2015 Annual Drinking Water Quality Report

A TCEQ Superior recognized water system.

FAIR OAKS RANCH UTILITIES:

Phone No.: 210-698-7685 or (866) 258-2505

Dear Customer:

We are pleased to present this water quality summary of the Fair Oaks Ranch Utilities (FORU) for the period of January 1 to December 31, 2015. The Safe Water Drinking Act Amendments of 1996 (SWDA) require utilities to make this annual report to its customers with information regarding our water source, what it contains, and the health risks our testing and treatment is designed to prevent. We hope it advances your understanding of drinking water issues and heightens awareness of the need to protect this precious resource.

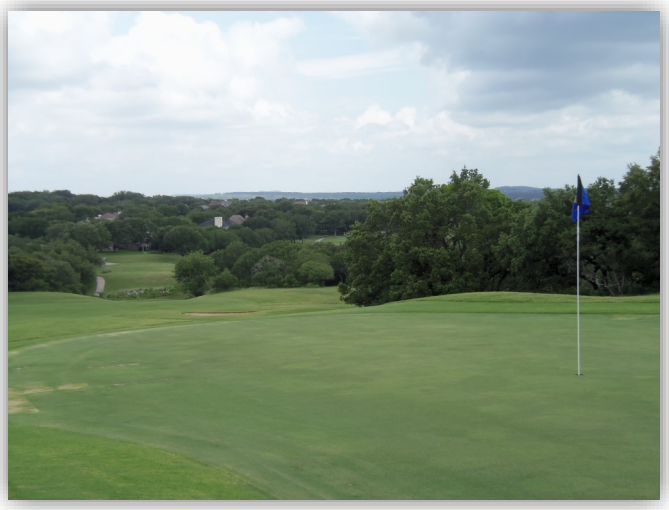
This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The analysis was made by using data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented on the following pages. We hope this information helps you become more knowledgeable about what is in your drinking water.

During calendar year 2015, FORU pumped 185,583,491 gallons from the Trinity Aquifer and purchased 274,471,000 gallons from the Guadalupe Blanco River Authority for its 2,776 residential and commercial customers. That represents an average of 454 gallons per customer per day which calculates to 24 gallons per customer per day less than in 2014.

We are committed to providing you the safest, most reliable and cost effective water supply.

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 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).



Public Participation Opportunities

Do you have questions concerning your drinking water? If so, you may attend monthly City Council meetings held at City Hall, on the first Thursday of the month at 9:30 AM or the third Thursday of the month at 7:00 PM. There is an open forum where your questions and concerns are heard. You may also contact Ron Emmons at (210) 698-7685 or via e-mail remmons@fairoaksranchtx.org. Also visit the City's webpage at www.fairoaksranchtx.org.

Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board (TWDB) for the time period of January-December 2015, our system lost an estimated 27,286,621 gallons of water, which is 5.9% of total water produced. If you have any questions about the water loss audit please contact Ron Emmons at (210) 698-7685.

En Español

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al teléfono 210-698-7685.

WATER SOURCES:

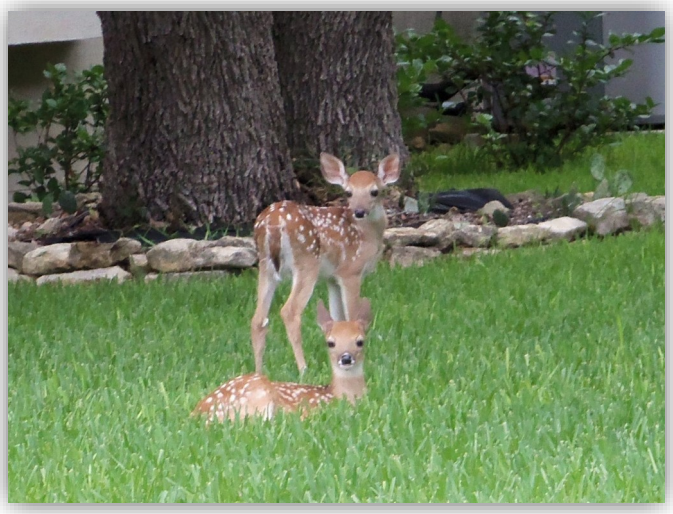
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before treatment include:

* Microbial Contaminants, such as viruses and bacteria, which may come from wastewater 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.

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 FORU at (210) 698-7685.



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

Where do we get our drinking water?

During 2015, Fair Oaks Ranch Utilities relied on Ground and Surface water sources. The Ground Water comes from the Trinity Aquifer (Lower Glen Rose and Cow Creek formations). This ground water is of such quality that the only treatment it receives is chlorine for disinfection. The purchased Surface Water comes from the Canyon Lake, which the Guadalupe Blanco River Authority (GBRA) extracts and treats at the Western Canyon Water Treatment Plant.

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 Confidence Report. For more information on source water assessments and protection efforts at our system, contact Ron Emmons, Director of Public Works at 210-698-7685.

The City of Fair Oaks Ranch voluntarily participated in a Source Water Assessment and Protection Program funded by the Environmental Protection Agency (EPA) grant through the Texas Commission of Environmental Quality (TCEQ). The goal of this program is to identify potential sources of contamination existing throughout the city and to develop education materials and outreach to residents and businesses. More information can be found on the City Water Sources page of the Public Works section of the city website: http://www.fairoaksranchtx.org/index.aspx?NID=222. Additional information on source water protection is available at www.swaptexas.org.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: https://gisweb.tceq.texas.gov/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/.

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: *The following tables contain scientific terms and measures, some of which may require explanation.*

Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements 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. ALG's allow for a margin of safety.

Maximum Contaminant Level (MCL)
The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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 risk to health. MCLG's 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

Millirems per year (mrem)
A measure of radiation absorbed by the body.

ABBREVIATIONS

Avg. - Regulatory compliance with some MCL's is based on running annual average of monthly samples.

NA - Not Applicable.

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).

ppb - Parts per billion, or micrograms per liter (µg/L) or 1 ounce in 7,350,000 gallons of water.

ppm - Parts per million, or milligrams per liter (mg/L) or 1 ounce in 7,350 gallons of water.

ppq - Parts per quadrillion, or picograms per liter (pg/L) or 1 ounce in 7,350,000,000,000 gallons of water.

ppt - Parts per trillion, or nanograms per liter (ng/L) or 1 ounce in 7,350,000,000 gallons of water.

Table I—Test results for Fair Oaks Ranch Utilities (Sampled in distribution system).

Inorganic Contaminants

Collection Date	Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
02/27/2014	Barium	0.0319	0.0287 - 0.0319	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
02/27/2014	Fluoride	0.68	0.23 – 0.68	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
1/20/2015	Nitrate (Measured as Nitrogen)	1.53	.05-1.53	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
2/27/2014	Selenium	3	0-3	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Volatile Organic Contaminants
NONE DETECTED

Synthetic Organic Contaminants
NONE DETECTED

Maximum Residual Disinfectant Level

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Violation	Source of Disinfectant
2015	Chlorine Residual, Free	.52	0.21	1.59	4	4	ppm	No	Water additive used to control microbes.

Disinfection Byproducts

Year	Contaminant	Highest Running Annual Avg.	Range of Levels Detected	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
2015	Total Haloacetic Acids (HAA5)	23	1.2-47.1	No Goal	60	ppb	No	By-product of drinking water disinfection.
2015	Total Trihalomethanes (TTHM)	67	4.0-109.0	No Goal	80	ppb	No	By-product of drinking water disinfection.

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

Bromoform, Chloroform, Dichlorobromomethane, and Dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2015	Bromodichloromethane	5.4	0.6	11.0	ppb	Byproduct of drinking water disinfection.
2015	Bromoform	7.0	2.8	10.0	ppb	Byproduct of drinking water disinfection.
2015	Chloroform	3.4	ND	8.5	ppb	Byproduct of drinking water disinfection.
2015	Dibromochloromethane	8.4	1.8	15.0	ppb	Byproduct of drinking water disinfection.

Lead and Copper—*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 (800-426-4791) or at http://www.epa.gov/safewater/lead.*

Date Sampled	Contaminant	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Unit of Measure	Violation	Source of Contaminant
07 / 15 / 2013	Copper	1.3	1.3	0.281	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
07 / 15 / 2013	Lead	0	15	4.96	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Total Coliform: *Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.*
NO COLIFORM DETECTED

E-Coli: NO E-COLI DETECTED

Secondary Constituents — *No associated adverse health effects.*

Year	Constituent	Average Level	Minimum Level	Maximum Level	Secondary Standards	Unit of Measure	Source of Contaminant
2014	Chloride	24.0	19.0	27.0	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2014	Copper	0.001	ND	.0031	1.0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2014	Iron	0.005	ND	.015	.3	ppm	Naturally occurring element; corrosion of household plumbing systems.
2014	Sulfate	32.3	27	42	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2014	Total Dissolved Solids	331.3	245	402	1,000	ppm	Total dissolved mineral constituents in water.
2014	Zinc	.034	.0064	.0763	5.0	ppm	Moderately abundant naturally occurring element; used in the metal industry.

Other Constituents Not Regulated—*No associated adverse health effects.*

Year	Constituent	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2014	Bicarbonate	289.7	190	342	ppm	Corrosion carbonate rocks such as limestone.
2014	Calcium	68.1	45.5	79.9	ppm	Abundant naturally occurring element.
2014	Hardness as Ca/Mg	267.7	187	316	ppm	Naturally occurring calcium and magnesium.
2014	Magnesium	23.7	17.9	28.8	ppm	Abundant naturally occurring element.
2014	Nickel	0.0022	0.0013	0.0029	ppm	Erosion of natural deposits.
2014	Potassium	2.1	1.49	2.64	ppm	Naturally occurring in various minerals; runoff from fertilizer use.
2014	Sodium	13.4	9.55	18.5	ppm	Erosion of natural deposits; byproduct of oil field activity.
2014	Total Alkalinity as $CaCO_3$	237.3	156	280	ppm	Naturally occurring soluble mineral salts.

Table II—Test results for the GBRA-Western Canyon Water Treatment Plant (Canyon Water Treatment Plant)

Inorganic Contaminants

Collection Date	Contaminant	Measured Concentration	Number of Analyses	MCLG	MCL	Unit of Measure	Violation	Source of Contaminant
5/04/2015	Barium	0.0274	1	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
5/04/2015	Fluoride	0.20	1	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Volatile Organic Contaminants

NONE DETECTED

Synthetic Organic Contaminants

NONE DETECTED

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

Bromoform, Chloroform, Dichlorobromomethane, and Dibromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Year	Contaminant	Measured Concentration	Number of Analyses Performed	Unit of Measure	Source of Contaminant
2015	Bromodichloromethane	20.0	1	ppb	Byproduct of drinking water disinfection.
2015	Bromoform	4.0	1	ppb	Byproduct of drinking water disinfection.
2015	Chloroform	16.0	1	ppb	Byproduct of drinking water disinfection
2015	Dibromochloromethane	17.0	1	ppb	Byproduct of drinking water disinfection.

Western Canyon Water Treatment Plant Turbidity

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.

Year	Contaminant	Highest Single Measurement	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2015	Turbidity	0.13	100	0.3	NTU	Soil Runoff.

Secondary Constituents *—No associated adverse health effects.*

Year	Constituent	Measured Concentration	Number of Analyses	Secondary Standards	Unit of Measure	Source of Contaminant
2015	Chloride	24	1	300	ppm	Abundant naturally occurring element; used in water purification; byproduct of oil field activity.
2015	Copper	.0025	1	1.0	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
2015	Sulfate	24	1	300	ppm	Naturally occurring; common industrial byproduct; byproduct of oil field activity.
2015	Total Dissolved Solids	228	1	1,000	ppm	Total dissolved mineral constituents in water.

Constituents Not Regulated*—No associated adverse health effects.*

Year	Constituent	Measured Concentration	Number of Analyses	Unit of Measure	Source of Contaminant
2015	Bicarbonate	183	1	ppm	Corrosion carbonate rocks such as limestone.
2015	Calcium	45.5	1	ppm	Abundant naturally occurring element.
2015	Hardness as $CaCO_3$	187	1	ppm	Naturally occurring calcium and magnesium.
2015	Magnesium	17.7	1	ppm	Abundant naturally occurring element.
2015	Nickel	.0015	1	ppm	Erosion of natural deposits.
2015	Potassium	2.32	1	ppm	Naturally occurring in various minerals; runoff from fertilizer use.
2015	Sodium	12.5	1	ppm	Erosion of natural deposits; byproduct of oil field activity.
2015	Total Alkalinity as $CaCO_3$	150	1	ppm	Naturally occurring soluble mineral salts.

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