

**Middle Pecos Groundwater
Conservation District
2021- Annual Report**

General Manager: Ty Edwards



Submitted by Ty Edwards, General Manager
02/15/2022

Middle Pecos Groundwater Conservation District 2021 Annual Report

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MIDDLE PECOS GROUNDWATER CONSERVATION DISTRICT

P.O. Box 1644 Fort Stockton, TX 79735 Phone (432)336-0698 Fax (432)336-3407

405 North Spring Drive Fort Stockton, Texas 79735

Email: mpgcd@mpgcd.org

Website: www.middlepecosgcd.org

Directors

Jerry McQuairt, President Janet Groth, Vice President M. R. Gonzalez, Secretary/Treasurer
 Alvaro Mandujano, Jr. Vanessa Cardwell Ronald Cooper
 Weldon Blackwelder Allan Childs Jeff Sims Puja Boinpally Larry Drgac

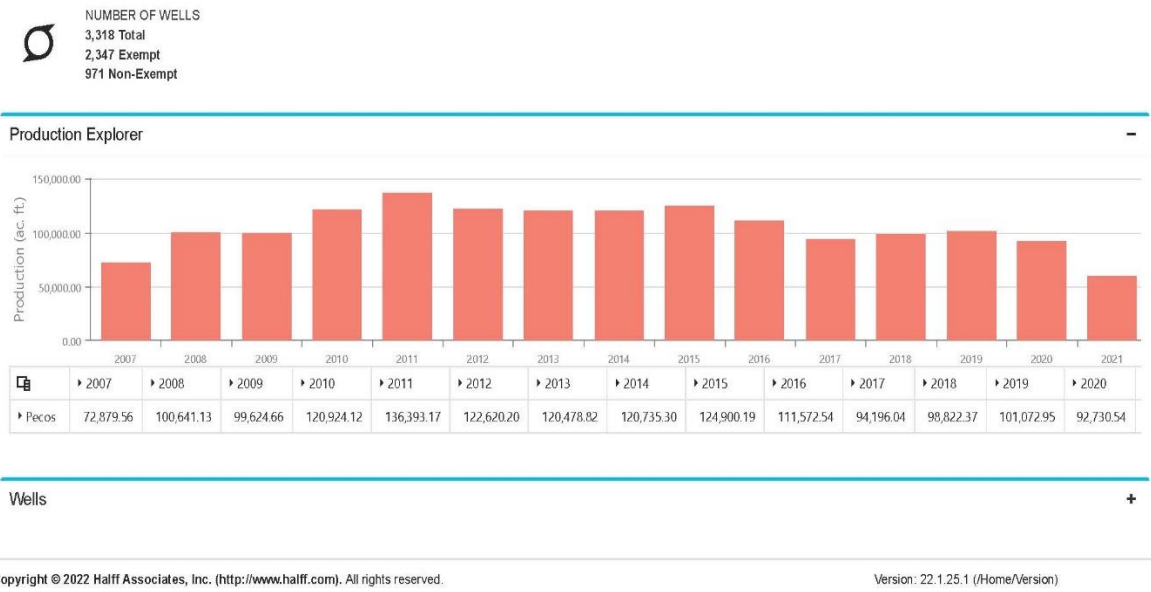
Employees

Ty Edwards, General Manager
 Office: Gail Reeves Field Technician: Anthony Bodnar

2021 Annual Manager’s Report

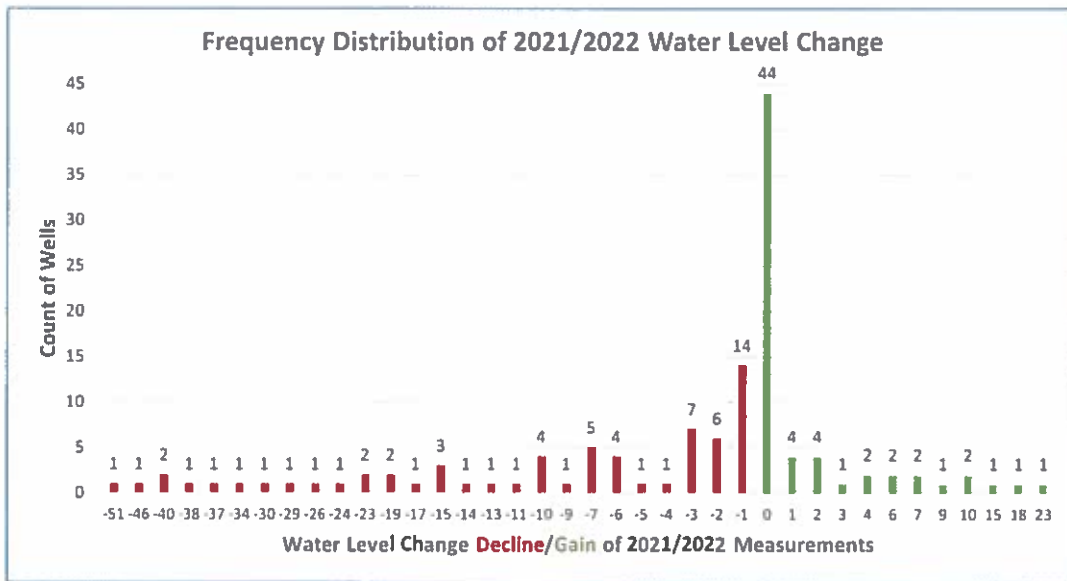
MPGCD Board of Directors

- 2021 was another very busy year for MPGCD. The District continued to tend to MPGCD business through the Covid-19 pandemic. We held one rule making hearing, four drilling permit hearings, three production permit hearings and two amendment hearings in 2021. Permitting a total of **335-acre feet** a year from the Pecos Valley and Edwards Trinity Aquifers.
- Annual groundwater production and number of registered water wells in the District are:

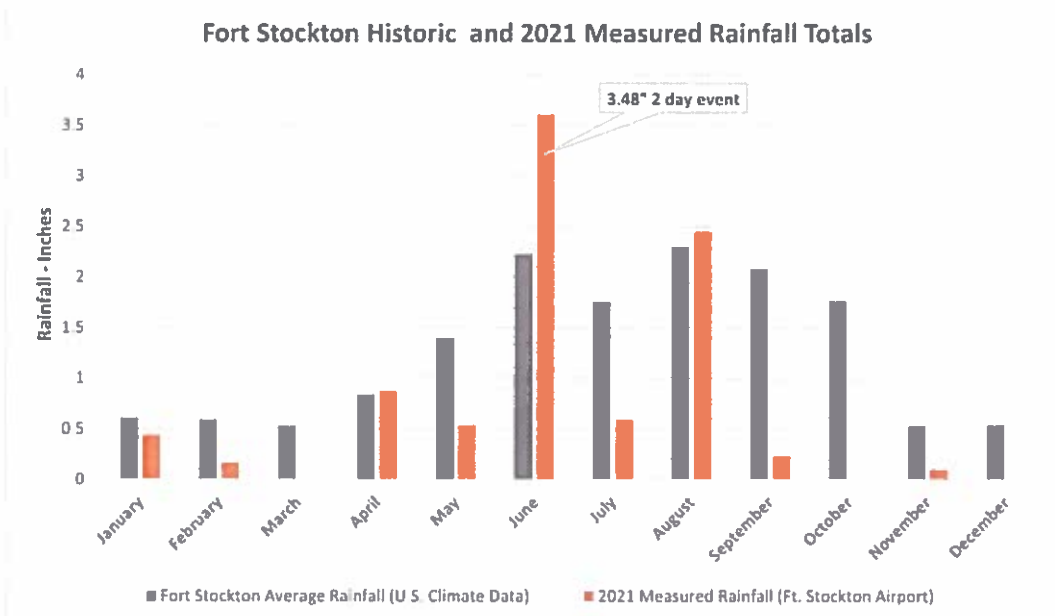


- Currently **130** water wells are monitored in Pecos County with nearly half showing a drawdown when compared to their 2021 winter measurement. Of the wells showing a drawdown, 39 experienced less than 10 feet of drawdown, while 13 displayed between 10 and 20 feet of drawdown and 13 wells showed a decline of more than 20 feet. The most notable declines were observed within and around Management Zone 1, while Management Zone 3 showed only mild declines (< 10 Feet) and Management Zone 2 remained relatively unchanged. The declines

observed throughout Pecos County are not surprising since 2021 was an exceptionally dry year, however the magnitude of some of these declines deserve careful attention.



In 2021 a turning point was reached in water level recovery from the 2011-2012 drought, as nearly all of Pecos County is now at lower water levels with Management Zone 1 and 3 being most significantly impacted. Each of these areas rely heavily on groundwater for agricultural crop production with drought compounding this demand. In 2021 Fort Stockton received 9.02" of rainfall, an approximate 40% departure from the average, with approximately 30% of this rainfall occurring over a two-day period in late June.



- In Corporation with local landowners **86** water samples have been collected across Pecos County in 2021.
- Fort Stockton Holdings 28,400 ac/ft export permit was renewed for a 3-year permit term effective July 18, 2020, in accordance with District Rule 11.8(f) and Texas Water Code 36.1145. FSH and MPGCD approved a joint study in June to be proactive and to develop scientific data that will provide FSH, the District and other stakeholders with more certainty about conditions in the Edwards-Trinity aquifer. FSH agreed to pay \$250,000 to contribute to the study. As of this date the District has installed transducers, which are recording pressure, temperature, and conductivity at the 11 Threshold monitor well sites. This work will continue in 2022 and into the future. The FSH Threshold Well Dashboard is available at <https://mpgcd.half.com/Dashboard>.
- **COCKRELL #1-** Cockrell Investment Partners, L.P v. Middle Pecos Groundwater Conservation District, Cause NO. P-12176-112-CV (First Law suite) was filed in District court over denial of Party status to the Fort Stockton Holdings (FSH) Hearings. Judge Ables ruled in favor of the District on December 17, 2020 granting the District Pleas to the Jurisdiction and awarded attorney fees. This case has been appealed to El Paso Court of Appeals, Appellate Case No. 08-21-00017-CV.
- **COCKRELL #2-** Cockrell Investment Partners, L.P v. Middle Pecos Groundwater Conservation District, Cause NO. P-8277-83-CV (Second Law Suite Permit Renewal). Signed by the parties noting that Cockrell Investment Partners has agreed to pay the mandatory awarded fees. Cockrell Investment Partners has appealed Judge Ables decision to the El Paso Court of Appeals.
- **Diamond Y Spring-**The Nature Conservancy has installed Telemetry in Diamond Y Springs. The Conservancy has created an extensive groundwater monitoring program to track spring flows, water quality, and the health of the pupfish and other species. Over the last few years, we have seen a decrease in flows during the summer months and a recovery in winter months. Diamond Y Spring Preserve protects one of the largest and last remaining Cienega systems in West Texas. The District updated the geologic model in 2021, around the Diamond Y Spring area and was able to map several faults. Work is ongoing.
- **Santa Rosa Spring-** continues to remain dry. The spring bed is being monitored and we are tracking changes in pressure during rain fall events.
- **Comanche Spring-** is continually monitored for flow, pressure, and conductivity during the Winter Spring Season. The Spring began flowing on January 19, 2021 and stopped flowing on March 17, 2021.
- The District was awarded a **FY 21 TWDB Agricultural Water Conservation Grant** for metering in Management Zone 1. Outreach is ongoing and hope to begin installation of meters in early 2022.
- The District Board approved the drilling of a **Monitor Well at the MPGCD Office located at 405 North Spring Drive**. The purpose of the well will be to have an educational monitoring site outside the office. The current plan is to install an 8ft Areomotor windmill over the well with full time In-Situ monitoring equipment downhole. A full exhibit will be erected at the site.

- **San Andres Flowing Wells-** Research is continuing pertaining to the artesian wells around the Imperial area. Currently seven wells have been plugged. The District budgeted \$150,000 for fiscal year 2021-2022 to start a plugging effort to address the remaining well issues. A draft well plugging agreement has been approved and local landowners have been contacted. Outreach with RRC, TCEQ and state officials are ongoing.
- Phase 1 of building a groundwater flow model have begun with completion of the model anticipated for 2022-2023. The objective is to develop a tool that would assist the District in groundwater management. The google link for the tech memos is available at:

<https://drive.google.com/drive/folders/1HYj8JRV4omAgKPJWBta-T20hZUbtYaPS>.

Specific uses that are contemplated include:

- DFC development without the need to use regional GAM's
 - Provide a quantitative basis for future updates to the District's rules that set a threshold on well size/pumping amount for requiring permit applicants to prepare hydrologic reports
 - Provide a tool that can be used to review permit applications by quantifying the potential impacts of new pumping for any formation/aquifer in the District on a regional scale
 - Assess the relationship between groundwater pumping and spring flow at Comanche Springs on a monthly time scale
- The third round of joint planning for Groundwater Management Areas 3 and 7 are ongoing. For this round, the statutory deadline to propose desired future conditions (DFC's) is May 1, 2021, and the deadline to submit final DFC's to the Texas Water Development Board is January 5, 2022.

GMA 3 has adopted the Final DFC's. MPGCD held its public hearing on January 19, 2021 and adopted the DFC's at the GMA 3 meeting on February 17, 2021. As the Chairman I was present at 100 percent of the meetings.

https://www.twdb.texas.gov/groundwater/management_areas/gma3.asp

GMA 7 convened several meetings in 2021. Tentatively, the DFCs adopted in 2016 will not need modification. The proposed DFCs have been approved and are awaiting administrative completeness by TWDB. I was present at 100 percent of the GMA 7 meetings in 2021.

https://www.twdb.texas.gov/groundwater/management_areas/gma7.asp

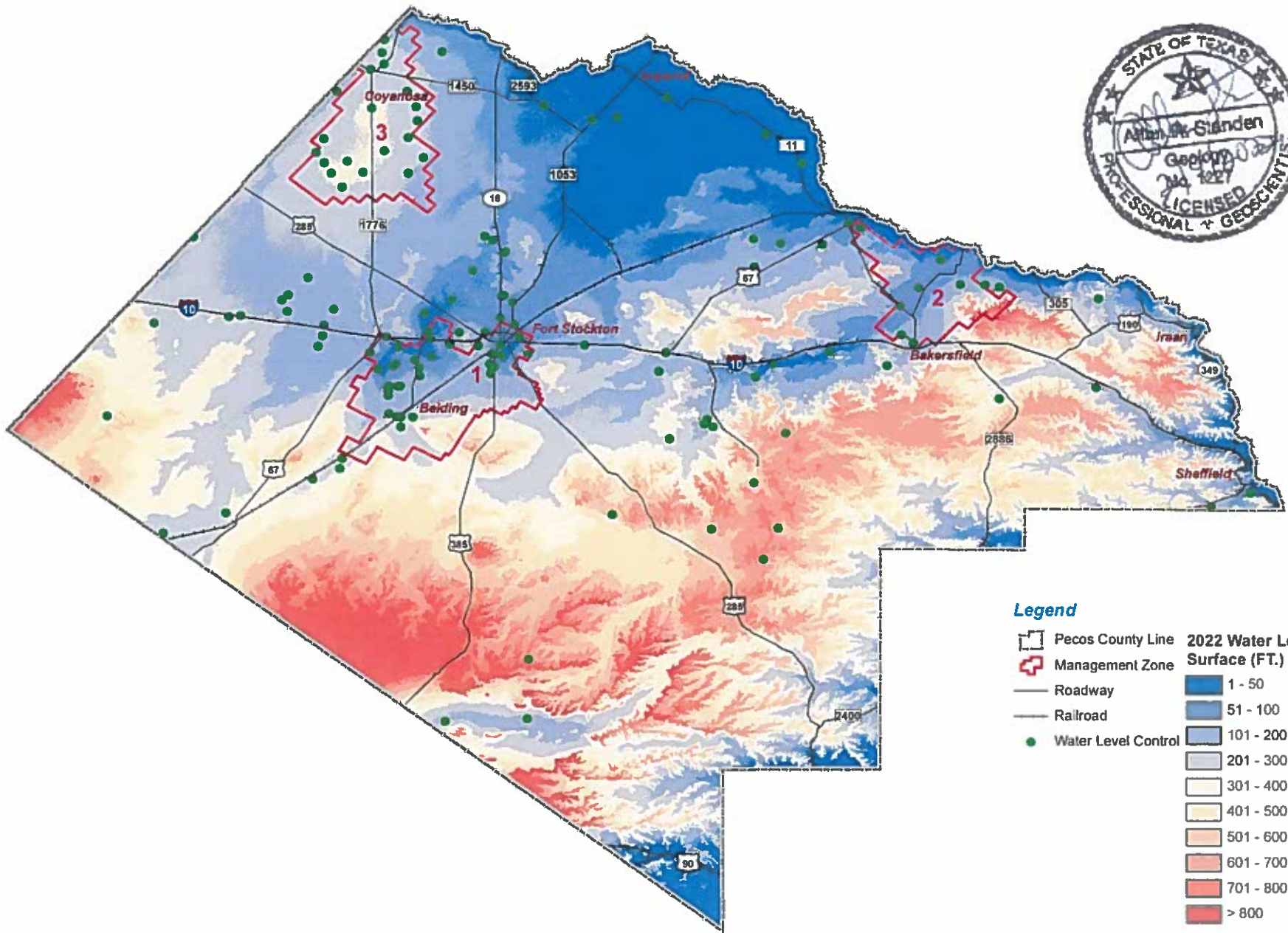
- The **Region F Water Planning Group** is tasked with developing and adopting a regional water plan in accordance with Texas Senate Bill 1 and Texas Senate Bill 2. The 2021 Region F Plan was submitted to the Texas Water Development Board, and we held our last meeting to adopt the 2021 plan on September 17, 2020. I am a voting member of Region F representing Groundwater Management Area 3 and have attended 100 percent of the scheduled meetings for Region F in 2021.

<https://www.twdb.texas.gov/waterplanning/rwp/plans/2021/index.asp>

- The Texas Legislature is in the thick of its interim legislative period with legislative members splitting their time between campaigning and preparing for the next Regular Session of the Legislature. Texas re-districted in 2021. Pecos County has been added to State House District 53 (Andrew Murr) and Senate District 29 (Cesar Blanco).
- As General Manager of the District, I would like to thank MPGCD Directors for all the hard work and time you dedicated to 2021.



Ty Edwards, General Manager

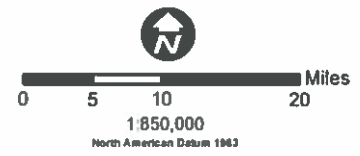


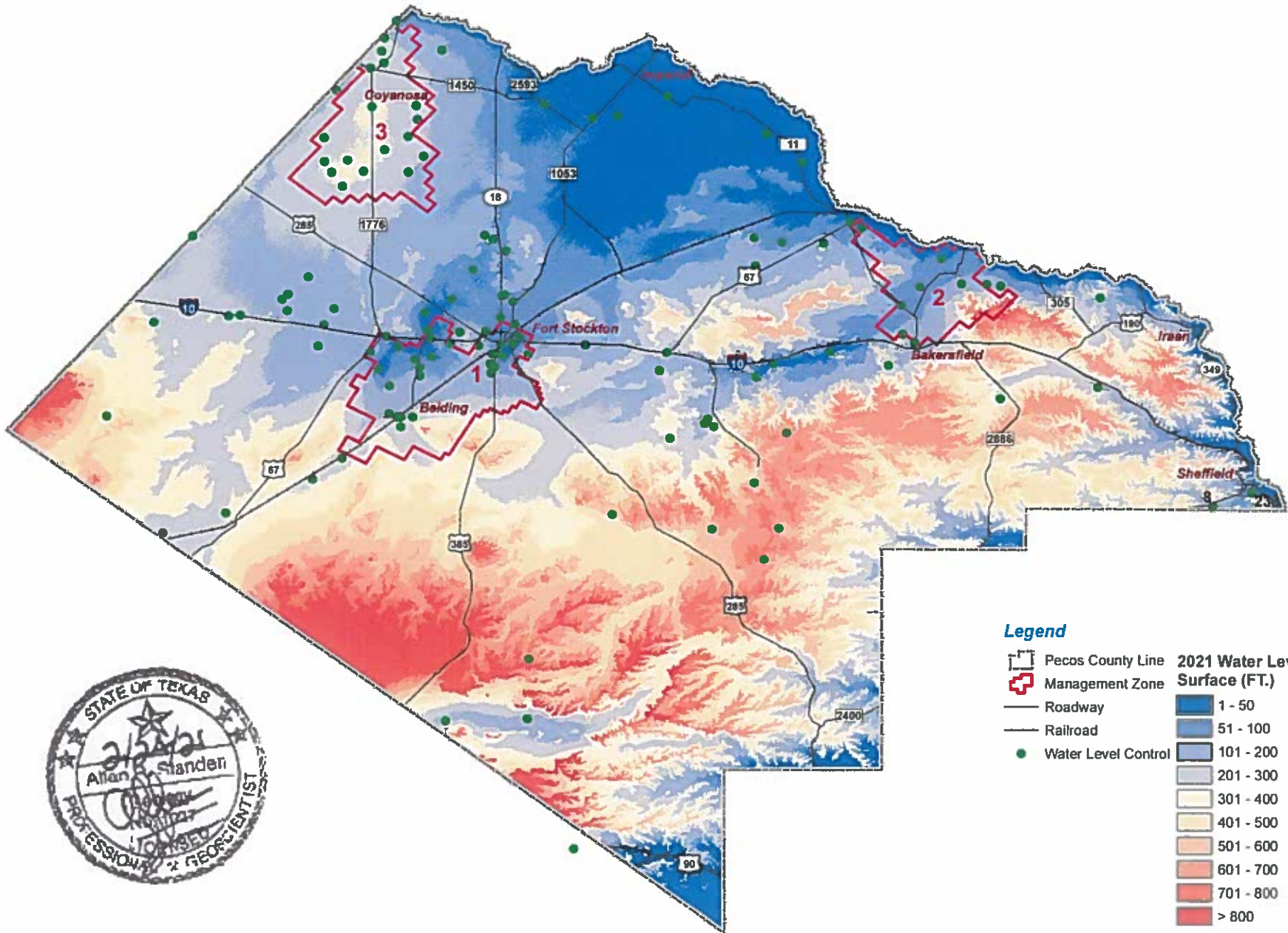
Legend

- Pecos County Line
 - Management Zone
 - Roadway
 - Railroad
 - Water Level Control
- | 2022 Water Level Surface (FT.) | |
|--------------------------------|-----------|
| | 1 - 50 |
| | 51 - 100 |
| | 101 - 200 |
| | 201 - 300 |
| | 301 - 400 |
| | 401 - 500 |
| | 501 - 600 |
| | 601 - 700 |
| | 701 - 800 |
| | > 800 |



**2022 Depth to Water Surface
Pecos County, Texas**





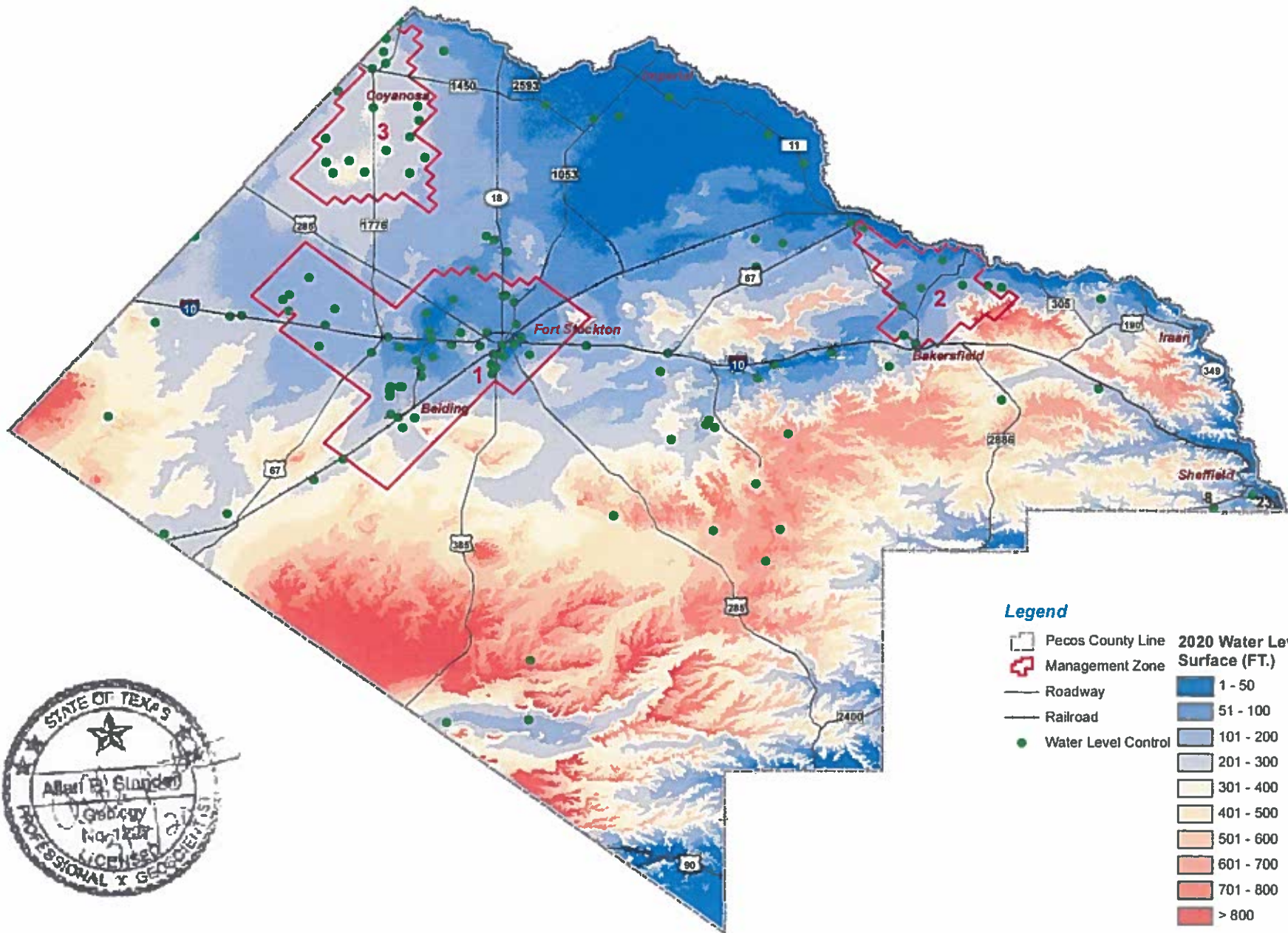
Legend

- Pecos County Line
 - Management Zone
 - Roadway
 - Railroad
 - Water Level Control
- | 2021 Water Level Surface (FT.) | |
|--------------------------------|-----------|
| | 1 - 50 |
| | 51 - 100 |
| | 101 - 200 |
| | 201 - 300 |
| | 301 - 400 |
| | 401 - 500 |
| | 501 - 600 |
| | 601 - 700 |
| | 701 - 800 |
| | > 800 |



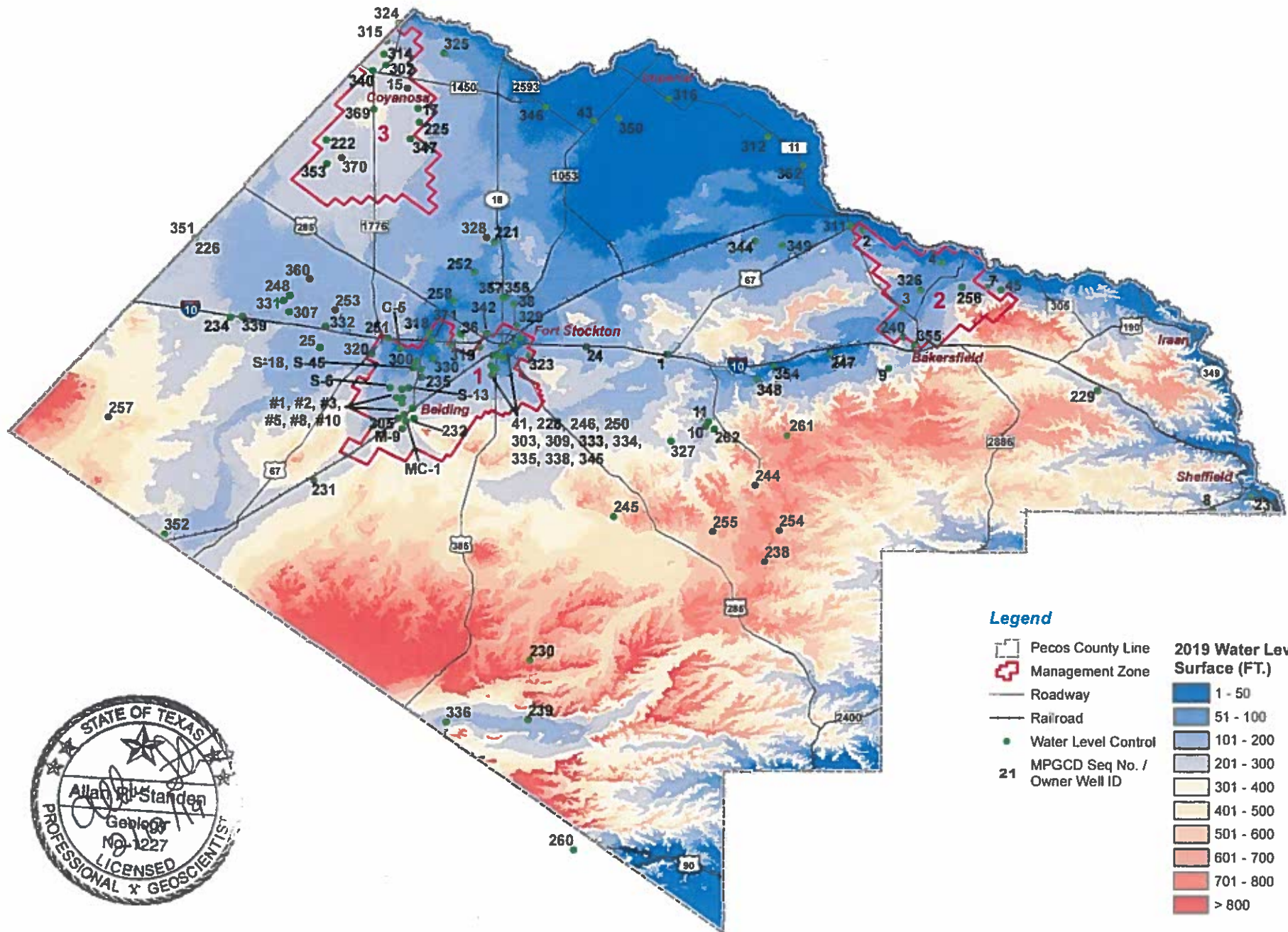
**2021 Depth to Water Level
Pecos County, Texas**





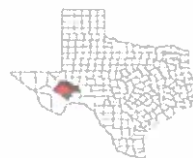
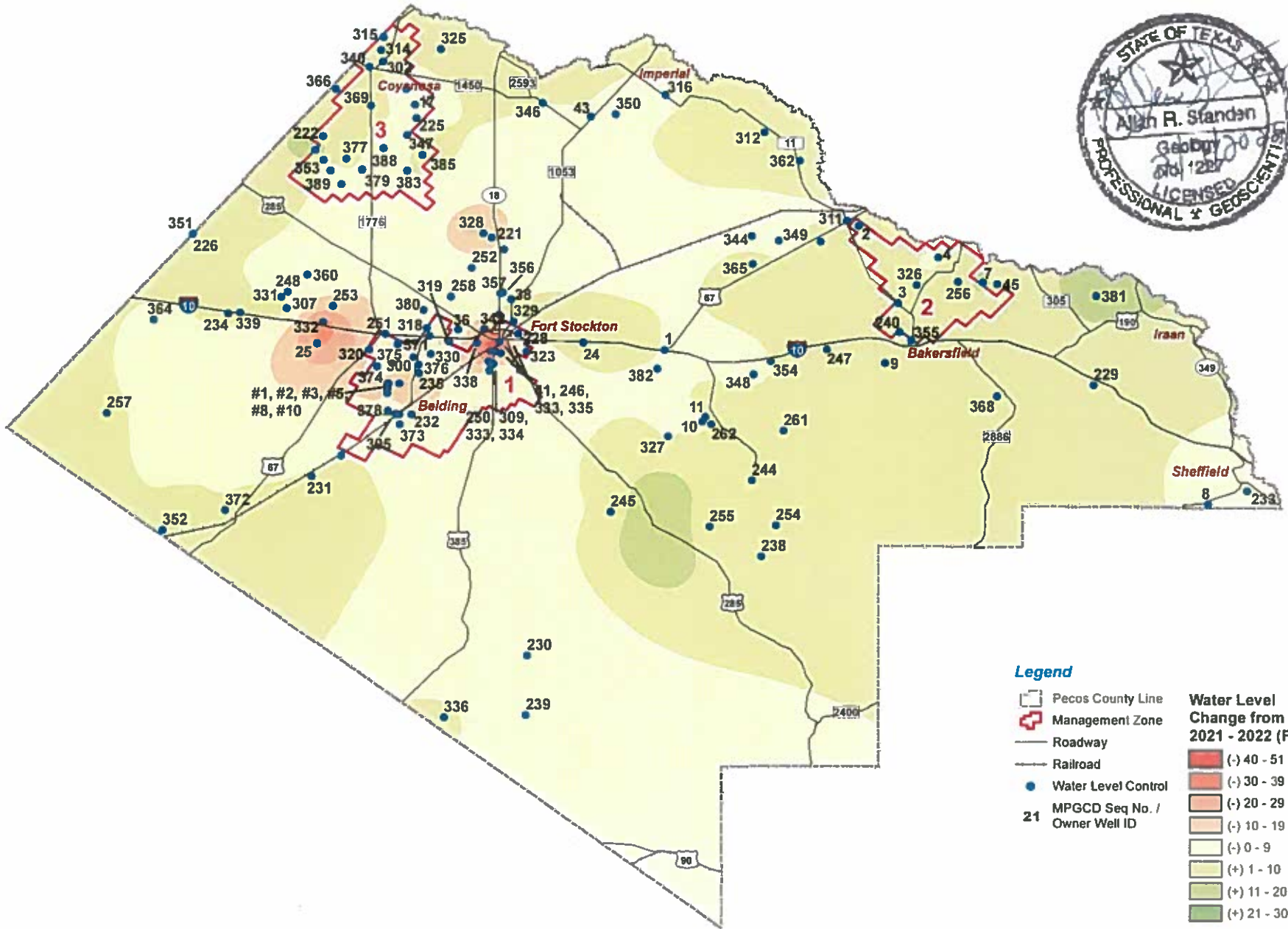
2020 Depth to Water Level Pecos County, Texas





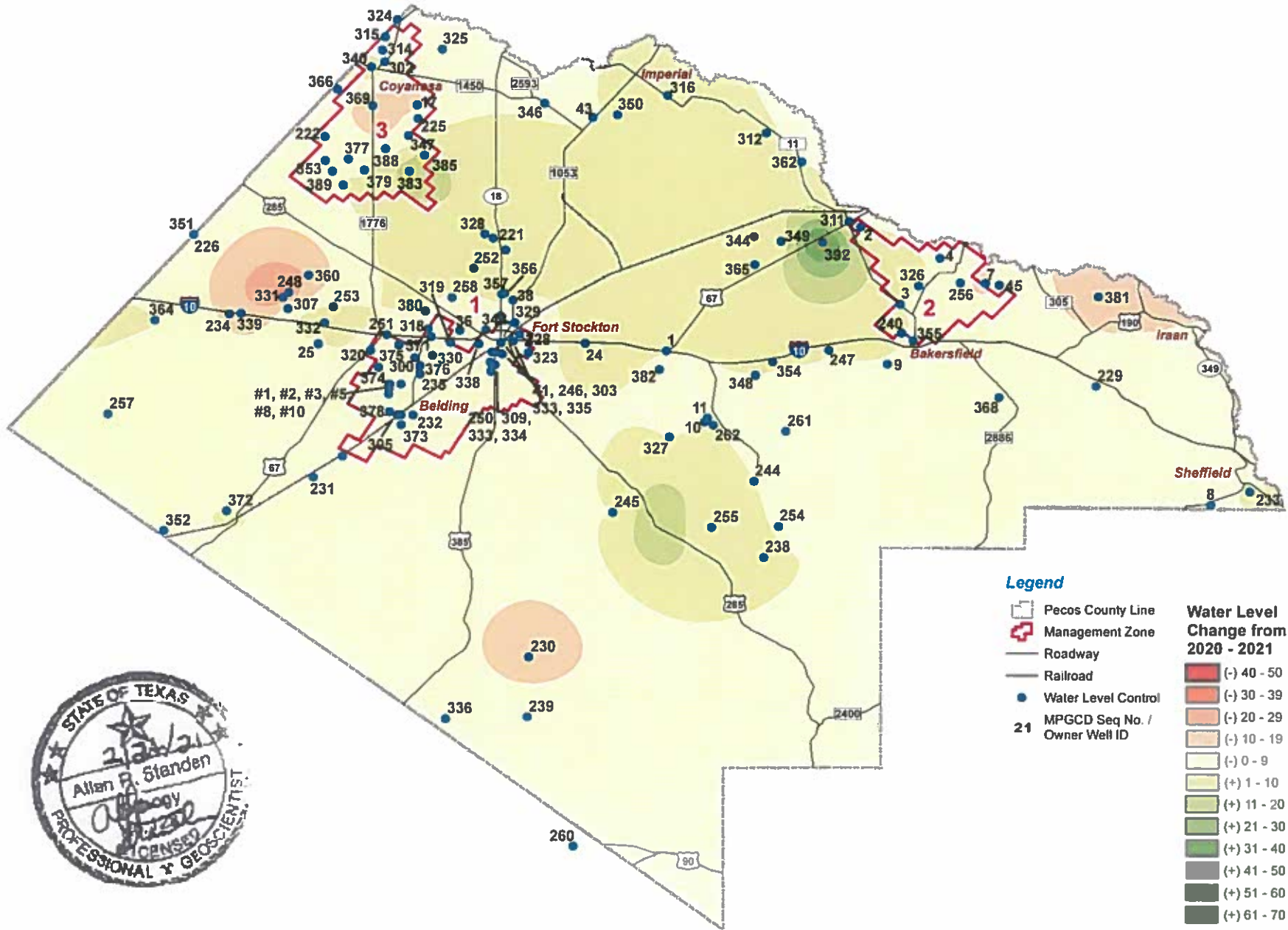
2019 Depth to Water Level Pecos County, Texas





Water Level Decline/Gain from 2021 - 2022 Pecos County, Texas

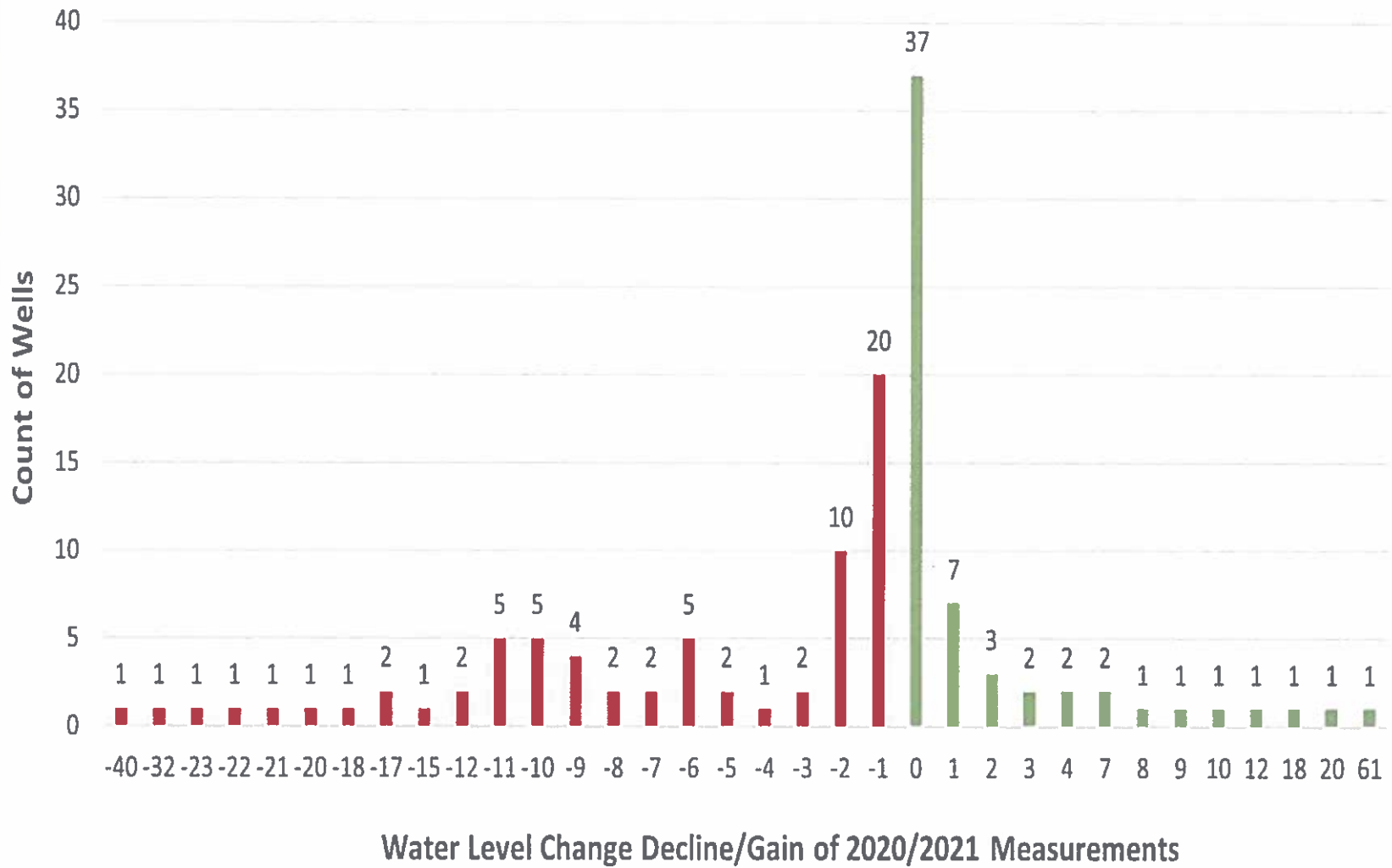


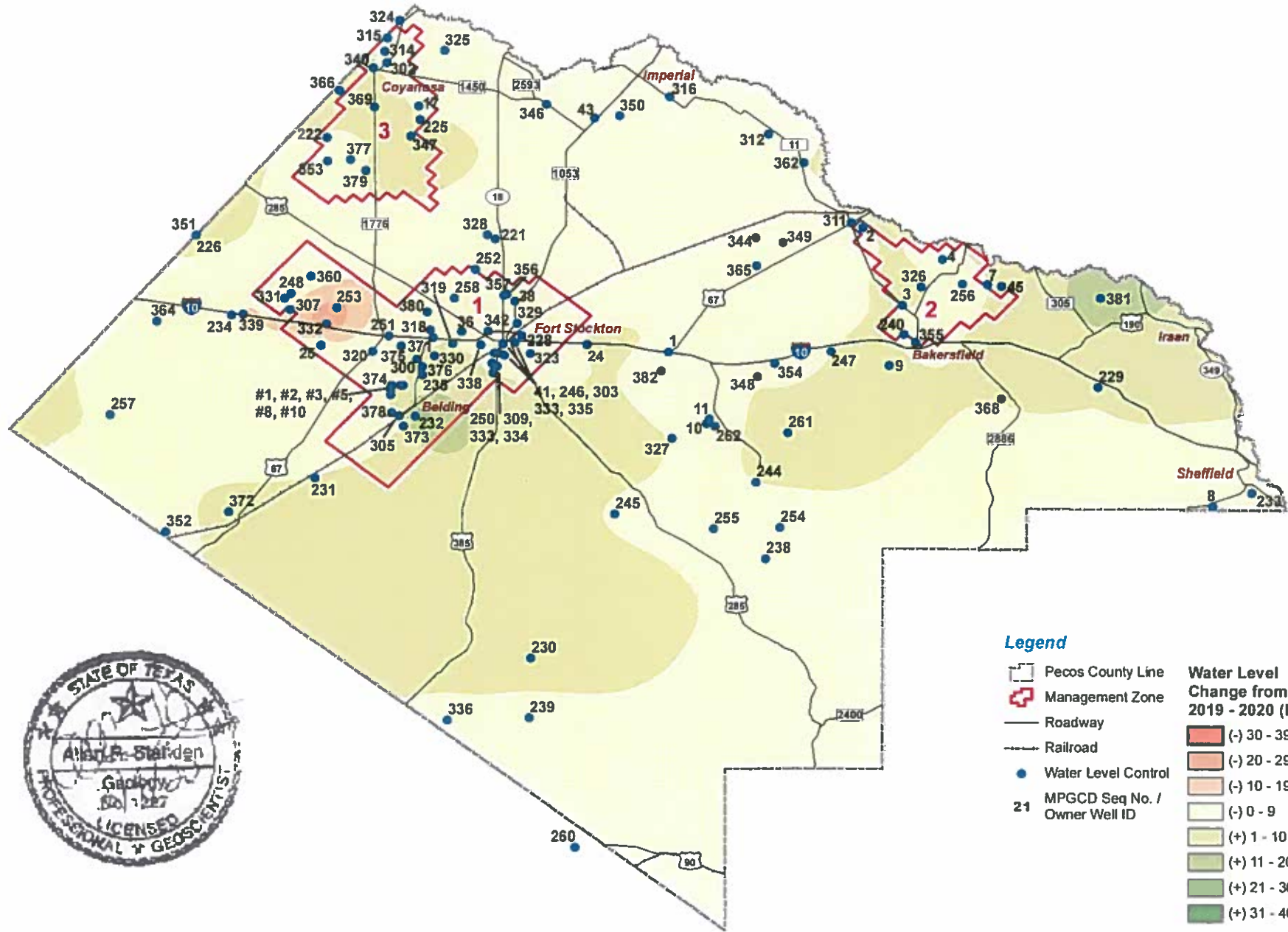


Water Level Decline/Gain from 2020 - 2021 Pecos County, Texas



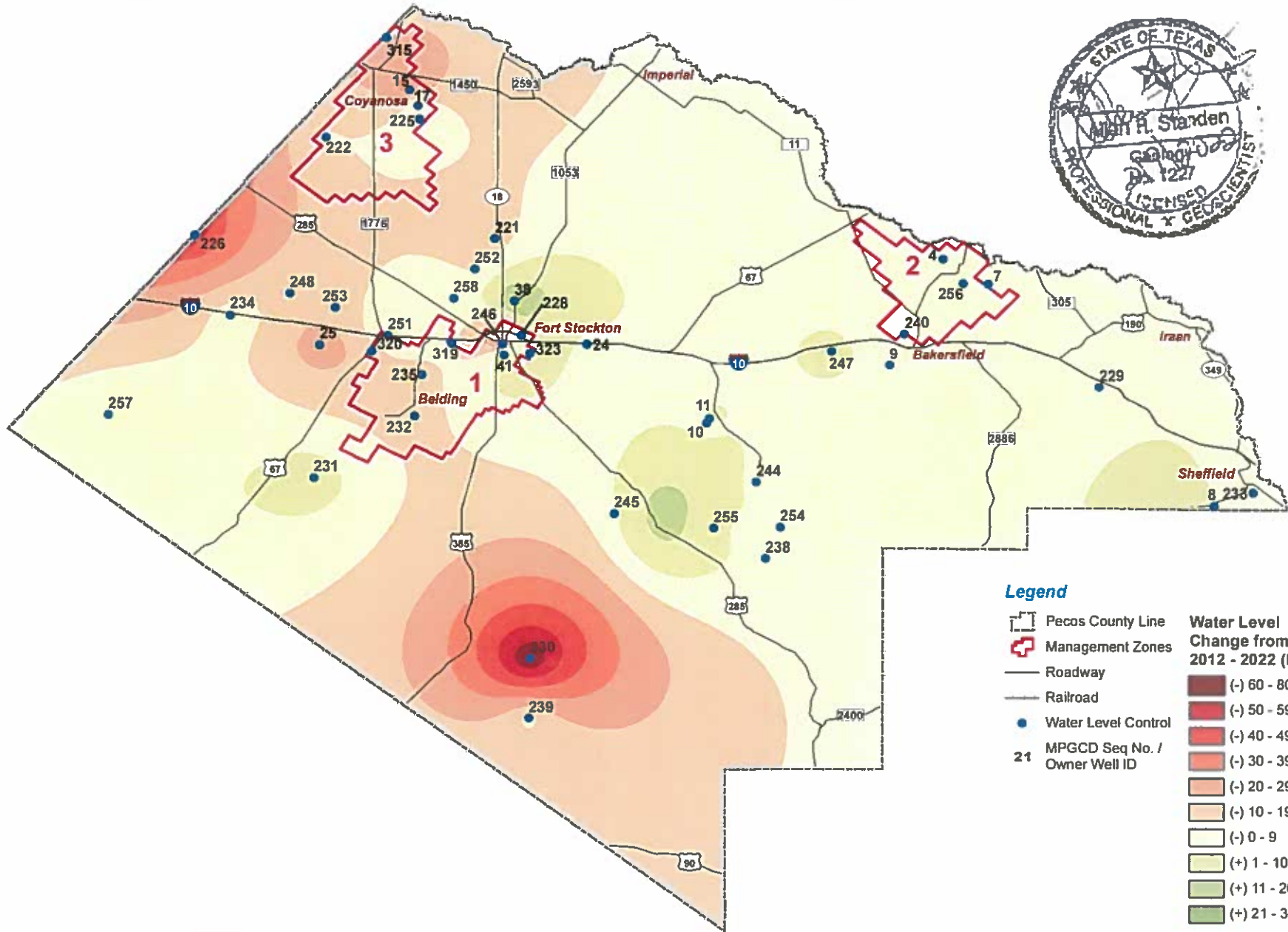
Frequency Distribution fo 2020/2021 Water Level Change





**Water Level Decline/Gain
from 2019 - 2020
Pecos County, Texas**





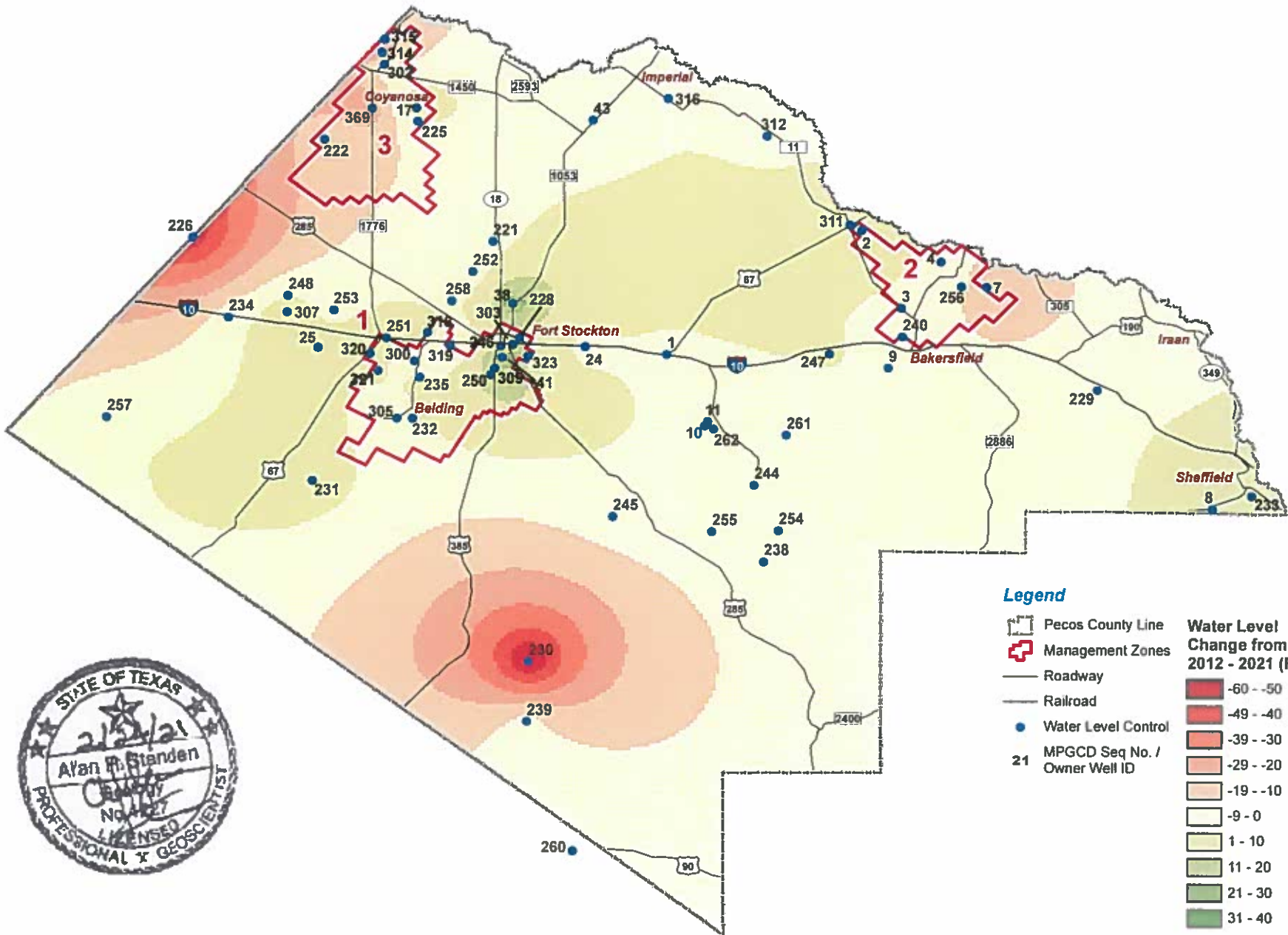
Legend

- Pecos County Line
 - Management Zones
 - Roadway
 - Railroad
 - Water Level Control
 - 21 MP/GCD Seq No. / Owner Well ID
- | Water Level Change from 2012 - 2022 (FT.) | |
|---|-------------|
| | (-) 60 - 80 |
| | (-) 50 - 59 |
| | (-) 40 - 49 |
| | (-) 30 - 39 |
| | (-) 20 - 29 |
| | (-) 10 - 19 |
| | (-) 0 - 9 |
| | (+) 1 - 10 |
| | (+) 11 - 20 |
| | (+) 21 - 30 |

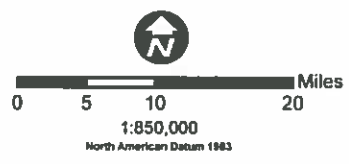


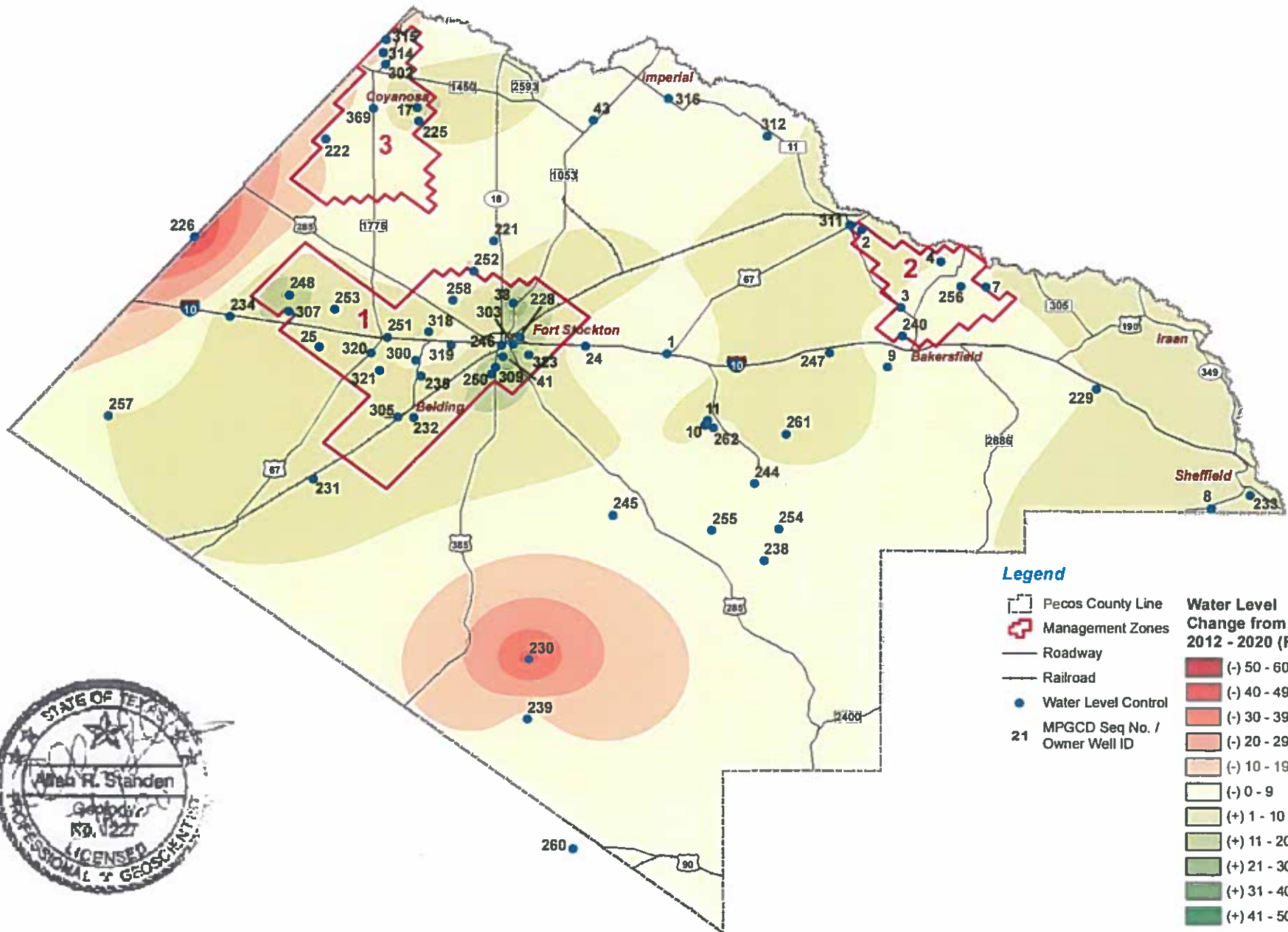
**Water Level Decline/Gain
from 2012 - 2022
Pecos County, Texas**





**Water Level Decline/Gain
from 2012 - 2021
Pecos County, Texas**



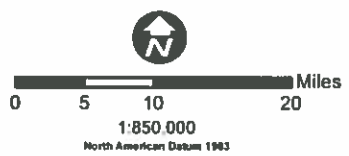


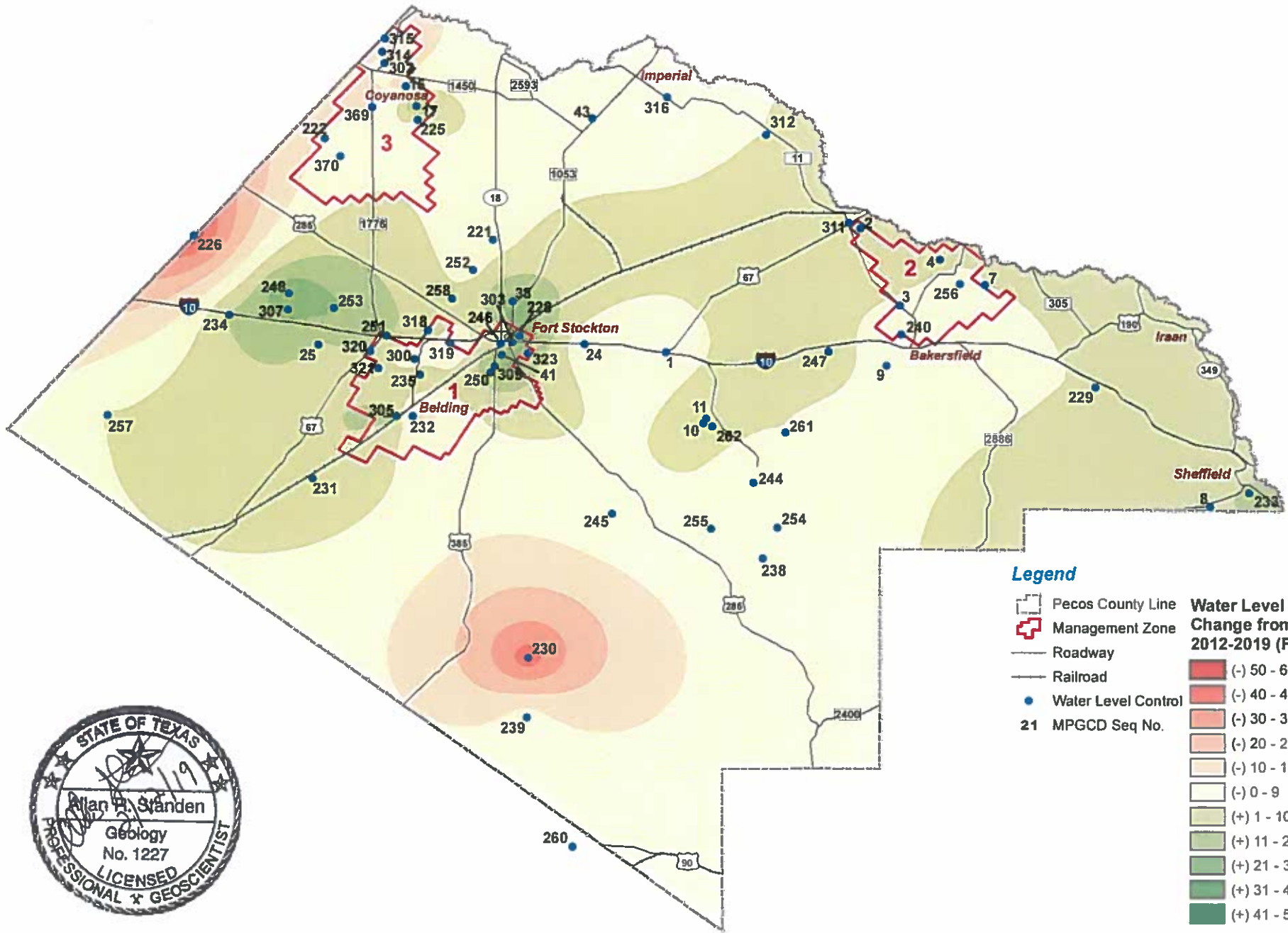
Legend

- Pecos County Line
 - Management Zones
 - Roadway
 - Railroad
 - Water Level Control
 - MPGCD Seq No. / Owner Well ID
- | Water Level Change from 2012 - 2020 (FT.) | |
|---|-------------|
| | (-) 50 - 60 |
| | (-) 40 - 49 |
| | (-) 30 - 39 |
| | (-) 20 - 29 |
| | (-) 10 - 19 |
| | (-) 0 - 9 |
| | (+) 1 - 10 |
| | (+) 11 - 20 |
| | (+) 21 - 30 |
| | (+) 31 - 40 |
| | (+) 41 - 50 |



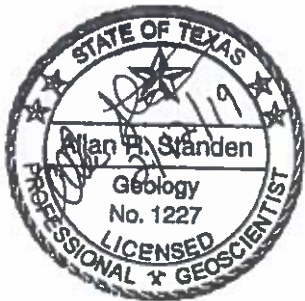
**Water Level Decline/Gain
from 2012 - 2020
Pecos County, Texas**





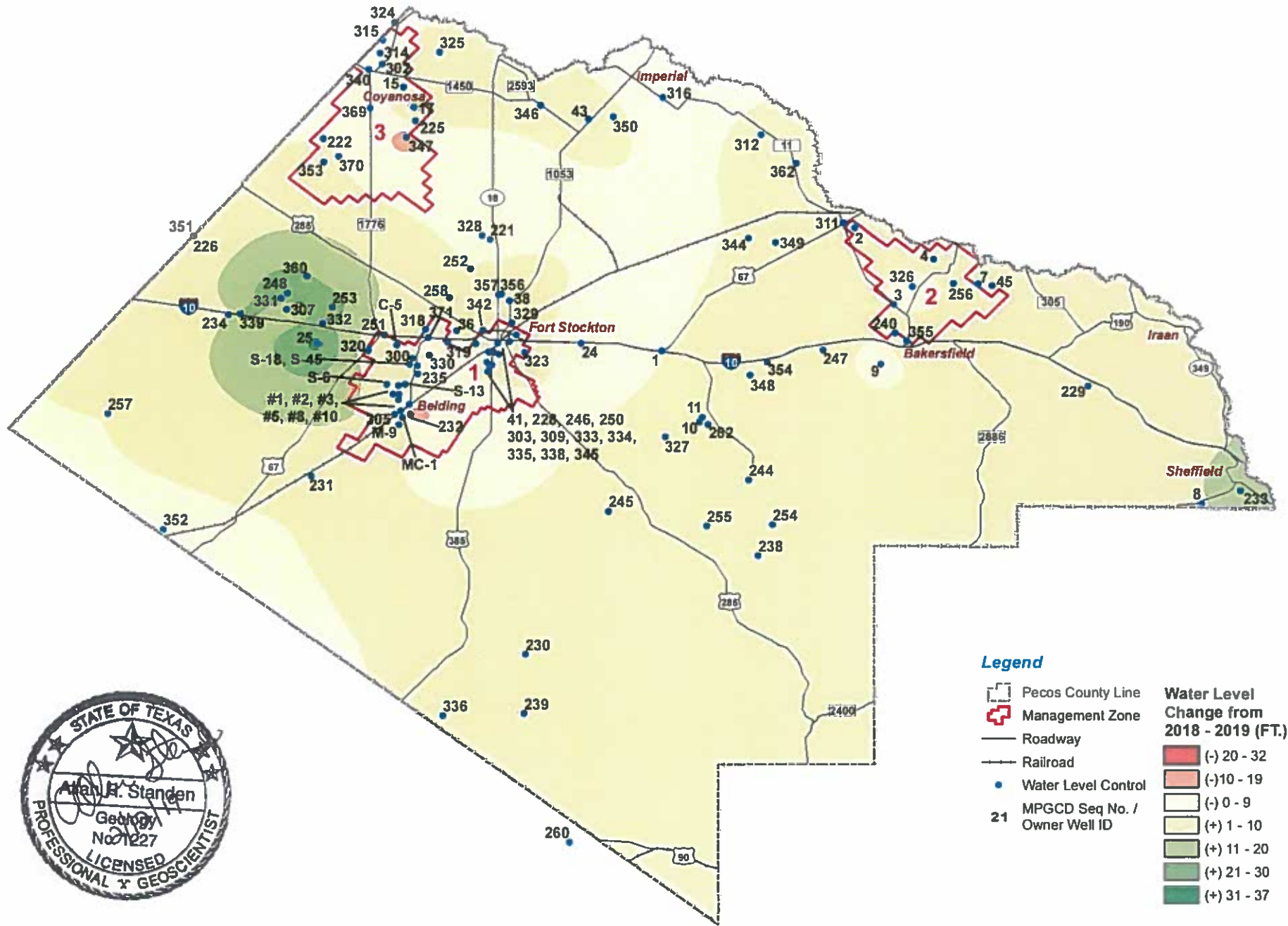
Legend

- Pecos County Line
 - Management Zone
 - Roadway
 - Railroad
 - Water Level Control
 - 21 MPGCD Seq. No.
- | Water Level Change from 2012-2019 (FT.) | |
|---|-------------|
| | (-) 50 - 66 |
| | (-) 40 - 49 |
| | (-) 30 - 39 |
| | (-) 20 - 29 |
| | (-) 10 - 19 |
| | (-) 0 - 9 |
| | (+) 1 - 10 |
| | (+) 11 - 20 |
| | (+) 21 - 30 |
| | (+) 31 - 40 |
| | (+) 41 - 50 |

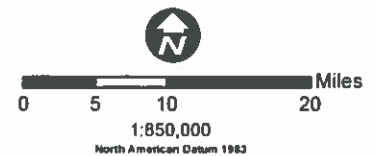


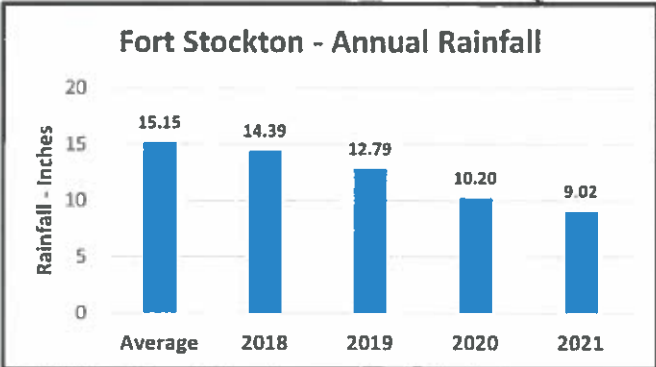
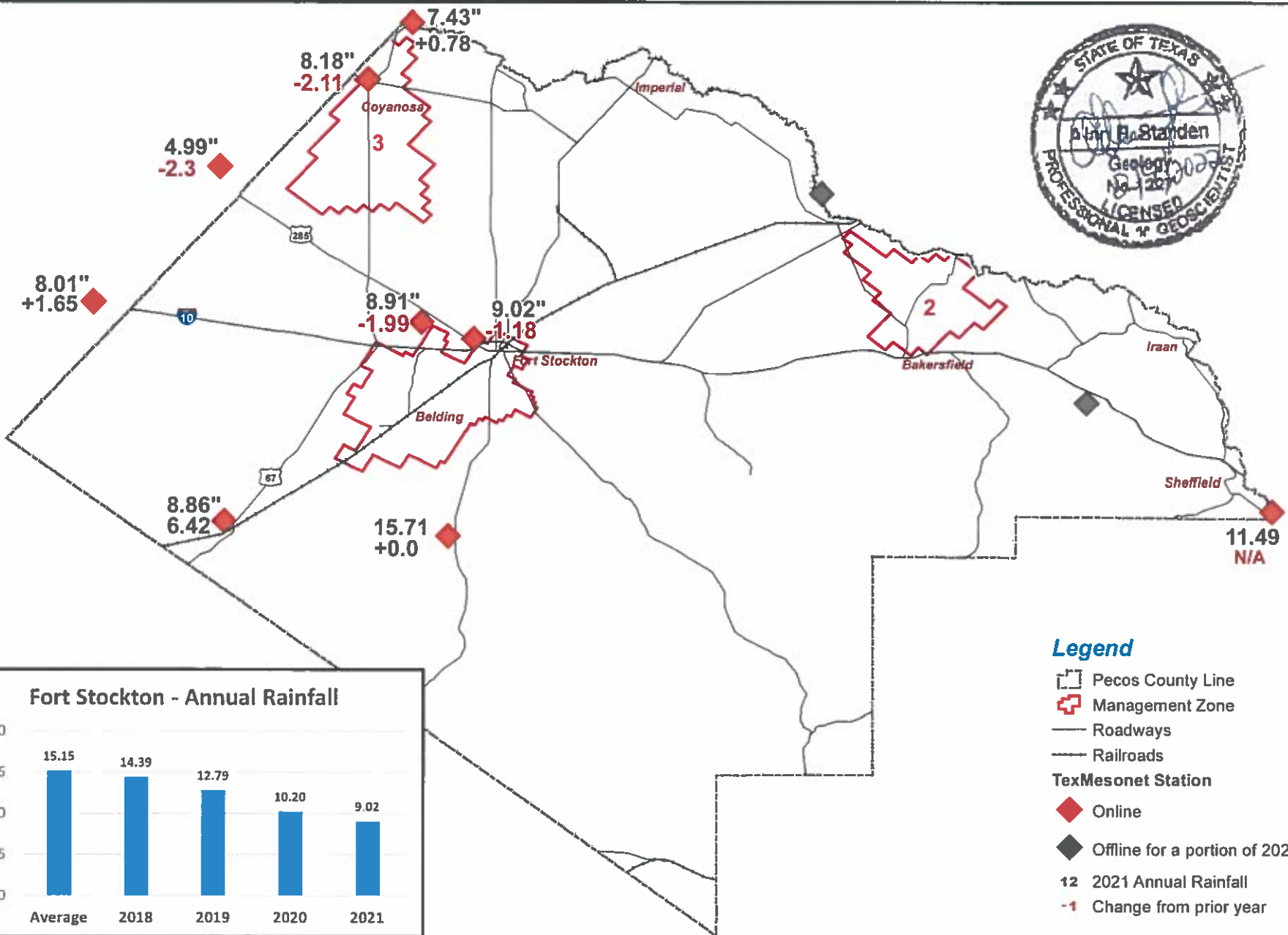
**Water Level Decline/Gain
from 2012 - 2019
Pecos County, Texas**





Water Level Decline/Gain from 2018 - 2019 Pecos County, Texas





Source: U.S. Climate Data and TexMesonet

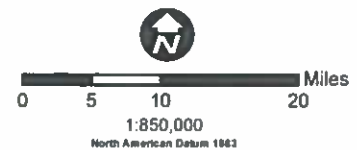
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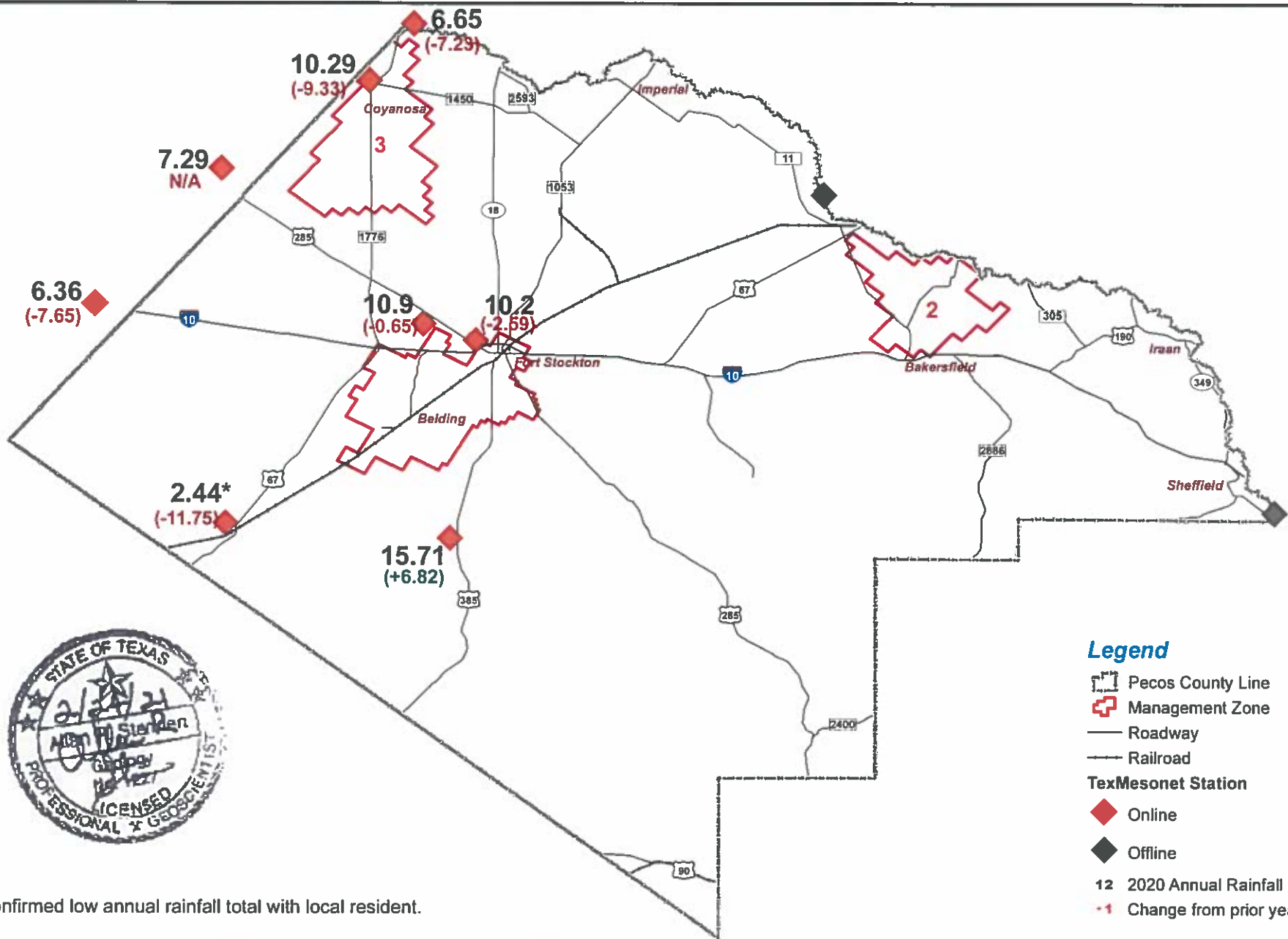
- Pecos County Line
- Management Zone
- Roadways
- Railroads
- TexMesonet Station**
- Online
- Offline for a portion of 2021
- 12** 2021 Annual Rainfall
- 1** Change from prior year



TexMesonet Weather Stations with 2021 Annual Rainfall

Pecos County, Texas





Legend

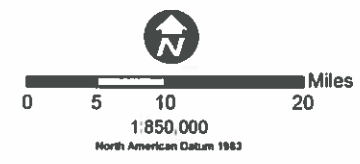
- Pecos County Line
- Management Zone
- Roadway
- Railroad
- TexMesonet Station**
- Online
- Offline
- 12** 2020 Annual Rainfall
- 1** Change from prior year

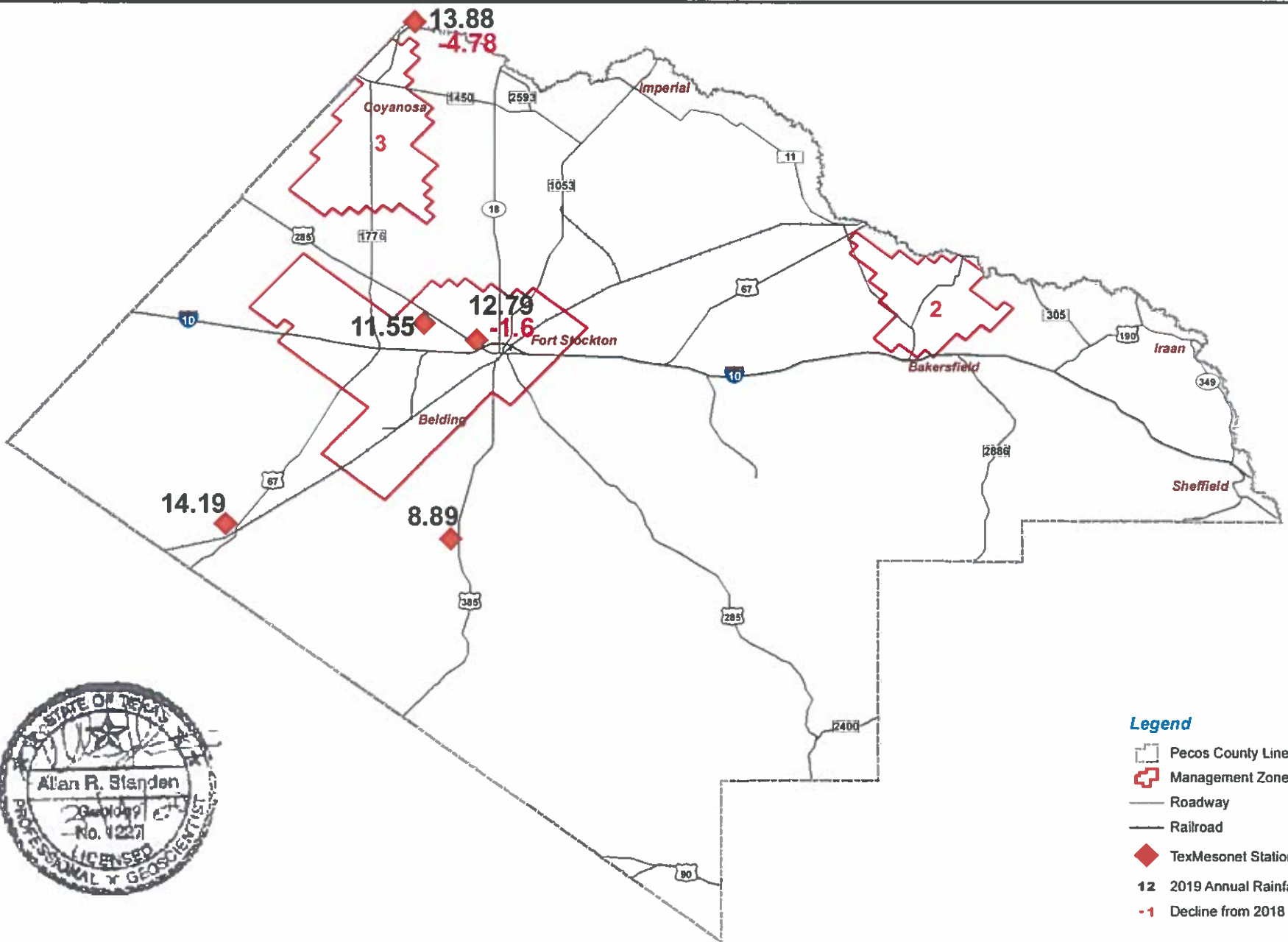


* Confirmed low annual rainfall total with local resident.



**TexMesonet Weather Stations
with Annual Rainfall**
Pecos County, Texas





Legend

- Pecos County Line
- Management Zone
- Roadway
- Railroad
- TexMesonet Station
- 12** 2019 Annual Rainfall
- 1** Decline from 2018



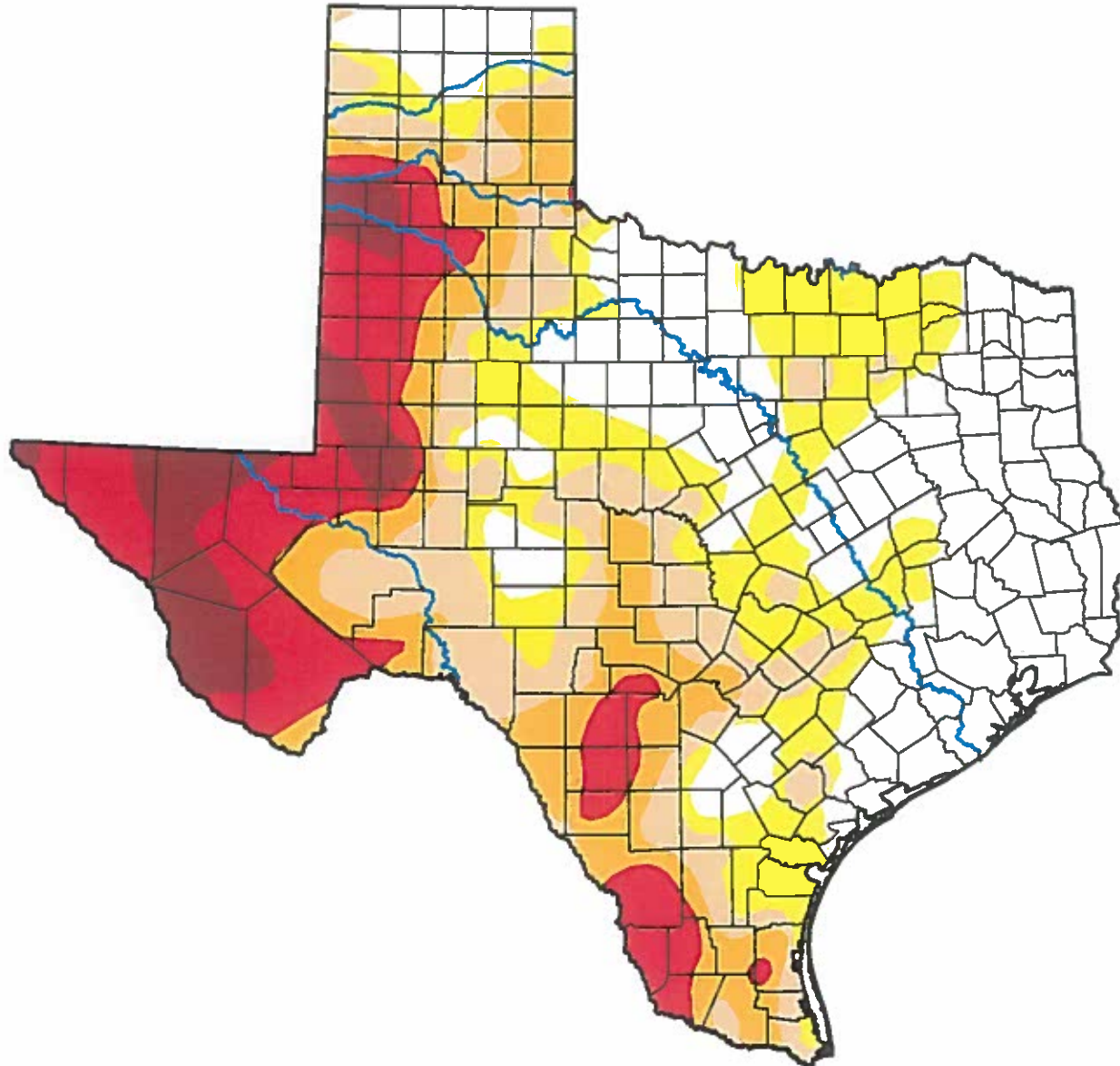
TexMesonet Weather Stations with Annual Rainfall

Pecos County, Texas









U.S. Drought Monitor Texas

January 19, 2021
(Released Thursday, Jan. 21, 2021)
Valid 7 a.m. EST



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Richard Tinker
CPC/NOAA/NWS/NCEP

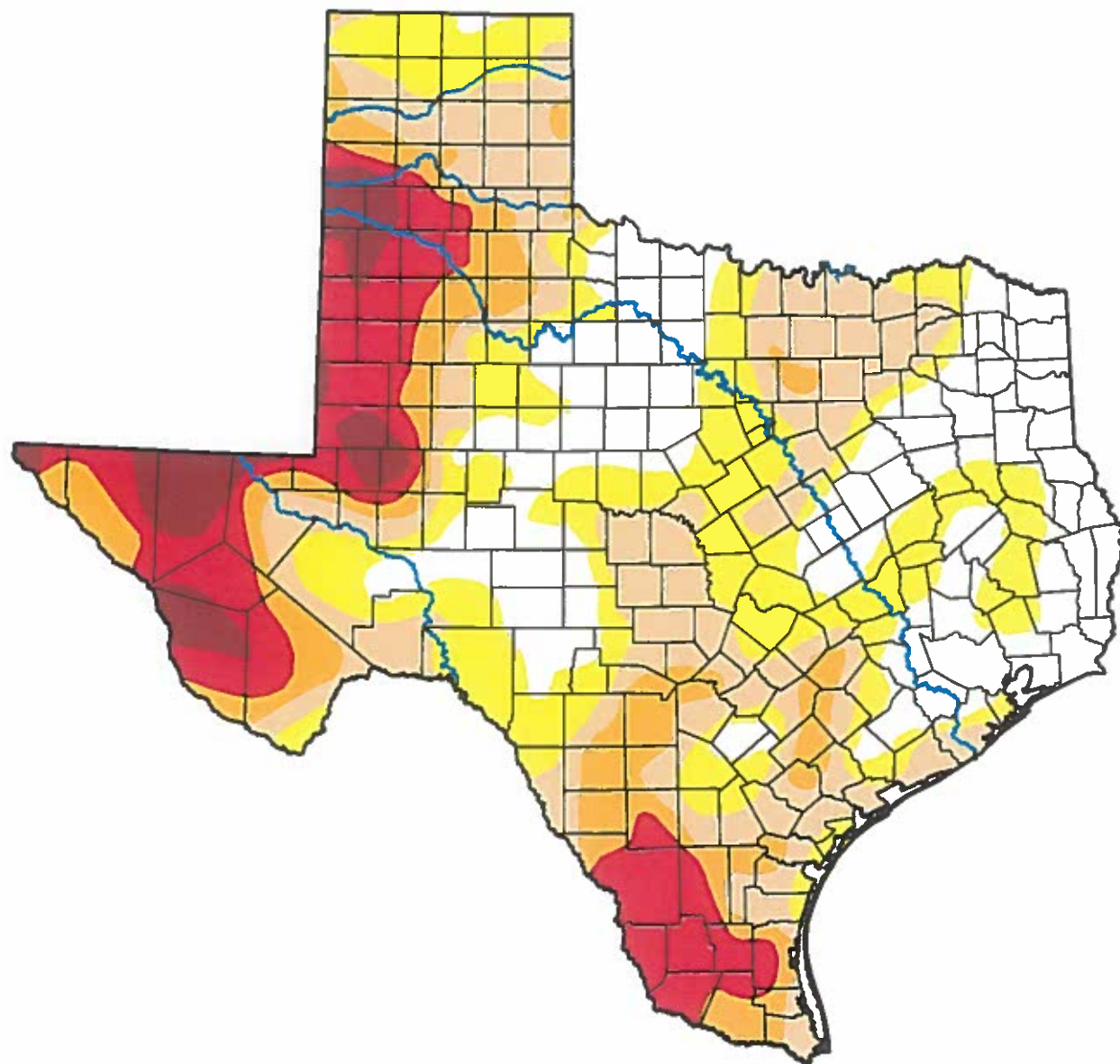


droughtmonitor.unl.edu

U.S. Drought Monitor

Texas

February 23, 2021
(Released Thursday, Feb. 25, 2021)
Valid 7 a.m. EST



Intensity:

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

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Author:

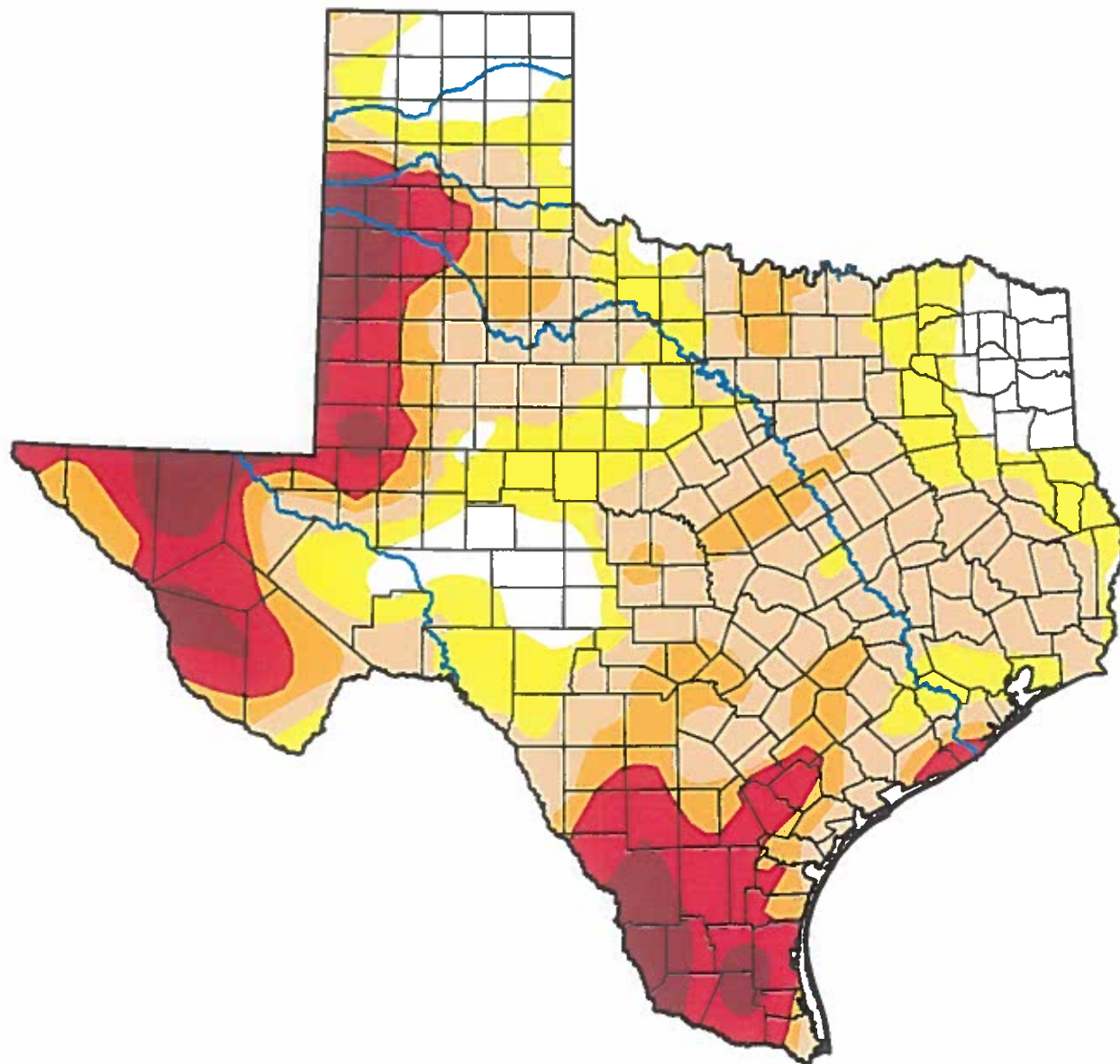
David Miskus
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

U.S. Drought Monitor Texas

March 30, 2021
(Released Thursday, Apr. 1, 2021)
Valid 8 a.m. EDT



Intensity:

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

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Author:

Brad Pugh
CPC/NOAA

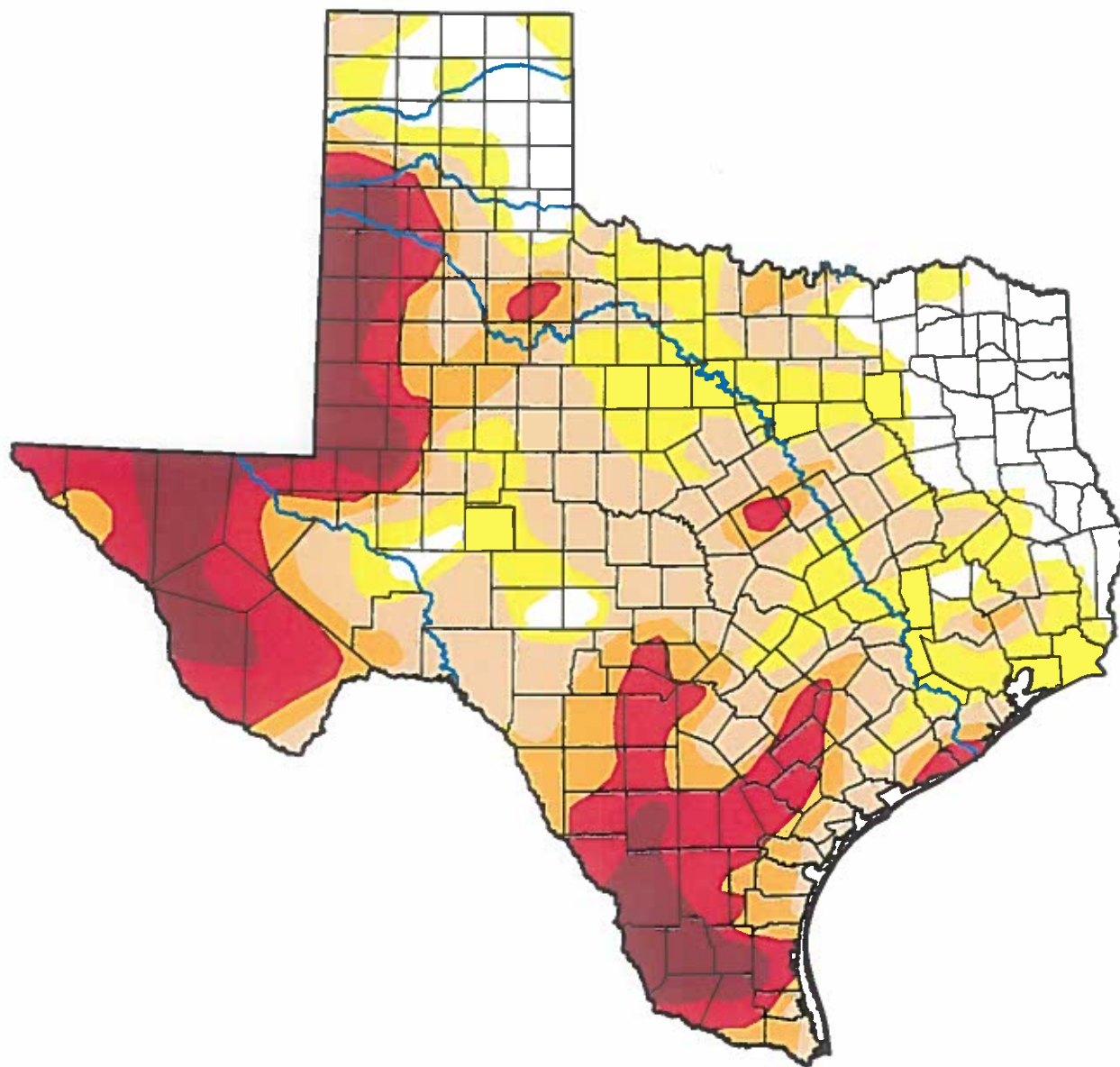


droughtmonitor.unl.edu







U.S. Drought Monitor

Texas

April 27, 2021
(Released Thursday, Apr. 29, 2021)
Valid 8 a.m. EDT



Intensity:

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

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Author:

Richard Heim
NCEI/NOAA



droughtmonitor.unl.edu

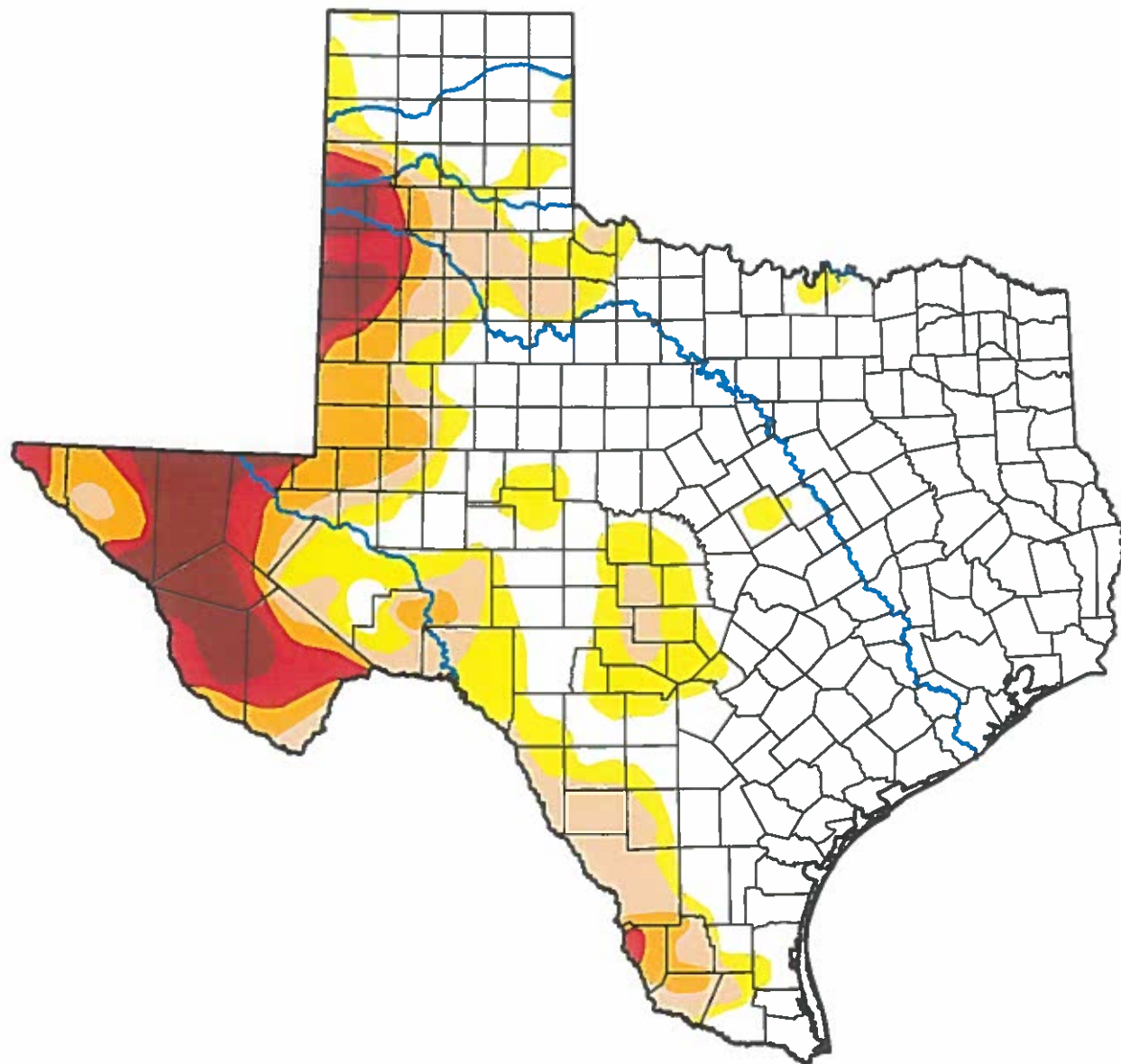
U.S. Drought Monitor

Texas







May 25, 2021

(Released Thursday, May. 27, 2021)

Valid 8 a.m. EDT



Intensity:

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

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Author:

Adam Hartman
NOAA/NWS/NCEP/CPC

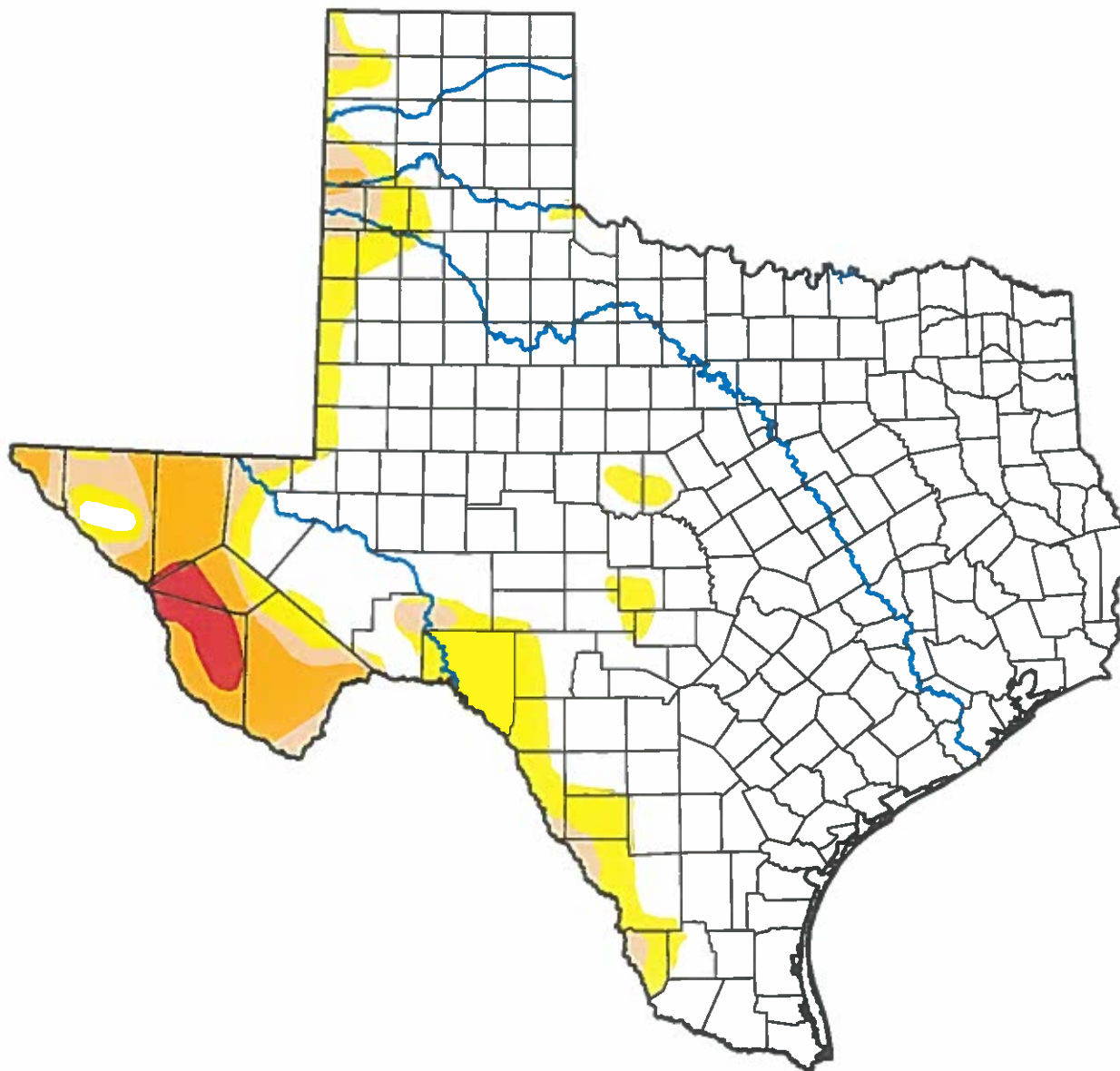


droughtmonitor.unl.edu







U.S. Drought Monitor

Texas

June 29, 2021
(Released Thursday, Jul. 1, 2021)
Valid 8 a.m. EDT



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Deborah Bathke
National Drought Mitigation Center



droughtmonitor.unl.edu

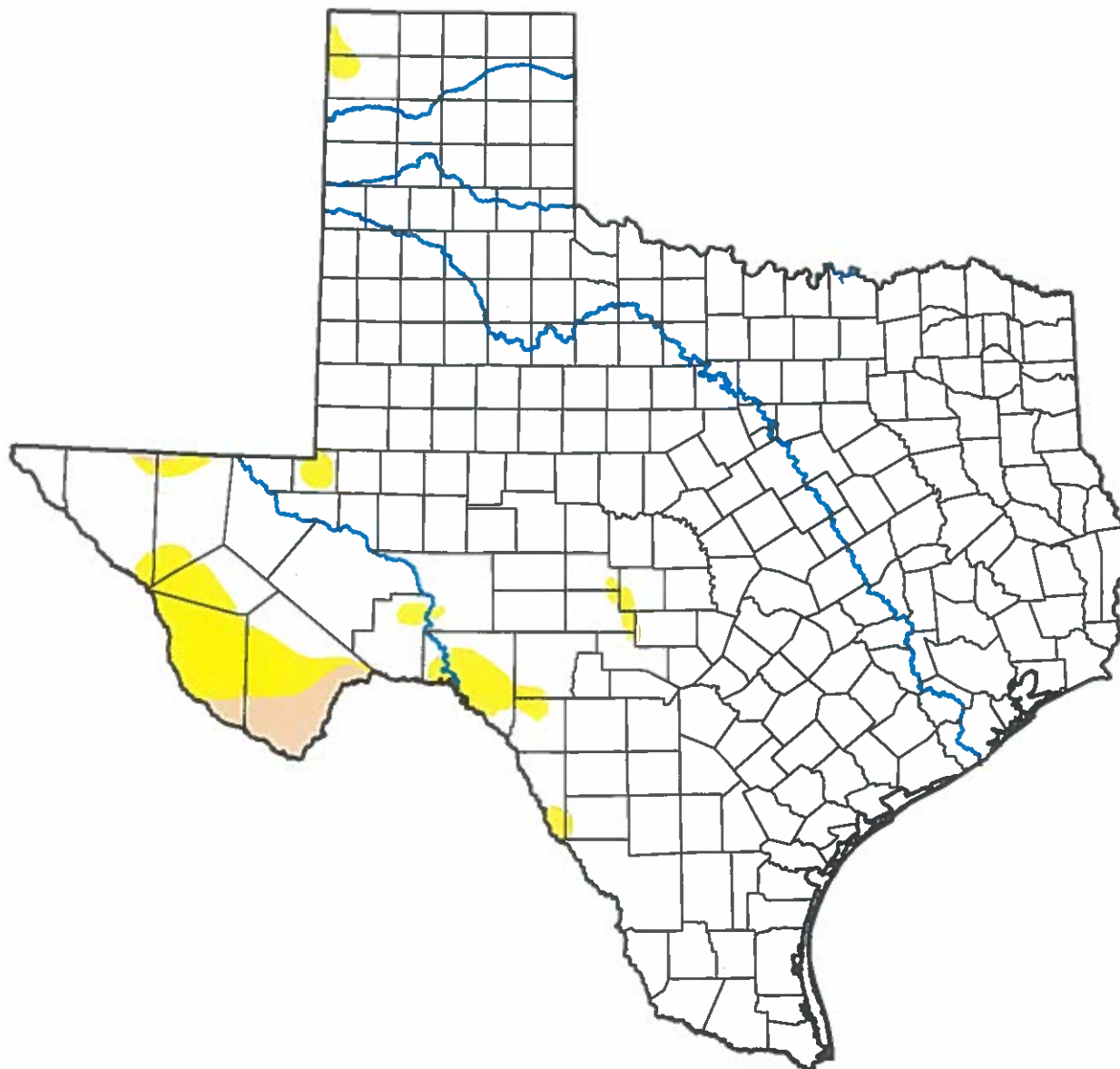
U.S. Drought Monitor

Texas







July 27, 2021

(Released Thursday, Jul. 29, 2021)

Valid 8 a.m. EDT



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

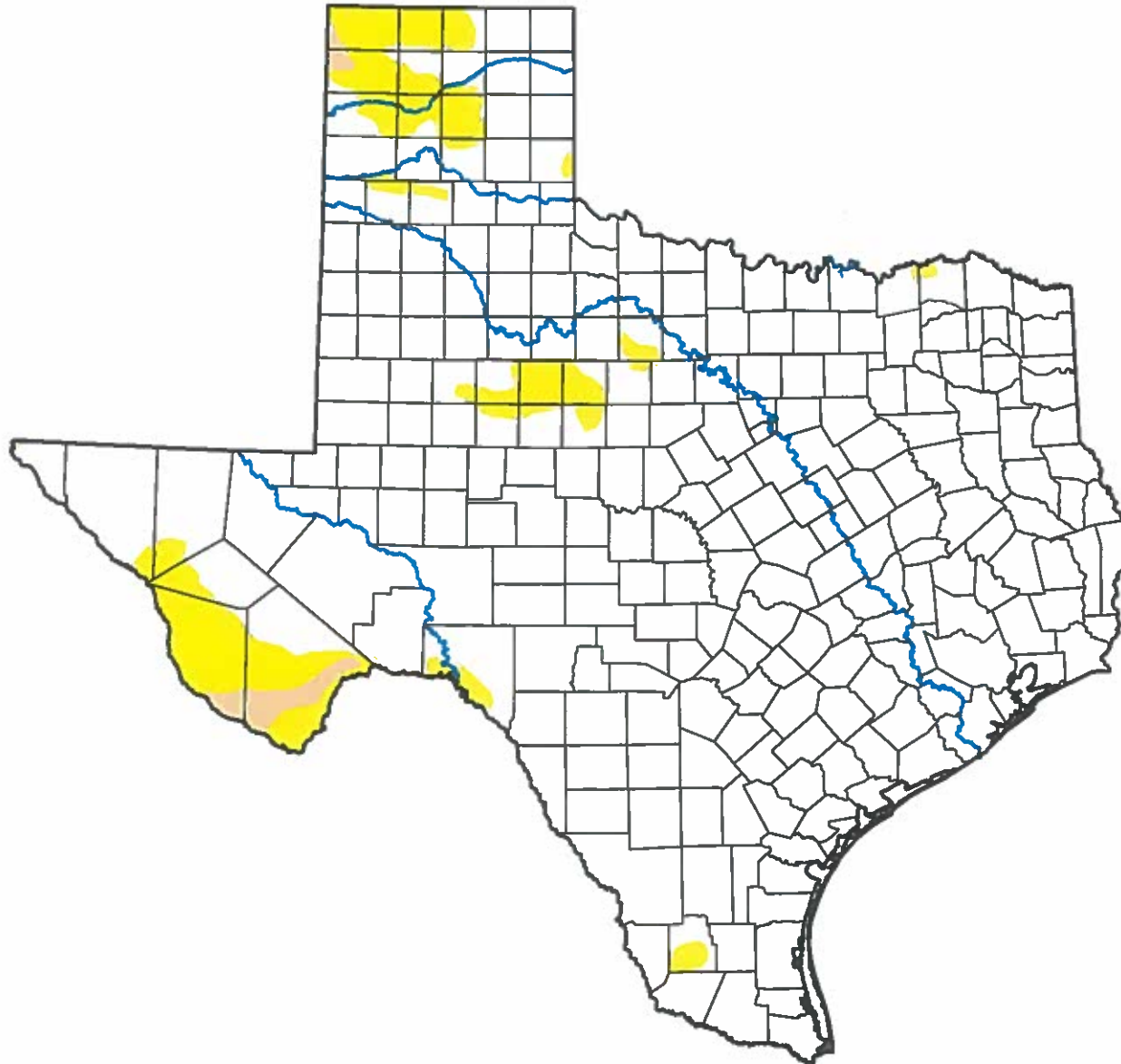
U.S. Drought Monitor

Texas







August 31, 2021

(Released Thursday, Sep. 2, 2021)

Valid 8 a.m. EDT



Intensity:

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

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Author:

David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

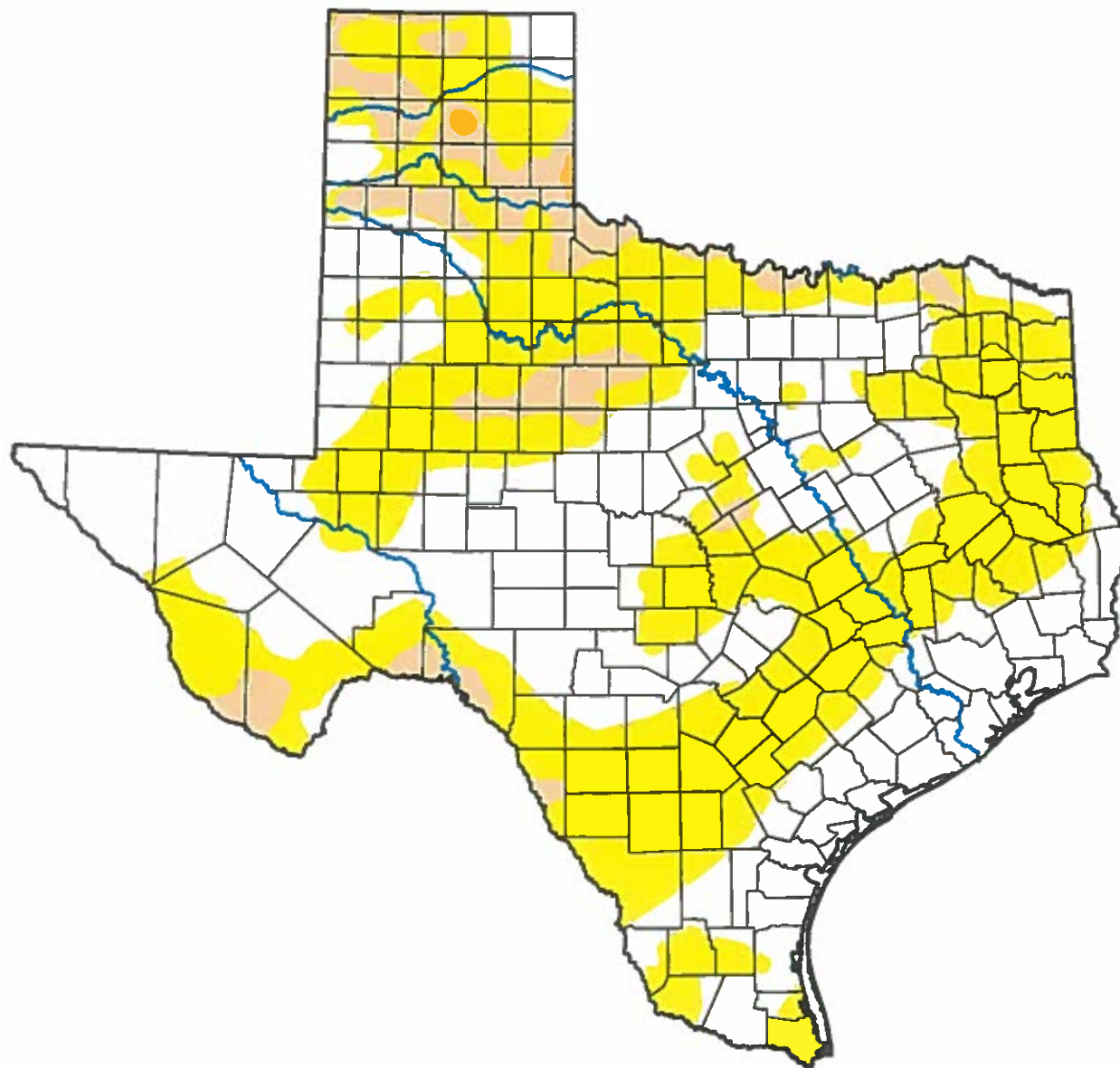
U.S. Drought Monitor

Texas







September 28, 2021

(Released Thursday, Sep. 30, 2021)

Valid 8 a.m. EDT



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brian Fuchs
National Drought Mitigation Center



droughtmonitor.unl.edu

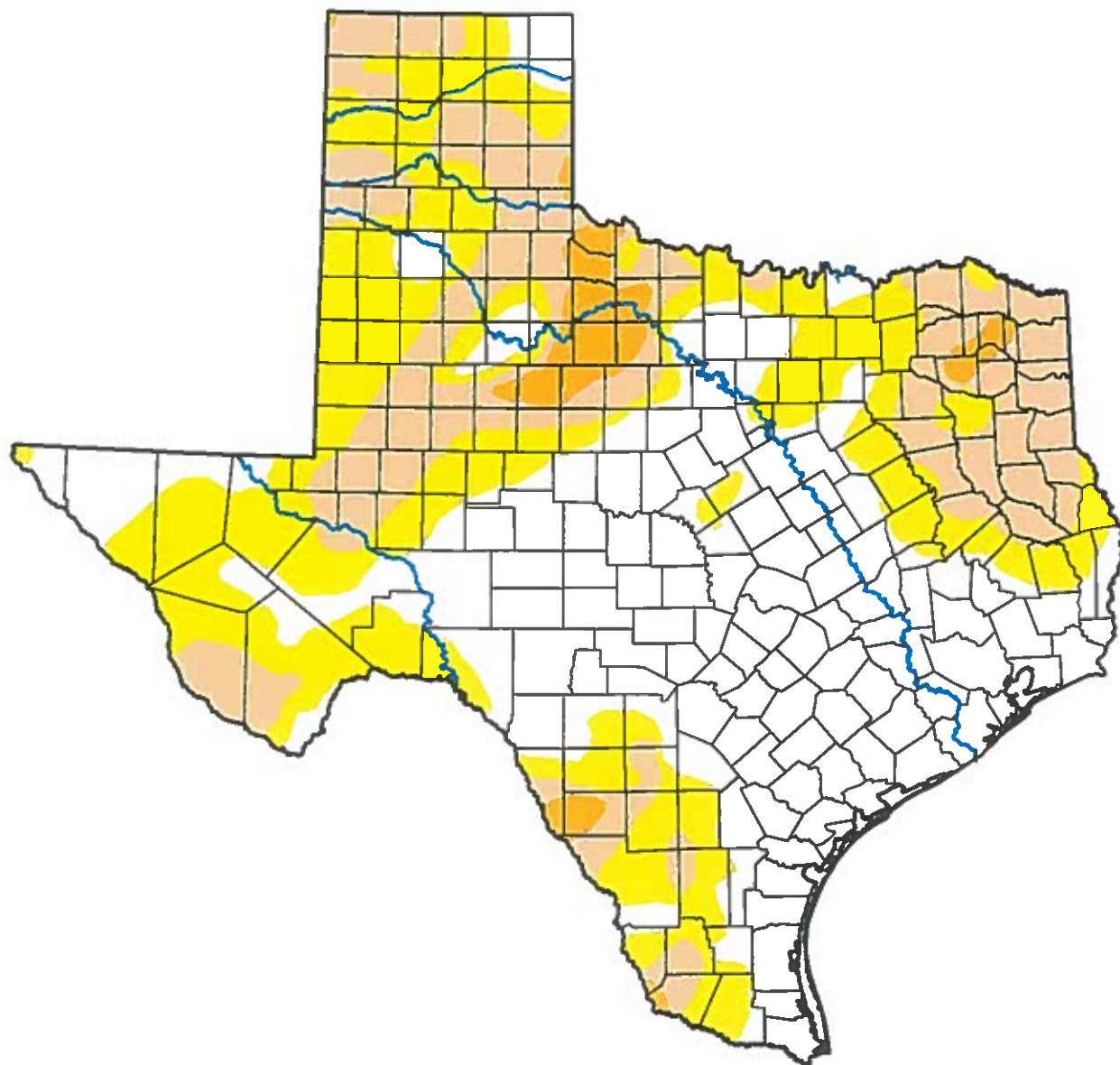
U.S. Drought Monitor

Texas







October 26, 2021

(Released Thursday, Oct. 28, 2021)

Valid 8 a.m. EDT



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

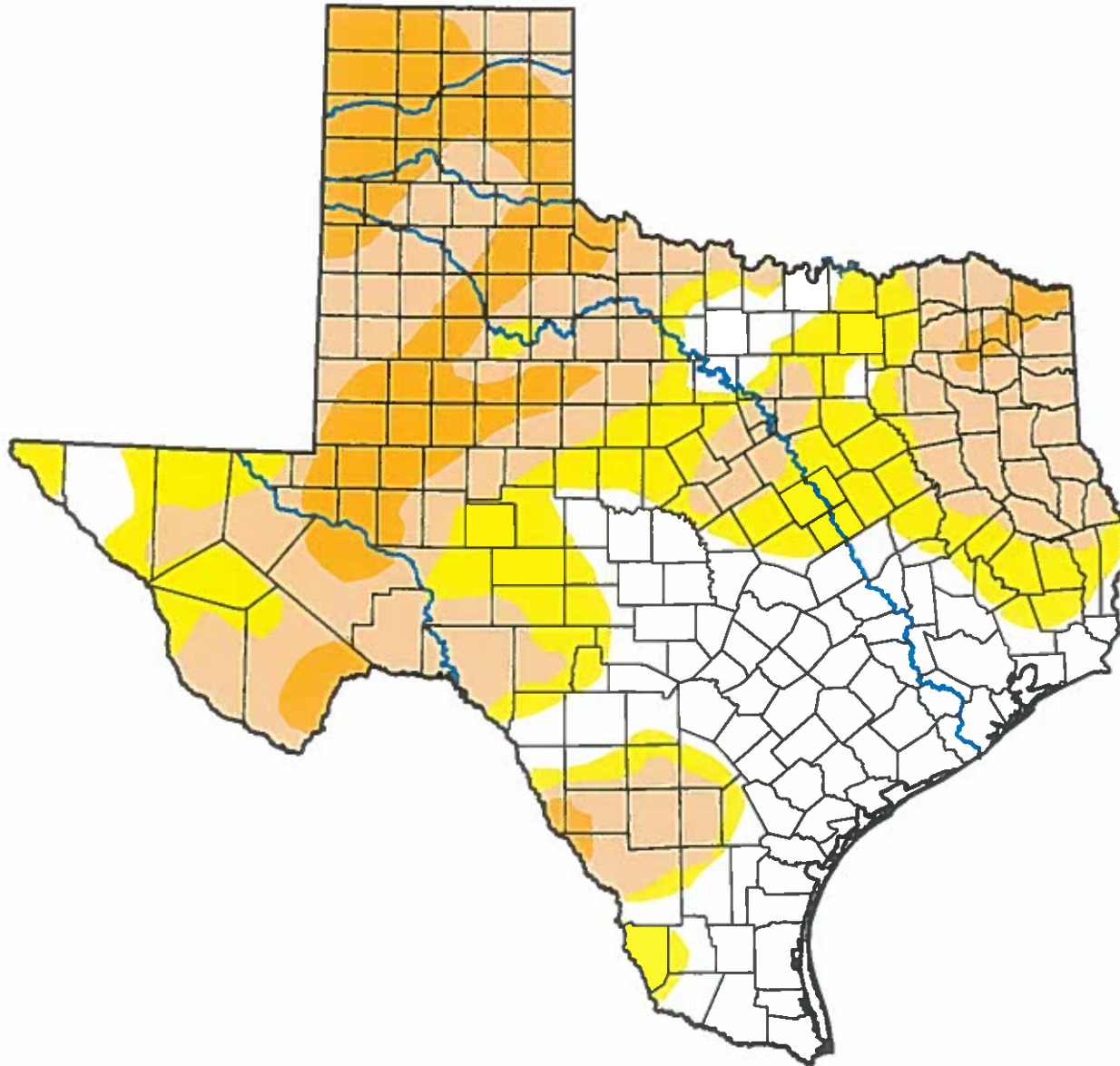
Richard Heim
NCEI/NOAA









droughtmonitor.unl.edu

U.S. Drought Monitor
Texas

November 30, 2021
(Released Thursday, Dec. 2, 2021)
Valid 7 a.m. EST



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Richard Heim
NCEI/NOAA

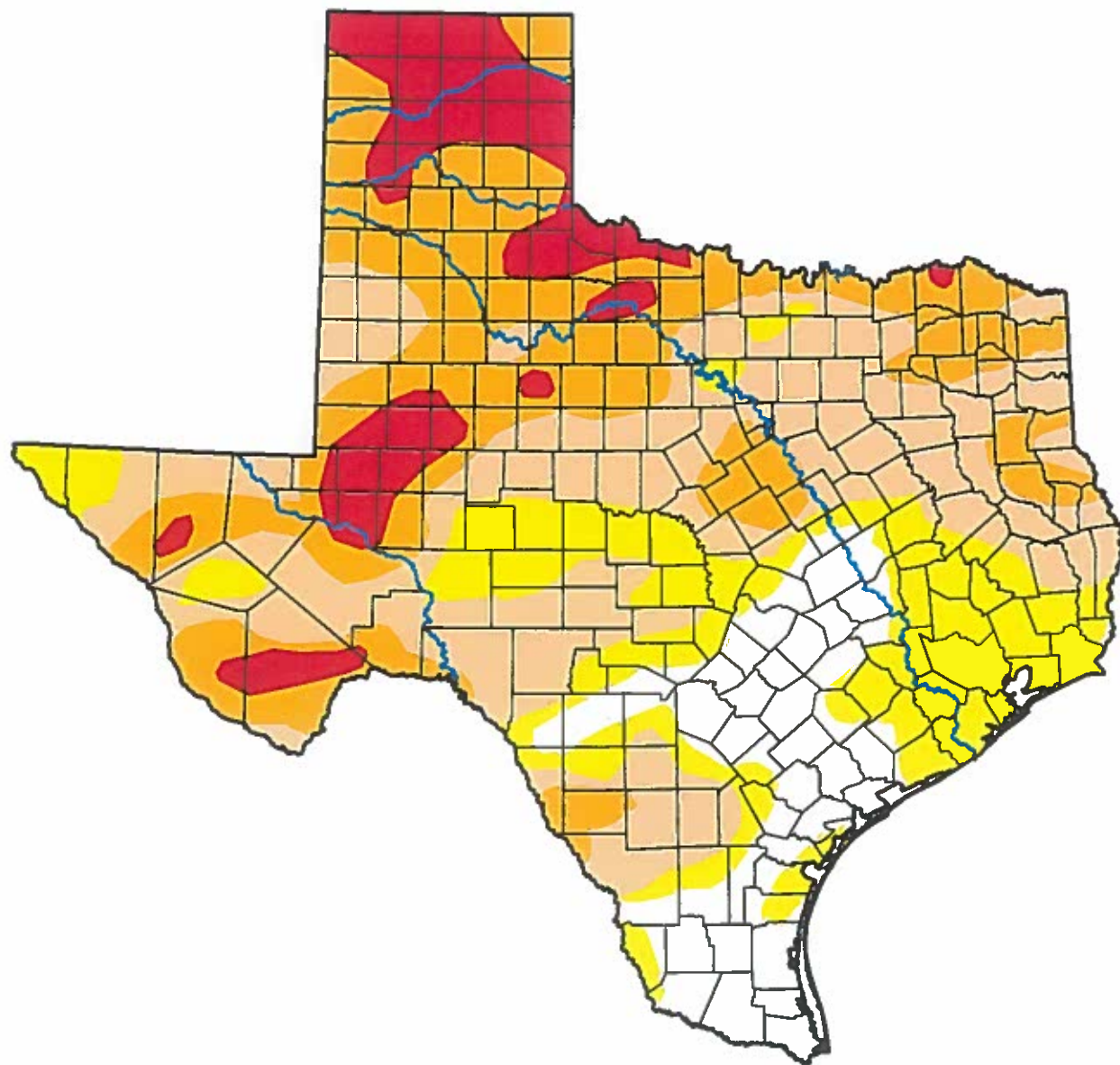


droughtmonitor.unl.edu

U.S. Drought Monitor

Texas

December 28, 2021
(Released Thursday, Dec. 30, 2021)
Valid 7 a.m. EST



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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

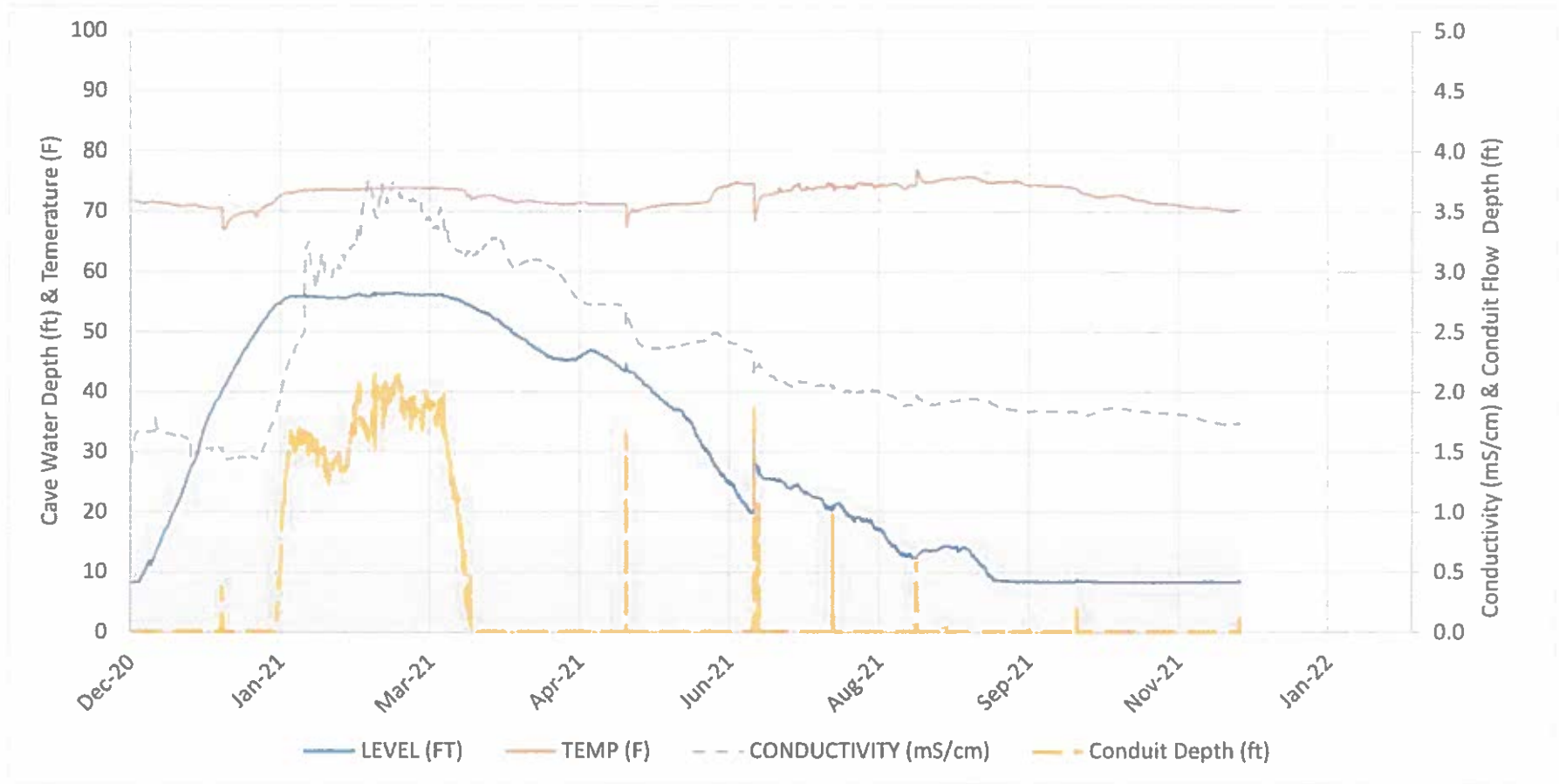
Author:

Brad Pugh
CPC/NOAA



droughtmonitor.unl.edu

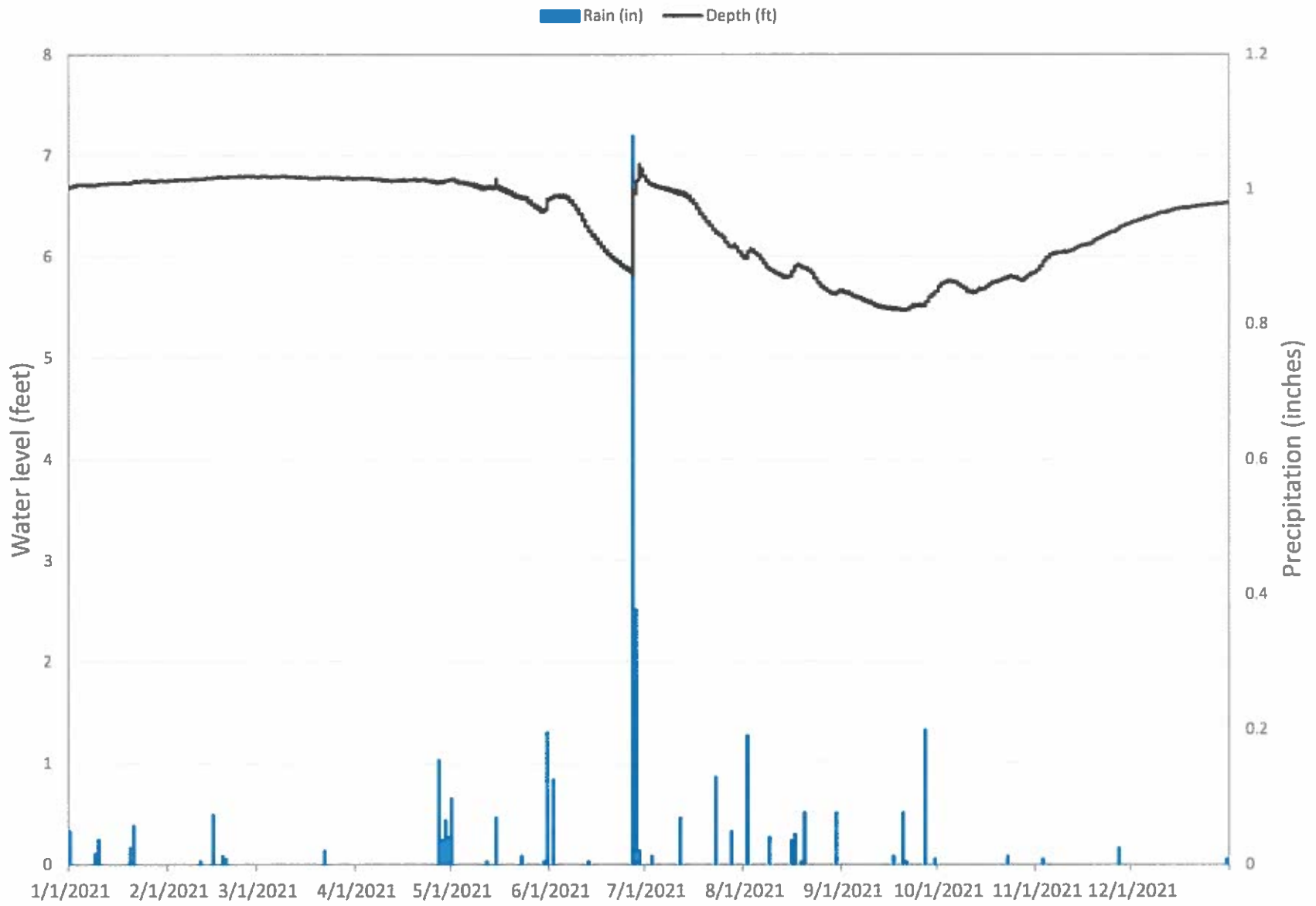
Comanche Springs - Stephans Well / Pipe Conduit



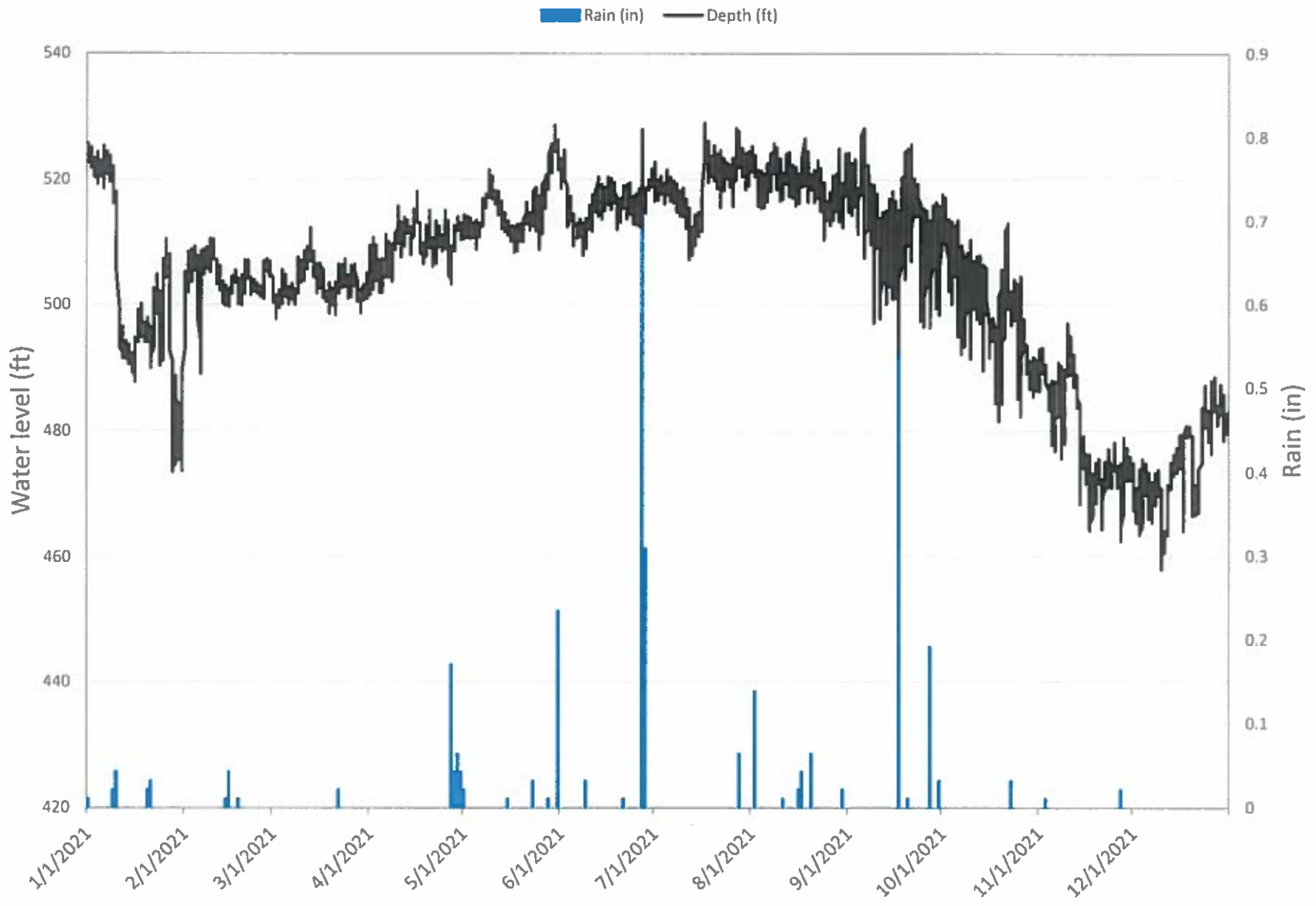
Prison Well - Depth to Water (ft)



Diamond Y Spring - water level and precipitation

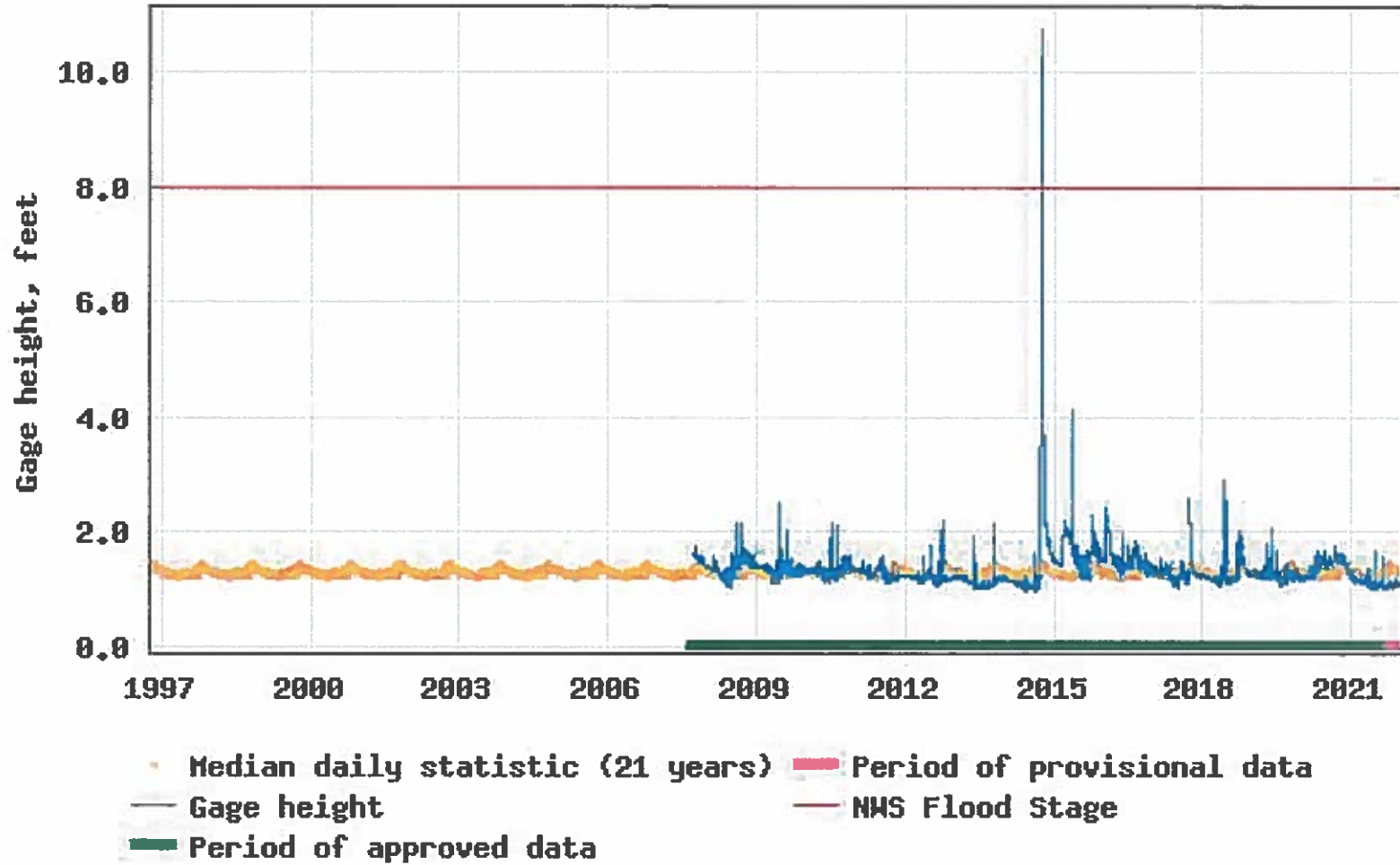


Euphrasia Spring - water level and precipitation





USGS 08446500 Pecos Rv nr Girvin, TX





USGS 08447000 Pecos Rv nr Sheffield, TX

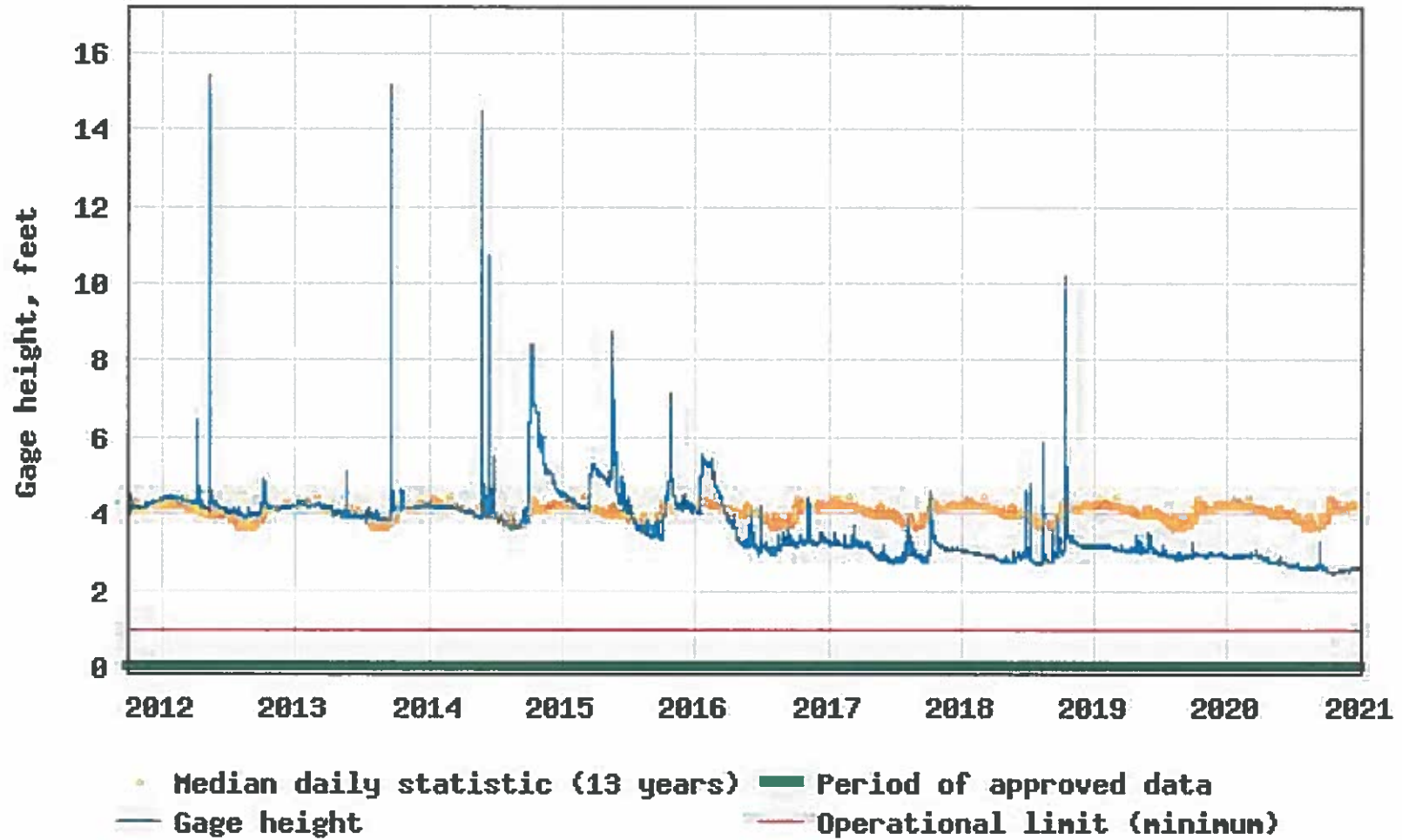


Table 6. Monitor Well Threshold Recommendations

Well		Reference Point Elevation (ft MSL)	Winter Threshold 1		Winter Threshold 2 (Historic Minimum)		Winter Threshold 3		Winter Threshold 4		Maximum Recent Drawdown (Winter to Summer)	Summer Threshold		Recent Depth to Water	
Short Name	Long Name		Depth to Water (ft)	Basis	Depth to Water (ft)	Basis	Depth to Water (ft)	Basis	Depth to Water (ft)	Basis		Depth to Water (ft)	Basis	Winter	Summer
Mpgcd320	King, Woodward, #320	3068	205	Win2+5	200	Data 1/1999	195	Win2-5	190	Win2-10	45	245	Win2+Max DD	113	148
Mpgcd323	Ft Stockton, Cemetery, #323	3031	198	Win2+5	193	Data 1/2000	188	Win2-5	183	Win2-10	15	208	Win2+Max DD	146	148
C-5	C-5, FSH Well	3009	110	Win2+5	105	WPC 1973	100	Win2-5	95	Win2-10	72	177	Win2+Max DD	60	107
M-9	M-9, FSH Well	3261	313	Win2+5	308	WPC 1973	303	Win2-5	298	Win2-10	48	356	Win2+Max DD	246	283
S-45	S-45, FSH Well	3067	165	Win2+5	160	WPC 1973	155	Win2-5	150	Win2-10	56	216	Win2+Max DD	92	115
S-6	S-6, FSH Well	3123	205	Win2+5	200	WPC 1973	195	Win2-5	190	Win2-10	62	262	Win2+Max DD	118	159
Mpgcd305	Cockrell_Belding, #305	3233	292	Win2+5	287	WPC 1973	282	Win2-5	277	Win2-10	75	362	Win2+Max DD	206	250
Mpgcd318	Goldman Ranch, Well 1	2957	72	Win2+5	67	WPC 1975	62	Win2-5	57	Win2-10	33	100	Win2+Max DD	30	49
Mpgcd334	Carpenter, #334	3051	140	Win2+5	135	WPC 1975	130	Win2-5	125	Win2-10	36	171	Win2+Max DD	104	126
Interstate	Interstate Well, FSH Well	2988	96	Win2+5	91	WPC 1975	86	Win2-5	81	Win2-10	40	131	Win2+Max DD	49	71
Prison	TDCJ, Prison Well	3199	258	Win2+5	253	WPC 1973	248	Win2-5	243	Win2-10	50	303	Win2+Max DD	184	224

Threshold	Action
Winter Threshold 1	If 6 of 11 are below threshold, 100% reduction in FSH non-historical use pumping
Winter Threshold 2	If 6 of 11 are below threshold, 50% reduction in FSH non-historical use pumping
Winter Threshold 3	If 6 of 11 are below threshold, 30% reduction in FSH non-historical use pumping
Winter Threshold 4	If 6 of 11 are below threshold, 10% reduction in FSH non-historical use pumping
Summer Threshold	If 6 of 11 are below threshold, meeting in 60 days between FSH and MPGCD to discuss data

Notes
 Maximum Recent Drawdown (Winter to Summer) based on evaluation of recent data (~2010 to 2016)
 Summer Thresholds derived by adding maximum recent drawdown (from historic data) to Winter 1 Threshold
 Recent Depth to Water are from actual data: maximum (summer) and minimum (winter) from spring 2016 to winter 2017

Threshold Table

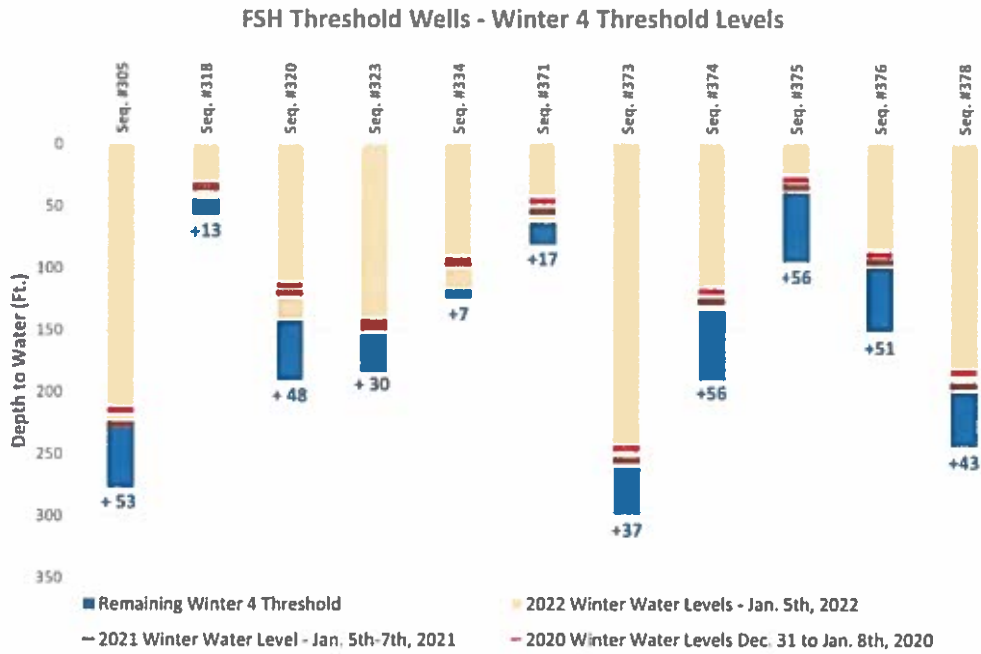
Show more threshold data 

Well		Reference Point Elevation (ft)	Winter Threshold 1	Winter Threshold 2 (Historic Minimum)	Winter Threshold 3	Winter Threshold 4	Most recent Depth to Water		Winter Max Depth to Water	Summer Min Depth to Water
Short Name	Long Name		Depth to Water	Depth to Water	Depth to Water	Depth to Water	Depth to water	Measure... Date		
Mpgcd320	King, Woodward, #320	3068	205	200	195	190	138.23	01/25/2022	162.33	129.47
Mpgcd323	Ft Stockton, Cemetery, #323	3031	198	193	188	183	153.01	01/25/2022	153.22	141.73
C-5	C-5, FSH Well	3009	110	105	100	95	34.82	01/24/2022	63.62	43.38
M-9	M-9, FSH Well	3261	313	308	303	298	254.65	01/25/2022	279.98	257.01
S-45	S-45, FSH Well	3067	165	160	155	150	95.21	01/25/2022	124.24	103.88
S-6	S-6, FSH Well	3123	205	200	195	190	130.48	01/11/2022	165.91	134.75
Mpgcd305	Cockrell_Belding, #305	3233	292	287	282	277	217.42	01/25/2022	244.23	222.59
Mpgcd318	Goldman Ranch, Well 1	2957	72	67	62	57	39.98	01/25/2022	53.9	36.6
Mpgcd334	Carpenter, #334	3051	140	135	130	125	117.7	01/21/2022	140.09	98.64
Interstate	Interstate Well, FSH Well	2988	96	91	86	81	57.34	01/25/2022	73.15	52.76
Prison	TDCJ, Prison Well	3199	258	253	248	243	194.12	01/25/2022	220.09	143.14

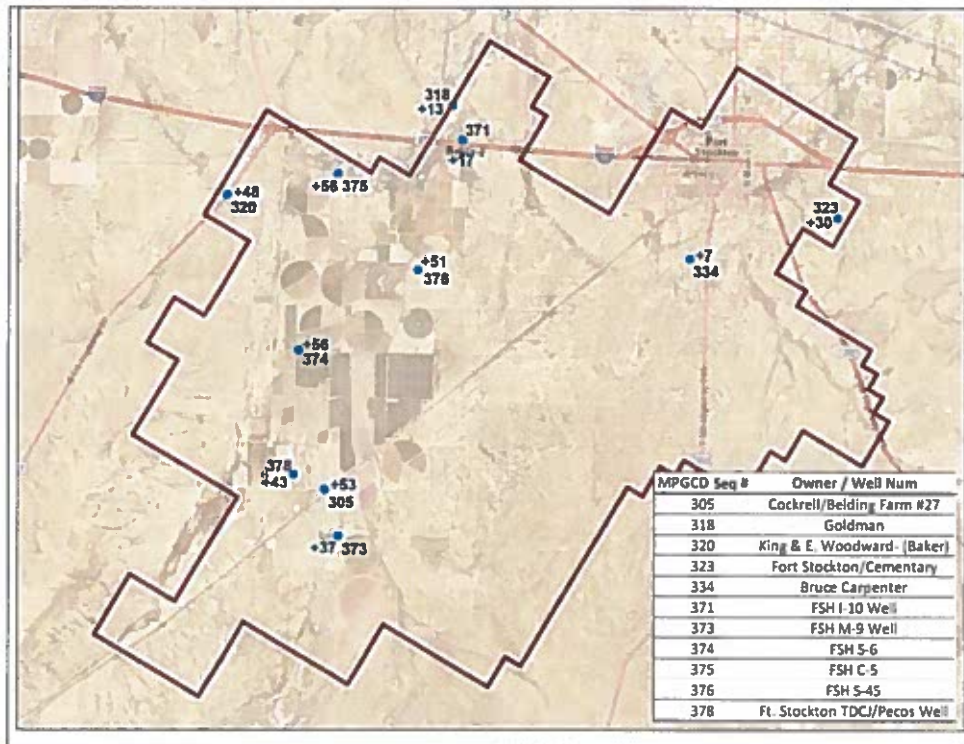
HydroVu Water Levels



FSH Threshold Wells and Remaining Threshold on January 5th, 2022



FSH Threshold Well Locations



Rainwater Harvesting



For centuries, people have

relied on rainwater harvesting to supply water for household, landscape, livestock, and agricultural uses. Before the advent of large centralized water supply systems, rainwater was collected from roofs and stored on site in tanks known as cisterns. With the development of large, reliable water treatment and distribution systems and more affordable well drilling equipment, rain harvesting was all but forgotten, even though it offered a source of pure, soft, low-sodium water.

A renewed interest in this time-honored approach of collecting water has emerged in Texas and elsewhere because of escalating environmental and economic costs of providing water by centralized water systems or by well drilling. The health benefits of rainwater and potential cost savings associated with rainwater collection systems have further spurred this interest.

Texas is one of only a few states in the nation that has devoted a considerable amount of attention to rainwater harvesting and has enacted many laws regulating the practice of collecting rainwater.

- Texas Tax Code 151.355 allows for a state sales tax exemption on rainwater harvesting equipment.
- Texas Property Code 202.007 prevents homeowners associations from banning rainwater harvesting installations.
- Texas House Bill 3391 requires rainwater harvesting system technology to be incorporated into the design of new state buildings and allows financial institutions to consider making loans for developments using rainwater as the sole source of water supply.

For in-depth descriptions of rules in Texas and other states, visit the [National Conference of State Legislatures](#).

Recent Maps

Texas Rain Catcher Award Winners



Protect, Conserve and Prevent Waste of Groundwater

Our mission at *Middle Pecos Groundwater Conservation District (MPGCD)* is to develop and implement an efficient, economical and environmentally sound groundwater management program to protect, maintain and enhance the groundwater resources of the District, and to communicate and administer to the needs and concerns of the citizens of Pecos County associated with these groundwater resources.

We have an 11-member Board of Directors that is elected by the citizens of Pecos County. There are two directors representing each county precinct, one representing the City of Fort Stockton, one representing the City of Iraan, and one representing Pecos County at large. Your current Directors are: Jerry McQuairt, Janet Groth, Weldon Blackwelder, Puja Boinpally, Vanessa Cardwell, Allan Childs, Jr., Ronnie Cooper, Larry Drgac, M. R. Gonzalez, Alvaro Mandujano, Jr., and Jeff Sims.

In keeping an eye on Pecos County groundwater, the District monitors 128 water wells that are scattered throughout Pecos County. We check water quality analysis and depth of water levels monthly.

The public is invited to join us at our monthly Board Meetings that are normally held on the 3rd Tuesday of each month at our office located at 405 North Spring Drive in Fort Stockton, Texas. Our agendas are posted on our website 72 hours before our meetings and can be reviewed at: <https://www.middlepecosgcd.org/>. or our Facebook page: Middle Pecos Groundwater Conservation District.

MPGCD requires water well owners to register all water well(s) with the District. A non-potable analysis can be provided by the District at no cost. MPGCD can carry out the overall responsibility of protecting our water supply by knowing where and how many wells we have in Pecos County. Examples of protection are oil/gas activity, excessive water production, monitoring water levels/analysis, and contamination.

Our office is willing to discuss any concerns, issues, etc., pertaining to our most precious natural resource – GROUNDWATER. You may contact us at 432-336-0698 or come by 405 North Spring Drive, Fort Stockton, Texas.

Efforts to Control and Prevent Waste of Groundwater and Promote Conservation

To promote conservation and prevent waste of groundwater related to agricultural, the following are the best management practices as stated by the Texas Water Development Board Conservation Division : * Irrigation water use management - irrigation scheduling, measurement of irrigation water use, crop residue management and conservation tillage, irrigation audit; * land management systems – furrow dikes, land leveling, contour farming, conversion of supplemental irrigated farm land to dry land, brush management; * on-farm water delivery systems – lining of on-farm irrigation ditches, replacement of on-farm irrigation ditches and pipelines, low-pressure center pivot sprinkler irrigation systems, drip/micro-irrigation systems, gated and flexible pipe for field water distribution systems, surge flow for field water distribution systems, and linear move sprinkler irrigation systems; * Water district delivery systems – lining of district delivery systems, replacement of irrigation district canals and lateral canals with pipelines; * Miscellaneous systems – tailwater recovery and reuse system, nursery production systems.

Other ways to promote conservation and prevent waste of groundwater: Sweep rather than hose driveways and other areas; use drip irrigation rather than spray irrigation; wash your car at a car wash; downsize your lawn area and/or Xeriscape; irrigate during the coolest part of the day; never water on windy days; protect plants with mulch and compost to reduce water loss; install low flow shower heads; insulate hot water pipes; reduce showering time; operate dishwasher and washing machine on full loads; install an aerator on kitchen faucet; and turn the water off while brushing teeth and on to rinse. If you see signs of contaminating substances on the surface, remember it could end up contaminating the water source below, so please report to us if you find signs of contamination that need to be checked out.

Middle Pecos Groundwater Conservation District 2021

Directors		
Jerry McGuairt	President: Director Since February 19, 2013	Precinct 1
Janet Groth	Vice President: Director Since June 15, 2010	Precinct 1
M. R. Gonzalez	Secretary/Treasurer: Director Since December 11, 2000	Precinct 2
Puja Boinpally	Director Since April 18, 2017	Precinct 2
Weldon Blackwelder	Director Since August 16, 2011	Precinct 3
Larry Drgac	Director Since August 13, 2019	Precinct 3
Alvaro Mandujano, Jr.	Director Since November 5, 2002	Precinct 4
Ronnie Cooper	Director Since September 15, 2009	Precinct 4
Vanessa Cardwell	Director Since July 21, 2009	City of Fort Stockton
Jeff Sims	Director Since November 8, 2016	City of Iraan
Allan Childs, Jr.	Director Since November 8, 2016	At Large
Current Employees		
Ty Edwards	General Manager: Since January 17, 2017	Assistant Manager: Since December 2, 2013
Gail Reeves	Office Secretary: Since June 3, 2013	
Anthony Bodnar	Field Technician: Since May 7, 2018	