



Consumer Confidence Report

Arrowbear Park County Water District

April 1, 2019

We are pleased to present to you the Annual Consumer Confidence Report for 2018. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

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, 2018 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.

Water Sources

Our water is drawn from five groundwater wells located northeast of Arrowbear Lake. One well has been in service since 1954; another was drilled in 1981; Well #3 was put in service in 1993. In 1995 we added a fourth well, and finally Well #2 was reactivated in 2012. We are proud of the excellent quality of water we extract for our Arrowbear residents.

Source Water Assessment Report

A source water assessment was conducted for Wells 1, 2, 3, 4, and 5 of the Arrowbear Park County Water District Water System in December 2001 and is summarized in the table below:

Source Number	Source ID	Most Vulnerable Activities (PCA)	Chemical Detected
001	Well 01	Utility Stations - maintenance areas	None
002	Well 02	Utility Stations - maintenance areas	None
003	Well 03	Utility Stations - maintenance areas	None
004	Well 04	Utility Stations - maintenance areas	None
005	Well 05	Utility Stations - maintenance areas	None

A copy of the complete assessment as well as laboratory reports by source that make up the data presented in this report may be viewed at the Arrowbear Park County Water District office or at State Water Resources Control Board (SWRCB), San Bernardino District Office, 464 West 4th Street, Suite 437, San Bernardino, CA 92401. You may request a summary of the assessment be sent to you by contacting the SWRCB District Engineer at (909) 383-4328.

Questions

If you have any questions about this report or any questions concerning your water utility, please contact the General Manager at (909) 867-2704. We want you, our valued customers, to be informed about your water utility. If you want to learn more, please attend any of our regularly scheduled Board meetings. They are held on the third Thursday of each month at 6:30 pm at the District Office, located at 2365 Fir Drive, Arrowbear, CA 92382. This Consumer Confidence Report as well as changes to meetings, minutes, and agendas will be posted on our website: arrowbearwater.org

TERMS USED IN THIS REPORT

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 (USEPA).

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.

Nephelometric Turbidity Units (NTU): measurement of light reflection for a given amount of particulates.

ND: not detectable at testing limit.

pCi/L: picocuries per liter (a measure of radiation).

ppb: parts per billion or micrograms per liter (µg/L).

ppm: parts per million or milligrams per liter (mg/L).

ppq: parts per quadrillion or picogram per liter (pg/L).

ppt: parts per trillion or nanograms per liter (ng/L).

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.

Threshold Odor Number (TON): is the dilution ratio at which odor is just detectable.

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

µS/cm: microsiemens per centimeter (conductivity).

Variations and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Water Sources and Potential Contaminants

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.

Water Treatment

In April of 1989, Arrowbear Park County Water District started the first treatment facility in the state for removal of trace amounts of naturally occurring uranium from drinking water. By approving this treatment facility, your Board of Directors provided for safe water to be produced years before any standards were mandated. Now regulated, our treated water consistently falls below all USEPA and California State Water Resources Control Board (SWRCB) contaminant level requirements.

Water Quality Data

Arrowbear Park County Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. All testing for bacteriological, chemical, physical, and any special testing are done by Clinical Laboratory of San Bernardino, Inc., a State certified lab. They also do our radiological testing. Of the many constituents that can be present in a water supply, Arrowbear’s test results reveal that only a few were detected in Arrowbear’s treated water. Of those detected, none exceeded the maximum contaminant level prescribed by State and Federal regulations. The following tables show the test results for the constituents detected during our monitoring period of January 1st to December 31st, 2018.

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, 2, and 3 list all of the drinking water contaminants that were detected, as well as some that were sampled for and not detected (ND), 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 (these results are noted with an asterisk). 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 noted in the **Violations** section below.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	PHG (MCLG)	Typical Source of Bacteria
No microbiological contaminants (Total Coliform Bacteria or Fecal Coliform or <i>E. coli</i>) were detected during weekly routine sampling.			1 positive monthly sample.	0	Coliforms - Naturally present in the environment, <i>E. coli</i> - Human and animal fecal waste.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.

Lead and Copper testing is done every three years. The most recent testing was performed in 2017, the next testing will be in 2020. Testing is performed on representative samples throughout the District.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Lead and Copper	Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead (ppb)	8/15/17	11	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8/15/17	11	.15	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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. Arrowbear Park County Water 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 (1-800-426-4701) or at <http://www.epa.gov/lead>.

TABLE 3 – SAMPLING RESULTS FOR PRIMARY, SECONDARY, AND OTHER CONSTITUENTS							
Contaminant / Constituent	Violation Y/N	Avg. Level Detected	Range of Detections	Unit of Measurement	MCL	PHG MCLG	Typical Source of Contaminant
Radioactive Contaminants							
Alpha Activity, Gross	N	0.3	ND – 4.3	pCi/l	15	NONE	Erosion of natural deposits.
Uranium	N	ND	None	pCi/l	20	NONE	Erosion of natural deposits.
Inorganic Chemical Contaminants							
Nitrate as N (NO3-N)	N	ND	None	mg/l	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits.
Fluoride*	N	0.08	ND - 0.15	mg/l	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Disinfection Byproducts (Trihalomethanes/Haloacetic Acids)							
Total Trihalomethanes	N	ND	None	ug/l	80	80	Byproduct of drinking water disinfection.
Total Haloacetic Acids	N	ND	None	ug/l	60	60	Byproduct of drinking water disinfection.
Secondary Standards							
Chloride*	N	3.32	1.5 – 3.9	mg/l	500	NONE	Runoff/leaching from natural deposits; seawater influence.
Sulfate*	N	2.08	1.6 - 2.4	mg/l	500	NONE	Runoff/leaching from natural deposits; industrial wastes.
Specific Conductance*	N	258	240 - 280	µS/cm	1600	NONE	Substances that form ions when in water; seawater influence.
Odor Threshold	N	1.0	1.0 – 1.0	TON	3	NONE	Naturally-occurring organic materials
Total Dissolved Solids*	N	160	150 - 190	mg/l	1000	NONE	Runoff/leaching from natural deposits.
Turbidity**	N	0.1	ND - 0.2	NTU	5	NONE	Soil runoff.
Other Constituents							
Calcium*	N	37.8	33 - 42	mg/l	NONE	NONE	Erosion of natural deposits.
Magnesium*	N	2.3	2.0 - 2.5	mg/l	NONE	NONE	Erosion of natural deposits.
Sodium*	N	15.8	14 - 17	mg/l	NONE	NONE	Naturally occurring salts.
Bicarbonate (HCO3)*	N	160	140 - 180	mg/l	NONE	NONE	Erosion of natural deposits.
Total Hardness*	N	102.2	91 - 110	mg/l	NONE	NONE	Sum of polyvalent cations present.
* Testing/sampling required once every three years. Data presented in the table is from testing/sampling done in 2017 in accordance with the regulations. Next testing/sampling for these constituents is due in 2020.							
** Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can also hinder the effectiveness of disinfectants.							

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
No violations occurred in 2018				

Summary - 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).

As you can see by this report, Arrowbear Park County Water District did **NOT** experience a single water quality violation in 2018. We are proud that the quality of your drinking water exceeds all State and Federal requirements. We have learned through our monitoring/testing that some contaminants have been detected, however, the SWRCB and EPA has determined that your water **IS SAFE** at these levels.