

ANNUAL DRINKING WATER QUALITY REPORT

2014

TX0920001

CITY OF GLADEWATER

Annual Water Quality Report for the period of January 1 to December 31, 2014

This report is intended to provide you with 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: Casey Chambers or John Choice

Phone: 903-845-3715

Public Participation Opportunities:

Date: 3rd Thursday of every month at the City Council Meeting

Time: 6:00 pm

Location: City Hall

Phone Number: 903-845-2196

CITY OF GLADEWATER is Surface Water from Lake Gladewater

Source Water Name	Type of Water	Report Status	Location
Lake Gladewater East End of Dam at Lake	Surface Water	A	1409 E Lake Drive

Este reporte incluye informacion importante sobre el

Agua para tomar. Para asistencia en espanol, favor de llamar al telefono (903) 845-3715

Substances Expected in 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.

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.

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.

All drinking water may contain contaminants

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. Drinking water, included 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.

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>.

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 date. Any detections of these contaminants may be found in the Consumer Confidence Report. For more information on source water assessments and protection efforts at our system, contact Casey Chambers or John Choice at (903) 845-3715.

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://gis3tceq.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>

TABLE DEFINITIONS

Maximum Contaminant Level Goal (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 Contaminant Level (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 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 contaminants.

Maximum residual disinfectant level (MRDL) – The highest level of a disinfectant allowed in drinking water. This is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

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

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.

Locational Running Annual Average (LRAA) – The arithmetic average of analytical results for samples taken at a specific monitoring location during the previous four calendar quarters.

- **mrem/year** – millirems per year (a measure of radiation absorbed by the body).
- **NTU** – Nephelometric turbidity units (a measure of turbidity).
- **ppm** – Parts per million, or milligrams per liter (mg/l).
- **ppb** – Parts per billion, or micrograms per liter (ug/l).
- **ppt** – Parts per trillion, or nanograms per liter (ng/l).
- **ppq** – Parts per quadrillion, or pictograms per liter (pg/l).
- **MFL** – Million fibers per liter (a measure of asbestos).
- **Avg** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **NA** – Not applicable.
- **ND** – Not detected at testing limits.

Regulated Contaminants Detected

Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total Number of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	1 positive monthly sample	1	0	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)	90 th Percentile	# Sites over AL	Units	Violation	Likely Source of Contamination
Copper	10/01/2013	1.3	1.3	0.35	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
Lead	10/01/2013	0	15	11.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits

Regulated Contaminants

Year	Constituent	Average	Detected Range	MCL	MCLG	Typical Source
2014	Chloramines (ppm)	1.46	1.18 – 1.80	4	4	Disinfectant used to control microbes
2014	Chlorite (ppm)	0.143	0.02 – 0.28	1	0.8	By-product of drinking water disinfection
2014	Barium (ppm)	0.05	0.05 – 0.05	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
2014	Fluoride (ppm)	0.1	0.05 – 0.05	4	4	Erosion of natural deposits; Water additive which promotes strong teeth.
2014	Nitrate (ppm)	0.0385	0.0385-0.0385	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2014	Total Organic Carbon (ppm) – Source Water	6.11	5.32 – 8.02	NA	NA	Naturally present in the environment.
2014	Total Organic Carbon (ppm) – Drinking Water	4.58	3.62 – 6.96	NA	NA	Naturally present in the environment.
2014	Total Organic Carbon % Removal	25.4	3.6 – 35.4			The TOC removal ratio is the percent of TOC removed through the treatment process divided by the percent of TOC required by the TCEQ to be removed. The City of Gladewater water system provides the alternative compliance criteria removal ratio required.
2014	Haloacetic Acids(HAA)	31	0 – 95.5	60	NA	By-product of drinking water disinfection
2014	Total Trihalomethanes (TTHMs)	70	42 – 110.7	80	NA	By-product of drinking water disinfection

Total Organic Carbon (TOC) has no adverse health effects. The disinfectant can combine with TOC to form disinfectant by-products. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Total organic carbon provides a medium for the formation of disinfection by-products when water is disinfected. By-products of disinfection include trihalomethanes (THMs) and haloacetic acids (HAA).

Turbidity

Year	Constituent	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Source of Contaminant
2014	Turbidity (NTU)	0.94	98.39%	.3	Soil Runoff

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity is measured in Nephelometric Turbidity Units (NTU) and is a measurement of water clarity. This water quality parameter is monitored as a treatment technique (TT).

Additional Parameters Tested in Your Water System

This chart lists other items for which the water is tested. These items do not relate to public health but rather to the aesthetic quality. These parameters are often important to industrial water users or customers with special needs.

Constituent	Units of Measure	Gladewater Water
Aluminum	ppm	0.013
Manganese	ppm	0.015
Nickel	ppm	0.0012
Chloride	ppm	14.3
Sulfate	ppm	12.4
Copper	ppm	0.0018
pH	pH units	8.2 -9.4
Conductivity	pmhos/cm	137
Total Alkalinity as CaCO ₃	ppm	10
Bicarbonate	ppm	60.4
Dissolved Solids	ppm	76
Calcium	ppm	10
Magnesium	ppm	1.82
Potassium	ppm	2.88
Cyanide	ppm	0.05
Sodium	ppm	27.1
Total Hardness	ppm	18.9

Violations Table

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
Boil Water Notice	01/07/2014	01/13/2014	Due to low water pressure and levels in system