

# WATER QUALITY REPORT 2016

The Moapa Valley Water District is very pleased to provide you with the 2016 “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 2,577,879 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**

The Moapa Valley Water District had no violations with the Safe Drinking Water Act standards during the 2016 calendar year.

## **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**

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. 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. EPA/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 (1-800-426-4791).

**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 encourage 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	9/8/16	7.94	0.003-7.94	ppb	10	0	Erosion of natural deposits; runoff from orchards; Runoff from glass & electronics production wastes.
Fluoride	9/29/16	1.84	0 - 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
<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	3.10	3.10	mg/L			
Chloride	9/29/16	165	165	mg/L	400		
Color	9/29/16	1.0	1.0	Color Units			
Magnesium	9/29/16	17.0	17.0	mg/L	150		
Nickel	7/29/15	0.002	0.002	mg/L			
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	13.7	13.7	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	2016	4.31	2.36-4.31	ppb	80	0	By-product of drinking water chlorination
Total Haloacetic Acids	2016	ND	ND	ug/L	60		By-product of drinking water chlorination
<b>Microbiological</b>	<b>Result</b>		<b>MCL</b>		<b>MCLG</b>		<b>Typical Source</b>

No detected results were found in the calendar year of 2016.

**Health Information About the Above Violation(s)**

There are no additional required health effects violation notices.

Lead and Copper	Date	90 <sup>TH</sup> Percentile	Unit	AL	Sites over AL	Typical Source	
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.	
Radionuclides	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
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

**ugl/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

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine (9) years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than two (2) milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system has a fluoride concentration greater than 2.0 mg/L. Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine (9) should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than four (4) mg/L of fluoride (the maximum contaminant level for fluoride) can increase your risk of developing bone disease. Your drinking water does not contain more than four (4) mg/L of fluoride, but we are required to notify you when we discover that the fluoride levels in your drinking water exceed two (2) mg/L because of this cosmetic dental problem. For more information, please call the EPA's Safe Drinking Water Hotline at 1-800-426-4791. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.