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Some see Texas oil wells as water producers

'Consider it an asset, not a waste,' advocate of recycling says

By Jennifer Hiller

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The oil and gas industry uses a relatively small slice of the state's water but disposes of a whole bunch of it - an estimated 296 billion gallons disappears down underground disposal wells in Texas each year.

Could that be a source of water for a state grappling with drought and a population boom?

"Oil or gas is not the only thing that comes up from the hole," said Ben Sebree, general counsel for the Texas Water Recycling Association said Thursday in San Antonio.

Some water returns up a well after hydraulic fracturing, called flowback water. Water that's been trapped for millions of years in the rock formation itself also rises up a well - production water. Usually both types of wastewater get trucked to a disposal well, where they're pumped underground.

"Consider it an asset, not a waste," Sebree said.

Sebree spoke Thursday at a meeting of the Eagle Ford Task Force, a 24-member group formed in 2011 to discuss the challenges of the Eagle Ford Shale drilling boom in South Texas. The group met at the San Antonio Water System's offices off of U.S. 281.

Texas Railroad Commissioner David Porter, who founded the group, said even without oil and gas drilling, Texas faces water issues because of drought and population growth.

"We must find the safest, most efficient uses for water in every industry," Porter said.

Recycling is a complex issue, and not just because of the added cost. Not all wells or all geologic formations return a lot of water to the surface. The Eagle Ford is considered to be more dry than other formations, for instance.



Workers prepare equipment for a disposal well being drilled south of Cotulla. The operation was being set up to return treated water to the Wilcox aquifer. Tom Reel, Staff

Sebree said that while not every well or every formation would be a net water producer, the industry could produce far more water through recycling than the 58 billion annual gallons it now uses. Recycling would also answer one criticism of the energy industry - that pumping water down disposal wells means it disappears forever from the water cycle.

Irrigation takes the lion's share of the state's water - 61 percent of the state's water demand, according to the Texas Water Development Board. The energy industry uses less than 2 percent of the water. The state has made it easier to recycle water in the oil field, eliminating the need for companies to get permits if they recycle on their own lease or on a third party's property.

Sebree said that other efforts, such as state tax incentives or tort reform to limit civil liability for recyclers, would help encourage more water reuse.

Water always has been needed for oil and gas drilling, but never in the current amount. The ability to combine horizontal drilling with hydraulic fracturing has made it possible to drill in tight rock such as shale, unleashing a drilling boom.

Hydraulic fracturing pumps a mix of water and chemicals at high pressure to break the shale. Then sand is added to the fluid to hold open the fissures, letting oil and gas flow up the well to the surface.

Oil and gas companies used around 14 billion gallons of water in 2012 for hydraulic fracturing in the Eagle Ford Shale, according to a previous San Antonio Express-News analysis.