

Starr Water Supply Corporation

2016 Annual Drinking Water Quality Report (Consumer Confidence Report)

PWSID#:0910046

Annual Water Quality Report for the period of January 1 to December 31, 2016

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements:

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 is in your drinking water.

How water is made safe?

No treatment is necessary for the ground water except for the addition of chlorine to disinfect the water.

Do I need to take special precautions?

Some people may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants; some elderly or immune 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 at 800-426-4791.

You are invited to attend our Monthly Board Meetings

Please call our Office at 903-465-9135 for more information.

Questions about this report? Please call 903-465-9135, 8:00 a.m. to 4:00 p.m., weekdays.

Why are there contaminants in my drinking water?

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. 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, 800-426-4791. The tables in the report show all of the regulated contaminants that were detected in 2016. The Texas Commission on Environmental Quality (TCEQ) continuously monitors our drinking water to ensure that safe water is delivered to your home.

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; and
- ❖ Radioactive contaminants, which can be naturally-occurring or result from oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the 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.

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 us at 903-465-9135.

Sources 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 pick up 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 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 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>.

PUBLIC PARTICIPATION OPPORTUNITIES

There will be a public hearing with an opportunity for public comment on this report on July 11, 2017 at 6:30pm. This meeting will be held at the Starr Water Supply office located at 1031 Cleve Cole Rd. Denison TX. If you have any questions, please contact General Manager Chuck Dodd at 903-465-9135.

Conservation Tips

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers; a five-minute shower uses four to five gallons of water compared to up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; three to five gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Information about Source Water Assessments

The TCEQ completed an assessment of your source water (Trinity Aquifer/Antler's Sands) and results indicate that some of your sources are susceptible to certain 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.

System Susceptibility Summary

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

Entry Point Susceptibility Summary

Entry Point ID	Asbestos	Cyanide	Metals	Microbial	Minerals	Radio-chemical	Synthetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
001	-----	-----	MEDIUM	-----	MEDIUM	-----	-----	-----	-----	-----	MEDIUM
002	-----	MEDIUM	HIGH	MEDIUM	HIGH	-----	HIGH	MEDIUM	HIGH	MEDIUM	-----
003	-----	-----	HIGH	-----	LOW	-----	LOW	-----	LOW	HIGH	LOW
004	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Meaning of high, medium, and low in the context of a source water susceptibility assessment

“High” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed that make it very likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present.

“Medium” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed that make it somewhat likely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present.

“Low” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed that make it unlikely that chemical constituents may come into contact with the source water. It does not mean that there are any health risks present. For more information, contact us at 903-465-9135.

For more information on source water assessments and protection efforts at our system, contact Chuck Dodd 903-465-9135. For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<https://www.tceq.texas.gov/gis/swaview>.

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL:

<http://dww2.tceq.texas.gov/DWW//>.

Source Water Name		Type of Water	Report Status	Location
1 - 6433 DRIPPING SPRINGS RD	EP 001	GW	Active	6433 Dripping Springs Rd Denison TX
2 - 2011 WHITNEY RD	EP 002	GW	Active	2011 Whitney Rd. Sherman TX
3 - 5800 DRIPPING SPRING RD	Combines with EP 001	GW	Active	5800 Dripping Springs Rd. Denison TX
4 - 934 CLEVE COLE RD	EP 003	GW	Active	934 Cleve Cole Rd. Denison TX
5 - 221 BARBARA LN	EP 004	GW	Active	221 Barbara Ln. Sherman TX

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The tables in this report list all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive and, in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in the tables is from testing performed in the calendar year of 2016. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old.

Secondary Constituents

Many constituents (such as calcium, sodium or iron) that 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 cause for health concerns. Therefore, secondary constituents are not required to be reported in this document; but they may greatly affect the appearance and taste of your water.

Flushing Water Lines

At first glance, it seems like flushing is a waste of water—especially considering water restrictions during drought conditions. However, flushing is vital to routine system maintenance. Flushing lines through fire hydrants or flush valves, removes mineral buildup and helps to maintain chlorine residual throughout the system.

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 5,523,500 gallons of water. If you have any questions about the water loss audit please call Chuck Dodd at 903-465-9135.

2016 Regulated Contaminants Detected

Water Quality Test Results

Definitions:

Avg:

Maximum Contaminant Level or MCL:

Maximum Contaminant Level Goal or MCLG:

Maximum residual disinfectant level or MRDL:

Maximum residual disinfectant level goal or MRDLG:

MFL

NA

NTU

pCi/L

ppb:

ppm:

ppt

ppq

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

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

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.

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.

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.

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.

million fibers per liter (a measure of asbestos)

not applicable.

nephelometric turbidity units (a measure of turbidity)

picocuries per liter (a measure of radioactivity)

micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

parts per trillion, or nanograms per liter (ng/L)

parts per quadrillion, or picograms per liter (pg/L)

2016 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)	9/07/2016	9	9.29 – 9.29	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Total Haloacetic Acids (HAA5)	9/07/2016	1.3	0 – 1.3	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

Inorganic Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	04/02/2015	2.6	.86 – 2.67	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	04/02/2015	0.027	.013 - .027	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	04/02/2015	4	0 - 4	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	10/27/2016	1.27	1.27 – 1.27	4.0	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	10/27/2016	0.0515	0.0445 - 0.0515	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	04/02/2015	1.3	0 – 1.3	50	50	ppb	N	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines

Radioactive Contaminants

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	04/02/2015	.66	0 – 0.66	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	04/02/2015	7.9	0 - 7.9	0	15	pCi/L	N	Erosion of natural deposits.

2016 Maximum Residual Disinfectant Levels (Chlorine)

Disinfectant Used	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit	Violation	Source of Chemical
Free Chlorine	1.06	.20	2.83	4	< 4	ppm	No	Disinfectant used to control Microbes

2016 Lead & Copper Rule

Lead or Copper	Year	The 90 th Percentile Value of the Most Recent Round of Sampling	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Was This a Violation?	Source of Contaminant
Lead	9/17/2015	0 ppb	None	.015	ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	9/17/2015	.12 ppm	None	1.3	ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Violation Notification							
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	12/30/2015	02/08/2016	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested in a timely manner. These were supposed to be provided no later than 30 days after learning the results.				

2016 Other Non-regulated Chemicals

Other Non-regulated Chemicals Detected	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Aluminum	04/02/2015	0.032	.005 - 0.032	NA	.2 MG/L	ppm	NA	Erosion of natural deposits.
Bromoform	10/27/2016	6.8	1.01 – 6.8	NA	NA	Ug/l	NA	Erosion of natural deposits.
Calcium	04/02/2015	2.45	1.49 – 2.45	NA	NA	ppm	NA	Erosion of natural deposits.
Chloride	10/27/2016	46.6	0 – 46.6	NA	NA	Mg/L	NA	Erosion of natural deposits.
Dibromochloromethane	10/27/2016	2.49	1.29 – 2.49	NA	NA	Ug/l	NA	Erosion of natural deposits.
Hardness Calcium Magnesium	04/02/2015	9.24	5.65 – 9.24	NA	NA	ppm	NA	Erosion of natural deposits.
Iron	04/02/2015	.0427	.0326 - .0427	NA	NA	ppm	NA	Erosion of natural deposits.
Magnesium	04/02/2015	.762	.397 - .762	NA	NA	ppm	NA	Erosion of natural deposits.
Manganese	04/02/2015	.0016	.0012 - .0016	NA	NA	ppm	NA	Erosion of natural deposits.
Potassium	04/02/2015	1.87	1.39 – 1.87	NA	NA	ppm	NA	Erosion of natural deposits.
Sodium	04/02/2015	299	288 - 299	NA	NA	ppm	NA	Erosion of natural deposits.
Total Alkalinity	10/27/2016	467	467	NA	NA	ppb	NA	Erosion of natural deposits.
Sulfate	10/27/2016	71.1	0 – 71.1	NA	NA	Mg/L	NA	Erosion of natural deposits.
Total Dissolved Solids (TDS)	10/27/2016	716	0 - 716	NA	NA	Mg/L	NA	Erosion of natural deposits.
Zinc	04/02/2015	.0091	.0054 - .0091	NA	NA	ppm	NA	Erosion of natural deposits.