

WATER QUALITY REPORT 2012

The Moapa Valley Water District is very pleased to provide you with the 2012 “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 3,293,250 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 two violations with the Safe Drinking Water Act standards during the 2011 calendar year. Please see the attached sheet for an explanation of the violations and the steps taken to resolve them.

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).

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 Bradley Huza 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.

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.

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.

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.

The District performed the monitoring required for the period of January 1 to December 31, 2011. You may review below the complete list of 15 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 million

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	SOURCE ("W" = Well "S" = Spring) All sources are located in Moapa					POST ARSENIC TREATMENT SAMPLE POINTS All sample points are located in Moapa			FED / STATE MCL (mg/L)
	Arrow Canyon #1 "W"	Arrow Canyon #2 "W"	Baldwin "S"	Jones "S"	MX-6 "W"	EP1	EP2	EP3	
Arsenic	14	14	15	15	15	7	6	9	10 (ug/L)
Calcium	0.48	0.47	0.53	0.51	0.49	N/A	N/A	N/A	N/A
Iron	.11	ND	ND	ND	ND	ND	ND	ND	0.60
Magnesium	26	28	28	27	26	25	26	25	150
Sodium	31	30	32	31	31	91	91	89	Advisory Level 20 mg/L
Total Dissolved Solids	563	564	614	575	551	565	617	572	1000
Hardness, Total (asCaCO ₃)	210	210	230	230	220	N/A	N/A	N/A	N/A
Alkalinity, Total	210	190	200	190	200	N/A	N/A	N/A	N/A
Alkalinity – Bicarbonate	210	190	200	190	200	N/A	N/A	N/A	N/A
Fluoride	2.11	2.10	2.05	2.00	1.97	2.2	2.2	2.2	4.0 / 2.0
Chloride	48.6	47.2	56.2	54.5	46.8	57	63	58	400
Sulfate	148	144	167	167	152	152	172	159	500
Nitrate, as N *	0.41	0.43	0.41	0.41	0.36	0.45	0.44	0.46	10

Lead and Copper	Date	90 TH Percentile	Sites Over AL	Range	Unit	AL	Typical Source
COPPER	2008 - 2010	0.1		ppm	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
LEAD	2008 - 2010	6		ppb	15	0	Corrosion of household plumbing systems; Erosion of natural deposits.

Results in milligrams per litre (mg/L), same as parts per million

**ND - Not Detected

COYOTE SPRING VALLEY - MOAPA WTP FINISHED WATER (1)

Data from 2011 Sampling

REGULATED CONTAMINANTS	UNIT	MCL (EPA Limit)	MCLG (EPA Goal)	MINIMUM	MAXIMUM	AVERAGE	POSSIBLE SOURCES OF CONTAMINATION
Alpha Particles	pCi/L	15	0	N/D	4.4	.7	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Antimony	ppb	6	6	N/D	1	N/D	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	ppb	10	0	3	8	4	Erosion of natural deposits
Barium	ppm	2	2	0.06	0.06	0.06	Erosion of natural deposits; discharge from metal refineries; discharge of drilling wastes
Beta Particles and Photon Emitters	pCi/L	50 ⁽²⁾	0	7.3	10	8.5	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
Chromium	ppb	100	100	N/D	1	N/D	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	ppm	4.0	4.0	2.0	2.1	2.0	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	0.3	0.5	0.4	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	ppb	50	50	N/D	1	1	Erosion of natural deposits; discharge from mines; component of petroleum
Uranium	ppb	30	0	3	4	3	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) 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.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring requirements not met for Moapa Valley Water District - PWS 160

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

Type		Category		Analyte		Compliance Period	
MONITORING (TCR), ROUTINE MINOR		Failure to Monitor		COLIFORM (TCR)		09/01/2011 - 09/30/2011	
Violation Type	ID or Tag No.	Source Name	Contaminant	Monitoring Period	Number of Samples Required	Number of Samples Taken	
27	DS01	DISTRIBUTION SYSTEM	CHLORINE	SEPTEMBER 11	NINE	EIGHT	

What does the “Violation Type Code” mean?

Violation code 27 is a State and Federal violations and are reported to water users and the U.S. Environmental Protection Agency. Violations with these type codes must be included in the annual community Consumer Confidence Report.

What should I do?

There is nothing you need to do at this time.

What happened? What is being done?

We are required to monitor your drinking water for specific contaminants on a regular basis. One Coliform sample and one residual chlorine sample was not taken in September 2011. In October 2011, we collected all required samples and sent them to a certified lab. The samples were analyzed and Coliforms were not found at detectable levels, and chlorine levels were well within EPA limits.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (e.g. people in apartments, nursing homes, schools, or businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact Joseph Davis, General Manager at (702) 397-6893 or the Southern Nevada Health District at (702) 759-0677.