# CITY OF MARSHALL

# COMMISSION AGENDA INFORMATION SHEET:

**MEETING DATE:** January 28, 2016

**PROJECT:** Report regarding the Annual Drinking Water Water Quality Report. (Public Services Director)

**DESCRIPTION:** During the "Presentation from the Public" section of the City Commission meeting on January 14th, a resident made comments regarding water quality. As a result of that statement, Mayor Pro-Tem Moon requested a report.

Attached is a copy of our 2014 Annual Drinking Water Quality Report which is required by the EPA and must be annually reported by all cities and water systems; the report is required to be published and distributed to all water customers in July of each year. As you will notice in the report, our water quality met all EPA and TCEQ standards. Our 2015 annual report will be published and distributed in July of 2016. If anyone has any questions regarding the report or water quality standards, they are encouraged to contact the Marshall Water Treatment Plant at 903-935-4485.

**COST:**
N/A

**FUNDING:** **Acct. Name & No** **Original Budget**
N/A

**RECOMMENDED ACTION:**
No action required – presented a report. (Public Services Director)

**CITY CONTACT:** J. C. Hughes, Public Services Director 903-503-4503

**ATTACHMENTS:**
2014 Drinking Water Quality Report for the City of Marshall, Texas

cc: File

## Opportunities For Public Participation

The public is always welcome to attend Commission Meetings scheduled on the second and fourth Thursday of each month at 6:30 PM at City Hall. For more information about these meetings, call 903-935-4421.

## How To Contact Us

**For Questions or Concerns Regarding Water Quality or About This Report, please Contact the Water Treatment Plant at:**

**903-935-4485**

Monday–Friday
8:00 AM–5:00 PM

Water Billing Questions:
**903-935-4435**

**Water and Sewer Emergencies:**
**903-935-4485**

Source Water Assessment Questions:
**903-935-4485**

**TCEQ:**
**903-535-5100**

or Visit Our Website at:
**www.marshalltexas.net**

**En Español:**

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al Tel. 903-935-4455 or 903-935-4439 para hablar con una persona bilingüe en español.

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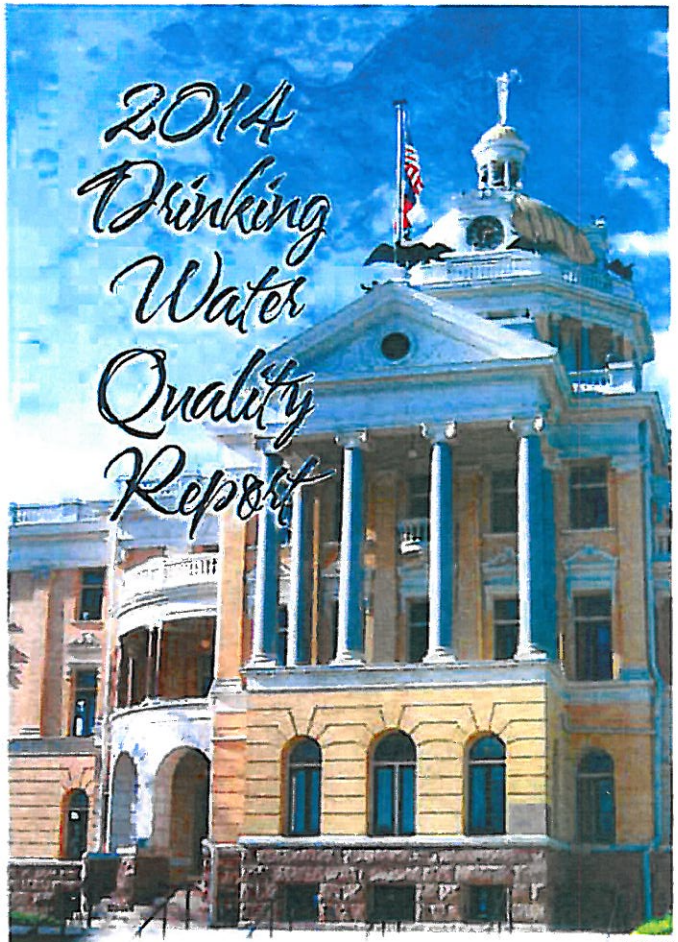
**CITY OF MARSHALL WATER UTILITY DIVISION**
PO BOX 698
MARSHALL TX 75671



# 2014 Drinking Water Quality Report

City of MARSHALL TEXAS

**Public Water System ID #1020002**

Annual Water Quality Report for the period of January 1 to December 30, 2014. 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.

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.

## 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 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.

## Water Sources

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.

Contaminants that may be present in source water include:

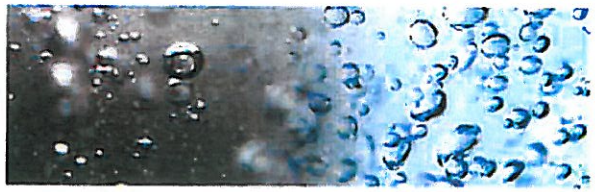
- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial 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.

### En Español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel.: 903-935-4436 para hablar con una persona bilingüe en español.

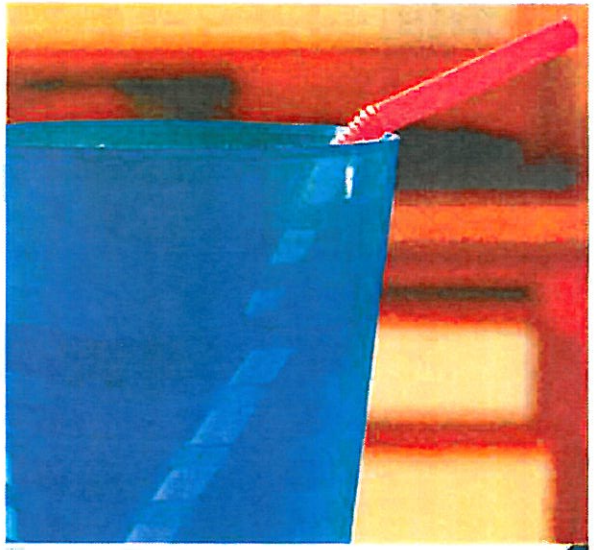
## Where do We Get our Drinking Water?

Our drinking water is obtained from SURFACE water sources. It comes from the following River: BIG CYPRESS BAYOU. 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. For more information on source water assessments and protection efforts at our system, contact the City of Marshall Water Treatment Plant at 903-935-4492.



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?wtrsrc=

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



## 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 may greatly affect the appearance and taste of your water.

## About the Following Pages

The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S. EPA requires water systems to test for up to 97 contaminants.

## Definitions

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

**Average (Avg.)**—Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**Maximum Contaminant Level (MCL)**—The highest permissible level of a contaminant 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.

**Maximum Residual Disinfectant Level (MRDL)**—The highest level of 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 (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 contamination.

**Treatment Technique (TT)**—A required process intended to reduce the level of a contaminant in drinking water.

## Abbreviations

**MFL**—million fibers per liter (measure of asbestos)

**NA**—not applicable

**NTU**—nephelometric turbidity units (measure of turbidity)

**pCi/L**—picocuries per liter (measure of radioactivity)

**ppb**—parts per billion, or micrograms per liter (µg/L)

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

### Water Loss Audit 2014

In the water loss audit submitted to the Texas Water Development Board for the time period of January–December 2014, our system lost an estimated 469,644,621 gallons of water. If you have any questions about the water loss audit, please call 903-935-4492.

## Coliform Bacteria

Coliform bacteria are naturally present in the environment.

| Year | Max. Contaminant Level Goal | Trl. Coliform Max. Contaminant Level | Highest No. of Positive | Trl. No. of Positive E. Coli or Fecal Coliform Samples |
|---|---|---|---|---|
| 2014 | 0 | 0 | 0 | 0 |
| Likely Source: Naturally present in the environment. | | | | |

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

| Year | Constituent | Avg. Level | Min. – Max. Level | Secondary Limit |
|---|---|---|---|---|
| 2014 | Chloride (ppm) | 19.9 | 19.9 | 300 |
| Abundant naturally occurring element; used in water purification; by-product of oil field activity. | | | | |
| 2014 | Sulfate (ppm) | 9.9 | 9.9 | 300 |
| Naturally occurring; common industrial by-product; by-product of oil field activity. | | | | |
| 2014 | Total Dissolved Solids (ppm) | 114.0 | 114.0 | 1000 |
| Total dissolved mineral constituents in water. | | | | |

## Radioactive Contaminants

| Year | Contaminant | Highest Level Detected | Min. – Max. Level | MCL | MCLG |
|---|---|---|---|---|---|
| 2011 | Combined Radium (pCi/L) | 1 | 1–1 | 5 | 0 |
| Likely Source: Erosion of natural deposits. | | | | | |

## Inorganic Contaminants

| Year | Contaminant | Highest Level Detected | Min. – Max. Level | MCL | MCLG |
|---|---|---|---|---|---|
| 2014 | Fluoride (ppm) | 0.40 | 0.40–0.40 | 2.4 | 2.4 |
| Likely Source: Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. | | | | | |
| 2014 | Nitrate (ppm) | 0.28 | 0.28–0.28 | 10 | 10 |
| Likely Source: Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. | | | | | |
| 2014 | Nitrite (ppm) | 0.02 | 0.02–0.02 | 1 | 1 |
| Likely Source: Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. | | | | | |
| 2014 | Barium (ppm) | 0.05 | 0.05–0.05 | 2 | 2 |
| Likely Source: Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. | | | | | |

## Total Organic Carbon

Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA) which are reported elsewhere in this report.

| Year | Contaminant | Avg. Level | Min. – Max. Level |
|---|---|---|---|
| 2014 | Source Water (ppm) | 9.59 | 7.0–18.0 |
| Naturally present in the environment. | | | |
| 2014 | Drinking Water (ppm) | 4.2 | 3.5–5.5 |
| Naturally present in the environment. | | | |
| 2014 | Removal Ratio (% removal*) | 1.1 | .97–1.38 |
| NA | | | |

*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

## Maximum Residual Disinfectant Level

Systems must complete and submit disinfection data on the Surface Water Monthly Operations Report (SWMOR). On the CCR report, the system must provide disinfectant type, minimum, maximum and average levels.

| Year | Disinfectant | Avg. Level | Min. – Max. Level | MRDL | MRDLG |
|---|---|---|---|---|---|
| 2014 | Chloramines (ppm) | 2.5 | 0.8–3.3 | 4 | <4 |
| Source: Disinfectant used to control microbes. | | | | | |

## Disinfection By-products

| Year | Contaminant | Highest Level Detected | Min. – Max. Level | MCL |
|---|---|---|---|---|
| 2014 | Total Haloacetic Acids (ppb) | 40 | 11.6–73.6 | 60 |
| Likely Source: By-product of drinking water chlorination. | | | | |
| 2014 | Total Trihalomethanes (ppb) | 81 | 20.7–160.7 | 80 |
| Likely Source: By-product of drinking water chlorination. | | | | |

## Lead and Copper

| Year | Contaminant | The 90 Percentile | Number of Sites Exceeding Action Level | Action Level |
|---|---|---|---|---|
| 2013 | Lead (ppb) | 2.65 | 0 | 15 |
| Likely Source: Corrosion of household plumbing systems; erosion of natural deposits. | | | | |
| 2013 | Copper (ppm) | 0.0695 | 0 | 1.3 |
| Likely Source: Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. | | | | |

## Required Additional Health Information for Lead

"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. This water supply is responsible for providing high quality drinking water, but 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."

## Turbidity

Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration.

| Year 2014 | Limit (Treatment Technique) | Level Detected | Violation |
|---|---|---|---|
| Highest Single Measurement (NTU) | 1 | .29 | N |
| Lowest Monthly % Meeting Limit (NTU) | 0.3 | % 100 | N |
| Likely Source: Soil runoff. | | | |

## Violations

**Total Trihalomethanes (TTHM)**

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..

| Violation Type | Violation Begin | Violation End |
|---|---|---|
| MCL, LRAA | July 1, 2014 | Sept. 30, 2014 |
| 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. | | |

We are taking the following actions to address this issue: The trihalomethanes were above the State TCEQ mandated levels at locations at the far reaches of the water distribution system, which require regular line flushing to maintain mandated levels. The City Water Utility Treatment Division will conduct additional hydrant flushing in these areas to improve the water quality and maintain levels within the State TCEQ guidelines.