

GRP Review Committee

April 21, 2025



SJRA
SAN JACINTO RIVER AUTHORITY

1. Call to Order

2.

Public Comments

3. Work Session

3.1

Items by GRP Administrator

3.1.1

Presentation of the GRP 10-Year Project Plan

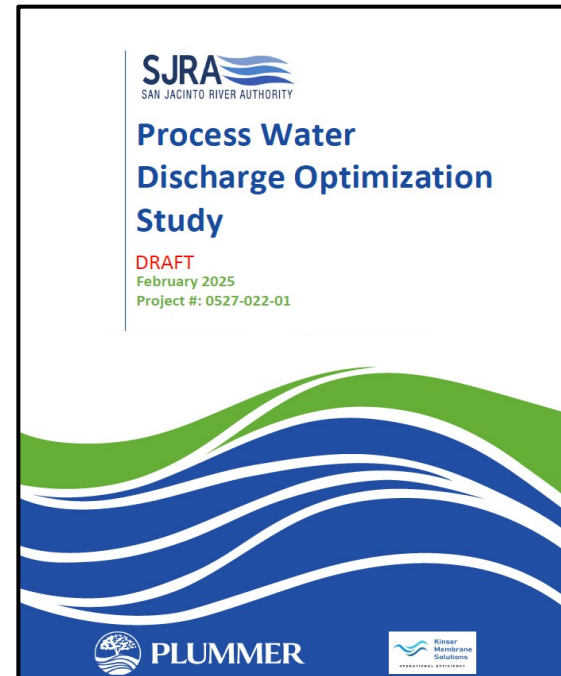
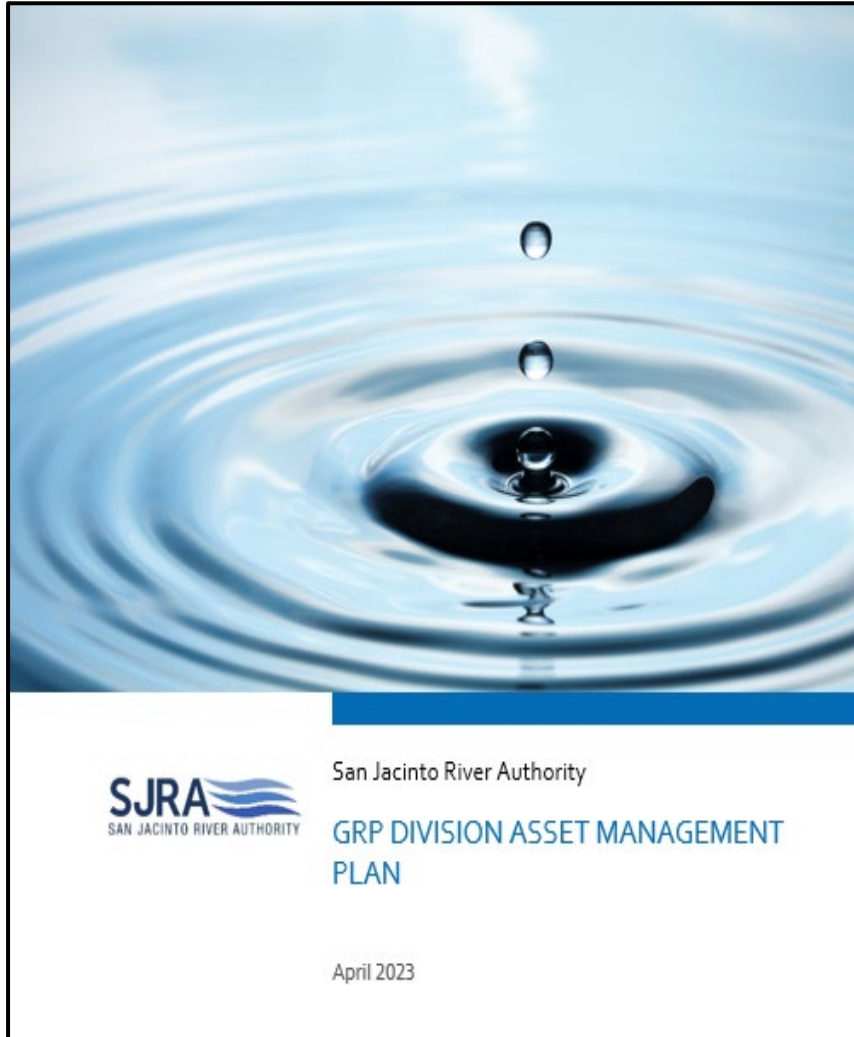
Public Meetings for FY2026 GRP Budget & Rates

Date	Audience	FY 2026 GRP Budget Activity
February 24	Review Committee	Budget Process, Demands, and Surface Water Production
March 24	Review Committee	Receive Recommendations for FY26 Demands and Surface Water Production
April 21	Review Committee	10-Year Project Plan Presentation
April 24	SJRA Board	10-Year Project Plan Presentation
May 19	Review Committee	FY26 Budget and Rate Presentation
May 22	SJRA Board	FY26 GRP Rate Order Presentation
June 23	Review Committee	Review Committee Vote on FY26 Budget and Rate
June 26	SJRA Board	Vote on FY26 GRP Rate Order
August 28	SJRA Board	Vote on Proposed FY26 GRP Operating Budget

How Projects Are Determined

SJRA's Asset Management Plan

Consultant and internal studies and reports



Surface Water Receiving Facility Optimization

- Project to determine adjustments needed to surface water receiving facility valves
- Model updates underway
- Project flows and population growth to GRP Participants to adjust valve sizes
- Budget: \$1,516,603
- *Expect To Spend FY26: \$323,000*
- Funding: R&R Fund
- Schedule: 2025 - 2027



Membrane Replacement & Optimization



- Replace end of life membranes and optimize cleaning and discharge
- Studies conducted on membranes and optimization in 2024-2025
- Project will conduct pilot study of proposed cleaning prior to replacing membranes
- Budget: \$7,594,672
- *Expect To Spend FY26: \$690,000*
- Funding: R&R Fund
- Schedule: 2025 - 2028



10-Year Project Plan Funding Summary

Funding Source	Funding
R&R Funded	\$9,111,275
Total	\$9,111,275

3.1.2

Draft GRP Review Committee Meeting Agenda Policy

Policy for GRP Meeting Agendas



GRP Administrator establishes agendas for Review Committee Meetings.



Review Committee Members seeking agenda items on future meeting agendas will request from the Committee Chair during the *future agenda items* portion of the meeting.



Review Committee Members seeking to request agenda items outside a Review Committee meeting will submit written request 3-weeks prior to the meeting to the GRP Administrator. GRP Administrator will submit to Review Committee Chair for approval.



All documentation, presentation materials, or discussion items for approved agenda items, standing or otherwise, shall be submitted to the GRP Administrator at least ten (10) calendar days prior to the GRP Review Committee meeting in which the items will be presented.

3.1.3

Operations and Maintenance Updates

Remaining FY2025 Surface Water Delivery

Participant Name	FY25 Allocation	FY25 Actual	% used	% remaining	FY25 Remaining
City of Conroe	1,410,548,067	676,674,000	48%	52%	733,874,067
City of Oak Ridge North	51,192,700	25,153,000	49%	51%	26,039,700
MUD 99	100,471,500	42,820,000	43%	57%	57,651,500
Rayford Road MUD	112,335,700	59,687,000	53%	47%	52,648,700
SJRA – The Woodlands	2,789,067,300	1,506,644,000	54%	46%	1,282,423,300
Southern Montgomery County MUD	119,680,100	66,291,000	55%	45%	53,389,100
Total	4,833,481,287	2,377,269,000	49%	51%	2,456,212,287

Note: Surface Water Delivery as of 3.31.25

3.2

Items Requested By GRP Review Committee Members

3.2.1

Discussion of GRP Review Committee Goals and Objectives Requested by Vice Committee Chair Erich Peterson, P.E.

3.2.2

Status of Aquifers Presentation

by Committee Member Benjamin Slotnick, Ph.D

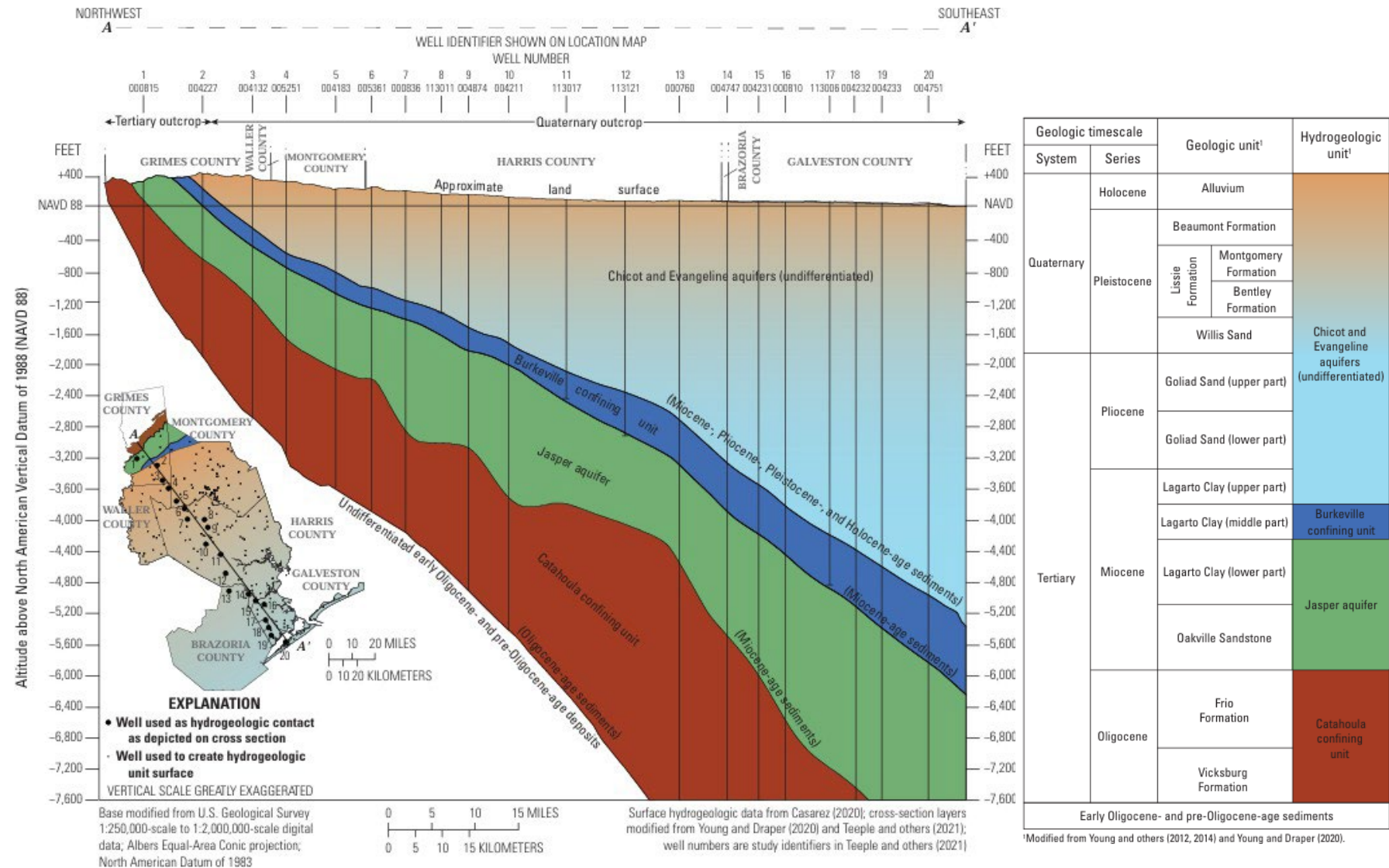
East of 45 Montgomery County Municipality Districts

Status of underlying aquifers in a 20 square mile area of 77386
(Rayford Road and GP 99 area) with population of ~70,000 residents

By: Benjamin Slotnick, Ph.D.
SJRA GRP Committee Member

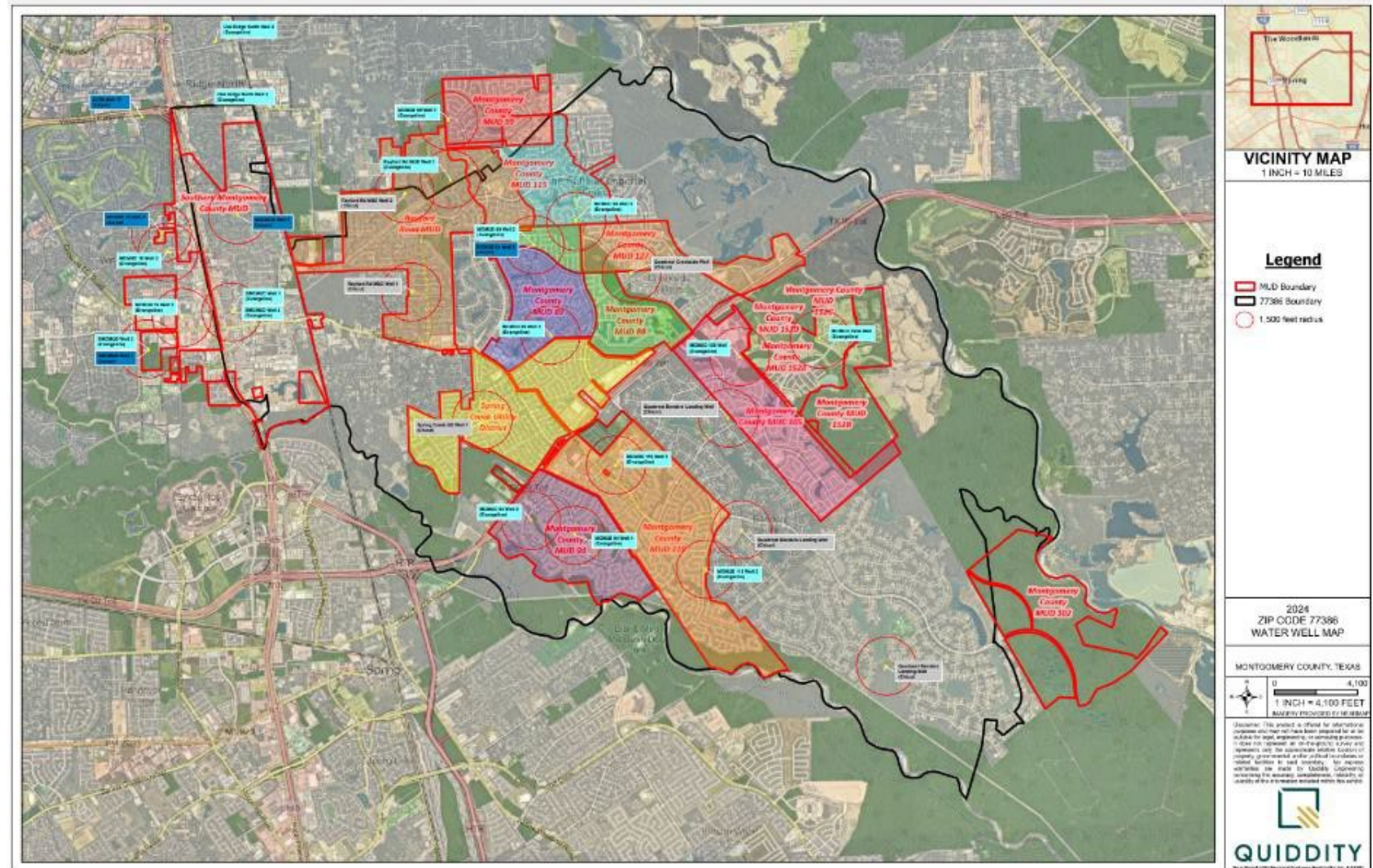
Our local Gulf Coast aquifers: Introduction

- Chicot and Evangeline, undifferentiated
- Jasper



Well Data compilation from local districts

- Includes:
 - MUD 99/115/127
 - Rayford Rd MUD
 - SCUD
 - SMCMUD
 - MUD 119
 - MUD 89/88
 - MUD 94
 - MUD 105



Data-Set Characterization for this study

- Public data request covered by districts, includes all known active wells in the area of interest
- Production data or well reports most prominent part of data received to date
 - Data covers 9 Evangeline wells and 4 Chicot wells
- Well log data limited to a few of the wells

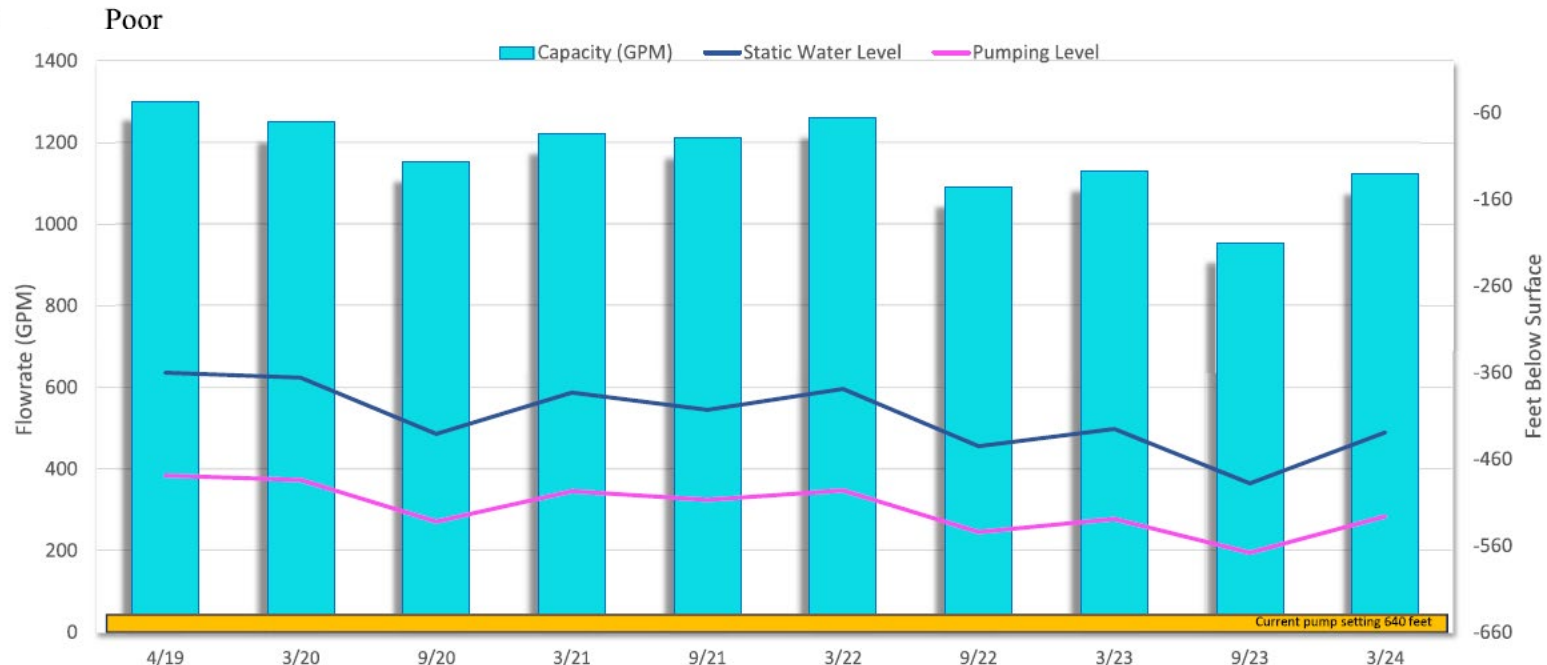
Are you familiar with these well reports?



- Basis for much of today's talk

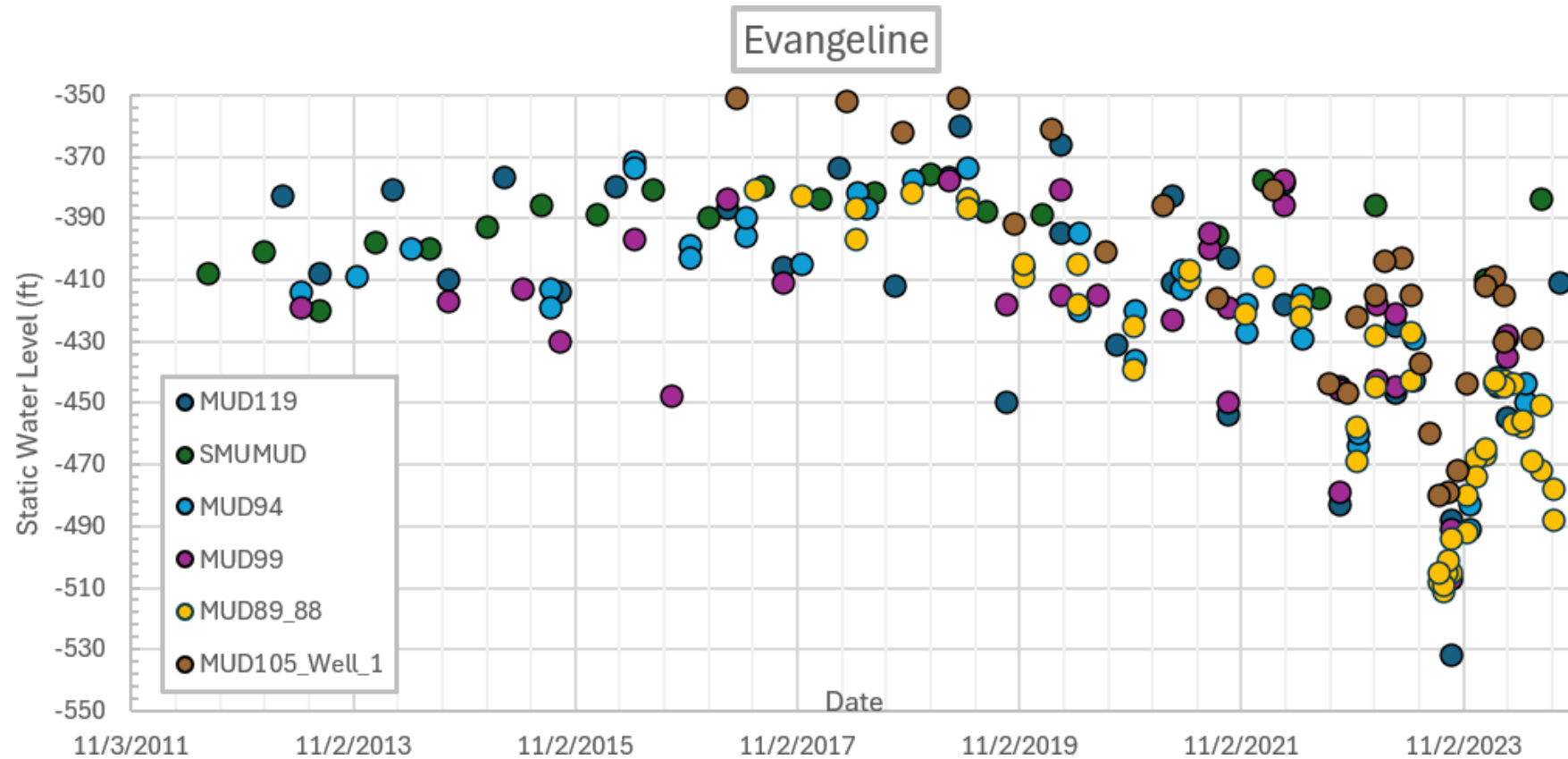
PERFORMANCE TEST REVIEW

Hydraulic Performance of pump is 1122 GPM @ 547' field head	Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Marginal <input type="checkbox"/> Poor <input type="checkbox"/>
Overall efficiency is 68 percent	Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Satisfactory <input type="checkbox"/> Marginal <input type="checkbox"/> Poor <input type="checkbox"/>
Pump Submergence 114 feet	Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Marginal <input type="checkbox"/> Poor <input type="checkbox"/>
Vibration Analysis	Vibration analysis not completed this test
Suspended Solids Testing	Excellent <input checked="" type="checkbox"/> Good <input type="checkbox"/> Marginal <input type="checkbox"/> Poor <input type="checkbox"/>
Brass Observed in SST	None <input checked="" type="checkbox"/> Trace <input type="checkbox"/> Substant <input type="checkbox"/>
Flowmeter Accuracy is 98.1 percent	



	4/19	3/20	9/20	3/21	9/21	3/22	9/22	3/23	9/23	3/24
Capacity (GPM)	1301	1249	1154	1221	1211	1261	1091	1130	953	1122
Static Water Level	-360	-366	-431	-383	-403	-379	-445	-425	-488	-429
Pumping Level	-479	-484	-532	-497	-507	-496	-544	-529	-568	-526

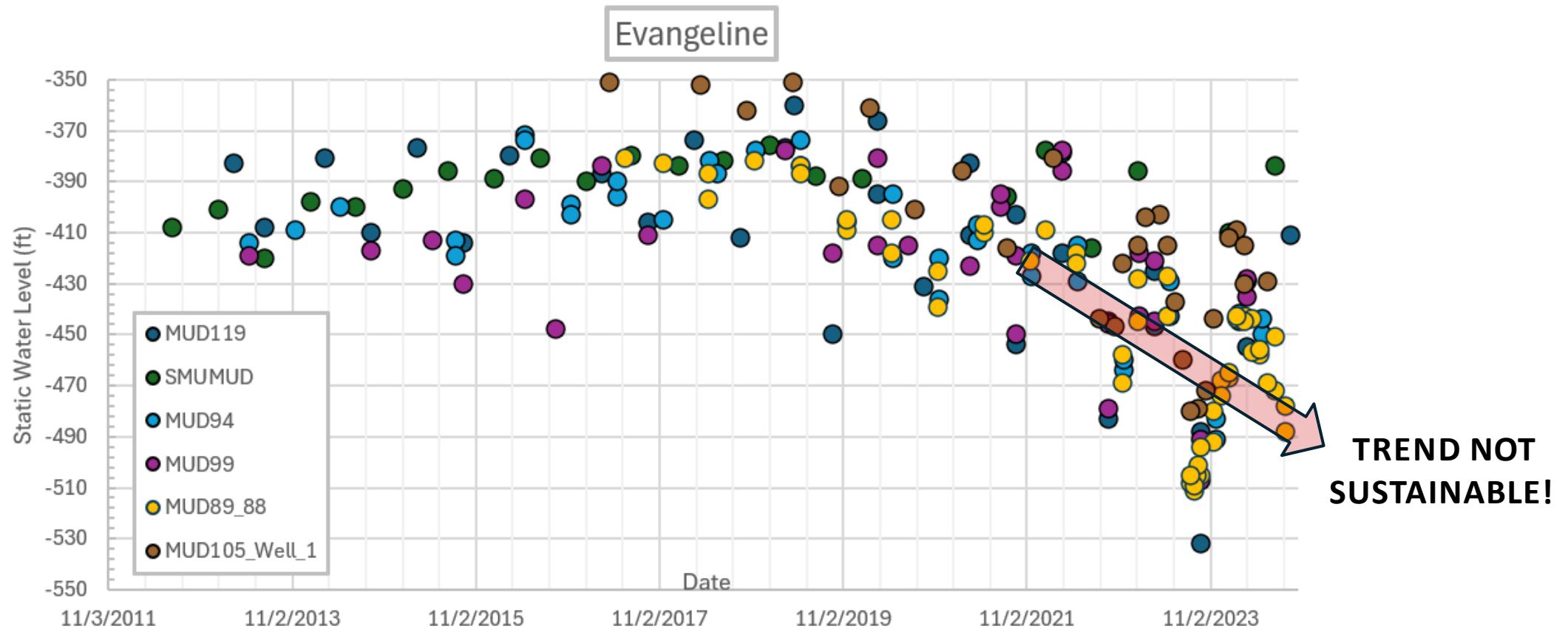
By comparing Static Water Table, we can...



- Long-term subsurface response

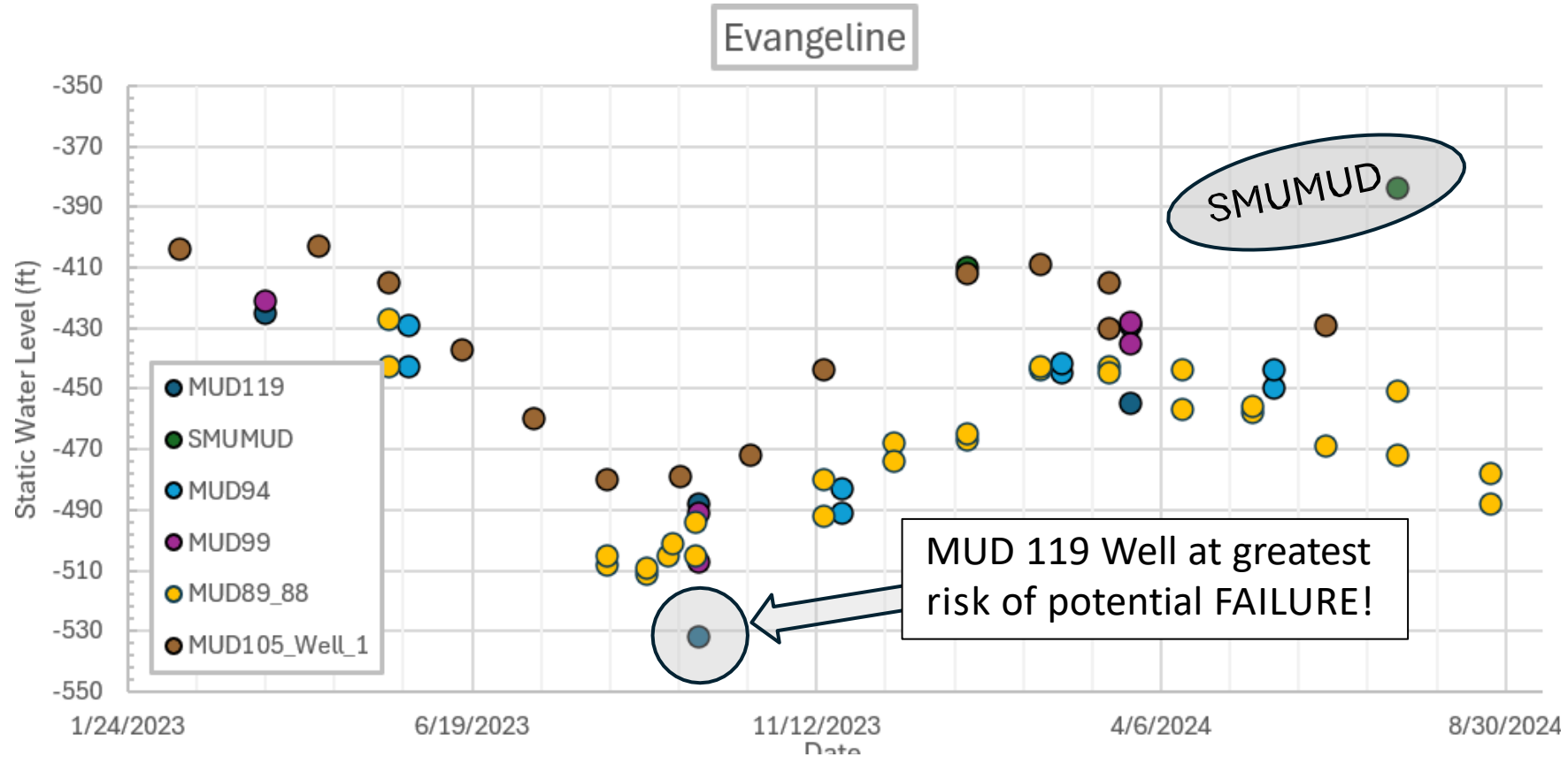
- Looked good until early 2020 when deepening began, we think primarily related to extended dry seasons starting in 2020, but exacerbated by additional home building (e.g., MUD 119)

No matter the location of the Evangeline well...



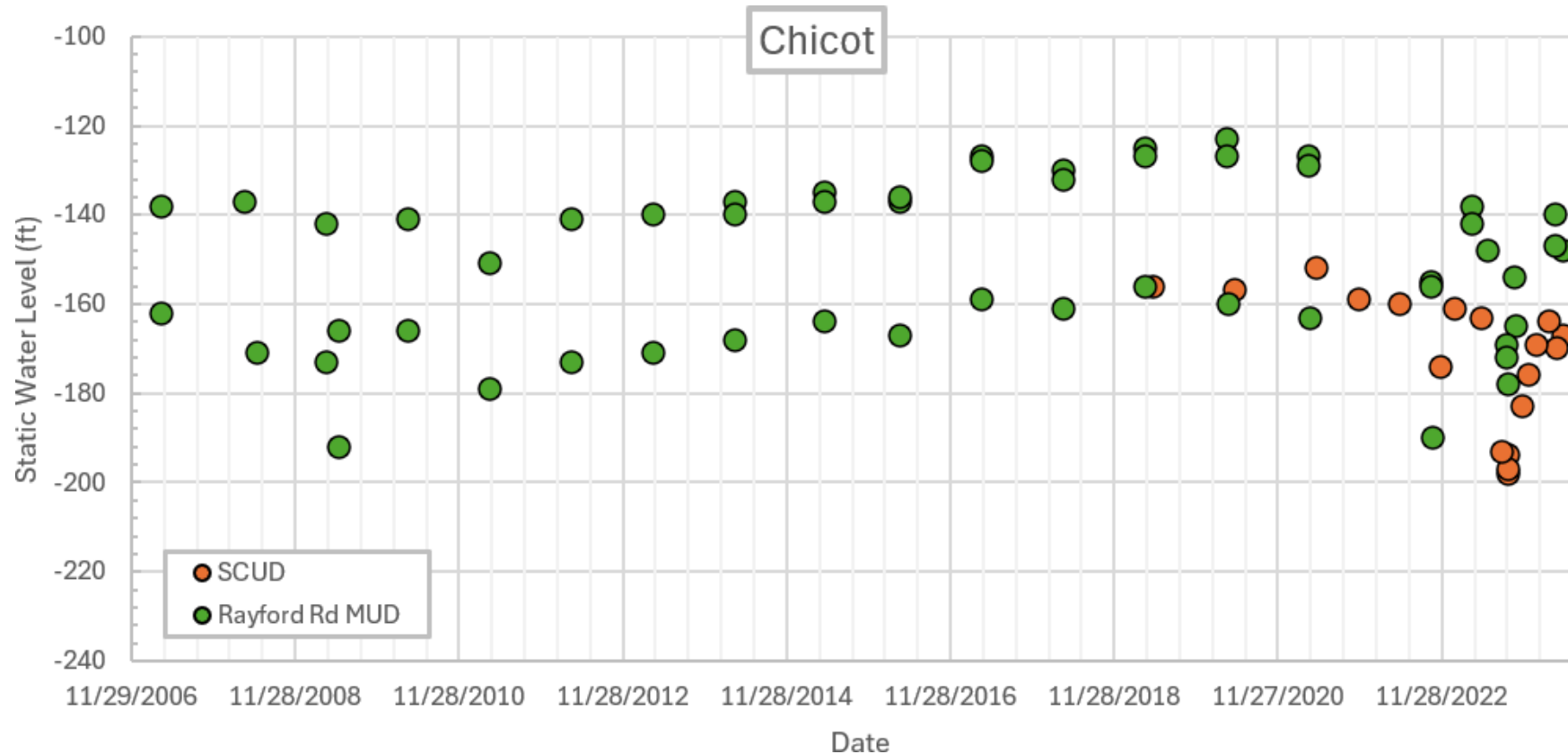
- The static water level of this aquifer has been deepening since Spring 2020
 - Regardless if district receiving surface water or not (e.g., MUD 99)
- Deepening has impacted MUD 119 the most; SMUMUD the least

If we focus on last 18 months...



- Districts generate well reports at differing time cadences
 - Those that collect data more often have a much better understanding (e.g.; MUD89)
- SMUMUD only well to not have same impact (will look into why)
- Shows deepest water levels in September, which we have not yet reached in 2024

For Chicot, only data received



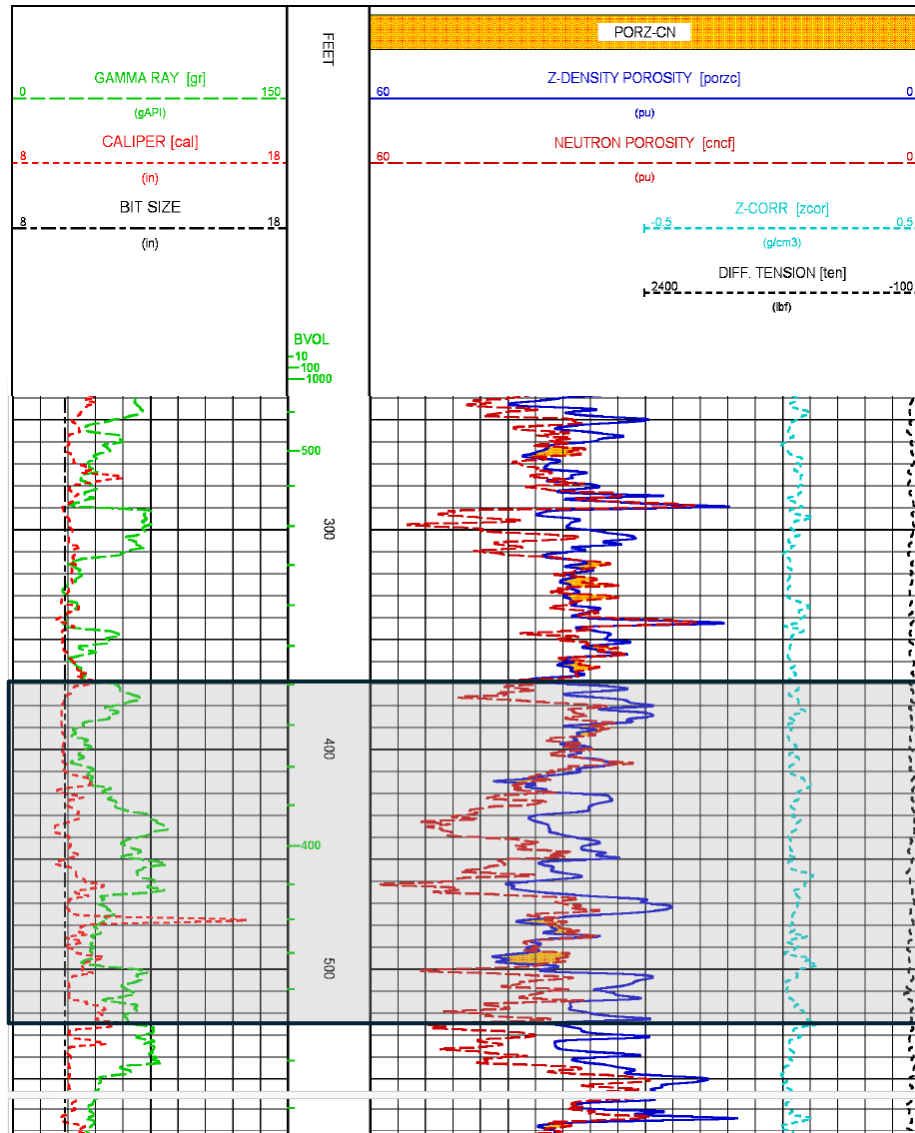
*Rayford Rd MUD provided data for 3 Chicot wells, no Evangeline

Does Rayford Rd have an Evangeline well?

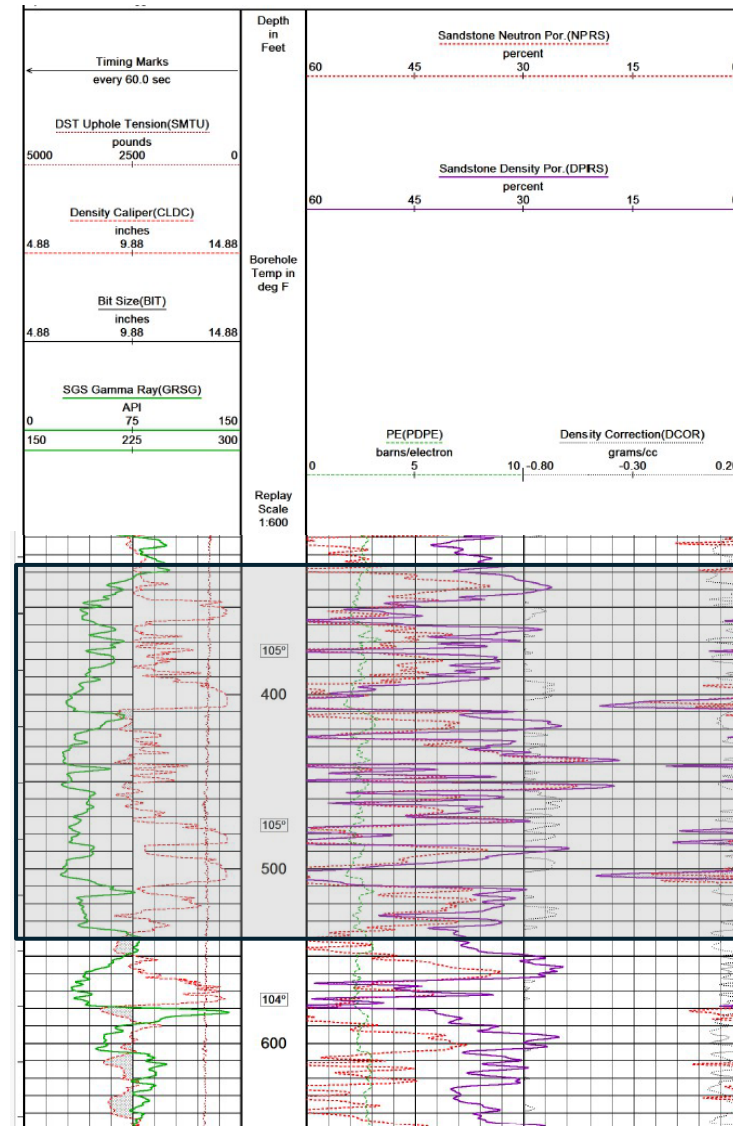
- Until late 2022, Chicot static water level holding up
 - Interestingly though, static water level drop in 2023 on par with Rayford Rd MUD drop in 2009 (which pre-dated surface water source)

Well Logs reveal Stratigraphic Heterogeneity in Evangeline

MUD99



MUD119 Well 1

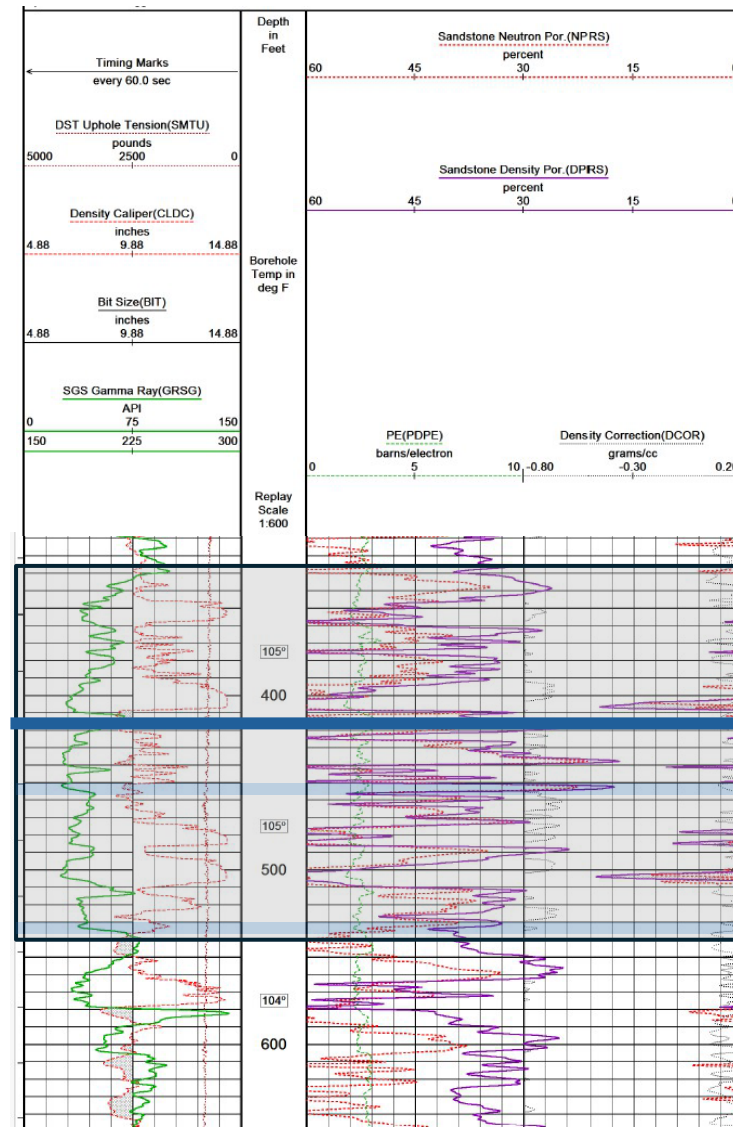
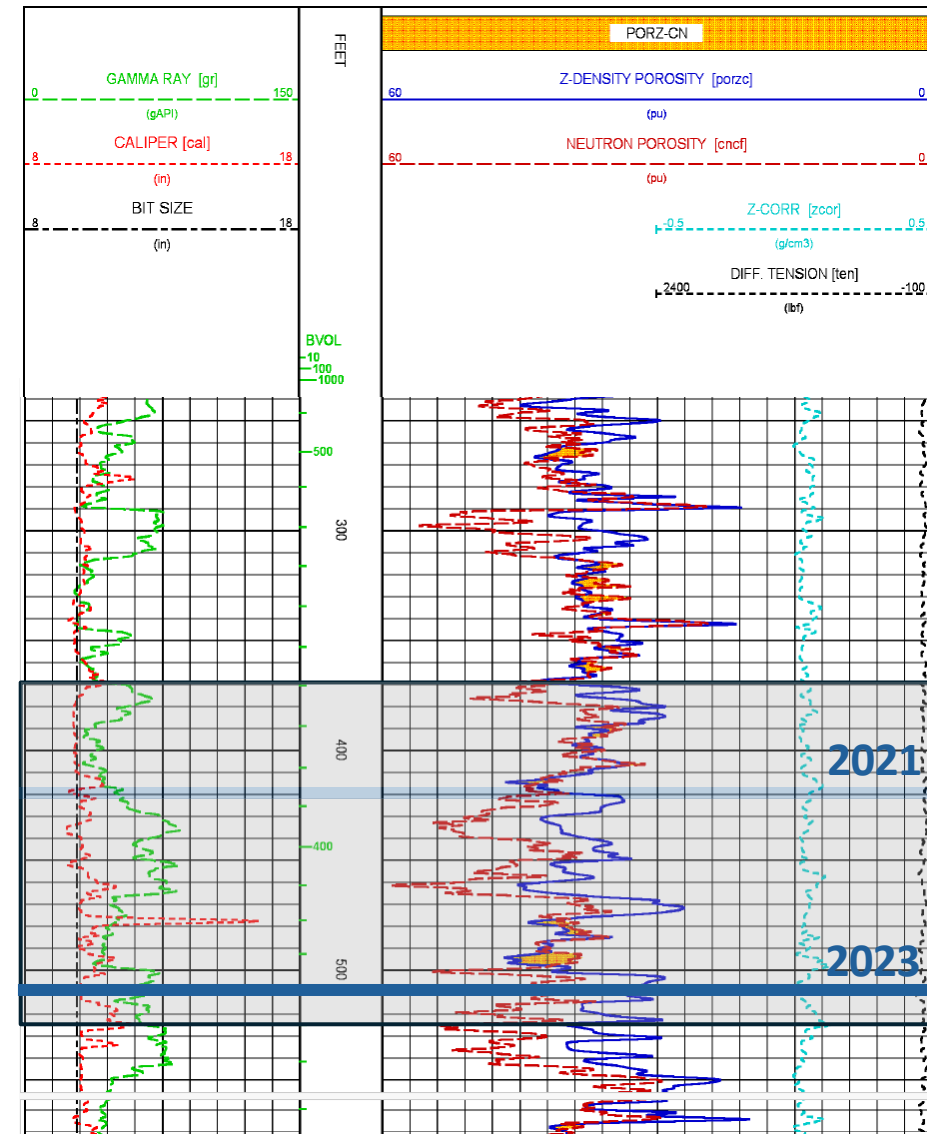


- Stratigraphic signature in Evangeline varies well to well (related to original geologic deposition of the sand)
- Impact:
 - Each well will respond differently
 - If more Evangeline wells drilled, location matters!

Well Logs reveal Stratigraphic Heterogeneity in Evangeline

MUD99

MUD119 Well 1



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- Impact:
 - Each well will respond differently
 - If more Evangeline wells drilled, location matters!

September lows

2014

2020

2023

Comparison to other assessments?



Prepared in cooperation with the Harris-Galveston Subsidence District, City of Houston, Fort Bend Subsidence District, Lone Star Groundwater Conservation District, and Brazoria County Groundwater Conservation District

Status of Water-Level Altitudes and Long-Term and Short-Term Water-Level Changes in the Chicot and Evangeline (Undifferentiated) and Jasper Aquifers, Greater Houston Area, Texas, 2023

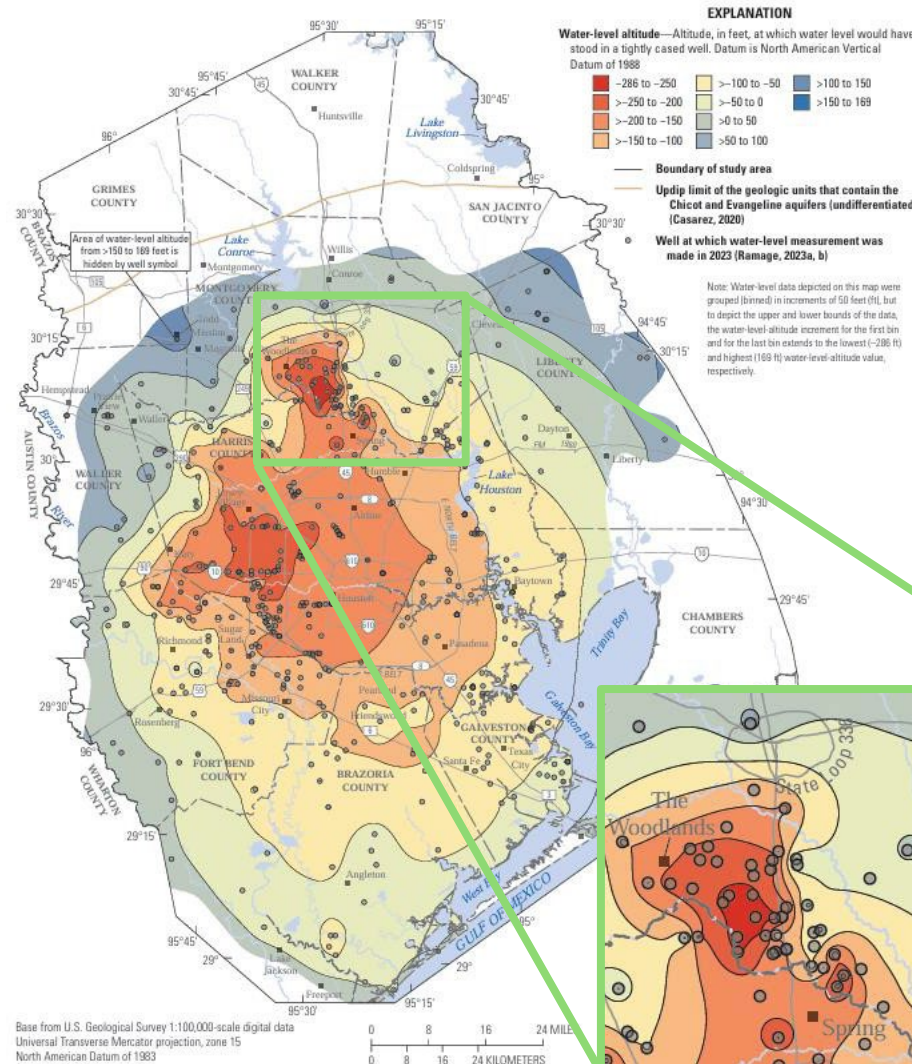


- In 2024:
 - USGS (in collaboration with the Harris-Galveston Subsidence District, City of Houston, Fort Bend Subsidence District, Lone Star Groundwater Conservation District, and Brazoria County Groundwater District) published this status of water-levels report.

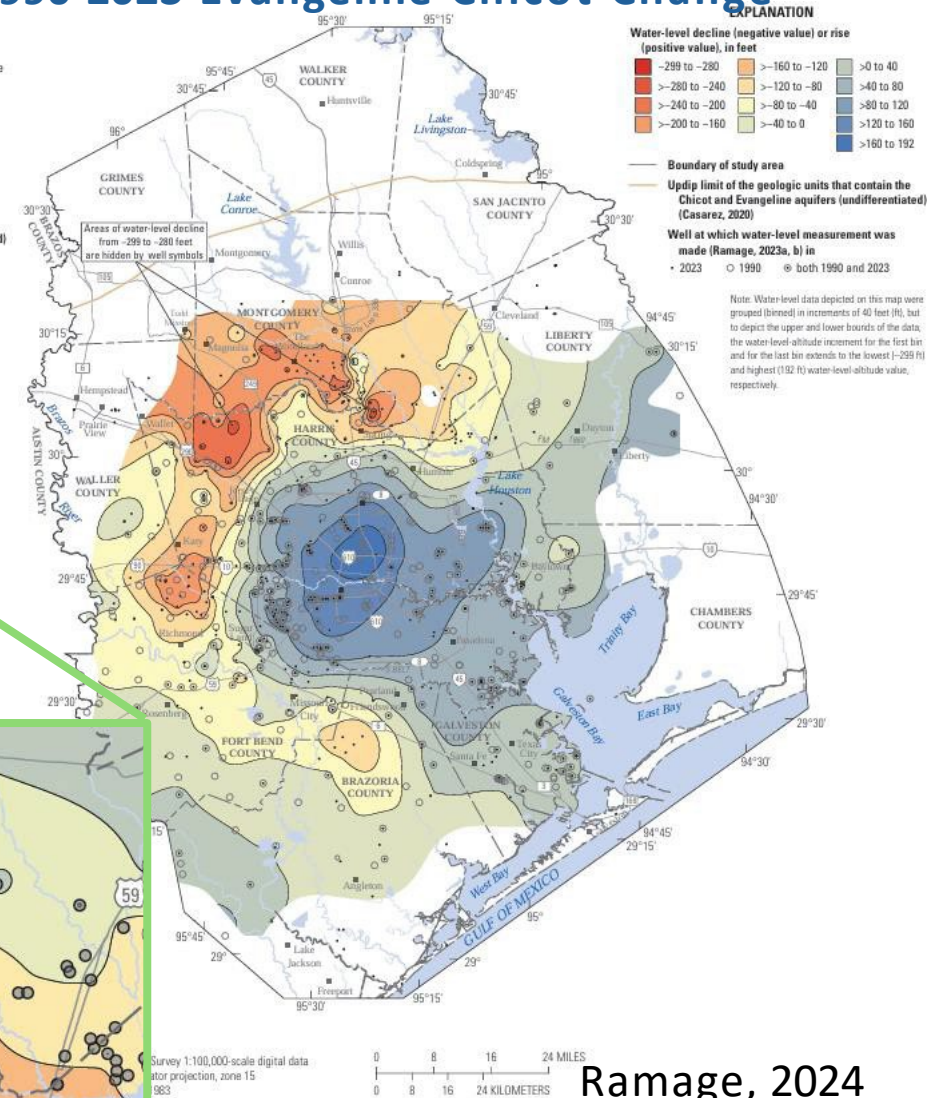
Scientific Investigations Report 2024–5003

USGS Study also sees deeper water levels

2023 Evangeline-Chicot Levels



1990-2023 Evangeline-Chicot Change



- Broad study across the region
- Similar observation of deeper water levels in 77386

Conclusions

- Data-set includes all known active wells; additional well logs would all even better understanding
 - Add all well logs and well reports for all wells, regardless if still online, will allow an even more technical assessment
- Definitive deepening impact to Evangeline Aquifer East of 45 in 77386
 - Effects many municipalities, especially in 77386
 - Seasonal variation with long-term deepening that began Spring 2020
- MUDs should be generating well reports via G-M Services more often than twice a year
- Limited data from Chicot shows water table holding up better (except for latest 2022 through today)
 - 2009 SMCMUD static water deepening in Chicot on par with 2023 numbers
- Well logs reveal substantial stratigraphic heterogeneity in Evangeline
 - Means wells will have different behaviors, drawdown rates, responses, recharge rates, connectivity issues, etc.
 - Also means well placement / location of Evangeline wells matters!
- USGS Findings from Ramage (2024) very similar for our area

3.2.3

Discussion of MUD 88, 89, and Spring Creek Utility District Agreement requested by Committee Member Mike Stoecker

3.3

Lone Star Groundwater Conservation District

4. Action Items

4.1

Approval of Minutes

Recommendation

Approve the Minutes of the GRP Review Committee meeting of March 24, 2025.

5.
**Future GRP Review Committee Meeting
Agenda items**

6.
Adjourn