

WATER QUALITY

REPORT 2022





EN ESPAÑOL

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

IS YOUR WATER SAFE?

Contaminant levels in your drinking water are at or below state and federal regulatory limits. The test results are shown in the Water Quality Analysis Table. Although the City of Kennewick water is tested for all regulated and many unregulated contaminants, some contaminants not detected in the water are not included in this report. However, additional monitoring data is available upon request.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders and some elderly and infants can be particularly at risk from infections. These individuals should seek advice about drinking water from their health care providers. Environmental Protection Agency (EPA)/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* 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 private service lines and home plumbing. The City of Kennewick is responsible for providing high quality drinking water, but 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 thirty seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Safe Drinking Water Hotline
(1-800-426-4791)

Caution: Never drink water directly from rivers, lakes or irrigation canals.

HOW CAN I PARTICIPATE?

City Council meetings are held the first and third Tuesday's of each month at 6:30 pm in the Council Chambers at City Hall (210 W. 6th Avenue). The agenda for each meeting is published on the City's website at www.go2kennewick.com. On occasion, items related to the water system are discussed. Please feel free to participate.

ADDITIONAL INFORMATION

Another contact for additional information on the health aspects of local drinking water is the Benton-Franklin Health District. They can be reached at (509) 460-4206.

Safe, reliable drinking water is a basic life necessity. The City of Kennewick is proud to deliver excellent water to our customers every day. We think it is important for our customers to understand where their water comes from, how safe it is, and what actions we take to ensure its continuing high quality. The following report provides the information you need to know about the water you drink. The City ensures the tap water you receive is safe through an extensive water quality monitoring program. Over 1100 tests are run annually. In 2022, no EPA maximum contaminant level was exceeded.

CONTACT INFORMATION

Contact Information: If you have questions about this report, or about water quality, please call the City's Water Treatment Plant at (509) 585-4318. We can also be contacted at our website:
<http://www.go2kennewick.com>



HARDNESS

The hardness of City water ranges from 50 to 200 ppm (5 to 14 grains/gallon). These hardness levels vary throughout the year. Up to the moment information on hardness levels can be obtained by contacting the City's Water Treatment Plant at (509) 585-4318.

HARMFUL ALGAL BLOOMS (HABS)

Algae growth is a common occurrence that is observed in many waterways. Harmful algal blooms (HABs) can occur with algae overgrowth and are known to produce dangerous toxins in fresh or marine waters. HABs are most common when the following exist; abundant sun light, excessive heat/warm water, slow-moving water, and certain nutrients (nitrogen and phosphorus).

HABs were detected in the Columbia River during the summer months of 2022. Immediately following the extremely hot start to the summer of 2022, the Benton Franklin Health District (BFHD) began receiving reports of sick pets as a result of normal water recreation activities in or along the Columbia River areas fronting the Cities of Kennewick, Richland, and Pasco. In coordination with the Washington Department of Health (DOH) and BFHD, the surrounding cities began sampling raw and potable water sources to ensure safe drinking water standards were being met. Although there were no measured levels of concern, low levels of toxins associated with HABs were detected in raw water samples. The City of Kennewick has treatment processes capable of removing these toxins to ensure the potable water system continues to deliver safe and reliable drinking water.

Prior to the summer months of 2022, the City of Kennewick worked closely with the DOH, EPA, BFHD, and the other local cities, to develop a strategic monitoring plan to routinely test for HABs and their associated toxins. Moving forward we will continue to monitor, sample and test for HAB during the summer season with direction from DOH.

SOURCE WATER QUALITY/QUANTITY

As water flows over land and through subsurface, it dissolves naturally occurring minerals and compounds. It can be polluted by human, industrial and other activities that requires treatment to make it safe for drinking.

Materials that can be present in water include viruses or bacteria, radioactive substances, metals, nitrates and chemicals from industrial discharges, disinfection processes or from agricultural uses. In 2016 and 2017 cryptosporidium was monitored for and detected in the raw unfiltered water sources. Cryptosporidium is a microbial parasite found in surface water throughout the U.S. The monitoring was to ensure we have adequate removal and inactivation treatment for the amount of detection. Cryptosporidium was found in 3 of 48 samples from unfiltered raw water sources. Detection of Cryptosporidium resulted in a need for increased treatment. However, based on the results of our monitoring, we only had to make minimal changes to our previously engineered processes for the continued treatment of Cryptosporidium.

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 that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791). In order to ensure tap water is safe to drink, EPA regulates and sets limits for certain substances in water provided by public water systems.

City of Kennewick drinking water sources include the Columbia River, Ranney Collector 4 Well, and Ranney Collector 5 Well. Ranney Collector 5 is under the direct influence of ground water and is treated as surface water. Treatment consists of riverbank filtration, UV disinfection along with chlorination. The Columbia River is treated with flocculation, sedimentation, filtration through membrane filters, and chlorination. The treatment process is to ensure all pathogens have been removed. The Columbia River Water Treatment plant produced 36% of the water used by consumers. Production from the Ranney Collector Wells accounted for the remaining 64%.

PROGRAMS FOR PROTECTING WATER QUALITY

- ✓ Wellhead Protection Program to protect the City's groundwater resources.
- ✓ Cross Connection Control Program to protect distribution system water quality.
- ✓ Chemical and Bacterial Monitoring Program to ensure treated water is safe.
- ✓ Reservoir Maintenance and Inspection Program to protect distribution system water quality.
- ✓ American Water Works Association (AWWA) Member – this is a professional group committed to helping municipalities deliver safe and reliable drinking water.
- ✓ Source Water Protection Assessment Program (SWAP) has identified potential contaminants. The Information is available online at: <http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWaterProtection/Assessment.aspx>



WATER USE EFFICIENCY GOALS & OBJECTIVES

Washington State law requires that the City establish water use efficiency goals to assure continued efforts toward efficient use of the state's water resources. On February 7, 2017, City Council held a public meeting and adopted Resolution No. 17-03 that renewed a water use efficiency goal for the City's water utility. The City is required to provide an annual water use efficiency performance report to all utility customers.

The City's 2022 annual water use efficiency performance report is summarized in the following table:

Total Annual Production	4.149 billion gallons
Annual Water Distribution System Leakage	Less than 5.0% of total production
Water Use Efficiency Goal	Reduce the water demand per capita by 1 percent each year through 2027 resulting in an average demand per capita of 119 GPCD or lower in 2027.
2022 Per Capita Water	130 gallons per day



The City will continue to experience continued upward pressure on the annual average per capita water demand. This upward pressure will largely be due to continued development in areas that are not provided with irrigation water by an irrigation district or private well. The City will continue to implement ongoing water use efficiency and conservation efforts to maintain annual average per capita demand below the established goal of 119 gallons per day by 2027. These efforts include public education, technical assistance, water system savings programs, and other water use efficiency measures described in the City Water Conservation Plan. For more information on water use efficiency, please go to: Water Use Efficiency - Office of Drinking Water, Washington State Department of Health at <http://www.doh.wa.gov/Portals/1/Documents/Pubs/331-375.pdf>

2022 Water Quality Testing Results

Substance	Range of Detected	Highest Level Detected in 2022	Highest Level Allowed (EPA's MCL)	State Reporting Level (SRL)	Ideal Goals (EPA's MCLGs)	Possible Source(s) in Drinking Water
Substance in 2022						
Microbiological						
Total Coliform Bacteria	0 of the 1080 routine samples detected a presence	No repeat samples detected a presence	Presence in more than 5% of monthly sample set.	Any presence	0	Naturally present in the environment
Turbidity						
RC4	0.02 to 0.09 NTU	0.09 NTU	95% of all samples < 0.3 NTU	0.1 NTU	N/A	Soil runoff
RC5	0.02 to 0.09 NTU	0.09 NTU	95% of all samples < 0.1 NTU	0.1 NTU	N/A	Soil runoff
WTP	0.03 to 0.09 NTU	0.09 NTU	95% of all samples < 0.1 NTU	0.1 NTU	N/A	Soil runoff
Radioactive Substances						
Gross Alpha Emitters	<3 to 4.49 pCi/l	4.49 pCi/l	15 pCi/l	Above 0 pCi/l	0	Erosion of natural deposits
Gross Beta Emitters	< 4	< 4	50 pCi/l*	Above 0 pCi/l	0	Decay of natural and man-made deposits
Inorganic Compounds						
Arsenic	.0010 to .0030 mg/L	0.0030 mg/L	0.010 mg/L	0.001 mg/L	0	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes
Fluoride	0.0010 to 0.55 ppm	0.545 ppm	4 ppm	0.5 ppm	4 ppm	Erosion of natural deposits; discharge from fertilizer & aluminum factories
Nitrate/Nitrogen	0.10 to 4.2 ppm	4.2 ppm	10 ppm	0.5 ppm	10 ppm	Runoff from fertilizer use
Disinfection By-Products						
TTHM	15.59 to 73.9 ppb	73.9 ppb LRAA	80 ppb LRAA	0.5 ppb	N/A	By-products of drinking water chlorination
HAA5	ND to 21.96 ppb	21.96 ppb LRAA	60 ppb LRAA	1.0 ppb	N/A	
Disinfection						
Free Chlorine	.2 to 2.0 ppm	1.82 ppm	4.0 ppm	N/A	N/A	Water additive to control microbes
Lead & Copper						
Substance	Range of Detected Substance in 2019	90th Percentile Reported	EPA Action Level	State Reporting Level (SRL)	Sites Exceeding Action Level	Possible Source(s)
Lead	ND to 0.00438 ppm	0.0 ppm	0.015 ppm	0.001 ppm	0 of 30 test sites	Corrosion of household plumbing systems; erosion of natural deposits
Copper	0.0016 to 0.711 ppm	0.24 ppm	1.3 ppm	0.2 ppm	0 of 30 test sites	Corrosion of household plumbing systems; erosion of natural deposits; leeching from wood preservatives
Distribution System						
Asbestos	ND to < 0.12 MFL	< 0.12 MFL	7 MFL	0.2 MFL	ND	Asbestos is a mineral fiber found in rocks and soil. It was once widely used in building materials & products to strengthen them & provide heat insulation & fire resistance.

Note: Asbestos testing completed in 2018 met all EPA compliance levels, next testing will be in 2028.

DEFINITIONS

Action Level – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirements which a water system must follow.

LRAA – Locational Running Annual Average

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

Maximum Contaminant Level Goal (MCLG) – 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.

HAA5 – Haloacetic Acids

MFL – Million fibers per liter

mg/L – Milligrams per liter

N/A – Not Applicable

ND – None Detected

Nephelometric Turbidity Unit (NTU) – Unit of measure used to describe water clarity. The smaller the number, the clearer the water.

pCi/l – Picocuries per liter is a standard measurement of radioactivity in the environment.

ppb – One part per billion

ppm – One part per million

RC4 – Ranney Collector No. 4: Groundwater source.

RC5 – Ranney Collector No. 5: Groundwater/surface water source.

State Reporting Level (SRL) – Indicates minimum reporting level required by the Washington Department of Health.

TTHM – Total Trihalomethane

Treatment Technique – A required process intended to reduce the level of a contaminant in drinking water.

Turbidity – A measure of the cloudiness of water monitored to indicate filtration effectiveness.

µg/L – Micro grams per liter

WFI – Water Facilities Inventory Number (38100Q)

WTP – Water Treatment Plant: Columbia River surface water source.