



SIERRA CLUB

LONE STAR CHAPTER

August 24, 2022

To: Chairman Tracy King, Committee on Natural Resources
Members, Committee on Natural Resources
From: Cyrus Reed, Conservation Director, Lone Star Chapter, Sierra Club
512-888-9411; cyrus.reed@sierraclub.org

Re: further the state's groundwater quality protection efforts, including an assessment of risks posed to groundwater by abandoned and deteriorated water wells and orphan oil and gas wells;

The Lone Star Chapter of the Sierra Club is pleased to submit these brief comments related to efforts to protect the state's groundwater, surface water and air through efforts to clean up and plug abandoned and orphaned water wells and oil and gas wells.

We would note that the State of Texas has a longstanding program aimed at plugging orphaned oil and gas wells that has been somewhat successful at preventing groundwater and surface contamination, but the large number of both older wells, and the boom and bust cycle of the oil and gas industry means that we are constantly playing catch up. The recent passage and signing of the Infrastructure, Investment and Jobs Act of 2021 (sometimes known as the Bipartisan infrastructure Law or BIL) is a unique opportunity to make real progress in cleaning up our backlog of abandoned oil and gas wells.

In addition to these oil and gas wells, there is a real risk from older water wells that were dug in oil and gas formations and may have initially been used for energy production and were later converted to use as water wells. These were drilled with older technology and lack the more updated casing and cement rules and many high-profile cases have led to large-scale contamination. Because these were initially drilled through the Railroad Commission of Texas, we do believe that these wells could be cleaned up and plugged through the Orphan Well program. Alternatively, or in addition, we believe that an abandoned and orphaned water well program run through the Department of Licensing and should be expanded with a funding mechanism to begin to address the real issue of abandoned water wells, many of which are

found in energy production areas and have the potential to be a conduit of hydrocarbons from one geologic formation to another.

Oil and Gas Well Cleanup and the IJA

The passage of the IJA remains a unique opportunity for Texas to finally clean up thousands of orphan wells. No state has the potential to benefit more from the Orphan Well Program than Texas. The federal government through the Department of the Interior is making available more than \$4.7 billion in funding to Texas and other oil and gas producing states with a legacy of abandoned infrastructure. Texas could – if we play our cards right – receive approximately \$343 million in three tranches of funding over the next few years. This money could help prevent water pollution, reduce the emissions of methane from these wells, prevent accidents of people and livestock, create jobs and help our economy. We hope the jobs created are good paying, family-sustaining labor.

Earlier this year, the DOI held public meetings to get input on their initial guidelines for the first tranche of money - which allows states that qualify to receive up to \$25 million. Comments on those guidelines were due in March. The RRC has already applied for that first batch of money in May. Guidelines for the future tranches of money are still in development but are likely to be more specific.

Just a reminder that Texas has a lot of orphaned, abandoned and low-producing or out-of-production oil and gas wells, as well as other types of wells that are no longer used and useful such as injection wells, water wells and empty wells that never found a product but are still potentially dangerous to human health and the environment. According to RRC records, from a 2021 annual report, Texas used state funds to plug 1,453 orphan wells in Fiscal Year 2021, and has a goal of plugging another 1,000 this fiscal year. Texas also cleaned up another 158 sites with oilfield waste and other issues. In all we spent about \$50 million on those two activities, the majority of that money from the Oil and Gas Regulatory and Cleanup Fund. ***But according to RRC data, there are some 8,000 additional wells and many other sites that remain on the sites eligible for state clean-up and that list is currently 55 pages long.*** \$343 million could not take care of all of these wells, but it could take care of a majority of them.

While we don't know the final guidelines yet for future tranches of money, some themes are emerging. First, the DOI wants states to engage the public on this use of federal taxpayer dollars.

RRC has to its credit done a good job posting information about the state program, and the proposed prioritization of wells on a separate website, but there should be a more formal public input process, perhaps with one or more official public meetings at the RRC. Landowners, communities and industry - which has paid fees to create the state program - deserve the chance to give input into this process and help shape the outcome. Again to its credit, the RRC has created an email and public portal for input and has recently provided information in both English and Spanish, although they have not held any public meetings on the issue.

Having a more public facing process would also likely help get a leg up on other states that are also seeking this money. Part of this process could also include mapping those wells, and providing actual lat-long coordinates. While the RRC has done a good job showing the visualization of the wells that have been plugged, there does not appear to be a similar tool for those wells waiting for plugging activity.

Second, a likely requirement will be helping communities that have been overburdened with potential water and air pollution that can result from abandoned and orphaned wells. Sometimes called environmental justice factors, when we asked DOI what tool states could use to assess how to prioritize these communities, they mentioned a tool in development at the White House CEQ and an existing tool at the EPA. Using one of these tools to assess our orphan wells would be good exercise in prioritization and making sure that our existing prioritization scheme matches up with prioritizing wells that can most affect overburdened communities.

Finally, they are also looking for reforms to prevent the creation of future abandoned and orphaned wells. While many and indeed most of Texas's wells in the state managed program preceded changes that were made in the 1980s, our regulatory scheme is still in need of reform. The state - both the RRC and the legislature - needs to look at our bonding levels - which are extremely low and were set in the 1980s.

In conclusion, we would hope the RRC will create a public process for more formal input on how to prioritize cleanup, commit to creating an analysis of community impacts from spending this money through either the EPA environmental justice tool, or the upcoming CEQ tool, and begin a conversation about reforms that are needed both on the front end - in bonding policy – and at the back end, in preventing the creation of new abandoned and orphaned wells by giving industry too easy a path to escape their responsibility.

Orphan Wells and Passage of HB 3973

Fortunately, in 2021 the Legislature signed and Governor Abbott signed HB 3973 (Walle, Senate Sponsor Nichols), which requires an interim committee of the legislature to look at efforts to plug abandoned and orphaned wells, and examine how we fund our Oil and Gas Regulatory and Cleanup Fund. As we look to spend hundreds of millions of taxpayer funds, it is important that we commit to make changes so that 10 or 20 years from now we will not be forced to spend another \$4.7 billion or more to bail out the impacts of oil and gas production.

Recently, Lt. Governor Dan Patrick named the five members of the interim committee on the Senate side, naming Senators Bryan Hughes, Lois Kolkhorst, Robert Nichols, Drew Springer and Judith Zaffarini to the committee. We are still waiting for the Speaker to name his five picks, but the committee is supposed to produce a final report and recommendations by December 1, 2022.

Among its charges, the Committee is directed to:

(1) study matters related to abandoned oil and gas wells in this state, including the costs associated with plugging abandoned wells and bonding requirements imposed on owners or operators of oil and gas wells;

(2) identify potential solutions to reduce the need for general revenue spending to plug abandoned wells;

(3) conduct a review of the oil and gas regulation and cleanup fund, including:

(A) revenue sources of the fund;

(B) projected revenue for the fund through fiscal year 2025 based on the fund's existing fee and fine structure; and

(C) an assessment of the rules and statutory limits that determine the amount of the fees and fines that contribute to the fund; and

(4) evaluate and identify other sources of potential revenue, including federal funds and other existing taxes and fees paid to the benefit of the state which could be utilized to meet the goals of the committee.

The Sierra Club looks forward to participating in the HB 3973 process, as well as the processes related to the IJJA money for plugging wells. Again we reiterate the request that the RRC have a public process for input and look forward to coming up with solutions going forward to assure adequate non-GR revenue to help plug abandoned wells.

Potential Reforms Needed at RRC

We hope the interim committee set up as part of HB 3973 will look at a number of issues needing reform. Bond amounts were last adjusted by the RRC in 1989, and changes are needed in the criteria for how wells are considered abandoned and orphaned. Among the recommendations made by a separate organization - Commission Shift - in a recent report called *Eliminating Orphan Wells and Sites in Texas* (January 2022) (available here - <https://commissionshift.org/orphan-wells/>) are:

- Tighten eligibility and increase scrutiny of operating permits and drilling permits,
- Require operators pay for financial security that covers the full cost of asset retirement obligations.
- Hold operators accountable to their own decommissioning obligations.
- Repeal inactive well plugging extensions and reduce the marginal well population.
- Revise fees and surcharges deposited to the oil and gas regulation and cleanup fund (OGRC) and the General Revenue Fund.
- Repeal tax exemptions and incentives for wells that operators are likely to orphan.
- Close gaps in the inspection program.
- Develop a strategy to swiftly eliminate orphaned wells and sites.
- Bring the public State Managed Well Plugging and Cleanup Program “in-house.”

- Create a program to oversee perpetual monitoring of plugged wells and locate legacy wells.

While the Sierra Club has not separately endorsed each of these recommendations, we believe they are worthy of study and some of them would certainly lessen the potential impacts on groundwater, surface water and air, and assure that going forward the state is keeping up with abandoned and orphaned wells.

Abandoned Water Wells

In addition to the need to take advantage of the IJA money and reform our bonding requirements for new industry, Texas must assess more adequately the thousands of abandoned water wells, which risk groundwater and surface water contamination. While ultimately TDLR is the agency in charge of the drilling and plugging of wells, the issue also impacts Groundwater Conservation Districts, TCEQ and the RRC among others.

Many wells around homes, farms, industrial sites and urban areas have been abandoned without being properly plugged, creating a risk to humans, animals and our water supply. An abandoned water well is essentially a direct conduit from the surface to the aquifer below. Any contaminants on the surface can flow directly into the groundwater without natural filtration from the soil, and similarly contaminants found below ground could migrate to other aquifer zones through rainfall and differential pressure. This puts the well, and other nearby wells, at risk. If a concentrated chemical were to enter the aquifer through an abandoned well, the health of those who use water from the aquifer could be at risk. Deterioration of the well casing can also allow the co-mingling of two aquifers that are chemically different.

Under Texas law, the landowner is responsible for plugging abandoned water wells and is liable for any water contamination or injury that results from an unplugged well. A water well may be considered abandoned if it has not been used within six months, although this can be extended by the landowner through notice to the local groundwater district or TDLR.

An abandoned water well can be dealt with in three ways. The first is to return the well to an operable state by making sure the casing, pump and pump column are in good shape. The second method is to cap the well to prevent surface water or contaminants from entering it. The third – and most complete - method is to plug the well from the bottom up with bentonite chips, bentonite grout or cement. Large-diameter wells can also be filled with clay-based soils, compacted clay or caliche soil.

The landowner, a licensed water well driller, or a pump installer can all legally cap or plug an abandoned well. The landowner – or well driller or pump installer - should contact both the Groundwater Conservation District (if applicable) to notify them of the intention to plug the well, fill out any required paperwork, and pay any applicable fees

In addition, a landowner or other entity plugging a well should let the district know within 30 days after the well is plugged through filing a plugging report online or send a copy of the form to the TDLR.

Some areas of Texas have assistance programs for landowners who need to plug abandoned water wells, either through local Groundwater Conservation Districts or the Texas State Soil and Water Conservation Board.

However, there are many abandoned wells that have never been properly plugged. According to the TDLR and the Texas Groundwater Protection Committee, in 2021, some 38 abandoned water wells were identified, although no groundwater monitoring is conducted in TDLR's program. One of these cases was sent to enforcement and nine were plugged through work with the landowners and the rest are unresolved. But this pattern of dozens of abandoned wells discovered through TDLR happens every year, creating a backlog of abandoned water wells.

It is important to note that unlike with abandoned oil and gas wells, there is no statewide program for plugging water wells which have been abandoned or orphaned. In fact, while the Texas Groundwater Protection Committee recognizes the challenge facing Texas from hundreds or thousands of abandoned water wells, the state does not have a policy on bonding water wells, or how to pay for wells that have been abandoned where the owner can not be located. Texas might consider a funding mechanism and a state-backed program that would assess the risk and cap or plug those wells which have the potential to contaminate groundwater (or surface water).

Oil/Water well mess

Recently, a very special but not necessarily unique issue has emerged in Pecos County due to old abandoned water wells which were originally tied to oil and gas development. Known as Boehmar Lake, oil wells were drilled back in the 1940s and 1950s but later turned over to landowners mainly for irrigation. Over time, these oil-water wells have been leaking vast amounts of very salty water, accompanied by at least some remnants of hydrocarbons, such as hydrogen sulfide.

As a result, the Middle Pecos Groundwater Conservation District and nearby landowners have filed multiple complaints with the Railroad Commission to determine whether the water well is affecting oil, gas or freshwater strata or if the well is polluted with mineral water. Differing accounts of the level of contamination and Hydrogen Sulfide readings have emerged between the district and the Commission, but whatever the case, the Boehmer Lake points to a regulatory loophole - and the lack of a process for older oil or gas wells which at some point were converted to water wells.

It is unclear whether the IJA money for abandoned wells could be used to clean up these unique cases but at the very least, RRC leadership should inquire of DOI whether it can since these wells are related to hydrocarbons. The current mess in Pecos County could potentially be targeted as a valid use of the funds. We should consider it since we are unlikely to find money elsewhere for this special case.

The Sierra Club believes that the Railroad Commission does have the authority to treat these old oil wells as within its jurisdiction and seek recovery from the original owners of the wells, as well as previous landowner interests.

The legislature should consider at the very least requiring an evaluation of oil and gas wells that have been converted to water wells, and their risk, and if needed, consider statutory tweaks to make clear the jurisdiction and authority of the Texas Railroad Commission over such wells.

Conclusions

The IJA is a unique opportunity to clean up thousands of orphan oil and gas wells and Texas should take advantage and allow stakeholder input to take advantage of at least \$343 million.

In addition, Texas must assess its existing bonding programs and levels of funding, as more money will be needed to deal with our orphan well program.

Abandoned water wells are another problem, but the State of Texas has failed to develop a complete regulatory framework and state funding source to cap and plug water wells. The TDLR does a good job looking for abandoned wells, but does not test for contamination and is not set up to do so. The state should complete an evaluation of abandoned water wells, and consider a state funding program for abandoned water wells that are high risk, most likely through the Texas Department of Licensing and Regulations.

Finally, a special case are older oil wells that have been converted into water wells, such as the Lake Bohmer situation. Texas should consider a more exhaustive study of these special cases. The Railroad Commission should consider the extent to which IJA monies could be used to help address these unique cases and approach the DOI. The Sierra Club believes that the Railroad Commission has the regulatory authority it needs to deal with these cases and seek enforcement action, but some legislative or statutory tweaks could make the role of the RRC vs other agencies more clear.

The Sierra Club appreciates the opportunity to make these brief comments.