2022 Consumer Confidence Report

Water System Name: **Arbuckle Public Utility District** Report Date: June 28, 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.

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 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 (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 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, and 4 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.

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**
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

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**	**PHG**	**Typical Source of Contaminant**
Lead (ppb) 2021	10	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2021	10	.056	0	1.3	0.2	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)well #1	2014	60		None	None	Salt present in the water and is generally naturally occurring
Well #2	2014	59		"	"	
Well #3a	2017	65		"	"	
Well #4	2022	61		"	"	

Hardness (ppm)Well #1	2014	227		None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Well #2	2014	223		"	"	
Well #3a	2017	231		"	"	
Well #4	2022	222		"	"	

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

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**	**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	2020	ND		"	"	
Well #3a	2020	ND		"	"	
Well #4	2022	3		"	"	
Chromium (ppb) Well #1	2014	12		50	50	Discharge from steel and pulp mills, chrome plating and erosion.
Well #2	2014	8		"	"	
Well #3a	2017	10		"	"	
Well #4	2022	< 10		"	"	
Fluoride (ppm)Well #1	2014	ND		2	1	Erosion of natural deposits, water additives for teeth and fertilizer runoff.
Well #2	2014	0.2		"	"	
Well #3a	2017	ND		"	"	
Well #4	2022	0.2		"	"	
Nitrate (ppm) Well #1	2022	2.6		10	10	Runoff and leaching from fertilizer, leaching from septic tanks, and erosion from natural deposits.
Well #2	2022	5.4		"	"	
Well #3a	2022	3.9		"	"	
Well #4	2022	2.1		"	"	
Barium (ppb) Well#1	2014	249		1000	None	Natural occurring
Well#2	2014	343		"	"	
Well#3a	2017	347		"	"	
Well#4	2022	343		"	"	
TDS. (ppm) Well #1	2014	380		1000	None	Natural occurring
Well#2	2014	370		"	"	
Well#3a	2017	400		"	"	
Well#4	2022	400		"	"	
Chloride (ppm) Well#1	2014	99		500	None	Natural occurring
Well#2	2014	104		"		
Well#3a	2017	104		"		
Well#4	2022	103		"		
Sulfate (ppm) Well#1	2014	12.7		500	None	Natural occurring
Well#2	2014	12		"		
Well#3a	2017	14		"		
Well#4	2022	14.7		"		

Gross alpha (pci/l)Well#1	2016	0.92		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 #4	2022	ND		5000	None	Natural occurring
Well #2	2014	60				
Manganese (ppb) Well#4	2013	2.5		50	None	Natural occurring
Selenium (ppb) Well#1	2014	3		50	None	Natural occurring
Well#2	2014	2				
Well#4	2022	ND				
Iron (ppb) Well #2	2014	80		300	None	Natural occurring
Well #1	2014	50		"	"	
Well #3a	2017	ND				
Well # 4	2022	ND				
Lead (ppb)Well#3a	2014	ND		50	None	Natural occurring
Well #2	2014	0.8		"	"	
Well #3	2017	ND				
Well #4	2022	ND				
Mercury (ppb)Well #1	2014	.02		2	None	Natural occurring
Vanadium (ppb)well #1	2014	7				
Well #2	2014	7		None	None	
Well #3a	2017	7		"	"	
Well #4	2022	7		"	"	

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**		**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Lab turbidity (ntu) Well #1	2014	< 0.2				
Well #2	2014	< 0.2		5	None	Cloudiness of water
Well#3a	2017	0.1		"	"	
Well#4	2022	0.1				
Boron (ppb)Well#1	2014	700		None	None	Natural occurring
Well#2	2014	700		"	"	
Well#3a	2017	700		"	"	
Well#4	2022	< 100		"	"	
Calcium(ppm)well #1	2014	35		None	None	Alkaline group, Natural occurring
Well #2	2014	30		"	"	
Well #3a	2017	30		"	"	
Well #4	2022	28		"	"	

Magnesium (ppm)Well#1	2014	34		None	None	Natural occurring
Well#2	2014	36		“	“	
Well#3a	2017	38		“	“	
Well#4	2022	37		“	“	
Potassium (ppm)well#1	2014	1				
Well#2	2014	1		None	None	Natural occurring
Well#3a	2017	1			“	
Well#4	2022	1				
Bicarbonate(ppm)Well#1	2014	200		None	None	
Well#2	2014	240		“	“	An acid carbonate
Well#3a	2017	240		“	“	
Well#4	2022	240		“	“	
PH (units)Well#1	2021	6.8		None	None	Hydrogen-ion activity of the water
Well#2	2021	6.8		“	“	
Well#3a	2022	7.10		“	“	
Well#4	2021	7.5		“	“	

Chromium Hexavalent(ppb)				mcl-10	None	Natural occurring.
Well#1	2017	8.5				
Well#2	“	8.5				
Well#3a	“	7.6				
Well#4	“	8.6				

Total Trihalomethanes(ppb)	**2022**	**ND**		**mcl-80**	**None**	**Disinfection biproduct**
Haloacetic Acids	**2022**	**ND**		**mcl-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. Arbuckle Public Utility 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. [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 or at http://www.epa.gov/lead.

Additional information: Our groundwater is treated with chlorine to prevent bacterial contamination.

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

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violations (none)	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
2*	**Notice of Violation and Citation for Failure to sample Well 3A**	**February, July, August, and October of 2022**	**Resume monthly sampling of Well 3A until approved to return to quarterly monitoring**	

*****We are required to collect raw (unchlorinated) source water samples from our wells on a quarterly basis. If a source water sample produces a total coliform-positive result, we are required by regulation to sample that source monthly for a minimum of three consecutive months. Before we are allowed to resume quarterly monitoring, we must attain bacteriological samples for three consecutive months without any total coliform-positive results and submit a request to the State Water Board – Division of Drinking Water (Division), for approval. In January and March of 2022, raw (unchlorinated water) samples collected from Well 3A tested total coliform-positive. We failed to collect monthly samples from Well 3A in the months of February, July, August, and October of 2022, resulting in the two violations mentioned in the table above.

VIOLATION OF GROUND WATER TT				
TT Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
None				