

Public Comment — Rule Project No. 2026-006-309-OW

Land Application of Produced Water (Implementation of SB 1145)

Submitted by **Future Heist** · saul@futureheist.org, greg@futureheist.org

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Dear Ms. Ricco,

The oil and gas industry is a core part of the Texas economy and a key fuel source of the Texas miracle. Its operators do not set out to contaminate Texas land, and we believe they are setting out in good faith to solve a significant waste disposal problem. Certainly some go above and beyond the rules to make sure that they protect the people and water of Texas.

But just as lawyers write contracts with an eye to what will go wrong, it's imperative to make policy for the cases where the system will fail: where operators will be unscrupulous, negligent or — as is far more common in a global, round-the-clock, relentless business like oil and gas — simply tired, cash-strapped and under stress.

In situations like this, we can't take comfort in the fact that oil is a linchpin of the state economy, or the many operators who are good and conscientious people. We have to assume that things will go wrong; that there will be corporate actors who will behave as badly (or worse) as the law and administrative rules allow.

That's particularly true when we are talking about the nascent produced water recycling business: a novel industry, with a secretive and highly toxic waste stream, seeking to apply its waste to landscapes and above aquifers that, if tainted, will be difficult or impossible to fix.

We write as the founders of Future Heist, an organization which investigates the oilfield-waste economy, which gives us a particular empirical perspective on the risks of what is being proposed. Greg has spent countless hours digging through public data to create usable maps to help Texans to understand where water is tainted and plugged wells are at highest risk of failure. Saul has spent 15 years as a journalist for such publications as The New York Times, Texas Observer, and The Hill covering a small fraction of the ways that oil and gas extraction and waste disposal can go wrong — in ways both predictable and unforeseeable.

To give a brief list: that coverage includes pipeline installations that left a North Texas family with a lake of their own sewage for years; numerous cases contamination of drinking water by chemical spills and communication from injection wells; families sickened by the hydrocarbon poisoning from drilling right next to their houses; a housing development built, unbeknownst to the people who would buy properties there, on a Barnett-shale drilling waste dump.

In all of these cases, the physical damage is just one aspect of a far larger problem. Beyond the literal damage from chemicals, we have tracked something more

insidious: the erosion of public trust when the state fails in its duty to shield ordinary people from harms caused by the entities it is supposed to regulate.

Rules like this one, in other words, help to spread a spirit of cynicism and distrust in both government and a regulated economy across the culture: a widespread belief, cutting across race, class and political party, that America is run for the rich, and that the government functions mostly to allow them to suck profit from the public good and leave behind only dry husks and tainted ground.

To be clear: we do not advocate this cynical view. We know that the regulators at TCEQ care deeply about protecting the lands and people of Texas, and that they are under pressure to come up with a rule that will allow the safe disposal of the enormous waste streams of produced water that — for decades — the oil and gas industry has been unable to find a safe home for.

But we also see in these rules — and in the speed, lack of outreach and apparent lack of transparency with which they have been put forth — a serious threat to both the land and water of Texas, and to the baseline trust that an organized economy and democratic system of government rely on.

Two Buckets of Concern

Our concerns fall into two broad buckets: substantive and procedural. The first concerns the lax protections of the rule: its lack of consistent standards for testing, treatment or disposal of associated wastes and its small setbacks; and the treatment of produced water, against all evidence, like municipal sewage.

These substantive harms are grave, but conditional — they bite only if things go wrong, as we must assume they will.

The second bucket of failures, however, happen along a different axis: they will harm the core mission of public protection *whether or not* anything goes wrong on the ground. These procedural failures damage public trust, the integrity of the rule, and the industry's own ability to operate safely, predictably, and reliably.

Into this bucket we would put the glaring internal legal contradictions of the rule itself; the haste and lack of consultation under which it has been promulgated; and the lack of transparency around the scientific data that led to its conclusions.

Both streams of failure — substantive and procedural — appear to flow from a common stream: an undue sense of haste from certain oil and gas operators who have failed to address their enormous waste problem for so long that it has become an emergency.

Despite having known for decades that this waste was accumulating; despite having been warned for decades about the risks (seismicity, communication with existing wells) and shouted down those warning about them; now — facing a political crisis of its own making — a group of industry operators is urging the state hurry in

setting up a program that, once created, will have no natural limits to its ability to expand.

Now they are asking the public, without evidence, to trust them. Not just this once, but forever. And they are counting on the TCEQ, as the public's ostensible advocate, to give them a rubber stamp. One which, if history is any indication, will lead to further problems down the road, just as previous disposal methods did.

It is worth asking why this rule is being pushed now, and fast. The answer is not that land application has been shown to be safe. Instead, the pressure on the Permian's underground disposal system is real and rising: peer-reviewed satellite analysis has measured the ground above an over-pressurized disposal zone in Crane County rising as much as 8 inches a year ([Karanam, Lu & Kim 2024](#)).

This leaves the public with the strong sense that land application is being advanced not as a water-supply solution chosen on the merits, but as relief for a disposal system under growing strain.

We acknowledge the scale of the problem that the produced water industry faces, and we sympathize with their desire to get their new programs up and running as quickly as possible. It is the produced water industry's place, and their right, to ask for lenient rules.

But it is the place of regulators to stand firm, move deliberately, and protect the public. We respectfully ask you to do so.

Below, we explain where we believe the rule and process have gone wrong, and how to improve it.

I. What we are asking for

1. **Extend the comment period by at least 30 days.** A rule that would let oilfield wastewater be spread on land statewide – and whose own filings cannot agree on what it does (see Section III) – needs more than the current window. We join Commission Shift, Earthworks, and individual commenters in this request.
2. **Hold hearings where the waste will be applied** – the Permian Basin, the Eagle Ford, and East Texas – with a virtual option. A single Austin hearing is not public participation for the people whose land and water are on the line.
3. **Show your work.** Publish the studies, data, and science behind these standards before the comment period closes, so Texans can comment on the evidence rather than take the agency's word for it. The science here is not settled: the most recent synthesis of the literature lists treatment performance and environmental fate among its open questions ([Ariana et al. 2025](#)).

II. What the rule does to the land and people of Texas

As written, the rule exposes the land and people of Texas to serious risk – in at least five ways.

1. It tests for the wrong things

The rule treats a secretive industrial waste stream like municipal sewage. It does not require anyone to test for the poisons everyone knows are in this water. Instead it borrows Chapter 309's testing list, written for treated sewage: biochemical oxygen demand, suspended solids, pH, E. coli, nitrate, chlorides, and sulfates ([30 TAC §309.1\(b\)](#), [§309.20\(a\)\(4\)](#)).

It does not require companies to monitor the specific constituents that make oilfield wastewater dangerous. The rule requires no test for radium, PFAS, benzene, or heavy metals – the contaminants documented in produced water. Two glaring examples:

- **Radium.** Radium-226 and radium-228 are documented constituents of oil-and-gas produced water ([U.S. EPA, "TENORM: Oil and Gas Production Wastes"](#)). In the Appalachian basin – where produced water has been sampled most – raw produced water has averaged about 9,300 picocuries per liter of combined radium. The federal drinking-water limit is 5 pCi/L ([40 CFR §141.66](#)). That is roughly 1,800 times the limit ([Nobel 2020](#), on Pennsylvania DEP data). Number.
- **PFAS.** The same gap covers PFAS, the “forever chemicals” – the contaminant the rule can least afford to ignore. The absence of a required number is not the absence of a hazard, for two reasons.
 1. PFAS harms at very low levels. In peer-reviewed mouse-model research, trace PFAS in drinking water – at concentrations within current federal limits – caused irreversible reproductive damage that lasted three generations ([Winstanley et al. 2026](#)).
 2. FAS is hard to measure. When USGS scientists sampled produced water in Colorado's Denver Basin, standard testing read low – but oxidation assays found PFAS “precursors” that the standard methods miss ([Varonka et al. 2026](#)). So a permittee's self-reported number would understate what is actually there – if the rule required a number at all, which it currently does not.

The rule requires no radium or PFAS testing at any stage ([§309.20\(a\)\(4\)](#)).

It does not specify how hazardous wastes removed from produced water are to be treated. The produced water industry insists that it can convert toxic waste into safe drinking water. Even if this is true, it elides a critical problem with waste cleanup in general: the cleaner the refined product is, the more toxic the residual waste stream must be.

Take radium, which is often inadvertently concentrated in the forms of the brines, sludges, and pipe scale produced water treatment and oil and gas extraction leave behind, and which EPA documents at up to 400,000 pCi/g, and into downstream sediment.

One Pennsylvania study measured radiation in sediments below a produced water treatment site at about 200 times background even after the plant had removed more than 90 percent of the radium from its discharge ([Warner et al. 2013](#)).

Our Ask: TCEQ should require companies to test and treat for what is actually in the water – radium and other naturally occurring radioactive material, PFAS, BTEX, heavy metals, and salinity – using independent certified laboratories, before any permit is issued, rather than self-reported afterward.

And in addition to controlling the spread of the treated wastewater itself, they should set standards for cleanup and waste disposal that will ensure that the toxins pulled out of the produced water are kept out of the water and soil of Texas forever.

2. Its setbacks don't protect the places people live

The rule's setbacks are ludicrously small. It sets separation distances – 500 feet from a public water well, 250 and 150 feet from private wells, 100 feet from “water in the state” ([§309.13\(c\)](#)).

They also don't take into account slope. The 100 feet it requires from “water in the state” is a horizontal distance – no slope limit, no drainage requirement – though water runs downhill: a field 100 feet uphill from a creek drains into the creek.

To make matters worse, any of these can be waived “on a case-by-case basis” at the applicant's request.

These setbacks are set based on odor rules, not the spread of liquid waste. And they are far smaller than the spread of actual spills, as seen below.

- In July 2025, Occidental's Mesa Verde East recycling facility in Lea County – built, by its own filing, with a leak-detection system and overtopping prevention – spilled about 1.6 million gallons of produced water and 126,000 gallons of crude oil ([2025 New Mexico Spill Report](#)).
- A month earlier, an EOG reuse pit on state trust land in Eddy County overflowed and damaged about 20 acres ([Source New Mexico, July 29, 2025](#)).

Thanks to incidents like these, the state of New Mexico has banned the land application of produced water.

These are not proof that containment always fails. They are proof that the controls this rule relies on are no guarantee – that they have failed, recently and at scale, at facilities built to the standard industry asks regulators to credit.

Our Ask: Write scientifically-founded setbacks from homes, schools, daycares, and churches, based on how this waste actually moves and which way the ground slopes, and close the case-by-case waiver.

3. It keeps Texans in the dark — about waste they can no longer sue over

This rule matters more now because of what changed last year. H.B. 49 made compliance with a TCEQ permit a liability shield: a company that puts this treated waste to beneficial use under its permit generally cannot be sued in court by the people it harms, except for gross negligence, an intentional act, or a failure to follow its permit (Tex. Nat. Res. Code §122.003, added by [H.B. 49, 2025](#)).

Following the permit is now the shield — which makes the permit, and the monitoring beneath it, the only accountability most Texans have left. Yet the rule sends monitoring data to the agency, not the public, and a permittee can withhold the chemical makeup of what it applies as a trade secret (Tex. Gov't Code §552.110).

Our Ask: In addition to a rule with meaningful teeth — such that actual modes of likely failure are covered, so plaintiffs do not have to charge gross negligence in the case of known failings in produced water containment — we request full public access to what is applied, where, how much, every monitoring result, and the underlying science, with no trade-secret loophole, presented in a structured form that the public can easily understand and that researchers can work with.

4. It lets polluters walk away from the damage they've caused

And when the company that causes the harm is gone, the public pays. When Heritage Standard Corporation contaminated Midland's T-Bar water reserve, then went bankrupt; the cleanup fell to the public ([Texas Tribune / Inside Climate News, January 2026](#)).

A permit that does not bond against that outcome simply moves the bill from the operator to the landowner, the neighbors, and the taxpayer.

The Texas Supreme Court has held that operators own the produced water as their property ([Cactus Water Services v. COG Operating, 2025](#)). If this is true, then they must treat it like their property.

Our Ask: Tie every permit to enforceable cleanup standards, with bonding large enough to pay for remediation, and the operator's compliance record.

III. The rule fails the standard the Legislature set — and its filings don't agree on what it does

1. It fails its own enabling statute

Start with the statute the rule is meant to carry out. SB 1145 did not just authorize TCEQ to permit the land application of treated produced water. It commanded the agency to set protective standards: "The commission shall adopt standards for the land application of water under this section, including standards that prevent the pollution of surface and subsurface water" ([Tex. Water Code §26.131\(e\)](#)).

The instruction is mandatory and unqualified – there is no “to the extent practicable.”

The current rule, that sets no numeric limit for even one of the contaminants that pollute surface and subsurface water does not meet that command. It recites the authority but skips the obligation.

Our Ask: Respect the will of the legislature, and follow the law.

2. Its filings contradict each other

The rule’s supporting filings also do not tell a consistent story. In the agency’s own words, three examples:

1. The Government Growth Impact Statement says the rulemaking “does not create, expand, repeal, or limit this regulation” and “does not increase or decrease the number of individuals subject to its applicability” ([Chapter 309 proposal](#); the Chapter 210 proposal says the same).

But the rule extends Chapter 309 to the land application of produced water – an activity it has never covered – and adds two new definitions, “Industrial Wastewater” and “Produced Water,” at §309.11.

The agency both brings a new industry under a regulation – and says, in the same filing, that it created nothing, expanded nothing, and changed the number of people subject to it not at all.

2. The filings call the new requirements “clarifications” of existing practice. But the Commission’s own approval memorandum concedes those practices existed only “on the basis of best professional judgement” (TCEQ Office of Water, Interoffice Memorandum, “Commission Approval for Proposed Rulemaking,” April 10, 2026; Docket 2026-0018-RUL) – staff discretion, not written law.

In other words, the agency claims that it is simply “clarifying” a standard that was never previously written down.

3. The regulatory-impact determination says the rule “intends to implement SB 1145.”

But the same memorandum’s Section C is headed “Additional staff recommendations that are not required by federal rule or state statute.”

The two sit in tension: a rule described in one filing as merely implementing the statute is described in another as carrying additions the statute does not require.

Read together, the contradictions point to an uncomfortable two-part conclusion: When telling the truth would mean more work or more public scrutiny, the filings

say the rule does nothing substantive. When the agency needs to justify its authority to write the rule, the same filings find that the rule does plenty.

These are not cosmetic defects. The Administrative Procedure Act requires the agency to prepare an accurate Government Growth Impact Statement (Tex. Gov't Code §2001.0221). A statement that denies the rule expands applicability or adds anyone to its reach – when the rule plainly does both – is not the accurate statement the law contemplates.

We want to be clear about the weight we place on this. The harms above are conditional: they materialize if things go wrong. The procedural failure is not.

A rule built on filings that contradict each other, adopted in haste and without its evidence on the table, damages the public's trust in the result – and the industry's ability to rely on a rule whose adoption is open to challenge – before a single drop of produced water is ever spilled. That alone is reason to withdraw this proposal and do it correctly.

Our Ask: The Commission to withdraw the proposal, complete its analyses accurately, and re-propose.

IV. Conclusion

We ask the Commission to extend the comment period, to hold hearings in the regions this rule will reach, and – because the agency's own filings contradict each other on what the rule does, and because the rule does not meet the standard SB 1145 set for it – to withdraw the proposal and re-propose one that does what the Legislature required: adopt standards that prevent the pollution of Texas surface and subsurface water ([Tex. Water Code §26.131\(e\)](#)).

One last comparison. New Mexico faces the same Permian waste stream and much the same record that Texas does. In 2025, its Water Quality Control Commission looked at that record and prohibited the discharge of treated produced water, finding the evidence insufficient to ensure it is protective of human health or the environment (New Mexico Water Quality Control Commission, May 2025; reported in [Inside Climate News, June 4, 2025](#)).

We have two states, facing the same waste stream, proposing two very different paths forward. It should not be left to Texans to find out the hard way which of them was right.

Respectfully submitted,

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Sources

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Peer-reviewed - [Warner, N., et al. \(2013\)](#), Environmental Science & Technology (radium concentration in sediment downstream of brine treatment). - [Winstanley, Y., et al. \(2026\)](#), Environmental Research (trace PFAS, transgenerational reproductive harm; mouse model). - [Varonka, M., et al. \(2026\)](#), Scientific Reports 16:5743 (PFAS in Denver Basin produced water; precursors missed by targeted analysis). - [Karanam, V., Lu, Z., Kim, J. \(2024\)](#), Geophysical Research Letters (Permian surface uplift / disposal over-pressure). - [Ariana, A., et al. \(2025\)](#), GeoHealth (produced-water exposure pathways; open knowledge gaps).

Agency / EPA - [U.S. EPA, “TENORM: Oil and Gas Production Wastes”](#) (radium in production wastes; pipe scale up to 400,000 pCi/g).

Court - Cactus Water Services, LLC v. COG Operating, LLC (Tex. 2025) (operators own produced water) — see [Texas Tribune, July 1, 2025](#).

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NGO reports (cited as data-compilers of NM OCD records) - [WildEarth Guardians, 2025 New Mexico Spill Report](#); [Q2 2025 Oil & Gas Waste Watch](#) (OXY Mesa Verde East, Lea County; EOG Klondike, Eddy County).