

BILMA PUBLIC UTILITY DISTRICT

2021 Drinking Water Quality Report

This report is an annual summary of the quality of your drinking water. It is required by the Texas Commission on Environmental Quality and is based on the most recent U.S. Environmental Protection Agency required tests.

OUR DRINKING WATER IS SAFE

The Texas Commission on Environmental Quality (TCEQ), has assessed our system and determined that our water is safe to drink. The analysis was made by using the data in the attached tables. As your water meets federal standards set forth by the USEPA, there may not be health based benefits to purchasing bottled water or point of use devices.

En Español

Este informe contiene información importante acerca de su agua potable. Para asistencia en español favor de llamar al telefono: (281) 353-9809

Where do we get our drinking water?

Our drinking water is obtained from ground water and surface water sources. The ground water comes from the Gulf Coast Aquifers some 500 to 2,000 feet below ground surface. Surface water is supplied by the North Harris County Regional Water Authority and is treated water from Lake Houston. TCEQ completed an assessment of your source water and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact Natalia Espitia at 281-353-9809.

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).
EPA website: www.epa.gov/safewater

Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or Immuno-compromised persons such as those undergoing chemotherapy for cancer; those 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 Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be Present in Source Water

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 pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, which 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, which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems; and
- 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 USEPA prescribes regulations that limits the amount of certain contaminants in water provided by public water systems. Federal Food and Drug Administration Agency 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 h₂o innovation.

Public input concerning your water system may be made at regularly scheduled meetings on the first Thursday of each month at 5:00 p.m. at 6002 Bur Oak, Spring, Texas. For information on future public meetings, please visit the District's Website at www.bilmapud.com. You may contact Natalia Espitia, with h₂o innovation at 281-353-9809 with any concerns or questions you may have.



About the Following Table

The following table contains all of the chemical constituents which have been found in your drinking water for the most recent testing performed in accordance with applicable regulations. USEPA requires water systems to test up to 97 constituents. The constituents detected in your water are listed in the attached table.

DEFINITIONS

Maximum Contaminant Level (MCL) - The highest level of a contaminant in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.

ppm = parts per million or milligrams per liter (mg/l), one part per million corresponds to one minute in two years or a single penny in \$10,000.

ppb = parts per billion or micrograms per liter (mg/l), one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

pCi/l = pico curies per liter: Measure of radioactivity.

Maximum Residual Disinfectant Level (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.

Bilma Public Utility District TX1011872 - 2021 Drinking Water Quality Report:

Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2020	Barium	0.261	0.261 - 0.261	2	2	ppm	Discharge of drilling wastes.
2020	Fluoride	0.69	0.69 - 0.69	4.0	4	ppm	Erosion of natural deposits.
2021	Nitrate	1	0.52 - 1.0	0	10	ppm	Runoff from fertilizer use.
2015	Nitrite	0.03	<0.01 - 0.03	1	1	ppm	Erosion of natural deposits.
2014	Cyanide	20	20 - 20	200	200	ppb	Discharge from steel/metal factories.
2017	Selenium	0.0069	0.0069 - 0.0069	50	50	ppb	Erosion of natural deposits.
2017	*Arsenic	0.0021	0.0021 - 0.0021	10	0	ppb	Erosion of natural deposits.

*While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's 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.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Total Trihalomethanes	22.2	20.8 - 22.2	80	n/a	ppb	By-product of drinking water chlorination.
2021	Haloacetic Acids (HAA5)	28	23.2 - 28	60	n/a	ppb	By-product of drinking water chlorination.
2011	Atrazine	0.34	0.34 - 0.34	3	3	ppb	Runoff from herbicide used on row crops.

*The value in the Highest Level or Average Detected column is the highest average of all TTHM / HAA5 sample results collected at a location over a year.

Disinfectant Residual

Year	Constituent	Highest Average	Range of Detected Levels	MRDL	MRDLG	Units of Measure	Source of Constituent
2021	Chlorine Disinfectant	3.44	0.50 - 4.60	4	4	ppm	Water additive used to control microbes.

Unregulated Contaminants**

Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2021	Dichloroacetic Acid	19.1	19.0 - 19.2	ppb
2021	Trichloroacetic Acid	4.15	4.1 - 4.2	ppb
2021	Bromochloroacetic Acid	2.3	2.2 - 2.4	ppb
2021	Chloroform	18.55	18.0 - 19.1	ppb
2021	Bromodichloromethane	2.95	2.8 - 3.1	ppb
2021	Monochloroacetic Acid	4.2	4.2 - 4.2	ppb

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Radioactive Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2013	Gross Alpha	2.0	2.0 - 2.0	15	0	pCi/l	Erosion of natural deposits.
2013	Beta Emitters	4.2	4.2 - 4.2	50	0	pCi/l	Erosion of natural deposits.
2013	Combined Radium	1.0	1.0 - 1.0	5	0	pCi/l	Erosion of natural deposits.

Lead and Copper

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Levels	Action Level	MCLG	Units of Measure	Source of Constituent
2019	Lead	1.32	0	15	0	ppb	Corrosion of household plumbing system.
2019	Copper	0.029	0	1.3	1.3	ppm	Erosion of natural deposits.

The 90th percentile of the Lead/ Copper analysis means the top 10% (highest sample results) of all samples collected.

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 service lines and home plumbing. This water supply 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. 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>.

During 2021, Bilma P.U.D. received surface water from the North Harris County Regional Water Authority. The following is a compilation of the water quality information provided by the North Harris County Regional Water Authority:

Inorganic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Barium	0.35	0.0539 - 0.35	2	2	ppm	Discharge of drilling wastes.
2021	Nitrate	0.23	0.23 - 0.23	10	10	ppm	Erosion of natural deposits.
2021	Fluoride	0.37	0.23 - 0.37	4	4	ppm	Erosion of natural deposits.
2021	Arsenic	5.3	0.02 - 5.3	0	10	ppb	Erosion of natural deposits.
2021	Cyanide	140	0 - 140	200	200	ppb	Discharge from plastic/fertilizer factories.
2021	Selenium	4.5	4.5 - 4.5	50	50	ppb	Discharge from petroleum/metal refineries.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Atrazine	0.64	0.14 - 0.64	3	3	ppb	Runoff from herbicides used on row crops.
2021	Di (2-ethylhexyl) phthalate	2.3	0.99 - 2.3	6	0	ppb	Discharge from rubber and chemical factories.
2021	Simazine	1.0	0.07 - 1.0	4	4	ppb	Herbicide runoff.

**Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Organic Contaminants							
Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Total Trihalomethane (TTHM)	48.2	48.2 - 48.2	80	n/a	ppb	By-product of drinking water chlorination.
2021	Haloacetic Acids (HAA5)	50.7	50.7 - 50.7	60	n/a	ppb	By-product of drinking water chlorination.

*The value in the Highest Level or Average Detected column is the highest average of all TTHM/HAA5 sample results collected at a location over a year.

Unregulated Contaminants**

Year	Constituent	Average of All Sampling Points	Range of Detected Levels	Units of Measure
2021	Chloroform	17.37	3.20 - 32.80	ppb
2021	Bromochloroacetic Acid	4.99	1.0 - 8.20	ppb
2021	Dichloroacetic Acid	14.43	1.70 - 21.50	ppb
2021	Monochloroacetic Acid	6.50	2.40 - 10.40	ppb
2021	Trichloroacetic Acid	4.47	1.30 - 7.60	ppb
2021	Bromodichloromethane	7.80	1.2 - 15.0	ppb

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Radioactive Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Gross Alpha	15.1	4 - 15.1	15	0	pCi/l	Erosion of natural deposits.
2021	Combined Radium	2.48	1.5 - 2.48	5	0	pCi/l	Erosion of natural deposits.

Turbidity***

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	Monthly Limits	Units of Measure	Source of Constituent
2021	Turbidity	0.49	0.3 - 0.49	1	NTU	Soil runoff.

*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 organism. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps , diarrhea and associated headaches.

Radioactive Contaminants

Year	Constituent	Highest Detected Level at Any Sampling Point	Range of Detected Levels	MCL	MCLG	Units of Measure	Source of Constituent
2021	Beta/Photon emitters	6.6	0 - 6.6	15	0	pCi/l	Erosion of natural deposits.
2021	Uranium	11.4	0 - 11.4	30	0	pCi/l	Erosion of natural deposits.

The drinking water produced by Your District exceeds the minimum water quality standards as established by the USEPA.

Bilma P.U.D. is recognized as a "Superior" Public Water System by the State of Texas