

2016 Water Quality Report

**EMERALD FOREST UTILITY DISTRICT
PHONE NUMBER 281-897-9100**

Special Notice

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immunocompromised person such as those undergoing chemotherapy for cancer; those who have undergone organ transplant; 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 1-800-426-4791.

ALL drinking water may contain contaminants

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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 Safe Drinking Water Hotline at 1-800-426-4791.

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 EPA. These types of problems are not necessarily causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of our water. Please contact us at 281-897-9100 for more information on taste, odor, or color.

This report is a summary of the quality of the water we provided our customers for the period of January 1, 2016 to December 31, 2016. The analysis was made using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

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

PUBLIC PARTICIPATION OPPORTUNITIES

Date: Second Monday of each month

Time: 2:30 P.M.

Location: 3200 Southwest Freeway, Suite 2600, Houston, Texas 77027

Phone Number: 281-897-9100

To learn about future public meetings concerning your drinking water please call us.

WHERE DO WE GET OUR DRINKING WATER? Our drinking water is obtained from groundwater sources. It comes from the Chicot aquifer. Additionally, Emerald Forest received water from Harris County FWSD No. 61 to some of the retail establishments within the District. The Texas Commission on Environmental Quality (TCEQ) completed an assessment of your source water and results indicate that some of your water 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, please contact us at 281-897-9100.

About the following tables

The tables that follow list all of the federally regulated or monitored constituents which have been found in your drinking water. 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 contamination in bottled water which must provide the same protection for public health.

REGULATED CONTAMINANTS

Year	Constituent	Emerald Forest, Avg	Harris County FWSD 61, Avg	Range of Detected Levels	MCL	MCLG	Unit of Measure	Does Constituent Exceed MCL?	Source of Constituent
2016	Arsenic*	3.0	4.8	2.4 – 6.5	10	0	ppb	No	Erosion of natural deposits
2016	Barium	0.245	0.260	0.235 – 0.305	2	2	ppm	No	Erosion of natural deposits
2014	Fluoride	0.18	0.41	0.18 – 0.53	4	4	ppm	No	Erosion of natural deposits
2014	Gross Alpha	13.0	7.3	6.8 – 13.0	15	0	pCi/L	No	Erosion of natural deposits
2014	Gross Beta	9.2	ND	ND – 10.3	50**	0	pCi/L	No	Decay of natural and manmade deposits
2016	Nitrate	0.14	0.07	0.01 – 0.19	10	10	ppm	No	Erosion of natural deposits
2014	Radium	2.9	ND	ND – 3.0	5	0	pCi/L	No	Erosion of natural deposits
2016	Selenium	2.9	7.5	ND – 9.6	50	50	ppb	No	Erosion of natural deposits
2016	Total Trihalomethanes (TTHM)	1.0	ND	ND – 5.9	80	N/A	ppb	No	Byproduct of drinking water disinfection
2016	Total Haloacetic Acids (HAA5)	0.2	ND	ND – 2.0	60	N/A	ppb	No	Byproduct of drinking water disinfection
2014	Uranium	18.0	ND	ND – 18.0	30	30	ppb	No	Erosion of natural deposits

*The maximum contaminant level (MCL) for arsenic decreased from 0.05 mg/l (50 ppb) to 0.01 mg/l (10 ppb) effective January 23, 2006. Because the highest reported arsenic level on this report is between 5 ppb and 10 ppb, this information is required by EPA: “While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.”

**EPA considers 50 pCi/L to be the level of concern for beta particles.

LEAD AND COPPER

Year	Constituent	The 90 th Percentile	Number of Sites Exceeding Action Level	Action Level	MCLG	Unit of Measure	Does Constituent Exceed Action Level?	Source of Constituent
2016	Lead***	1.25	0	15	0	ppb	NO	Corrosion of household plumbing systems. Erosions of natural deposits
2016	Copper	0.109	0	1.3	1.3	ppm	NO	Corrosion of household plumbing systems. Erosions of natural deposits

***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 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 1-800-426-479 or at <http://www.epa.gov/safewater/lead>.

MONITORED/ UNREGULATED CONTAMINANTS*****

Year	Constituent	Emerald Forest, Avg	Harris County FWSD 61, Avg	Range of Levels	Unit of Measure	Source of Constituent
2016	Bromoform	0.1	ND	ND – 1.3	ppb	Byproduct of drinking water disinfection
2016	Bromodichloromethane	0.2	ND	ND – 1.2	ppb	Byproduct of drinking water disinfection
2016	Dibromochloromethane	0.4	ND	ND – 3.1	ppb	Byproduct of drinking water disinfection
2016	Monochloroacetic Acid	0.2	ND	ND – 2.0	ppb	Byproduct of drinking water disinfection

***Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

DISINFECTANT RESIDUALS

Year	Constituent	Annual Average Level	Range of Levels (low – high)	MRDL	MRDLG	Unit of Measure	Does Constituent Exceed MRDL?	Source of Constituent
2016	Chlorine Residual, Free	1.5	0.3 – 2.2	4	4	ppm	NO	Treatment chemical used to control microbes

WATER LOSS INFORMATION

In the most recent water loss audit submitted to the Texas Water Development Board for the time period of January—December 2016, our system lost an estimated 43,608,307 gallons of water from apparent or real losses or 17.3% of produced water. If you have any questions about the water loss audit please call us at 281-897-9100 extension 3.

DEFINITIONS:

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

Avg – Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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 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:

NA – MCL not applicable – not regulated

ND – Not detected

NTU – Nephelometric Turbidity Units (a measure of turbidity)

MFL – million fibers per liter (a measure of asbestos)

pCi/l – Picocuries per liter, (a measure of radioactivity). One pCi/l is equivalent to two atoms disintegrating per minute per liter

ppm – Milligrams per liter or parts per million, or one ounce in 7,350 gallons of water

ppb – Micrograms per liter or parts per billion, or one ounce in 7,350,000 gallons of water