

# CONSUMER CONFIDENCE REPORT

## TCEQ CERTIFICATION of DELIVERY

*For Calendar year 2015*

**Public Water System(PWS) Name :** CITY OF BANDERA

**PWS ID Number :** TX0100012

I certify that the community water system named above has distributed the Consumer Confidence Report (CCR) for the calendar year of 2015 and that the information in the report is correct and consistent with the compliance monitoring data previously submitted to the TCEQ. Public Water Systems **servicing 500 or fewer persons** are not required to mail the entire CCR to their customers as long as the system provides notice at least once per year by July 1 to its customers by mail, door-to-door delivery, or by posting in an appropriate location that the report is available upon request.

Date of Delivery: 0629 2016  
 Certified By: Name (print): ROY CLAYTON  
 Title: PUBLIC WORKS DIRECTOR  
 Phone Number: 830-88-1729 Email: PUBLICWORKSDIRECTOR@CITYOFBANDERA.ORG  
 Signature: [Signature] Date: 0629 2016

**Direct delivery methods**-You must use at least one direct delivery method (check all that apply)

- Mail a paper copy of the CCR
  - Electronic Delivery:**
  - Mail notification that CCR is available on-line at <http://CITYOFBANDERA.ORG>
  - Email direct web address of the CCR, available at [http://\\_\\_\\_\\_\\_](http://_____)
  - Email CCR as an attachment to an email.
  - Email CCR as an embedded image in an email.
  - Other direct delivery (for example, door hangers or additional electronic delivery method).
- Please specify: \_\_\_\_\_

**Good-faith delivery methods** -To reach people who do not receive bills (check all that apply):

- Posting the CCR on the Internet at [http://\\_\\_\\_\\_\\_](http://_____)
- Mailing the CCR to people who receive mail, but who do not receive bills.
- Advertising the availability of the CCR in news media.
- Posting the CCR in public places.
- Delivering multiple copies to single billing addresses serving multiple persons.
- Delivering multiple copies of the CCR to community organizations.

\*Systems serving 100,000 or more people are required to post the CCR on a publicly available web site and provide the URL here: [http://\\_\\_\\_\\_\\_](http://_____)

**All systems are required to mail by July 1 the certification of delivery and complete Consumer Confidence Report to:** TCEQ recommends the use of certified mail.

Sending by certified mail:	Sending by regular mail:
TCEQ PDW, MC-155, Attn: CCR, 12100 Park 35 Circle Austin, TX 78753	TCEQ PDW, MC-155, Attn: CCR, PO Box 13087 Austin, TX 78711-3087

# Annual Drinking Water Quality Report

TX0100012

CITY OF BANDERA

Annual Water Quality Report for the period of January 1 to December 31, 2015

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

Roy Clayton

Phone

(830) 688-1729

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

CITY OF BANDERA is Ground Water

## 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.

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://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtsrc=>

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: <http://dww.tceq.texas.gov/DWW>

Source Water Name	Type of Water	Report Status	Location
4 - MULBERRY ST	GW	Active	Trinity Aquifer
5 - DALLAS DR	GW	Active	Trinity Aquifer

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 [insert name of person to contact]

**ONLY INCLUDE THE TABLE ON YOUR CCR,  
DO NOT INCLUDE THE INSTRUCTIONS**

**Disinfectant Residual Table**

The disinfectant residual table is not added to the CCR template so you must add it to your CCR. You will need to add data to the fields indicated by **A-G**. Your data can be taken off the Disinfectant Level Quarterly Operating Reports (DLQORs).

If you use more than one type of disinfectant then you will need to list all of them. **Every system** in Texas is required to maintain and measure the disinfectant residual in their water, even if you are purchase only.

Disinfectant	Year	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Likely Source of Contamination
Chlorine	2015	1.37	0.44	2.96	4.0	4.0	ppm	N	Water additive used to control microbes.

You will need to add:

- A. the type of disinfectant your system uses,
- B. the highest running annual average of disinfectant for the year,
- C. minimum level detected for the year,
- D. maximum level detected for the year,
- E. the MRDL, **this is a limit set by TCEQ,**
- F. the MRDLG, **this is a limit set by TCEQ,**
- G. add a Y (for yes) if you have a violation associated with the disinfectant residual or add a N (for no) if you do not have a violation associated with the disinfectant residual.

The **MRDL** and **MRDLG** for chlorine, chloramines, chlorine dioxide and bromate can be found in 30 Texas Administrative Code (TAC) 290.275(1) **Appendix B-Sources of Regulated Contaminants** located at <http://www.tceq.texas.gov/publications/rg/rg-346.html>.

**2015 Regulated Contaminants Detected**

**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	2015	1.3	1.3	0.1567	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2015	0	15	6.9	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

**Water Quality Test Results**

**Definitions:**

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

**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)

**Water Quality Test Results**

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)

**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 (THM)	2015	5	4.6 - 4.6	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
Barium	06/26/2013	0.0849	0.0849 - 0.0849	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2015	1.95	1.95 - 1.95	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]	2015	0.05	0.03 - 0.05	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2015	12.9	12.9 - 12.9	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	2015	3.9	3.9 - 3.9	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2015	3.9	3.9 - 3.9	0	15	pCi/L	N	Erosion of natural deposits.
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Ethylbenzene	2015	0.6	0 - 0.6	700	700	ppb	N	Discharge from petroleum refineries.
Xylenes	2015	0.0028	0 - 0.0028	10	10	ppm	N	Discharge from petroleum factories; Discharge from chemical factories.



Violations Table

**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)	10/01/2013	09/29/2015	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.
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2014	09/29/2015	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.
LEAD CONSUMER NOTICE (LCR)	12/30/2015	02/29/2016	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results.

**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	02/13/2014	2015	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.