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Treasure Island MUD 2015 Annual Drinking Water Quality Report

Public Water System ID: TX0200038 Treasure Island Municipal Utility District

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:

Don Riehl

979-239-4198

Treasure Island MUD's water is Purchased Surface Water

PUBLIC PARTICIPATION OPPORTUNITIES

For the opportunity to comment on or participate in decisions that may affect the quality of your water, the TIMUD Board of Directors meets quarterly on the second Saturday in February, May, August, and November at 10 am in the Community Building located at 146 Fathom, Freeport, TX 77541. This schedule is subject to change and changes are announced in advance and posted on the homepage and calendar page on our website, www.treasureislandtx.org.

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 pickup 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 system.

- 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?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

Source Water Name	Type of Water	Report Status: Forthcoming	Location http://dww.tceq.state.tx.us/DWW/.
GW AND SW FROM CITY OF GALVESTON	SW		

In September of 2001, the City of Galveston started to receive its water supply from the Gulf Coast Water Authority's Thomas A. Mackey Water Treatment Plant in Texas City. The Gulf Coast Water Authority (GCWA) owns 212 million gallons per day in water rights from the Brazos River and provides water for agriculture, industry, and municipal use. All water travels through 150 miles of canals stretching from the Brazos River, across Fort Bend, Brazoria and Galveston Counties to the GCWA's raw water reservoir located near Highway 146 in Texas City.

In 2015, TIMUD received just less than 11 million gallons of water from Galveston.
Of that total, 50,000 gallons were reported the Texas Water Development Board as the water loss volume for the system.
If you have any questions about the water loss volume, please call 979-239-4198.

The estimated number of full time residents served by TIMUD is 45.
TIMUD has 244 residential accounts and 1 commercial account.

Galveston Water System Susceptibility Summary

System Susceptibility Summary										
Asbestos	**Cyanide**	**Metals**	**Microbial**	**Minerals**	**Radiochemical**	**Synthetic Organic Chemicals**	**Disinfection Byproduct**	**Volatile Organic Chemicals**	**Drinking Water Contaminant Candidate**	**Other**
MEDIUM	LOW	HIGH	MEDIUM	HIGH	MEDIUM	MEDIUM	MEDIUM	MEDIUM	HIGH	MEDIUM

Explanation for the meaning of high, medium, and low in the context of a source water susceptibility assessment.

The SWSA (source water susceptibility assessment) susceptibility ratings are divided into three divisions: “High,” “Medium,” and “Low.”

Question: What does “High” mean?

Answer: “High” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it very likely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

Question: What does “Medium” mean?

Answer: “Medium” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it somewhat likely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

Question: What does “Low” mean?

Answer: “Low” susceptibility means there are activities near the source water and the natural conditions of the aquifer or watershed make it unlikely that chemical constituents may come into contact with the source water. It does **not** mean that there are any health risks present.

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 Y/N	Likely Source of Contamination
Copper	09/18/2012	1.3	1.3	0.0576	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/18/2012	0	15	2.77	0	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	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
Haloacetic Acids (HAA5)*	2015	44	5.9 - 78.2	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2015	111	59.2 - 190	No goal for the total	80	ppb	Y	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
Nitrate [measured as Nitrogen]	2015	1	0.88 - 0.88	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Dalapon	2015	4.3	0 - 4.3	200	200	ppb	N	Runoff from herbicide used on rights of way.

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 and Steps taken to address the Violation**
FOLLOW-UP OR ROUTINE TAP M/R (LCR)	10/01/2015	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. We are testing for Lead & Copper in July of 2016.

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**	**Violation Explanation and Steps taken to address the Violation**
MCL, LRAA	01/01/2015	03/31/2015	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 addressed this violation by flushing the system and installing new stand pipes.
MCL, LRAA	04/01/2015	06/30/2015	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 addressed this violation by flushing the system and installing new stand pipes.
MCL, LRAA	07/01/2015	09/30/2015	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 addressed this violation by flushing the system and installing new stand pipes.
MCL, LRAA	10/01/2015	12/31/2015	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 addressed this violation by flushing the system and installing new stand pipes.

INFORMATION ON THE DISINFECTANT (CHLORINE) USED TO TREAT YOUR WATER

TIMUD treats/disinfects your water by adding chlorine. Chlorine levels are checked regularly and recorded. Quarterly reports are generated with this data. These quarterly reports are required to be submitted to TCEQ. The residual chlorine level is measured in mg/Liter (equal to parts per million). The maximum residual disinfectant (chlorine) level is 4 mg/L, the minimum residual disinfectant level (chlorine) goal is 0.2 mg/L, and the maximum residual disinfectant (chlorine) level goal is 0.8 mg/L.

For the 1st quarter of 2015, the average disinfectant residual was 1.33 mg/L, with the lowest residual for the quarter at 0.56 mg/L, and the highest residual for the 1st quarter at 2.20 mg/L.

For the 2nd quarter of 2015, the average disinfectant residual was 1.02 mg/L, with the lowest residual for the quarter at 0.50 mg/L, and the highest residual for the 2nd quarter at 2.20 mg/L.

For the 3rd quarter of 2015, the average disinfectant residual was 1.20 mg/L, with the lowest residual for the quarter at 0.52 mg/L, and the highest residual for the 3rd quarter at 2.11 mg/L.

For the 4th quarter of 2015, the average disinfectant residual was 1.12 mg/L, with the lowest residual for the quarter at 0.50 mg/L, and the highest residual for the 4th quarter at 1.78 mg/L.