

ARROWHEAD REGIONAL MEDICAL CENTER

System # 3601135

2018

Consumer Confidence Report



Esta informe contiene informacion muy importante sobre su agua beber.
Traduzcalo o hable con alguien que lo entienba bien.

To our water system users:

We're very pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the quality of water and services we have supplied to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is one groundwater well located on the East side of our facility, blended with water purchased from the City of Colton. This report shows the quality of our produced and distributed water and what it means. Please contact us if you have any questions.

Arrowhead Regional Medical Center routinely monitors for contaminants in your drinking water according to Federal and State laws. The enclosed table shows the results of produced and distributed water monitoring for the period of January 1 to December 31, 2018. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Under our Water Supply Permit with the County of San Bernardino, Department of Environmental Health Services, water quality monitoring is completed as required. These tests may include microbial contaminants, inorganic chemical contaminants, and organic chemical contaminants. Every effort is made to ensure that your drinking water meets or exceeds all Federal and State requirements. Regulations require the testing of the water to ensure that it is safe to drink.

All 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 US Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 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/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap 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 animal or human activity.

For additional information contact:

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Contaminants that may be in source water include:

- Microbial contaminants**, such as viruses and bacteria, that come from sewage treatment plants, septic systems, livestock operations, and wildlife.
- Inorganic contaminants**, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants** that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.
- Radioactive contaminants**, which 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 must provide the same protection for public health.

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.	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.
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).	Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
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.
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.	Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.
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.	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.
Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.	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.
	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)

ARROWHEAD REGIONAL MEDICAL CENTER

MONITORING TABLE FOR JANUARY 1 - DECEMBER 31, 2018

PRIMARY STANDARDS - Mandatory, Health-Related Standards by the State of California

MICROBIOLOGICAL CONTAMINANTS - Total Coliform Bacteria

	Highest No. of Detections in a Month		MCLG	PHG	MCL	RANGE	#of Monthly Positive		Likely Source of Detected Constituent
Total Coliform Bacteria	0		0	0	1	0	0		Naturally present in the environment.
Fecal Coliform or E. coli	0			0	0	0	0		28 Bacti samples were collected in 2018

RADIOACTIVE CONTAMINANTS

	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Likely Source of Detected Constituent
Gross Alpha Activity	No	pCi/l	0	0	15	ND	ND	9/14/16	Erosion of natural deposits.

INORGANIC CONTAMINANTS

	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Likely Source of Detected Constituent
Nitrate (as NO3-N) (Distribution System)	No	mg/l	10	10	10	6.1-7.1	6.4	2018	Runoff/ leaching from fertilizer leaching from septic tanks and sewage; erosion
Fluoride	No	mg/l	1	1	2	n/a	0.25	8/21/15	Erosion of natural deposits.
*Hexavalent Chromium	No	ug/l	0.02	0.02	10	n/a	2.9	10/10/14	Erosion of natural deposits.

*There is currently no MCL for Hexavalent Chromium. The previous MCL of 10.0 ug/L was withdrawn on September 11, 2017.

LEAD + COPPER - Mandatory, Health-Related Standards by the State of California

	No. of Samples	Activation	90th Percent	No. of Samples					Likely Source of Detected Constituent
	Violation	Units	Collected	Level	Level	Exceeding	MCLG	Date	
Lead	No	ug/l	5	AL=15	3	0	0.2	9/14/16	Corrosion of household water systems; industrial manufacturers; erosion
Copper	No	mg/l	5	AL=1.3	0.23	0	0.3	9/14/16	Corrosion of household plumbing; erosion of natural deposits; leaching.

SECONDARY STANDARDS

	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Likely Source of Detected Constituent
Chloride	No	mg/L	n/a	n/a	500	n/a	12	9/28/11	Runoff/Leaching from natural deposits: seawater influence
Specific Conductance	No	umhos/cm	n/a	n/a	1600	n/a	38	6/28/11	Substances that form ions when in water
Sulfate	No	mg/L	n/a	n/a	500	n/a	53	6/28/11	Runoff/Leaching from natural deposits
Total Dissolved Solids	No	mg/L	n/a	n/a	1000	n/a	340	6/28/11	Runoff/Leaching from natural deposits
Turbidity	No	NTU	n/a	n/a	5	n/a	0.26	6/28/11	Soil runoff
Zinc	No	ug/l	n/a	n/a	5000	n/a	66	6/28/11	Runoff/Leaching from natural deposits

UNREGULATED CONTAMINANTS									
	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Likely Source of Detected Constituent
Calcium	No	mg/L	n/a	n/a	n/a	n/a	80	9/28/11	No Standard for MCL
Sodium	No	mg/L	n/a	n/a	n/a	n/a	19	9/28/11	Salt naturally occurring in water
Magnesium	No	mg/L	n/a	n/a	n/a	n/a	9.9	9/28/11	No Standard for MCL
Potassium	No	mg/L	n/a	n/a	n/a	n/a	2.8	9/28/11	No Standard for MCL
Total Hardness (CaCO ₃)	No	mg/L	n/a	n/a	n/a	n/a	230	9/28/11	Sum of polyvalent cations present in the water, generally magnesium & calcium and are naturally occurring.

ADDITIONAL CONTAMINANTS									
	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Notification Level
Vanadium	No	ug/l			n/a	n/a	3.6	8/24/15	50 ug/l

REGULATED CONTAMINANTS									
	Violation	Units	MCLG	PHG	MCL	RANGE	LEVEL	Date	Likely Source of Constituent
Perchlorate	No	ug/l	6	6	6	n/a	ND	2017	Component of solid rocket fuel
(Distribution System)									Fireworks, matches & explosives

NITRATE IN DRINKING WATER

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

PERCHLORATE IN DRINKING WATER

Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse effects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function.

PURCHASED WATER FROM THE CITY OF COLTON

During Calendar Year 2018, Arrowhead Regional Medical Center purchased 100 % of the water delivered to the distribution system from the City of Colton. The table on the following page represents the quality of water purchased from the City of Colton during 2018.

CITY OF COLTON - WATER DEPARTMENT

MONITORING TABLE FOR JANUARY 1 - DECEMBER 31, 2018

Contaminant	Violation Y / N	TEST RESULTS			UNIT MEASURE	STATE MCL MRDL	STATE PHG MRDLG	YEAR TESTED*	LIKELY SOURCE OF CONTAMINANT
		Minimum	Maximum	Average					

INORGANIC CHEMICALS - PRIMARY STANDARDS

Fluoride	N	0.27	0.7	0.41	mg/L	2	1	2018	Erosion of natural deposits, water additive for dental hygiene, discharge from fertilizer and aluminum factories
Nitrate (as NO3)	N	0	7	2.32	mg/L	10	10	2018	Runoff / leaching from fertilizer use, septic tanks, sewage, and erosion of natural deposits
Nitrate+Nitrite as Nitrogen	N	0	7.6	2	mg/L	10	10	2014	Runoff / leaching from fertilizer use, septic tanks, sewage, and erosion of natural deposits

CHEMICAL PARAMETERS - SECONDARY STANDARDS

Chloride	N	5.3	65	13.6	mg/L	500	NS	2018	Runoff / leaching from natural deposits; seawater influence
Corrosivity (Langlier Index)**	N	0.25	0.61	0.41	units	NC	NS	2017	Natural or industrial-influenced balance of hydrogen, carbon & oxygen in water, affected by temperature and other factors
Aggressiveness Index ***	N	12.09	12.45	12.2	units	NS	NS	2017	
Iron	N	0	220	20	ug/L	300	NS	2018	Leaching from natural deposits
Manganese	N	0	91	23.18	ug/L	50	NS	2018	Leaching from natural deposits
Specific Conductance	N	330	780	493.6	umhos	1600	NS	2018	Substances that form ions in water; seawater influence
Sulfate	N	13	100	45.5	mg/L	500	NS	2018	Runoff / leaching from natural deposits, industrial wastes
Total Dissolved Solids	N	210	500	312.7	mg/L	1000	NS	2018	Runoff / leaching from natural deposits

PHYSICAL PARAMETERS

Odor - Threshold	N	1	1	1	TON	3	NS	2018	Naturally occurring organic materials
pH	N	7.6	7.9	7.7	units	NS	NS	2018	
Turbidity	N	0	2.9	0.38	NTU	5	N/A	2018	Turbidity is monitored because it is a good indicator of water quality. High turbidity can hinder disinfectant effectiveness.

RADIONUCLIDES

Gross Alpha Particle Activity	N	0	11	2.4	pCi/L	15	NS	2018	Erosion of natural deposits
Radon 222	N	229	458	333.3	pCi/L	NS	NS	2000	Erosion of natural deposits
Uranium	N	0	5.7	0.79	pCi/L	20	0.43	2018	Erosion of natural deposits

VOLATILE ORGANIC CHEMICALS (VOC's)

Tetrachloroethylene	N	ND	ND	ND	ug/L	5	0.06	2016	Leaching from PVC pipes, discharge from factories, dry cleaners and auto shops (metal degreaser)
1,2,3 Trichloropropane	N	ND	ND	ND	ug/L	0.005	0.0007	2018	Advance Screening for Unregulated VOC

ADDITIONAL PARAMETERS

Alkalinity	N	140	220	180	mg/L	NS	NS	2018	
Bicarbonate Alkalinity	N	180	270	220.9	mg/L	NS	NS	2018	
Calcium	N	29	89	57.2	mg/L	NS	NS	2018	
Total Hardness	N	110	270	181.2	mg/L	NS	NS	2018	
Magnesium	N	6.2	13	9.55	mg/L	NS	NS	2018	
Potassium	N	1.5	4.2	3.21	mg/L	NS	NS	2018	
Sodium	N	11	110	27	mg/L	NS	NS	2018	
Boron	N	0	260	35.5	mg/L	NS	NS	2018	

DISTRIBUTION SYSTEM

Microbiological-Total Coliform Bacteria	N	ND	ND	ND	Presence of coliform bacteria in 5% of monthly samples****			2018	Naturally present in the environment
Total Trihalomethanes	N	5.2	6.9	6.1	ug/L	80	NS	2018	By-product of drinking water chlorination
Haloacetic Acids	N	0	0	0	ug/L	60	NS	2018	By-product of drinking water chlorination
Chlorine	N	1	1.43	1.21	mg/L	4	4	2018	Drinking water disinfectant added for treatment

REGULATED CONTAMINANTS(Perchlorate)

Perchlorate	N	0	4.4	0.4	ug/L	6	1	2018	Component of explosives, fireworks, matches, and solid rocket fuels.
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LEAD AND COPPER

The Lead & Copper Rule became effective in 1993. The City of Colton has performed nine rounds of sampling. The last was performed in August 2016. The next round is scheduled for 2019. All samples are taken from the first draw of morning water. The 1st two rounds were from 60 single-family residences with copper pipe with lead solder installed since 1982. The 1998, 2001, 2004, 2007, 2010, 2013 & 2016 sampling included only 30 single-family residences due to favorable results in the previous sampling rounds. The next round is scheduled for August 2019. The 2016 results were:

Contaminant	90th Percentile Result	Unit Measurement	MCL	PHG	LIKELY SOURCE OF CONTAMINANT
LEAD	0	ug/l	AL 15	2	Internal corrosion of household plumbing systems, discharge from industrial mfg, erosion of natural deposits
COPPER	180	ug/l	AL 1300	300	Internal corrosion of household plumbing systems, erosion of natural deposits