2023 Consumer Confidence Report

Water System Name: **Arbuckle Public Utility District** Report Date: March 1, 2024

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, 2023.

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 wells blended together, Wells#1, #2, #3a, and #4.

Drinking Water Source Assessment information: Source assessment was done in 2003 and 2008. The complete assessment may be viewed at the State Water Board, 364 knollcrest Dr., Ste. 101, Redding, CA 96002 (530) 224-4800

Time and place of regularly scheduled board meetings for public participation: Second Thursday of each month at 6:00 pm at 104 5th St. Arbuckle CA.

For more information, contact: Fabian Gomez-Manager, Anna Hass-Office Manager Phone: (530) 476-2054

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: Department permission 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)

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 by-products 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 Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department 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 Department 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.

ADDITIONAL INFORMATION: OUR GROUNDWATER IS TREATED WITH CHLORINE TO PREVENT BACTERIAL CONTAMINATION.

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**
Fecal Coliform or *E. coli*	(In the year)	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 LEAD AND COPPER RESULTS

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**	**PHG**	**Typical Source of Contaminant**
Lead (ppb) 2021	10	ND	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2021	10	0.056	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**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm) well #1	2014	52	None	None	Salt present in the water and is generally naturally occurring
Well#2	2023	49			
Well#3a	2017	65			
Well#4	2022	61			
Hardness (ppm) Well#1	2023	207	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Well#2	2023	245			
Well#3a	2017	231			
Well#4	2022	222			

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY & SECONDARY DRINKING WATER STANDARDS					
Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**MCL**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Arsenic (ppb) Well#1	2020	3	10	None	Erosion of natural deposits, runoff from orchards, glass and electronic waste.
Well#2	2023	ND			
Well#3a	2023	3			
Well#4	2022	3			
Chromium (ppb) Well#1	2023	13	50	50	Discharge from steel and pulp mills, chrome plating and erosion.
Well#2	2023	ND			
Well#3a	2017	10			
Well#4	2022	ND			
Fluoride (ppm) Well#1	2023	0.2	2	1	Erosion of natural deposits, water additives for teeth and fertilizer runoff.
Well#2	2023	0.2			
Well#3a	2017	ND			
Well#4	2022	0.2			
Nitrate (ppm) Well#1	2023	3.2	10	10	Runoff and leaching from fertilizer, leaching from septic tanks, and erosion from natural deposits.
Well#2	2023	6.3			
Well#3a	2023	3.2			
Well#4	2023	3.1			
Barium (ppb) Well#1	2023	274	1000	None	Natural occurring
Well#2	2023	211			
Well#3a	2017	347			
Well#4	2022	343			
TDS. (ppm) Well #1	2023	400	1000	None	Natural occurring
Well#2	2023	420			
Well#3a	2017	400			
Well#4	2022	400			
Chloride (ppm) Well#1	2023	106	500	None	Natural occurring
Well#2	2023	90			
Well#3a	2017	104			
Well#4	2022	103			

Sulfate (ppm) Well#1	2014	12.7	500	None	Natural occurring
Well#2	2023	15.5			
Well#3a	2017	14.0			
Well#4	2022	14.7			
Gross alpha (pci/l) Well#1	2016	0.9	15	None	Erosion of natural deposits
Well#2	“	1.5			
Well#3a	“	0.56			
Well#4	“	1.1			
Radium 228 (pci/l) Well#1	2020	0.199	2	None	Erosion of natural deposits
Well#2	“	0.650			
Well#3a	“	0.342			
Well#4	“	0.215			
Zinc (ppb) Well#2	2023	ND	5000	None	Natural occurring
Well#4	2022	ND			
Manganese (ppb) Well#1	2023	ND	50	None	Natural occurring
Well#2	2023	ND			
Well#3a	2017	ND			
Well#4	2022	ND			
Selenium (ppb) Well#1	2023	ND	50	None	Natural occurring
Well#2	2023	ND			
Well#4	2022	ND			
Iron (ppb) Well#1	2023	ND	300	None	Natural occurring
Well#2	2023	420*			
Well#3a	2017	ND			
Well#4	2022	ND			
Lead (ppb) Well#3a	2017	ND	None	None	Natural occurring
Well#2	2023	ND			
Well#4	2022	ND			
Well#1	2023	ND			
Mercury (ppb) Well#1	2014	0.02	2	None	Natural occurring
Vanadium (ppb) Well#1	2023	7	None	None	Natural occurring
Well#2	2023	6			
Well#3a	2017	7			
Well#4	2022	7			
Lab turbidity (ntu)					
Well#1	2023	ND	5	None	Cloudiness of water
Well#2	2023	2.6			
Well#3a	2017	0.1			
Well#4	2022	0.1			
Boron (ppb) Well#1	2023	ND	None	None	Natural occurring
Well#2	2023	400			
Well#3a	2017	700			
Well#4	2022	ND			
Calcium (ppm) Well#1	2023	32	None	None	Alkaline group, Natural occurring
Well#2	2023	42			
Well#3a	2017	30			
Well#4	2022	28			

Magnesium (ppm) Well#1	2023	31	None	None	Natural occurring
Well#2	2023	34			
Well#3a	2017	38			
Well#4	2022	37			
Potassium (ppm) Well#1	2023	ND	None	None	Natural occurring
Well#2	2023	ND			
Well#3a	2017	1			
Well#4	2022	1			
Bicarbonate (ppm) Well#1	2014	200	None	None	An acid carbonate
Well#2	2014	240			
Well#3a	2017	240			
Well#4	2019	250			
PH (units) Well#1	2021	6.8	None	None	Hydrogen-ion activity of the water
Well#2	2021	6.8			
Well#3a	2022	7.1			
Well#4	2021	7.5			

TABLE 5 – SAMPLING RESULTS FOR UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	MCL	PHG	Health Effects
Chromium Hexavalent (ppb)			None	None	Natural occurring.
Well#1	2017	8.5			
Well#2	"	8.5			
Well#3a	"	7.6			
Well#4	"	8.6			

TABLE 6 – SAMPLING RESULTS FOR DISINFECTION BYPRODUCTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	MCL
Total Trihalomethanes (ppb)	2023	4	80
Haloacetic Acids (ppb)	2023	ND	60

***Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

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).

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. [Enter Water System's Name] 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.

TABLE 7 – SUMMARY INFORMATION FOR VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT

Violations (Two)	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
Citation	Failure to collect and report raw water bacteriological sample from Well 3a	March 2023	Collect samples as required by regulations	
Citation	Failure to collect three (3) routine bacteriological samples in April 2023	April 2023	Collect samples as required by regulations	