

City of Brady
Water Utilities Department

2014 Consumer Confidence Report

(PWS 1540001 - Year 2013 Data)

WHY HAVE I RECEIVED THIS REPORT

In 1996, Congress amended the Safe Drinking Water Act to include a requirement that water utilities annually notify customers about their drinking water quality. This report is produced annually by the Department of Water Utilities to provide information about the Brady water system, source water, levels of minerals and any detected contaminants, and to ensure compliance with applicable TCEQ rules and regulations. We hope this report will also help answer any questions you may have about our water system and quality. The Water Utilities Department is part of your city government. If you have questions about this report, you may contact us by telephone or mail:

Department of Water Utilities
201 E. Main Street
Brady, Texas 76825
325.597.2152
<http://www.bradytx.us>

If you would like the opportunity to participate in decisions that may affect the quality of our water, you may attend a regularly scheduled City Council Meeting normally located at the Ed Davenport Civic Center , 200 Country Club Drive, Brady, Texas on the first and third Tuesday of the month.

BRADY WATER SYSTEM FACTS

	2013
Total Year Pumpage (Million Gallons)	432
Maximum Daily Usage (Million Gallons)	1.4
Average Daily Usage (Million Gallons)	0.8
Average Person Usage (Gallons Daily)	144
Service Connections (Water Meters)	3,034
Population	5,544

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en Español, favor de llamar al telefono (325) 597-2152.

WHERE DOES OUR WATER COME FROM?

Brady currently gets its water from seven water wells in the Hickory Aquifer. We also are capable of blending in surface water from Brady Lake through the microfiltration / reverse osmosis surface water treatment plant.

PUBLIC WATER SYSTEMS SERVED BY BRADY

Richland SUD – TX2060012

City of Richland Springs – TX2060002

Lakeland Services – TX1540007

SPECIAL HEALTH INFORMATION

The following information is not meant to alarm or scare you. It is meant to make you aware. The exact wording shown below is required by state regulations.

"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; 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."

TTHMs (Total Trihalomethanes). Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

LEAD AND COPPER

If present, elevated levels of lead can cause serious health problems, especially for young children and pregnant women. Lead in drinking water comes primarily from materials used in home plumbing, fixtures and service lines. This water supply is responsible for providing water with acceptable low levels of lead, however 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 elevated levels of lead by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking.

CHLORINE DISINFECTION

Brady uses chlorine gas as the primary disinfectant of the water.

Substance (units)	State and Federal Standards		Levels Measured in Brady Water			Possible Source
	MCLG	MCL	Average Level Detected	Minimum Level Detected	Maximum Level Detected	
Chlorine (ppm)	4 MRDLG	4 MRDL	1.2	0.5	3.5	Disinfectant used to control microbes

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

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

MRDLG (Maximum Residual Disinfectant Level Goal)- 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.

MRDL (Maximum Residual Disinfectant Level) - 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.

MRDL and MRDLG are based on a monthly average. There is no violation to occasionally exceed 4.0 mg/L chlorine residual on a given day.

FACTS ABOUT TRIHALOMETHANE'S (THM's)

When chlorine is added to source water containing dissolved organics, undesirable by-products are often formed called trihalomethanes (THM's). THM's are a common problem with most all surface water treatment plants. The regulatory limit for THM's is 80 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

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 Confident Report.

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. For more information on source water assessments and protection efforts at our system, **contact Water Superintendent Gary Jacobson 325-597-2244 ext 204.**

Annual Drinking Water Quality Report

TX1540001

CITY OF BRADY WATER SYSTEM

Annual Water Quality Report for the period of January 1 to December 31, 2013

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

Name __Gary Jacobson_____

Phone __325.597-2244.ext.204_____

CITY OF BRADY WATER SYSTEM is Surface Water and Groundwater

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (325) 597-2152.

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 EPAs 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 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.

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>.

Information about 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.

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://dww.tceq.state.tx.us/DWW/>

Source Water Name		Type of Water	Location
2 - MAINT YARD	Well No.2	GW	_____
3 - OAK ST	Well No.3	GW	_____
4 - WHITE ST	Well No.4	GW	_____
5 - S CHINA ST	Well No.5	GW	_____
6 - GST (COLORADO ST / LAKE RD)	Well No.6	GW	_____
7 - SOUTH AVE	Well No.7	GW	_____
8 - GST (COLORADO ST / LAKE RD)	Well No.8	GW	_____
BRADY LAKE SWTP		SW	_____

2013 Regulated Contaminants Detected

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	1 positive monthly sample.	1		0	N	Naturally present in the environment.

Lead and Copper

Definitions:

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.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	08/20/2012	1.3	1.3	0.324	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/20/2012	0	15	4.36	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)*	2013	8	0 - 47.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2013	37	0 - 206	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Antimony	2013	1	0 - 0.644	6	6	ppb	N	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.

Arsenic - While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's 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.	2013	8	0 - 7.87	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2013	0.157	0.0332 - 0.157	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	2013	6.53	0.49 - 6.53	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	2013	0.8	0.36 - 0.836	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]	2013	0.018	0 - 0.018	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2013	1.71	0 - 1.71	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Thallium	2013	3	0 - 2.57	0.5	2	ppb	N	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/alpha emitters	2013	74.3	15.5 - 74.3	0	50	pCi/L*	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	2013	49	6.2 - 51.3	0	5	pCi/L	Y	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2013	33	8.8 - 36.1	0	15	pCi/L	Y	Erosion of natural deposits.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.78 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	67.75%	Y	Soil runoff.

Violations Table

Combined Radium 226/228			
Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	01/01/2013	03/31/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	04/01/2013	06/30/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	07/01/2013	09/30/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	10/01/2013	12/31/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MONITORING, ROUTINE MAJOR	04/01/2013	06/30/2013	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.

E. coli			
Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	02/01/2013	02/28/2013	We failed to collect all the required follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.
MONITOR GWR TRIGGERED/ADDITIONAL, MINOR	03/01/2013	03/31/2013	We failed to collect all the required follow-up samples within 24 hours of learning of the total coliform-positive sample. These needed to be tested for fecal indicators from all sources that were being used at the time the positive sample was collected.

Gross alpha excluding radon and uranium			
Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	01/01/2013	03/31/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	04/01/2013	06/30/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

Violations Table

MCL, AVERAGE	07/01/2013	09/30/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	10/01/2013	12/31/2013	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MONITORING, ROUTINE MAJOR	04/01/2013	06/30/2013	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.

Interim Enhanced SWTR

The Interim Enhanced Surface Water Treatment Rule improves control of microbial contaminants, particularly Cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The rule builds upon the treatment technique requirements of the Surface Water Treatment Rule.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONTHLY COMB FLTR EFFLUENT (IESWTR/LT1)	07/01/2013	07/31/2013	Turbidity levels, though relatively low, exceeded a standard for the month indicated. Turbidity (cloudiness) levels are used to measure effective filtration of drinking water.

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	12/14/2011	01/10/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/13/2013	08/09/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	07/01/2013	09/30/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	07/16/2013	08/09/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/01/2013	08/31/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/06/2013	09/23/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	08/29/2013	09/19/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	10/10/2013	11/19/2013	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Violations Table

Surface Water Treatment Rule (SWTR)			
The Surface Water Treatment Rule seeks to prevent waterborne diseases caused by viruses, Legionella, and Giardia lamblia. The rule requires that water systems filter and disinfect water from surface water sources to reduce the occurrence of unsafe levels of these microbes.			
Violation Type	Violation Begin	Violation End	Violation Explanation
RES DISINFECT CONCENTRATION (SWTR)	08/01/2013	08/31/2013	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.
RES DISINFECT CONCENTRATION (SWTR)	09/01/2013	09/30/2013	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequate disinfection is required to ensure safe drinking water.

Total Coliform			
Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING (TCR), ROUTINE MAJOR	06/01/2013	06/30/2013	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.

Uranium			
Some people who drink water containing uranium in excess of the MCL (30 ug/L) over many years may have increased risk of getting cancer and kidney toxicity.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	04/01/2013	06/30/2013	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.

MCLG (Maximum Contaminant Level Goal) - The level of a contaminant in drinking water below which there is no known or expected risk to health.

MCLG's allow for a margin of safety.

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

MRDLG (Maximum Residual Disinfectant Level Goal)- 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.

MRDL (Maximum Residual Disinfectant Level) - 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.

mrem/year--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--parts per billion, or micrograms per liter (µ/L)

ppm--parts per million, or milligrams per liter (mg/L)

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

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

TT (Treatment technique) -A required process intended to reduce the level of a contaminant in drinking water.

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

ALG (Action Level Goal) – The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for

a margin of safety.

ND - no detection

NA - not applicable

Note: Unregulated contaminants are those for which the 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 regulations are warranted.

Data presented in this report is from the 2013 calendar year or from the most recent testing performed in accordance with State regulations.

The 90th percentile value means 90% of the samples were at or below this value. EPA considers the 90th percentile value the same as an "average" value for other contaminants. Lead and copper are regulated by a treatment technique that requires systems to control the corrosiveness of their water. If more than 10% of tap water samples exceed the action level, water systems must take additional steps.

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

¹Tested in 2011

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