



PO Box 4998
Austin, TX 78765
512.477.1729
lonestar.chapter@sierraclub.org

sierraclub.org/texas

To: The Honorable Drew Darby, Committee Chair, House Committee on Energy Resources
The Honorable Eddie Morales, Vice-Chair, House Committee on Energy Resources
The Honorable Members, House Committee on Energy Resources

From: Evgenia Spears, Water Program Manager, Sierra Club Lone Star Chapter,
evgenia.spears@sierraclub.org , 979-739-1097
Cyrus Reed, Legislative and Conservation Director, Sierra Club Lone Star Chapter,
cyrus.reed@sierraclub.org , 512-740-4086

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Re: Sierra Club's Comments Regarding Produced Water Management in Texas

The Sierra Club Lone Star Chapter representing more than 21,000 members across Texas submits the following comments to the House Committee on Energy Resources regarding produced water management in Texas. As the state chapter of the oldest and largest conservation organization in the country, we have long been engaged in water policy issues affecting Texas communities and the environment. We're also part of the Texas Living Waters, a coalition of conservation organizations working together to ensure that Texas has water for thriving communities and healthy ecosystems.

As a member of the Texas Produced Water Consortium (TxPWC), Sierra Club has been closely following research on treatment and beneficial reuse of produced water and have contributed to the development of the water quality report released by the Consortium earlier this year.¹ We've also been actively engaged on these issues at the Legislature and Texas Commission on Environmental Quality (TCEQ).

At the annual TxPWC conference that we attended last month, scientists made it clear that research on beneficial reuse of produced water is still underway, particularly on toxicity, treatment, and long-term impacts. For example, the most recent study published just a few days ago by the scientists from the TxPWC, which focused on the effectiveness of using treated produced water to irrigate alfalfa, stated that "long-term studies are needed to evaluate sustainability and potential cumulative impacts on soil, plants, and microbial communities."²

¹ *Produced Water Treatment Pilot Testing: Water Quality Report*. Texas Produced Water Consortium, 2026.
www.depts.ttu.edu/research/tx-water-consortium/downloads/TxPWCPilotTestingWaterQualityReportFINALweb.pdf

² *Field Evaluation of Polished Desalinated Produced Water for Alfalfa Irrigation in Semi-arid Environment*. 2006. *Irrigation Science*, 44:120, <https://link.springer.com/article/10.1007/s00271-026-01165-7>

To clarify, we support continued research on beneficial reuse of produced water, which we believe could eventually become a usable source for certain purposes outside the oilfield. However, while we continue seeing promise in this research and understand the urgency to find alternatives to underground disposal, we're concerned that policy and regulations – which are supposed to be informed by science – are outpacing this research. If Texas is serious about scaling up beneficial reuse, the main issue shouldn't be framed around how to streamline it, but rather how to do it responsibly and avoid creating new potentially more serious problems. Science needs to be at the center of these discussions.

We appreciate the Committee's attention to produced water management in Texas and the opportunity to offer our recommendations for additional legislative action.

I. Recommendations to Improve Mechanisms for Beneficial Reuse

The Legislature should continue funding the TxPWC's research on beneficial reuse of produced water. The 87th Legislature established the TxPWC "to study the economics of and technology related to, and the environmental and public health considerations for, beneficial uses of fluid oil and gas waste."³ Continued funding is needed to do this work. In the meantime, Texas shouldn't move toward large-scale reuse before the results of this research can be used to establish appropriate treatment requirements and develop regulations.

The Legislature should ensure that TxPWC has access to complete information about chemicals used in oil and gas operations in Texas. According to the current law, some information about chemicals used in hydraulic fracturing in Texas is protected under the 'trade secret' provisions. As a result, scientists from TxPWC have been working with an incomplete picture. We recommend the Legislature to allow full disclosure to the scientists at the TxPWC of the chemical identities and concentrations used in hydraulic fracturing and other oilfield chemical blends for research purposes. The scientists who Texas has tasked with studying beneficial reuse of produced water should have full access to the information they need to identify what may be present in produced water and determine what level of treatment is required to make the final product safe for Texans and our ecosystems.

The Legislature should direct TCEQ to develop surface water quality standards for treated produced water discharges and provide the resources needed for adequate baseline and long-term monitoring. TCEQ is currently reviewing eight permits to discharge treated produced water in the Pecos River watershed, yet the agency hasn't developed surface water quality standards specifically for these types of discharges. Produced water can contain numerous constituents of concern, including heavy metals, organic and inorganic compounds, naturally occurring radioactive materials (NORMs), and chemicals used in oil and gas production. Clear surface water quality standards supported by science are needed to inform discharge permit limits and would give TCEQ a consistent basis for evaluating permits and setting discharge limits.

³ Tex. S.B. 601, 87th Leg., R.S. (2021): <https://capitol.texas.gov/tlodocs/87R/billtext/pdf/SB00601F.pdf>

These standards should go hand in hand with adequate monitoring. More comprehensive baseline water quality and water flow monitoring is needed before treated produced water discharges begin so that any future changes in receiving waterbodies can be assessed against existing conditions.

We raised a similar concern in our comments on the TCEQ Draft 2026 Integrated Report. The Lower Pecos River, Segment 2310, had previously been listed as impaired for total dissolved solids (TDS). In the 2026 Integrated Report, TCEQ removed that impairment. In response to our concerns about the limited geographic coverage of the monitoring data used to make that determination, TCEQ explained that TDS was assessed using data from two stations along Segment 2310 and stated that the agency “makes determination of the number of sites and sampling frequency based on the available resources” and that “it is not always possible to cover all assessment units within a segment.”⁴

If treated produced water is going to be discharged into the Pecos River watershed, the state needs to be able to closely monitor water quality and flows before and after those discharges begin. This will require more monitoring stations and broader geographic coverage. We recommend that the Legislature provide TCEQ with additional resources, as needed, to establish adequate baseline monitoring and maintain long-term monitoring throughout the watershed, including upstream and downstream of potential discharge points.

In addition, because the Pecos River flows for more than 925 miles from the Sangre de Cristo Mountains in New Mexico to the Rio Grande near Del Rio, Texas, better baseline flow and stormflow data are important. USGS has numerous gauges along the Pecos River, while the International Boundary and Water Commission maintains gauges near Pandale and Langtry, Texas, and at Amistad Reservoir. The Legislature should work with USGS and the International Boundary and Water Commission to determine whether additional monitoring stations, telemetry, or stream gauges are needed to better understand flows in the Pecos River. If treated produced water discharges are authorized, understanding the timing and volume of those flows will be important.

II. Recommendations Regarding Effectiveness of Recently Passed Legislation: SB 1145 and HB 49.

The Legislature should provide clarification to TCEQ related to the development of standards for land application of treated produced water. During the 89th Legislative Session, Sierra Club cautiously supported the intent of SB 1145. In particular, we supported transferring permitting authority for land application of treated produced water from the Railroad Commission (RRC) to TCEQ. We also supported the final version of the bill directing TCEQ to adopt standards for land application that prevent pollution of surface and subsurface water. Getting those standards right was an important part of our support for the bill.

Unfortunately, the implementation of SB 1145 has so far been very concerning. Rather than developing a regulatory program specifically for land application of treated produced water, TCEQ proposed incorporating it into an existing framework under 30 TAC Chapter 309 that was

⁴ 2026 Texas Integrated Report - Response to Public Comment. Texas Commission on Environmental Quality. <https://www.tceq.texas.gov/downloads/water-quality/assessment/2026-integrated-report/2026-public-comment.pdf>

developed for other – much less toxic – wastewater streams. Many of the questions we expected the rulemaking to address are still unresolved. For example, the proposed rules don't establish clear treatment requirements or monitoring requirements for many constituents that can be found in produced water. Baseline groundwater monitoring would cover TDS, chloride, sulfate, nitrate, pH, and *E. coli*, but not many other constituents of concern associated with produced water. The rules also don't adequately address what happens with repeated applications to the same land and whether contaminants could accumulate in soil or migrate into groundwater over time. In addition, the setbacks proposed in the rules would allow treated produced water to be applied as close as 100 feet from waters of the state and 150 feet from private water wells, but no clear explanation of how those distances were determined or whether they are sufficient to protect nearby water resources was provided by TCEQ. These are just some of the concerns that we raised in our comments on the SB 1145 proposed rules earlier this year.

The lack of clear standards, monitoring mechanisms, and other requirements in this rulemaking is very concerning in light of liability protections enacted through HB 49 last session. We opposed this legislation because of our concern about expanding liability protections while there are still significant unknowns around the treatment and reuse of produced water. Now the law, HB 49 provides liability protections for parties involved in treatment and beneficial reuse if they follow applicable rules and permits. If liability protections depend in part on compliance with those rules and permits, then what the rules and permits actually require matters a great deal.

The Legislature should clarify the responsibilities of TCEQ and the RRC related to reuse of treated produced water outside the oil and gas field. At the recent hearing of the Senate Committee on Natural Resources on August 11, the RRC highlighted the need for clarification of its and TCEQ's authority over produced water as it relates to its treatment and reuse, including discharges into waterways. Under the current jurisdiction, RRC regulates produced water and treatment activities, while TCEQ regulates discharges into waters of the state and application on land. But the discussion at the hearing made it obvious that the point at which responsibility moves from one agency to the other isn't clear. It's important to clarify where RRC's responsibility ends and TCEQ's begins to prevent any potential lapses in regulatory oversight as produced water is treated and moved outside the oil and gas field. The Legislature should provide additional clarity to address this concern as soon as possible.

III. Recommendations Regarding Regulation of Disposal and Injection Wells

The Legislature should continue funding RRC's efforts to improve produced water reporting and monitoring. Despite being the national leader in oil and gas production, Texas still doesn't have a comprehensive system for tracking how much produced water is generated, recycled, and disposed of. The 89th Legislature appropriated \$7.7 million to RRC to develop a produced water and injection data reporting system, which the agency expects to have available in FY 2028. This system will allow policymakers, regulators, and researchers to better understand where produced water is going and the trends in disposal and reuse over time.

Better data also needs to be paired with adequate staff to monitor what is happening on the ground. Texas generates about 1 billion gallons of produced water every day, most of which is

injected underground. In its FY 2028-29 Legislative Appropriations Request, RRC is requesting \$3.68 million and three additional FTEs to improve produced water monitoring, including efforts to reduce leaking wells and seismicity.⁵ We support this request and recommend that the Legislature provide the funding needed to strengthen RRC's monitoring of produced water and injection wells.

Finally, it is worth noting that the rules governing Class II disposal wells are outdated and could use improvements in regard to construction standards, proper notice to landowners and groundwater districts, and required realtime and monthly reporting. The RRC should also consider updating limits on water and pressure. This could occur through a rule update or legislative action. In addition, caps in statute on permit fees for Class 2 disposal wells are not reflective of the time and effort for agency review and should be increased through legislative action. We would suggest significant increases in permit fees for both commercial and onsite disposal fees. Those monies should flow into the Oil and Gas Regulation and Cleanup Fund that can be used for funding the RRC, including the plugging of orphaned wells.

Thank you for the opportunity to provide these comments.

⁵ FY 2028-2029 Legislative Appropriation Request, Railroad Commission of Texas:
<https://docs.lbb.texas.gov/Main/MainScreen.aspx>