



To: The Honorable Chairman
Charles Perry
Members of the Senate Committee
on Water
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The Sierra Club appreciates the positive changes made in CSSB 601, but believes further changes are warranted.

Following the passage of HB 2771, and the recent delegated authority provided to the TCEQ just days before the Trump Administration left office, oil and gas producers now are able to apply to the TCEQ for wastewater discharge permits, though TCEQ is still working on finalized “general” permits. Under the Code of Federal Regulations, certain producers to have the authority to discharge into water of the state if they are located West of the 98th Meridian and meet some minimal requirements through the permit process. As we expressed during the delegation process, the Sierra Club does have concerns about the lack of specific treatment standards for these types of wastewater, since such fluids can contain chemicals of concern which still lack specific treatment analysis and standards. Separately, we will be calling on both the TCEQ and the EPA to develop more protective standards.

Despite those concerns, we are not opposed to the idea of a consortium to provide research on the potential use of produced wastewaters, and discuss both applications and needed protections. We do believe that the best use of produced water is as recycled waters within the oil and gas industry, as opposed to direct discharge. While we were opposed to the initial version of the bill, we thank Chairman Perry and his staff for their work on the committee sub. Today we are neutral on the bill. First, as several conservation organizations requested, the committee substitute makes room at the proposed consortium for the Texas Parks and Wildlife Department, Texas Water Development Board, as well as environmental and community interests. These important scientific and public insights will add greatly to balancing and understanding the work of the consortium. We also sincerely appreciate the addition of language that protects public health and the environment, the consultation of neighboring New Mexico’s Produced Water Research Consortium, and the expansion of the Consortium to include work with other Texas public universities.

Secondly, we’d like to give a bit more background on produced water. The concerns surrounding produced water discharges are numerous. Between environmental harm and potential harm to human health, there are currently **no** sufficiently protective federal or state regulations or treatment standards that can be applied to wastewater that

makes it safe for discharge. Produced wastewater, or fluid oil and gas waste, contains **chemicals and compounds** including halides (e.g., bromide, chloride, and iodide); metals; technologically enhanced naturally occurring radioactive materials; and a wide range of poorly characterized chemicals in fracking fluids including surfactants, biocides, wetting agents, scale inhibitors, and organic compounds [including methanol, ethylene glycol, propargyl alcohol](#) and others. There's also documented evidence of radioactivity in produced water, and that such radioactivity builds up in our waterways well beyond what would be considered safe.

Many of these constituent chemicals have no EPA approved analytical methods, no water quality criteria or standards in any applicable water quality regulations, and have insufficient toxicity or radioactivity data. This means not only do EPA and TCEQ not know how to treat produced water, but it's unclear how to measure the effects on human health or our environment. Additionally, some of the chemicals used in the fracking process are protected as a trade secret, so producers do not have to disclose the entirety of what they are discharging into our waters. That means in some instances, **TCEQ may not even know what is being discharged** nor what treatment it might need to be used safely.

It's also important that any use of treated fluid oil and gas waste is practicable given the technological limitations. Right now, there is no economically feasible way to deal with the salinity of produced water in contrast to in-field on-lease recycling. Prior to any discharge of treated fluid oil and gas waste, whether treated or through beneficial use, it's imperative that such waste be fully recycled to fully minimize (and ultimately eliminate) freshwater use in fracking operations.

Our remaining concerns regarding SB 601 include the discretionary direction in defining treatment standards. We would strongly encourage that "treatment standards" as discussed in Sec. 109.203 require the consideration of human health and the environment by use of the word "shall" rather than "may." Additionally, we would suggest that the advisory committee "provide input" to the consortium, rather than "guide" the research. Membership of the advisory council guiding the direction of the consortium in any capacity is likely not a best scientific practice. As research surrounding produced water is ongoing, it is imperative that the research remains neutral and free from conflicts of interest. Finally, regarding the report outlined in Sec. 109.204 (a-1), it is unlikely to be appropriate for the report to consider "suggested changes to law to better enable beneficial uses of fluid oil and gas waste" given that it would be necessary for the consortium to do the entire amount of scientific research to make produced water feasible in our state on a much longer-term timeline than a pilot project. Guidance and regulations that prevent detrimental effects on human health, as well as water quality and wildlife, ought to occur well before any changes to law are made or even suggested. One pilot project will not be applicable to all instances of fluid oil and gas waste in the State of Texas for reasons including the different affected communities, differences in surface water and groundwater availability, climate differences, and wildlife differences. Texas is an incredibly diverse state in terms of its geography and is unlikely to respond well to a one-size-fits-all approach.

