

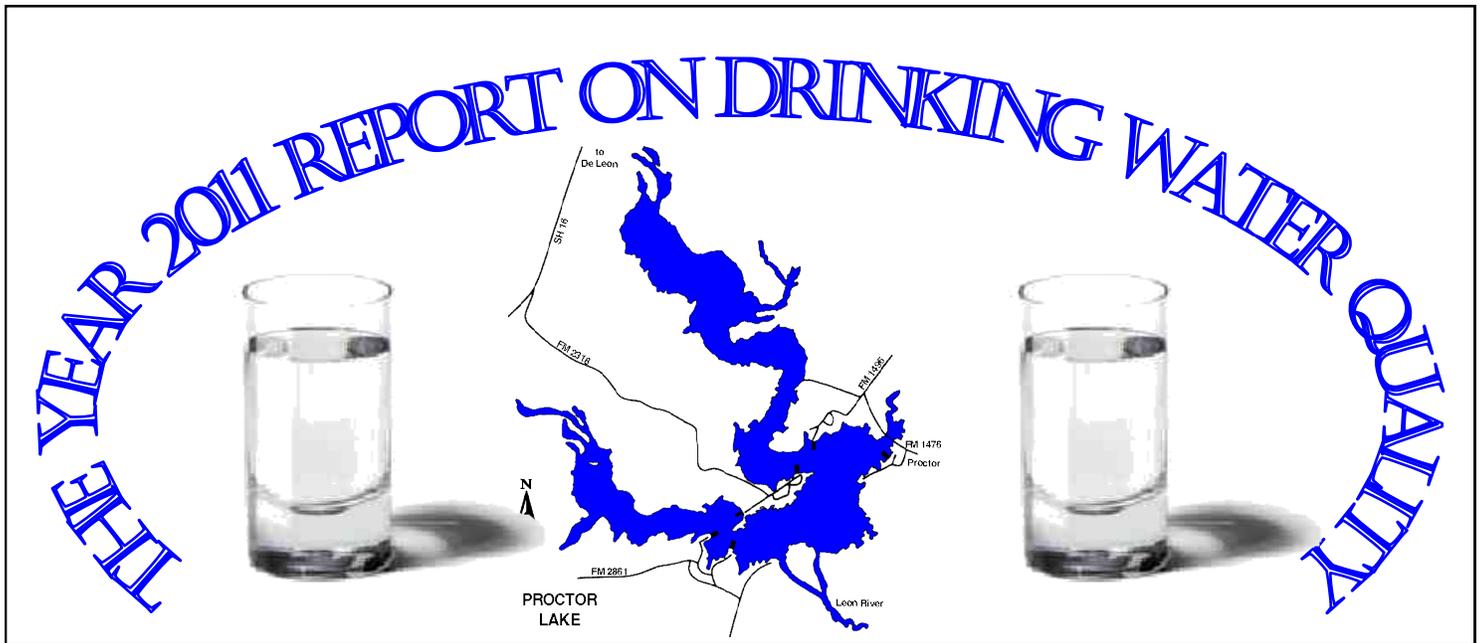
**Upper Leon River  
Municipal Water District**

# **2011 Annual Drinking Water Quality Report**

January 01 to December 31, 2011

2250 Highway 2861 General Office & Proctor Water Treatment Plant (254) 879-2258

This annual Drinking Water Report, also known as the Consumer Confidence Report, is from you water supplier, **Upper Leon River Municipal Water District**. It provides detailed information about your drinking water so that you can be informed and have confidence in the product we deliver. The Water District employees take pride in producing and delivering water to your tap that meets or exceeds federal and state standards. The information being provided in this report is for the appropriate reporting year as required by federal and state guidelines. Additional information may be obtained by contacting the Water District's General Office, located adjacent to Lake Proctor Dam, from 8:00 a.m. to 4:30 p.m. Monday thru Friday. The phone number is (254) 879-2258.



**Upper Leon River  
Municipal Water District  
Water Department  
2250 Highway 2861  
Comanche, Texas 76442**

PRESORTED  
FIRST CLASS  
POSTAGE  
PERMIT NO. 500

«Account Name»  
«Bill To Address 1»  
«Bill To Address 2»  
«Bill To City, St, Zip»

## **DEFINITIONS & ABBREVIATIONS:**

**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.

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

**NTU** - Nephelometric Turbidity Units. This is the unit used to measure water turbidity.

**MFL** - million fibers per liter (a measure of asbestos)

**Mrem/year** - millirems per year (a measure of radiation absorbed by the body)

**na** - not applicable

**pCi/L** - Picocuries per liter. Unit of measurement for radioactivity.

**ppm** - Parts per million or milligrams per liter (mg/l) - or one ounce in 7,350 gallons of water

**ppb** - Parts per billion or micrograms per liter (µg/l) - or one ounce in 7,350,000 gallons of water

**ppt** - parts per trillion, or nanograms per liter (ng/L)

**ppq** - parts per quadrillion, or picograms per liter (pg/L)

**Turbidity** - a measurement of cloudiness of water. A good indicator of effectiveness of a filtration system.

**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 treatment or other requirements that a water system must follow.

### **Secondary Contaminants. . . .**

*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 constituents are not 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 your water.*

## **PUBLIC PARTICIPATION OPPORTUNITIES**

There will be a review of this Consumer Confidence Report by the Upper Leon River MWD Board of Directors in open meeting to be held at the following times. . . .

**DATE:** July 16th and August 27th, 2012; **TIME:** 6:30 PM; **LOCATION:** General Office, 2250 Highway 2861, Comanche (by Lake Proctor Dam) For more information, **PHONE NO:** (254)-879-2258.

## **ADDITIONAL INFORMATION AVAILABLE FROM YOUR LOCAL SUPPLIER**

There are many opportunities available to learn more about water quality, water treatment, and the Upper Leon River MWD. For questions or concerns about water quality, to request a speaker for a group, or to book a tour of the facility, call the Proctor Water Treatment Plant @ (254) 879-2258 and speak with Gary Lacy or Carroll Abbey, or visit the website [www.ulrmwd.com](http://www.ulrmwd.com).

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien. (619)813-4432

**TASTE & ODOR ( T & O ). . .** Water quality is often judged by its aesthetic qualities, specifically its taste and odor or color. Regardless of the source, water can be very safe to drink and still have an unpleasant taste and odor. Contaminants may be found in drinking water that may cause taste, odor, or color problems. These types of problems are not necessarily causes for health concerns. Taste and odor are aesthetic qualities and microscopic organisms such as algae, that can create these taste and/or odor problems, are typically more abundant during the hot summer months. However, episode events may occur such as a change in temperature, or excessive rainfall and flooding, or any number of other reasons that may cause noticeable changes. Additionally, distribution systems conveying the water to a service, or the localized plumbing including hot water heaters, may also cause T & O concerns. Whatever the cause of unpleasant tastes and odors, be assured that the water treatment plant and distribution system operators and technicians, at Upper Leon River Municipal Water District, continually study the best ways to treat our water, and minimize the impact of taste and odor episodes, and to provide a safe reliable supply to your tap. For more information on taste, odor, or color of drinking water, please contact the Water Treatment Plant at (254) 879-2228.

**SPECIAL NOTICE  
for the ELDERLY, INFANTS, CANCER  
PATIENTS, people with HIV/AIDS,  
or other immune problems**

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

**Where do we get our drinking water?** Upper Leon River MWD customers receive treated water supplied from Proctor Lake in Comanche County, which is classified as a surface water supply. This water receives full treatment at the District's Proctor Treatment Plant, as prescribed by federal and state regulatory agencies. The entire process is monitored continually for compliance and quality control by certified and experienced operators who are always willing to answer questions.

The TCEQ completed an assessment of your source water and results indicate that some of our 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 Gary Lacy or Carroll Abbey. Additional information on source water and assessments are available at both the Source Water Assessment Viewer located at <http://gis3.tceq.state.tx.us/swav/Controller/index.jsp?wtrsrc=> and on the Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWW/>.

**Our Drinking Water Meets or Exceeds EPA Drinking Water Requirements** 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 the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**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.

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 materials, 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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).

<b>TURBIDITY</b>	<b>Limit (TT)</b>	<b>Level Detected</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
Highest single measurement	1 NTU	0.69 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	95.7%	N	Soil runoff.

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.

<b>Disinfectant</b>	<b>Year</b>	<b>Avg Level</b>	<b>Min Level</b>	<b>Max Level</b>	<b>MRDL</b>	<b>MRDLG</b>	<b>Unit of Measure</b>	<b>Source of Chemical</b>
Chloramine	2011	4.1	1.0	6.7	4	<4.0	ppm	Disinfectant used to control microbes

<b>Total Coliform Bacteria</b>	REPORTED MONTHLY TESTS FOUND NO TOTAL COLIFORM BACTERIA
<b>Fecal Coliform</b>	REPORTED MONTHLY TESTS FOUND NO FECAL COLIFORM BACTERIA

**Total Organic Carbon**

Total organic carbon (TOC) has no health effects. Disinfectants can combine with TOC to form byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include THMs and HAA5s which are reported elsewhere in this report

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source at Contaminant
2011	Source Water	9.61	8.66	11.30	ppm	Naturally present in the environment.
2011	Drinking Water	7.52	6.55	8.59	ppm	Naturally present in the environment.
2011	Removal Ratio	0.58	0.42	0.88	% removal*	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.

**REGULATED CONTAMINANTS**

<b>Disinfectants and Disinfection By-Products</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Haloacetic Acids (HAA5)*</b>	2011	35	23-46.6	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
<b>Total Trihalomethanes (TThm)*</b>	2011	114	79.6-143	No goal for the total	80	ppb	Y	By-product of drinking water chlorination.

\* Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>Highest Level Detected</b>	<b>Range of Levels Detected</b>	<b>MCLG</b>	<b>MCL</b>	<b>Units</b>	<b>Violation</b>	<b>Likely Source of Contamination</b>
<b>Arsenic</b>	2/11/2009	2.3	2.3 - 2.3	0	10	ppb	N	*See "Arsenic Source" below * Arsenic source: Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
<b>Barium</b>	2/11/2009	0.0988	0-0988-0.0988	0	10	ppb	N	* See "Barium Source" below * Barium Source: Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Fluoride</b>	2011	0.3	0.28 - 0.28	4	4.0	ppm	N	*See "Fluoride Source" below * Fluoride: Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Nitrate [Measured as Nitrogen]</b>	2011	0.08	0.08 - 0.08	10	10	ppm	N	*See "Nitrate Source" below * Nitrate Source - Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Nitrate Advisory</b> - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.								
<b>Selenium</b>	2/11/2009	5	5 - 5	50	50	ppb	N	*See "Selenium Source" below * Selenium Source - Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

**REGULATED CONTAMINANTS**

Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>2,4,5-TP (Silvex)</b>	02/02/2010	<b>No Detect</b>	0-0	50	50	ppb	N	Residue of banned herbicides
<b>2,4-D</b>	02/02/2010	<b>No Detect</b>	0-0	70	70	ppb	N	Runoff from herbicide used on row crops.
<b>Atrazine</b>	2011	<b>No Detect</b>	0-0	3	3	ppb	N	Runoff from herbicide used on row crops.
<b>Chlordane</b>	2011	<b>No Detect</b>	0-0	0	2	ppb	N	Residue of banned termiticide.

Volatile Organic Contaminants	Collect Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Benzene</b>	2011	<b>No Detect</b>	0-0	0	5	ppb	N	From factories; Leach from gas storage tanks & landfills
<b>Carbon Tetrachloride</b>	2011	<b>No Detect</b>	0-0	0	5	ppb	N	Discharge from factories and dry cleaners
<b>Styrene</b>	2011	<b>No Detect</b>	0-0	100	100	ppb	N	From rubber & plastic factories. Leach from landfills
<b>Toluene</b>	2011	<b>No Detect</b>	0-0	1	1	ppm	N	Discharge from petroleum factories.
<b>Vinyl Chloride</b>	2011	<b>No Detect</b>	0-0	0	2	ppb	N	Leach from PVC pipe; Discharge from plastics factory.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Beta/photon emitters</b>	2/8/2006	9.5	9.5 - 9.5	0	50	pCi/L	N	*See "Beta/Photon emitters Source"

\* Beta/Photon emitters Source - Decay of natural and man-made deposits.

**Lead and Copper**

Year	Contaminant	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Source of Contaminant
2009	Lead	1.9	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2009	Copper	0.082	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

**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. Upper Leon River MWD 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>.

**VIOLATIONS TABLE**

<b>Total Trihalomethanes (TThm)*</b>			
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
MCL, AVERAGE	01/01/2011	03/31/2011	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.
MCL, AVERAGE	04/01/2011	06/30/2011	
MCL, AVERAGE	07/01/2011	09/30/2011	
MCL, AVERAGE	10/01/2011	12/31/2011	

**STEPS TO CORRECT VIOLATIONS**

Upper Leon River MWD worked with consulting engineers and conversed with other water professionals and took all necessary steps, including an extensive system testing and evaluation process, to determine causes and work solutions to the TTHM formation issues. Those efforts have been successful and running averages are being reduced to acceptable, compliant levels. System monitoring continues at increased frequencies and flushing transmission and distribution system

### Unregulated Contaminant Monitoring Regulations (UCMR) Reporting

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. Any unregulated contaminants detected are reported in the following table. For additional information and data visit <http://www.epa.gov/safewater/ucmr/ucmr2/index.html>, or call the Safe Drinking Water Hotline at (800) 426-4791.

#### Unregulated Contaminants

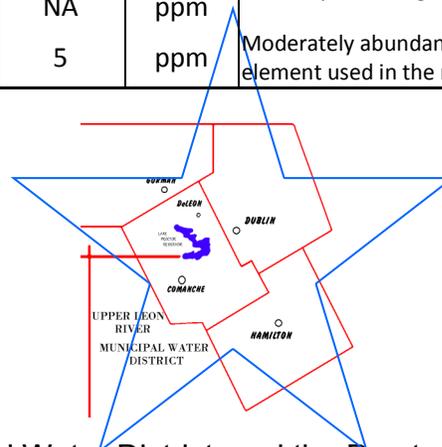
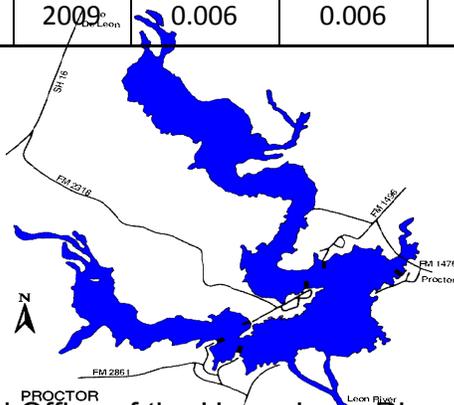
Bromoform, chloroform, dichlorobromochloromethane are disinfection byproducts. There is no maximum contaminant level for these chemicals at the entry point to distribution.

Contaminant	Year of Range	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
Chloroform	2011	4.94	2.2	7.6	ppb	Byproduct of drinking water disinfection
Bromoform	2011	35.98	16	67.1	ppb	Byproduct of drinking water disinfection
Bromodichloromethane	2011	16.66	8	22.7	ppb	Byproduct of drinking water disinfection
Dibromochloromethane	2011	31.2	14	50.3	ppb	Byproduct of drinking water disinfection

#### Secondary and Other Constituents Not Regulated

(No associated adverse health effects)

Contaminant	Year of Range	Average Level	Minimum Level	Maximum Level	Secondary Limit	Unit of Measure	Source of Contaminant
Aluminum	2009	0.088	0.088	0.088	0.05	ppm	Abundant naturally occurring element
Bicarbonate	03/01/11	124	124	124	NA	mg/L	Corrosion of carbonate rocks such as limestone
Calcium	2009	48	48	48	NA	ppm	Abundant naturally occurring element
Chloride	03/01/11	148	148	148	300	mg/L	Abundant naturally occurring element; used in water purification; byproduct of oil field activity
Magnesium	2009	17.6	17.6	17.6	NA	ppm	Abundant naturally occurring element
Manganese	2009	0.0055	0.0055	0.0055	0.05	ppm	Abundant naturally occurring element
Nickel	2009	0.001	0.001	0.001	NA	ppm	Erosion of natural deposits
pH	03/01/11	7.1	7.1	7.1	>7.0	units	Measure of corrosivity of water
Sodium	03/01/11	75.9	75.9	75.9	NA	ppm	Erosion of natural deposits; byproducts of oil field activity
Sulfate	03/01/11	98	98	98	300	mg/L	Naturally occurring; common industrial byproduct; byproduct of oil field industry
Total Alkalinity as CaCO <sub>3</sub>	03/01/11	102	102	102	NA	mg/L	Naturally occurring soluble mineral salts
Total Dissolved Solids	03/01/11	481	481	481	1000	mg/L	Total dissolved mineral constituents in water
Total Hardness as CaCO <sub>3</sub>	2009	192	192	192	NA	ppm	Naturally occurring calcium
Zinc	2009	0.006	0.006	0.006	5	ppm	Moderately abundant naturally occurring element used in the metal industry



The General Office of the Upper Leon River Municipal Water District, and the Proctor Water Treatment Plant, are located adjacent to Lake Proctor Dam off of FM 2861. General Office hours are 8:00a to 4:30p, Monday thru Friday and the phone number is (254) 879-2258 or (254) 879-2259. Visit our website @ <http://www.ulrmwd.com>