

2022 Consumer Confidence Report

Water System Information

Water System Name: CSA #3 – Castella

Report Date: 06/16/2023

Type of Water Source(s) in Use: Stream

Name and General Location of Source(s): Castle Creek

Drinking Water Source Assessment Information: A copy of the January 2021 Watershed Sanitary Survey is available for review in the Development Services Office of the Shasta County Department of Public Works located at 1855 Placer Street, Redding, CA 96001.

Time and Place of Regularly Scheduled Board Meetings for Public Participation:

Shasta County Board of Supervisors – Tuesdays at 9:00 a.m., Board Chambers, 1450 Court Street, Redding, CA 96001

For More Information, Contact: Contact: Scott Sealander at 530-225-5571

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, 2022 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 CSA #3 – Castella a 1855 Placer Street, Redding, CA 96001, 530-225-5571 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 CSA #3 -Castella 以获得中文的帮助: 1855 Placer Street, Redding, CA 96001, 530-225-5571.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa CSA #3 – Castella 1855 Placer Street, Redding, CA 96001 o tumawag sa 530-225-5571 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 CSA #3 – Castella tại 1855 Placer Street, Redding, CA 96001, 530-225-5571 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsaab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau CSA #3 - Castella ntawm 1855 Placer Street, Redding, CA 96001, 530-225-5571 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 <i>E. coli</i> 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. |
| 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) |

| Term | Definition |
|-------|---|
| 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

Complete if bacteria are detected.

| Microbiological Contaminants | Highest No. of Detections | No. of Months in Violation | MCL | MCLG | Typical Source of Bacteria |
|------------------------------|---------------------------|----------------------------|-----|------|------------------------------|
| <i>E. coli</i> | 2022 | 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, 2022 and June 30, 2022 (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 <i>E. coli</i> | 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 | 90 th Percentile Level | No. Sites Exceeding AL | AL | PHG | No. of Schools Requesting Lead Sampling | Typical Source of Contaminant |
|-----------------|----------------------------|--------------------------|-----------------------------------|------------------------|-----|-----|---|---|
| Lead (ppb) | 6/19/2021 To 6/21/22 | 5 | .0129 | 0 | 15 | 0.2 | 0 | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 6/19/2021 To 6/21/22 | 5 | .0743 | 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) | 6/8/20 | 2.2 | N/A | None | None | Salt present in the water and is generally naturally occurring |
| Hardness (ppm) | 6/8/20 | 35 | N/A | 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 |
|--|----------------------------|---------------------------|---------------------|------------|--------------------|--|
| Total Trihalomethanes (TTHM) (ug/L) | 3/08/22 to 12/11/22 | 35.0 | 23.4 to 48.6 | 80 | N/A | By product of drinking water disinfection |
| Haloacetic Acids (HAAA5) (ug/L) | 3/08/22 to 12/11/22 | 16.7 | N/D To 36 | 60 | N/A | By product of drinking water disinfection |
| Chlorine (mg/L) (as measured in the distribution system) | Jan-Dec 2022 | Measured Daily. See Range | .2 To 1.1 | 4.0 | 4 | Drinking water disinfectant added for treatment. |
| Combined Radium (pCi/L) | 7/25/16 | 1.17 | N/A | 5 | .019 | Erosion of Natural Deposits |
| Asbestos (MFL) | 12/19/14 | 2.0 | N/A | 7 | 7 | Internal corrosion of asbestos cement water mains; erosion of natural deposits |
| Nickle (mg/L) | 11/13/21 To 12/27/21 | N/D | N/D | 100 | 12 | Erosion of natural deposits; discharge from metal factories |

| | | | | | | |
|--------------------|------------|-----|-----|--------------|--------------|---|
| Nitrate (mg/L) | 12/15/2022 | N/D | N/A | 10 (as N) | 10 (as N) | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits |
| Perchlorate (µg/L) | 12/15/2022 | N/D | N/A | 6 | 1 | Perchlorate is an inorganic 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. |

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 |
|---|-------------|----------------|---------------------|------|------------|---|
| Aluminum (ug/L) | 12/18/14 | 327.0 | N/A | 1000 | N/A | Erosion of natural deposits; residual from some surface water treatment processes |
| Total Dissolved Solids (TDS) (mg/L) | 6/8/20 | 51 | N/A | 500 | N/A | Runoff/leaching from natural deposits |

| | | | | | | |
|------------------------------|----------|------|-----|------|-----|---|
| Specific Conductance (uS/cm) | 12/29/21 | 105 | N/A | 1600 | N/A | Substances that form ions when in water; seawater influence |
| Sulfate (mg/L) | 6/8/20 | 1.59 | N/A | 500 | N/A | Runoff/leaching from natural deposits; industrial waste |

Table 6. Detection of Unregulated Contaminants

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | Notification Level | Health Effects |
|---|-------------|----------------|---------------------|--------------------|----------------|
| Calcium (CA) (mg/L) | 06/8/20 | 4.7 | N/A | N/A | |
| Potassium (K) (mg/L) | 06/14/11 | 0.26 | N/A | N/A | |
| Total Alkalinity (CaCO ₃) (ppm) | 06/8/20 | 37 | N/A | N/A | |
| Bicarbonate (HCO ₃) (mg/L) | 06/8/20 | 45 | N/A | N/A | |

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).

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. CSA #3 Castella 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

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 |
|-----------|-------------|----------|------------------------------------|-------------------------|
| N/A | 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 |
|---|-------------------------|--------------|------------|--------------------|-------------------------------|
| <i>E. coli</i> | N/A | N/A | 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

Table 9. Violation of Groundwater TT

| Violation | Explanation | Duration | Actions Taken to Correct Violation | Health Effects Language |
|-----------|-------------|----------|------------------------------------|-------------------------|
| N/A | N/A | N/A | N/A | N/A |

Table 10. Sampling Results Showing Treatment of Surface Water Sources

| | |
|---|--|
| Treatment Technique ^(a) (Type of approved filtration technology used) | Direct filtration technology including polymer flocculant and chlorination. |
| Turbidity Performance Standards ^(b) (that must be met through the water treatment process) | Turbidity of the filtered water must: 1 – Be less than or equal to .3 NTU in 95% of measurements in a month. 2 – Not exceed .3 NTU for more than eight consecutive hours. 3 – Not exceed 5 NTU at any time. |
| Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1. | 100% |

| | |
|--|---------|
| Highest single turbidity measurement during the year | .29 NTU |
| Number of violations of any surface water treatment requirements | 0 |

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

Table 11. Violation of Surface Water TT

| Violation | Explanation | Duration | Actions Taken to Correct Violation | Health Effects Language |
|------------------|--------------------|-----------------|---|--------------------------------|
| N/A | N/A | N/A | N/A | N/A |

Summary Information for Operating Under a Variance or Exemption

N/A