2022 Consumer Confidence Report

Water System Name: **BERRY CREEK C. S. D.** system # **CA0400016** Report Date: August 2023

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 to December 31, 2022 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Almond Grove Mobile Home Park a (530) 342-6056 para asistirlo en español.

Type of water source(s) in use: According to SWRCB records, this Source is Groundwater.

Name & general location of source(s): WELL #1 (001), WELL #2 (002), WELL #3 and WELL #5 Zink Rd., Berry Creek

Drinking Water Source Assessment information: This assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the 001 WELL and the 002 WELL of the BERRY CREEK COMMUNITY SER DIST water system in October, 2002. A Drinking Water Source Assessment is not on file for the WELL#3 and WELL#5 of the BERRY CREEK COMMUNITY SER DIST water system.

WELL #1 - is considered most vulnerable to the following activities not associated with any detected contaminants:
Wells - Water supply
WELL #2 - is considered most vulnerable to the following activities not associated with any detected contaminants:
Wells - Water supply and Recreational area - surface water source
WELL #3 - does not have a completed assessment on file.
WELL #5 - does not have a completed assessment on file.

Discussion of Vulnerability:
Well 01 - The source is considered vulnerable to the listed activities located near the source. Water supply wells and a surface water source (pond) are ranked as the highest possible contaminating activities. Three other water supply wells are located on Berry Creek Community Service District`s property within Zone A of Well #1. The pond at Camp Okizu is used for recreation during the summer months. This Department is not aware of any contaminants originating from these activities.

Well 02 - The source is considered vulnerable to the listed activities located near the source. Water supply wells and a surface water source (Lake/pond) are ranked as the highest possible contaminating activities. Three other water supply wells are located on Berry Creek Community Service District`s property within Zone A of Well #2. The lake/pond at Camp Okizu is used for recreation during the summer months. This Department is not aware of any contaminants originating from these activities.

Assessment summaries are not available for some sources. This is because:
- The Assessment has not been completed. Contact the local DDW district office or the water system to find out when the Assessment is scheduled to be done.
- The Assessment was not submitted electronically. The site used to obtain Assessments only provides access to Assessment summaries submitted electronically.

Acquiring Information:
A copy of the complete assessment may be viewed at:
Butte County Public Health Department, Division of Environmental Health
202 Mira Loma Dr.
Oroville, CA 95965
You may request a summary of the assessment be sent to you by contacting:
Butte County Environmental Health Program Manager
(530) 552-3880 (phone), 530-538-5339 (fax)

Time and place of regularly scheduled board meetings for public participation: Regularly-scheduled water board or city/county council meetings are held monthly. The State Water Resources Control Board may offer other opportunities.

For more information, contact: Jeff Davis jeffreyd@live.com Phone: (530) 613-4166

TERMS USED IN THIS REPORT

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.

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).

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.

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

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.

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

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.

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)

Sources of Drinking Water and Contaminants that May Be Present in Source Water: 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.

Regulation of Drinking Water and Bottled Water Quality: In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality - Drinking Water Contaminants Detected: Tables 1, 2, 3, 4, 5, 6, 7, 8 and A 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	Highest Number of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
E. Coli	(In the year 2022) 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	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	July 13-15, 2018 * See Table 7	5	ND	0	15	0.2	0	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	July 13-15, 2018 * See Table 7	5	ND	0	1.3	0.3	Not applicable	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	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	(2015-2022)	6.8	6.0 - 12	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	(2015-2022)	11	6.0 – 27.2	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
Copper, Free (mg/L)	(2015-2022)	ND	ND - ND	Action Level 1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	(2018-2022)	*	ND – Well #1 8.97 - Well #2 ND – Well #3 ND – Well #5	Action Level 15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Nitrate (as N) mg/L	(2022)	.5	0.4 Well #1 0.4 Well #2 0.5 Well #3 0.6 Well #5	10	10	Leaching from septic tanks, sewage; erosion of natural deposits; fertilizer use.
Radium-228 (pCi/L)	(2017-2022)	ND	ND	5	0.019	Erosion of natural deposits.

* The level of Lead and in the water in the tank from which water is delivered to homes will be less than the less than the level found in Well #2. The water from all four wells is pumped simultaneously into the tank. The mixing of all of the wells' water together in the tank dilutes the level of Lead from Well #2 before any water is sent into the distribution system pipes delivered to homes.

Please continue reading on the next page

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (mg/L)	(2015-2022)	1.6	1 – 2.0	500	n/a	Runoff/leaching from natural deposits; seawater influence.
Iron (µg/L)	(2015-2022)	**	ND Well #1 ND Well #2 ND Well #3 370 Well #5	300	n/a	Leaching from natural deposits; industrial wastes
Specific Conductance (µS/cm)	(2015-2022)	47	45 – 51.7	1,600	n/a	Substances that form ions when in water; seawater influence.
Sulfate (mg/L)	(2015-2019)	**	0.63 Well #1 ND Well #2 0.52 Well #3 0.61 Well #5	500	n/a	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (TDS) mg/L	(2015-2022)	49	45 - 53	1,000	n/a	Runoff/leaching from natural deposits.
Turbidity (Units)	(2015-2019)	** See note below and the note in Table 7.	ND Well #1 ND Well #2 ND Well #3 12.1 Well #5	5 TT	n/a	Soil runoff.

** The levels of Iron, Sulfate and Turbidity in the water in the tank from which water is delivered to homes will be less than the highest level shown. The water from all four wells is pumped simultaneously into the tank. The mixing of all wells' water together in the tank dilutes higher levels before water is sent into the distribution system pipes to be delivered to homes.

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Hexavalent Chromium (ug/L)	(2014)	Not detected ***	ND - ND	0.02 **	Some people who drink water containing Hexavalent Chromium in excess of the MCL over many years may have an increased risk of getting cancer.

*** There is currently no MCL for Hexavalent Chromium. The previous MCL of 10ug/L was withdrawn on 9/11/17. Hexavalent Chromium is expected to be reinstated with an MCL in the Primary Drinking Water Standard later in 2023 or in 2024.

TABLE 7 – VIOLATION OF A MCL, MRDL, AL, TT OR MONITORING REPORTING REQUIREMENT

TT:
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.
High Turbidity is present in Well #5. The water from all four wells is always mixed together, which lowers overall turbidity. The Berry Creek Community Services District is not required to filter its water.

VIOLATION: Failure To Perform Routine Monitoring
The Butte County Division of Environmental Health issued a Violation for failure to collect and report the required results, as per California Code of Regulations (CCR) Title 22, for the following:
Lead and Copper monitoring within five homes as specified in the California Code of Regulations (CCR), Title 22, Section 64675 for the compliance period of January 1 to December 31, 2022.
Lead and Copper sampling must be conducted June-September and results submitted by October 10, 2023.

Corrective Action: Five samples will be collected in September of 2023 and results will be submitted as required.

TABLE 8 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES

NONE IN 2022

TABLE A – ADDITIONAL DETECTIONS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**Notification Level**	**Typical Source of Contaminant**
Calcium (mg/L)	(2015-2022)	4.5	2 - 6	n/a	n/a
Magnesium (mg/L)	(2015-2022)	****	ND Well #1 ND Well #2 ND Well #3 2 Well #5	n/a	n/a
pH (units)	(2015-2022)	6.0	5.44 – 6.9	n/a	n/a
Alkalinity (Total) mg/L	(2015-2022)	23	17- 35	n/a	n/a
Aggressiveness Index	(2015-2022)	8.2	7.4 – 9.4	n/a	n/a
Langelier Index	(2022)	-2.4 Well #5	-2.4 Well #5	n/a	n/a

**** The level of Sulfate in the water in the tank from which water is delivered to homes will be less than the less than the level found in Well #5. The water from all four wells is pumped simultaneously into the tank. The mixing of all of the wells' water together in the tank dilutes the level of Lead from Well #5 before any water is sent into the distribution system pipes delivered to homes.

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: 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. ***BERRY CREEK COMMUNITY SERVICE DISTRICT*** 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 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 (1-800-426-4791) or at http://www.epa.gov/lead.

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 ONE **LEVEL 1 ASSESSMENT**. One Level 1 Assessment was completed. In addition, we were required to take ONE corrective action and we completed ONE corrective action.

During the past year NO **LEVEL 2 ASSESSMENTS** were required to be completed for our water system. NO Level 2 assessments were completed. We were not required to take any corrective actions.

Source Water Protection Tips for Consumers

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.

Water Conservation Tips for Consumers

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers – a 5 minutes shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving and save up to 500 gallons a month.
- Water-efficient showerheads are inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Fix leaking toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.