

Brazoria County Groundwater Conservation District
Groundwater Management Plan
2019 Annual Report

December 2019

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I. Introduction

In accordance with the Brazoria County Groundwater Conservation District's ("District") Groundwater Management Plan (BCGCD, 2017), the General Manager of the District each year prepares and submits an Annual Report to the District Board of Directors providing an update on the District's performance in achieving the management goals contained in the Groundwater Management Plan. In addition to summarizing efforts to address groundwater management goals, the Annual Report includes a copy of the annual audit of District financial records. The Annual Report is presented to the Board of Directors within ninety (90) days following the completion of the District's Fiscal Year (FY). The District maintains a copy of the Annual Report on file for public inspection at the District offices, upon adoption by the Board of Directors. The following sections summarize the District's performance in achieving the management goals.

II. District Information

The District is located in Brazoria County, Texas, and its boundaries are the same as the area and extent of the county. The District was created in September 2003 by HB 4114 of the 78th Texas Legislature, as recorded in Section 2, Chapter 772, Acts of the 78th Texas Legislature. The District was confirmed by a local election held in Brazoria County on November 8, 2005 with 56.35 percent of the voters in favor of the District. The District derives its authority to manage groundwater within the District by virtue of the powers granted and authorized in the District's enabling act and subsequent amendments. The District exercises the power that it was granted under the authority of the enabling legislation, and with voter approval, and assumes all the rights and responsibilities of a groundwater conservation district specified in Chapter 36 of the Texas Water Code. The District Board of Directors is composed of five members elected to staggered four-year terms. Four directors are elected from county precincts and one director is elected at-large. All meetings of the Board of Directors are public meetings, subject to public notice, and held in accordance with all public meeting requirements.

III. Management Goals

III.a Providing the Most Efficient Use of Groundwater 31 TAC §356.52(a)(1)(A) and TWC §36.1071(a)(1)

A.1 - Permitting System

Objective - Each year, the District will regulate the production of groundwater by maintaining a system of permitting the use and production of groundwater within the boundaries of the District in accordance with District Rules and will require registration or permitting of all new wells within the boundaries of the District.

Performance Standard - The District has registered 438 exempt wells during FY 2019. These registrations apply to wells exempted by District Rules that would otherwise require a permit. Mappable exempt wells are shown in *Exhibit 1* of this document. The District also permitted 116 additional wells during FY 2019. Permitted wells with recorded geographic data are also shown in *Exhibit 1* of this document.

Table 1. Registrations of Exempt Wells in FY 2019

Type of Registration	Registered	Percent
Single-family Residential	408	93.2%
Agricultural	17	3.9%
Industrial / Other*	13	3.0%
TOTALS	438	100.0%

**Includes industrial or other wells exempted from permitting by District Rules, including oil and gas rig supply wells and wells used for monitoring, injection, dewatering, leachate recovery, and other similar exempted purposes.*

Table 2. New Permits Issued in FY 2019

Type of Permit	Applications Received			Permits Issued*	Percent
	Existing Wells	New Wells	Total		
Commercial	50	14	64	64	55.2%
Industrial	7	7	14	14	12.1%
Public Water Systems	9	17	26	26	22.4%
Other	9	3	12	12	10.3%
TOTALS	75	41	116	116	100.0%

**Includes all permits approved as presented or with conditions during FY 2019. New permits are not reported in the BCGCD database until all conditions have been met.*

A.2 - Production Monitoring

Objective - Each year, the District will monitor production from the permitted wells within the boundaries of the District.

Performance Standard – The District requires metering of permitted wells and reporting of metered production to the District. In conjunction with this requirement, since FY 2017 the District has utilized a fee structure based on permitted pumpage to more closely align requested permit volume with actual production.

A.3 - Activity Report

Objective - Each year, the District will receive an update from the District’s inspector or other representative summarizing activities undertaken to promote compliance with the District’s permitting requirements.

Performance Standard – The District’s Field Operations Coordinator continues to actively identify existing, unpermitted wells that should have been permitted and follows through on permitting compliance. The coordinator also performs meter verification inspections to verify the integrity of the meter and readings. During FY 2019, the coordinator identified a number of occurrences of non-compliance with District Rules, including 73 existing non-exempt wells which were unpermitted and an additional 10 permitted wells which were not equipped with a meter. Appropriate steps were taken by the District to bring these wells into compliance with District Rules regarding permitting and metering.

III.b Controlling and Preventing Waste of Groundwater 31 TAC §356.52(a)(1)(B) and TWC §36.1071(a)(2)

B.1 - Rule Review

Objective - Each year, the District will make an evaluation of the District Rules to determine whether any amendments are recommended to decrease the amount of waste of groundwater within the District.

Performance Standard - The District Rules were evaluated, with amendment of the Rules discussed and approved at a public meeting on August 8, 2019. Amendments to the Rules were made to sections regarding definitions, well permit application minimum content requirements, well permit renewals, and meetings of the Board of Directors. The District also discussed and approved amendment of its Administrative Fee Schedule at a public meeting on August 8, 2019.

B.2 - Public Information Regarding Reducing Waste

Objective - Each year, the District will provide information to the public on eliminating and reducing wasteful practices in the use of groundwater by including information on groundwater waste reduction on the District's website.

Performance Standard - The District website provides links to references regarding waste reduction and water conservation, including a brochure detailing indoor waste reduction and water conservation practices as shown in *Appendix A* of this report.

III.c Controlling and Preventing Subsidence 31 TAC §356.52(a)(1)(C) and TWC §36.1071(a)(3)

C.1 - Joint Conference

Objective - Each year, the District may participate in a joint conference with the neighboring Groundwater Conservation or Subsidence Districts focused on sharing information regarding subsidence and the control and prevention of subsidence through the regulation of groundwater.

Performance Standard - During FY 2019, the District continued its participation with surrounding Groundwater Conservation and Subsidence Districts as part of the efforts associated with Groundwater Management Area 14 (GMA 14). Additionally, the General

Manager attended a regular business meeting and a summit meeting of the Texas Alliance of Groundwater Districts on behalf of the District in January and August of 2019.

C.2 - Public Information Regarding Subsidence

Objective - Each year, the District will provide one article on the District's website to educate the public on the subject of subsidence.

Performance Standard - The District website provides links to references on subsidence, including the information shown in *Appendix B* of this report.

C.3 - PAM Monitoring

Objective - Each year, the District will maintain Periodically Active Monitoring (PAM) subsidence monitoring locations within the District boundaries and may pursue installation of additional PAM subsidence monitoring locations.

Performance Standard - The District has partnered with Harris-Galveston Subsidence District (HGSD) to expand the regional subsidence monitoring network. Under an Interlocal Agreement between the District and HGSD, 14 PAM sites have been installed in Brazoria County for the purpose of gathering data on land elevations and subsidence. These PAM sites are in service, expanding upon other subsidence monitoring efforts within the county and anticipated to greatly increase the available information regarding local subsidence. The District anticipates the installation of two additional sites during FY 2020. The locations of the 14 PAM sites installed to date are shown in *Exhibit 2* of this document.

C.4 - Subsidence Evaluation

Objective - At least once every two years, the District will request data from relevant entities on subsidence measurement data or summary information, including information for PAM subsidence monitoring locations within the District boundaries.

Performance Standard - During FY 2019, the District performed an assessment of subsidence data from the local PAM network and other subsidence monitoring locations within Brazoria County. Land surface elevation measurements from the District's PAM network were available from January 2016 to December 2018 for the original seven sites, with approximately 20 measurements per site. Although data for this limited period of record appears to indicate some net subsidence, ranging from an elevation decrease of 2.08 inches to an increase of 0.05 inches, observations fluctuated considerably between measurements. The high variability and short observation period preclude the inference of an average rate of subsidence until more data is available. Data were also available for five other monitoring locations in the county, which are maintained by the U. S. Coast Guard, SmartNet North America, Texas Department of Transportation, and HGSD; these sites have longer periods of record with more frequent measurement intervals. Long-term measurements near Pearland and southwest of Rosharon do indicate a long-term slight downward trend in land surface elevation.

III.d Conjunctive Surface Water Management Issues 31 TAC §356.52(a)(1)(D) and TWC §36.1071(a)(4)

D.1 - Surface Water Coordination

Objective - Each year, the District will participate in the regional planning process by attending, as able, the Region H - Regional Water Planning Group meetings to encourage the development of surface water supplies to meet the needs of water user groups in the District.

Performance Standard – The General Manager of the District was not able to attend the Region H Water Planning Group Meetings during FY 2019. However, the General Manager coordinated with Planning Group representatives to discuss Planning Group activities.

III.e Natural Resource Issues That Affect the Use and Availability of Groundwater or are Affected by the Use of Groundwater 31 TAC §356.52(a)(1)(E) and TWC §36.1071(a)(5)

E.1 - Salt Water and Waste Disposal Wells

Objective - Each year the District will query the Texas Railroad Commission database to determine if any new saltwater or waste disposal injection wells have been permitted by the Texas Railroad Commission to operate within the District.

Performance Standard - The District has received data from the Texas Railroad Commission identifying the location of existing saltwater or waste disposal injection wells within the District. This data is attached in *Appendix C* and is mapped in *Exhibit 3* of this document. Based on the information provided, one permitted oil well and one permitted oil and gas well in Brazoria County were converted to permitted injection wells in FY 2019, and one new permitted injection well has been permitted for injection since the end of FY 2018.

E.2 - Groundwater Quality Evaluation

Objective - Each year, the District will evaluate available data regarding the aquifers of the District and the quality of groundwater within the District.

Performance Standard - Although the District does not currently maintain an independent groundwater quality monitoring network, the District does support and partially fund ongoing research efforts in Brazoria County by the United States Geological Survey (USGS). At the District meeting on December 13, 2018, the Board of Directors approved the Fiscal Year 2019 Joint Funding Agreement with USGS for water resource investigations.

E.3 - Activity Report

Objective - Each year, the District will receive an update from the District's inspector or other representative summarizing activities undertaken to protect groundwater quality.

Performance Standard - The District continues to consider procedures to address open, deteriorated, and/or abandoned wells in Brazoria County. The District's Field Operations Coordinator performs periodic spot inspections of permitted wells to monitor well construction and operating conditions and verifies plugging of replacement wells. The coordinator has verified 47 wells that were plugged when replacements were drilled during FY 2019.

III.f Addressing Drought Conditions
31 TAC §356.52(a)(1)(F) and TWC §36.1071(a)(6)

F.1 - Drought Monitor

Objective - Each month, the District will check for the periodic updates to the Drought Monitor (<http://droughtmonitor.unl.edu/>).

Performance Standard - Conditions in Brazoria County were within the normal rainfall range for most of FY 2019, with the exception of April and May 2019, during which most of the county experienced abnormally dry conditions. The District monitored the status of drought conditions in the District and prepared regular briefings to the Board of Directors. Individual monthly drought maps are presented in *Appendix D*.

III.g Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, or Brush Control Where Appropriate and Cost Effective
31 TAC §356.52(a)(1)(G) and TWC §36.1071(a)(7)

G.1 - Public Information Regarding Water Conservation

Objective - Each year, the District will provide one article or a link to an article on the District's website regarding water conservation.

Performance Standard - The District website provides links to several references on water conservation practices and related topics, including a brochure detailing indoor waste reduction and water conservation practices as shown in *Appendix A* of this report.

G.2 - Public Information Regarding Rainwater Harvesting

Objective - Each year, the District will provide one article or a link to an article on the District's website regarding rainwater harvesting.

Performance Standard - The District website provides a link to the Lone Star Groundwater Conservation District's resource web page, which includes links to several references on rainwater harvesting, including the Texas Water Development Board's Texas Manual on Rainwater Harvesting and other summaries of common rainwater harvesting practices and ongoing efforts in Texas. One such link is directed to the American Rainwater Catchment Systems Association (ARCSA), which provides educational videos, regulatory information, and other resources.

III.h Addressing in a Quantitative Manner the Desired Future Condition of the Groundwater Resources 31 TAC §356.52(a)(1)(H) and TWC §36.1071(a)(8)

H.1 - Strategic Initiatives

Objective - In order to facilitate District operations and achievement of management goals, the District may undertake strategic initiatives such as evaluation of historic use, establishment of permit limits, model evaluations, or other studies or programs.

Performance Standard – During FY 2019, the District performed an evaluation of subsidence and water level change relative to projected results consistent with Desired Future Condition (DFC) achievement within Brazoria County, as described in sections **C.4 - Subsidence Evaluation** and **H.2 - Water Level Evaluation** of this report. The District is considering additional water level and subsidence studies for FY 2020 and beyond.

H.2 - Water Level Evaluation

Objective - At least once every two years, the District will examine water level data for the Chicot Aquifer and Evangeline Aquifer from the USGS monitoring well network, the TWDB groundwater database, or other data sources.

Performance Standard - During FY 2019, the District performed an evaluation of water levels and water level change relative to projected results consistent with Desired Future Condition (DFC) achievement within Brazoria County. Water level changes from 2009 to 2019 were compared with changes projected by the Groundwater Availability Model (GAM) that was used to produce long-term drawdowns consistent with the DFCs set by GMA 14 as part of the Joint Planning Process. Based on the available water level data, the analysis of observed water level changes and modeled values suggests that aquifer response in Brazoria County since year 2009 is consistent with achievement of the DFCs. The limited data availability in the Evangeline aquifer within the boundaries of the District indicates potential benefit could be obtained from additional monitoring well locations in that formation. The District evaluation also identified specific locations with higher rates of drawdown which may warrant more frequent examination in future analyses.

H.3 - Rule Review

Objective - At least once every two years, the District will make an evaluation of the District Rules to determine whether any amendments are recommended to support achievement of the DFCs adopted by the District.

Performance Standard - The District Rules were evaluated and amended during FY 2019, but no amendments were recommended related to achievement of DFCs adopted by the District. The District will re-evaluate District Rules during FY 2021 to determine whether any new amendments are recommended to support achievement of the DFCs adopted by the District.

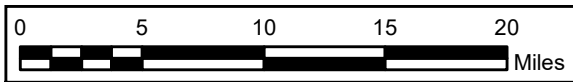
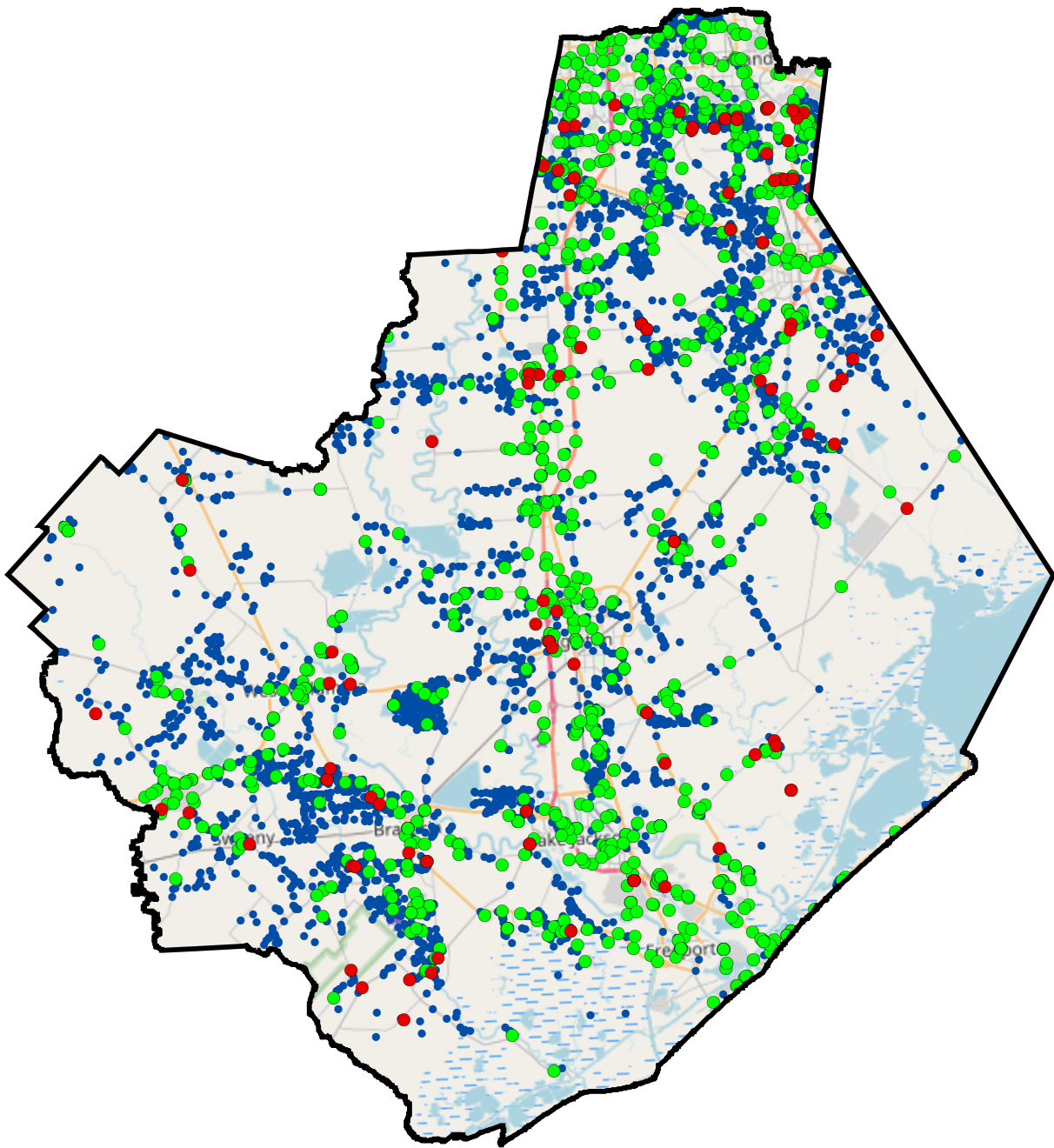
IV. Annual Audit of District Financial Records

A copy of the FY 2018 annual audit of the District financial records is included as *Appendix E* of this report. The FY 2019 audit will be completed in early 2020 and will be included in the next Annual Report for the District.

Exhibits

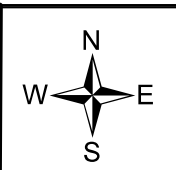
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- Existing Permit
- New Permit
- Registration



Based on BCGCD Database as of October 16, 2019

Freese and Nichols
 10497 Town and Country Way Suite 500
 Houston, Texas 77024
 713-600-6800



**BRAZORIA COUNTY GROUNDWATER
 CONSERVATION DISTRICT**

**FY 2019 Permit Wells and
 Documented Exempt Wells**

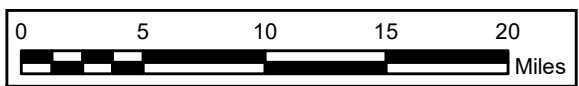
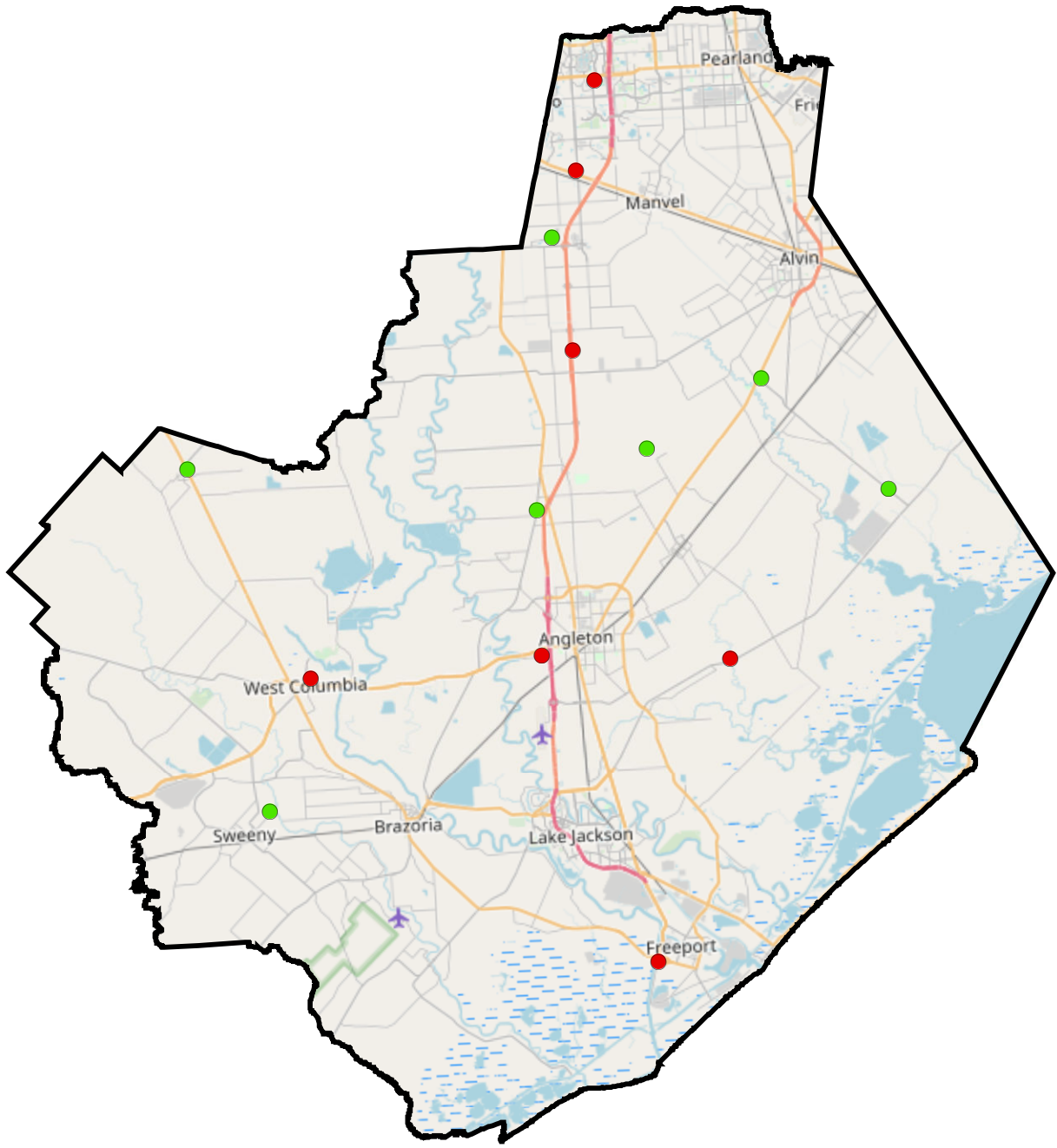
FN JOB NO	BZG19227
FILE	Ex1_DistWell.mxd
DATE	December 2019
SCALE	1:500,000
DESIGNED	02735
DRAFTED	02735

1

Exhibit

**PAM Sites
(Date Installed)**

- 2019
- 2016



2016 Installations - data from Harris-Galveston Subsidence District
 2019 Installations - approximate locations from BCGCD Map

Freese and Nichols
 10497 Town and Country Way Suite 500
 Houston, Texas 77024
 713-600-6800



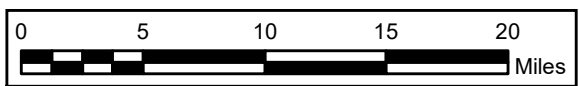
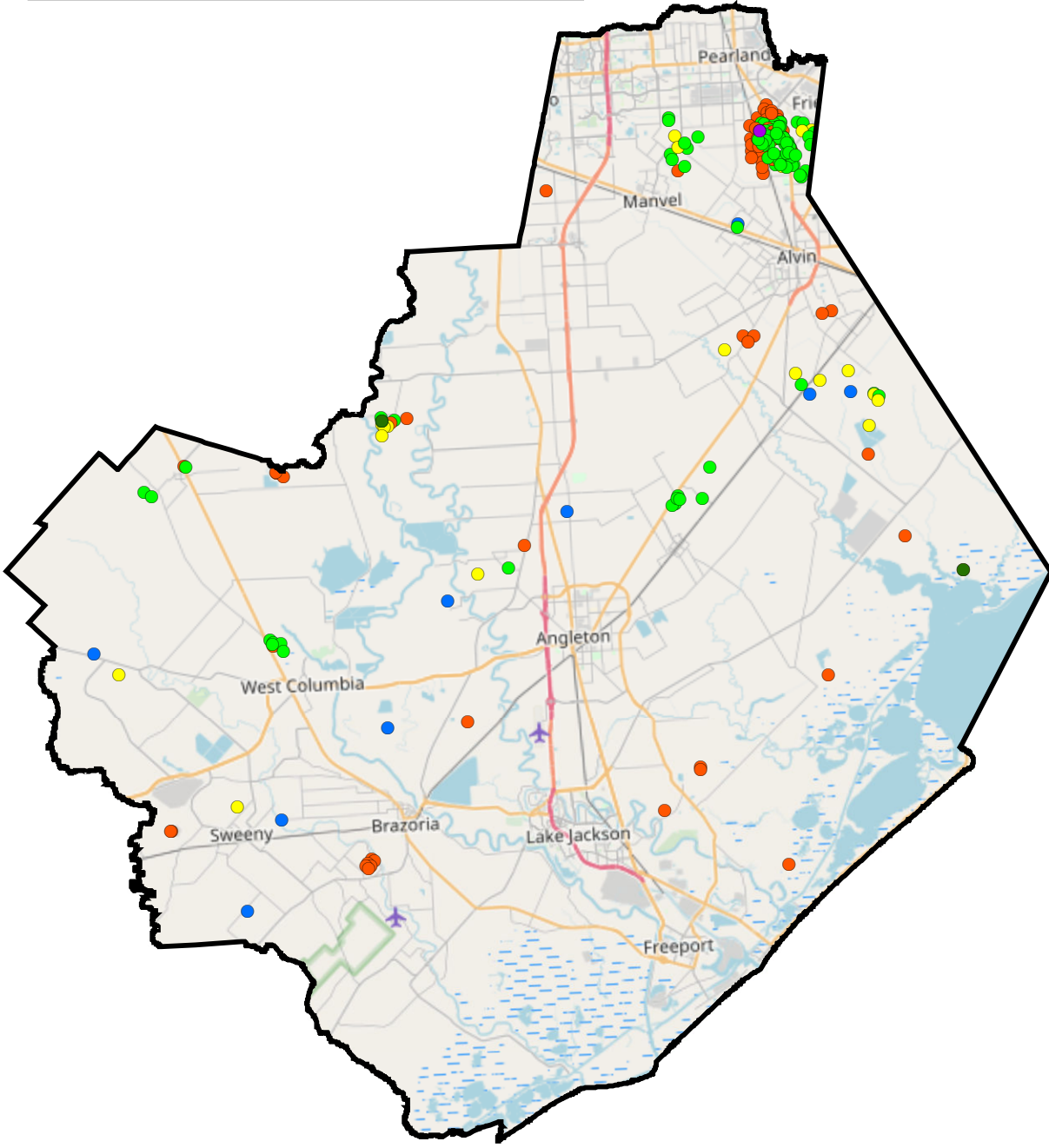
**BRAZORIA COUNTY GROUNDWATER
 CONSERVATION DISTRICT**

**Periodically Active Monitoring (PAM)
 Subsidence Monitoring Locations**

FN JOB NO	BZG19227
FILE	Ex2_PAM.mxd
DATE	December 2019
SCALE	1:500,000
DESIGNED	02735
DRAFTED	02735

2
Exhibit

- Reclassified as Injection Well since Oct. 2018
- New Injection Well
- Injection/Disposal From Gas
- Injection/Disposal From Oil
- Injection/Disposal From Oil/Gas
- Injection/Disposal Well



Injection Wells - Bottom Well Locations
 Texas Railroad Commission Data
 Accessed October 2019
 Two (2) wells reclassified as injection wells since October 2018
 One (1) new injection well since October 2018

Freese and Nichols
 10497 Town and Country Way Suite 500
 Houston, Texas 77024
 713-600-6800



**BRAZORIA COUNTY GROUNDWATER
 CONSERVATION DISTRICT**

Injection Wells

FN JOB NO	BZG19227
FILE	Ex3_Inject.mxd
DATE	December 2019
SCALE	1:500,000
DESIGNED	02735
DRAFTED	02735

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Appendix A
Public Information Provided by the District
Regarding Reducing Waste

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CONSERVING WATER INDOORS



YOU CAN EASILY SAVE WATER at home and at work through simple practices such as installing water-efficient fixtures and locating and eliminating leaks.

Water use in Texas averages 169 gallons per person per day. By adopting water-saving measures, you can reduce that amount and save money. Making a habit of conservation makes sense. It protects the water resources of both current and future Texans.

PRACTICE GOOD WATER-USE HABITS

Kitchen

- Dry scrape dishes instead of rinsing them, and do not pre-rinse dishes if you are using the dishwasher.
- Run the dishwasher with a full load to save water, energy, detergent, and money.
- If your machine has a “quick wash” or “light duty” cycle setting, use it!
- Fill a basin or the sink with soapy water instead of letting the water run continuously when washing dishes by hand. Soak pans rather than scrubbing them while the water is running.
- Rinse produce in a pan of cold water instead of letting the water run.
- Transfer frozen foods to the refrigerator to defrost the night before you need them instead of letting water run over them.
- Keep a container of water in the refrigerator rather than running tap water until it is cool enough to drink.
- Limit the use of garbage disposals and consider composting.

Laundry room

- Wash only full loads.
- Match the load setting with the amount of laundry to be washed if you must wash partial loads.
- Use the shortest wash cycle for lightly soiled loads as it uses less water than other cycles.

Bathroom

- Use only as much water as you really need, and turn the water off when you aren't using it.
- Never use your toilet to dispose of trash.
- Run water just to wet and rinse the toothbrush instead of allowing the water to run while brushing your teeth. Apply the same idea when washing your hands.
- Take a short shower instead of a bath.
- Turn off the water while you are shampooing your hair.
- Find out what a “greywater system” can do and if it is right for your situation.




**Texas Water
Development Board**

www.twdb.texas.gov

P.O. Box 13231
Austin, Texas 78711-3231

WATER IQ
Know your water.
www.wateriq.org

Visit the following website for additional information.

www.epa.gov/watersense

rev. 08/14

INSTALL WATER-EFFICIENT APPLIANCES AND FIXTURES

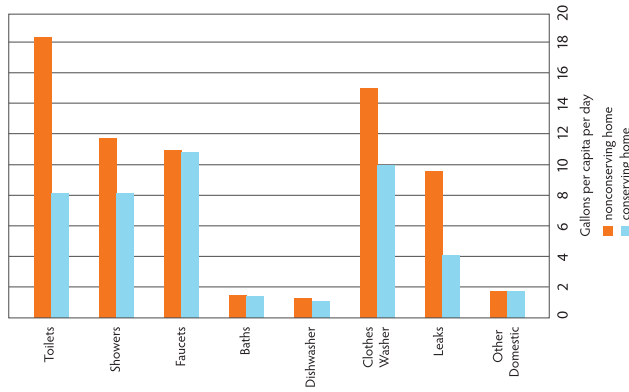
Toilets: Toilets are by far the main source of water use in the home, accounting for approximately 30 percent of indoor water use. They also happen to be a major source of leaks and/or inefficiency. Under state and federal law, toilets must not exceed 1.28 gallons per flush.

- Over the course of your lifetime, you will likely flush the toilet nearly 140,000 times. If you install a high-efficiency toilet, you can save 4,000 gallons per year.
- Many local utilities offer rebates to replace old toilets.
- A leaky toilet can waste 200 gallons of water per day, and it is estimated that nearly 20 percent of all toilets leak.
- Test toilets for leaks. Once in a while, take the top off your toilet tank and watch it flush. Do you notice any leaks? Yes? Replace the flapper or rubber washer. Don't forget about those less obvious leaks. Add a few drops of food coloring or a dye tablet to the water in the tank, but do not flush the toilet. If the coloring appears in the bowl within a few minutes, the toilet has a leak that needs to be repaired.
- Check toilet parts regularly. Replace worn parts with good quality parts as necessary, and retest to make sure the leak has been fixed.

Showers: Installing a water-efficient showerhead is one of the single most effective water-saving steps you can take inside your home.

Take shorter showers. A full bathtub can require up to 70 gallons of water versus a 5-minute shower that uses as little as 10 gallons.

Average indoor water use in conserving versus nonconserving single-family homes in North America



The average indoor use in a conserving North American single-family home is 45.2 gallons per capita per day, and in a nonconserving home it is 69.3 gallons per capita per day.

Source: *Handbook of Water Use and Conservation*, 2001.

DON'T WAIT TO FIX LEAKS!

Leaks waste both water and energy and could account for 10 percent or more of your water bill.

Use your water meter to check for invisible leaks.

- Turn off all faucets and any water-using appliances.
- Read the dial on the water meter and record the numbers. (It is often located along the property line near the street.)
- Recheck the meter after 15 to 20 minutes.

If the numbers on the meter changed while no water was used, you have a leak! The services of a plumber or trained water utility employee are often required to locate and fix these invisible leaks.

Sinks: Install faucet aerators on sinks for a simple, cost-effective way to save water. Aerators are inexpensive and do not require special adapters. The faucet's efficiency can double without sacrificing performance.

Faucet leaks are usually caused by worn washers or "O" rings (for a washerless faucet). Note the faucet brand, and take the original part with you to a home improvement center for an easy and inexpensive solution.

Washing Machines: When buying a washer, look for a high-efficiency model that has adjustable water levels for different load sizes. High-efficiency washers use 35 to 55 percent less water and 50 percent less energy. They also require less detergent, rinse more thoroughly, are less abrasive on clothes, and can fit larger capacity loads in the same size drum.

Dishwashers: High-efficiency dishwashers use a maximum of 7 gallons per load, but some use as little as 2.1 gallons. Replacing an older model with a water-efficient model could cut dishwasher water use in half. Look for energy efficiency features to cut costs even more.



Appendix B
Public Information Provided by the District
Regarding Subsidence

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[Harris Galveston Subsidence District](#)

Search for:

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- [WATER CONSERVATION](#)
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- [LINKS](#)

Navigation

Measurement FAQ's

▢ Why do we measure subsidence?

In the simplest terms, it keeps us from “flying blind”. Groundwater can be a significant freshwater source, but it is increasingly important that we use it wisely. The harmful effects of pumping too much groundwater must be minimized, and measuring subsidence plays a key role in this. The more data we have, and the more accurate that data is, the easier it is for us to maintain a necessary balance.

Measurements not only provide us with data on changes in land elevation, but they also provide us with the data necessary to calibrate models. Why is this important? It allows us to “see” into the future. Through these sophisticated groundwater and subsidence models, we can predict the results of future groundwater pumpage. This means we can plan ahead...developing groundwater regulations that will prevent foreseeable subsidence.

▢ How do we measure subsidence?

The need for data and the distribution of that data is key. As early as 1906, surveys were conducted throughout the Houston area to establish permanent benchmarks (some of which are still used today). Over the years, subsidence measurement methods have evolved from manual site measurement of benchmarks to satellite-based technology, and for the Subsidence Districts, the goal has always been the same: to monitor the effects of groundwater withdrawal within our area(s), and to take appropriate actions based on those measurements.

All land measurement systems have been developed and controlled by the National Geodetic Survey (part of the National Oceanic and Atmospheric Administration – NOAA). From the creation of the HGSD and FBSD to present-day, the NGS has been an integral partner... serving as counselor, setting standards, studying and housing data, and much more.

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Conventional Measurement Method



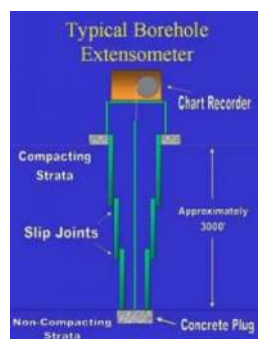
Also called “geodetic differential leveling”, this initial form of measurement originally consisted of the establishment of permanent benchmarks. Included in these benchmarks were precise elevations, latitudes and longitudes for each point.

As the land surface began to subside due to groundwater withdrawal, the need to relevel benchmarks became necessary. Over the years, new benchmarks were added (for a total of more than 2,500) and “relevelings” were conducted in 1978, and again in 1987. And although this measurement method provided excellent spatial subsidence data, the cost of the releveling procedure for a single epoch prohibited us from accessing up-to-date data at a rate necessary to sufficiently monitor the sometimes monthly, weekly, or even daily effects of

subsidence. It was time to take advantage of new technologies that could provide us with the same accuracy, yet allow us to constantly monitor subsidence in a cost-effective way. In 1987, in conjunction with the conventional releveling, an experimental GPS releveling was initiated.

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Borehole Extensometers



The first of thirteen (13) deep borehole extensometers (designed and installed by the United States Geological Survey – USGS – in the early 1960s) were used in preparation for the soon-to-be-built manned spacecraft center. Of the thirteen in operation today, six (6) of those are “subsidence” or “total depth” monitors (meaning their bottom is below the aquifers from which we draw water), and the other seven (7) are less than total depth, or “compaction” monitors.

What are they and how do they work? Borehole extensometers are deeply anchored benchmarks. To construct each, a hole is drilled to a depth at which the strata are stable. The hole is then lined with a steel casing with slip-joints to prevent crumpling as subsidence occurs. An inner pipe rests on a concrete plug at the bottom of the borehole and extends to the top. This inner pipe then transfers the stable elevation below to the surface. A measurement of the distance from the inner pipe to the surrounding land surface provides us with the amount of compaction that has occurred.

Although the accuracy of this measurement method is impressive, there is one drawback. The high cost to construct and install the equipment prohibits their use in sufficient numbers, resulting in a lack of adequate information for the entire Harris-Galveston and Fort Bend areas. And, as was stated in the overview, the sufficient amount of and wide distribution of data is extremely important. Over time, as technologies have evolved, we have moved toward more cost-efficient and equally accurate forms of measurement...but borehole extensometers are playing an important role in this new era. Three of our existing extensometers have been outfitted with GPS (Global Positioning System) antennas, and are now the only stable GPS points within the greater Houston area.

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GPS – Using Technology from the World Above To Monitor the Land Below

From feeds to our television sets to national security, the use of satellites has become almost commonplace, and our world of subsidence measurement is no different. In fact, we began working with GPS technology as far back as 1987, and the class-A benchmarks established for that very GPS releveling have proven to be the most valuable benchmarks in the Houston area.



So what do we gain from using GPS, and how does it differ from previous measurement methods? One of the most important advantages to GPS is the ability to have constant data. Using dual-frequency, full-wavelength GPS instruments (with geodetic antennas), data is collected at 30-second intervals and averaged over 24 hours. That means that specific stations being monitored can be assessed on a daily basis. And just as important, the measurements are more reliable and handled at a fraction of the cost. Improved GPS techniques and processing have reduced the cost of releveling from millions of dollars to less than \$100,000, and the data provided is accurate to + or – one centimeter. Now that's progress!

Where are GPS measurements taken? GPS measurements are taken using a system of CORS and PAM's. Sounds complicated, but it's really quite simple. Because of the broad extent of subsidence in the Houston-Galveston area, there were no stable benchmarks. Therefore, stable borehole extensometers were equipped with GPS antennas to provide a reference frame to measure subsidence at other stations

throughout the area. These permanent stations are known as local GPS Continuously Operating Reference Stations, or CORS. In the mid 1990s, the District and NGS began developing the use of GPS Port-A-Measure, or PAM's., to provide subsidence measurements.

Seven, portable trailers were built to house and secure GPS receivers and associated equipment (batteries, recording equipment and solar panels). The trailers are moved weekly to different PAM stations where they record Phase data every 30 seconds, allowing for a week's worth of observations on each PAM, every month. The District also operates four (4) permanent CORS, which provide Phase data continuously, providing a basis from which change comparisons may be made and analyzed.

In addition to the points operated by the District, there are a number of additional CORS and Cooperative CORS which can also be used for monitoring purposes. They include:

- Eight (8) CORS operated by TXDOT
- Seven (7) CORS operated by the City of Houston
- A CORS in Angleton operated by the U.S. Coast Guard
- A WAAS (Wide Area Augmentation System) CORS in Houston operated by the FAA
- Six (6) other Cooperative CORS throughout the area

All additional CORS are relatively new and will require several months before they can be reliably used for monitoring.

Historical comparisons between the existing CORS and PAM's. have indicated that some sites are subsiding at rates of seven (7) centimeters per year. This correlates well with rates observed at the Extensometers.

The District plans to double the number of PAM's. from twenty-eight (28) to fifty-six (56), and this will be accomplished without an increase in personnel, equipment and overhead costs. Improvements in GPS equipment have recently eliminated the need for the seven trailers, and they will be phased out in the near future. The expansion of the monitoring network will not only permit a more comprehensive view of what is occurring in Houston and the surrounding areas, but will also serve as a future model for other localities facing similar problems.

With the equipment and technologies available, we're confident we can continue to accomplish our goal of curtailing, and eventually eliminating subsidence.

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Measuring Subsidence in the Future

The Evolution of GPS

In the GPS arena, a new Civil Frequency (L5) is in the planning stages for future satellites. Although not scheduled to be deployed for five years, this advancement will greatly increase the accuracy of GPS and decrease the time required for high-accuracy applications. High-accuracy positioning on moving platforms (auto, plane, boat) will be possible in real time, without the need to post process data through a computer to obtain solutions.

Also, the former Soviet Union and European Space Agencies will launch their own Global Satellite Navigation Systems which can be integrated with our current GPS system. As the number of space vehicles (satellites) increase, so to will the accuracies that can be obtained.

Evolving Technologies

LIDAR (Light Detection and Ranging) and INSAR (Interferometric Synthetic Aperture Radar): these and other interferometric imaging techniques will play a major role in future subsidence detection and tracking as sensors and science improve.

Pulsars and Quasars and Stars

In the not-so-distant future, as technology is developed to efficiently and affordably manufacture powerful semiconductors, GPS will likely be replaced by a system which will use stars, Pulsars, Quasars and more as a signal source. This futuristic navigation system will be more precise than GPS and will be available on a galactic scale!

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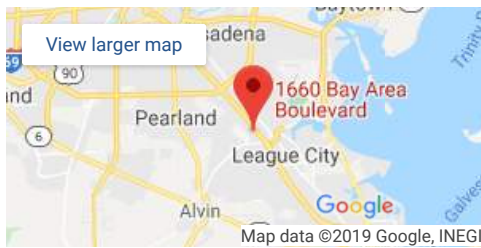
Contact HGSD

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Office Hours

Monday – Friday
8:00 AM – 5:00 PM
Closed on State Holidays.

Google Map to HGSD



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Appendix C
Permitted Injection Wells
Texas Railroad Commission

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Brazoria County Injection Wells

Railroad Commission of Texas Data

API Number ^{1,2}	Well Type	Reliability of Position ³	Longitude (DD) ⁴	Latitude (DD) ⁴
4203931312D1	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24700302	29.49361755
4203931366	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24983114	29.50141063
4203900708	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24536293	29.49267397
4203901107	Injection/Disposal From Oil	Operator Reported Location	-95.25779545	29.48779018
4203900554	Injection/Disposal From Oil	Operator Reported Location	-95.24835781	29.50265978
4203933086D1	Injection/Disposal Well	Coordinates from Operator	-95.2703709	29.52086644
4203932203D1	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24552506	29.49861283
4203931441	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24846081	29.49058902
4203902195	Injection/Disposal Well	RRC Hardcopy Map	-95.7313505	29.2967353
4203930035	Injection/Disposal Well	RRC Hardcopy Map	-95.6592338	29.2897567
4203901981	Injection/Disposal Well	RRC Hardcopy Map	-95.653868	29.2870571
4203901955	Injection/Disposal Well	RRC Hardcopy Map	-95.6600207	29.2902642
4203932127	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.76384631	29.28023794
4203902686	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.75804281	29.27733156
4203981496	Injection/Disposal Well	RRC Hardcopy Map	-95.3349127	29.4861255
4203933154D1	Injection/Disposal Well	Operator Reported Location	-95.26768606	29.48235529
4203930652	Injection/Disposal From Gas	RRC Hardcopy Map	-95.2893356	29.4484659
4203932869	Injection/Disposal Well	Operator Reported Location	-95.21905531	29.3859538
4203930173	Injection/Disposal Well	RRC Hardcopy Map	-95.2263555	29.3842676
4203901133	Injection/Disposal From Oil	Operator Reported Location	-95.27096797	29.49905484
4203933168D1	Injection/Disposal Well	Operator Reported Location	-95.26416409	29.4985942
4203933099D1	Injection/Disposal Well	Operator Reported Location	-95.27122934	29.49771167
4203933117D1	Injection/Disposal Well	Operator Reported Location	-95.27633737	29.49785596
4203933045	Injection/Disposal Well	Operator Reported Location	-95.43892064	29.47609366
4203933169D1	Injection/Disposal Well	Coordinates from Operator	-95.26772204	29.49529897
4203931570	Injection/Disposal From Oil	RRC Hardcopy Map	-95.3398698	29.4978223
4203931215	Injection/Disposal From Oil	RRC Hardcopy Map	-95.3387151	29.4945219
4203901092D1	Injection/Disposal Well	Operator Reported Location	-95.25974956	29.49138505
4203900717	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2432002	29.4871736
4203933156D1	Injection/Disposal Well	Operator Reported Location	-95.26811418	29.49028388
4203931433	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2444796	29.4864685
4203931440D1	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2342504	29.4824472
4203901115	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.2528314	29.4861855
4203933153D1	Injection/Disposal Well	Operator Reported Location	-95.26804571	29.48600729
4203932244D1	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2380997	29.4786538
4203932478D1	Injection/Disposal Well	Coordinates from Operator	-95.1951547	29.2863615
4203980571	Injection/Disposal From Oil	RRC Hardcopy Map	-95.347557	29.2574813
4203932330	Injection/Disposal From Oil	Operator Reported Location	-95.3504144	29.2567212
42039	Injection/Disposal Well	RRC Hardcopy Map	-95.2890065	29.3708507
4203932180	Injection/Disposal Well	RRC Hardcopy Map	-95.2804982	29.3703687
4203930082	Injection/Disposal Well	RRC Hardcopy Map	-95.2852445	29.3668803
4203931552	Injection/Disposal From Oil/Gas	Operator Reported Distances	-95.3038566	29.3623352
4203931646	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.2079679	29.3444178
4203900886	Injection/Disposal From Oil/Gas	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.24898923	29.34423115
4203932662D1	Injection/Disposal From Oil	Coordinates from Operator	-95.3196328	29.2816298
4203932130	Injection/Disposal From Gas	Operator Reported Location	-95.4328403	29.2554095
4203900898	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.2301182	29.3381639
4203900892	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.24462471	29.33589373
4203901871	Injection/Disposal From Oil	RRC Hardcopy Map	-95.5757092	29.3250076
4203932654	Injection/Disposal Well	Operator Reported Location	-95.5553287	29.3236218
4203932903	Injection/Disposal From Oil	Operator Reported Location	-95.56549488	29.32273513
4203932517	Injection/Disposal From Gas	Operator Reported Location	-95.2061795	29.3298453
4203900929	Injection/Disposal From Oil	RRC Hardcopy Map	-95.1884126	29.327911
4203932424	Injection/Disposal From Gas	Operator Reported Location	-95.2388435	29.3293109
4203932727	Injection/Disposal Well	Operator Reported Location	-95.56822278	29.32130001
4203901874	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.57525196	29.32038967
4203901879	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.5705903	29.3187518
4203901878	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.5732504	29.3186545
4203900933	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.1880637	29.326776
4203901006	Injection/Disposal From Oil	RRC Hardcopy Map	-95.1845434	29.3252738

Brazoria County Injection Wells

Railroad Commission of Texas Data

4203931967	Injection/Disposal From Oil	RRC Hardcopy Map	-95.34525832	29.26341188
4203901887	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.57547007	29.31202818
4203901002	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.1850972	29.3229321
4203901734	Injection/Disposal From Oil	Operator Reported Location	-95.3464299	29.2611093
4203932834	Injection/Disposal From Oil	Operator Reported Location	-95.32627361	29.26013035
4203901656	Injection/Disposal From Oil	RRC Hardcopy Map	-95.34406488	29.26015506
4203931319D1	Injection/Disposal Well	Operator Reported Location	-95.25535435	29.50565524
4203931319DW	Injection/Disposal From Oil	Operator Reported Location	-95.25543928	29.50564905
4203900374	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2628005	29.5058812
4203933128D1	Injection/Disposal Well	Operator Reported Location	-95.27665745	29.50629927
42039	Injection/Disposal Well	RRC Hardcopy Map	-95.2631826	29.5288984
4203933060	Injection/Disposal Well	Operator Reported Location	-95.26029029	29.50463497
4203900430	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.26674609	29.50469441
4203900257	Injection/Disposal Well	RRC Hardcopy Map	-95.2652243	29.52646
4203933273H1	Injection/Disposal Well	Operator Reported Location	-95.26281364	29.5236574
4203933066	Injection/Disposal Well	Operator Reported Location	-95.26635487	29.50326683
4203900448	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2686333	29.5032902
4203933067	Injection/Disposal Well	Operator Reported Location	-95.26498866	29.50282265
4203933091D1	Injection/Disposal Well	Coordinates from Operator	-95.25502981	29.52157587
42039	Injection/Disposal From Oil	RRC Hardcopy Map	-95.3403104	29.5231763
4203930695D1	Injection/Disposal From Oil	Operator Reported Location	-95.2624768	29.50150962
4203933129D1	Injection/Disposal Well	Operator Reported Location	-95.2761806	29.5019212
4203900534	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2393681	29.5168873
4203900321	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2557587	29.5191332
4203933095D1	Injection/Disposal Well	Operator Reported Location	-95.25443575	29.51890545
4203933079D1	Injection/Disposal Well	Coordinates from Operator	-95.26355404	29.51906297
4203981801	Injection/Disposal From Oil	RRC Hardcopy Map	-95.3403022	29.521771
4203900450	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2667498	29.5010886
4203933097D1	Injection/Disposal Well	Operator Reported Location	-95.27041219	29.5006044
4203900513	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2347894	29.5156931
4203933144D1	Injection/Disposal Well	Coordinates from Operator	-95.25823007	29.51764739
4203900323	Injection/Disposal From Oil	Coordinates from Operator	-95.25230143	29.51726913
4203930614	Injection/Disposal From Oil	WELLBORE Distances	-95.2597494	29.51750455
4203900319D1	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2523387	29.5168315
4203900216	Injection/Disposal From Oil	RRC Hardcopy Map	-95.326858	29.5012348
4203900623	Injection/Disposal From Oil/Gas	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.22869358	29.51067622
4203900273	Injection/Disposal From Oil	Operator Reported Location	-95.26721685	29.51662528
42039	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.2356036	29.5101042
4203900624	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.22635592	29.50874565
4203933081D1	Injection/Disposal From Oil	Coordinates from Operator	-95.26561004	29.51565897
4203900328	Injection/Disposal From Oil	Operator Reported Location	-95.25673148	29.51532575
4203900631	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.23040842	29.50574688
4203933192D1	Injection/Disposal Well	Operator Reported Location	-95.2769903	29.51492538
4203900342	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2545352	29.5137
4203900343	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2589358	29.5134183
4203933059D1	Injection/Disposal Well	Operator Reported Location	-95.25291129	29.51270939
4203933087D1	Injection/Disposal Well	Operator Reported Location	-95.27196065	29.51325372
4203930721DW	Injection/Disposal Well	Operator Reported Location	-95.26257316	29.51277279
4203900594	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.24707976	29.50325081
4203900348	Injection/Disposal From Oil	Operator Reported Location	-95.26057792	29.51141067
4203900426	Injection/Disposal From Oil	RRC Hardcopy Map	-95.266877	29.5115636
4203931261	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2297224	29.5002519
4203900425	Injection/Disposal From Oil	Operator Reported Location	-95.2647082	29.51130886
4203933195H1	Injection/Disposal Well	Operator Reported Location	-95.25086316	29.51064859
4203933024	Injection/Disposal Well	Coordinates from Operator	-95.2584806	29.5104108
4203900364	Injection/Disposal From Oil	Operator Reported Location	-95.25454996	29.50998376
4203900427	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2669022	29.5098848
4203933197D1	Injection/Disposal Well	Operator Reported Location	-95.25647894	29.50884619
4203900423	Injection/Disposal From Oil	Operator Reported Location	-95.26485801	29.50892049
4203900387	Injection/Disposal From Oil	Operator Reported Location	-95.25250217	29.50820225
4203900385	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2544998	29.5081796

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4203933112D1	Injection/Disposal Well	Operator Reported Location	-95.25211975	29.5074734
4203900376	Injection/Disposal From Oil	Coordinates from Operator	-95.26295004	29.50782997
4203933040D1	Injection/Disposal Well	Operator Reported Location	-95.25316247	29.50735925
4203933114D1	Injection/Disposal From Oil	Operator Reported Location	-95.25073997	29.50674314
4203932364	Injection/Disposal From Oil	WELLBORE Distances	-95.31758439	29.50919225
4203900392	Injection/Disposal From Oil	Operator Reported Location	-95.25056287	29.50638286
4203900369	Injection/Disposal From Oil	Operator Reported Location	-95.25445216	29.50630953
4203905126	Injection/Disposal Well	RRC Hardcopy Map	-95.66740905	29.17051046
4203930575	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.5048724	29.2150897
4203932775	Injection/Disposal Well	Coordinates from Operator	-95.23382179	29.13576387
4203930592	Injection/Disposal From Gas	RRC Hardcopy Map	-95.5294069	29.1973634
4203932406D1	Injection/Disposal Well	Operator Reported Location	-95.46718747	29.23313612
4203930781	Injection/Disposal From Gas	RRC Hardcopy Map	-95.8076892	29.1704891
4203904150	Injection/Disposal From Oil	RRC Hardcopy Map	-95.4806161	29.2180976
4203930807	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.7889638	29.1553091
4203902948	Injection/Disposal From Oil	RRC Hardcopy Map	-95.66932421	29.17542006
4203932984	Injection/Disposal Well	Operator Reported Location	-95.16900848	29.22898952
4203930439	Injection/Disposal From Oil	RRC Hardcopy Map	-95.66726137	29.17359092
4203930490	Injection/Disposal From Oil	RRC Hardcopy Map	-95.66131962	29.1726877
4203932993	Injection/Disposal Well	Coordinates from Operator	-95.36640592	29.04724002
4203932529	Injection/Disposal Well	Operator Reported Location	-95.2710548	29.0067932
4203932731	Injection/Disposal Well	Coordinates from Operator	-95.51706393	29.11399441
4203932854D1	Injection/Disposal From Gas	Operator Reported Location	-95.5802762	29.11170757
4203933233	Injection/Disposal Well	Coordinates from Operator	-95.59652294	29.02215493
4203933247	Injection/Disposal Well	Operator Reported Location	-95.59499244	29.02056481
4203933232	Injection/Disposal Well	Coordinates from Operator	-95.59990927	29.01888496
4203933230	Injection/Disposal Well	Coordinates from Operator	-95.59781671	29.01732363
4203933231	Injection/Disposal Well	Coordinates from Operator	-95.60170112	29.01723293
4203933229	Injection/Disposal Well	Coordinates from Operator	-95.59971515	29.01557254
4203930414	Injection/Disposal Well	Operator Reported Distances	-95.3367336	29.0762196
4203930667	Injection/Disposal Well	RRC Hardcopy Map	-95.3370993	29.0742426
4203980805	Injection/Disposal Well	RRC Hardcopy Map	-95.7526813	29.0464384
4203931250	Injection/Disposal Well	RRC Hardcopy Map	-95.7530916	29.0460438
4203903949	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.7000177	29.061812
4203980070	Injection/Disposal From Gas	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.6660385	29.0513574
4203931166	Injection/Disposal From Gas	Operator Reported Location	-95.6957743	28.9898268
4203900672	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24949329	29.48977328
4203932971	Injection/Disposal From Oil	Operator Reported Location	-95.24417312	29.49562195
4203932507	Injection/Disposal From Oil	Operator Reported Location	-95.65974117	29.16720223
4203933084D1	Injection/Disposal Well	Operator Reported Location	-95.27155569	29.50657776
4203933193D1	Injection/Disposal From Oil	Operator Reported Location	-95.24639972	29.50037933
4203901084	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2533188	29.4931098
4203931535	Injection/Disposal From Oil	RRC Hardcopy Map	-95.25487498	29.49106196
4203900162	Injection/Disposal From Oil/Gas	RRC Hardcopy Map	-95.33592934	29.51048094
4203933292D1	Injection/Disposal Well	Operator Reported Location	-95.24489238	29.49637764
4203933194D1	Injection/Disposal Well	Coordinates from Operator	-95.259283	29.524749
4203900435DW	Injection/Disposal From Oil	Coordinates from Operator	-95.26908141	29.5112772
4203933093D1	Injection/Disposal Well	Coordinates from Operator	-95.2592006	29.52296616
4203902194	Injection/Disposal From Oil	USGS 7.5 Minute Quadrangle or Aerial Photograph	-95.73059276	29.29650977
4203932972	Injection/Disposal From Oil	Operator Reported Location	-95.24596373	29.49913799
4203900709	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24515703	29.49268991
4203931277	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2488892	29.49531428
4203900556	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24859098	29.50265985
4203932533	Injection/Disposal From Oil	Operator Reported Location	-95.29029124	29.44623118
4203900789	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24941979	29.48524107
4203933167D1	Injection/Disposal From Oil	Coordinates from Operator	-95.263222	29.493049
4203931563	Injection/Disposal From Oil	RRC Hardcopy Map	-95.24692612	29.49589688
4203903051	Injection/Disposal From Oil	RRC Hardcopy Map	-95.66782698	29.17217367
4203900976	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.19306228	29.30604581
4203900340	Injection/Disposal From Oil	RRC Hardcopy Map	-95.25283068	29.51339503
4203900432	Injection/Disposal From Oil	RRC Hardcopy Map	-95.26883228	29.50668144

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4203900421	Injection/Disposal From Oil	RRC Hardcopy Map	-95.26485322	29.505131
4203930511	Injection/Disposal From Oil	RRC Hardcopy Map	-95.25881423	29.49537497
4203931307	Injection/Disposal From Oil	RRC Hardcopy Map	-95.2537691	29.51363342
4203930078	Injection/Disposal From Oil	Operator Reported Location	-95.25590354	29.50940978
4203920364	Injection/Disposal From Oil	RRC Hardcopy Map	-95.26767526	29.50217623
4203901106	Injection/Disposal From Oil	RRC Hardcopy Map	-95.25366258	29.48788074
4203932689	Injection/Disposal From Oil	Operator Reported Location	-95.5751069	29.32266465
4203933115D1	Injection/Disposal Well	Operator Reported Location	-95.27652081	29.4930706
4203930331	Injection/Disposal From Oil	RRC Hardcopy Map	-95.23933272	29.47986818
4203901236	Injection/Disposal From Oil	RRC Hardcopy Map	-95.32947023	29.48877653
4203932474D1	Injection/Disposal From Oil	Operator Reported Location	-95.2419194	29.49383771
4203900439	Injection/Disposal From Oil	Operator Reported Location	-95.27094669	29.50550339
4203931857	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.3340872	29.50221414
4203933210D1	Injection/Disposal From Oil/Gas	Operator Reported Location	-95.12404554	29.20361528
4203900140	Injection/Disposal From Oil	Coordinates from Operator	-95.32860354	29.50540617

¹New well shown in ***bold italics*** is assumed to have replaced injection well 4203900435.

²Wells shown in **bold** were permitted as of October 2018 but have since been converted to injection wells.

³Position given for bottom well location.

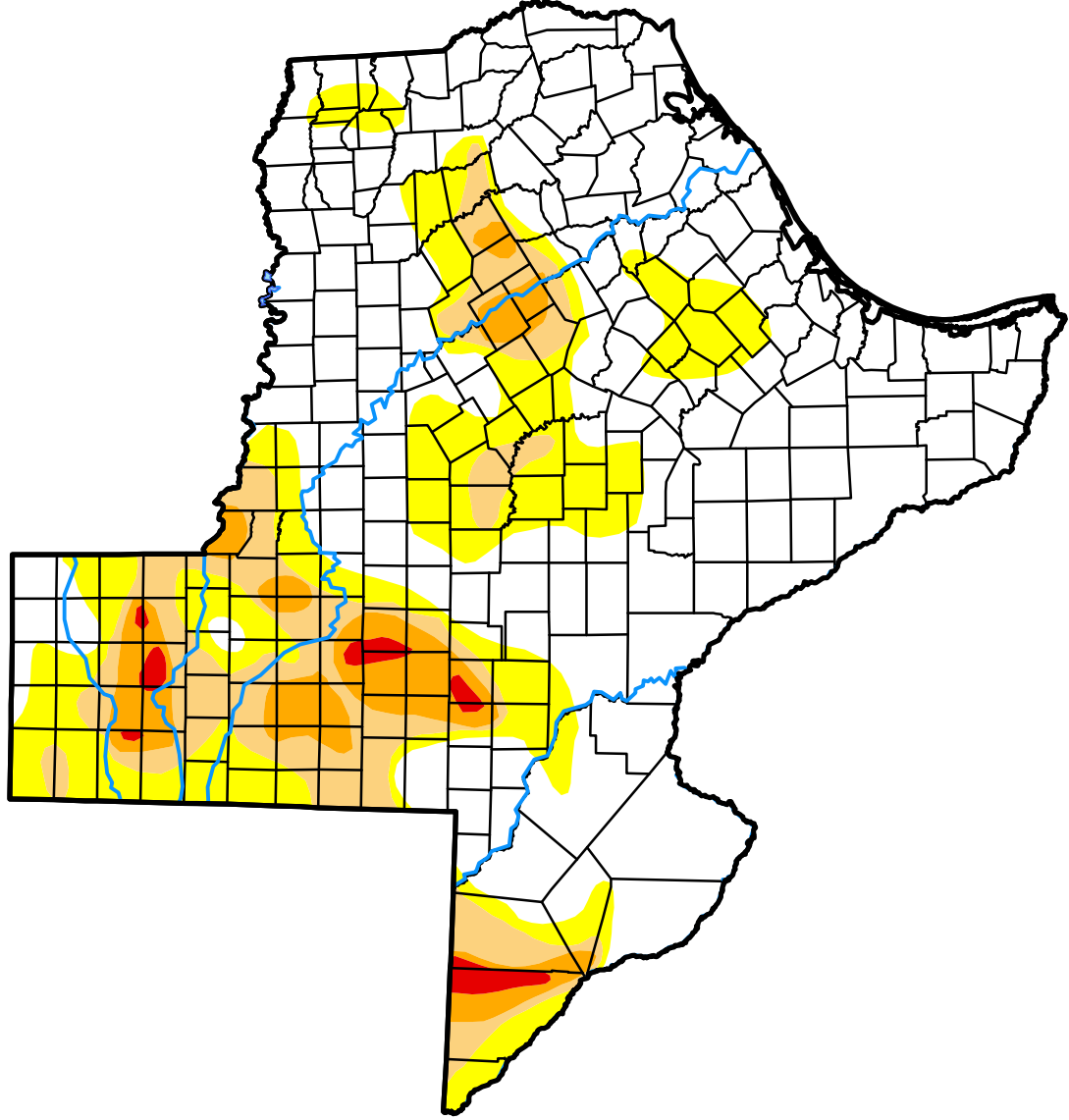
⁴Horizontal datum: North American Datum of 1927.

Appendix D
U.S. Drought Monitor
Monthly Summaries

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U.S. Drought Monitor Texas

October 2, 2018
 (Released Thursday, Oct. 4, 2018)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	61.59	38.41	18.01	7.04	1.04	0.00
Last Week 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
3 Months Ago 07-03-2018	17.38	82.62	55.30	24.06	6.84	0.46
Start of Calendar Year 01-02-2018	33.37	66.63	33.56	5.94	0.11	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 10-03-2017	86.76	13.24	2.20	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 David Miskus
 NOAA/NWS/NCEP/CPC



U.S. Drought Monitor

Texas

November 6, 2018
 (Released Thursday, Nov. 8, 2018)
 Valid 7 a.m. EST

Drought Conditions (Percent Area)

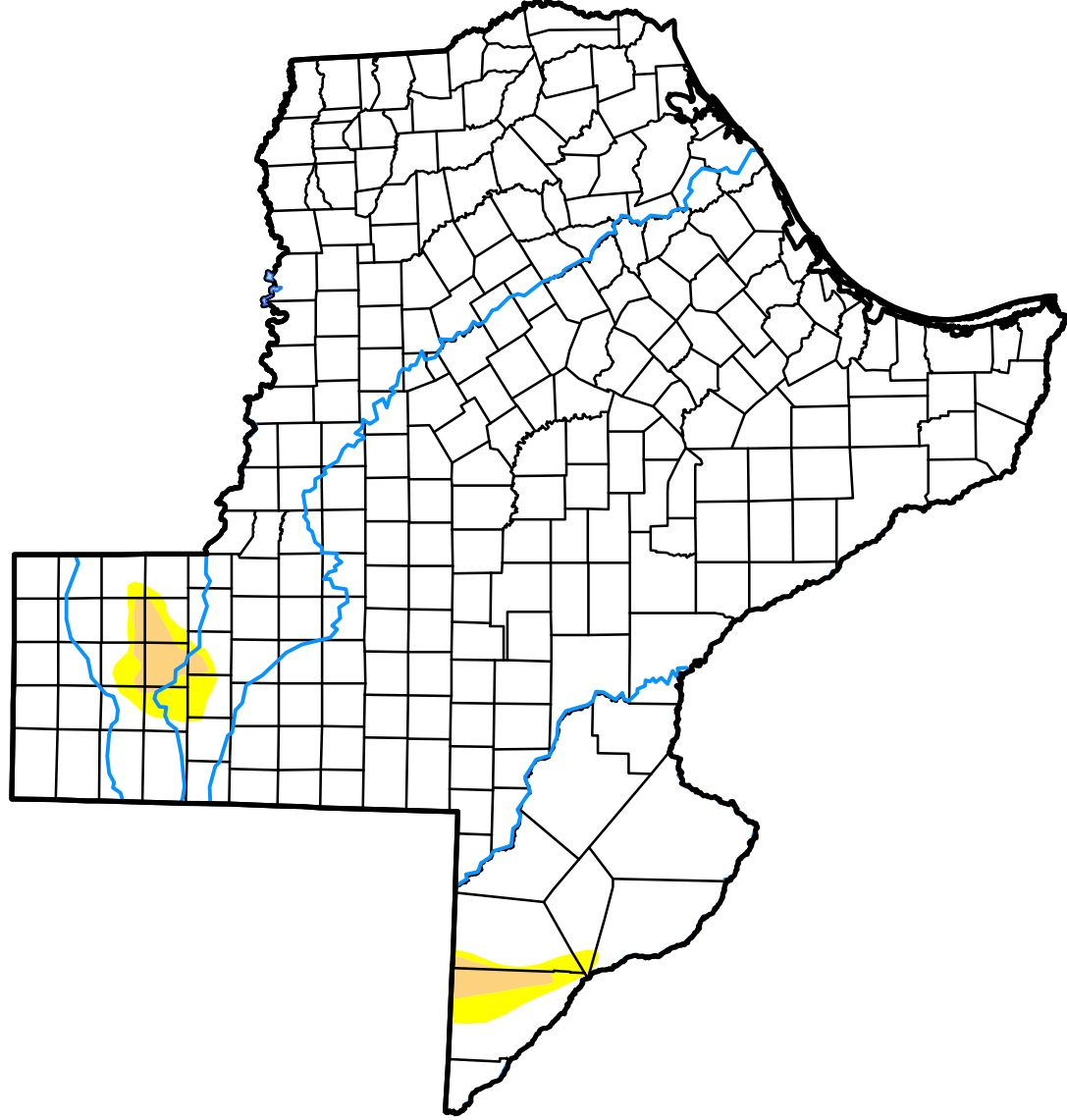
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	97.17	2.83	1.15	0.00	0.00	0.00
Last Week 10-30-2018	96.15	3.85	1.84	0.43	0.00	0.00
3 Months Ago 08-07-2018	21.55	78.45	63.94	45.45	19.43	0.36
Start of Calendar Year 01-02-2018	33.37	66.63	33.56	5.94	0.11	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 11-07-2017	58.23	41.77	8.80	0.56	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

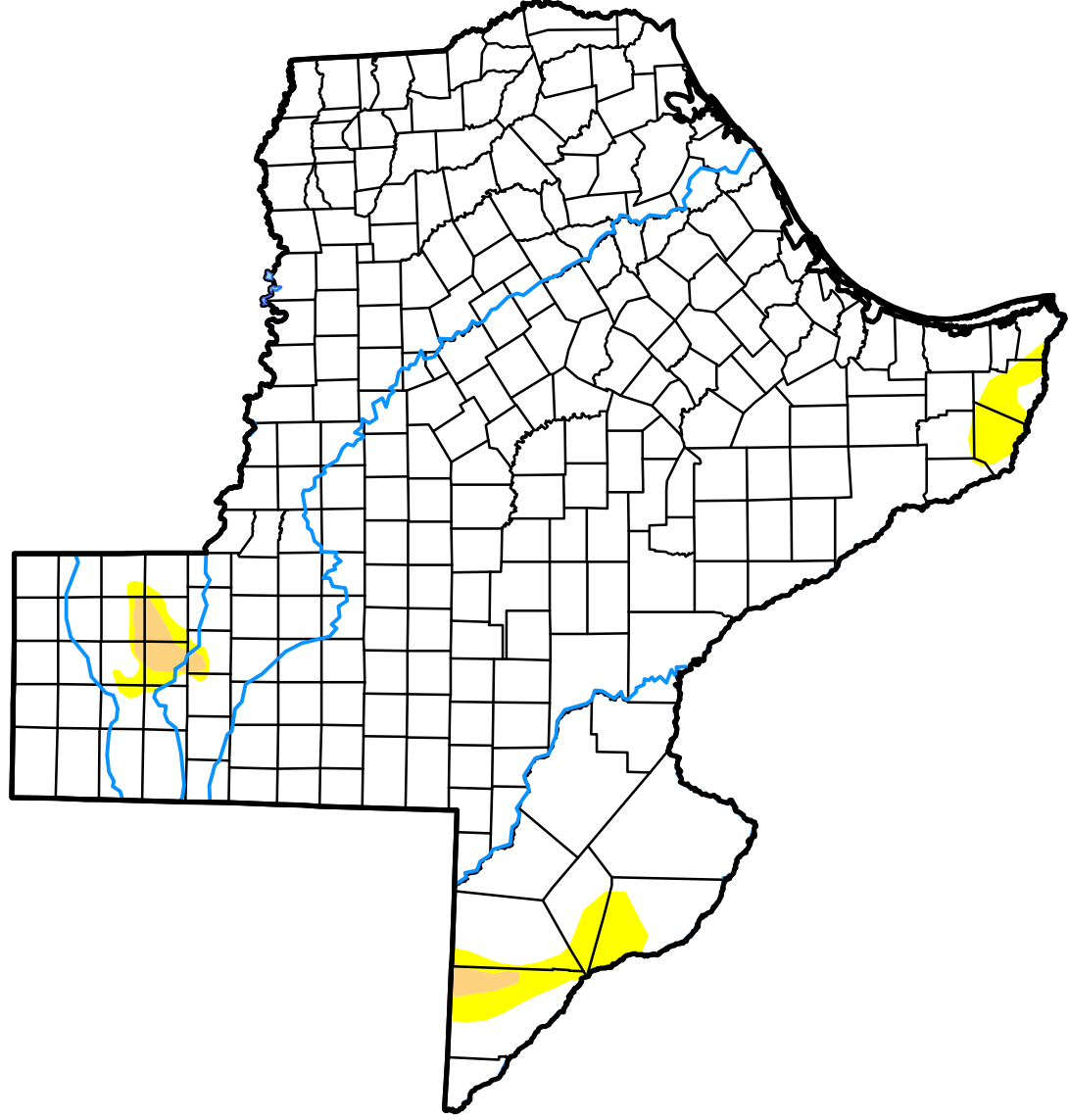
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 David Simeral
 Western Regional Climate Center



U.S. Drought Monitor Texas

December 4, 2018
 (Released Thursday, Dec. 6, 2018)
 Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.13	3.87	0.80	0.00	0.00	0.00
Last Week 11-27-2018	97.73	2.27	0.80	0.00	0.00	0.00
3 Months Ago 09-04-2018	19.92	80.08	64.28	27.09	5.51	0.12
Start of Calendar Year 01-02-2018	33.37	66.63	33.56	5.94	0.11	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 12-05-2017	27.60	72.40	37.06	10.82	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

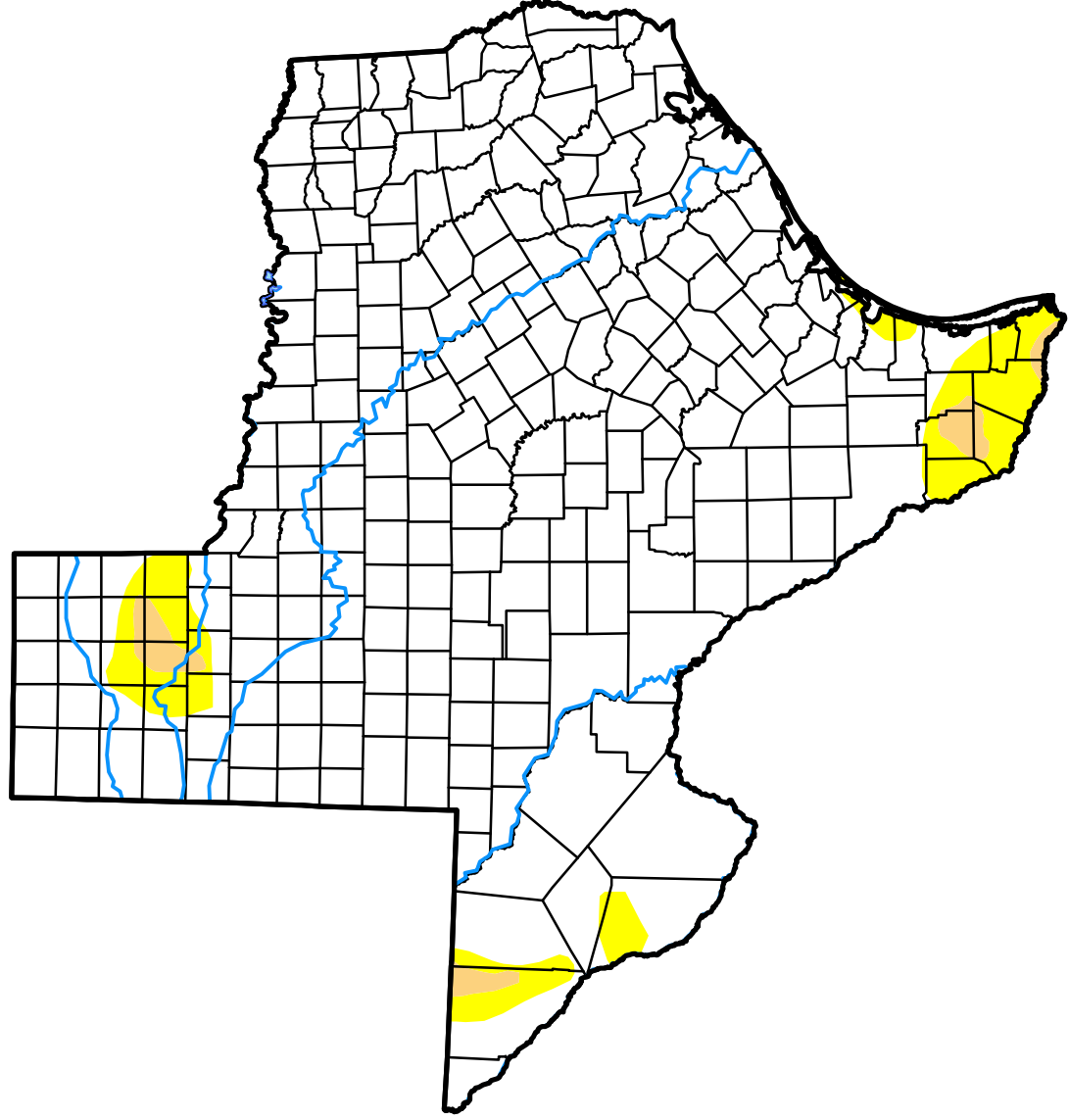
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 Deborah Bathke
 National Drought Mitigation Center



U.S. Drought Monitor Texas

January 1, 2019
(Released Thursday, Jan. 3, 2019)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.99	7.01	1.32	0.00	0.00	0.00
Last Week <i>12-25-2018</i>	90.02	9.98	0.80	0.00	0.00	0.00
3 Months Ago <i>10-02-2018</i>	61.59	38.41	18.01	7.04	1.04	0.00
Start of Calendar Year <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago <i>01-02-2018</i>	33.37	66.63	33.56	5.94	0.11	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
David Miskus
NOAA/NWS/NCEP/CPC



U.S. Drought Monitor Texas

February 5, 2019
 (Released Thursday, Feb. 7, 2019)
 Valid 7 a.m. EST

Drought Conditions (Percent Area)

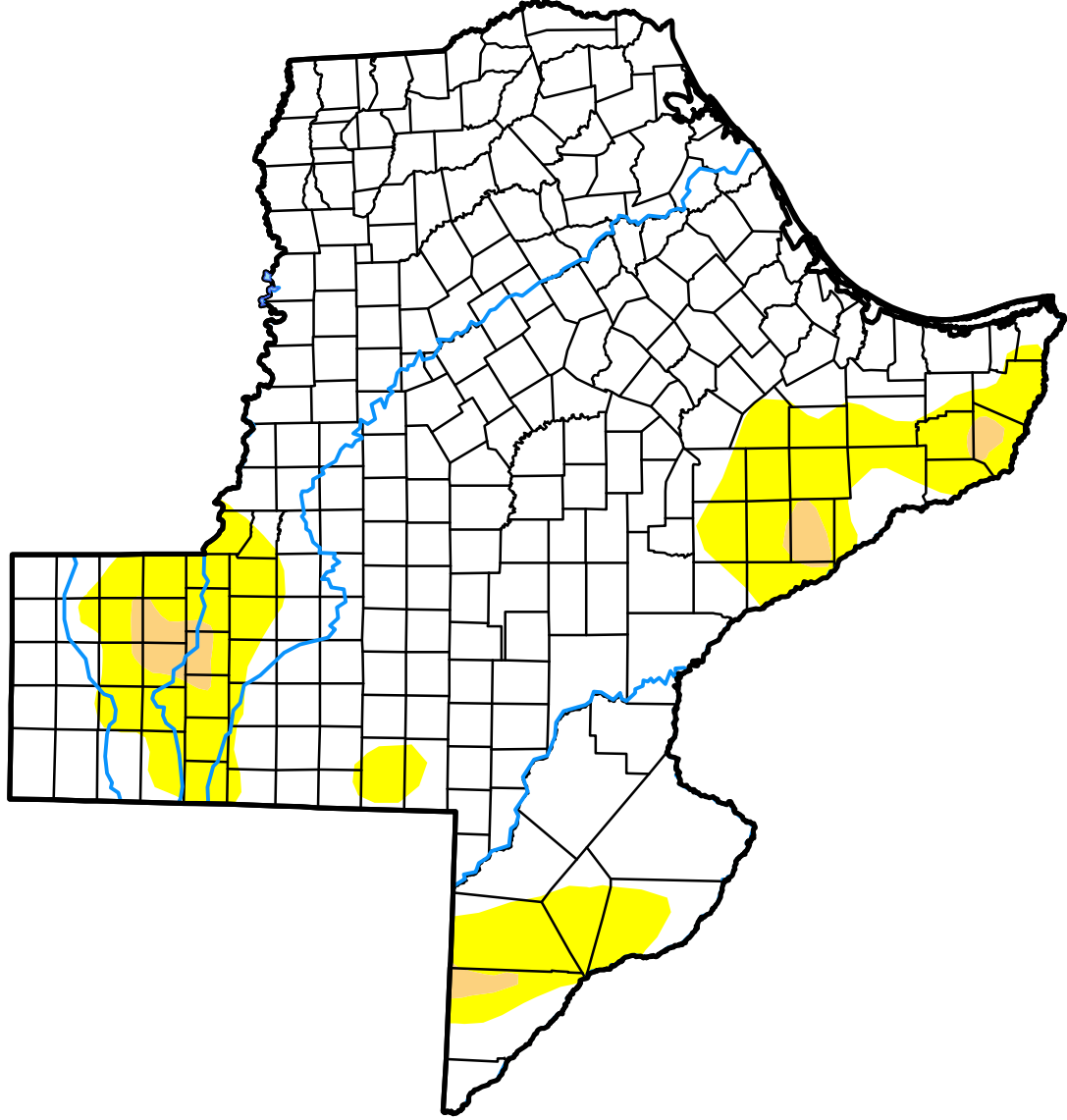
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	81.97	18.03	1.81	0.00	0.00	0.00
Last Week <i>01-29-2019</i>	90.22	9.78	1.15	0.00	0.00	0.00
3 Months Ago <i>11-06-2018</i>	97.17	2.83	1.15	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago <i>02-06-2018</i>	9.76	90.24	64.88	29.56	11.79	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 Richard Tinker
 CPC/NOAA/NWS/NCEP



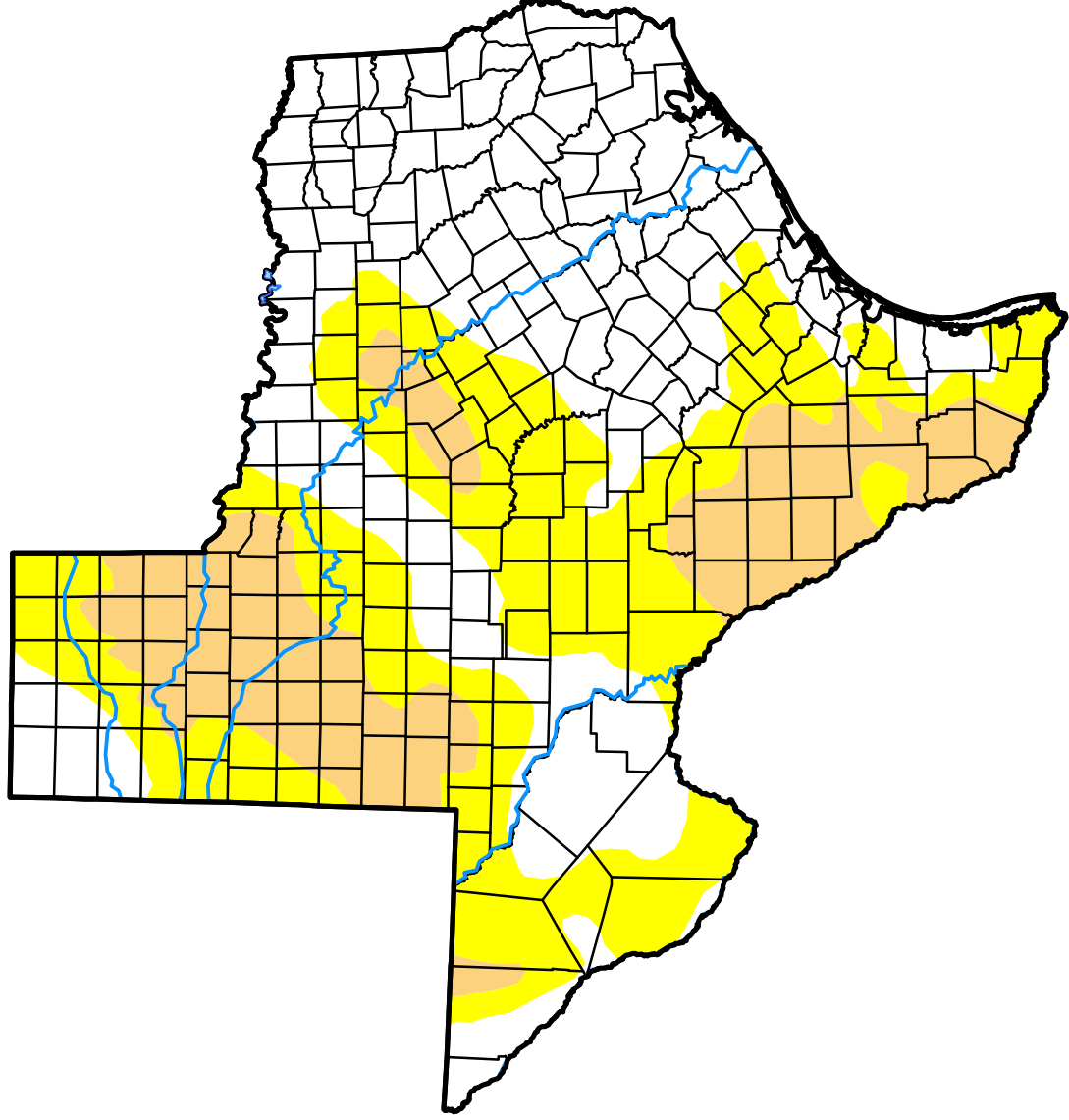
U.S. Drought Monitor

Texas

March 5, 2019

(Released Thursday, Mar. 7, 2019)

Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	45.94	54.06	19.92	0.00	0.00	0.00
Last Week <i>02-26-2019</i>	48.21	51.79	16.33	0.00	0.00	0.00
3 Months Ago <i>12-04-2018</i>	96.13	3.87	0.80	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago <i>03-06-2018</i>	25.76	74.24	54.22	21.74	14.16	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebehusen
U.S. Department of Agriculture

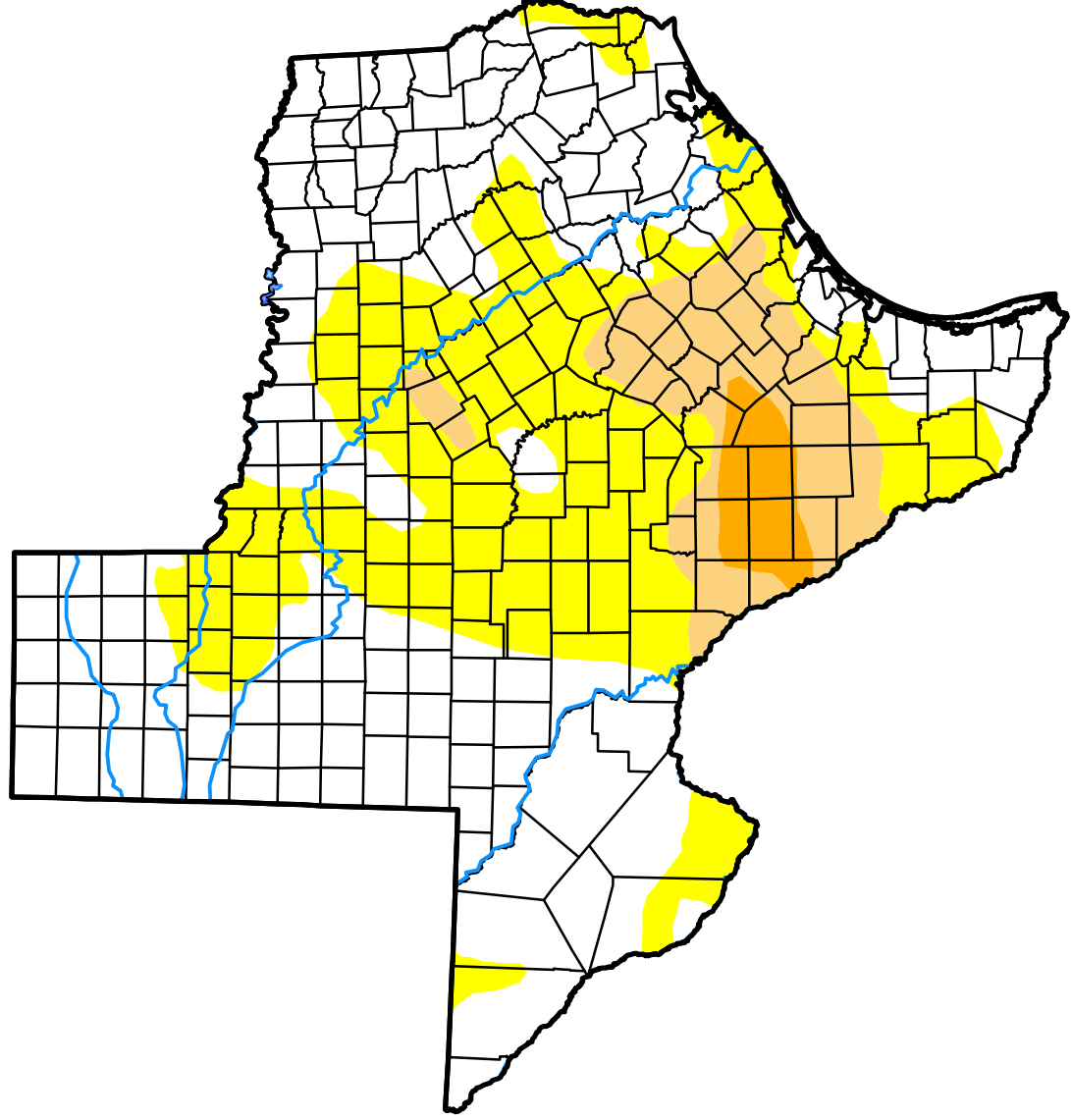


U.S. Drought Monitor Texas

April 2, 2019

(Released Thursday, Apr. 4, 2019)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.27	45.73	12.20	2.61	0.00	0.00
Last Week <i>03-26-2019</i>	61.92	38.08	11.44	2.38	0.00	0.00
3 Months Ago <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago <i>04-03-2018</i>	33.29	66.71	49.43	21.57	13.21	1.47

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Curtis Riganti
National Drought Mitigation Center

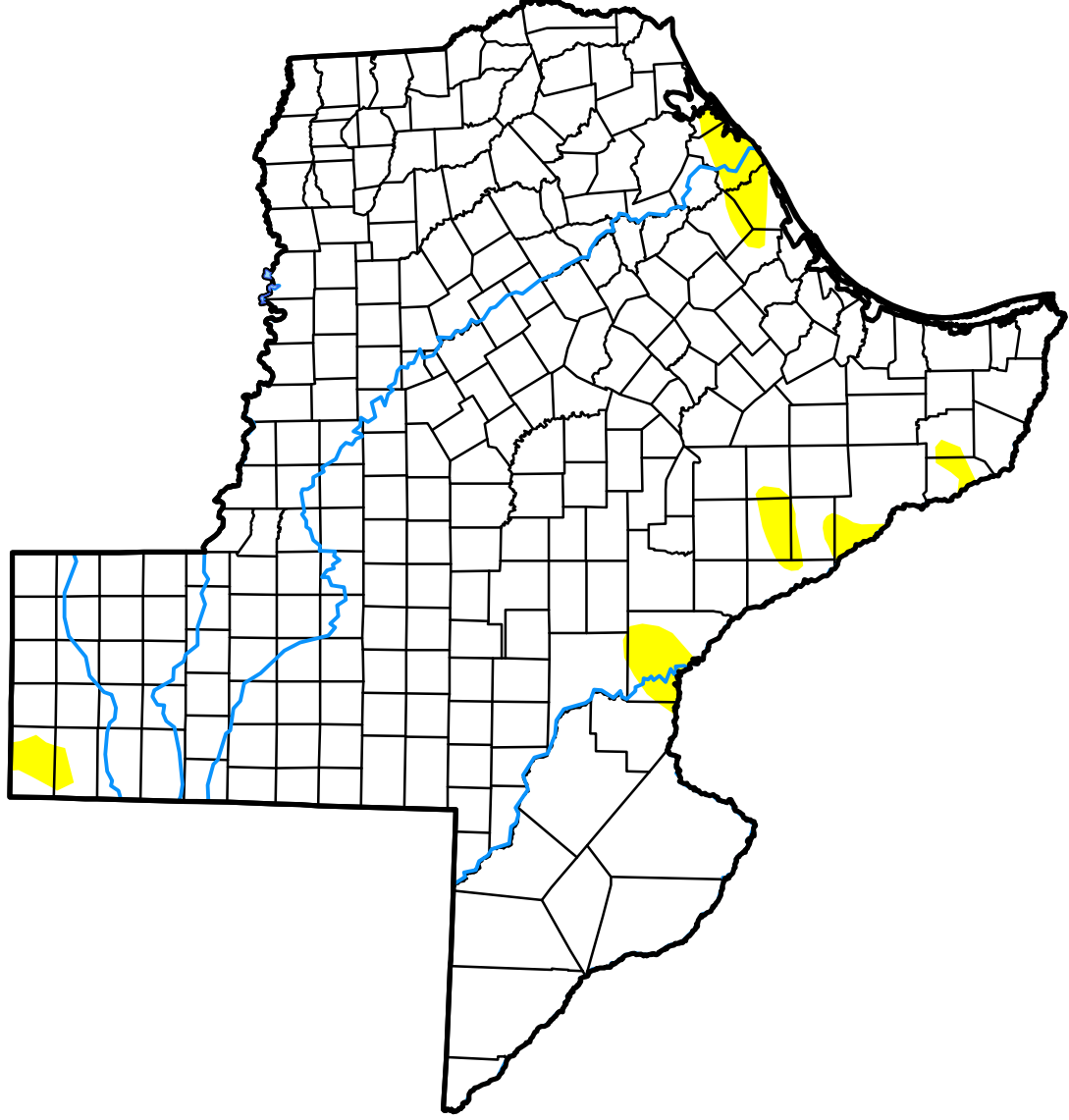


U.S. Drought Monitor Texas

May 7, 2019

(Released Thursday, May 9, 2019)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.95	3.05	0.00	0.00	0.00	0.00
Last Week <i>04-30-2019</i>	87.27	12.73	1.46	0.00	0.00	0.00
3 Months Ago <i>02-05-2019</i>	81.97	18.03	1.81	0.00	0.00	0.00
Start of Calendar Year <i>01-01-2019</i>	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year <i>09-25-2018</i>	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago <i>05-08-2018</i>	39.78	60.22	38.80	22.30	12.97	4.61

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Curtis Riganti
National Drought Mitigation Center

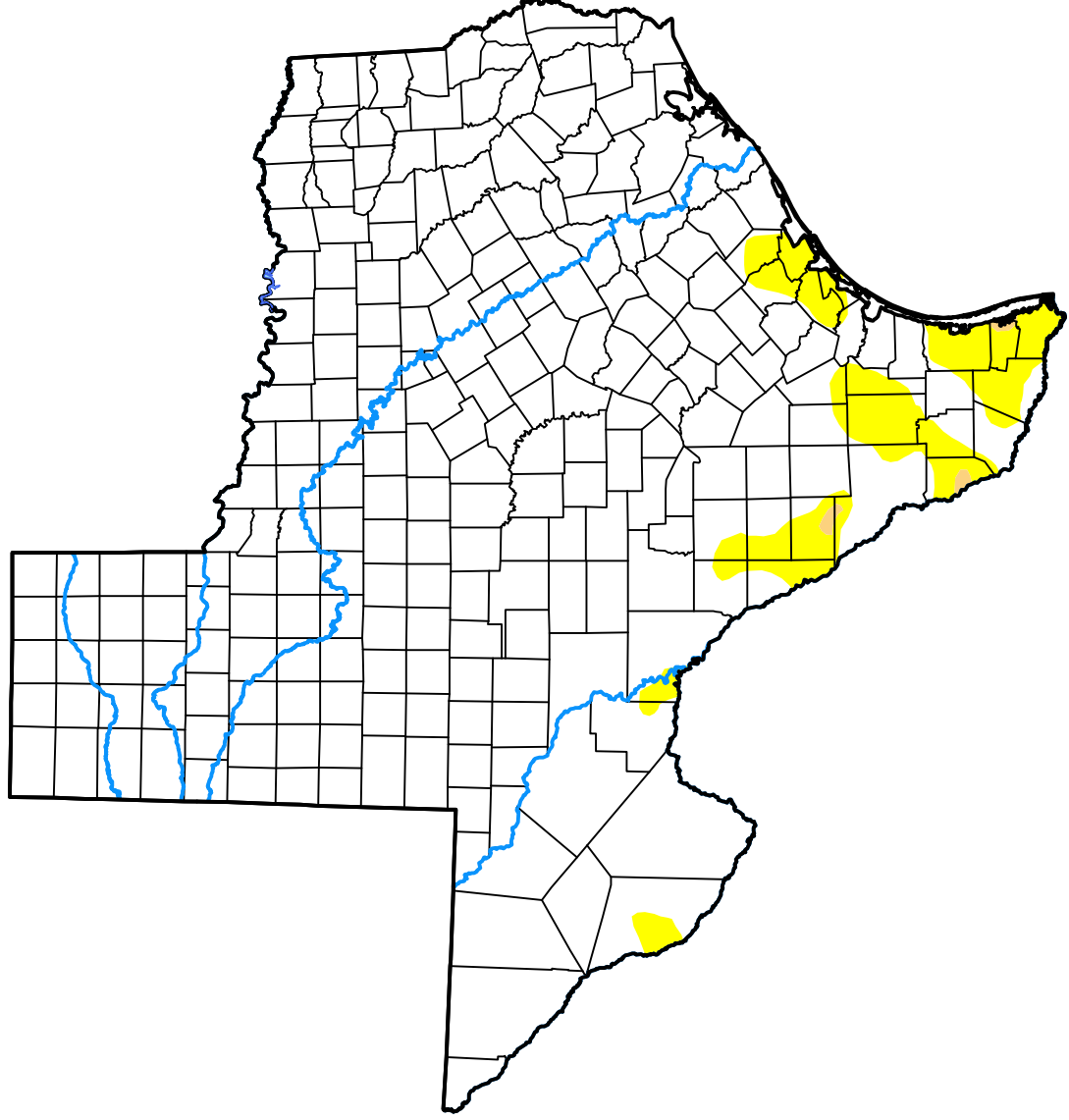


U.S. Drought Monitor Texas

June 4, 2019

(Released Thursday, Jun. 6, 2019)

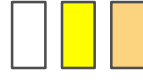
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	93.83	6.17	0.18	0.00	0.00	0.00
Last Week 05-28-2019	94.24	5.76	0.20	0.00	0.00	0.00
3 Months Ago 03-05-2019	45.94	54.06	19.92	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 06-05-2018	21.20	78.80	44.37	23.44	7.29	1.59

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:

David Simeral
Western Regional Climate Center

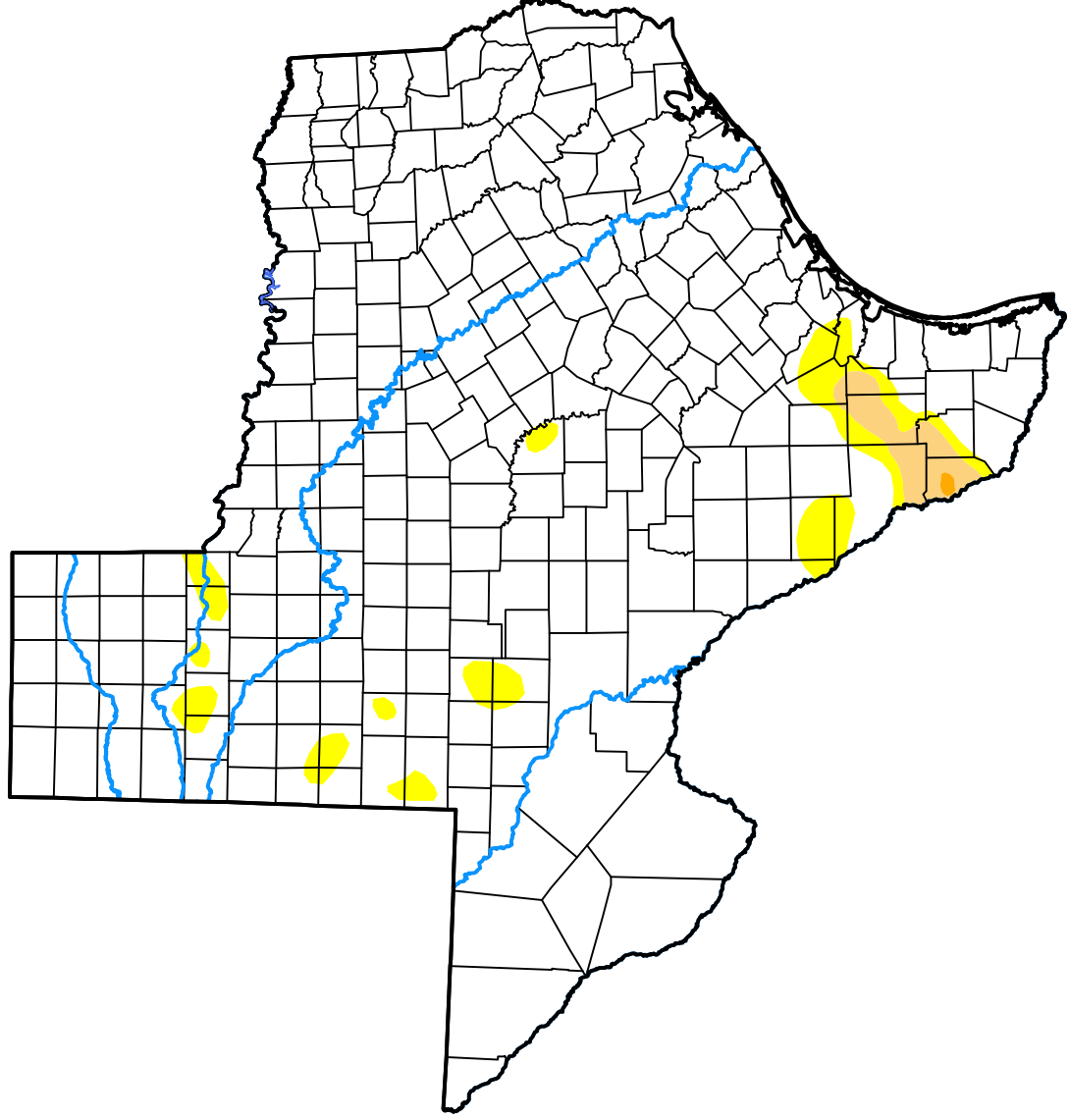


U.S. Drought Monitor Texas

July 2, 2019

(Released Wednesday, Jul. 3, 2019)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	94.84	5.16	1.34	0.05	0.00	0.00
Last Week 06-25-2019	95.84	4.16	1.93	0.23	0.00	0.00
3 Months Ago 04-02-2019	54.27	45.73	12.20	2.61	0.00	0.00
Start of Calendar Year 01-01-2019	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 07-03-2018	17.38	82.62	55.30	24.06	6.84	0.46

Intensity:



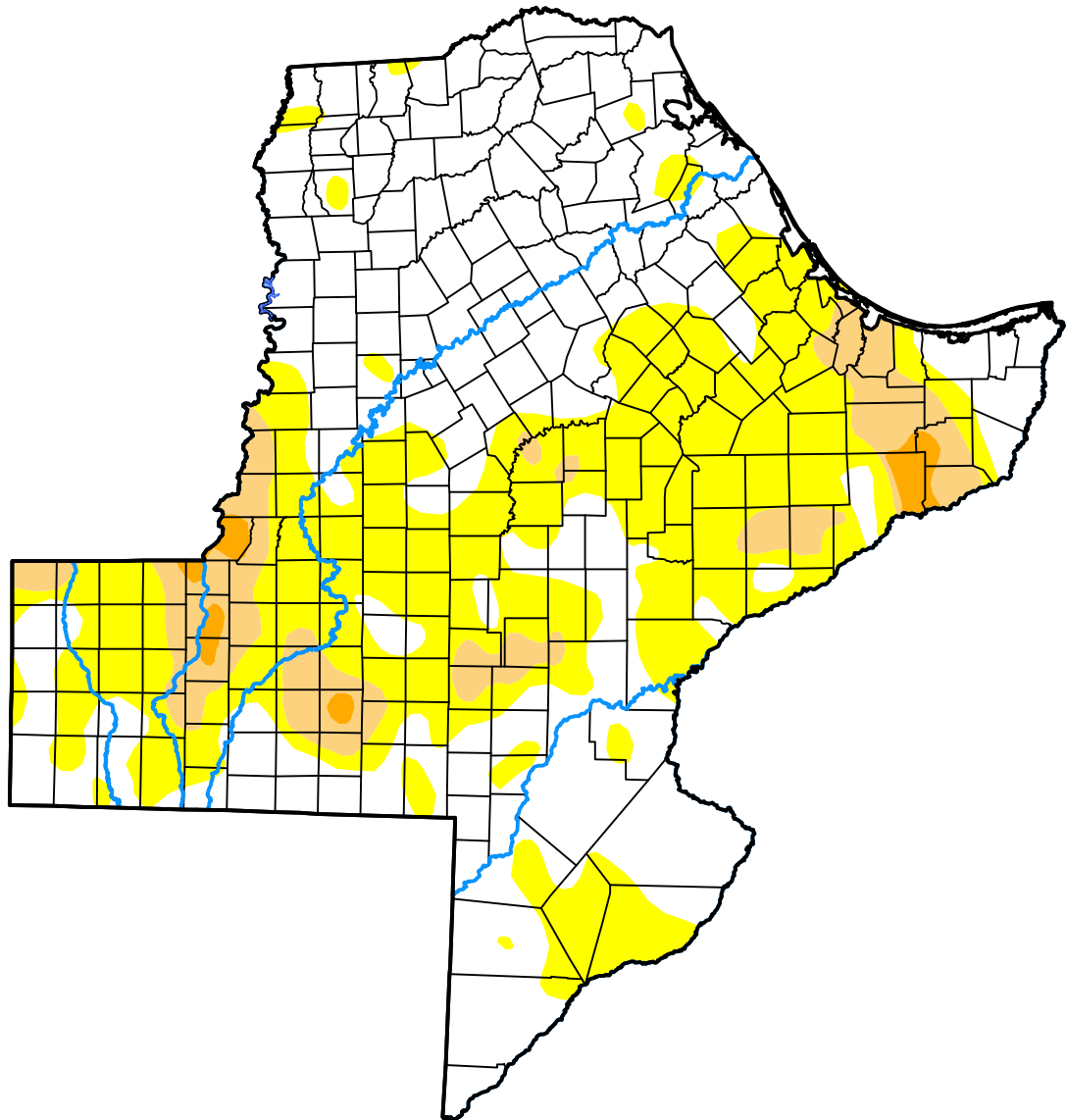
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP



U.S. Drought Monitor Texas

August 6, 2019
 (Released Thursday, Aug. 8, 2019)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	53.05	46.95	9.79	1.21	0.00	0.00
Last Week 07-30-2019	76.49	23.51	4.31	0.42	0.00	0.00
3 Months Ago 05-07-2019	96.95	3.05	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 08-07-2018	21.55	78.45	63.94	45.45	19.43	0.36

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

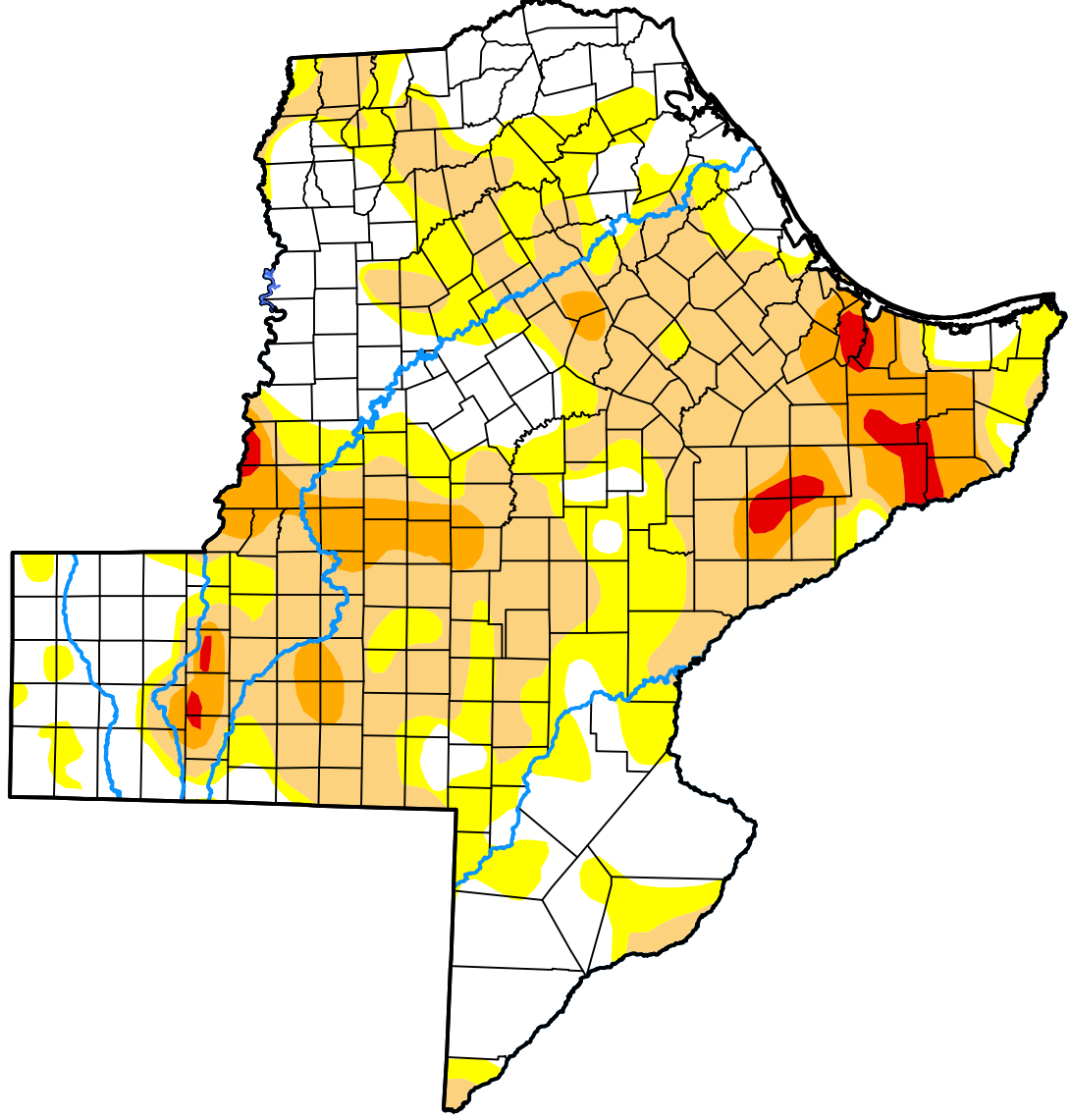
The Drought Monitor focuses on broad-scale conditions.
 Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 Richard Tinker
 CPC/NOAA/NWS/NCEP



U.S. Drought Monitor Texas

September 3, 2019
 (Released Thursday, Sep. 5, 2019)
 Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.59	66.41	42.90	10.26	1.73	0.00
Last Week 08-27-2019	25.90	74.10	37.58	8.75	1.21	0.00
3 Months Ago 06-04-2019	93.83	6.17	0.18	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	92.99	7.01	1.32	0.00	0.00	0.00
Start of Water Year 09-25-2018	57.46	42.54	20.19	7.03	0.96	0.00
One Year Ago 09-04-2018	19.92	80.08	64.28	27.09	5.51	0.12

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions.
 Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 David Miskus
 NOAA/NWS/NCEP/CPC



Appendix E
District Financials
2018 Audit

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**BRAZORIA COUNTY GROUNDWATER
CONSERVATION DISTRICT**

ANNUAL FINANCIAL REPORT

FOR THE YEAR ENDED
SEPTEMBER 30, 2018

**KENNEMER, MASTERS & LUNSFORD, LLC
CERTIFIED PUBLIC ACCOUNTANTS
8 WEST WAY COURT
LAKE JACKSON, TEXAS 77566**

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

*Annual Financial Report
For the Year Ended September 30, 2018*

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Kennemer, Masters & Lunsford

CERTIFIED PUBLIC ACCOUNTANTS

Limited Liability Company

Lake Jackson Office:
8 West Way Court
Lake Jackson, Texas 77566
979-297-4075

Angleton Office:
2801 N. Velasco Suite C
Angleton, Texas 77515
979-849-8297

El Campo Office:
201 W. Webb
El Campo, Texas 77437
979-543-6836

Independent Auditor's Report

To the Board of Directors
Brazoria County Groundwater Conservation District

We have audited the accompanying financial statements of the governmental activities and the general fund of the Brazoria County Groundwater Conservation District (the "District") as of and for the year ended September 30, 2018, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

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Partnering for CPA Practice Success

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and the general fund of the Brazoria County Groundwater Conservation District, as of September 30, 2018, and the respective changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the budgetary comparison information on pages 9 through 13 and 35 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Kerremers, Masters & Hunford, LLC

Lake Jackson, Texas
March 7, 2019

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

*Management's Discussion and Analysis
For the Year Ended September 30, 2018*

As directors of Brazoria County Groundwater Conservation District (the "District"), we offer readers of the District's financial statements this narrative overview and analysis of the financial activities of the District for the fiscal year ended September 30, 2018.

Financial Highlights

- The assets and deferred outflows of resources of the District exceeded its liabilities and deferred inflows of resources at the close of the most recent fiscal year by \$ 1,373,792 (net position). This is an increase in net position of \$ 190,978 from the prior year net position of \$ 1,182,814.
- As of the close of the current fiscal year, the District's governmental fund reported an ending fund balance of \$ 1,373,792. The fund balance represents 340.25% of current year expenditures.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the District's basic financial statements. The District's basic financial statements are comprised of three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the financial statements. This report also contains required supplemental information in addition to the basic financial statements themselves.

Government-wide financial statements. The *government-wide financial statements* are designed to provide readers with a broad overview of the District's finances, in a manner similar to a private-sector business.

The *statement of net position* presents information on all of the District's assets and deferred outflows of resources and liabilities and deferred inflows of resources, with the difference between these four reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the District is improving or deteriorating.

The *statement of activities* presents information showing how the District's net position changed during the fiscal year. All changes in net position are reported when the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in the future fiscal periods.

Both of the government-wide financial statements distinguish functions of the District that are principally supported by fees. The *governmental activities* of the District include general government and administration, and groundwater conservation.

The government-wide financial statements can be found on pages 16 and 17 of this report.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Management's Discussion and Analysis

For the Year Ended September 30, 2018

Fund Financial Statements. A *fund* is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The District, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The District has only one major fund, which is the general fund, and is reported as a governmental fund.

- **Governmental Funds.** *Governmental funds* are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, unlike the government-wide financial statements, governmental fund financial statements focus on current sources and uses of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statements of revenues, expenditures, and changes in fund balance provide a reconciliation to facilitate this comparison between governmental funds and governmental activities.

The fund financial statements can be found on pages 20 through 21 of this report.

Notes to the Financial Statements. The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found on pages 23 through 31 of this report.

Other Information. In addition to the basic financial statements and accompanying notes, this report also presents required supplementary information. The required supplemental information can be found on page 35 of this report.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT*Management's Discussion and Analysis**For the Year Ended September 30, 2018***Government-wide Financial Analysis**

As noted earlier, net position may serve over time as a useful indicator of a government's financial position. In the case of the District, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$ 1,373,792 as of September 30, 2018. Net position of the District's governmental activities increased by \$ 190,978, from net position of \$ 1,182,814.

Brazoria County Groundwater Conservation District's Net Position

	Governmental Activities			
	September 30, 2018	September 30, 2017	Increase (Decrease)	Percent Change
Current and other assets	\$ 1,396,371	\$ 1,208,848	\$ 187,523	16%
Total assets	<u>1,396,371</u>	<u>1,208,848</u>	<u>187,523</u>	<u>16%</u>
Deferred outflows of resources			-0-	-0-
Total deferred outflows of resources	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>0%</u>
Current and other liabilities	<u>22,579</u>	<u>26,034</u>	(3,455)	(13%)
Total liabilities	<u>22,579</u>	<u>26,034</u>	(3,455)	(13%)
Deferred Inflows of Resources			-0-	0%
Total deferred inflows of resources	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>0%</u>
Net Position:				
Unrestricted	<u>1,373,792</u>	<u>1,182,814</u>	<u>190,978</u>	<u>16%</u>
Total net position	<u>\$ 1,373,792</u>	<u>\$ 1,182,814</u>	<u>\$ 190,978</u>	<u>16%</u>

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Management's Discussion and Analysis

For the Year Ended September 30, 2018

Governmental Activities: Governmental activities increased the District's net position by \$ 190,978. The following table provides a summary of the District's operations for the years ended September 30, 2018 and 2017, respectively.

Brazoria County Groundwater Conservation District's Change in Net Position

	Governmental Activities			
	Years Ended September 30, 2018	2017	Increase (Decrease)	Percent Change
Revenues:				
Program Revenues:				
Charges for services	\$ 519,037	\$ 478,304	\$ 40,733	9%
General Revenues:				
Investment income	20,082	6,505	13,577	209%
Miscellaneous	<u>55,622</u>	<u>22,506</u>	<u>33,116</u>	<u>147%</u>
Total revenues	<u>594,741</u>	<u>507,315</u>	<u>87,426</u>	<u>17%</u>
Expenses:				
General government and administration	381,367	421,151	(39,784)	(9%)
Groundwater conservation	<u>22,396</u>	<u>35,815</u>	<u>(13,419)</u>	<u>(37%)</u>
Total expenses	<u>403,763</u>	<u>456,966</u>	<u>(53,203)</u>	<u>(12%)</u>
Increase in net position	190,978	50,349	140,629	279%
Net position - October 1,	<u>1,182,814</u>	<u>1,132,465</u>	<u>50,349</u>	<u>4%</u>
Net position - September 30,	<u>\$ 1,373,792</u>	<u>\$ 1,182,814</u>	<u>\$ 190,978</u>	<u>16%</u>

Financial Analysis of the District's Funds

As noted earlier, the District uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

Governmental funds. The focus of the District's governmental fund is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the District's financing requirements. In particular, unassigned fund balance may serve as a useful measure of a government's net resources available for spending at the end of the fiscal year.

As of the end of the current fiscal year, the District's governmental fund reported a fund balance of \$ 1,373,792.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

Management's Discussion and Analysis

For the Year Ended September 30, 2018

General Fund Budgetary Highlights. The District enacted a formal budget for the year ended September 30, 2018. Budget exceeded actual expenditures by \$ 23,520 and actual revenues exceeded budget by \$ 164,239.

Economic Factors and Next Year's Budgets and Rates

The annual budget is the means by which District Director's set the direction of the District, and allocate its resources.

In considering the budget for fiscal year 2019, District Director's considered the following factors:

- Estimated fee revenues of \$ 575,600.
- Employee costs of \$ 277,830.
- Professional services costs of \$ 174,625.

Request for Information

This financial report is designed to provide a general overview of the District's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Board of Directors, 111 E. Locust Street, Building A-29, Suite 140, Angleton, Texas, 77515.

GOVERNMENT-WIDE FINANCIAL STATEMENTS

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT
STATEMENT OF NET POSITION
September 30, 2018

EXHIBIT A-1
Page 1 of 1

	Total Governmental Activities
ASSETS:	
Current:	
Cash	\$ 1,365,478
Accounts receivable	<u>30,893</u>
Total assets	<u>1,396,371</u>
DEFERRED OUTFLOWS OF RESOURCES	
Deferred outflows of resources	<u> </u>
Total deferred outflows of resources	<u>-0-</u>
LIABILITIES	
Current:	
Accounts payable	12,345
Accrued wages and related liabilities	<u>10,234</u>
Total liabilities	<u>22,579</u>
DEFERRED INFLOWS OF RESOURCES	
Deferred inflows of resources	<u> </u>
Total deferred inflows of resources	<u>-0-</u>
NET POSITION	
Unrestricted	<u>1,373,792</u>
Total net position	<u>\$ 1,373,792</u>

The notes to the financial statements are an integral part of this statement.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT**STATEMENT OF ACTIVITIES**

For the Year Ended September 30, 2018

EXHIBIT B-1

Page 1 of 1

<u>Functions/Programs</u>	<u>Expenses</u>	<u>Program Revenues Charges for Services</u>	<u>Net (Expense) Revenue and Changes in Net Position Primary Government</u>
GOVERNMENTAL ACTIVITIES:			
General government and administration	\$ 381,367	\$ 519,037	\$ 137,670
Groundwater conservation	<u>22,396</u>	<u> </u>	<u>(22,396)</u>
Total governmental activities	<u>\$ 403,763</u>	<u>\$ 519,037</u>	<u>115,274</u>
GENERAL REVENUES			
Interest income			20,082
Miscellaneous			<u>55,622</u>
Total general revenues			<u>75,704</u>
Change in net position			190,978
Net position - beginning			<u>1,182,814</u>
Net position - ending			<u>\$ 1,373,792</u>

The notes to the financial statements are an integral part of this statement.

FUND FINANCIAL STATEMENTS

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT
BALANCE SHEET – GENERAL FUND
 September 30, 2018

EXHIBIT C-1
 Page 1 of 1

	<u>General Fund</u>
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	
Assets:	
Cash	\$ 1,365,478
Accounts receivable	<u>30,893</u>
Total assets	<u>1,396,371</u>
Deferred Outflows of Resources:	
Deferred outflows of resources	<u> </u>
Total deferred outflows of resources	<u>-0-</u>
Total assets and deferred outflows of resources	<u>\$ 1,396,371</u>
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCE	
Liabilities:	
Accounts payable	\$ 12,345
Accrued wages and related liabilities	<u>10,234</u>
Total liabilities	<u>22,579</u>
Deferred Inflows of Resources:	
Deferred inflows of resources	<u> </u>
Total deferred inflows of resources	<u>-0-</u>
Fund Balance:	
Unassigned	<u>1,373,792</u>
Total fund balance	<u>1,373,792</u>
Total liabilities, deferred inflows of resources and fund balance	<u>\$ 1,396,371</u>

The notes to the financial statements are an integral part of this statement.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT
STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE
 (GENERAL FUND)
 Year Ended September 30, 2018

EXHIBIT C-2
 Page 1 of 1

	<u>General Fund</u>
REVENUES	
Licenses and permits	\$ 519,037
Interest income	20,082
Miscellaneous	<u>55,622</u>
Total revenues	<u>594,741</u>
EXPENDITURES	
Current:	
General Government and Administration:	
Advertisement (Legal Notices)	167
Chemicals	78
Communications	6,037
Computer software/equipment	4,103
Conferences and training	1,100
Dues and licenses	1,070
Employee benefits	76,569
Equipment rental	2,072
Bonds	444
Insurance	3,522
Legal	9,999
Office supplies	3,297
Postage/Freight	827
Printing	212
Professional Services	77,523
Repairs and maintenance	362
Salaries	183,753
Subscriptions	186
Travel	9,967
Uniforms	79
Groundwater Conservation:	
Architecture/Engineering	<u>22,396</u>
Total expenditures	<u>403,763</u>
Net change in fund balance	190,978
Fund balance - beginning	<u>1,182,814</u>
Fund balance - ending	<u>\$ 1,373,792</u>

The notes to the financial statements are an integral part of this statement.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

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BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The District was formed on September 1, 2003 by the 78th Legislature of the State of Texas in House Bill No. 3602 (the "Act"). Pursuant to the Act, the Board of Directors of the District has the permitting and general management powers granted under Chapter 36 of the Texas Water Code. Section 36.101 of the Texas Water Code authorizes a groundwater conservation district to make and enforce rules to provide for conserving, preserving, protecting, and recharging of the groundwater or of a groundwater reservoir or its subdivisions in order to control subsidence or prevent waste of groundwater and to carry out the powers and duties provided by Chapter 36 of the Texas Water Code. The District board, a five-member elected group, is the level of government that serves to provide groundwater conservation within Brazoria County, Texas.

Reporting Entity

The elected Board of Directors has the authority to make decisions, appoint administrators and managers; significantly influence operations; and has the primary accountability for fiscal matters. Therefore, the District is not included in any other governmental "reporting entity" as defined by GASB in its Statement No. 61, "The Reporting Entity: Omnibus". There are no component units included within the reporting entity.

Government-Wide and Fund Financial Statements

The government-wide financial statements (i.e., the statement of net position and the statement of activities) report financial information on all of the activities of the primary government. The District maintains one fund (General Fund); therefore, there are no interfund activities. The *governmental activities* are supported by fees and loans. The District has no *business-type activities* that rely, to a significant extent, on fees and charges for support.

The statement of activities demonstrates the degree to which the direct expenses of a given function are offset by program revenues. *Direct expenses* are those that are clearly identifiable with a specific function. *Program revenues* include 1) charges to customers or applicants who purchase, use or directly benefit from goods, services, or privileges provided by a given function and 2) grants and contributions that are restricted to meeting operational or capital requirements of a particular function. Other items not properly included among program revenues are reported instead as *general revenues*.

Separate financial statements are provided for governmental funds. Major individual governmental funds are reported in separate columns in the fund financial statements. The General Fund is currently the only fund maintained by the District.

Measurement Focus, Basis of Accounting, and Financial Statement Presentation

The government-wide financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Fees are recognized as revenues in the year for which they are charged. Grants and similar items are recognized as revenues as soon as all eligibility requirements imposed by the provider have been met.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE -
BUDGET AND ACTUAL
Year Ended September 30, 2018

EXHIBIT D-1
Page 1 of 1

	Budgeted Amounts		Actual	Variance with Final Budget Positive (Negative)
	Original	Final		
REVENUES				
Licenses and permits	\$ 410,392	\$ 410,392	\$ 519,037	\$ 108,645
Interest income	5,110	5,110	20,082	14,972
Miscellaneous	15,000	15,000	55,622	40,622
Total revenues	<u>430,502</u>	<u>430,502</u>	<u>594,741</u>	<u>164,239</u>
EXPENDITURES				
Current:				
General Government and Administration:				
Advertisement (Legal Notices)	1,000	1,000	167	833
Books and supplements	100	100		100
Building rental	1	1		1
Chemicals			78	(78)
Communications	3,988	3,988	6,037	(2,049)
Computer software less than \$5K	5,000	3,700	1,139	2,561
Computer equipment less than \$5K	1,000	2,300	2,964	(664)
Conferences and training	800	800	1,100	(300)
Dues and licenses	2,000	2,000	1,070	930
Employee benefits	75,060	75,060	76,569	(1,509)
Equipment rental	2,000	2,000	2,072	(72)
Bonds	500	500	444	56
Insurance	4,300	4,300	3,522	778
Legal	10,000	10,000	9,999	1
Office supplies	5,000	5,000	3,297	1,703
Postage/Freight	900	900	827	73
Printing			212	(212)
Professional Services	101,105	101,105	77,523	23,582
Repairs and maintenance	500	500	362	138
Salaries	183,829	183,829	183,753	76
Subscriptions	300	300	186	114
Travel	12,600	12,600	9,967	2,633
Uniforms			79	(79)
Groundwater Conservation:				
Architecture/Engineering	<u>17,300</u>	<u>17,300</u>	<u>22,396</u>	<u>(5,096)</u>
Total expenditures	<u>427,283</u>	<u>428,283</u>	<u>403,763</u>	<u>23,520</u>
Net changes in fund balances	3,219	3,219	190,978	187,759
Fund balances – beginning	<u>1,182,814</u>	<u>1,182,814</u>	<u>1,182,814</u>	<u>-0-</u>
Fund balances – ending	<u>\$ 1,186,033</u>	<u>\$ 1,186,033</u>	<u>\$ 1,373,792</u>	<u>\$ 187,759</u>

The notes to the financial statements are an integral part of this statement.

REQUIRED SUPPLEMENTARY INFORMATION

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 4. CAPITAL ASSETS

	<u>Balance</u> <u>10/01/17</u>	<u>Additions</u>	<u>Retirements</u>	<u>Balance</u> <u>9/30/18</u>
Governmental Activities:				
Capital Assets, Being Depreciated:				
Software	\$ <u>78,410</u>	\$ <u>-0-</u>	\$ <u>-0-</u>	\$ <u>78,410</u>
Total capital assets, being depreciated	<u>78,410</u>	<u>-0-</u>	<u>-0-</u>	<u>78,410</u>
Less Accumulated Depreciation For:				
Software	<u>78,410</u>	<u>-0-</u>	<u>-0-</u>	<u>78,410</u>
Total accumulated depreciation	<u>78,410</u>	<u>-0-</u>	<u>-0-</u>	<u>78,410</u>
Total capital assets, being depreciated, net	\$ <u><u>-0-</u></u>	\$ <u><u>-0-</u></u>	\$ <u><u>-0-</u></u>	\$ <u><u>-0-</u></u>

NOTE 5. CONTINGENCIES

The District is contingently liable in respect to lawsuits and other claims in the ordinary course of its operations. The potential settlement (if any) of such contingencies under the budgetary process would require appropriation of revenues yet to be realized and in the opinion of the District management would not materially affect the financial position of the District at September 30, 2018.

NOTE 6. GASB STATEMENT NOS. 68, 71 AND 75

No retroactive restatement of net position or component of long term debt has been separated for recognition in the financial statements of Brazoria County Groundwater Conservation District, as the District's piece is immaterial to its financial statements. The Brazoria County financial statements for the year ending September 30, 2018 have reported amounts in total, and contain the appropriate note disclosures related to the adoption of these standards.

NOTE 7. EVALUATION OF SUBSEQUENT EVENTS

The District has evaluated subsequent events through March 7, 2019, the date which the financial statements were available to be issued.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 3. DEPOSITS AND INVESTMENTS

The District contracts with Brazoria County to provide accounting services. As part of this agreement, Brazoria County maintains accounting records for the District as well as a shared cash account as an agency fund for the District. This agency fund cash account is covered by the same depository agreement and pledged securities maintained by Brazoria County.

The District classifies deposits and investments for financial statement purposes as cash and cash equivalents, current investments, and non-current investments based upon both liquidity (demand deposits) and maturity date (deposits and investments) of the asset at the date of purchase. For this purpose an investment is considered a cash equivalent if when purchased it has maturity of three months or less. Investments are classified as either current investments or non-current investments. Current investments have maturity of one year or less and non-current investments are those that have a maturity of one year or more. See Note 1 for additional Governmental Accounting Standards Board Statement No. 31 disclosures.

Deposits

Custodial Credit Risk – Deposits. Custodial credit risk is the risk that in the event of a financial institution failure, the District's deposits may not be returned to them. The District requires that all deposits with financial institutions be collateralized in an amount equal to 100 percent of uninsured balances.

Under Texas state law, a bank serving as the District's depository must have a bond or in lieu thereof, deposited or pledged securities with the District or an independent third party agent, an amount equal to the highest daily balance of all deposits the District may have during the term of the depository contract, less any applicable FDIC insurance.

Investments

Chapter 2256 of the Texas Government Code (the Public Funds Investment Act) authorizes the District to invest its funds in areas that primarily emphasizes the safety of principal and liquidity, addresses investment diversification, yield, and maturity and addresses the quality and capability of investment personnel.

The District held no investments at or for the year ended September 30, 2018. Further, as of September 30, 2018, the District has adopted Brazoria County's investment policy, as the County has custody of all cash and investments, when applicable. According to the policy, District funds will be invested in compliance with the Public Funds Investment Act and the County's Investment Policy, except when a resolution is issued by the District. The County will invest according to investment strategies for each fund as they are adopted by the Commissioners' Court resolution.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 2. NEW PRONOUNCEMENTS

GASB issues statements on a routine basis with the intent to provide authoritative guidance on the preparation of financial statements and to improve governmental accounting and financial reporting of governmental entities. Management reviews these statements to ensure that preparation of its financial statements are in conformity with generally accepted accounting principles and to anticipate changes in those requirements. The following recent GASB Statements reflect the action and consideration of management regarding these requirements:

GASB No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" was issued June 2015. The statement was implemented and did not have a material effect on the District's financial statements. This statement was effective for periods beginning after June 15, 2017.

GASB No. 84 "Fiduciary Activities" was issued in January 2017. The management of the District does not expect the implementation of this standard to have a material effect on the financial statements of the District. The requirements of this Statement are effective for periods beginning after December 15, 2018.

GASB No. 85 "Omnibus 2017" was issued in March 2017. The statement was implemented and did not have a material effect on the District's financial statements. The requirements of this Statement are effective for periods beginning after June 15, 2017.

GASB No. 86 "Certain Debt Extinguishment Issues" was issued in May 2017. The statement was implemented and did not have a material effect on the District's financial statements. The requirements of this Statement are effective for periods beginning after June 15, 2017.

GASB No. 87 "Leases" was issued in June 2017. The management of the District does not expect the implementation of this standard to have a material effect on the financial statements of the District. The requirements of this Statement are effective for periods beginning after December 15, 2019.

GASB No. 88 "Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements" was issued in April 2018. The management of the District does not expect the implementation of this standard to have a material effect on the financial statements of the District. The requirements of this statement are effective for reporting periods beginning after December 15, 2019.

GASB No. 89 "Accounting for Interest Cost Incurred before the End of a Construction Period" was issued in June 2018. The management of the District does not expect the implementation of this standard to have a material effect on the financial statements of the District. The requirements of this statement are effective for reporting periods beginning after December 15, 2019.

GASB No. 90 "Majority Equity Interests – an amendment of GASB Statements No. 14 and No. 61" was issued in August 2018. The management of the District does not expect the implementation of this standard to have a material effect on the financial statements of the District. The requirements of this statement are effective for reporting periods beginning after December 15, 2018.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Fund Equity

Fund Balance

The Board of Directors meets on a regular basis to manage and review cash financial activities and to ensure compliance with established policies. The District's unassigned General Fund Balance is maintained to provide the District with sufficient working capital and a margin of safety to address local and regional emergencies without borrowing. The unassigned General Fund Balance may only be appropriated by resolution of the Board of Directors. Fund Balance of the District may be committed for a specific source by formal action of the Board of Directors. Amendments or modifications of the committed fund balance must also be approved by formal action by the Board of Directors.

The District has implemented GASB 54, "Fund Balance, Reporting and Governmental Fund Type Definitions", for its governmental funds. Under this standard, fund balances are required to be reported according to the following classifications:

Non-spendable Fund Balance - Includes amounts that cannot be spent because they are either not in spendable form, or, for legal or contractual reasons, must be kept intact. This classification includes inventories, prepaid amounts, assets held for sale, and long-term receivables.

Restricted Fund Balance - Constraints placed on the use of these resources are either externally imposed by creditors (such as through debt covenants), grantors, contributors or other governments; or are imposed by law (through constitutional provisions enabling legislation).

Committed Fund Balance - Amounts that can only be used for specific purposes because of a formal action (resolution or ordinance) by the government's highest level of decision-making authority.

Assigned Fund Balance - Amounts that are constrained by the District's intent to be used for specific purposes, but that do not meet the criteria to be classified as restricted or committed. Intent can be stipulated by the governing body, another body (such as a Finance Committee), or by an official to whom that authority has been given. With the exception of the General Fund, this is the residual fund balance classification for all government funds with positive balances.

Unassigned Fund Balance - This is the residual classification of the General Fund. Only the General Fund reports a positive unassigned fund balance. Other governmental funds might report a negative balance in this classification, as the result of overspending for specific purposes for which amounts had been restricted, committed, or assigned.

Net Position

Net position represents the differences between assets and deferred outflows of resources, and liabilities and deferred inflows of resources. Net investment in capital assets, consists of capital assets, net of accumulated depreciations, reduced by the outstanding balances of any borrowing used for the acquisition, construction or improvements of those assets, and adding back unspent proceeds. Restricted net position, as presented in the government-wide Statement of Net Position, are reported when constraints placed on the use of net position are either 1) externally imposed by creditors (such as through debt covenants, grantors, contributors, or laws or regulations of other governments), or 2) imposed by law through constitutional provisions or enabling legislation.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Long-Term Debt

In the government-wide financial statements long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities statement of net position. Debt premiums and discounts, as well as issuance costs, are deferred and amortized over the life of the debt using the straight-line method. Debt payable is reported net of the applicable debt premium or discount. The District had no outstanding debt balance at September 30, 2018.

In the fund financial statements, governmental fund types recognize debt premiums and discounts during the current period. The face amount of the debt is reported as other financing resources. Premiums received on debt issuances are reported as other financing sources while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

Capital Assets

Capital assets are reported in the governmental activities columns in the government-wide financial statements. All capital assets are valued at historical cost or estimated historical cost if actual historical is not available. Donated assets are valued at their fair market value on the date donated. Repairs and maintenance are recorded as expenses. Renewals and betterments are capitalized.

Assets capitalized have an original cost of \$ 5,000 or more and three or more years of useful life. Depreciation has been calculated on each class of depreciable property using the straight-line method. Estimated useful lives are as follows:

Software

3 Years

Deferred Outflows and Inflows of Resources

Guidance for deferred outflows of resources and deferred inflows of resources is provided by GASB No. 63, "Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position". Concepts Statement No. 4, Elements of Financial Statements, introduced and defined those elements as a consumption of net position by the government that is applicable to a future reporting period, and an acquisition of net position by the government that is applicable to a future period, respectively. Previous financial reporting standards do not include guidance for reporting those financial statement elements, which are distinct from assets and liabilities. Further, GASB No. 65, "Items Previously Reported as Assets and Liabilities", had an objective to either (a) properly classify certain items that were previously reported as assets and liabilities as deferred outflows of resources or deferred inflows of resources or (b) recognize certain items that were previously reported as assets and liabilities as outflows of resources (expenses or expenditures) or inflows of resources (revenues).

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Cash and Investments - continued

In accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and External Investment Pools*, investments are reported at fair value. Fair values are based on published market rates. Current investments have an original maturity greater than three months but less than one year at the time of purchase. Non-current investments have an original maturity of greater than one year at the time of purchase.

Fees

Section 3.31 of the District's Rules authorizes the Board of Directors of the District to establish application fees, production fees, export fees and other administrative fees. Beginning October 1, 2006, each well permit holder shall be responsible for reading the meter which measures the amount of water produced by each permitted well at the end of each month. Each well permit holder shall also be responsible for measuring the amount of water exported outside the District's boundaries during the course of each month. Each well permit holder shall accurately report such production and export measurements to the District on reporting forms provided by the District. Failure to make such production and export measures and report the same to the District shall be a violation of the District's rules. The District shall have the right to audit the production and export measurements submitted by the well permit holder by reading the meter at each permitted well. Failure to maintain meters for accurate reporting shall be a violation of the District's rules. All fees must be paid by check or money order. No cash is accepted. Production fees are invoiced in an amount based on the requested volume of water for the permit term at the rate of \$.03 per 1,000 gallons. Application fees shall be submitted with the permit application. This process is referred to as self-reporting. The validity of any permit is contingent upon payment of any applicable application, export or production fee. Failure to make complete and timely payments of a fee will automatically result in a one-time late payment penalty of thirty (30) percent of the amount not paid. Failure to make complete and timely payment may also result in the Board declaring the respective well permit void and taking legal action against the permittee.

The District adopted the following fee schedule effective August 9, 2018:

Permit Application Fees. The District charges well permit application fees of \$ 100 for one-year permits.

Production Fees. The production fee is \$ 0.03 per 1,000 gallons of groundwater produced. Such production fee shall be assessed against all groundwater produced by permitted wells located in the District for all uses other than personal or agricultural uses. The production fee is due and payable within 30 days of the date the production fee statement is issued by the District. The minimum production fee is \$ 30 per well.

Export Fees. An export fee of one and a half times the maximum wholesale water rate ("Resale Volume Charge") charged by the City of Houston based on the most recently published "Water and Sewer Rates" per 1,000 gallons of groundwater exported out of the District (this amount is in addition to the Production Fee).

Accounts receivable at September 30, 2018 represent fees invoices but not collected in the amount of \$ 30,893. The District expects to collect the entire balance, thus no allowance has been recorded.

BRAZORIA COUNTY GROUNDWATER CONSERVATION DISTRICT

NOTES TO THE FINANCIAL STATEMENTS

September 30, 2018

NOTE 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Measurement Focus, Basis of Accounting, and Financial Statement Presentation (Continued)

Governmental fund financial statements are reported using the *current financial resources measurement focus* and the *modified accrual basis of accounting*. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be *available* when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the government considers revenues to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

Revenues from local sources consist primarily of fees. Fee revenues are recorded as revenue when received in cash because they are generally not measurable until actually received. Investment earnings are recorded as earned, since they are both measurable and available.

Revenue from investments is based upon fair value. Fair value is the amount at which a financial instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. Most investments are reported at amortized cost when the investments have remaining maturities of one year or less at time of purchase.

When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first and the unrestricted resources as needed.

The District reports the following major governmental fund:

The *general fund* is the government's primary operating fund. It accounts for all financial resources of the District, except those required to be accounted for in another fund. The major revenue source is fees (application, production, export and other administrative). Expenditures include all costs associated with the daily operations of the District. The District has only one fund, the general fund.

Budgetary Data

The budget law of the State of Texas provides that amounts budgeted for current expenditures from the various funds of the District shall not exceed the balances in the funds, plus the anticipated revenues for the current year. The legal level of budgetary control is at the functional level (Current Expenditures: General Government and Administration and Groundwater Conservation, Capital Outlay, and Debt Service) of each fund. Any expenditures, which alter the total budgeted amounts of a fund, must be approved by the Board of Directors, and the budget amended. Budgets are adopted on a basis consistent with generally accepted accounting principles.

During the year ended September 30, 2018, the District Board of Directors enacted a formal budget.

Cash and Investments

The District considers highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.