

2022 Consumer Confidence Report

Water System Name: AFP Mutual Water Company Report Date: March 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 - December 31, 2022 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.

Type of water source(s) in use: Groundwater from four (4) well(s) located in the community

NOTE: Water is primarily supplied from one (1) well. This well has a filtration plant to remove Iron and Manganese. The other three (3) Wells are put into use as water system demands dictate.

Drinking Water Source Assessment information: A drinking water source assessment was completed in 2016 and may be reviewed at the office. The water sources are considered most vulnerable to low density septic systems and transportation corridors (Corral Well).

Time and place of regularly scheduled board meetings for public participation: Every other month, AFP Mutual Water Company office; 18900 Alps Dr., Tehachapi, CA

For more information, contact: Water System Office Phone: 661-822-3266

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 (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.

Variances 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 (ug/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.

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.

Tables 1, 1.A, 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. 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>	(In the year) 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 1.A. Compliance with Total Coliform MCL between January 1, 2022 and December 31, 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) 5	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform and <i>E. coli</i>	(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

Lead and Copper (Complete if lead or copper detected in the last sample set)	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PH G	Typical Source of Contaminant
Lead (ppb) (July 2021)	5	4	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) (July 2021)	5	0.11	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	Level Detected	Range of Detections	MCL	PH G	Typical Source of Contaminant
Sodium (ppm)	2020	30	20-30	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2020	400	290-400	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
Gross Alpha (ug/L)	2014	ND	ND	15	(0)	Erosion of natural deposits
Arsenic (ppb)	2020	6.6	ND-6.6	10	0.004	Erosion of natural deposits
Barium (ppm)	2020	0.048	0.016-0.048	1	2	Erosion of natural deposits
Chromium (ppb)	2020	ND	ND	50	(100)	Erosion of natural deposits
Fluoride (ppm)	2020	0.150	0.054 – 0.150	2	1	Erosion of natural deposits
Lead (ppb)	2021	4	4	15	2	Erosion of natural deposits
Nitrate (ppm)	2022	0.53	ND-0.53	10	10	Erosion of natural deposits; leaching from fertilizer use and septic systems
Selenium (ppb)	2020	ND	ND	50	(50)	Erosion of natural deposits

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detection s	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2020	30	18-30	500	N/A	Runoff from natural deposits
Aluminum (ppb)	2020	ND	ND	200	N/A	Erosion of natural deposits
Iron (ppb)	Quarterly	4630	ND-4630	300	N/A	Leaching from natural deposits
Manganese (ppb)	Quarterly	210	ND-210	50	N/A	Leaching from natural deposits
Iron (ppb) (Treatment Plant Effluent)	Monthly	367	ND-1100	300	N/A	Leaching from natural deposits
Manganese (ppb) (Treatment Plant Effluent)	Monthly	25	ND-74	50	N/A	Leaching from natural deposits
Iron (ppb) (raw water source)	Quarterly	ND-2146	ND-2900	300	N/A	Leaching from natural deposits
Manganese (ppb) (raw water source)	Quarterly	ND-186	ND-210	50	N/A	Leaching from natural deposits
Color (units)	2020	10	2.0-10	15	N/A	Naturally occurring organic material
Sulfate (ppm)	2020	210	130-210	500	N/A	Runoff/leaching from natural deposits
TDS (ppm)	2020	670	460-670	1000	N/A	Runoff/leaching from natural deposits
Turbidity (NTU units)	2020	35	0.22-35	5	N/A	Soil runoff
Zinc (ppm)	2020	0.100	ND-0.100	5	N/A	Runoff/leaching from natural deposits
Specific Conductance uS/cm	2021	800	630-800	1600	N/A	Substances that form ions when in water; seawater influence

TABLE 6 - STAGE 2 DETECTION OF DISINFECTANTS/DISINFECTION BYPRODUCT RULE MONITORING

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Total Trihalomethanes (TTHMs) (ppb)	2022	ND	ND	80	N/A	Byproduct of drinking water disinfection
Haloacetic Acids (5) (HAA5) (ppb)	2022	1.0	ND – 1.0	60	N/A	Byproduct of drinking water disinfection

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

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
Citation #03_19_22C_054	The Water System did not submit a monthly treatment summary for the Iron/Manganese Treatment Plant from October 2020 to December 2021. The water system did not collect the required iron and manganese monthly samples from the Iron/Manganese Treatment Plant during May 2021 and June 2021. The Water System did not comply with the iron and manganese MCL at the Corral Well Iron/Manganese Treatment Plant, Sales Office well, and G.I. well. The treatment plant has been on and off from those dates due to leaking pipes and repair down time.	Oct 2020 – Present	AFP has repaired the iron and manganese treatment plant and is awaiting a new flow meter to begin running the treatment plant. AFP has also contacted a few engineering firms to get all wells exceeding the Iron and Manganese MCL in compliance with all drinking water standards.	There are no health effects for iron and manganese but due cause unpleasant taste, odor, and reddish-brown color in the water.

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 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 (1-800-426-4791).

Iron, Manganese and Turbidity: is frequently found in water systems supplied by groundwater wells. Mountain area wells are notoriously prone to produce water that contains these elements. There are no known direct adverse health effects; however, their presence above certain levels is objectionable. Clothes laundered can come out stained. Adding bleach may only intensify the stain. Plumbing fixtures are also stained.

***Treatment Plant is Sampled Monthly for Iron and Manganese**

Lead: 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. AFP MWC 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

Turbidity: Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Why are the term's "ppm" and "ppb" Important?

The terms refer to exposure standards and guidelines created to protect the public from harmful substances that can cause serious health effects. Exposure standards and guidelines are created from risk assessments that include dose response, exposure and hazard identification assessments. The following comparisons and information may be helpful:

1 standard atmosphere of water (1 liter of pure water at 4 degrees Celsius) weights 1,000,000 mg or one (1) kilogram (2.2 lbs.): 1 liter = 1.06 quarts.

One ppb = 1 inch in 16,000 miles; 1 cent in \$10 million; 1 second in 32 years; one drop in an Olympic swimming pool.

One ppm = 1 inch in 16 miles; 1 minute in 2 years; 1 cent in \$10,000; one drop in 55 gallons.

Report prepared by: A.F.P. Mutual Water Company March 13, 2023