

WATER QUALITY 2011

The Moapa Valley Water District is very pleased to provide you with the 2011 "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

The Moapa Valley Water District has no violations with the Safe Drinking Water Act standards.

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).

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.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

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 affected 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.

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.

The District performed the monitoring required for the period of January 1 to December 31, 2010. 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

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	.014	.014	.015	.015	.015	.007	.006	N/A	0.01
Calcium	.48	.47	.53	.51	.49	N/A	N/A	N/A	N/A
Copper	.010	ND	ND	ND	ND	ND	ND	ND	1.3
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 *	.41	.43	.41	.41	.36	.46	.43	.44	10

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

**ND - Not Detected

*Requires annual testing

PARAMETER	RESULT (units)								FED/STATE (units)
	Arrow Canyon #1	Arrow Canyon #2	Baldwin	Jones	MX-6	EP1	EP2	EP3	
pH	7.08 pH Units	7.16 pH Units	7.16 pH Units	7.15 pH Units	7.09 pH Units	7.6 pH Units	7.6 pH Units	7.5 pH Units	Between 6.5 - 8.5

				MOAPA VALLEY WTP FINISHED WATER ⁽¹⁾			
REGULATED CONTAMINANTS	UNIT	MCL (EPA/STATE Limit)	MCLG (EPA/STATE Goal)	MINIMUM	MAXIMUM	AVERAGE	POSSIBLE SOURCES OF CONTAMINATION
Alpha Particles	pCi/L	15	0	6.5	6.5	6.5	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	0.7	0.7	0.7	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	ppb	10	0	2.9	3.4	3.3	Erosion of natural deposits
Barium	ppm	2	2	0.1	0.1	0.1	Erosion of natural deposits; discharge from metal refineries; discharge of drilling wastes
Beta Particles and Photon Emitters	pCi/L	50 ⁽²⁾	0	11	11	11	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
Ethylbenzene	ppm	0.7	0.7	0.0006	0.0006	0.0006	Discharge from petroleum factories
Fluoride	ppm	4.0 / 2.0	4.0 / 2.0	1.9	2	2	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	1.4	1.4	1.4	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radium 226 and Radium 228 (combined)	pCi/L	5	0	0.6	0.6	0.6	Erosion of natural deposits
Selenium	ppb	50	50	1.9	1.9	1.9	Erosion of natural deposits; discharge from mines; component of petroleum
Xylenes, Total	ppm	10	10	0.004	0.004	0.004	Component of petroleum; discharge from chemical factories
Uranium	ppb	30	0	3.7	3.7	3.7	Erosion of natural deposits

Footnotes:

(1) This data is from the Moapa Valley Water Treatment Plant, operated by the Las Vegas Valley Water District. This sample location feeds into the transmission system 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.