



## Consumer Confidence Report for Calendar Year 2019

Este informe contiene información muy importante sobre el agua usted bebe.  
Tradúscalo ó hable con alguien que lo entienda bien.

Public Water System ID Number	Public Water System Name		
AZ04-02052	Mescal Lakes Water System		
Contact Name and Title	Phone Number	E-mail Address	
Jack Cullum Operations Manager	520-878-7438	<a href="mailto:jcullum@southwesternutility.com">jcullum@southwesternutility.com</a>	
<p>We want our valued customers to be informed about their water quality. If you would like to learn more, please contact <u>Jack Cullum at 520-878-7438</u> for additional opportunity and meeting dates and times.</p>			

### Drinking Water Sources

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, 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 pickup substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Our water source(s):** Mescal Lakes Water is supplied by three wells

### Drinking Water Contaminants

**Microbial Contaminants:** Such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife

**Inorganic Contaminants:** Such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming

**Pesticides and Herbicides:** Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

**Organic Chemical Contaminants:** Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

**Radioactive Contaminants:** That can be naturally occurring or be the result of oil and gas production and mining activities.

### Vulnerable Population

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 water poses a health risk. 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.

For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

## Source Water Assessment

Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ.

## Definitions

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water

**Level 1 Assessment:** A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present

**Level 2 Assessment:** A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria was present

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health

**Maximum Residual Disinfectant Level (MRDL):** The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur

**Minimum Reporting Limit (MRL):** The smallest measured concentration of a substance that can be reliably measured by a given analytical method

**Millirems per year (MREM):** A measure of radiation absorbed by the body

**Not Applicable (NA):** Sampling was not completed by regulation or was not required

**Not Detected (ND or <):** Not detectable at reporting limit

**Nephelometric Turbidity Units (NTU):** A measure of water clarity

**Million fibers per liter (MFL)**

**Picocuries per liter (pCi/L):** Measure of the radioactivity in water

**ppm:** Parts per million or Milligrams per liter (mg/L)

**ppb:** Parts per billion or Micrograms per liter (µg/L)

**ppt:** Parts per trillion or Nanograms per liter (ng/L)

ppm x 1000 = ppb

**ppq:** Parts per quadrillion or Picograms per liter (pg/L)

ppb x 1000 = ppt

ppt x 1000 = ppq

## Lead Informational Statement:

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Mescal Lakes Water Company 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. 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination
<b>E. Coli</b>	N	2	04/2019	0	0	Human and animal fecal waste
<b>Fecal Indicator</b> (From GWR source) (coliphage, enterococci and/or <i>E. coli</i> )	N	2	04/2019	0	0	Human and animal fecal waste

<sup>1</sup> **Total organic carbon (TOC)** has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

<sup>2</sup> **Turbidity** is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. We monitor it because it is a good indicator of the quality of water. High turbidity can hinder the effectiveness of disinfectants. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
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Chlorine/Chloramine (ppm)	N	1.41 ppm	0.20 ppm	4	0	12/2019	Water additive used to control microbes
<b>Disinfection By-Products</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
Total Trihalomethanes (TTHM) (ppb)	N	2.69 ppb	<.5-2.69 ppb	80	N/A	08/2019	Byproduct of drinking water disinfection
<b>Lead &amp; Copper</b>	<b>MCL Violation Y or N</b>	<b>90<sup>th</sup> Percentile</b>	<b>Number of Samples Exceeds AL</b>	<b>AL</b>	<b>ALG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
Copper (ppm)	N	0.045 ppm	0	1.3	1.3	09/2019	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	1.6 ppb	0	15	0	09/2019	Corrosion of household plumbing systems; erosion of natural deposits
<b>Radionuclides</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
Alpha Emitters (pCi/L) <small>(This is Gross Alpha 4000)</small>	N	4.6	4.6	15	0	09/2016	Erosion of natural deposits
Combined Radium-226 & -228 (pCi/L)	N	0.5	<.4-.5	5	0	09/2016	Erosion of natural deposits
<b>Inorganic Chemicals (IOC)</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
Nitrate <sup>2</sup> (ppm)	N	1.7 ppm	0.91-1.7 ppm	10	10	07/2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	20	18-20	N/A	N/A	11/2018	Erosion of natural deposits

<sup>1</sup> **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water, and continues to research the health effects of low levels of arsenic.

<sup>2</sup> **Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause "blue baby syndrome." Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

<b>Synthetic Organic Chemicals (SOC)</b>	<b>MCL Violation Y or N</b>	<b>Running Annual Average (RAA) OR Highest Level Detected</b>	<b>Range of All Samples (Low-High)</b>	<b>MCL</b>	<b>MCLG</b>	<b>Sample Month &amp; Year</b>	<b>Likely Source of Contamination</b>
Diquat (ppb)	N	2 ppb	<.4-2 ppb	20	20	11/2019	Runoff from herbicide use

#### Violation Summary (for MCL, MRDL, AL, TT, or Monitoring & Reporting Requirement)

Violation Type	Explanation, Health Effects	Time Period	Corrective Actions
Reporting	Forgot to submit Lead Consumer Notice	June 1 <sup>st</sup> -September 30 2019	Lead Consumer notice was submitted compliance achieved
Reporting	Forgot to submit Level 1 assessment	October 2019	Level 1 assessment submitted compliance achieved
Monitoring	Disinfection By-Product was taken from wrong sample point	10 Days	Compliance will be achieved when Disinfection By-Products are taken in 2020
Monitoring	Ground water samples were not taken from Positive Total Coliform	24 hours	Ground Water samples were submitted compliance achieved

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

#### Assessments for the Revised Total Coliform Rule (RTCR)

**Coliforms** are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If coliform is found, then the system is responsible to look for potential problems in water treatment or distribution. When this occurs, the water system is required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

- During the past year, we were required to conduct 1 Level 1 assessment(s) **E. coli** are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. If *E. coli* bacteria is found, the water system is required to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

**Failure to Conduct Assessments for the Revised Total Coliform Rule**

Contaminant Name	TT Violation Y or N	TT Requirement
<b>Total Coliform</b>	Y	We were required to conduct an assessment of our system due to one of the following: <ul style="list-style-type: none"> <li>• More than 5.0% positive samples per period (if the number of samples are greater than or equal to 40)</li> <li>• <u>OR</u> More than 1 positive sample per period (if the number of samples are less than 40)               <ul style="list-style-type: none"> <li>• <u>OR</u> Repeat samples not collected after positive sample.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• “We failed to take all required repeat samples following an <i>E. coli</i>-positive routine sample.”</li> </ul>		