

2016 Annual Drinking Water Quality Report

Consumer Confidence Report

Castlewood PWS # 1010111

Your drinking water meets or exceeds all federal (EPA) drinking water requirements. The U.S. Environmental Protection Agency (EPA) requires water systems to test for up to 97 contaminants. The following results list all of the federally regulated or monitored contaminants which have been found in your drinking water. The analysis was made by using the data from the most recent EPA required tests and lab analysis on your water. This report is summary of the quality of the water we provide our customers. We hope this information helps you become more knowledgeable about what's in your drinking water.

Please see Definition/Abbreviation section for specific terms and measures explanations.

The water system's result is highlighted in yellow.

Results

Lead and Copper Table

This table shows the latest results of lead and copper tested. (Results may be from a previous year if not tested last year.)

Lead and Copper	Date Sampled	MCLG	*Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation (YES/NO)	Likely Source of Contamination
Copper	2016	1.3	1.3	0.078	0	ppm	NO	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	1.3	0	ppb	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

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

Coliform Bacteria Table

There were **No Present** Total or E. coli Coliform detections in year 2016.

Disinfectant Residual Table

This table shows the average, minimum and maximum levels of chlorine measured in the water system throughout the year.

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (YES/NO)	Likely Source of Contamination
Sodium Hypochlorite (Chlorine)	2016	1.79	0.90	3.5	4	4	ppm	NO	Water additive used to control microbes.

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Regulated Contaminants

This table shows the results of EPA regulated compounds that were found in the water system.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Di (2-ethylhexyl) phthalate	2016	1.1	1.1 - 1.1	0	6	ppb	N	Discharge from rubber and chemical factories.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2015	2.2	2.2 – 2.2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2015	0.264	0.264 - 0.264	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2015	0.16	0.16 - 0.16	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	0.23	0.23 – 0.23	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Selenium	2015	4.3	4.3 – 4.3	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

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Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Gross alpha excluding radon and uranium	2015	9.1	7 – 9.1	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2015	3.4	3.4 – 3.4	0	30	ppb	N	Erosion of natural deposits.

Is MY Water Safe According to the Results?



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Violations

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
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	10/08/2016	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

Public Notification Rule			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency).			
Violation Type	Violation Begin	Violation End	Violation Explanation
Public Notice Rule Linked to Violation	01/22/2015	2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
Public Notice Rule Linked to Violation	02/08/2016	2016	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

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ABOUT US:

The water system is owned by **Suburban Utility**. It is currently being managed by **Quadvest**, 39 year-old company specializing in the operations and maintenance of water and sewer treatment and distribution systems. If you have any questions concerning water quality or the source of your water, please call our office at **(281) 356-5347**. *We do not hold regularly scheduled meetings.*

HEALTH NOTE

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 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**.

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 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.

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>

DEFINITIONS/ ABBREVIATIONS

Avg: Regulatory compliance with some MCLs is 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.

Level 1 Assessment: A study to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.

Level 2 Assessment: A detailed study to identify potential problems and determine (if possible) why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in the water system on multiple occasions.

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 of water.

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

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

Treatment Technique/TT—a specific treatment method required by the EPA to control the level of contaminant in drinking water.

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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, secondaries are not required to be reported in this document but they greatly affect appearance and taste of your water..

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 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 **EPAs Safe Drinking Water Hotline at (800) 426-4791.**

ALL Drinking water may contain contaminants.

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.

Information about of Source Water Assessments

A Source Water Susceptibility Assessment for your drinking water source(s) 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.

The SWSA susceptibility ratings are divided into three divisions: "High," "Medium," and "Low."

"High" susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed 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 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 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 about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL:

<http://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

1 – 1 - 2622 1/2 BALMORHEA

GW

Gulf Coast Aquifer is the water source for the well.

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Source Water Assessment

System Susceptibility Summary										
Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochemical	Synthetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
HIGH	MEDIUM	HIGH	HIGH	HIGH	MEDIUM	HIGH	MEDIUM	HIGH	HIGH	HIGH

Entry Point Susceptibility Summary											
Entry Point ID	Asbestos	Cyanide	Metals	Microbial	Minerals	Radiochem	Synthetic Organic Chemicals	Disinfection Byproduct	Volatile Organic Chemicals	Drinking Water Contaminant Candidate	Other
001	HIGH	MEDIUM	HIGH	HIGH	HIGH	MEDIUM	HIGH	MEDIUM	HIGH	HIGH	HIGH

The TCEQ completed an assessment of your source water 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 Confidence Report. For more information on source water assessments and protection efforts at our system, contact Quadvest @ 281-356-5347.