

Our Drinking Water Meets or Exceeds All Federal (EPA) Drinking Water Requirements. The City of Sugar Land Public Water System has been rated Superior.

Mission Statement

The Utilities Department takes pride in providing a safe, dependable and effective public infrastructure, rendering a diverse group of services to the citizenry in a responsive, efficient and cost effective manner with a customer oriented approach that reflects the City's tradition of excellence.

2006 Water Quality Report

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Director's Message

The City of Sugar Land Utilities Department is pleased to present its 2006 Annual Water Quality Report. This report describes the City of Sugar Land's water supply and water quality and contains other important information regarding the water we deliver to your tap. As in the past years, we supplied drinking water to our customers within Sugar Land's city limits that met or exceeded all drinking water standards. These standards are set by the U.S. Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ).

We achieve this high quality water through state-of-the-art water treatment process, extensive rehabilitation and replacement of distribution system piping, diligent maintenance and operation of facilities, and vigilant monitoring and testing of our water. We spent approximately \$1 million of our Capital Improvement Project funds last year for drinking water supply related projects. Our water production facilities are operated by TCEQ licensed operators,

and our employees receive regular training. Under strict federal and state regulations, TCEQ and our employees take over 100 water quality samples each week throughout the treatment processes and distribution systems. We tested for more than 200 substances, including metals, minerals, volatile and semi-volatile organic compounds, chlorine disinfection byproducts, and radiological compounds to ensure drinking water safety. As always, the results for 2006 are excellent. We met every standard with no violations. The City of Sugar Land's drinking water is top quality.

I hope you will take a few moments to read this important report. We have great confidence in the water delivered to our customers, and we want you to have the same confidence. Please contact us if you have any questions or concerns about your water quality, or any of Utilities Department programs.

—SuEllen Staggs,
Director of Utilities



WATER QUALITY OVERVIEW

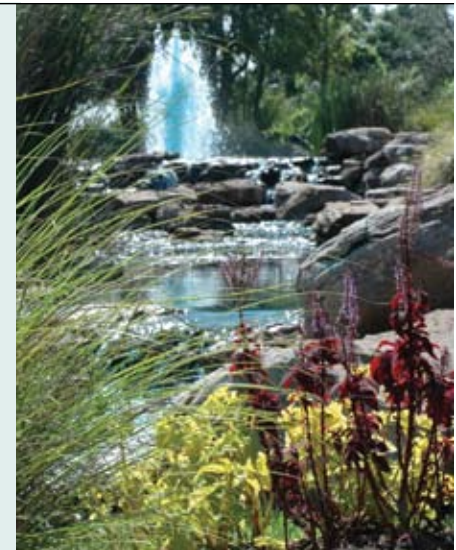
WATER QUALITY

The Texas Commission on Environmental Quality is responsible for overseeing the state's environmental areas, which includes the City of Sugar Land's water quality. The TCEQ collects and analyzes samples for metals, minerals, volatile and semi-volatile organic compounds, chlorine byproduct compounds and radiological compounds. The TCEQ has rated Sugar Land as having a "Superior" water system, its highest rating.

In addition to TCEQ-required daily process control samples taken at the water plants and system entry points, the City of Sugar Land performs over 80 bacteriological tests monthly in its distribution system, and collects quality assurance/quality control samples at least once a week and voluntarily tests its groundwater wells twice a year.

WATER SOURCE

The City currently draws 100% of its drinking water from 15 permitted wells at five separate groundwater plants. These are deep wells with an average depth greater than 1200 feet, producing water from the Chicot and Evangeline aquifers. The TCEQ completed a Source Water Assessment for the City of Sugar Land, and results indicated that some of our sources are susceptible to certain contaminants. The sampling requirements for our water system are based on this susceptibility and previous sample data. Any detection of these contaminants will be found in this report. For more information on source water assessments and protection efforts, please call the Utilities Department at 281-275-2450.



Special Notice for the ELDERLY, INFANTS, CANCER PATIENTS, people with HIV/AIDS or other immune problems:

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 who have undergone chemotherapy for cancer, those 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 provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline 1-800-426-4791.

Inorganic Contaminants

For each constituent, the Average, Minimum and Maximum Level Columns represent the City's water testing results.

YEAR	CONSTITUENT	AVERAGE LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCL	MCLG	UNIT OF MEASURE	SOURCE OF CONTAMINANT
2005	Arsenic*	2	2	2	10	0	ppb	Erosion of natural deposits, runoff from orchards; runoff from glass and electronic production wastes.
2005	Barium	0.229	0.229	0.229	2	2	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
2005	Fluoride	0.9	0.9	0.9	4	4	ppm	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
2006	Nitrate	0.05	0	0.14	10	10	ppb	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits
2005	Selenium	8.2	8.2	8.2	50	50	pCi/L	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
2005	Combined Radium 226 & 228	0.5	0	1	5	0	pCi/L	Erosion of natural deposits.
2005	Gross Beta Emitters	3.4	0	5.7	50	0	pCi/L	Decay of natural and man-made deposits.
2005	Gross Alpha	5.8	1.2	10	15	0	pCi/L	Erosion of natural deposits.

* The arsenic value was effective January 23, 2006. In the event of a violation, you will be notified.

Organic Contaminants: TESTING WAIVED, NOT REPORTED, OR NONE DETECTED

Maximum Residual Disinfectant Level

YEAR	DISINFECTANT	AVERAGE LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MRDL	MRDLG	UNIT OF MEASURE	SOURCE OF DISINFECTANT
2006	Chlorine Residual, Free	1.48	1	2.1	4	4	ppm	Disinfectant used to control microbes.

Disinfection Byproducts

YEAR	CONSTITUENT	AVERAGE LEVEL	MINIMUM LEVEL	MAXIMUM LEVEL	MCL	UNIT OF MEASURE	SOURCE OF CONTAMINANT
2006	Total Trihalomethanes	3.3	2.5	4	80	ppb	Byproduct of drinking water disinfection.

Lead and Copper

The 90th percentile score for lead and copper indicates the measure, in parts per billion, that 90% of the homes sampled are at or below.

YEAR	CONSTITUENT	THE 90th PERCENTILE	NUMBER OF SITES EXCEEDING ACTION LEVEL	ACTION LEVEL	UNIT OF MEASURE	SOURCE OF CONTAMINANT
2004	Lead	1.1	1	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2004	Copper	0.478	0	1.3	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.

NOT REQUIRED: Turbidity **NOT DETECTED IN REPORTED MONTHLY TESTS:** Total Coliform, Fecal Coliform

Abbreviations

MCL: Maximum Contaminant Level
MCLG: Maximum Contaminant Level Goal
AL: Action Level
pCi/L: Pico Curie per Liter; measure of radioactivity
ppm: Parts per million or milligrams per liter (mg/L)
ppb: Parts per billion, or micrograms per liter (µg/L)

Definitions

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Constituent

Federally regulated or monitored analyte.

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 contaminant.

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.

DRINKING WATER AND YOUR HEALTH

SECONDARY CONSTITUENTS

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 the 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. Secondary constituent information is available on the Public Works and Utilities Departments pages of the City's Web site, www.sugarlandtx.gov. From the left menu, cursor over "Water Services" and click on "Secondary Constituents."

OTHER 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: microbes, inorganic contaminants, pesticides, herbicides, radioactive contaminants and organic chemical contaminants.

Definitions of Contaminants

Microbial contaminants

Viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants

Salts and metals which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and Herbicides

These may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

Organic Chemical contaminants

Synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production; can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminants

Naturally occurring or the result of oil and gas production and mining activities.

DRINKING WATER AND YOUR HEALTH

Notice from the EPA

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants may be found in drinking water that may cause taste, color, or odor problems. Presence of contaminants does not necessarily indicate that the water poses a health risk. In order to ensure that tap water is safe to drink, the EPA and the TCEQ enforce regulations that limit the amount of certain contaminants in water provided by public water systems. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline 1-800-426-4791.

IS CRYPTOSPORIDIUM OR GIARDIA IN OUR WATER SUPPLY?

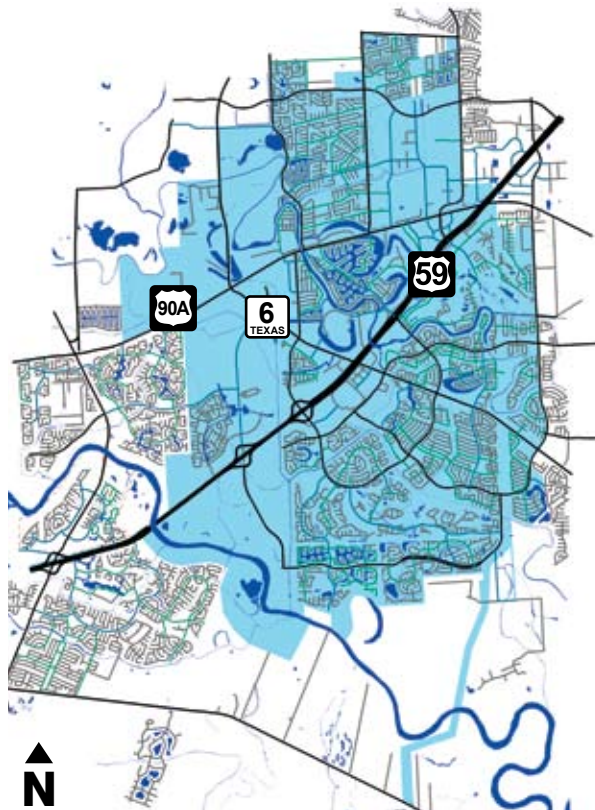
Cryptosporidium and *Giardia* are waterborne pathogenic organisms. Both are naturally present in the intestines of most mammals including humans, and are passed into the environment through urban runoff or sewage disposal system failure. The disease caused by *Cryptosporidium* or *Giardia* can lead to symptoms such as diarrhea, abdominal discomfort, fever, weight loss, malabsorption, or anemia. Although not life-threatening to healthy adults, *Cryptosporidium* and *Giardia* can be fatal to infants, the elderly, pregnant women, and immunocompromised persons.

Neither *Cryptosporidium* or *Giardia* is found in deep wells such as the City of Sugar Land's which are protected from surface water contamination. For more information about *Cryptosporidium* and *Giardia* and other microbial contaminants, contact the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

CITY OF SUGAR LAND PUBLIC WATER SYSTEM

Your Water System

- 1.** Our water comes from high-quality groundwater sources, and is pumped from deep wells into one of our groundwater plants.
- 2.** Even though our groundwater is already of excellent quality, chlorine is added at our water plants to protect the finished water against microbial contaminants as it travels through the water system. At the same plants, a fluoride supplement is added to help prevent tooth decay. Corrosion inhibitors are also added to reduce corrosion of metal components within the homeowner's private plumbing system.
- 3.** Your water then travels to your residence or place of business where you are provided with top quality and absolutely safe, superior-rated water.



UNREGULATED CONTAMINANTS

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

WATER SECURITY

To ensure the safety and security of the City of Sugar Land's water infrastructure and treatment facilities, we are in the process of implementing tiered security measures. The Phase I improvement has been completed and Phase II will start in the near future.

The water system described in this report serves customers within Sugar Land's corporate city limits.

OUR WATER SUPPLY FUTURE

The bright Texas sun glinting off the surface of Oyster Creek hints at future changes for Sugar Land's drinking water supply. Beginning in 2013, the Fort Bend Subsidence District will require that an eventual 60% of the City's total water use comes from sources other than groundwater wells. While this mandate is a challenge, the City has been planning for the conversion process for several years and is working aggressively to ensure the lowest cost, best quality future drinking water supply for our residents.

Sugar Land has acquired 20 MGD (million gallons per day) of raw surface water from the Gulf Coast Water Authority and 15 MGD from Fort Bend County WCID 1, and City staff are putting the finishing touches on defining the most effective strategies to implement the conversion process. The City will file a Groundwater Reduction Plan by January 2008 that will lay out for the Subsidence District our roadmap for conversion. The City's Groundwater Reduction Plan will include the City, its ETJ communities, and private well owners within our borders. The current plan is to meet a majority of our conversion requirement through the construction of a phased surface

City of Sugar Land Water Production & Distribution Profile

Annual system demand:	5.4 billion gallons
Maximum peak daily demand:	21.1 million gallons
System capacity:	39.1 million gallons/day
Daily average demand:	14.8 million gallons
Daily average demand per capita:	194 gallons
Number of wells:	15
Average well depth:	1,250 ft.
Ground storage facility:	9.67 million gal.
Elevated storage facilities:	5 towers/4.5 million gallons
Miles of distribution line:	360
Number of water meters:	23,528
Number of fire hydrants:	2,945
Number of valves:	7,247
Supply ground water source:	Chicot, Evangeline Aquifers

water treatment plant.

The future surface water treatment plant will be located near Gannoway Lake and the raw water supply will come from Oyster Creek. Although some customers who are sensitive to taste and odor in their drinking water may notice a difference in these characteristics between surface water and ground water, properly treated surface water is safe and of superior quality. In fact, the federal and state regulations on surface water are much more stringent than those on groundwater. The City will be employing state of

the art water treatment technology and implementing a multiple barrier approach to ensure our residents continually receive superior quality drinking water. City staff has begun to plan for increased source water protection through more involvement in the management of the Oyster Creek watershed, which is the first step to prevent or control contaminants from entering our future drinking water source.

In the mean time, the City is evaluating and actively engaging any opportunities to reduce the costs of conversion for its residents.

The Telfair development and the Lake Pointe development have already entered into partnership projects with the City in which we will supply raw surface water to meet the non-potable needs of these communities. Several other non-potable projects are being evaluated and pursued, including additional pump stations on Oyster Creek. Serving raw surface water is much less expensive than serving treated surface water for non-potable water uses. In addition, the Subsidence District grants credits for any conversion that the City undertakes prior to its deadlines, which provides a strong incentive for the City to seek out non-potable opportunities in the short-term due to the savings they generate.

The combination of these efforts will yield a safe and high quality drinking water supply, a cleaner watershed, and help combat the regional subsidence that poses a problem for everyone. In the coming months, the City will continue to explore other cost-reducing measures, including increased water conservation efforts. As we move towards implementing conversion, Oyster Creek, the historic lifeblood of the City, will now once again prove to be one of our most valuable assets.

CUSTOMER SERVICE IS OUR NUMBER ONE PRIORITY

We take pride in the water that is provided to our customers and we are continually striving to improve our service to you.

To accomplish this goal... we need your help. Any time you find your water quality or service response is below your expectations, please contact us at 281-275-2450. We will respond promptly and professionally.

To learn about future public meetings concerning our drinking water or to request to schedule one, please call us at 281-275-2450.

EN ESPAÑOL

Este reporte incluye información importante sobre el agua para tomar.

Si tiene preguntas o quiere discutir sobre este reporte en español, favor de llamar al tel. 281-275-2450.



CITY OF SUGAR LAND

Utilities Department

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