

WHY

WHY AM I RECEIVING THIS WATER QUALITY REPORT?

Richland Water proudly provides this water quality report to comply with state and federal regulations and to share information about our excellent water quality with our customers.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Nationally, the sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. In Richland, the primary water source is the Columbia River, with a small amount of water provided by wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as 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, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

MESSAGE

FROM THE EPA

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as people 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 drinking water advice from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Richland is responsible for providing high-quality drinking water and cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water.

COMMITTED

TO WATER SAFETY

Assessments Conducted

As part of its regular long range water system planning process the City's independent consultant completed susceptibility assessments for Richland's untreated water sources. The consultant determined that each of the City's source waters are classified as highly susceptible to contamination. This does not mean that the City's treated water quality is poor, but that the untreated source waters have substantial vulnerabilities to contamination. To address these vulnerabilities and ensure high quality water is delivered to our customers the City operates several programs to minimize the risk associated with these vulnerabilities. Among these programs are a wellhead protection program and regular source water monitoring programs.

A copy of the consultant's assessment can be found at www.ci.richland.wa.us/water or by calling (509) 942-7670.

Backflow Protection Prevents Contamination

As a public water system, preventing contamination from the source to your meter is a 24/7 job. Cross connection control requires backflow assemblies be installed on all new commercial services. On existing commercial services, City staff assesses the degree of hazard associated with the building use and prescribes appropriate protection. Remodeling, upgrading, or change of use may result in installation of a new backflow preventing assembly. The City is offering a backflow assembly program to existing commercial accounts. If you have questions or want answers relating to cross connections or backflow prevention, contact the City's Water Quality Office at 942-7474.

CITY OF RICHLAND WATER QUALITY REPORT 2020



RICHLAND WATER PROVIDES HIGH QUALITY WATER FOR YOU

Richland Water vigilantly safeguards its water supplies in order to continue providing safe drinking water for our residents and add to the livability of our great City. The City of Richland draws water from two major sources, the Columbia River and three groundwater wells located at various sites in the City.

Once again, we are proud to report that last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards.

CONSERVING

Our natural resources will help the health and longevity of our City as well as save you money. Here are ten tips that will make a difference to your monthly bill and our community:

Water your lawn during the least sunny times of the day.

Consider installing low water use landscaping and lower flow sprinkler heads where possible.

Repair toilet, faucet, plumbing or irrigation leaks.

Replace older (higher-flow) faucet aerators and shower heads with low-flow ones.

Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to 50 gallons for a bath.

Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute.

Use high-efficiency toilets and appliances.

Wash full loads in the washer and dishwasher using cold water instead of hot whenever possible.

Conduct a Home Water Audit.

Teach your kids about water conservation to ensure a future generation that uses water wisely.

2020 WATER QUALITY RESULTS

Substance (Units)	Goal (MCLG)*	EPA's Allowable Limits (MCL)*	Average Level Detected ³	Range Detected		Typical Source	Violation
				Low	High		
DISINFECTANTS & DISINFECTION BY-PRODUCTS (There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.)							
Haloacetic Acids (HAA5) (ppb) **	NA**	60	13.87 / 34.22	4.9	66.5	By-product of drinking water chlorination	No
TTHMs [Total Trihalomethanes] (ppb)**	NA**	80	17.2 / 59.6	7.4	86.1	By-product of drinking water chlorination	No
INORGANIC CONTAMINANTS							
Nitrate [measured at Nitrogen] (ppm)**	10	10	1.95	ND	4.10	Runoff from fertilizer use; Leaching from septic tanks sewage; Erosion of natural deposits	No
*** Gross Alpha	0	15 pCi/L**	ND	ND	ND		
*** Combined Radium	0	5 pCi/L**	0.316	0.130	0.502		

COPPER AND LEAD

Substance (Units)	Goal (MCLG)*	EPA's Allowable Limits (MCL)*	Level Detected (90 th percentile) ²	Number of Samples Exceeding the AL	Typical Source	Violation
Copper - action level at consumer taps (ppm)**	1.3	1.3 (AL)*	0.151	0 of 30	Corrosion of household plumbing systems; Erosion of natural deposits	No
Lead - action level at consumer taps (ppm) **	0	.015 (AL)*	.002	0 of 30	Corrosion of household plumbing systems; Erosion of natural deposits	No

With the stability of the water throughout the City of Richland Water System, we do not have the need for chemical addition to assist in corrosion control.

COLUMBIA RIVER WATER TREATMENT PLANT FINISH WATER

Analytes	Average Level Detected	Low	Range Detected	High
pH	8.0	7.6		8.3
Alkalinity	60 mg/L**	52 mg/L**		71 mg/L**
Hardness	70.7 mg/L** (3.6 gr/gal)	70.7 mg/L** (3.6 gr/gal)		70.7 mg/L** (3.6 gr/gal) ¹
System Free Chlorine Residual	1.1 mg/L**	0.8 mg/L**		1.4 mg/L**
Turbidity*	0.04 NTU*	0.03 NTU*		0.14 NTU*

Wellsian Way wells (ground water) blend into the distribution system. Hardness may be as high as 301 mg/L**. Although this is a small percentage of total water production, it will influence hardness levels in some areas of the distribution system.

2020 UCMR4 REPORT RESULTS IN UG/L

Compound	Average Level Detected	Low	Range Detected	High
Bromochloroacetic Acid	ND	ND		ND
Bromodichloroacetic Acid	ND	ND		ND
Chlorodibromoacetic Acid	ND	ND		ND
Dibromoacetic Acid	ND	ND		ND
Dichloroacetic Acid	ND	ND		ND
Trichloroacetic Acid	ND	ND		ND
Monobromoacetic Acid	ND	ND		ND
Manganese	0.55	<0.4		1.1
Anatoin-a	ND	ND		ND
Total Organic Carbon	1143.3	819		1682

Unregulated Contaminant Monitoring

Maximum contaminant levels (MCL) for some contaminants have not been established by either state or federal regulations, nor has the mandatory health effects language. The purpose for monitoring unregulated contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted. Richland Water conducted monitoring as required by the USEPA's fourth Unregulated Contaminant Monitoring Rule (UCMR4) and included the results in the 2020 Annual Water Quality Report.

RESULTS OF CRYPTOSPORIDIUM MONITORING

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although the City's Water Treatment Plant and North Richland Slow Sand Filtration Facility comply with state and federal treatment technology requirements for Cryptosporidium, the most commonly used filtration methods, including the City's treatment methods, cannot guarantee 100% removal. The City's most recent monitoring indicates that cryptosporidium is present in our source water, the Columbia River. It was detected at a concentration of 0.056 oocysts per liter. Current test methods do not allow the City to determine if the oocysts are living and capable of causing disease or not. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing a life-threatening illness. Immunocompromised individuals should consult their doctor regarding appropriate precautions.

Results of Coliform Monitoring

Coliform samples collected per week - 18
 Number of positive Coliform samples - 1
 Percentage of positive Coliform samples for month of October 2020 - 1.3 percent
 Number of repeat samples positive for Coliform - none

*IMPORTANT DRINKING WATER DEFINITIONS

- 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.
- 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.
- ND** Not Detected
- NTU** Nephelometric Turbidity Unit
- Turbidity** Turbidity is a measurement of suspended particles in the finished water that is used to measure filter performance in the water treatment process.
- AL** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

¹ Hardness of individual sources can range from 61 to 301 mg/L**

² 90th percentile level means that 90% of samples analyzed were at or below this concentration.

³ High and low averages of 8 TTHM and HAA5 sample sites

** **ppm** (Parts per Million), **ppb** (Parts per Billion), **pCi/L** (Pico Curies per Liter), **mg/L** (Milligrams per Liter), **NA** (Not Applicable), **ND** (Not Detected)

*** The most recent collection dates for radiological samples were 2020.

Fluoride: The City of Richland does not add fluoride to the water system. Fluoride levels are only trace amounts from naturally occurring sources.