2025 Annual Report

Reeves County Groundwater Conservation District

Greg Perrin, General Manager

Submitted 6/18/2025

2024 ANNUAL REPORT OF

RCGCD MANAGEMENT OBJECTIVES & DISTRICT PERFORMANCE

As required by the Reeves County Groundwater Conservation District an annual report shall be created by the general manager and staff and provided to the members of the Board of Directors. The Annual Report will cover the activities of the District including information on the District's performance regarding achieving the District's management goals and objectives.

Goal 1 – Providing the most efficient use of groundwater

1.1 Management Objective

The District will require the registration of wells not otherwise exempt from registration within the District's boundaries each year. Each year the District will locate and register a minimum of one well.

Performance Standard

The number of new and existing wells registered with the District will be provided in the Annual Report for each fiscal year.

From the RCGCD database -

64 wells were registered in 2025: 4 Exempt
60 Non-exempt

1.2 Management Objective

The District will require permits for all groundwater use considered non-exempt within District boundaries each year. The District will establish a permitting process in the District's rules.

Performance Standard

The District will accept and process permit applications for all non-exempt groundwater use pursuant to the permitting process described in the District Rules. The Annual Report will contain a summary for each year of the number of applications submitted to the District requesting authorization for the permitted use of groundwater and the number and type of permits issued by the District.

2024 Information from RCGCD database:

09 applications for historic use were submitted and approved. 10,507 AF allotted
53 applications for drilling permits were submitted and approved.
12 operating production permits were submitted and approved. 8,584 AF allotted

Goal 2 – Controlling and preventing the waste of groundwater.

2.1 Management Objective

Each year the District will provide information to the public on reducing and preventing the waste of groundwater by use of one of the following methods at least once during the fiscal year:

a. Offer public presentations on groundwater issues, including waste prevention;
b. Sponsor an educational program or course;
c. Distribute literature packets or brochures;
d. Provide information on the District's website addressing prevention of waste; or
e. Submit articles to the District's general circulation newspaper for publication;

2.1 Performance Standard

The Annual Report will include a summary of the District's efforts during the previous year to provide information to the public on the reducing and preventing of waste of groundwater.

The District has brochures concerning water waste that are on display at the RCGCD office. The brochures were offered to every person/entity that visited the District office and also were handed out at our WWTX5 seminar as well as at a Rotary Club presentation by Greg Perrin in November. RCGCD also placed an ad in the Pecos Enterprise in July '25. There's also links on RCGCD Website for saving, conserving and preventing waste: twdb.texas.gov/conservation/BMPs/; wateruseitwisely.com; twri.tamu.edu/news/

2.2 Management Objective

The District will prohibit waste as defined by Chapter 36 of the Texas Water Code within Its boundaries and will implement this prohibition through its rules.

2.2 Performance Standard

The District prefers to work with both the responsible and affected parties to find the best solution for all parties that also protects and enhances the water of the District. The District's Annual Report will include a summary of:

a. The number of well owners who had complaints made against them alleging waste, and
b. The number of well owners who were found to be wasting water by the District Board of Directors using the definitions included in this management plan, and
c. The actions that were taken to stop the waste of groundwater.

During 2025 there were NO complaints made to RCGCD against any well owners, so therefore, none were found to be wasting water nor any actions taken by RCGCD.

Goal 3 – Controlling and preventing subsidence

3.1 Management Objective

The District will monitor changes in water levels in its monitoring wells with due Consideration to the potential for land subsidence. At least once every three years, the District will assess the potential for land subsidence for areas where levels have decreased More than 100 feet since the year 2000.

3.1 Performance Standard

Within three years of the approval of this plan (2024) and every three years thereafter, the District will map any region where more than 100 feet of drawdown has occurred since the year 2000 and assess the potential for land subsidence. The results of the assessment will be discussed in a District Board meeting and be documented in a presentation or a report.

3.2. Management Objective

The District will review the sections in "Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping" report (Contract Number 1648302062) when discussing subsidence within the District's aquifers.

3.2 Performance Standard

As outlined in TWC Ch. 36.108 (d), the District will take into consideration the "Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping" when considering subsidence during joint groundwater planning.

This will be addressed in the next GMA3 5 year planning cycle.

Goal 4 – Addressing conjunctive surface water management issues

4.1 Management Objective

Surface water resources represent a vital component in meeting current and future water demands in all water use sectors within the District. The District coordinates with surface water management entities within the region by designating a board member or the General Manager to attend and coordinate on water supply and management issues with the Region F Water Planning Group.

4.1 Performance Standard

The designated board member or General Manager will report on actions of the Region F

Water Planning Group as appropriate to the board, and the General Manager will document meetings attended in the Annual Report.

The GM attended 1 of the 3 Region F 2025 meetings. The meetings are held on the same day of the month as RCGCD meetings so the GM wasn't able to make all of them. Ty Edwards, GM of Middle Pecos GCD, is the voting member for this region. He and GM Perrin discuss all Region F planning business before and after each Region F meetings. Each meeting addresses surface water conditions and management efforts within the region.

4.2 Management Objective

Monitor technical assessments, presentations or reporting concerning discharge and water quality of the San Solomon Springs Group and associated surface water features.

4.2 Performance Standard

The General Manager will report relevant findings in the District's Annual Report.

Southwest Research Institute (SwRI) has not collected water quality samples from the San Solomon Springs System since August 2023. As a result, SwRI has no new data to assess changes in water quality for 2024. However, the Texas Commission on Environmental Quality (TCEQ) operates a continuous monitoring site at the Balmorhea Pool Discharge Canal (Site No. C808). Table 1 presents specific conductivity and water temperature data recorded at this site since 2023. These observations are consistent with historical observations and previous sampling events conducted by SwRI and suggest there have been no significant changes in water quality since SwRI last sampled.

Table 1: Daily averages for Site C808 – Balmorhea Pool Discharge Canal in August 2023, 2024, and June 2025.

Date	Water Temperature (°C)	Specific Conductance (µS/cm)
8/31/2023	25.1	3525
8/31/2024	25.1	3254
6/1/2025	25.2	3446

The USGS monitors San Solomon Springs flow and on the next page is a graph of the recorded flow for 2025. Please notice that flow was 20.5 CFS at 1/1/2025 and 23.3 CFS at 12/31/2025.

San Solomon Spgs at Toyahvale, TX - USGS-08427500

Subscribe to WaterAlert

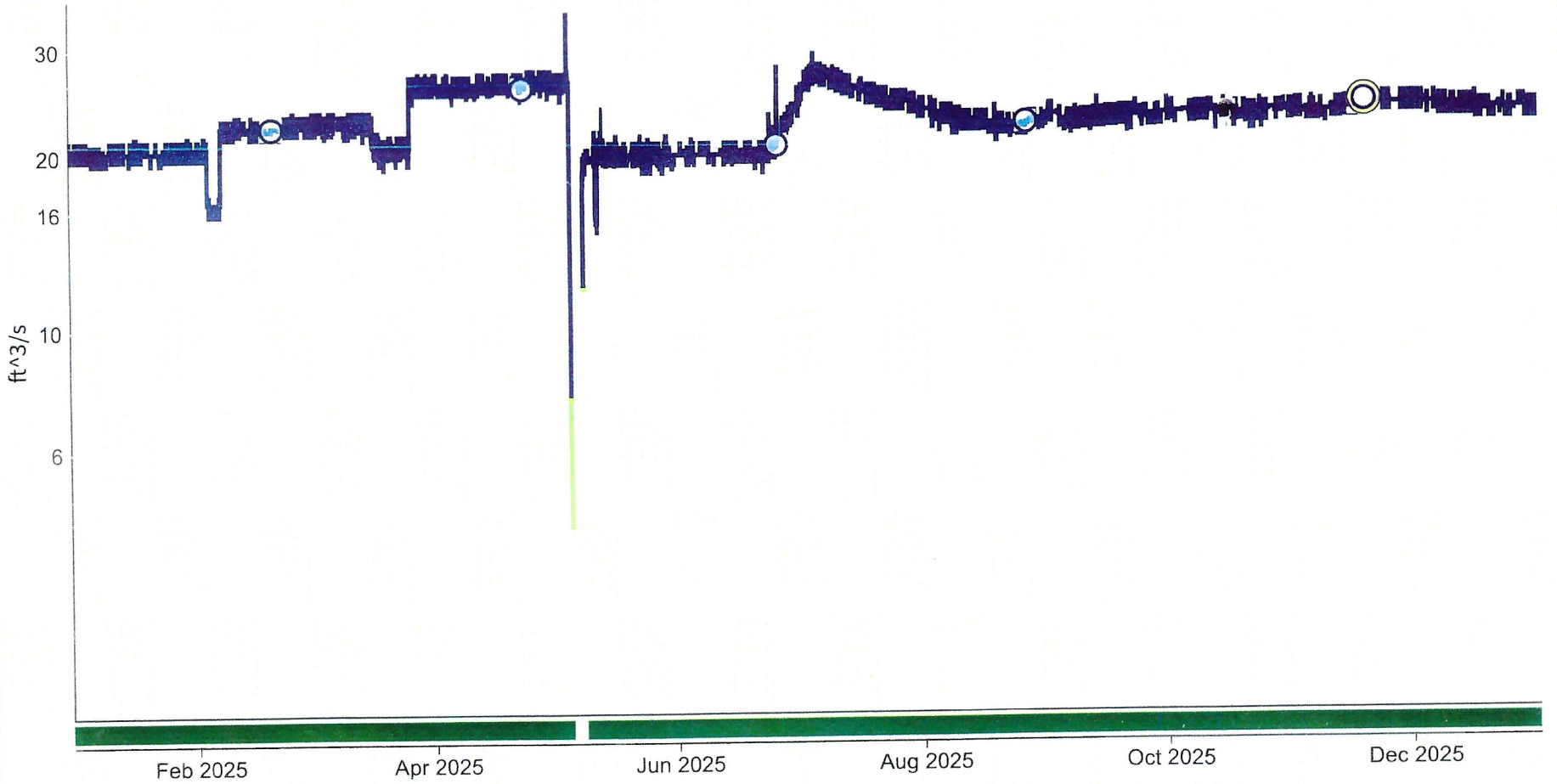
- using custom time span -

January 1, 2025 - December 31, 2025

Discharge, cubic feet per second

23.2 ft^3/s - Oct 16, 2025 08:30:00 AM CDT

24.0 ft^3/s - Nov 19, 2025 10:45:12 AM CST



Goal 5 – Addressing natural resource issues

5.1 Management Objective

The District would like to encourage and actively promote water reuse within the District, especially the reuse of produced water among oil and gas operators.

5.1 Performance Standard

The District will provide information and/or discussion about reuse at least once each year by one of the following methods:

a. Invite operators who are interested in reuse to attend a District Board meeting, or
b. Post relevant educational material on the website, or
c. Host a conference that focuses on reuse applications and methods.

Every year RCGCD makes a point of inviting all well owners and especially oil companies to attend our Board Meetings and this past year the RCGCD Staff has had meetings with representatives from many of the companies operating in Reeves County. During our meetings we go over the District rules as we walk them through the registering and permitting process. Conservation and reuse/recycling is always a big part of our conversations. RCGCD held its 5th conference, 9 October 2025, titled 'Waters of West Texas 5'. There were 8 presenters with topics that included: 'Hydrogeologic Framework of Reeves County', 'Weather Modification in West Texas', 'Economical Re-use of Produced Water with Batch Desalting', 'Ineffective Statewide O/G Regulation and over-injection', 'What to do with Produced Water', 'Impacts of PW in the Permian Basin', 'The Beneficial Reuse and Valorization of PW' and 'Permian Basin Treated PW Permitting Update, Timing and Reuse Challenges'. We had over 150 attendees that included the public, water industry personnel, landowners and oil company representatives. Also, relevant materials are referenced on our website.

Goal 6 – Addressing drought conditions

6.1 Management Objective

The District will monitor drought information each quarter to track developing droughts or current drought conditions. Examples of sites that will be monitored include:

a. the weekly updates to the Palmer Drought Severity Index (PDSI)
b. the TWDB Drought Page

6.1 Performance Objective

Current drought conditions information from multiple resources including the Palmer Drought Severity Index (PDSI) map for the state and the links to the Drought Preparedness Council Situation Report is made available to the public through the District's website.

RCGCD monthly meetings include current drought maps that are presented and discussed during the General Manager's Report and a quarterly drought map is discussed and

acknowledged by action of the Board each quarter. Also, the above referenced drought information links are included on our website.

Goal 7 – Addressing conservation, recharge and precipitation enhancement, rainwater harvesting, and brush control.

The District will address conservation, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective. (The District has determined that a goal addressing recharge is not appropriate or cost-effective, and therefore is not applicable to the District.)

7.1 Management Objective

The District will provide information to the public addressing water conservation, brush control, and/or rainwater harvesting at least once each fiscal year by one of the following methods:

a. Distribute literature packets or brochures within the District:
b. Provide information to the public at the District office and/or
c. Conduct public presentations;
d. Submit articles to newspapers of general circulation in the District for publication; or
e. Present exhibits at local public events.

7.1 Performance Standard

The District's Annual Report will provide a description of the District efforts and a copy of any information provided to the public during the previous year to promote conservation, brush control, and/or rainwater harvesting.

Brochures are available for all visitors to RCGCD office. Also, brochures were handed out at the 'Waters of West Texas' conference in October 2025 and the Rotary Club presentation in November. Also, relevant materials and/or links are posted on our website and in a July ad in the Pecos Enterprise. The District also mailed all of this information to all addresses in Reeves county. The District approved funding for precipitation enhancement in November 2023 and reports/results are sent to the office.

Goal 8 – Addressing the desired future condition of groundwater resources

8.1 Management Objective

State statute requires GCDs to review, amend as necessary, and readopt management plans at least every five years. The General Manager will annually present a summary report on the status of achieving the adopted desired future conditions, **beginning in the year 2021**.

8.1 Performance Standard

The District's Hydrology consultant, Advanced Groundwater Solutions, LLC was in the process of recalculating the District's Groundwater Model and the TWDB hadn't yet

updated of the Model by the end of 2025 to compare measured drawdowns with simulated drawdowns. This will be addressed in the Spring GMA3 meetings 2026.

8.2 Management Objective

The General Manager will participate in Groundwater Management Area 3 (GMA3) meetings and the joint planning process to address the DFCs collaboratively.

8.2 Performance Standard

The designated board member or General Manager will report on actions of GMA 3 as appropriate to the board, and the General Manager will document meetings attended in the Annual Report.

GMA 3 held several joint meetings with GMA 7 throughout 2025 for planning purposes. GMA3 representative members, Greg Perrin, RCGCD and Ty Edwards, Middle Pecos GCD, were present for all meetings. The February 19, 2025 meeting covered the next steps in Joint Planning and Modeling work to be done by the 2026 May Deadline for proposed DFCs plus review of the GCD's Management Plans. In the October 22, 2025 meeting GMA3 consultant, Bill Hutchinson, presented average drawdown calculations, review and comparisons in all GMA3 aquifers. Hutchinson also recommended the three Minor aquifers (Capitan Reef Complex, Dockum and Rustler) be classified as not relevant for purposes of joint planning. MPGCD approved a Resolution to amend the Brackish Groundwater Production Zones for the Rustler Aquifer in Pecos and Reeves counties. Advanced Groundwater Solutions (AGS) issued a Technical Memorandum on the Reeves County Rustler Brackish Groundwater Production Zone Well Review. (See attached at the end of the report)

8.3 Management Objective

Inorder to evaluate continually the effectiveness of the District's rules in meeting the goal of ensuring the efficient use of groundwater, the District will utilize TWDB/s existing groundwater monitoring network to track water levels of the aquifers in the district.

8.3 Performance Standard

Track the number of wells in Reeves County for which water levels were measured per year and report the results in the Annual Report presented by the General Manager to the Board of Directors.

In 2025 RCGCD monitored 62 wells. We intend to add more wells to the monitor system every year as deemed necessary for the data. The next page contains information about the wells with an explanation of the 5 different areas of the wells.

Well District Id	2018 Well Water Levels Final Depth To Water Feet	2019 Well Water Levels Final Depth To Water Feet	2020 Well Water Levels Final Depth To Water Feet	2021 Well Water Levels Final Depth To Water Feet	2022 Well Water Levels Final Depth To Water Feet	2023 Well Water Levels Final Depth To Water Feet	2024 Well Water Levels Final Depth To Water Feet	2025 Well Water Levels Final Depth To Water Feet	
RC-000016	20.48	16.7	23.6	23.1	No reading	Unable to measure	cannot get in well head	Cannot measure	Wells are located west of
RC-000019	172.7	172.57	182.65	locked gate	No reading	locked	174.1	185.1	Hwy 285 and north of I
RC-000020	65.82		0	Dry well?	65.9	locked	61.1	DRY	20
RC-000021	117.92	193.42	195.5	202.8	178.75	177.3	199.9	201.25	
RC-000023	320.5	284.5	287.12	locked gate	No reading	locked	289.8	290.5	
RC-000025			0	Dry well?	Dry	Dry	228.9	221.7	
RC-000029	245.8	229.1	228.21	229.3	226.75	231.3	232	235.5	
RC-003290						54.6	53.6	52.9	
RC-003289						18	18.05	17.55	
RC-003049						96	97	96.8	
RC-003047						18	16.8	15.5	
RC-001709						28	29.7	28.2	
RC-001526						37.75	no measure, dry bottom	42.2	
RC-001277						41.1	42	41.85	
RC-000008	48.04	49.09	47.7	48	No reading	Unable to read	46	47.5	Wells are located south
RC-000010	309.99	311.43	314.77	327.5	327.25	324.55	333.95	331.85	of I 20 and west of Hwy
RC-000011	354.15	317.21	0	317.6	300.8	No reading	359.75	320.95	17
RC-000012	287.1	289.1	290.59	290.5	292.8	292.5	292.75	292.5	
RC-000013	159.89	152.78	150.2	149.4	146	144.25	143.95	142.65	
RC-000024	306	317.96	293.9	291.6	290	289.45	290	289.3	
RC-000026	225.3	194.3	239.7	197.9	201.1	186.55	173.15	173.55	
RC-000028	211.65	212.29	210.1	207.1	208.35	207.2	207.1	206.7	
RC-000030	218.06	219.15	229.24	230.2	234.7	233.3	233.9	234.5	
RC-000032	118.9	117.97	117	115.7	118.8	too oily	115.9	119.8	
RC-000034	221.15	228	240.68	Obstruction in hole	267.7	Obstruction in hole	271	obstructed	
RC-000035	199.45	202.48	203.2	214.5	No reading	unable to read	206.7	obstructed	
RC-000036	194.9	182.54	185.4	193.1	194.05	unable to read	205.65	197	
RC-000040	297.8	292.6	303.27	290.9	290.9	291.25	291.55	291.75	
RC-000041	168.15	168.83	176.5	169.1	156.9	172.6	173.65	174.3	
RC-000042	261.9	254.4	246.34	Obstruction in hole	262.5	252	255.8	260.2	
RC-000043	271.57	255.3	274.68	262.8	267.1	263.1	269.4	271.7	
RC-000044	193.55	196.09	203.24	218.9	212.3	223.2	212.7	obstructed	
RC-000045	9.77	9.7	0	Too much Vegetation	Flowing	water to top of pipe	3.9	5.55	
RC-000047	130.58	132.83	134.66	Too Oily for e line	137.95	too oily	140.2	139.6	
RC-000049	329.2	300.4	301.8	307.6	309.4	312.05	315	316.3	
RC-002110								234.5	
RC-002125								307.9	
RC-002246								25 7.2	
RC-002241								25-15.85	
RC-000046		304.58	305.87	305.3	No Reading	unable to read	well chngd/cant meas	well chngd/cant meas	Wells are located south
RC-000048	218.23	222.12	222.08	236	245.7	244.5	254.2	253.9	of I 10
RC-000050			18		No reading	plugged	plugged	plugged	
RC-002374				76.9	75.5	68.2	61	61.45	
RC-002569				71	68.25	64.4	69.4	86.3	
RC-001757					327.55	ubstructed	no meas, obstructed	no meas, obstructed	
RC 002790				18.5	14.65	20.55	19.5	18.8	
RC 001747				158.02	157.69	unable to read	153.76	142.83	Wells are located north
RC-000014	196.15	193.55	187.15	200.95	pumping nearby	185.85	no measure, pumping	209.6	of I 10 and between Hwy
RC-002412								171.65	17 and Hwy 285
RC-000017	231.82	226.39	248	239.2	256.75	no reading	no measure, tape hangs	no measure, tape hangs	
RC-003115								217	
RC-000022	199.57	206.55	213.1	228.9	No reading	232.65	231.7	227.65	
RC-002124								208.5	
RC-003117								233.9	
RC 000037	130.17	136.22	140	136.9	139.7	no reading	145.2	145.75	
RC 000038	147.17	143.26	0	No water, drill & frac	Dry well	Cannot get reading	no meas, obstructed	no meas, obstructed	
RC 000039	121.3	128.1	143.1	209.6	221.9	233.7	230.1	230.7	
RC 2188						321.3	322.85	324.2	
RC 002144				231.3	230.65	229.5	241	257	
RC 000007	141.22	133.72	140.95	141	No reading	no reading	153.85	no meas, obstructed	Wells are located east of
RC 000009	104.42	102.79	107.68	109.8	No reading	no reading	122.05	122.05	Hwy 285 and South of I
RC 000033			0	42.2	No reading	42.9	42.85	43	20

Lower water level
Higher water level
New Monitor well
Unchanged
New Monitor well

AGS
Advanced Groundwater Solutions, LLC
www.advancedgw.com

DRAFT
Technical Memorandum

TO: Greg Perrin, General Manager, Reeves County GCD

FROM: Jordan Vega and James Beach, P.G.
Advanced Groundwater Solutions, LLC

SUBJECT: Reeves County Rustler Brackish Groundwater Production Zone Well Review

DATE: December 30, 2025

SUMMARY

Advanced Groundwater Solutions, LLC (AGS) reviewed water well data from the Submitted Drillers Report database (SDR) and the Reeves County Groundwater Conservation District (RCGCD) to identify wells that may have been missed during the Texas Water Development Board (TWDB) 2016 -2019 Brackish Groundwater Production Zone (BGPZ) classification of the Rustler Aquifer in Reeves County.

Based on this evaluation, AGS identified two (2) wells in the SDR database that appear to be very likely completed in the Rustler Aquifer, five (5) wells from the RCGCD Well Map that are very likely completed in the Rustler Aquifer, three (3) wells that are likely Rustler completions, pending further verification, and two (2) wells that lack construction data but warrant additional review due to their depth and location.

INTRODUCTION

AGS conducted a preliminary review of available well construction data from the SDR Database and the RCGCD water well viewer database to determine if wells were missed during the TWDB 2016-2019 BGPZ classification of the Rustler Aquifer in Reeves County.

This exercise was conducted because the Texas Water Code §16.060(b)(5) sets explicit limits on where BGPZs may be designated. Under this statute, a BGPZ cannot include areas where existing wells were serving domestic, livestock, public water supply, or agricultural uses at the time of designation. This report also includes wells that have industrial use designation since in this area, industrial wells tend to be converted to stock or irrigation use once industrial activities cease. When the Texas Water Development Board originally established the Rustler BGPZ, they used well-construction records available at that time. If wells were missing from the SDR database or from the RCGCD database, those wells were not considered in the original BGPZ delineation. Identifying previously undocumented or newly constructed Rustler wells is essential since they have direct regulatory implications that may include redefining the Rustler BGPZ in Reeves County.

wells were completed before or within the 2016–2019 BGPZ classification period, making them strong candidates for previously missed exclusionary wells.

Reeves County – Likely Rustler BGPZ Exclusionary Wells

Three (3) wells are potential Rustler completions. These wells have total depths that are either:

- Slightly above the BRACS top depth, or
- have incomplete or missing construction dates.

These wells require additional verification to determine whether they quality as BGPZ exclusion wells.

Reeves County – Wells Lacking Construction Data

Two (2) wells from the RCGCD Water Well Map lack construction depth and completion date information but are classified as Rustler in the district database. Both wells warrant further investigation to confirm their aquifer completion and whether or not they could be considered Rustler BGPZ exclusionary wells

Well Construction data and the approximate top depth of the Rustler Aquifer from the 2016 BRACS Rustler model can be found in Table 1.

REFERENCES

Lupton, D., Powers, D., Torres-Verdin, C., Harding, J.J., Martinez, G., Oliver, W., Godbout, L., Bennis, M, and Sutherland, J., 2016, Identification of potential Brackish Groundwater Production Areas - Rustler Aquifer - TWDB Contract Number 1600011949. 373 p.

Mancha, E., 2016, Designation of brackish groundwater production zones. Memo to the Board of the Texas Water Development Board. 33 p.

Reeves County Water Well Map. Accessed November 2025. https://reevescountygcd.halff.com/

Texas Water Development Board Water Well Viewer (Interactive Map). Accessed November 2025. https://www3.twdb.texas.gov/apps/WaterDataInteractive/GroundWaterDataViewer

Geoscientist's Seal

The seal appearing on this document was authorized
by James A. Beach, P.G. 2965 on December XX, 2025.
Advanced Groundwater Solutions, LLC
TBPG Firm Registration No. 50639

FIGURES

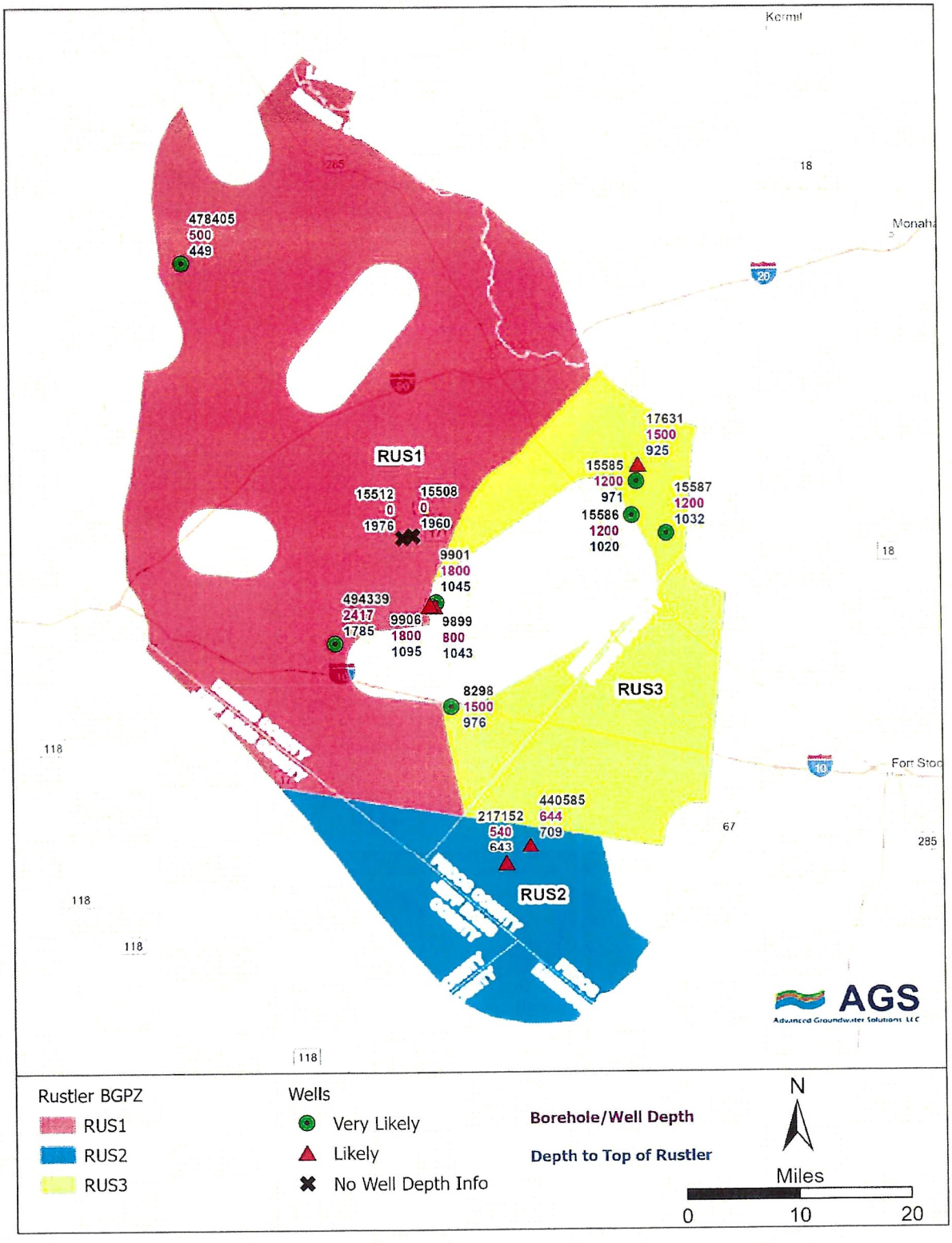


Figure 2. SDR Database Well and RCGCD Well Location Map with Rustler BGPZs.

Table 1. Well Construction and BRACS Rustler Aquifer Model Data.

Well ID	Database	County	Total /Borehole Depth (Ft)	Date of Well Completion	Well Use	BRACS Rustler Top Depth (ft)	In Rustler
217152	Submitted Drillers Report	Pecos	540	Unknown	Stock	643	Likely
440585	Submitted Drillers Report	Pecos	644	Unknown	Stock	709	Likely
494339	Submitted Drillers Report	Reeves	2417	10/26/2018	Industrial	1785	Very Likely
478405	Submitted Drillers Report	Reeves	500	01/25/2017	Stock	449	Very Likely
RC-001696	RCGCD Water Well Map	Reeves	1500	1970	Irrigation	976	Very Likely
RC-002300	RCGCD Water Well Map	Reeves	800	1955	Irrigation	1043	Likely
RC-002302	RCGCD Water Well Map	Reeves	1800	1957	Irrigation	1045	Very Likely
RC-002307	RCGCD Water Well Map	Reeves	1800	1973	Irrigation	1095	Likely
RC-002948	RCGCD Water Well Map	Reeves	0	Unknown	Domestic	1960	No Info
RC-002952	RCGCD Water Well Map	Reeves	0	Unknown	Irrigation	1976	No Info
RC-003025	RCGCD Water Well Map	Reeves	1200	2021	Industrial	971	Very Likely
RC-003026	RCGCD Water Well Map	Reeves	1200	2021	Industrial	1020	Very Likely
RC-003027	RCGCD Water Well Map	Reeves	1200	2021	Industrial	1032	Very Likely
RC-003063	RCGCD Water Well Map	Reeves	1500	Unknown	Industrial	925	Likely