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Updated: Water woes and fracking: Texas leaders face complex issues

Atlantic Council hosts Texas experts, releases in-depth report which can be found at conclusion of this story

The **Texas Legislature** faces a host of thorny issues when it reconvenes next year over how to sustain a historic oil and gas boom in the state's key energy sector amid growing competition for freshwater from a surging population coping with a prolonged drought.

Consider this: Who exactly can claim ownership of brackish water, one resource needed to keep a hydraulic fracturing (fracking) boom going while preserving freshwater for other uses?

And, will the public's fears of a suspected link between fracking wastewater disposal wells and earthquakes prompt lawmakers to give the budding oilfield water-recycling industry a tax incentive?

These questions and more are tackled in an in-depth report released late this afternoon in Washington D.C., by the **Atlantic Council**, a global affairs organization that played host Tuesday to Texas energy and water experts who shared their expertise with other states officials and federal agency staffers.

The report, "**Sustainable Water Management in the Texas Oil and Gas Industry**," is the product of a year's work by former **Texas Railroad Commission Executive Director John Tintera** of the Austin-based consulting group, **Sebree & Tintera**. As the president of the **Texas Water Recycling Association**, Tintera has produced the most thorough primer on the policy junctures between Texas water and the state' hydraulic fracturing (fracking) industry to date.

Statistics keep rolling in on the meteoric rise of Texas oil and gas production. The combination of fracking and horizontal drilling techniques sent state oil and gas production (severance) taxes to an all-time high last year, accounting for nearly 10 percent of total tax collections.

By March of 2014, preliminary crude oil production averaged more than 2 million barrels per day, a 25 increase from the previous year, and a whopping 110 percent increase over the past 10 years, the report notes. By 2010, about 85 percent of new wells were fracked.

“With this increase in production, there has been a parallel increase in water used for extraction purposes by the oil and gas industry,” Tintera wrote in the report. “Longer laterals (in horizontal drilling) means higher production, as well as more water used per well.”

Energy producers often point out that they use less than one percent of the state’s freshwater supplies, and Devon Energy issued a report saying that the amount of water used to frack a well – about four million gallons – is the same amount used by one “typical” golf course every eight days.

But, such proclamations haven’t quelled public uneasiness about water blasted deep beneath the earth in a time of water scarcity, and the industry has noticed. Between 2008 and 2011, the amount of recycled, reused or brackish water used for fracking has increased 21 percent to approximately 17,000 acre-feet, according to the report.

But, major challenges confront energy producers and the oilfield water recycling and water management industry, Tintera notes.

Landowners, for instance, sometimes resist water recycling on their properties, and environmental concerns remain that storing or transferring water could lead accidental spills. Moreover the most important such landowner is the state itself. **University Lands**, a state agency, currently restricts storage of brackish or recycled water in double lined earthen ponds, despite changes to rules at the Texas Railroad Commission, Tintera wrote.

Texas law currently gives preference to the rights of mineral owners over those of surface land owners, and courts have interpreted its so-called “accommodation rule” to mean that oil and gas drillers have certain rights to surface and underground use as a result. One is to legally use water on a landowner’s property without paying for the water if its sole use is a “rig supply well.”

With 99 different **Groundwater Conservation Districts** (GCD) in Texas, some have required rig supply wells to get permits while others have not, and interpretations for

exemptions still differ. And, even if the well doesn't need a permit, it still has to follow rules regarding well spacing, registration, completion requirements and water withdrawal reporting. Plus, if a rig supply well is no longer used solely to support oil and gas operations, the GCD can require it to get a permit.

Also at issue is who rightfully can claim ownership to brackish water, especially if municipalities want to desalinate it for general use?

"As perception of groundwater assets evolves to include brackish water, deciphering ownership and which agency or regulations have jurisdiction over such water will become increasingly convoluted issues that must be better addressed," the report notes.

The report also underlines a need for better public relations by the oil and gas industry so the public is more aware of "achievements made in regulatory and social responsibility," Tintera noted.

The report recommends that regulators, such as the Texas Railroad Commission, expand oil and gas cleanup funds to include recycling activities. They should assure the public they will address water recycling accidents or pollution with the same diligence they've used to plug 33,860 orphaned wells at a cost of \$225.4 million since 1984.

Also, water issues, like politics, are local, the report stresses. The oil and gas industry's needs for water must be balanced against the needs of other water users.

"The two issues of water-use regulation and water rights are poised to dominate the legislative landscape of Texas, and will continue to evolve for years to come," Tintera predicted.

"A copy of the report's final draft, which will appear later on the Atlantic Council's website, can be read [here](#).

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