



2017

Drinking Water Quality Report

BENTON CITY WATER SUPPLY

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Annual Water Quality Report period of January 1 to December 31, 2017.

This report is a summary of the quality Benton City Water Supply Corporation provides its customers. The analysis was made by using the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in this report. We hope this information helps you become knowledgeable about what is in your drinking water.

Source of Drinking Water

Our Drinking water is obtained from Ground water sources. It comes from the following Lake/River/Reservoir/Aquifer: Carrizo Aquifer.

The sources of drinking water (both tap water and bottled water) includes 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 substance 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 presences 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 at (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 result 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which 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 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (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 service 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>.

Secondary Constituents

Many constituents (such as calcium, sodium, or iron) which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not the EPA. These constituents are not causes for health concern. Therefore, secondary's are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

Water Quality Data

The following tables list all of the drinking water contaminants which were detected during 2016 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1 – December 31, 2016. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, representative of the water, is more than one year old. Benton City Water provides safe drinking water.

Questions About Your Water Quality Report?

To learn more about your drinking water, please attend any of the regularly monthly scheduled meetings held on the fourth Tuesday of the month. The public is welcome to request time on the agenda for comments about water utility topics. Please visit our website www.bentoncitywater.com for more information and to obtain a copy of this Water Quality Report.

En español

Este reporte incluye informacion importante sobre el agua tomar. Para asistencia en español, favor de llamar al telefono (830) 709-3254.

State Water Loss Audit

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 189,495,338 gallons of water through main breaks, leaks, inaccurate customer metering, theft and other causes.

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

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.

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.

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 a margin of safety.

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 contaminants.

MFL: million fibers per liter (a measure of asbestos)
 NA: not applicable.
 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 of water.
 Ppt: parts per trillion, or nanograms per liter (ng/L)
 ppq: parts per quadrillion, or picograms per liter (pg/L)

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

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

Information about Source Water

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 Benton City Water at (830) 709-3254.

Coliform Bacteria

Maximum Contaminant Level	Total Coliform Maximum	Highest No. of Positive	Fecal Coliform or E. Coli Maximum	Total No. of Positive E. Coli or Fecal	Violation	Likely Source of Contamination
0	1 positive monthly	1	0	0	N	Naturally present in the environment.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/26/2015	1.3	1.3	0.209	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/26/2015	0	15	0.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

2017 Water Quality Test Results

2017

Disinfection By-Products	Collection Date	Highest Level or Average Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
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Haloacetic Acids (HAA5)	2017	2	0 - 2.4	No goal for the total	60	ppb	N	By-product of drinking water disinfection
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* The value in the Highest Level or Average Detected column is the highest average of all HAA5 sample results collected at a location over a year'

Total Trihalomethanes (TTHM)	2017	6	0 - 11	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year'

2017

Inorganic Contaminants	Collection Date	Highest Level or Average	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2017	0.0868	0.0868 - 0.0868	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of
Fluoride	2017	0.16	0.16 - 0.16	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth;
Nitrate [measured as Nitrogen]	2017	0.28	0 - 0.28	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

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Radioactive Contaminants	Collection Date	Highest Level or Average	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/positron emitters	2017	5.7	5.7 - 5.7	0	4	mrem/yr	N	Decay of natural and man-made deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Combined Radium 226/228	2017	4.8	4.8 - 4.8	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2017	9.8	9 - 9.8	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2017	1.4	1.4 - 1.4	0	30	ug/l	N	Erosion of natural deposits.

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Volatile Organic Contaminants	Collection Date	Highest Level or Average	Range of Individual	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2017	0.6	0 - 0.6	700	700	ppb	N	Discharge from petroleum refineries.
Xylenes	2017	0.0018	0 - 0.0018	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Free Chlorine	2017	1.36	0.2 - 4.0	4	4	Mg/p	ppm	Water additive used to control microbes.

Violations

Coliform Positive Sample			
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. We found coliforms indicating the need 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.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	10/01/2017	10/31/2017	Coliform positive / E. Coli Negative. Repeat Samples within 24 hours. Tested: Negative

Information about Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source is currently being updated by the Texas Commission on Environmental Quality. This information 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 the assessment allows us to focus source water protection strategies.

For more information about your sources of water, please refer to the Source Water Assessments Viewer available at the following URL: <http://dww.tceq.texas.gov/DWW>

System Susceptibility Summary

Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochemical	Sythetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
----	LOW	HIGH	LOW	LOW	HIGH	LOW	LOW	LOW	HIGH	HIGH

Entry Point Susceptibility Summary

Entry Point ID	Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochem	Sythetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
001	----	MEDIUM	HIGH	MEDIUM	HIGH	HIGH	HIGH	MEDIUM	HIGH	HIGH	HIGH
002	----	----	HIGH	----	----	----	----	----	----	----	----



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