

# 2021 Consumer Confidence Report

## Bistone Municipal Water Supply District

Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. To focus everyone's efforts at the Water District, a mission statement was adopted which states, *"Our mission is to provide our customers with safe drinking water in a customer friendly atmosphere, providing an environment for the development of our personnel while providing fiscal responsibility for our facilities and by meeting the challenging regulatory concerns and our customers future needs and requirements"*.

**We are pleased to report that our drinking water is safe and meets federal and state requirements.**

**Public Water System Name:** Bistone Municipal Water Supply District

**Water System ID Number:** 1470006

**Year this report covers:** Jan. 1 to Dec. 31, 2021, This report is designed to inform you about the quality water and services we deliver to you every day. We are required by the Safe Drinking Water Act to prepare and deliver this report to you on an annual basis.

**Phone Number:** 254-562-5922

**Questions:** If you have any questions about this report or any other issue concerning your water utility, please contact R. Brent Locke, General Manager, at 254-562-5922. We want you to be informed about our water quality. Our office is open Monday – Friday, 8:00 AM to Noon and 1:00 PM to 5:00PM

**En Espanol:** Este reporte incluye informacion importante sobre el agua para tomar. Para asistencia en espanol, favor de llamar al telefono (254) 562-5922.

**Public Participation:** To learn more, please attend any of our regularly scheduled Board meetings. They are held monthly on the third Monday at 5:30 PM in our Lake Mexia Pavilion, located at 730 FM 2681, Lake Mexia. If the third Monday is a holiday, the meetings are normally held the next business day.

**Notice To At-risk Populations:** 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 the Safe Drinking Water Hotline 800-426-4791.

### Where Do We Get Our Drinking Water?

Sources of Water: Ground Water - Carrizo -Wilcox Aquifer, Surface Water - Lake Mexia

Location of Water Sources: Limestone County

Although we have two sources of water, we **normally** do **not** mix lake water and ground water together. Bistone maintains each system independently of the other. Owning and operating two water plants, with separate water sources is beneficial to our customers. It gives Bistone the ability to serve all customers from only one system at a time or to have both systems working separately. The City of Mexia and Bistone's retail customers along Highway 39 are served by the ground water system. The Lake Mexia plant serves the Mexia State Supported Living Center, City of Tehuacana, White Rock WSC and retail customers east of Lake Mexia, when it is in service.

However, during Winter Storm URI of February 2021 we **did** use the lake plant for 3 days. This was necessary to restore water service to all our customers. The large number of customer water leaks and the extended power outages on our groundwater system required this action. We supplied all of our customers a combination of ground water and surface water during those 3 days. Ground water was provided the rest of the year.

The TCEQ has completed a Source Water Susceptibility Assessment for your drinking water source(s). This report describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in this assessment will allow us to focus our source water protection activities. Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww2.tceq.texas.gov/DWW/> and Source Water Assessment URL: <http://www.tceq.texas.gov/gis/swaview>

### What You Can Expect in Your Drinking Water?

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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or <http://www.epa.gov/safewater>. 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 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 systems, agricultural livestock operations, and wildlife. **Inorganic contaminants**, such as salts and metals, which 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***, which might have 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.

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 district's business office. 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 regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Bistone Municipal Water Supply District routinely monitors for constituents in your drinking water according to Federal and State Laws. We tested for many possible contaminants. The tables included show the results of our monitoring for the period of January 1 to December 31, 2021. Only the contaminants that were detected are listed in the tables. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. The date the contaminant was tested is included, if the data is more than one year old.

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

**Parts per million (ppm) or Milligrams per liter (mg/l):** One part per million corresponds to one ounce in 7,350 gallons of water.

**Parts per billion (ppb) or Micrograms per liter (µg/l):** One part per billion corresponds to one ounce in 7,350,000 gallons of water.

**Picocuries per liter (pCi/L):** A measure of radioactivity.

**Nephelometric turbidity unit (NTU):** A measure of turbidity; a measure of the clarity of water.

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

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

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

**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.

**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 *Escherichia coli* (E. coli) MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs 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 risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of 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 (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.

**N/A:** Not Applicable

**Turbidity or NTU:** A measure of cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Turbidity in excess of 5 NTU is just noticeable to the average person.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-ten thousand chance of having the described health effect.

**Coliform Bacteria**

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	0 Positive monthly sample	0		0	No	Naturally present in the environment

**Disinfectant Level**

Disinfectant	Average Level	Range of Samples	MRDL	MRDLG	Violation	Unit of Measure	Source of Chemical
Chlorine	1.77	0.40 – 3.76	4.0	<4.0	No	PPM	Disinfectant used to control microbes.

**Disinfection By-Products**

Constituent	Unit of Measure	MCLG	MCL	Highest Level or Average Detected	Range Detected	Violation	Source of Constituent
Total Trihalomethanes (TTHM) 2021	ppb	N/A	80	17	16.5 – 16.5	No	By-product of drinking water disinfection.
Haloacetic Acids (HAA5) 2021	ppb	N/A	60	3	2.6 – 2.6	No	

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

## Regulated at Your Tap 2021 Test Results Table

### Lead and Copper

Lead and Copper	Unit of Measure	Date Sampled	MCGL	Action Level (AL)	90 <sup>th</sup> Percentile Values	# of Sites Over AL	Violation	Source of Constituent
Copper	ppm	2021	1.3	AL=1.3 mg/L	0.0646	0	No	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives
Lead	ppm	2021	0	AL=.015 mg/L	0	0	No	Corrosion of household plumbing systems, erosion of natural deposits.

Samples were taken from twenty different locations. None of our sample sites exceeded the action level for lead or copper. Infants and children who drink water containing lead more than the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead more than the action level over many years could develop kidney problems or high blood pressure. 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. Bistone Municipal WSD is 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>." Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced, or reduced.

**Inorganic Contaminants**

Constituent	Unit of Measure	MCLG	MCL	Highest Level Detected	Range of Individuals Samples	Violation	Likely Source of Constituent
Barium 2019	ppm	2	2	0.093	0.093-0.093	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride 2021	ppm	4	4.0	.609	0.609-0.609	No	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as nitrogen) 2021	ppm	10	10	.433	.433 – .433	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

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.

## Surface Water

### Turbidity

	Level Detected	Limit	Violation	Likely Source of Contamination
Highest single measurement	0.33 NTU	1 NTU	N	Soil runoff.
Lowest monthly % meeting	100%	0.3 NTU	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

### Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured during the time of surface water treatment and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

### Violations

**No violations occurred during the time of report.**

In the **Water Loss Audit** submitted to the Texas Water Development Board for the time of January through December 2021, our system lost an estimated 70,781,398 gallons of water. This is a significant amount of water loss and equates to a retail water loss of 261 GPCD (Gallons per Capita per Day), with an adjustment for our wholesale water the retail water loss is 47 GPCD. Our goal of retail water loss is 5 Total GPCD.