Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. Turbidity is measured 4 times per day through grab samples and continuously through automatic on-line individual filter turbidity monitors.

| Year | Detected Constituent | Highest Single Measurement | Lowest Monthly % of Samples Meeting Limits | Turbidity Limits | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|
| 2016 | Turbidity | 0.07 | 100 | 0.3 | NTU | Soil runoff. |

**Total Coliform** Reported monthly tests found no total coliform bacteria.
***E.coli*** Reported monthly tests found no *E.coli* bacteria.

Secondary and Other Constituents Not Regulated (No associated adverse health effects)

| Year | Constituent | Measured Concentration | Number of Analyses | Secondary Unit | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|
| 2016 | pH | 8.4 | 1 | 7 | Units | Measure of corrosivity of water. |
| 2016 | Total Alkalinity as CaCO3 | 167 | 1 | NA | ppm | Naturally-occurring soluble mineral salts. |
| 2016 | Bicarbonate | 204 | 1 | NA | ppm | Abundant naturally-occurring element. |
| 2016 | Chloride | 19 | 1 | 300 | ppm | Abundant naturally-occurring element; used in water purification; by-product of oil field activity. |
| 2016 | Sulfate | 19 | 1 | 300 | ppm | Naturally occurring common industrial byproduct; byproduct of oil field activity. |
| 2016 | Total Dissolved Solids | 232 | 1 | 1000 | ppm | Total dissolved mineral constituents in water. |

## Required Additional Health Information

In order to ensure that tap water is safe to drink, the USEPA 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 that must provide the same protection for public health.

All 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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses;

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems;

(E) Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

***National Primary Drinking Water Regulation Compliance***

***This report was prepared with technical assistance from the Guadalupe-Blanco River Authority. GBRA will be happy to answer any questions about the Lomas Water System or its water quality and treatment process. Please contact us at 830-379-5822 or through our website at www.gbra.org. Water quality data for community water systems throughout the United States is available at www.epa.gov/safewater/dwinfo/index.html.***

GBRA
Main Office: 933 East Court Street ~ Seguin, Texas 78155
flowing solutions

# WATER QUALITY '16

## Guadalupe-Blanco River Authority

### Johnson Ranch

EXCELLENCE IN WATER QUALITY

**GBRA Main Office 830-379-5822**

Dear Customer:

The Guadalupe-Blanco River Authority (GBRA) is pleased to provide you with this 2016 Water Quality Report. We take all possible precautions to safeguard your water supply and hope you will be encouraged to learn about the high quality of water provided to you.

The federal Safe Drinking Water Act (SDWA) requires water utilities to issue an annual report to customers, in addition to other notices that may be required by law. This report explains where your drinking water comes from, what it contains, and the health risks our water testing and treatment are designed to prevent.

We are committed to providing you with information about your water supply because informed customers are our best allies in supporting improvements needed to maintain the highest drinking water standards.

**We are proud to report that the Texas Commission on Environmental Quality (TCEQ) has assessed our system and determined that your drinking water, provided by the Guadalupe-Blanco River Authority water treatment plant, meets or exceeds all federal and state established water quality standards.**

The tables in this report list all substances that were detected in our treated water, and the highest level at which they were detected. The tables also reflect the highest levels allowed by federal regulatory agencies. Please read this information carefully and if you have questions, call the numbers listed in this report.

## Customer Views Welcome

The Guadalupe-Blanco River Authority strongly supports the national primary drinking water regulation compliance process. If you are interested in learning more about the water department, water quality, or participating in the decision-making process, there are a number of opportunities available.

Questions about water quality can be answered by calling GBRA 830-379-5822 from 8 a.m. - 5 p.m., Monday through Friday. Inquiries about public participation and policy decisions should be directed to the Western Canyon Division Manager's office at 830-885-2639.

The GBRA Board of Directors meets every third Wednesday of the month at 10:00 a.m. at the GBRA River Annex located at 905 Nolan St., Seguin, Texas and all meetings are open to the public.

## En Español

Éste informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en Español, favor de llamar al tel. 830-379-5822 para hablar con una persona bilingüe en español durante las horas regulares de oficina (8 a.m. - 5 p.m.).

# Special Notice

**Required language for ALL community public water supplies:**

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with other immune system disorders can be particularly at risk for infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines for appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

## Where Do We Get Our Drinking Water?

Johnson Ranch receives its water from Canyon Lake via the GBRA Western Canyon Water Treatment Plant. The water system is operated by the Guadalupe-Blanco River Authority (GBRA).

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by TCEQ. 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://dww2.tceq.texas.gov/DWW/. Trained operators monitor and test the water, including the addition of chlorine, to ensure that our water meets or exceeds all state and federal drinking water standards. The treated water is delivered to the subdivision's water tanks and delivered through its distribution system to you. For information on the treatment of your drinking water and water quality protection efforts contact the GBRA Western Canyon Regional Treated Water Plant at 830-885-2639

## What We Found

The following tables list the contaminants that have been found in your drinking water. USEPA requires water systems to test for more than 97 contaminants. The column marked "Highest Level at Any Sampling Point" shows the highest test results during the year. The "Source of Constituent" column shows where this substance usually originates. In the water loss audit submitted to the TExas Water Development Board for the time period of January 2016 through December 2016, our system lost an estimated 3,196,950 gallons of water. If you have any questions about the water loss audit, please call 830-885-2639.

DEFINITIONS:

**Maximum Contaminant Level (MCL) -** the highest level of the contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
**Maximum Contaminant Level Goal (MCLG) -** the level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
**Action Level (AL) -** the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
**NTU** - Nephelometric Turbidity Units.
**ppm** - parts per million, or milligrams per liter (mg/L).
**ppb** - parts per billion, or micrograms per liter (ug/L).
**MRDL** - Maximum Residual Disinfection Level.

### Table I - Test results for the GBRA Johnson Ranch Water System (sampled in distribution system)

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 |
|---|---|---|---|---|---|---|---|---|
| Copper | 2016 | 1.3 | 1.3 | 1.5 | 6 | ppm | N | Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems. |
| Lead | 2016 | 0 | 15 | 1.1 | 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 |
|---|---|---|---|---|---|---|---|---|
| Inorganic Contaminants | | | | | | | | |
| Nitrate (measured as nitrogen) | 2016 | 0.21 | 0.16-0.21 | 10 | 10 | ppm | N | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |

Maximum Residual Disinfectant Level

| Year | Constituent | Average | Range | MRDL | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|
| 2016 | Chlorine | 1.49 | 1.07-2.67 | 4 | ppm | Disinfectant used to control microbes. |

Violations Table

| Consumer Confidence Rule |
|---|
| The Consumer Confidence Rule requires the community water systems to prepare and provice their customers annual consumer confidence reports on the quality of the water delivered by the systems. |

| Violation Type | Violation Begin | Violation End | Violation Expanation |
|---|---|---|---|
| CCR ADEQUACY/AVAILABLE CONTENT | 07/01/2016 | 2016 | We failed to provide you, our drinking water customers, an annual reprot that adequately informed you about the quality of our drinking water and the risks from exposure to contaminents detected in our drinking water. |

| 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 |
|---|---|---|---|
| INITIAL/FOLLOW-UP ROUTINE SOWT M/R (LCR) | 04/01/02016 | 07/26/2016 | We failed to test our drinking water for the contaminant and period indicated. Because of this failure, wecannot be sure of the quality our drining water during the period indicated. |
| OCCT/SOWT RECOMMENDATION/STUDY (LCR) | 10/01/2016 | 2016 | We failed to propose treatment to our regulator in response to results that indicate our water needs treatment to reduce lead and/or copper levels |

| 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 | 08/02/2016 | 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 | 10/01/2016 | 2016 | We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. |

**Total Coliform** NOT DETECTED **_E.coli_** NOT DETECTED

Disinfection Byproducts

| Year | Detected Constituent | Measured Concentration | Range | No. of Analyses | MCL | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|---|
| 2016 | Total Trihalomethanes | 74 | 40.2 - 51.7 | 1 | 80 | ppb | Byproduct of drinking water disinfection. |
| 2016 | Total Haloacetic acids | 24 | 11.2 - 18.5 | 1 | 60 | ppb | Byproduct of drinking water disinfection. |

### Table II - Test results for the GBRA-Western Canyon Water Treatment Plant (sampled at the GBRA Western Canyon Water Treatment Plant)

Inorganics Contaminants (source water)

| Year | Detected Constituent | Measured Concentration | Number of Analyses Performed | MCL | MCLG | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|---|
| 2016 | Barium | 0.0268 | 1 | 2 | 2 | ppm | Discharge of drilling wastes; discharge from metal refiniries; erosion of natural deposits. |
| 2016 | Fluoride | 0.2 | 1 | 4 | 4 | ppm | Erosion of natural deposits; water additive which promotes strong teeth; runoff from fertilizer use. |
| 2016 | Nitrate | 0.35 | 1 | 10 | 10 | ppm | Runoff from fertilizer use; leaching from septic tanks; treated wastewater effluent; erosion of natural deposits. |

Maximum Residual Disinfectant Level

| Year | Constituent | Average | Range | MRDL | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|
| 2016 | Chlorine | 0.70 | 0.3 - 1.0 | 4 | ppm | Disinfectant used to control microbes. |

Disinfection Byproducts

| Year | Detected Constituent | Measured Concentration | Range | No. of Analyses | MCL | Unit of Measure | Source of Constituent |
|---|---|---|---|---|---|---|---|
| 2016 | Total Trihalomethanes | 58 | 58.2 - 58.2 | 1 | 80 | ppb | Byproduct of drinking water disinfection. |
| 2016 | Total Haloacetic acids | 18 | 17.9 - 17.9 | 1 | 60 | ppb | Byproduct of drinking water disinfection. |