

# WATER QUALITY REPORT 2014

The Moapa Valley Water District is very pleased to provide you with the 2014 “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 2,346,100 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 2013 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.

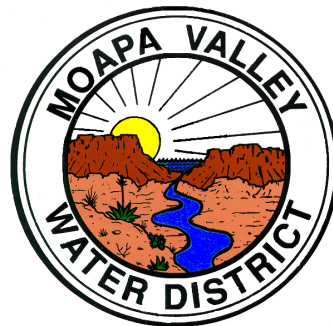
## HEALTH INFORMATION

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).

## VANDALISM

Vandalism affects everyone. We encourage anyone who sees graffiti, gunshot 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.

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.



Moapa Valley Water District has a fluoride variance to the state secondary standard of 2.0 parts per million (mg/L). The drinking water in our community has a fluoride concentration of 2.12 mg/L. Fluoride in children’s drinking water at levels of approximately 1 mg/L reduces the number of cavities. However, some children exposed to levels of fluoride greater than about 2.0 mg/L may develop dental fluorosis. Dental fluorosis in its moderate and severe forms is a brown staining and/or pitting of the permanent teeth. Because dental fluorosis occurs only when developing teeth (before they erupt from the gums) are exposed to elevated fluoride levels, households without children are not expected to be effected by this level of fluoride. Families with children under the age of nine are encouraged to seek other sources of drinking water for their children to avoid the possibility of staining and pitting. **A copy of the District’s fluoride variance received from the Nevada Department of Environmental Protection is available for your review at our main office located at 601 N. Moapa Valley Blvd.**

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**

Substance	Year Sampled	EP1 Arrow Canyon Wells	EP2 Baldwin & Jones Springs	EP3 MX-6 Well, Arrow Canyon Wells	Fed / State MCL (mg/L)	Typical Sources		
Arsenic	2013	6.2	6.3	8.2	10 (ug/L)	Erosion of Natural deposits and/or runoff from orchards		
Magnesium	2012	24	24	24	150	Erosion of natural deposits and/or leaching		
Sodium	2012	93	94	96	Advisory Level 20 mg/L	Erosion of natural deposits and/or leaching		
Total Dissolved Solids	2012	538	530	517	1000	Runoff and/or leaching from natural deposits		
Fluoride	2013	1.95	2.1	2.0	4.0 / 2.0	Erosion of natural deposits and/or discharge from fertilizer		
Chloride	2012	57	57	61	400	Runoff and/or leaching from natural deposits		
Sulfate	2012	154	156	153	500	Runoff and/or leaching from natural deposits		
Uranium	2013	0.005	0.005	0.005	0.03	Erosion of natural deposits		
Gross Alpha	2013	12.6	7.6	7.5	15	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation		
Radium 226	2013	0.7	0.6	0.7	5	Erosion of natural deposits		
Radium 228	2013	1.5	0.5	-0.5	5	Erosion of natural deposits		
Combined Radium (226 + 228)	2013	2.2	1.1	1.1	5	Erosion of natural deposits		
Nitrate ( as Nitrogen)	2013	0.48	0.46	0.48	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits		
Odor	2013	2	2	2				
Lead and Copper	Year Sampled	90 <sup>TH</sup> Percentile	Sites Over AL		Range	Unit	AL	Typical Sources
Copper	2013	.21			ppm	1.3	0	Corrosion of household plumbing systems and/or erosion of natural deposits
Lead	2013	.00496			ppb	.015	0	Corrosion of household plumbing systems and/or erosion of natural deposits

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 waster 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.

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

PARAMETER	YEAR SAMPLED	RESULTS (units)			
		<u>EP1</u> Arrow Canyon Wells	<u>EP2</u> Baldwin & Jones Springs	<u>EP3</u> MX-6 Well, Arrow Canyon Wells	FED/STATE (units)
pH	2012	7.6 pH Units	7.7 pH Units	7.7 pH Units	Between 6.5 - 8.5

You may review above the complete list of 11 constituents for which tests were performed during the required testing period with all analytical results meeting Drinking Water Standards.

- 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
- EP**- entry point into water distribution system
- 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 or the Overton Library. Agendas are also posted on our website [www.moapawater.com](http://www.moapawater.com).

# COYOTE SPRING VALLEY- MOAPA WTP FINISHED WATER (1)

Data From 2013  
Monitoring

COYOTE SPRING VALLEY- MOAPA WTP  
FINISHED WATER <sup>(1)</sup>

REGULATED CONTAMINANTS	UNIT	MCL (EPA Limit)	MCLG (EPA Goal)	MINIMUM	MAXIMUM	AVERAGE	POSSIBLE SOURCES OF CONTAMINATION
Alpha Particles	pCi/L	15	0	4.0	4.0	N/A	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Arsenic	ppb	10	0	3	5	4 <sup>(2)</sup>	Erosion of natural deposits
Barium	ppm	2	2	0.06	0.06	N/A	Erosion of natural deposits; discharge from metal refineries; discharge of drilling wastes
Beta Particles and Photon Emitters	pCi/L	50 <sup>(3)</sup>	0	7.3 <sup>(4)</sup>	10 <sup>(4)</sup>	8.5 <sup>(4)</sup>	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Fluoride	ppm	4.0	4.0	2	2	N/A	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	0.3	0.3	N/A	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Uranium	ppb	30	0	4	4	N/A	Erosion of natural deposits

Footnotes:

- (1) This data is from the Coyote Spring Valley - Moapa Water Treatment Plant, operated by the Las Vegas Valley Water District. Data from this sample location is representative of the quality of water that feeds the Moapa Valley Water District's 3 MG Tank.
- (2) This value is the highest report running annual average for 2013. Reports are filed quarterly.
- (3) The actual MCL for beta particles is 4 mrem/year. The U. S. Environmental Protection Agency (USEPA) considers 50 pCi/L to be the level of concern for beta particles.
- (4) Annual testing not required. Data is from 2011.