

2017 Consumer Confidence Report

Water System Name: RIVERSTONE/ROOT CREEK WATER DISTRICT Report Date: JULY 1, 2018

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, 2017 and may include earlier monitoring data.

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

Diamntawwv tshaj tawn no muaj lust seem ceeb txog koj cov dej haus. Tshab txhais nws, los yog tham nrog tej tug neeg uas totaub toxog nws.

Dear Customer,

On behalf of our team, we are pleased to present to you our 1st annual, 2017 Consumer Confidence Report. This Report is designed to inform you about the quality of water we delivered by providing a snapshot of last year's water sampling results. Our treatment technicians routinely monitor the system for drinking water contaminants in accordance with our approved sampling plans and procedures. Included are details about where your water comes from, what it contains, and how it compares to State standards. Most importantly, this is a chance to ensure our valued customers are better informed about their water.

Type of water source(s) in use: GROUNDWATER

Name & general location of source(s): Riverstone/ Root Creek Water District wells are located in Madera County, CA

Drinking Water Source Assessment information: Vulnerability well reports are available at 5105 E. Belmont Avenue

from Monday to Friday between 8 a.m. – 5 p.m.

For more information, contact: Steve Pickens / Shay Bakman Phone: (559) 326-2222

TERMS USED IN THIS REPORT

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 (U.S. EPA).

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.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

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

ppb: parts per billion or micrograms per liter ($\mu\text{g/L}$)

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)

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 byproducts of industrial processes 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.
- ** Indicates information that is more than 1 year old

In order to ensure that tap water is safe to drink, the U.S. EPA 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.

Tables 1, 2, 3, 4, 5, and 6 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. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) 0	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i> (state Total Coliform Rule)	(In the year) 2017 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive		Human and animal fecal waste
<i>E. coli</i> (federal Revised Total Coliform Rule)	(In the year) 2017 0	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 (complete if lead or copper detected in the last sample set)	Sample Date	No. of Samples Collected	90 th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	0	0	0	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	0	0	0	0	1.3	0.3	Not applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**** Riverstone / Root Creek Water District will be conducting its first round of Lead and Copper sampling at the customer's interior plumbing in 2018. Results will be reported in the 2018's CCR.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)**	2016	45	33 - 67	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)**	2016	153.3	40 - 220	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>Inorganic Contaminant</i>						
Aluminum (ppm)	2016	0.002	ND – 0.0061	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2016	4.9	4.5 – 5.5	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium (ppm)	2016	0.23	0.16 – 0.32	1	0.2	Discharge of oil drilling wastes and from metal refineries, erosion of natural deposits
Total Chromium (ppb)	2016	.7	ND – 2.1	50	2.5 (100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)**	2016	0.06	ND – 0.18	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (at the well head) (ppb)**	2016	ND	ND	15	0.2	Discharges from industrial manufacturers; erosion of natural deposits
Mercury (ppb)	2016	ND	ND	2	1.2	Erosion of natural deposits and runoff from landfills and crop lands
Nitrate as N (ppm)	2017	1.63	ND – 3.3	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewer; erosion of natural deposits
Perchlorate (ppb) **	2016	< 4.0	< 4.0	6	1	Perchlorate is an organic chemical used in solid rocket propellant, fireworks, explosives, flares, matches and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store or dispose of perchlorate and its salts
<i>Synthetic Organic Contaminants</i>						
Dibromochloropropane DBCP – EDB (ug/L)	2017	ND	ND	.2	1.7	Banned nematocide that may still be present from runoff/leaching from former use
<i>Volatile Organic Contaminants</i>						
Tetrachloroethylene (PCE) (ppb)	2017	ND	ND	5	0.06	Discharge from factories, dry cleaners and auto shops (metal degreaser)

Radioactive Contaminants						
Gross Alpha Particle Activity (pCi/L)	2017	\pm 4.6 2.47	\pm < 3 – 9.8 1.5 – 3.4	15	N/A	Erosion of natural deposits
Uranium (pCi/L)	2017	1.33	1.2 – 1.5	20	0.43	Erosion of natural deposits
Radium 226 (pCi/L)	2017	\pm 0.44 0.38	\pm < 1 – 0.78 0.23 – 0.47	5	0.05	Erosion of natural deposits
Radium 228 (pCi/L)	2017	\pm 1.23 0.53	\pm 0.90 – 1.5 0.49 – 0.6	5	0.019	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	2017	\pm 1.68 0.61	\pm 1.45 – 2.08 0.5 – 0.79	5	0	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Copper (tested at well head) (ppm)**	2016	ND	ND	1	N/A	Erosion of natural deposits leaching from wood preservative
Alkalinity as CaCo3 (ppm)	2016	98	95 - 100	N/A	N/A	Leaching from natural deposits, Industrial waste
Bicarbonate as HCO3 (ppm)	2016	120	120 -120	N/A	N/A	N/A
Calcium (ppm)	2016	41.3	28 - 62	N/A	N/A	Leaching from natural deposits
Chloride (ppm)	2016	97	41 - 180	500	N/A	Run off leaching from natural deposits, sea water influence
Color (color units) **	2016	1.67	ND - 5	15	15	Naturally occurring organic materials
Iron (ppb)**	2016	67	ND - 200	300	N/A	Leaching from natural deposits and industrial waste
Langelier (Index Source Temp) (ppm)	2016	-0.5	-0.35 – 0.10	N/A	N/A	N/A
Magnesium (ppm)**	2016	11.7	9.1 - 15	N/A	N/A	Erosion of Natural deposits
Manganese (ppb)**	2016	26.5	.6-55	50	N/A	Leaching from natural deposits
Odor threshold (units) **	2016	1.0	1.0 – 1.0	3	3	Naturally occurring organic materials
pH (std. units)**	2016	7.73	7.6 – 7.8	N/A	N/A	N/A
Potassium (ppm)	2016	5.6	5.4 – 5.9	N/A	N/A	Leaching from natural deposits, industrial waste
Sulfate (ppm)	2016	7.7	4.1 - 13	500	N/A	Run off leaching from natural deposits, sea water influence

Total dissolved solids (TDS) Total Filterable Residue (TFR) mg/L **	2016	406.7	290 - 600	1000	1000	Runoff leaching from natural deposits
Turbidity (NTU)**	2016	0.37	0.23 – 0.49	5	N/A	Soil run off

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level		Health Effects Language
1,2,3 Trichloropropane (1,2,3 TCP) (ppt) **	2017	ND	ND	5		Some people who use water containing 1,2,3 TCP in excess of the notification level over many years may have an increased risk of getting cancer, based on studies in laboratory animals
Chrome VI (ug/L) **	2016	.66	0.20 – 1.2	N/A	0.02	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits

Additional General Information on Drinking Water

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 U.S. 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 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. U.S. EPA/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 (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. Bakman Water Company 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

In January 2017, in response to a 2015 directive by Gov. Jerry Brown, the State Water Resources Control Board Division of Drinking Water (DDW) issued permit amendments to community water systems with K – 12 schools in their systems to provide free lead sampling and analysis for up to five tap locations to any public, private or charter schools that serves students in Kindergarten through grade 12, providing that the school requests this testing. Currently, Riverstone/Root Creek Water District does not have any K-12 schools within its water service to test for lead in its water.

**Summary Information for Violation of a MCL, MRDL, AL, TT,
or Monitoring and Reporting Requirement**

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
0	0	0	0	0

For Water Systems Providing Groundwater as a Source of Drinking Water

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES					
Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	2017 0	2017	0	(0)	Human and animal fecal waste
Enterococci	2017 0	2017	TT	0	Human and animal fecal waste
Coliphage	2017 0	2017	TT	0	Human and animal fecal waste

**Summary Information for Fecal Indicator-Positive Groundwater Source Samples,
Uncorrected Significant Deficiencies, or Groundwater TT**

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLE				
N/A				
SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES				
N/A				
VIOLATION OF GROUNDWATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
0	0	0	N/A	Human and animal fecal waste

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct zero (0) Level 1 assessment(s). Zero (0) Level 1 assessment(s) were completed. In addition, we were required to take zero (0) corrective actions and we completed zero (0) of these actions.

During the past year zero (0) Level 2 assessments were required to be completed for our water system. zero (0) Level 2 assessments were completed. In addition, we were required to take zero (0) corrective actions and we completed zero (0) of these actions.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take zero (0)] corrective actions and we completed zero (0) of these actions.
