# 2021 Consumer Confidence Report

## Water System Information

Water System Name: **Riverkern Mutual Water Company 1500251**

Report Date: May 9, 2022

Type of Water Source(s) in Use: Groundwater

Name and General Location of Source(s): Well 1-01 and Well 3-01, located in Kernville, CA

Drinking Water Source Assessment Information: Source water assessments for Wells 01 and 03 were submitted to the Division of Drinking Water in January 2009. The assessments identify possible sources of contamination to aid in prioritizing pollution cleanup and prevention efforts. The reports are available for viewing at our office. Wells 01 and 03 are considered to be most vulnerable to activities associated with contaminants detected in water supply, agricultural drainage, other animal operations, pesticide/fertilizer/petroleum storage and transfer areas, septic systems (low density <1 house per acre) sewer collection systems, irrigated crops (berries, hops, mint, orchards, sod, greenhouses), housing (density > 1 house per acre), campgrounds, recreational areas, and RV parks. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: farm machinery repair and underground storage tanks (tanks smaller than the regulatory limit).

Time and Place of Regularly Scheduled Board Meetings for Public Participation: 9 am – Third Saturday every month at 237 Cowbelle Blvd., Kernville, CA 93238.

For More Information, Contact: Tobin Josif Phone: (818) 970-6022

## About This Report

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, 2021 and may include earlier monitoring data.

## Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse [Enter Water System’s Name] a [Enter Water System’s Address or Phone Number] para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 [Enter Water System Name]以获得中文的帮助: [Enter Water System’s Address][Enter Water System’s Phone Number].

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa [Enter Water System’s Name and Address] o tumawag sa [Enter Water System’s Phone Number] para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ [Enter Water System’s Name] tại [Enter Water System’s Address or Phone Number] để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau [Enter Water System’s Name] ntawm [Enter Water System’s Address or Phone Number ] rau kev pab hauv lus Askiv.

## Terms Used in This Report

| **Term** | **Definition** |
| --- | --- |
| 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. |
| 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. |
| 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. |
| 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. |
| Variances and Exemptions | Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions. |
| ND | Not detectable at testing limit. |
| N/A | Not Applicable |
| 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, and 8 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 No. of Detections** | **No. of Months in Violation** | **MCL** | **MCLG** | **Typical Source of Bacteria** |
| --- | --- | --- | --- | --- | --- |
| *E. coli* | 20210 | 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 1.A. Compliance with Total Coliform MCL between January 1, 2021 and June 30, 2021 (inclusive)**

| **Microbiological Contaminants**  | **Highest No. of Detections** | **No. of Months in Violation** | **MCL** | **MCLG** | **Typical Source of Bacteria** |
| --- | --- | --- | --- | --- | --- |
| Total Coliform Bacteria  | (In a month)0 | 0 | 1 positive monthly sample (a) | 0 | Naturally present in the environment |
| Fecal Coliform and *E. coli*  | (in the year)0 | 0 | 0 | None | Human and animal fecal waste |

(a) For systems collecting fewer than 40 samples per month: two or more positively monthly samples is a violation of the total coliform MCL

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

| **Lead and Copper**  | **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) | 2020 | 6 | ND | 0 | 15 | 0.2 | 0 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 2020 | 6 | 0.28 | 0 | 1.3 | 0.3 | Notapplicable | 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) | 2019-2021 | 31 | 25-36 | None | None | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 2019-2021 | 94 | 77-110 | 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** |
| Fluoride (ppm) | 2019-2021 | 0.36 | 0.30-0.42 | 2 | 1 (4.0) | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| Nitrate as N (ppm) | 2021 | 0.90 | ND-1.8 | 10 | 10 (10) | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Gross Alpha Particle Activity (pCi/L) | 2016-2021 | 5.4 | 5.3-5.4 | 15 | (0) | Erosion natural deposits |
| Uranium (pCi/L) | 2016-2021 | 3.9 | 3.2-4.6 | 20 | 0.43 (0) | Erosion natural deposits |
| Total Haloacetic Acids (THAA) (ppb) | 2019 | 3.9 | 3.9 | 60 | N/A | Byproduct of drinking water disinfection |
| Total Trihalomethane (TTHM) (ppb) | 2019 | 12 | 12 | 80 | N/A | Byproduct of drinking water disinfection |

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 (ppm) | 2019-2021 | 11 | 8.4-14 | 500 | N/A | Runoff/leaching from natural deposits |
| Specific Conductance S/cm) | 2021 | 316 | 260-370 | 1600 | N/A | Substance that form ions when in water |
| Sulfate (ppm) | 2019-2021 | 18 | 11-24 | 500 | N/A | Runoff/leaching from natural deposits |
| Total Dissolved Solids (ppm) | 2019-2021 | 210 | 170-250 | 1000 | N/A | Runoff/leaching from natural deposits |
| Turbidity (NTU) | 2019-2021 | 0.17 | 0.10-0.23 | 5 | N/A | Soil runoff |

Table 6. Detection of Unregulated Contaminants

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Chemical or Constituent (and reporting units)** | **Sample Date** | **Level Detected** | **Range of Detections** | **Notification Level** | **Health Effects**  |
| Alkalinity (total) (ppm) | 2021 | 129 | 110-150 | N/A | N/A |
| Calcium (ppm) | 2021 | 15.5 | 24-35 | N/A | N/A |
| Perfluorooctanesulfonic acid (PFOS)\* (ppt) | 2021 | ND | ND-4.0 | 6.5 | \*See footnote below |
| Potassium (ppm) | 2019-2021 | 2.5 | 2.3-2.6 | N/A | N/A |
| Magnesium (ppm) | 2019-2021 | 5.1 | 3.9-6.2 | N/A | N/A |
| pH (STD U) | 2021 | 7.0 | 6.7-7.4 | N/A | N/A |

\*PFOS was detected in one well below the Notification Level (NL). PFOS is a member of a large class of chemicals known as per- or polyfluoroalkyl substances (PFAS) that were used in many consumer products for their non-stick and grease- and stain-resistant properties, and also in firefighting foams.  Exposure to PFOS above certain levels can cause adverse health effects, including harmful effects to a developing fetus or infant, the immune system and liver, and cancer.  While consumer products are a large source of exposure to these chemicals for most people, drinking water has become an `increasing concern due to the persistence and tendency of these chemicals to accumulate in groundwater.

NLs are nonregulatory, health-based advisory levels that State Water Resources Control Board (SWRCB) establishes as a precautionary measure for contaminants for which regulatory standards have not been set.  Certain requirements are triggered when chemicals are detected at levels that exceed their respective NLs.

### Additional General Information on Drinking Water

**Riverkern Mutual drinking water is disinfected with chlorine. In 2021 the free chlorine had an average of 1.1 ppm and a range of 0.55-1.8 ppm which meets regulatory compliance.**

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. Riverkern Mutual 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. 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>.

State Revised Total Coliform Rule (RTCR): This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria).  The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems.  Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist.  If found, these must be corrected by the water system.  The state Revised Total Coliform Rule became effective July 1, 2021.

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

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Violation** | **Explanation** | **Duration** | **Actions Taken to Correct Violation** | **Health Effects Language** |
| No Violations | N/A | N/A | N/A | N/A |

### For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. 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** |
| --- | --- | --- | --- | --- | --- |
| *E. coli* | 0 | 2021 | 0 | (0) | Human and animal fecal waste |
| Enterococci | N/A | N/A | TT | N/A | Human and animal fecal waste |
| Coliphage | N/A | N/A | TT | N/A | Human and animal fecal waste |

### Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

|  |
| --- |
| **Special Notice of Fecal Indicator-Positive Groundwater Source Sample:** N/A |

|  |
| --- |
| **Special Notice for Uncorrected Significant Deficiencies:** N/A |

Table 9. Violation of Groundwater TT

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Violation** | **Explanation** | **Duration** | **Actions Taken to Correct Violation** | **Health Effects Language** |
| No Violations | N/A | N/A | N/A | N/A |

### Summary Information for Operating Under a Variance or Exemption

Riverkern Mutual Water Company has a reduced frequency sampling variance for Disinfection Byproducts (DBP), Volatile Organic Compounds (VOC) and Semi-Volatile Organic Compounds (SVOC) due historical detections being very low or non-detect.

### Summary Information for 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

**NO VIOLATIONS OF ANY TYPE IN 2021**