



BLUE ROCK
Water Co.

2022 DRINKING WATER QUALITY REPORT

85 Acres (PWS# 22590 5)

WHAT IS THIS REPORT?

The Environmental Protection Agency requires public water suppliers that serve the same people year-round (community water systems) to provide consumer confidence reports to their customers. These reports are also known as annual water quality reports.

This report summarizes information regarding water sources used, any detected contaminants, compliance, and educational information.

Blue Rock Water Company is pleased to report that your drinking water complies with federal and state drinking water quality standards. This report summarizes the company's 2022 water quality testing program. We regret to report that our 85 Acres water system violated the maximum contaminant level for a manganese.

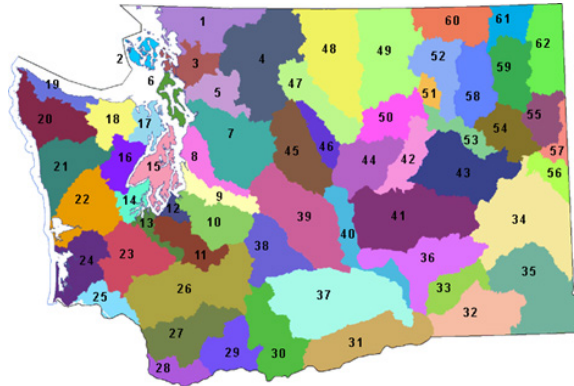
Where does your water come from?

Blue Rock Water company's drinking water comes from springs and groundwater as well as some intertie water supplies. Most of Blue Rock Water Company's supply is ground-

water that originates throughout Washington state watersheds.

Our water sources

Blue Rock Water Company's water sources are from the following water resource areas Cedar-Sammamish, Elwha-Dungeness, Island, Kitsap, Lower Lake Roosevelt, Nisqually, Quilcene-Snow, Snohomish, and Stillaguamish.



The distribution system

Gravity and pumps feed our drinking to a system of water tanks before continuing to your home.

Miles of pipe carries water to Blue Rock Water customers. Blue Rock's Alder Lake, Lower, Marbello, Marysville, Northwest, Parkwood, Sunwood Graham, Suddenview, and Skyview systems all have added chlorine as a disinfectant to make sure the water is free from harmful microorganisms. Blue Rock monitors chlorine levels for proper dosages.

Water Resource Area	Description	Group A Water Systems
WRIA 8	Cedar-Sammamish	Vashon (Group B)
WRIA 18	Elwha-Dungeness	Lower (Group B)
WRIA 6	Island	Parkwood
WRIA 15	Kitsap	85 Acres, Cliftonwood, Fragaria Landing, Hunt I&II, Hunt III and Stavis I
WRIA 53	Lower Lake Roosevelt	Sunnyhills
WRIA 11	Nisqually	Alder Lake, Sunwood Graham
WRIA 17	Quilcene-Snow	Tala Point
WRIA 7	Snohomish	Cascade Crest, Cherry Creek, Marbello, Marysville, Northwest, Skyview, Suddenview & Vista Glen
WRIA 5	Stillaguamish	Stilliridge

SOURCES OF DRINKING WATER



Sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from human activity and the presence of animals. Contaminants may include the following:

Microbial contaminants

Viruses, bacteria and other microbes that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants

Salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides

Chemical substances resulting from a variety of sources, such as agricultural and urban stormwater runoff, and residential uses.

Organic chemical contaminants Substances including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, that may come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants

Substances that can be naturally occurring or be the result of oil and gas production, and mining activities.

WHAT'S IN YOUR DRINKING WATER AND WHAT IS NOT

The Washington Department of Health gives all surface water a susceptibility rating of "high" regardless of whether there are any sources of containments in the watershed. Information on the source water assessments is available at for-tress.wa.gov/doh/swap.

Contaminants and Regulations

The Environmental Protection Agency and the Washington State Board of Health develop regulations that limit the amount of certain containments in water provided by public water systems to ensure that the tap water is safe to drink.

Your Health

Drinking water, including bottled water, may contain small amounts of some contaminants. The presence of contaminants does indicate that the water poses a health risk. Consumers can obtain more information about contaminants and potential health effects by contacting the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

Special Health Needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

ABOUT LEAD AND COPPER

If present, elevated levels of lead and copper can cause health problems, especially for pregnant women and children. There are no detectable levels of lead in our water.

Sources of Lead

Although there is no detectable lead in our source water, sometimes there are elevated levels of lead and copper in some home tap samples because of the corrosion of household plumbing systems. In Washington State, lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Learn more about water quality and lead in drinking water at <https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/Contaminants/Lead>



Learn About Your Plumbing

Blue Rock Water Company is responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. Consumers need to be aware of their plumbing and how it can affect your drinking water quality. Where you live, when your plumbing was installed, and what type of plumbing you have can impact your potential exposure to lead and copper.

Information about lead in drinking water, testing, and steps you can take to minimize exposure is available at the Safe Drinking Water Hotline (800-426-4791) or by visiting epa.gov/ground-water-and-drinking-water.

HOW TO MINIMIZE YOUR EXPOSURE TO LEAD

Flush

If water has not been used in the home for a few hours, such as first thing in the morning or when getting home from work, run the kitchen or any bathroom faucet for five minutes. You also can run the dishwasher, take a shower, or do a load of laundry to help flush water in your home's plumbing before drinking or cooking. Use only cold water for drinking, cooking, and making infant formula. Boiling the water does not remove lead.



Filter

Use filtered water for drinking (including making tea and coffee), cooking (particularly when making foods like rice, beans, and soup) and preparing infant formula. Be sure the filter is NSF certified to remove lead. Visit nsf.org for filter options.



Maintain

Regularly clean your faucet's screen, also known as an aerator. You can find an instructional video at denverwater.org/Lead. Replace filters at the manufacturer's recommended schedule.



ABOUT MANGANESE

Manganese occurs naturally in both surface and ground waters that encounter manganese-bearing soils. Like iron, manganese is considered a secondary contaminant based on **aesthetic effects such as taste or staining**. Even at low levels, manganese can be a nuisance. Therefore, the state of Washington

Department of Health's limit for manganese is 0.05 mg/l because of aesthetic reasons.



CROSS-CONNECTIONS

A cross-connection is any actual or potential physical connection between a public water system or the consumer's water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow. Cross-connections exist in all plumbing systems. There are numerous well-documented cases where drinking water has been contaminated via unprotected cross-connections. These cases have caused illness, injury, and in some cases, death to consumers served by the system.

In December 1970, wine back flowed into the public water system in Cincinnati, Ohio. At a winery in the City, someone inadvertently left open a water valve to a wine distilling tank after flushing out the tank. During a subsequent fermenting process, wine back flowed from the tank into the city water mains and out of the faucets of nearby homeowners. This reversal of flow through the water piping occurred because the pressure in the wine distilling tank was greater than the pressure in the City water system.

The task of eliminating all cross-connections is enormous, but Blue Rock Water Company partners with its customers to protect the safety and quality of the water supply. To learn more about cross-connection and steps to safeguard your drinking water at the Department of Health's cross-connection website.

DEFINITIONS USED IN THE REPORT

How Do I Read This Report?

The **Maximum Allowable** column provides you with the maximum level established by the Environmental Protection Agency (EPA) or the Department of Health (DOH). These are standards that all drinking water suppliers serving over 15 customers must meet.

The **Minimum/Maximum Range** and **Average Value** show you the contaminant level detected in the water analysis test.

The **last column tells you whether or not the test complies** with regulations. A "YES" indicates that the range detected is within EPA regulations.

AL (Action Level): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Mg/L (milligrams per liter): number of milligrams of a substance in one liter of water.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant (e.g., chlorine, chloramines, chlorine dioxide) is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known



85 ACRES WATER SYSTEM (22590 5 KING COUNTY)

Substance	Major Source	Units	Maximum Goal (MCLG)	Maximum Allowable (MCL)	Test Year	Average Value	Low	High	Comply
Microbiological contaminants									
Total Coliform Bacteria	Naturally present in the environment	Present / Absent	0	>5% of monthly samples	2022	A	A	A	Yes
Radioactive contaminants									
(S01) Gross Alpha ¹	Erosion of natural deposits	pCi/l	0	15.000	2017	3.000	3.000	3.000	Yes
(S01) Radium 228 ¹	Erosion of natural deposits	pCi/l	0	5.000	2017	1.000	1.000	1.000	Yes
1 US Environmental Protection Agency (USEPA) regulations require monitoring for the presence of radioactive contaminants every six years. The next round of required sampling will be conducted in 2023.									
Inorganic contaminants (IOC)									
Arsenic ⁴	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	ppb	10	10.010	2022	0.004	0.004	0.004	Yes
Copper ²	Corrosion of household plumbing systems; Erosion of natural deposits	ppm	1.3000	1.3000	2022	0.037	0.0055	0.020	Yes
Lead ²	Corrosion of household plumbing systems; Erosion of natural deposits	ppm	0.0000	15.000	2022	0.001	0.001	0.001	Yes
Nitrate	Runoff from fertilizer use; Leaching from septic tanks; sewage; erosion of natural deposits.	ppm	10.000	10.000	2022	0.500	0.500	0.500	Yes
Manganese ⁴	Erosion of natural deposits	ppm	N/A	0.05 (SMCL)	2022	0.052	0.052	0.052	No
Complete IOC ³									
Antimony	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	(ppb)	0.006	6	2022	0.003	0.003	0.003	Yes
Barium	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	(ppb)	10.01	10	2022	0.01	0.01	0.01	Yes
Beryllium	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	(ppm)	2	2	2022	0.0003	0.0003	0.0003	Yes
Cadmium	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints	(ppb)	0.004	4	2022	0.001	0.001	0.001	Yes
Chloride		(ppb)	0.250	250.000	2022	2.4	2.4	2.4	Yes
Chromium	Discharge from steel and pulp mills; Erosion of natural deposits		0.1000	100.000	2022	0.007	0.007	0.007	Yes
Color				15.000	2022	15	15	15	Yes
Conductivity		(ppb)	0.1	700.00	2022	140	140	140	Yes
Copper	Corrosion of household plumbing systems; Erosion of natural deposits	ppm	1.3000	1.3000	2022	0.02	0.02	0.02	Yes
Cyanide	Corrosion of household plumbing systems; Erosion of natural deposits	ppb	200	0.200	2022	0.05	0.05	0.05	Yes

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Substance	Major Source	Units	Maximum Goal (MCLG)	Maximum Allowable (MCL)	Test Year	Average Value	Low	High	Comply
Inorganic contaminants (IOC)³									
Fluoride	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories			4.0000	2022	0.2	0.2	0.2	Yes
Hardness					2022	76	76	76	Yes
Iron ⁴		(ppb)	0.3000	3	2022	0.05	0.05	0.05	Yes
Lead	Corrosion of household plumbing systems; Erosion of natural deposits	ppm	0.0000	15.0000	2022	0.001	0.001	0.001	Yes
Mercury	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	(ppb)	0.05	5	2022	0.052	0.052	0.052	Yes
Nickel		(ppb)	0.1000	10	2022	0.0002	0.0002	0.0002	Yes
Nitrite	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	(pp0)	1.00	1.00	2022	0.1	0.1	0.1	Yes
Selenium	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	(ppb)	0.05	50	2022	0.002	0.002	0.002	Yes
Silver		(ppb)	0.1000	100	2022	0.1	0.1	0.1	Yes
Sodium					2022	7.4	7.4	7.4	Yes
Sulfate		(mg/L)	0.250	250	2022	2	2	2	Yes
Thallium	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories	(ppb)	0.002	2	2022	100	100	100	Yes
Turbidity		(NTU)	TT	n/a	2022	0.001	0.001	0.001	Yes
Zinc			0.005	5	2022	0.12	0.12	0.12	Yes
<p>2 US Environmental Protection Agency (USEPA) regulations require monitoring for the presence of lead and copper at household taps every three years. The next round of required sampling will be conducted in 2023.</p> <p>3 The Utility is required to test for Complete IOC every nine years. The next round of required sampling will be conducted in August 2029.</p> <p>4 The Utility is required to test for Arsenic, Iron, and Manganese every three years. The next round of required sampling will be conducted in 2025.</p>									
ICR disinfection by-products⁵									
TTHM (Total trihalomethanes)	By-product of drinking chlorination	ug/L	N/A	80.4000					
Haloacetic Acids (HAA5)	By-product of drinking chlorination	ug/L	N/A	60.4000					
5 The Utility is not required to test for ICR disinfection for chlorinated water supplies.									
Volatile organic contaminants (VOC)⁶									
1,1 DICHLOROETHANE	Discharge from chemical plants and other industrial activities	ug/L	7.000		2022	0.500	0.500	0.500	Yes
1,1 DICHLOROETHYLENE		(ppb)	7.000		2022	0.500	0.500	0.500	Yes
1,1 DICHLOROPROPENE		(ppb)			2022	0.500	0.500	0.500	Yes

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Volatile organic contaminants (VOC)⁶									
1,1,1 TRICHLOROETHANE		(ppb)	200.000		2022	0.500	0.500	0.500	Yes
1,1,1,2 TETRACHLOROETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
1,1,2 TRICHLOROETHANE		(ppb)	5.000		2022	0.500	0.500	0.500	Yes
1,1,2,2 TETRACHLOROETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
1,2 DICHLOROBENZENE		(ppb)	600.000		2022	0.500	0.500	0.500	Yes
1,2 DICHLOROETHANE		(ppb)	5.000		2022	0.500	0.500	0.500	Yes
1,2 DICHLOROPROPANE		(ppb)	5.000		2022	0.500	0.500	0.500	Yes
1,2,3 TRICHLOROBENZENE		(ppb)			2022	0.500	0.500	0.500	Yes
1,2,3 TRICHLOROPROPANE		(ppb)			2022	0.500	0.500	0.500	Yes
1,2,4 TRICHLOROBENZENE		(ppb)	70.000		2022	0.500	0.500	0.500	Yes
1,2,4 TRIMETHYLBENZENE		(ppb)			2022	0.500	0.500	0.500	Yes
1,3 DICHLOROPROPANE		(ppb)			2022	0.500	0.500	0.500	Yes
1,3,5 TRIMETHYLBENZENE		(ppb)			2022	0.500	0.500	0.500	Yes
1,4 DICHLOROBENZENE		(ppb)	75.000		2022	0.500	0.500	0.500	Yes
2,2 DICHLOROPROPANE		(ppb)			2022	0.500	0.500	0.500	Yes
BENZENE	Discharge from factories; Leaching from gas storage tanks and landfills	(ppb)	5.000	0.005	2022	0.500	0.500	0.500	Yes
BROMOBENZENE		(ppb)			2022	0.500	0.500	0.500	Yes
BROMOCHLOROMETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
BROMODICHLOROMETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
BROMOFORM		(ppb)			2022	0.500	0.500	0.500	Yes
BROMOMETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
CARBON TETRACHLORIDE		(ppb)	5.000		2022	0.500	0.500	0.500	Yes
CHLOROBENZENE		(ppb)	100.000		2022	0.500	0.500	0.500	Yes
CHLOROETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
CHLOROFORM		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
CHLOROMETHANE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
CIS- 1,2 DICHLOROETHYLENE		(ppb)	70.000	0.005	2022	0.500	0.500	0.500	Yes

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Substance	Major Source	Units	Maximum Goal (MCLG)	Maximum Allowable (MCL)	Test Year	Average Value	Low	High	Comply
Volatile organic contaminants (VOC)⁶									
CIS- 1,3 DICHLOROPROPENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
DBCP (screening)		(ppb)	80.500	0.005	2022	0.500	0.500	0.500	Yes
DIBROMOCHLOROMETHANE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
DIBROMOMETHANE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
DICHLORODIFLUOROMETHANE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
EDB (screening)		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
ETHYLBENZENE	Discharge from petroleum refineries	(ppb)	700.000	0.700	2022	0.500	0.500	0.500	Yes
HEXACHLOROBUTADIENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
ISOPROPYLBENZENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
M- DICHLOROBENZENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
M/P XYLENES (MCL FOR TOTAL)		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
METHYLENE CHLORIDE(DICHLOROMETHANE)		(ppb)	5.000	0.005	2022	0.500	0.500	0.500	Yes
NAPHTHALENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
N-BUTYLBENZENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
N-PROPYLBENZENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
O- CHLOROTOLUENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
O- XYLENE (MCL FOR TOTAL)		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
P- CHLOROTOLUENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
P-ISOPROPYLTOLUENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
SEC- BUTYLBENZENE		(ppb)		0.005	2022	0.500	0.500	0.500	Yes
STYRENE	Discharge from rubber and plastic factories; Leaching from landfills	(ppb)	100.000	0.1	2022	0.500	0.500	0.500	Yes
TERT- BUTYLBENZENE		(ppb)			2022	0.500	0.500	0.500	Yes
TETRACHLOROETHYLENE	Discharge from factories and dry cleaners	(ppb)	5.000	0.005	2022	0.500	0.500	0.500	Yes
TOLUENE	Discharge from petroleum factories	(ppm)	1,000.000	1.000	2022	0.500	0.500	0.500	Yes
TOTAL TRIHALOMETHANE		(ppb)	80.400		2022	0.500	0.500	0.500	Yes
TOTAL XYLENES		(ppb)	10,000.00		2022	0.500	0.500	0.500	Yes
TRANS- 1,2 DICHLOROETHYLENE		(ppb)	100.000		2022	0.500	0.500	0.500	Yes

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Volatile organic contaminants (VOC)⁶									
TRANS- 1,3 DICHLOROPROPENE		(ppb)			2019	0.500	0.500	0.500	Yes
TRICHLOROETHYLENE	Discharge from metal degreasing sites and other factories	(ppb)	5.000	0.005	2022	0.500	0.500	0.500	Yes
TRICHLOROFLUOROMETHANE		(ppb)			2022	0.500	0.500	0.500	Yes
VINYL CHLORIDE	Leaching from PVC piping; Discharge from plastics factories	(ppb)	2.000	0.002	2022	0.500	0.500	0.500	Yes
6 The Utility is required to test for VOCs every six years. The next round of sampling will be conducted in 2028.									
Synthetic organic contaminants including pesticides and herbicides (SOC)⁷									
2,4 - D	Runoff from herbicide used on row crops	(ppb)	70.000	0.0700	2019	0.1	0.1	0.1	Yes
2,4 DB		(ppb)			2019	1	1	1	Yes
2,4,5 TP (SILVEX)	Residue of banned herbicide	(ppb)	50.000	0.0500	2019	0.2	0.2	0.2	Yes
3,5 DICHLORBENZOIC ACID	Runoff from herbicide used on row crops	(ppb)	2.000	0.002	2019	0.5	0.5	0.5	Yes
ACIFLUORFEN		(ppb)			2019	2	2	2	Yes
DALAPON	Runoff from herbicide used on rights of way	(ppb)	200	0.2	2019	1	1	1	Yes
D CPA ACID METABOLITES					2019	0.1	0.1	0.1	Yes
DICAMBA					2019	0.2	0.2	0.2	Yes
DINOSEB	Runoff from herbicide used on soybeans and vegetables	(ppb)	7	0.007	2019	0.2	0.2	0.2	Yes
PENTACHLOROPHENOL	Discharge from wood preserving factories	(ppb)	1	1	2019	0.04	0.04	0.04	Yes
PICLORAM	Herbicide runoff	(ppb)	500	0.5	2019	0.100	0.100	0.100	Yes
7 The Utility is required to test for herbicides and pesticides every nine years. The next round of sampling will be conducted in 2028.									

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TT or MCL Violation	Explanation	Length	Step Taken to Correct the Violation	Health Effects Language
Manganese	Results on IOC resulted in a test that exceeded the State's MCL.	2022	Will review system flushing procedures to relieve main-lines of Manganese build up.	Esthetic monitoring. No reports of effects in humans following acute (short-term) effects of exposure to manganese are available



BLUE ROCK
Water Co.

PO Box 2440
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(206) 764-3345

*For more information on water
quality visit bluerockmgt.com*