

Source Water Quality/Quantity

As water flows over the land in rivers or through the gravel, it dissolves naturally occurring minerals and radioactive materials. It can be polluted by human or industrial activity and 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.

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. The Food and Drug Administration also regulates bottled water and bottlers must provide the same level of public health protection.

City of Kennewick drinking water sources include the Columbia River and two Ranney Collector wells. In 2008, production from the Columbia River Water Treatment Plant amounted to 51% of the water used by consumers and operated from March through December. Production from the Ranney Collector wells accounted for the remaining 49% and operated from January through September.



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Annual Drinking Water Quality Report (Data from 2008)



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 1000 tests are run annually. In 2008, no EPA contaminant level was exceeded.

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.

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 November 20, 2007, City Council held a public meeting and adopted Resolution No. 07-33 that established 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 2008 annual water use efficiency performance report is summarized in the following table:

Total Annual Production	3,727 million gallons
Annual Water Distribution System Leakage	194 million gallons or 5.2 percent of total production (Washington State law requires the City to take action if the leakage rate is above 10 percent.)
Water Use Efficiency Goal	Maintain annual average per capita demand below 170 gallons per day. This figure shall be an average over a six-year period of time beginning in 2008 and continuing through 2013.
2008 Per Capita Water	150 gallons per day (2007 per capita water demand was 152 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. 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 170 gallons per day. These efforts include public education, technical assistance, system water saving programs, and other water use efficiency measures described in the City Water Conservation Plan.

The City's Water Conservation Plan, detailed performance report, and other conservation information are available on the City's web page at the following address: www.ci.kennewick.wa.us/Municipal_Services/WaterConservationHeadPage.asp

Save water and money: Identify and repair leaks in the water systems at your home and office!

Contact Information

Contact Information: If you have questions about this report, or about water quality, please call John F. Griffin at (509) 585-4534. We can also be contacted at our website: <http://www.ci.kennewick.wa.us>



Is Your Water Safe?

Contaminant levels in your drinking water are well 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 people 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).



Ranney Collector Well No. 5 (Compliance Update)

The City of Kennewick reached a significant milestone in April. The completion of the Ranney Collector Well No. 5 upgrade project culminated nearly eight years of working through the State and Federal **ground water under the influence of surface water (GWU)** regulatory framework with the help of regulatory staff from Washington State Department of Health (DOH), experts from the fields of academia, engineering, geology, hydrogeology, microbiology and local construction contractors.

This well source has served the citizens of Kennewick for over 50 years, producing safe quality drinking water at a low cost. However, new risk assessment procedures focusing on GWU brought forth new testing methods and monitoring requirements used to establish a new regulatory framework. The new monitoring requirements led Kennewick to sample the well source which then placed Ranney Collector Well No. 5 into a moderate risk category relative to being influenced by surface water.

Since the well source was then categorized as moderate risk, Ranney Collector Well No. 5 was then required to comply with surface water treatment regulations. The next step in the process was to choose a compliance path to meet the regulations. Because of cost constraints and other issues, the City sought an alternative treatment technology allowed within the regulatory framework. This decision required the City to demonstrate that natural river bank filtration was as effective as man-made conventional media filtration. The City's hydrogeology consultant, with support from City staff, was able to demonstrate that indeed, natural river bank filtration was as effective.

The DOH agreed and approved the City's alternative treatment technology scheme which included natural river bank filtration, ultra-violet disinfection and chlorination. Subsequently, the upgrade project was designed, approved and constructed, thereby achieving full compliance at a lower cost than other options and was placed in service in April 2009.

Hardness & Sodium

The hardness of City water ranges from 100 to 140 ppm (6 to 8 grains/gallon). These hardness levels vary slightly throughout the year. Up to the moment information on hardness levels can be obtained by contacting John F. Griffin at (509) 585-4534. Sodium content can range from <5 ppm to 25 ppm in treated water.



How Can I Participate?

City Council meets every Tuesday at 6:30 p.m. in the Council Chambers at City Hall (210 W. 6th Avenue). The agenda for each meeting is published on the City's website at http://www.ci.kennewick.wa.us/City_Clerk/home.asp. 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.

En Español

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo o hable con alguien que lo entienda bien.

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

2008 Water Quality Testing Results

Substance	Range of Detected Substance in 2008	Highest Level Detected in 2008	Highest Level Allowed (EPA's MCL)	State Reporting Level (SRL)	Ideal Goals (EPA's MCLGs)	Possible Source(s) in Drinking Water
Microbiological						
Total Coliform Bacteria	None of the 840+ routine samples detected a presence.	No routine samples detected a presence.	Presence in more than 5% of monthly sample set.	Any presence.	0	Naturally present in the environment.
Turbidity						
RC4	0.01 to 0.18 NTU	0.18 NTU (All samples were below 0.3 NTU.)	1.0 NTU (95% of all samples must not exceed 0.3 NTU.)	0.1 NTU	N/A	Soil runoff.
RC5	0.02 to 0.05 NTU	0.05 NTU (No samples exceeded 0.1 NTU.)	1.0 NTU (95% of all samples must not exceed 0.1 NTU.)	0.1 NTU	N/A	Soil runoff.
WTP	0.04 NTU	0.04 NTU (No samples exceeded 0.1 NTU.)	0.15 NTU (95% of all samples must not exceed 0.1 NTU.)	0.1 NTU	N/A	Soil runoff.
Radioactive Substances						
Gross Alpha Emitters	0.09 to 9.0 pCi/l	9.0 pCi/l	15 pCi/l	Above 0 pCi/l	0	Erosion of natural deposits.
Gross Beta Emitters	ND to 7.0 pCi/l	7.0 pCi/l	50 pCi/l*	Above 0 pCi/l	0	Decay of natural and man-made deposits.
*EPA considers 50 pCi/l to be the level of concern for beta particles.						
Inorganic Compounds						
Arsenic	<0.001 to 0.00243 ppm	0.00243 ppm	0.010 ppm	0.002 ppm	0	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes.
Fluoride	0.089 to 0.27 ppm	0.27 ppm	4 ppm	0.5 ppm	4 ppm	Erosion of natural deposits; discharge from fertilizer & aluminum factories.
Nitrate/Nitrogen	0.281 to 3.13 ppm	3.13 ppm	10 ppm	0.5 ppm	10 ppm	Runoff from fertilizer use.
Disinfection By-Products						
Total Trihalomethanes	<0.5 to 42.5 ppb	42.5 ppb	80 ppb	0.5 ppb	N/A	By-products of drinking water chlorination.
Total Haloacetic Acids	<1.0 to 19.9 ppb	19.9 ppb	50 ppb	1.0 ppb	N/A	
Lead & Copper						
Substance	Range of Detected Substance in 2008	90th Percentile Reported	EPA Action Level	State Reporting Level (SRL)	Sites Exceeding Action Level	Possible Source(s)
Lead	<0.001 to 0.0539 ppm	0.0089 ppm	0.015 ppm	0.002 ppm	1 of 10 test sites	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	0.00188 to 0.964 ppm	0.612 ppm	1.3 ppm	0.2 ppm	0 of 10 test sites	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Note: Asbestos testing completed in 2003 met all EPA compliance levels.

Definitions

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

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.

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 under the influence of surface water source.

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

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.

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

Your Future is Safe With Us

Clean, safe water is essential to the health and well-being of our community. The City of Kennewick will continue to work hard to provide safe, reliable drinking water. We place great importance on delivering high-quality water to every tap, every day. The City consistently delivers water that meets or surpasses all state and federal standards.

