

2016 CITY OF RED BLUFF CONSUMER CONFIDENCE REPORT

PUBLIC WATER SYSTEM #5210004

The City of Red Bluff operates a public water system under a permit issued by the State Water Resources Control Board (State Board). The permit was first issued in 1971 and is amended as improvements are added to the system. The State makes routine inspections of the water system and is the recipient of **all** test results. The City is regulated by Title 22 of the California Code of Regulations. This annual report includes water quality data through December 31, 2016. For additional information concerning this Consumer Confidence Report, contact **Public Works (530) 527-2605 extension 3067**.

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

THE FOLLOWING ARE DEFINITIONS OF SOME OF THE TERMS USED IN THIS REPORT:

<p>Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.</p> <p>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 are set by the U.S. Environmental Protection Agency (USEPA).</p> <p>Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.</p> <p>Minimum Reporting Level (MRL): The smallest measured concentration of a substance that can be reliably measured by using a given analytical method.</p>	<p>Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p>ppm: parts per million or milligrams per liter (mg/L). One ppm or mg/l is equal to : One inch in 16 miles, One second in 11.5 days or One minute in two years.</p> <p>ppb: parts per billion or micrograms per liter (ug/L). One ppb or ug/l is equal to: One second in nearly 32 years, Single penny in \$10,000,000 or One pinch of salt in 10 tons of potato chips.</p> <p>pCi/L: Pico curies per liter (a measure of radiation)</p> <p>AL: Action Level</p>
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SOURCE OF WATER

The City currently operates 13 wells, varying in depth from 250' to 625' and varying in capacity from 480 to 2,400 gallons per minute. The water supplied by the 13 wells is not altered or treated prior to distribution. The City currently has two 3 million gallon water storage facilities.

An assessment of the drinking water sources for the City of Red Bluff Water System was completed in February 2003. A copy of this assessment is available by contacting the Public Works Dept. at 530-527-2605 ext. 3067. The sources that are considered most vulnerable are those in close proximity to gas stations, underground storage tanks, sewer and septic collection systems and industrial manufacturers.

WATER QUALITY ANALYSIS

The following "range of test values", reflect the most recent analysis of the 13 well sites. All chemicals reported have no Public Health Goal (PHG).

DISTRIBUTION SYSTEM MICROBIOLOGICAL QUALITY OF WATER

CONTAMINANT	SAMPLE DETECTIONS	MCL	SOURCE OF BACTERIA
Total Coliform Bacteria	0	< 2	Naturally present in environment
Fecal Coliform or E. coli	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	Human and animal fecal waste

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems. The City tests four samples from the distribution system on a weekly basis for coliform organisms. The State Board regulations specify that no more than one routine sample is to be positive for coliform in a month.

INDIVIDUAL TAP MONITORING FOR LEAD AND COPPER

Monitoring of individual customer's taps from locations within the water system is performed for lead and copper. This monitoring is done periodically to verify that the delivered water does not contain lead or copper. Triennial testing for lead and copper is required by the State Board on a varied schedule. **Thirty** samples were collected in June 2016. The State allows monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

LEAD / COPPER	# OF SAMPLES	90 th PERCENTILE	# OF SAMPLES OVER AL	AL
Lead	30	0.0001 mg/l	0	.015 mg/l
Copper	30	0.0091 mg/l	0	1.3 mg/l

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 Red Bluff 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 30 seconds to 2 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 or at <http://www.epa.gov/safewater/lead>.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR3)

CONTAMINANT	RANGE DETECTED	AVERAGE	MRL	NO MCL SET BY STATE	DATE SAMPLED
Chromium 6+	1.1--6.1 ug/L	4.06 ug/L	0.030 ug/L	N/A	December 2015
Chromium, Total	1.2--5.9 ug/L	3.87 ug/L	0.20 ug/L	N/A	December 2015
Strontium, Total	140--280 ug/L	218.46 ug/L	0.30 ug/L	N/A	December 2015
Vanadium, Total	4.2--18 ug/L	12.89 ug/L	0.20 ug/L	N/A	December 2015

Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board to determine where certain contaminants occur and if it is necessary to regulate them.

RADIOLOGICAL WATER QUALITY

Results of water sample analyses performed to measure radiological constituents. The water system is in compliance if the level does not exceed 5 pico Curies per liter (pCi/l). Results of 3/31/2016 test for constituents were <1.0 to <3.0 (pCi/l). Composite Sampling test for Gross Alpha, Radium 226, Radium 228 and Uranium met the new regulations mandated by the State.

SODIUM AND HARDNESS

Although sodium and hardness do not have MCL's they are of interest to many consumers who are concerned about sodium intake and may believe that the hardness of the water could affect their health.

CONTAMINANT	RANGE DETECTED	MCL	DEGREE
Sodium	12. – 26. mg/L	N/A	Considered low
Hardness	67.1 – 98.5 mg/L	N/A	0-50/soft, 300-up/very hard

ARSENIC

While your drinking water meets the current Federal & State standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The California Department of Health Services continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

CONTAMINANT	RANGE DETECTED	MCL	SAMPLED
Arsenic	2.-3. U _g /L	10 ug/L	March 2016

GENERAL INFORMATION ON DRINKING WATER

CONTAMINANT	RANGE DETECTED	MCL	SAMPLED
Copper (Cu)	.004--0.01 ug/L	1.3 ug/L	2014
Fluoride(F) Natural Source	0.0--0.01 mg/L	2.0 mg/L	2014
Nitrate N (nitrogen)	0.5--1.6 mg/l	10 mg.l	2016
Nitrate (AS NO ₃)	2.0—8.6 mg/L	45 mg/L	2015
Sulfate (SO ₄)	1.8--6.0 mg/L	500 mg/L	2014

Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/l may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

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, some elderly individuals, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The USEPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

The sources of drinking water (both tap water and bottled 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, 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 that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the SWRCB (State Water Resources Control Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Water customers reviewing this report are asked to share this information with any tenant or water user on their premises. We think it is important for you, our customer, to have current and factual information about your water supply.

Information that deals with decisions about our water system is announced during the Red Bluff City Council meetings on the first and third Tuesdays of every month at 7 p.m. in the Council Chambers at 555 Washington Street. Agendas are posted at City Hall and on our website www.cityofredbluff.org. An online version of this report is also available at www.cityofredbluff.org/public notices.