

# WATER QUALITY REPORT 2017

The Moapa Valley Water District is very pleased to provide you with the 2017 “Quality Water” Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide a safe and dependable supply of drinking water. We are pleased to report that our drinking water is safe and exceeds federal requirements. This report is provided to you to further explain our water quality and what it means.

## **YOUR WATER**

The Muddy River and Lake Mead provide none of your drinking water. In fact, no surface water of any sort is delivered to your tap. The District’s spring collection systems at the Baldwin and the Jones Spring, in addition to the MX Well and the Arrow Canyon Well provide an average of 2,629,322 gallons per day to our customers. Flowing through over 177 miles of pipeline in the District’s distribution system, the water from these groundwater sources arrives at your home having been disinfected using chlorine. Because our water supply is protected within the ground water aquifer, it does not require the level of treatment associated with surface water sources.

## **TAP VS. BOTTLED**

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 Environmental Protection Agency Safe Drinking Water Hotline at 1-800-426-4791.

## **VIOLATIONS AND EXCEEDANCES**

In November 2017 the Moapa Valley Water District failed to monitor for coliforms and chlorine. The public was notified in January 2018 of the monitoring violation. This was not an emergency event but our staff has addressed our sampling plans and updated policies. Routine monitoring will continue. Coliform bacteria are usually harmless, but their presences in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. Coliforms were not detected during any subsequent 2017 sampling events. If chlorine had been present in excess of the maximum residual disinfectant level, consumers may have experienced stomach discomfort or irritating effects to their eyes and nose.

## **WHAT DO WE TEST FOR?**

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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 before it is treated are microbial contaminants, inorganic contaminants, pesticides and herbicides, radioactive contaminants, and organic chemical contaminants.

*Microbial contaminants*, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

*Inorganic contaminants*, such as salts and metals, 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* may come from a variety of sources, such as agricultural and residential uses.

*Radioactive contaminants* are naturally occurring.

*Organic chemical contaminants*, including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff, and septic systems.

## **HEALTH INFORMATION**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those 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. EPA/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 (800-426-4791).

## **LEAD**

Your water meets EPA's standard for Lead, but if present at elevated levels, this contaminant 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. Moapa Valley 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. If you are concerned about lead in your drinking 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/safewater/lead>.

## **VANDALISM**

Vandalism affects everyone. We encouraged anyone who sees graffiti, gunshots holes, suspicious activity, etc at or around MVWD’s lines or facilities to call the company's 24-hour emergency number at 702-397-6893 or the Metropolitan Police Department. We also ask anyone who sees damaged waterlines, facilities or equipment to immediately report it to the same number. The District appreciates any help it gets from customers and the general public in stopping these senseless acts.

The Federal Safe Drinking Water Act (SDWA) was amended in 1996 and requires states to develop and implement source water assessment programs (SWAP) to analyze existing and potential threats to the quality of public drinking water throughout the state. A summary of a system’s susceptibility to potential sources of contamination was initially provided by the State of Nevada to the water system in 2004. This summary was included in the water system’s 2004 Consumer Confidence Report. Additional or updated information the water system may have regarding significant sources of contamination in the source water area may also be available. A copy of the SWAP summary and additional or updated information may be available through your water system by contacting Joseph Davis at 702-397-6893. Information pertaining to the initial findings of the source water assessment is also available for viewing at the Bureau of Safe Drinking Water (BSDW) Carson City office between the hours of 8:00 am and 5:00 pm, Monday through Friday. It is suggested that an appointment be made if you are interested in viewing this information. The office is located at 901 South Stewart Street, Suite 4001, Carson City, Nevada, 89701, telephone number (775) 687-9520.

The table below represents routine water analysis conducted annually in order to further the Districts effort to provide the most current, meaningful information to our customers.

**WATER ANALYSIS**

<b>Regulated Contaminants</b>	<b>Collection Date</b>	<b>Highest Value</b>	<b>Range</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Typical Source</b>
Arsenic	2/8/17	9.41	3 - 9.41	ppb	10	0	Erosion of natural deposits; runoff from orchards; Runoff from glass & electronics production wastes.
Fluoride	9/29/16	1.84	1.84	ppm	2	4	Erosion of natural deposits; Water additive which promotes strong teeth.
Antimony	7/29/15	2	1-2	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Barium	7/29/15	0.065	0.051-0.065	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	7/29/15	1	1	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Selenium	7/29/15	2	2	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Nitrate	12/7/17	0.379	0.348-0.379	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks & sewage; erosion of natural deposits.
Nickel	7/29/15	0.002	0.002	mg/L	.01	.01	Occurs naturally in soils, groundwater, and surface water. Often used in electroplating, stainless steel and alloy products, mining, and refining.
<b>Secondary Contaminants</b>	<b>Collection Date</b>	<b>Highest Value</b>	<b>Range</b>	<b>Unit</b>	<b>SMCL</b>		<b>MCLG</b>
Aluminum	9/29/16	0.0031	0.0031	mg/L	0.2 mg/L		
Chloride	9/29/16	165	165	mg/L	400		
Color	9/29/16	15	15	Color Units			
Magnesium	9/29/16	17.0	17.0	mg/L	150		
pH	9/29/16	7.43	7.43	pH	8.5		
Sodium	7/29/15	128	128	mg/L	200		20
Sulfate	9/29/16	445	445	mg/L	500		
Total Dissolved Solids	9/29/16	485	485	mg/L	1000		
Zinc	9/29/16	0.0137	0.0137	mg/L	5.0		
<b>Disinfection By-Products</b>	<b>Monitoring Period</b>	<b>RAA</b>	<b>Range</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Typical Source</b>
TTHM	2017	4.2 – 14.1	4.2 – 14.1	ppb	80	0	By-product of drinking water chlorination

Total Haloacetic Acids	2017	ND	ND	ug/L	60			By-product of drinking water chlorination
<b>Lead and Copper</b>	<b>Date</b>	<b>90<sup>TH</sup> Percentile</b>	<b>Unit</b>	<b>AL</b>	<b>Sites over AL</b>		<b>Typical Source</b>	
Copper	2014 - 2016	.21	ppm	1.3	0		Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	
Lead	2014 - 2016	9	ppb	15	0		Corrosion of household plumbing systems; erosion of natural deposits.	
<b>Radionuclides</b>	<b>Collection Date</b>	<b>Highest Value</b>	<b>Range</b>	<b>Unit</b>	<b>MCL</b>	<b>MCLG</b>	<b>Typical Source</b>	
COMBINED RADIUM (-226 & -228)	7/10/2013	1	0.9 - 1	pCi/L	5	0	Erosion of natural deposits	
COMBINED URANIUM	7/10/2013	3.2	3.1 - 3.2	µg/L	30	0	Erosion of natural deposits	
GROSS ALPHA, EXCL. RADON & U	7/10/2013	0.2	0.2	pCi/L	15	0	Erosion of natural deposits	
GROSS ALPHA, INCL. RADON & U	7/10/2013	3.4	2.5 - 3.4	pCi/L	15	0	Decay of natural and man-made deposits	

**\*\*Hardness averages 250 mg/L (17 grains per gallon)\*\***

**MCLG/Maximum contaminant level goal** - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety

**MCL/Maximum contaminant level** - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best treatment technology. MCLs are set at very stringent levels

**Action Level** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**ppm** - parts per million

**mg/L** - milligrams per litre/the same as parts per million

**ppb** - parts per billion

**ug/L** - micrograms per litre/the same as parts per billion

**ND**- not detected

#### **QUESTIONS?**

If you have any questions about this report or concerning your water utility, please contact Joseph Davis at (702) 397-6893. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Board of Directors meetings. They are held on the second Thursday of each month at 4:00 p.m. in the Moapa Valley Water District office. Any variance from this will be noted on agendas posted at the Overton, Logandale, and Moapa Post Offices, Overton Library and the Moapa Valley Water District office. Agendas are also posted on our website [www.moapawater.com](http://www.moapawater.com).

#### **Health Information About Water Quality**

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