	1.1	10	2	<1	<1	0.11
WEAG-880	965 Cross Creek Road	12-Dec-22	GRAB	0.78	7	<2	<1	<1	0.24
WMZ-781	8005 Pasco Road	24-Jan-22	GRAB	1.16	6	<2	<1	<1	0.15
WMZ-781	8005 Pasco Road	21-Mar-22	GRAB	1.12	6	<2	<1	<1	0.23
WMZ-781	8005 Pasco Road	20-Apr-22	GRAB	1.33	8	<2	<1	<1	0.2
WMZ-781	8005 Pasco Road	16-May-22	GRAB	1.35	10	<2	<1	<1	0.12
WMZ-781	8005 Pasco Road	13-Jun-22	GRAB	1.15	13	<2	<1	<1	0.12
WMZ-781	8005 Pasco Road	11-Jul-22	GRAB	1.02	16	<2	<1	<1	0.08
WMZ-781	8005 Pasco Road	8-Aug-22	GRAB	1.24	19	<2	<1	<1	0.1
WMZ-781	8005 Pasco Road	7-Sep-22	GRAB	1.29	19	<2	<1	<1	0.11
WMZ-781	8005 Pasco Road	3-Oct-22	GRAB	1.31	14	<2	<1	<1	0.22
WMZ-781	8005 Pasco Road	31-Oct-22	GRAB	0.76	13	<2	<1	<1	0.19
WMZ-781	8005 Pasco Road	29-Nov-22	GRAB	1.31	7	<2	<1	<1	0.08
WMZ-782	8995 Lawrence Way	10-Jan-22	GRAB	1.46	4	<2	<1	<1	0.13
WMZ-782	8995 Lawrence Way	7-Feb-22	GRAB	1.1	7	2	<1	<1	0.27
WMZ-782	8995 Lawrence Way	7-Mar-22	GRAB	1.25	6	<2	<1	<1	0.19
WMZ-782	8995 Lawrence Way	4-Apr-22	GRAB	1.2	9	<2	<1	<1	0.28
WMZ-782	8995 Lawrence Way	2-May-22	GRAB	1.29	11	<2	<1	<1	0.18
WMZ-782	8995 Lawrence Way	30-May-22	GRAB	1.21	12	<2	<1	<1	0.36
WMZ-782	8995 Lawrence Way	27-Jun-22	GRAB	1.06	18	<2	<1	<1	0.16
WMZ-782	8995 Lawrence Way	25-Jul-22	GRAB	1.38	17	<2	<1	<1	0.11
WMZ-782	8995 Lawrence Way	22-Aug-22	GRAB	1.27	18	<2	<1	<1	0.12
WMZ-782	8995 Lawrence Way	21-Sep-22	GRAB	1.1	15	<2	<1	<1	0.2
WMZ-782	8995 Lawrence Way	17-Oct-22	GRAB	1.21	13	<2	<1	<1	0.24
WMZ-782	8995 Lawrence Way	14-Nov-22	GRAB	1.16	5	<2	<1	<1	0.36
WMZ-782	8995 Lawrence Way	12-Dec-22	GRAB	0.23	4	<2	<1	<1	0.43

#### 4. Total Organic Carbon Sample Results – mg/L

Date	Sample Type	Eagle Lake		Montizambert Creek	
		Raw	Treated	Raw	Treated
10-Jan-22	GRAB	1.7	0.5	2.7	1.4
14-Feb-22	GRAB	2.3	1.2	2.8	0.4
14-Mar-22	GRAB	2.3	1.3	3	0.4
12-Apr-22	GRAB	2.2	1.3	2	0.5
09-May-22	GRAB	2.3	1.3	0.7	0.5
13-Jun-22	GRAB	2.8	1.7	2.9	0.8
11-Jul-22	GRAB	2.7	1.5	2	0.4
08-Aug-22	GRAB	2	1.3	1.1	0.2
13-Sep-22	GRAB	2.1	1.4	0.8	0.2
11-Oct-22	GRAB	2	1.5	0.6	0.2
21-Nov-22	GRAB	2.1	1.4	1.3	0.7
12-Dec-22	GRAB	1.7	1.2	1.6	0.5

#### 5. Giardia & Cryptosporidium Sample Results

Date	Eagle Lake		Montizambert Creek	
	Giardia	Cryptosporidium	Giardia	Cryptosporidium
27-Jan-22	<1 per 100 L	<1 per 100 L	<1 per 100 L	<1 per 100 L
14-Feb-22	<1 per 100 L	2 per 100 L	<1 per 100 L	<1 per 100 L
14-Mar-22	<1 per 100 L	<1 per 100 L	<1 per 100 L	<1 per 100 L
19-Apr-22	<1 per 100 L	<1 per 100 L	<1 per 100 L	<1 per 100 L
16-May-22	4 per 100 L	<1 per 100 L	<1 per 100 L	<1 per 100 L
28-Jun-22	<1 per 100 L	<1 per 100 L	<1 per 100 L	<1 per 100 L
25-Jul-22	<1 per 100 L	<1 per 100 L	8 per 100 L	<1 per 100 L
08-Aug-22	<1 per 100 L	<1 per 100 L	1 per 100 L	<1 per 100 L
22-Sep-22	<1 per 100 L	2 per 100 L	<1 per 100 L	<1 per 100 L
11-Oct-22	<1 per 100 L	<1 per 100 L	1 per 100 L	<1 per 100 L
21-Nov-22	<1 per 100 L	<1 per 100 L	<1 per 100 L	192 per 100 L
12-Dec-22	<1 per 100 L	1 per 100 L	<1 per 100 L	<1 per 100 L



6. VCH Heath Message – Metals in Drinking Water



Vancouver Coastal Health  
800 – 601 West Broadway  
Vancouver, BC V5Z 4C2

May 12th, 2022

Water System Operators

**Re: Metals in Drinking Water – “Flush” Message in Annual Reports**

Vancouver Coastal Health (VCH) is requiring all water systems to include the following health message with your next annual reports to your users:

***Contamination of drinking water with Lead can have health impacts over time, and in BC the source is most likely to be plumbing fixtures within a building. 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 you closest Drinking Water Officer noted below.

Sincerely,

A handwritten signature in blue ink, appearing to read "MS", written over a white background.

Dr. Michael Schwandt  
Medical Health Officer  
Vancouver Coastal Health

- (604) 983-6793 Central Coast
- (604) 983-6793 North Shore
- (604) 485-3310 Powell River
- (604) 233-3147 Richmond
- (604) 885-5164 Sechelt
- (604) 892-2293 Squamish
- (604) 675-3800 Vancouver
- (604) 932-3202 Whistler