City of Monahans
2016 Annual Drinking Water Quality Report

(Consumer Confidence Report)
(432) 943-4343

OUR DRINKING WATER IS REGULATED

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water. This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

Name: Bobby Sinclair, Director of Public Utilities
Phone: (432) 943-4343

En Espanol

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al tel. (432) 943-4343.

Source of Drinking Water

The sources of drinking water (both tap water 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.

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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with services lines and home plumbing. We are responsible for providing high quality drinking water, but we 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 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.

Information about Source Water Assessments

The source of drinking water used by CITY OF MONAHANS is Ground Water from Cenozoic Pecos Alluvium Aquifer. The TECQ completed an assessment of your source water and results indicate that our sources have a low susceptibility to contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Bobby Sinclair.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: **http://dww.tceq.texas.gov/DWW**

Source Water Name	Type of Water	Report Status	Location
4-10	GW	Active	Cenozoic Pecos Alluvium
4-11	GW	Active	Cenozoic Pecos Alluvium
4-12	GW	Active	Cenozoic Pecos Alluvium
4-13	GW	Active	Cenozoic Pecos Alluvium
4-14	GW	Active	Cenozoic Pecos Alluvium
4-15	GW	Active	Cenozoic Pecos Alluvium
4-9	GW	Active	Cenozoic Pecos Alluvium

PUBLIC PARTICIPATION OPPORTUNITIES

Date: June 13, 2017
Time: 3:00 p.m.
Location: City Council Chambers
112 West 2nd Street
Monahans, TX 79756
Phone No: (432) 943-4343

To learn about future public meetings (concerning your drinking water), or to request to schedule one, please call us.

2016 Regulated Contaminants Detected

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	9-26-16	.015	.000372	0.001	0	ppm	none	Erosion of natural deposits. Household plumbing system
Copper	9-27-16	1.3	1.3	0.13	0	ppm	N	Erosion of natural deposits; Leaching from wood preserva-tives; Corrosion of household plumbing systems.

Lead and Copper Rule

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	**Violation Begin**	**Violation End**	**Violation Explanation**
LEAD CONSUMER NOTICE (LCR)	12/30/2013	03/08/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be no later than30 days after learning the results.
LEAD CONSUMER NOTICE (LCR)	12/30/2016	03/08/2017	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

Water Quality Test Results

Definitions The following tables contain scientific terms and measures, some of which may require explanation.

Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level or MCL:

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Level 1 Assessment
A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Maximum Contaminant Level Goal or MCLG:
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for margin of safety.
Level 2 Assessment
A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coil MCL. violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum residual disinfectant level or MRDL:
The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum residual disinfectant level goal or MRDLG:
The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
MFL
million fibers per liter (a measure of asbestos)
na:
not applicable
mrem:
millirems per year (a measure of radiation absorbed by the body)
NTU
nephelometric turbidity units (a measure of turbidity)
pCi/L
picocuries per liter (a measure of radioactivity)
ppb:
micrograms per liter or parts per billion-or one ounce in 7,350,000 gallons of water
ppm:
milligrams per liter or parts per million-or one ounce in 7,350 gallons water
Treatment Technique or TT:
A required process intended to reduce the level of a contaminant in drinking water.
ppt
parts per trillion, or nanograms per liter (ng/L)
ppq
parts per quadrillion, or picograms per liter (pg/L**)**

Regulated Contaminants

Disinfectants and Disinfection By Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	UNITS	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2015	1	1.3 – 1.3	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of levels Detected	MCLG	MCL	UNITS	Violation	Likely Source of Contamination

Arsenic While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPAs standard balances the current understanding of arsenics 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.	2016	9	6.86-13.7	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	5-13-14	.47	0.047	2	2	ppm	N	Discharge of drilling wastes; Discharge from Metal refineries; Erosion of natural deposits.
Chromium	5/13/14	3.4	3.4-3.4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	7-16-14	2.14	2.14	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	1	1.32	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	5-13-14	.0047	.0047	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits;

								Discharge form mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2016	4.9	4.9-4.9	0	50	pCi/L*	N	Decay of natural and man-made deposits.
*EPAconsiders 50pCi/Lto be the level of conern for beta particles								
Combined Radium 226/228	3-8-16	.5	.5-1	0	5	pCi/L*	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	3-8-16	3	3	0	15	pCi/L*	N	Erosion of natural deposits.
Uranium	2016	2.1	2.1-2.1	0	30	ug/l	N	Erosion of natural deposits
Year	**Disinfection**	**Average Level**	**Minimum Level**	**Maximum Level**	**MRDL**	**MRDLG**	**Unit of Measurement**	
2016	**Chlorine Gas**	1.09	0.50	2.2	4.0	<4.0	ppm	

WATER LOSS

In the water loss audit submitted to the Texas Water Development Board for the time period of January – December 2016, our system lost an estimated 110,346,800 gallons of water. If you have any questions about the water loss audit please call (512) 239-4691.