

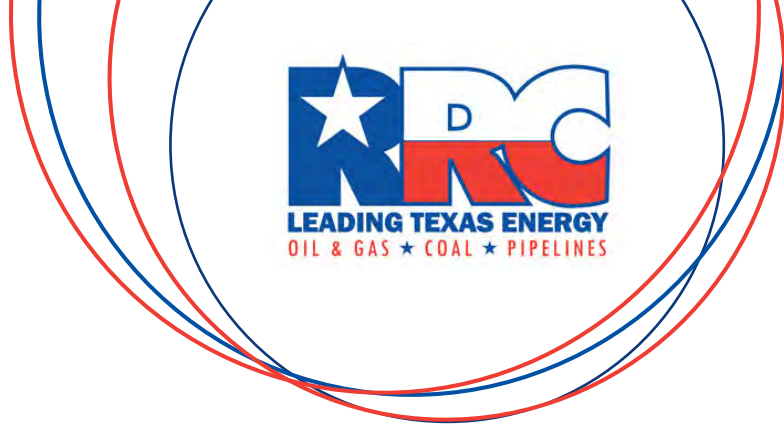


JUNE 2022

# Energy News



**From the Field Photo**  
Restored former pit mine - Titus County  
Photo from Jarod Riffe



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## Upcoming Events

RRC Open Meeting .....August 23rd, 2022

[VIEW OPEN MEETING WEBCASTS ▶](#)

# COMMISSIONERS APPROVE FY 23 OIL & GAS MONITORING AND ENFORCEMENT PLAN

Commissioners on June 7 approved the RRC's *Fiscal Year 2023 Oil and Gas Monitoring and Enforcement Plan* that continues to build upon efforts to improve transparency and work that protects public safety and the environment.

The plan outlines strategic priorities and provides statistical data highlighting the agency's enforcement efforts in its oversight of the oil and gas industry, including violations cited by rule. The plan will be effective on the start of the new fiscal year on Sept. 1.

Among new information in next year's plan is an expansion of statistical data to include the previous fiscal year for progress and comparison purposes.

The plan explains RRC's inspection processes and enforcement procedures and affirms the agency's commitment to inspecting every oil and gas facility at least once every five years.

Plugging orphaned wells is a critical component of the RRC's mission to protect public safety and the environment. The State Managed Plugging Program, which has exceeded legislative goals for five consecutive years, has the goal to plug another 1,000 orphaned wells in fiscal year 2023 using state appropriations funded with revenue from the oil and gas industry. FY 23 will also include an infusion of federal infrastructure funding that should result in the plugging of up to an additional 800 orphaned wells.

In the next fiscal year, the RRC will deploy knowledge from its strategic analysis of flaring data. The resulting study will evaluate additional measures the agency can take on flaring and clarify any data discrepancies. Findings, including any recommendations for regulatory or statutory changes, will be shared with the Legislature and the public.

The agency is continuing to update its computing systems, which will result in more information being available online. Also, in the interest of transparency, the agency plans to provide more information via its social media channels demonstrating what oil and gas inspectors do, including how potential violations are cited.



# PROPOSED WEATHERIZATION RULE FOR CRITICAL GAS INFRASTRUCTURE OPEN FOR PUBLIC COMMENT

## New Rule Would Protect Texans During Weather Emergencies



RRC's commissioners on June 28 authorized the publishing for comment of a proposed weatherization rule for critical gas infrastructure.

The proposed rule – which was designed to protect Texans during weather emergencies – is open for public comment through Aug. 15. After which, staff will review comments before commissioners adopt the final rule, which is expected before the end of the summer.

The weatherization rule covers critical facilities that are on the state's Electricity Supply Chain Map at the time of adoption of the rule, and any subsequent iterations of the map. These include natural gas wells and oil leases producing casinghead gas, underground storage facilities, and gas processing plants. Gas pipelines that are

on the Electricity Supply Chain Map and directly serve electric generation are also subject to the rule.

Provisions of the rule include, but are not limited to, the following requirements:

- Implement weather emergency preparation measures intended to ensure sustained operations during a weather emergency that can put the state's electricity grid operation at risk.
- Correct known weather-related forced stoppages that may have occurred prior to Dec. 1, 2022.
- Contact the RRC if a facility sustains a weather-related forced stoppage during a weather emergency.



The rule covers a large group of types of facilities and infrastructure across regions of the state with different weather patterns and geography. Operators will be required to weatherize facilities using weatherization methods applicable to the facility based on the type of facility, the facility's critical components, the facility's location, and weather data for the facility's county or counties. The rule includes a table with extreme low and high temps for each county in the state compiled by the state climatologist.

Common weatherization methods that are utilized throughout the oil and gas industry – from heat tracing devices to thermal insulation and chemical injection systems – are included in the rule for operators to utilize as appropriate for a facility based on locations.

RRC's Critical Infrastructure Division inspectors will inspect facilities and enforce all provisions of the rule; and fines for administrative violations could reach up to \$1 million per day.

"These new weatherization rules will further ensure Texans have access to reliable natural gas when they need it most," Chairman Wayne Christian said. "The proposed weatherization rules represent more than a year's worth of collaborative efforts between RRC Staff, our sister state agencies, and industry partners who spent countless hours working on this proposal.

"This is a critical step toward ensuring more production of oil and gas during inclement weather, but with 1000 people moving to Texas each day, the long-term solution for our state's energy needs is to invest and build more cheap, reliable natural gas-fired electric generation,"

Christian continued. "Now is the time to end all preferential market treatment and taxpayer subsidies for unreliable, intermittent forms of energy and to invest in reliable, resilient forms of electric generation, like fossil fuels, instead."

"Today's proposed rule is a culmination of countless hours of hard work by agency staff, stakeholders, and other regulatory and legislative leaders," Commissioner Christi Craddick said. "Working to ensure that power generators can access the energy supplies they need during weather emergencies is critical, and I am proud of the steps we have taken so far. We have taken extreme care to consider the needs of all Texans, resulting in a thoughtful proposal that protects the natural gas supply chain. I look forward to receiving feedback and adopting this rule once finalized."

"Today's proposed rule strikes an appropriate balance to ensure facilities are prepared for extreme weather events while providing needed flexibility for operators to ensure compliance with Commission standards," Commissioner Jim Wright said. "This flexibility component is crucial as we must ensure weatherization requirements do not adversely harm current or future production of our natural resources. I look forward to receiving public input on this proposal and finalizing the critical infrastructure weatherization rule as required under Senate Bill 3 in the coming months."

The proposed rule and section to provide comments can be found under Chapter 3 on the RRC website.

[VIEW THE PROPOSED RULES WEBPAGE](#)



# RRC APPROVES FINAL RESPONSE PLAN FOR SEISMIC RESPONSE AREAS IN PERMIAN BASIN

## Latest Is Operator-Led in Stanton SRA

Since September, the Railroad Commission has created three seismic response areas in the Permian Basin to protect Texans and the environment from earthquakes caused by the oil and gas industry's use of injection wells.

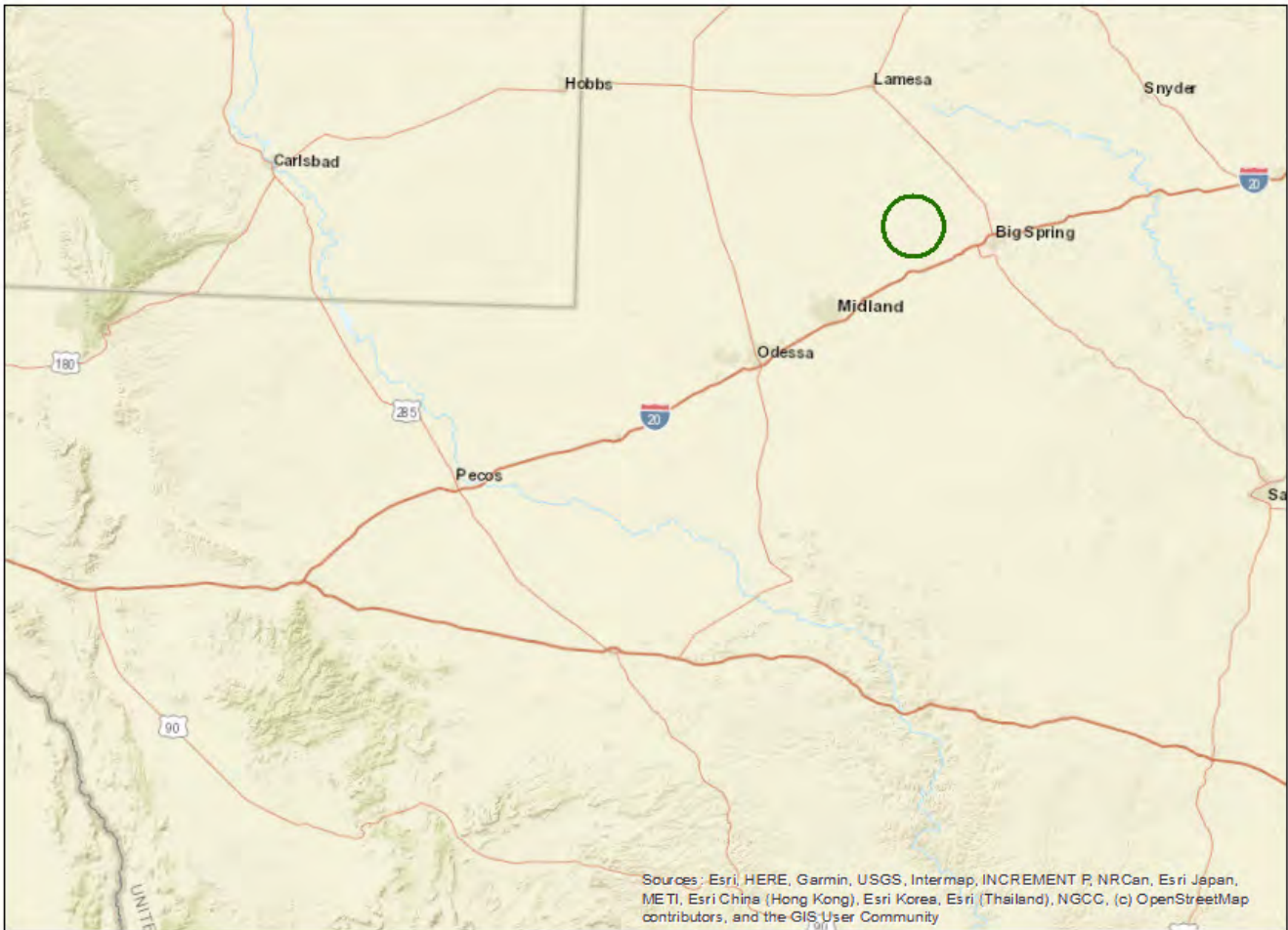
In May, the RRC approved an operator-led response plan for the Stanton SRA, which was created in January and has had more than nine earthquakes exceeding 3.0 magnitude, including a 4.2 earthquake north of the eponymous city in December 2020 and 4.6 in December 2021. The response plan is designed to reduce the frequency and intensity of earthquakes, including a goal to eliminate 3.5 magnitude or greater earthquakes no later than May 15, 2024.

All three SRAs now have response plans, the others being Gardendale and Northern Culberson-Reeves. Each plan is responsive to the specific geology of the SRA.

"As with the Northern Culberson-Reeves SRA, operators in the Stanton SRA stepped up in producing this response plan," said Sean Avitt, Manager of RRC's Injection-Storage Permits Unit. "Having the operators leading the effort to create the response plan allows for quicker actions that should ultimately lead to a reduction in the number and intensity of earthquakes. If it is needed, the RRC can take further actions to reduce seismicity."

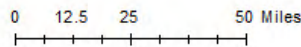
The Stanton SRA is about 14 miles in diameter in Martin County and is north of Midland. The operator-led response plan affects 32 shallow saltwater disposal wells (typically less than 7,000 feet in depth) above the top of the Wolfcamp Shale Play and 39 deep disposal wells (typically between 11,000-16,000 feet in depth) below the bottom of the Wolfcamp.

Operators of saltwater disposal wells within the Stanton SRA will report daily pressure and disposal volume to the RRC.



**Legend**

— SRA\_Stanton\_9km



Conditions for shallow disposal wells include:

- A limit of 30,000 barrels per day or to the maximum permitted disposal volume, whichever is the lesser of the two, by Nov. 15.
- Existing permits will not have their maximum daily injection volume increased, nor can the permitted conditions be exceeded.
- Operators of permitted disposal wells that have not been drilled or completed will give RRC staff 30 days of notice before drilling or completion operations begin.

Conditions for deep disposal wells include:

- Elimination of deep disposal within the inner operator-led response plan boundary by Nov. 15.
- A reduction of disposal to a volume ceiling of 10,000 barrels per day in all wells between the inner and intermediate operator-led response plan boundaries by Nov. 15.
- A reduction of disposal to a volume ceiling of 20,000 barrels per day in all wells between the intermediate and outer operator-led response plan boundaries by Nov. 15.

**VIEW THE FULL RESPONSE PLAN**

Deep saltwater disposal wells outside the outer operator-led response plan boundary will be unchanged.



# RRC RECEIVES NATIONAL AWARD FOR USE OF MACHINE LEARNING



*The Ground Water Protection Council Award presentation on June 22, 2022. Pictured from left to right include RRC staffers with GWPC President Nick Tew in the gray jacket, including Jim Moore, Bryce McKee, Paul Dubois, Danny Sorrells, Sean Avitt, Nagi Mabruk and Lauryn McFarland*

The RRC's seismicity reviews have been greatly enhanced thanks to the agency's continuing embrace of technology. UIC staff programmed a machine learning algorithm to help with the large amount of information that needs to be processed and digested. In June, the Ground Water Protection Council awarded the RRC its Excellence in UIC Award for that technological work. The use of artificial intelligence not only helps accuracy but it also improves the agency's efficiency.

An explanation of the technology and how it has allowed staff to optimize their time is in this video:





# Time to Register for RRC's Annual Regulatory Conference



The Railroad Commission continues to register people interested in attending the agency's annual Regulatory Conference, which will be held Aug. 8-9 at the AT&T Hotel and Conference Center in Austin.

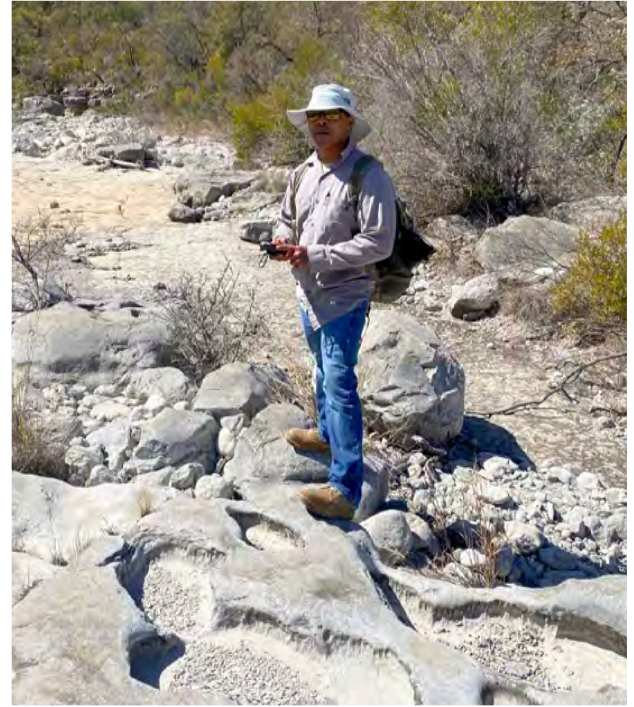
The RRC is hosting this conference to inform and train industry representatives on the applicable laws, rules and procedures for hydrocarbon production in Texas. This conference will offer three tracks: Critical Infrastructure, Oil and Gas and Pipeline Safety. It will also feature more than 50 sessions covering a variety of topics.

The registration fee for the conference is \$400 per person if registered by July 6 and \$500 per person if registered on or after July 7.

For additional conference information and to register, visit the RRC website.

[VIEW THE CONFERENCE INFORMATION WEBPAGE](#)

# DEEP AQUIFER IDENTIFIED BY RRC GEOLOGISTS MAY HELP EAGLE PASS WITH WATER NEEDS



An unusually deep freshwater aquifer identified by Railroad Commission geologists last year in semiarid Southwest Texas may just be the solution that the city of Eagle Pass has been looking for to satisfy its water needs.

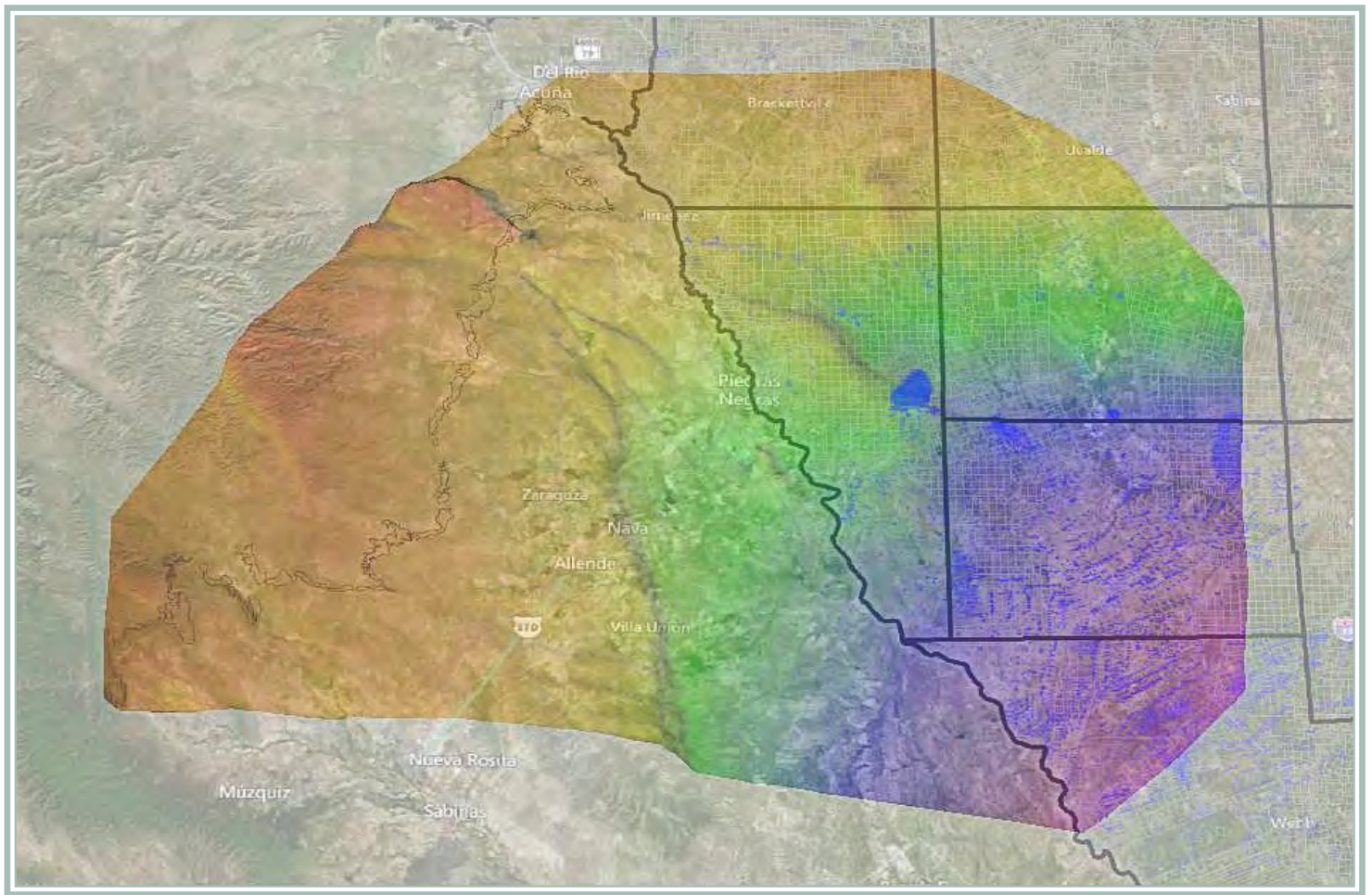
The city's only source of water thus far has been the Rio Grande, which, like most of the state, has been affected by drought this year and with the water system close to implementing water restrictions.

"We were very excited to learn about the aquifer," said Jorge Barrera, general manager of the Eagle Pass Water Works System, which serves a population of about 60,000, including Eagle Pass and other communities in Maverick County from Elm Creek, a couple miles north of the city, to El Indio, which is 17 miles south. "I just wish we had known about it earlier."

The aquifer, which is more than a mile deep in some places, is not impacted by the Rio Grande at all. Rather, its recharge zone is via karsts in the hills more than 50 miles west of the river in Mexico. The water crosses into Texas under Rio Grande and is stored in the Glenn Rose Formation under Maverick, Kinney, Zavala, Dimmit, Uvalde and Webb counties.

The aquifer is known to be at least 3,000 square miles with the Glen Rose formation about 1,000 feet thick throughout most of the area. RRC geologists in the Groundwater Advisory Unit, which first identified and mapped the aquifer, shared its information with the Texas Water Development Board, the University of Texas at Austin Bureau of Economic Geology and the Texas Water Resources Institute at Texas A&M University, which are conducting their own research, including how much freshwater it contains and how quickly it is replenished.





“We need to know where the aquifer is, so we can protect it,” said Cristian Astorga, GAU’s lead technical geologist.

The GAU reviews data from operators, academics, government agencies, groundwater conservation districts and other sources to ensure that oilfield activities and well designs are protective of freshwater.

Because the freshwater of the Maverick Basin Aquifer is so deep, it might not have been ideal for Eagle Pass to consider using it.

“The only reason why this is economical is because the water is under so much pressure,” said James Harcourt, manager of the GAU. “To pump water from a mile underground would be very expensive. Because it is under high pressure, it tells us there is more water under there than might otherwise be suggested.”

Because of the depth and pressure the water is coming from, it arrives at the surface quite hot at around 130-150 degrees Fahrenheit, he said, noting that oilfield and/or geothermal well drilling technology is required to drill new wells and to convert to water production.

Harcourt and Royce Massey, lead technical GIS project manager for the GAU, have both volunteered outside of their jobs to help geologists from Texas A&M and the Bureau of Economic Geology with research on the aquifer, including the recharge zone in Mexico.

“To us, it is interesting,” said Harcourt, who, along with Massey, went to Mexico and worked with the A&M and BEG geologists on their own time just to see the geology of the recharge zone. “When I go on vacations, it is to look for fossils, scuba dive or climb a volcano. It helps me understand geology better.”

The RRC supplied Eagle Pass Water Works with a letter of support for its application for matching grant funding from the U.S. Department of the Interior. The water system applied for about \$7.5 million in funding to help with the Maverick Basin Aquifer, including for testing and future infrastructure.

“We’re doing testing right now to see how we can use that water,” said Barrera, the water system’s general manager. “If everything is good, including if we have enough flow and if it is not too saline, we hope to be able to use it in the future. It is right under our feet.”

News about RRC’s work on the aquifer was so important to the water system that it suspended work on developing a pipeline until it finds out whether the water in the aquifer will suit its needs.

“An aquifer is a lot less money” than piping in water, Barrera said. “It is a lot less politics. It is a lot less issues to deal with.”

When the RRC identified the aquifer last year, the agency hired a San Antonio laboratory to conduct tests on the water, which showed it meets or exceeds federal and state drinking water standards. Most water occurring so deep under the surface of the earth is extremely salty or has other constituents.

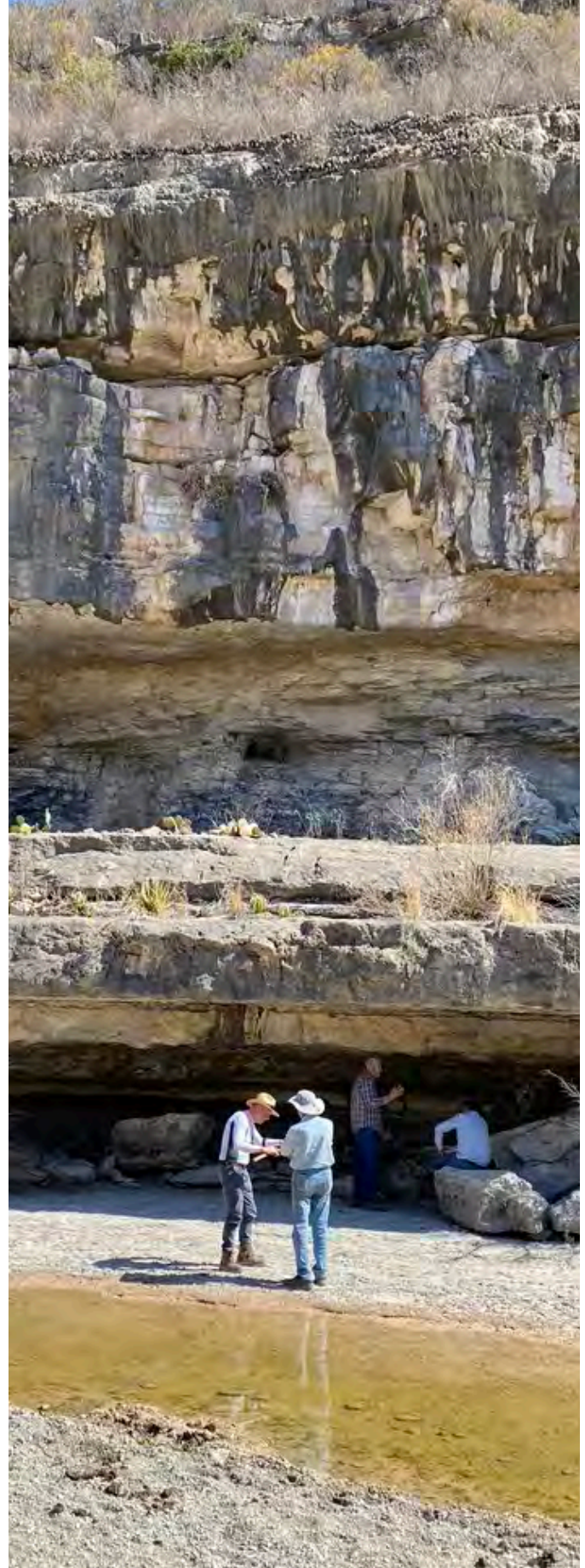
More careful testing by the water system is necessary to determine if any constituents need to be removed and if it impacts water corrosivity, which would need to be accounted for before allowing it into the distribution system, Barrera said.

The water system is also testing to determine how much water the aquifer could reasonably supply.

“I think it is a really good bet there is a lot of water down there,” said Harcourt, GAU’s manager.

The RRC has processed and is issuing nearly a dozen P-13 applications to convert these Glen Rose Formation wells, originally drilled for oil and gas, into water wells that could benefit Eagle Pass’ water system, he said. Wells applying for conversion either produced small amounts of oil or gas or were dry holes (meaning no hydrocarbon production).

Most oil and gas wells in the state, about 90%, actually penetrate a major or minor aquifer, Harcourt said, which is why understanding exactly where the Maverick Basin Aquifer is is so important.



“You can extract oil and gas without harming the aquifer,” he said. “That’s what we do in Texas.”

# Chairman Christian

COMMISSIONERS' CORNER



Chairman Christian recently spoke about uncontrollable energy inflation and President Biden's inaction on June 8th at the Texas Gas Association Operations and Management Conference in New Braunfels.

Chairman Christian also published an article in The Cannon on the Biden-inflated economy as Americans prepare to hit the road this summer.

[VIEW THE FULL ARTICLE](#)



# Commissioner Craddick

COMMISSIONERS' CORNER



In June, Commissioner Craddick was honored to speak with a group of Texas Boys' State participants. She provided the group with information about the Railroad Commission's history, jurisdiction, and the state-of-play for the oil and gas industry in Texas. The skills these young men learn during their time at Boys' State are critical to building the leaders of tomorrow and, as a Girls' State alumna, Commissioner Craddick is always thrilled to have the opportunity to take part in the event.

Additionally, Commissioner Craddick provided an update to the Senate Business and Commerce Committee on the agency's weatherization rulemaking and supply chain mapping efforts. Agency leaders and staff have worked diligently to ensure that the implementation of SB 3 is handled carefully and efficiently, and she was proud to report that the RRC is moving ahead of schedule on its weatherization rule. While there is still work to be done, Commissioner Craddick is thankful for the efforts so far and looks forward to continuing to work with the legislature, other regulatory bodies, and industry stakeholders.





# Commissioner Wright

COMMISSIONERS' CORNER

In June, Commissioner Wright addressed the Society of Exploration Geophysicists and Society of Petroleum Engineers (SEG/SPE) at their sixth Injection Induced Seismicity Workshop. Commissioner Wright was joined by Stanford geophysicist Dr. Mark Zoback and Railroad Commission seismologist and professor Dr. Aaron Velasco on a panel where they discussed scientific findings regarding injection induced seismicity and the regulatory response to curtail future seismic events.

Commissioner Wright also spoke to members of the Texas Produced Water Consortium, where he provided an update on recent Railroad Commission actions regarding produced water injection in seismically active areas and thanked them for their contributions to find economically feasible solutions to encourage alternative uses for produced water





# Oil & Gas Production Statistics

View monthly production totals of crude oil, condensate and total oil; and of gas well gas, casinghead gas, and total natural gas.

[VIEW CURRENT PRODUCTION STATISTICS ▶](#)

# Enforcement Actions

The Commission has primary oversight and enforcement of the state's oil and gas industry and intrastate pipeline safety. View RRC's Latest Enforcement Actions here.

[VIEW LATEST ENFORCEMENT ACTIONS ▶](#)

# Public GIS Viewer

The Public GIS Viewer allows users to view oil, gas and pipeline data in a map view.

[LAUNCH THE PUBLIC GIS VIEWER ▶](#)