

TEXAS WATER SUPPLY 911

Oil and Gas Industry Steps Up Solutions

By Alan Lammey



Nearly every business in Texas depends on water. And if you've ever tried running a business without a never-ending supply of fresh water, it's nearly impossible. Fresh water is a very big and important component of business here in the Lone Star State. As Texas wrestles with the challenges of one of the worst droughts in recent history, an unexpected leader has surfaced in the area of the water conversation and new supply: the Texas oil and gas industry.

Fresh water is in enormous demand. As of September 2014, according to the United States Drought Monitor, 86 percent of the state of Texas was in an "official drought condition," while 14 percent of the state was labeled as being in an "extreme drought" situation. Across the state, a vast amount of business and residential neighborhoods are not only getting their water from local utilities but also from large, private corporations owned by investors seeking

to profit off the sale of the essential resource. Whether it's retail, real estate, restaurants, manufacturing, hotels, churches, schools, hospitals, or a vast amount of other industries, we simply can't function without running water. Finding new water supply sources is an even greater challenge for a state whose population is growing at light speed. State figures show private companies are seeking more substantial price increases every year as drought conditions worsen.

The Texas Commission on Environmental Quality, which regulates water and sewer rates for non-municipal customers, shows that water rate increases in the last few years have been as much as 40 percent to 60 percent. For years, small, private water companies have played a crucial role in Texas, providing water and sewer service in new developments outside of cities. Recent trends show that private companies will continue to fill an essential need for the fresh water

industry in the future, particularly when public or municipal money is projected to be insufficient to make the billions of dollars in costly upgrades needed in water and sewer systems.

Private Water Companies Flock to Texas

Over the past decade, multi-state water utilities have expanded aggressively in Texas, drawn by the state's booming population and welcoming regulatory environment. In fact, Texas water regulators have become well-known as being the most generous in the country for private water companies. Nevertheless, the challenge is that water supply in parts of the state is falling to dangerously low levels and may continue to do so for quite some time as cyclical multi-year climate conditions and patterns are leaving large areas of Texas parched.

However, it turns out the same companies that have been primarily responsible for growing Texas'



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economic boom are also leading cutting-edge advancements in technologies that significantly decrease fresh water consumption and produce new, unconventional sources of water supply. However, many anti-fossil fuel and anti-oil and gas groups still tend to demonize the oil and gas industry's usage of water in the hydraulic fracturing process.

Thanks to a federal government set on undermining our Texas energy industry and a concerted effort by environmental activists, many people are being led to believe that oil and gas producers consume a disproportionate share of water. This couldn't be further from the truth. A typical fracturing project involves injecting water mixed with chemicals and sand into rock formations to release trapped minerals such as oil and natural gas. In the course of this process, a typical oil and natural gas production company will use between two and five million gallons of water. That might sound like a lot of water, but an increasing amount of recycled water is being used. Also, when viewed in comparison to other human activities and in light of the benefit to the Texas economy, those two to five million gallons of water per fracking initiative is a proverbial drop in the bucket.

Oil and Gas Industry Uses Only One Percent of Water Supply

According to recent data from the Texas Water Development Board, the oil and gas industry uses less water than any other category in their Water Use Survey. A 2013 report found that irrigation is the biggest user of water, accounting for 61 percent of use. Municipal use, manufacturing, steam electric power, and livestock make up the next 38 percent. The last 1 percent of water use is made up of oil and gas and other mining activities.

When it comes to the Texas economy, energy producers create some of the highest-paying jobs in Texas and carry a large portion of our state's tax burden. In the fiscal year 2013, Texas producers paid \$4.5 billion in severance taxes on the production of oil and gas, which helped to blossom the state's rainy day fund. The industry also pays far more in state and local taxes and royalties on a per-worker basis than the average private-sector company. The 2.1 million direct and indirect jobs created in Texas have a bigger than average impact on funding for Texas public schools, roads, and first responders.

Oil and Gas Industry Developing Water Supply Technology

When it comes to non-conventional water production advancements, oil and gas producers are at the forefront of driving desalination technology that promises to bring down the cost of converting salt water to fresh water for broader applications worldwide. Additionally, Texas oil and gas producers are adopting heat distilling or filtration processes that allow the reuse of up to 80 percent of the returned fracture fluids typically unusable due to its high salt content. Other companies are reporting the successful development of a fully closed loop production system, which uses 100 percent recycled water.

Water recycling has slowly become a way of life for most Texans since education and conservation efforts began at the turn of the century. While the Texas legislature and other state officials work to execute the statewide and regional water plan to assist those efforts, the energy industry is also working diligently to reduce water demand.

To their credit, the oil and gas industry in Texas has managed to improve and incorporate water recycling technology in its production processes in just the past two to three years.

Once again, the Lone Star State's oil and gas industry has assumed a leadership position on a crucial issue, which is that water conservation and energy production can and must co-exist. With continued careful management by energy companies and levelheaded oversight by state government, Texans can benefit from our state's water supply and underground mineral deposits for decades to come. **N**

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