



CITY OF RIVERBANK

# **Water Quality Report 2016**

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

# BE A PART OF THE SOLUTION!

Join our regularly scheduled board meetings  
available for public participation:

**TIME:** The 2nd and 4th Tuesday of each month

**PLACE:** 6707 Third St. Riverbank, CA

For more information, contact:

Eric Tackett Phone: (209) 869-7128



## GENERAL INFORMATION

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2016 and may include earlier monitoring data.

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'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 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, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (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.

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 Riverbank 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>.

Nitrate as Nitrogen 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 serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate-N 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 specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, that 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, that are by-products of industrial and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, that 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, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

## VULNERABILITY ASSESSMENT SUMMARY

A source water assessment was conducted for the wells of the City of Riverbank's water system in December of 2001. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: gas stations, sewer collection systems, automotive repair/body shops, high density housing, and waste dumps/landfills. For more information regarding the assessment, contact: Eric Tackett at: (209) 869-7128.

**WATER QUALITY TABLES**

Public Water System ID: CA5010018

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste
<i>E. coli</i> (Federal Revised Total Coliform Rule)	(From 4/1/16 - 12/31/16)	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Lead and Copper (and reporting units)	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2014	30	< 5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2014	30	0.1	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2016	21	15 - 30	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2016	262	151 - 353	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

\*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG) (MRDLG)	Typical Source of Contaminant
Nitrate as Nitrogen (ppm)	2016	4	1 - 8	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride (ppm)	2016	< 0.1	< 0.1 - 0.1	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Arsenic (ppb)	2016	< 2	< 2 - 3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2016	< 0.1	< 0.1 - 0.2	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
Gross Alpha (pCi/l)	2016	7	5 - 10	15	0	Erosion of natural deposits
Uranium (pCi/l)	2016	6	2 - 8	20	0.4	Erosion of natural deposits
Hexavalent Chromium (ppb)	2016	4	2 - 6	10	0.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, and textile manufacturing facilities; erosion of natural deposits

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Total Dissolved Solids (ppm)	2016	277	159 - 407	1000	N/A	Runoff/leaching from natural deposits
Specific Conductance (umho/cm)	2016	406	207 - 607	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	2016	14	7 - 22	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2016	11	3 - 22	500	N/A	Runoff/leaching from natural deposits' industrial wastes
Turbidity (NTU)	2016	0.2	< 0.05 - 1.3	5	N/A	Soil runoff
Iron (ppb)	2016	< 100	< 100 - 130	300	N/A	Leaching from natural deposits; industrial wastes

\*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided on the next page.



**TERMS AND ABBREVIATIONS**

**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.

**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).

**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.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS):** MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

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

**Variations and Exemptions:** State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

**ppm:** parts per million or milligrams per liter (mg/L)

**ppb:** parts per billion or micrograms per liter (µg/L)

**ppt:** parts per trillion or nanograms per liter (ng/L)

**ppq:** parts per quadrillion or picogram per liter (pg/L)

**pCi/L:** picocuries per liter (a measure of radiation)

**NAME AND LOCATION OF GROUNDWATER SOURCES**

<b>Well 2</b> (Eighth St.)	<b>Well 7</b> (Crossroads)
<b>Well 3</b> (Jackson)	<b>Well 8</b> (Novi)
<b>Well 4</b> (Pioneer)	<b>Well 9</b> (Prospector)
<b>Well 5</b> (River-Heights)	<b>Well 10</b> (Oakdale)
<b>Well 6</b> (Whorton)	<b>Well 12</b> (Chief Tucker)

**WATER CONSERVATION**

- View current water days and times online at: [www.riverbank.org/173/Water-Days](http://www.riverbank.org/173/Water-Days)
- Drip line systems are not restricted.
- Repair all leaks - inside and outside.
- Put food coloring in your toilet tank to discover leaks.
- Economize: Shut water off while brushing teeth, run full loads of dishes/laundry and reduce shower time.
- Insulate hot water pipes.
- Use a pool cover to prevent water loss through evaporation.
- Use a hose nozzle or turn off the water while washing your vehicles and pets.
- Scrape dishes instead of rinsing them before washing.
- If you witness a water waster, call Water Waster Hotline at 209-869-7109 or any City office.

You are welcome to participate in the City Council Meetings to voice any concern regarding our drinking water. The Council meets the 2nd and 4th Tuesday of each month located at 6707 - Third Street, Riverbank, CA.

