

FY21 ANNUAL WATER REPORT



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“PROTECTING AND PROMOTING THE OPTIMAL HEALTH
AND WELL-BEING OF GALVESTON COUNTY.”

A BRIEFING OF WATER ACTIVITIES PERFORMED FOR THE:
CITY OF LEAGUE CITY



PERFORMED BY THE:
GALVESTON COUNTY HEALTH DISTRICT
Water Pollution Services Division

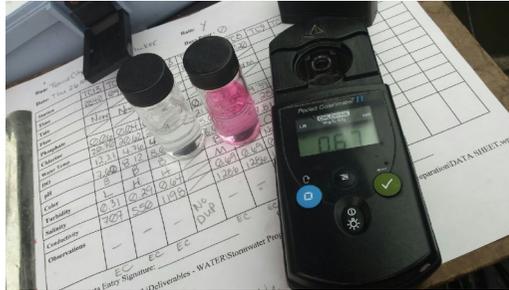


OVERVIEW

The Galveston County Health District (GCHD) established the Water Pollution and Abatement Control program in 1972. The Water Pollution Services Division is designated with performing water quality monitoring and pollution abatement activities for Galveston County and its contracted political subdivisions, and is supported through the county general fund and contracted political subdivision contributions.

The GCHD and the City of League City (City) have agreed to contract water pollution control and abatement services. This contract serves to satisfy the requirements found under the Texas Water Code and outlines specific requirements and responsibilities of a water pollution control and abatement program. GCHD's team consists of Program Managers, Senior Environmental Investigators, and Basic Environmental Investigators.

The program effectively and efficiently implemented a comprehensive water pollution control and abatement effort. Objectives of this program can include Citizen Complaint Response, Waste Water Treatment Plant Inspections, and Ambient Storm Water Monitoring.

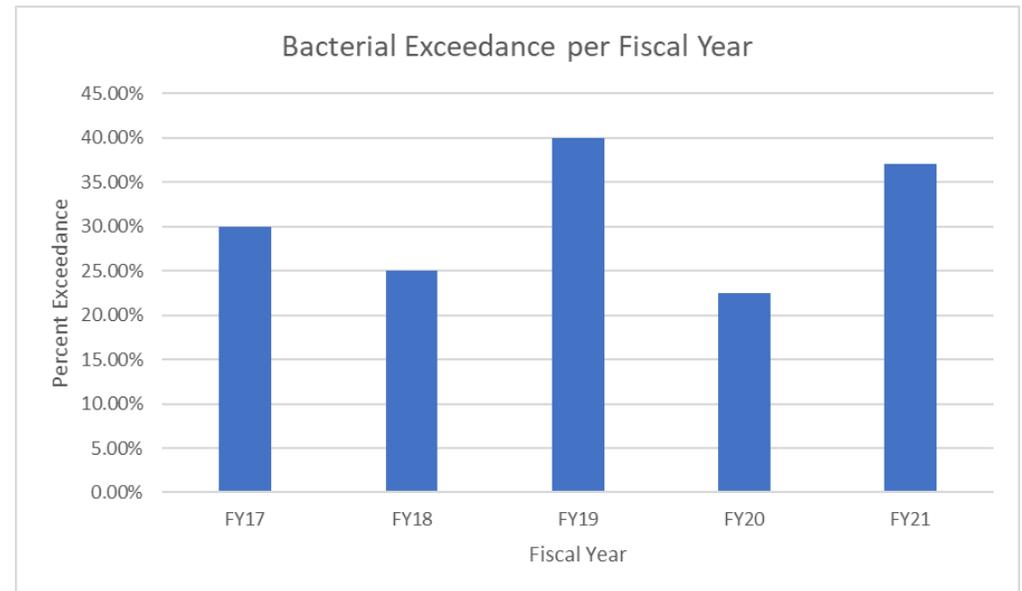


STORM WATER

During FY 2021, the GCHD monitored twenty sites within the City. The GCHD reviewed the historical storm water data and analyzed the sampling sites attempting to locate pollution sources. Sampled water bodies include various storm water drainage ditches located throughout the City which directly or indirectly flow into Robinson Bayou, Clear Creek, Clear Lake, Jarbo Bayou, and other waters of the State of Texas.

The bacterial analysis for storm water is compared to the Texas Water Quality Standards. Other parameters are also evaluated, such as Dissolved Oxygen, pH, Chlorine, Biochemical Oxygen Demand, and Ammonia. These laboratory and field tests are used to assist staff in understanding water pollution impacts on the waterway and possible sources of that pollution.

During FY 2021 in the City, bacterial levels at the twenty sites exceeded the standard for single grab samples 37% of the time. Samples in FY 2020 exceeded the rate 23% of the time and FY 2019 exceeded the rate 40% of the time. Many of these exceedances occurred within three (3) days of a rainfall event or were due to stagnant pools of water. Site LC34, by the park on Calder Dr in Bay Colony West, exceeded the limit five (5) times. Site LC36, located at FM518 and Wesley Dr, exceeded the limit four (4) times.

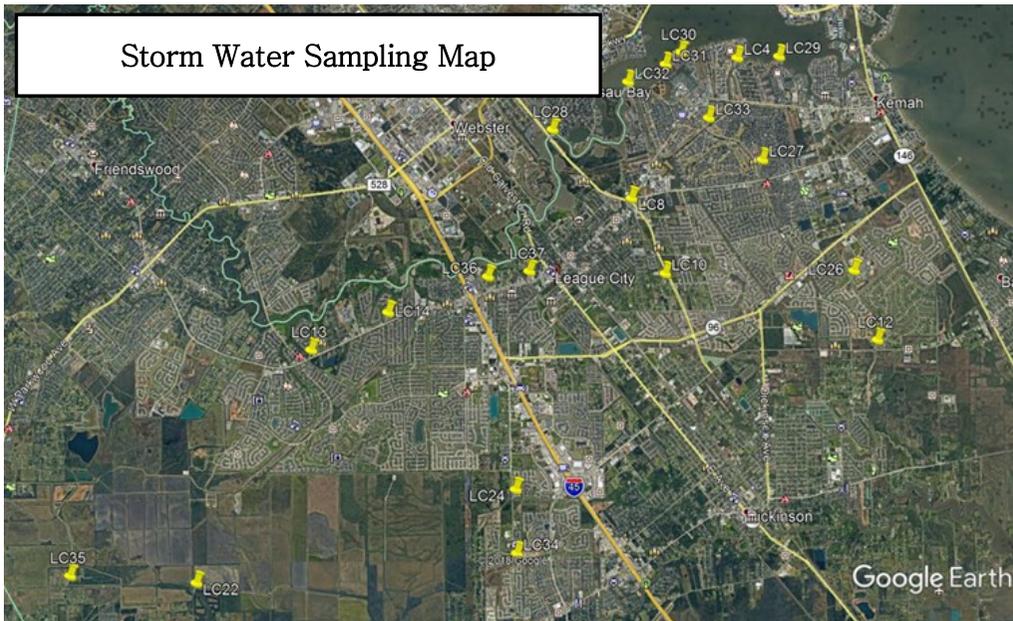


STORM WATER

The Clean Water Act regulates the discharge of pollutants into the nation's surface waters, sets water quality standards for these same waters and allows states and local governments to develop their own pollution control plans. The EPA requires permitting and management of storm water discharges from large, medium and smaller sized municipalities under the National Pollutant Discharge Elimination System (NPDES) making this a federally enforceable program.

NPDES requires storm water controls in cities such as League City, industries, and construction sites disturbing 1 to 5 acres, to implement various storm water controls. The goals are to reduce the discharge of pollutants to Texas surface water, to protect water quality, and to meet the water quality requirements of the Clean Water Act. To determine the effectiveness of the storm water controls around the City, GCHD conducts storm water monitoring.

The water bodies sampled in the City are deemed "contact recreation" as defined in the Texas Administrative Code. Contact recreation involves bodily contact with water, and therefore there is a potential for increased risk to health when contaminants or pathogens are present. Other activities deemed contact recreation are fishing, boating, and swimming.



OUTREACH



GCHD participates in Trash Bash, Earth Day, and Bay Day, and presents the Enviroscape watershed presentation to schools and organizations throughout the county.

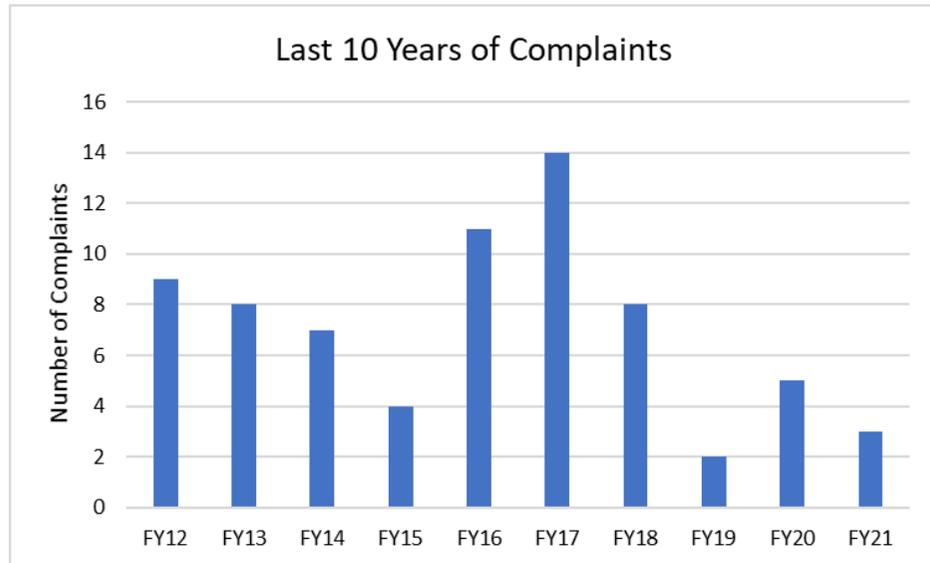
Contact GCHD at 409-938-2251 to schedule an Enviroscape presentation designed for local schools and events.

COMPLAINTS

The Water Pollution Services Division investigates and resolves complaints addressing water pollution issues. These issues can include illegal discharge of sewage, improper disposal of fats, oils and grease, chemical spills, and illegal disposal of used motor oil. The complaints are either initiated by citizens or referred to the Water Pollution Services Division by local government personnel. Each time GCHD receives a complaint within the City of League City, Wastewater Superintendent, Susie Blake, is notified to help coordinate the response.

In FY21, three (3) water pollution complaints were investigated in the City. Of the three (3) complaints received, two (2) were sewage discharge and one (1) was dumping/discharge. As a result of the investigations, three (3) Notice of Violations were issued.

GCHD and the City sometimes coordinate on complaints to ensure the issue is resolved properly and in a timely manner. When GCHD and the City work together it helps increase compliance throughout the jurisdiction and in turn minimizes the impact on the environment.



WASTE WATER TREATMENT INSPECTIONS

Lab Data and Permit Limits for FY2021

Parameter	Date				Permit Limit
	12/17/20	3/30/21	6/23/21	9/23/21	
Dallas Salmon					
CBOD (mg/L)	<2.0	<2.0	<2.0	<2.0	30
TSS (mg/L)	3.0	3.0	3.6	6.2	60
Ammonia (mg/L)	0.7	<0.1	0.3	<0.1	15
<i>Enterococcus</i> (mpn/100 mL)	37	<10	<10	30	104*
SWWRF					
Parameter	12/17/20	3/31/21	6/30/21	9/22/21	Permit Limit
CBOD (mg/L)	<2.0	<2.0	<2.0	<2.0	30
TSS (mg/L)	<1.0	<1.0	<1.0	<1.0	30
Ammonia (mg/L)	<0.1	<0.1	<0.1	<0.1	15
<i>E. coli</i> (mpn/100 mL)	<10	<10	<10	<10	399*

*Daily Max limit

WASTE WATER TREATMENT INSPECTIONS

Southwest Water Reclamation Facility

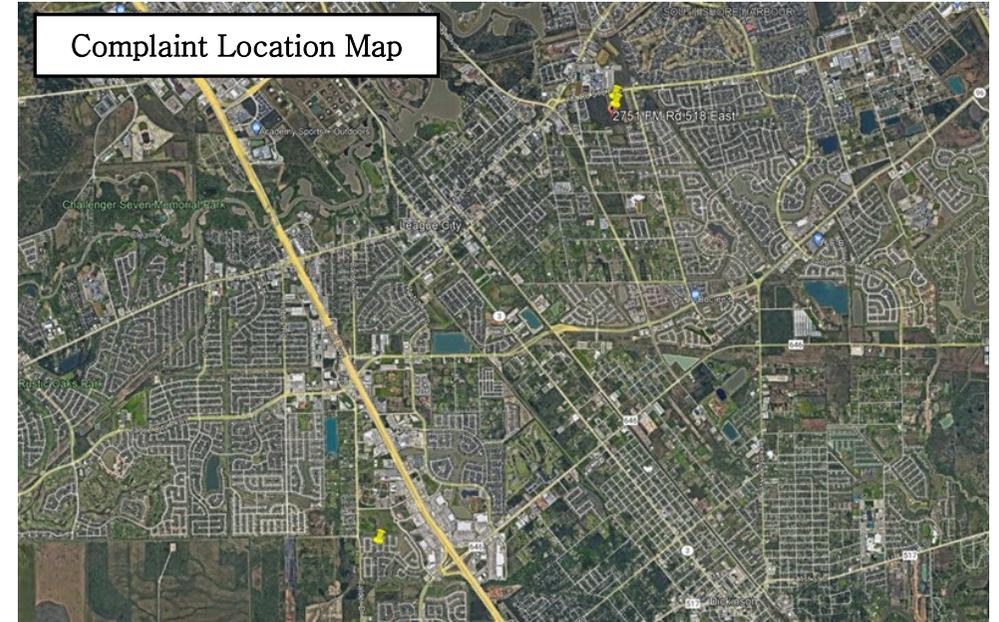
The Southwest Water Reclamation Facility is located at 1220 South Maple Leaf Drive and discharges into Magnolia Creek, and ultimately into Clear Creek. The permitted annual flow for the plant is 4.0 million gallons per day (MGD). The average rates for effluent parameters were as follows: 1.0 mg/L Total Suspended Solids (TSS), 2.0 mg/L for carbonaceous biological oxygen demand (cBOD) and 0.1 mg/L for Ammonia Nitrogen (NH₃). All three values are the minimum reporting value for their respective parameters. Additionally, the average E. coli quantity was less than 10.0 mpn/100 mL, the minimum reporting value for the test method.

The plant has continued smooth operation while slowly building the proportion of League City's wastewater that it receives. Infrastructures, including a large new main that will connect to the plant, are being developed to facilitate expected growth on the west side of League City that the plant directly serves. Staff surmounted the February ice storm without interruption. And the plant made adjustments as necessary to meet the on-going pandemic and maintain operations for the community growing around it.

The plant's TCEQ discharge permit extends until April 2023.



COMPLAINTS



Sewage discharge and uncapped clean out at Harbor Walk Apartments.

Citizens can submit a complaint at www.gchd.org and choosing the environmental online forms button, at 409- 938-2251, or by mail.

WASTE WATER TREATMENT INSPECTIONS

Overview

The Texas Commission on Environmental Quality (TCEQ) administers the Texas Pollutant Discharge Elimination System (TPDES) program in Texas and has federal regulatory authority over discharges of pollutants to Texas' surface water, including those coming from waste water treatment plants (WWTP).



GCHD contracts with the City to provide WWTP inspections in the form of three spot checks and one comprehensive compliance inspection (CCI) to assist in maintaining compliance with their TPDES permit. During these visits the wastewater processing units are observed to verify that everything is operating as it should and to offer advice when appropriate. Additionally, to substantiate proper operation and verify TDPEs permit limits, influent and effluent samples are collected. During the CCI, GCHD staff reviews records maintained at the plant and copies of those submitted to TCEQ as required by the permits.

The City's WWTP staff continually keep the plants in acceptable condition and are knowledgeable about the operations and maintenance of the facilities.



WASTE WATER TREATMENT INSPECTIONS

Dallas Salmon Wastewater Treatment Facility

The Dallas Salmon Wastewater Treatment Facility is located at 703 North Wisconsin Avenue and discharges into Clear Creek. The permitted annual average flow limit for the Dallas Salmon Plant is 12.0 MGD. Average removal rates at the Dallas Salmon facility for the parameters requiring measurement per permit were as follows: 99.0% Ammonia Nitrogen (NH₃) and 98.9% for Carbonaceous Biochemical Oxygen Demand (cBOD). The permit requires that the average removal rates for all parameters be at least 85%. The average Enterococcus quantity was less than 17 mpn/100mL, with only one sample returning above the minimum reporting level.

Administrative staff continue to work out of a modular building installed on-site until permanent facilities are rebuilt. The operations building has been refitted to include a functional lab capable of carrying out all necessary day-to-day lab processes for the plant. Work continues on the remainder of the building to provide greater operational and monitoring capability as well as staff support.

Staff surmounted the challenge of the year's ice storm without a break in operations. And like every utility, the plant has made operational adjustments as necessary to negotiate the on-going pandemic and maintain operations for the benefit of the surrounding community.

The plant's TCEQ discharge permit extends until April 2024.

