



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 maintaining a tradition of producing cost effective, superior quality water, vigilantly maintaining the City's expanding water and wastewater infrastructure, and providing responsive and efficient customer-oriented service.

2007 Water Quality Report

H₂O

Director's Message

The City of Sugar Land is pleased to present its Annual Water Quality Report for 2007. This report contains important information regarding the safety and quality of the drinking water we deliver to your tap. As in past years, the water we supplied to our customers in 2007 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). Under these stringent federal and state regulations, our employees and TCEQ staff take over 100 water quality samples each week throughout the treatment processes and distribution systems. From the moment the water leaves the well to the moment it reaches your tap, it is under a watchful eye. We test for more than 200 substances, including bacteria, metals, minerals, volatile and semi-volatile organic compounds, disinfection byproducts and radiological

compounds to ensure your drinking water safety and quality. In standing with our tradition of superior quality water, the results of 2007 were excellent, with no violations of any standards. In addition, this year the City received an "Outstanding Public Drinking Water System Award" and a "Total Coliform Rule Program Award" from the TCEQ, recognizing our system for excellence.

We are able to provide this high quality water product through excellent water treatment processes, an extensive program of rehabilitation and replacement of distribution system piping, diligent maintenance and operation of facilities, and vigilant monitoring and testing of our water. As an indication of the City's commitment to the quality of our water, we devote a significant portion of our funding for Capital Improvement Projects related to our drinking water system. In addition, we strive to promote strict standards at

every level of our organization and water production processes. Our water facilities are operated by TCEQ licensed operators, and our employees receive regular and rigorous training. The City has begun its mandated process of incorporating surface water into our drinking water supplies. As we move toward this goal, please be assured we will continue to exercise vigilance and all possible effort to continue providing the quality of water our customers have come to expect.

I hope that 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 the efforts and programs of the Utilities Department.

—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 5 separate groundwater plants. These are deep wells with an average depth greater than 1200 feet, producing water from the Chicot and Evangeline aquifers. A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality and will be provided to us this year. The report will describe the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. 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:

Some people may be more vulnerable to contaminants in drinking water than the general population. 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 infection. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (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 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.
2007	Nitrate	0.04	0	0.15	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
2007	Chlorine Residual, Free	1.48	0.66	1.98	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
2007	Total Trihalomethanes	1.5	0	6.1	80	ppb	Byproduct of drinking water disinfection.

Unregulated Initial Distribution System Evaluation of Disinfection Byproducts: WAIVED OR NOT YET SAMPLED

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
2007	Lead	3.9	0	15	ppb	Corrosion of household plumbing systems; erosion of natural deposits.
2007	Copper	0.628	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 Bacteria
Unregulated Contaminants: NOT REPORTED OR NONE DETECTED

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 "Water Quality Report."

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. Exposure to *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.

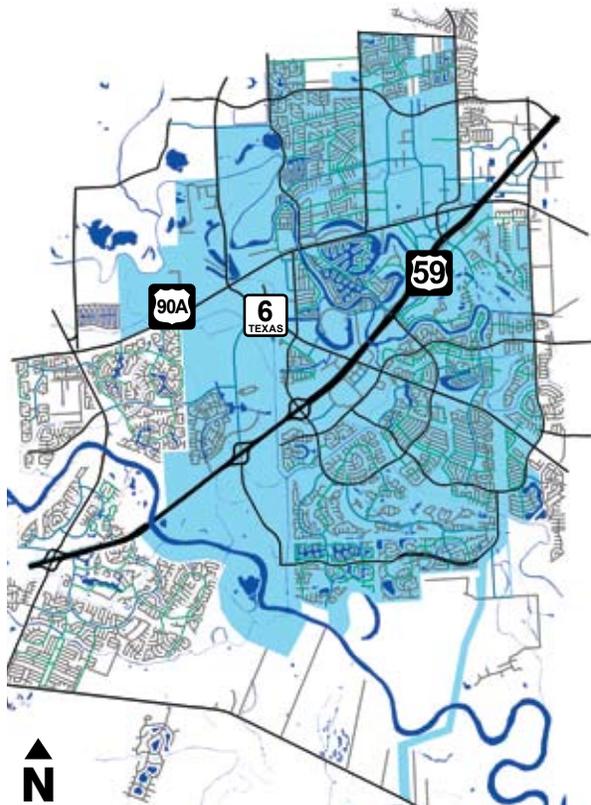
Our water comes from high-quality groundwater sources, and is pumped from deep wells into one of our groundwater plants.

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.

UPCOMING PUBLIC EVENTS

As the City moves toward using surface water, we will hold several events to involve the public in this conversion process. After the surface water pilot plant goes online, we will be leading guided tours of the scaled down version of our future plant. In addition, the City will be holding a series of treated surface water taste tests at several locations. We will use the feedback from these public tests to help us fine-tune our treatment goals. Please call 281-275-2450 for more information on these events.

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

SURFACE WATER: THE FUTURE IS NOW

The City of Sugar Land has done its utmost to plan for long-term water supplies for our community.

Along with the normal cycles of proactive rehabilitation and vigilant system maintenance necessary to maintain the superior quality of our drinking water, the City has also been planning to meet an upcoming mandated change in water supplies. Beginning in 2013, the Fort Bend Subsidence District (FBSD) will require that an eventual 60% of the City's total water use come from sources other than groundwater wells. It is our goal to meet the challenge to ensure the security of our water future while at the same time ensuring the continued lowest cost, best quality drinking water for our residents. As a regional leader in this process, the City has coordinated our efforts with the communities in our ETJ communities and local private well owners through our Groundwater Reduction Plan (GRP). The GRP, which was recently approved by the FBSD, is the culmination of these planning efforts, and is a roadmap for achieving successful surface water conversion.

The primary focus of our GRP is the future surface water treatment plant that will be located

City of Sugar Land Water Production & Distribution Profile

Annual system demand:	5.2 billion gallons
Maximum peak daily demand:	21.5 million gallons
System capacity:	39.1 million gallons/day
Daily average demand:	14.7 million gallons
Daily average demand per capita:	189 gallons
Number of wells:	15
Average well depth:	1,250 ft.
Ground storage capacity:	9.67 million gal.
Elevated storage facilities:	5 towers/4.5 million gallons
Miles of distribution line:	367
Number of water meters:	24,434
Number of fire hydrants:	3,257
Number of valves:	7,365
Supply ground water source:	Chicot, Evangeline Aquifers

near Gannoway Lake and draw its water supply from Oyster Creek. The design of the future plant is already underway, and the City has begun construction of a pilot test plant to ensure the success of the facility when it is constructed prior to 2013. We are working hard to ensure that we minimize any differences in taste and odor between surface water and groundwater sources by employing state of the art water treatment technology and implementing a multiple barrier approach to ensure our residents continually receive safe and superior quality

drinking water. The pilot plant and related water quality testing will help us fine tune our treatment approach to meet these goals. The City has gone even further by pursuing 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 has initiated several raw water projects that will help reduce the costs of our conversion process. Several partners,

the Telfair development and the Lake Pointe development have already entered into projects with the City in which we will supply raw surface water to supply non-potable needs (amenity lake filling and irrigation) that don't require treated surface water. Serving raw surface water is less expensive than serving treated surface water and the FBSD grants credits for any conversion that the City undertakes prior to its deadlines, providing a strong incentive to explore and implement these opportunities. Additional non-potable projects are being evaluated and pursued to help the City continue to drive down the costs of conversion.

The City is also working to expand its Water Conservation Program to empower our customers to make wiser use of our community's valuable water resources. While in the past our conservation efforts have been primarily aimed at maintaining efficient operations and infrastructure, we are planning to branch out with a series of programs designed to engage and involve our residents by promoting wise water use.

While the City is benefiting from its past planning foresight, we continue to remain forward-thinking in our efforts to reduce costs and enhance quality even further.

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 informe incluye información importante sobre el agua potable.

Si tiene preguntas o comentarios sobre éste informe en español, favor de llamar al tel. 281-275-2450 para hablar con una persona bilingüe en español.



CITY OF SUGAR LAND

Utilities Department

111 Gillingham

Sugar Land, TX 77478

POSTAL CUSTOMER

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