

SUBJECT: Permitting and regulation of aquifer storage and recovery injection wells

COMMITTEE: Natural Resources — committee substitute recommended

VOTE: 10 ayes — Keffer, Ashby, D. Bonnen, Burns, Kacal, T. King, Larson,
Lucio, Nevárez, Workman

0 nays

1 absent — Frank

WITNESSES: For — Bill Mullican, CDM Smith; Jim Conkwright, Prairielands Groundwater Conservation District; Brian Sledge, TWCA Groundwater Legislative Committee; Lone Star GCD; Prairielands GCD; Upper Trinity GCD; (*Registered, but did not testify*: Matt Phillips, Brazos River Authority; Kent Satterwhite, Canadian River Municipal Water Authority; Heather Cooke, City of Austin; Jeff Coyle, City of San Antonio; John Grant and David Holt, Colorado River Municipal Water District; Ben Sebree, Marathon Petroleum Corporation; Harvey Everheart, Mesa UWCD; C.E. Williams, Panhandle Groundwater Conservation District; Hope Wells, San Antonio Water System; Daniel Gonzalez and Steve Garza, Texas Association of Realtors; Stephen Minick, Texas Association of Business; Billy Howe, Texas Farm Bureau; Ronald Hufford, Texas Forestry Association; Shanna Igo, Texas Municipal League; Dean Robbins, Texas Water Conservation Association; Ed McCarthy)

Against — Greg Sengelmann, Gonzales County Underground Water Conservation District; Tim Andruss, Victoria County GCD, Texana County GCD, Refugio County GCD, Calhoun County GCD; Marc Young

On — Alan Day, Brazos Valley Groundwater Conservation District; Steve Box, Environmental Stewardship; Michele Gangnes, League of Independent Voters of Texas; Ken Kramer, Sierra Club-Lone Star Chapter; (*Registered, but did not testify*: Ron Ellis and Charles Maguire, Texas Commission on Environmental Quality)

BACKGROUND: Aquifer storage and recovery (ASR) is the injection of water into an aquifer to be stored for later use.

Texas Water Code, ch. 11 addresses surface water ASR projects and requires developers to first conduct pilot projects before filing a permit application for an ASR project.

If an ASR project is located within the jurisdiction of a groundwater conservation district (GCD), developers must comply with GCD regulations.

DIGEST: CSHB 655 would repeal the current regulations for surface water aquifer storage and recovery (ASR) projects, including the requirement for developers to conduct pilot projects before filing a permit application for an ASR project. Instead, the bill would provide the same regulatory framework for all ASR projects whether the injected water was surface water or groundwater.

Jurisdiction of Texas Commission on Environmental Quality. The bill would give the Texas Commission on Environmental Quality (TCEQ) exclusive jurisdiction over the regulation and permitting of ASR injection wells.

In issuing permits for ASR projects, TCEQ could act by rule, general permit, or individual permit and would consider whether the applicant had considered:

- Safe Drinking Water Act compliance;
- the extent to which the amount of water injected could be actually recovered and the effects of any commingling with native groundwater;
- the effect of the project on existing wells; and
- the potential for native groundwater quality degradation.

A surface water right amendment would not be needed to store appropriated surface water in an ASR project prior to beneficial use, as

long as the water right holder complied with the terms of the water right.

ASR wells located in a groundwater conservation district. If located in a groundwater conservation district (GCD), ASR injection and recovery wells would have to be registered with the GCD and would be subject to regular well registration fees.

TCEQ would be required to limit the amount of water that could be recovered by a project to the total amount that was injected and further limit that amount to account for loss of native groundwater due to displacement.

If the project produced more water than the amount authorized for withdrawal by TCEQ, the project operator would be required to report the excess volume to the GCD. A GCD's spacing, production, and permitting rules and fees would apply only to the withdrawals above the amount authorized.

GCDs could consider ASR-related hydrogeologic conditions when planning and monitoring for the achievement of the desired future condition of the aquifer.

Reporting and other requirements. All wells that make up a single ASR project would have to be located on a continuous tract or two or more adjacent tracts under common ownership or contract. The ASR project developer would be required to meter all wells and report total injected and recovered amounts monthly to TCEQ and the GCD, if applicable, as well as annual water quality testing of injected and recovered water.

Exempt districts. The Edwards Aquifer Authority, the Harris-Galveston Subsidence District, the Fort Bend Subsidence District, the Barton Springs-Edwards Aquifer Conservation District, and the Corpus Christi Aquifer Storage and Recovery Conservation District would not be affected by passage of this bill.

TCEQ rules. TCEQ would be required to adopt rules, including rules

related to well construction, completion, metering, and reporting requirements for ASR projects, by May 1, 2016.

TCEQ could not adopt or enforce groundwater quality protection standards that were more stringent than federal standards.

Effective date. This bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2015.

**SUPPORTERS
SAY:**

CSHB 665 would encourage the development of aquifer storage and recovery (ASR) projects, which could provide a significant portion of the storage needed to meet future demand for water. ASR projects are resistant to many of the problems associated with storing water aboveground in surface water reservoirs, such as adverse environmental impacts, land requirements, high costs, and significant water losses due to evaporation. ASR facilities yield 100 percent of their stored water, which could help Texas communities endure dry times. Many ASR systems pipe drinking water into an aquifer for storage during wet periods. Then, when summer brings peak demands, the water is pumped back out of the aquifer for use.

While there are more than 80 ASR projects operating in the United States, only three of them are in Texas. This limited number is largely because current regulations and statutes, both statewide and local, do not readily facilitate the most beneficial use of either groundwater or surface water for ASR projects. The bill would remove regulatory roadblocks to ASR projects, specifically the current dual regulatory scheme that gives TCEQ jurisdiction over the injection of water into the aquifer while GCDs have jurisdiction over the recovery of that stored water. Under this proposal, the permitting process would go through TCEQ, with monthly and annual reports being submitted to both TCEQ and the local groundwater conservation district (GCD). This would eliminate the challenge of dealing with the diverse regulatory landscape of groundwater districts.

District pumping limits would be applied only when a project had pumped more water from the aquifer than was injected. This would ensure that

operators could access the water they injected without regulatory interference, while allowing GCDs to manage and protect native groundwater.

OPPONENTS
SAY:

While further consideration and development of ASR projects is warranted, there are some provisions of the bill that could be problematic.

GCDs should play a vital role in the evaluation and oversight of ASR projects, and CSHB 655 would go too far in limiting that role. The transfer of the ASR regulatory authority from the districts to TCEQ would eliminate a district's opportunity to evaluate and address the impacts of proposed ASR projects. Districts need to have a regulatory and permitting role, particularly for the recovery process. Without this, groundwater districts no longer would have the ability to manage the aquifer. The bill would allow GCD oversight only if a project pumped more water from the aquifer than was injected. A more appropriate approach would be to allow groundwater districts to adopt ASR rules for approval by TCEQ.

Further, the bill would prescribe an overly simplified approach to determining the amount of water that could be produced from an ASR project based solely on the volume of water injected into an aquifer. This approach could subject ASR projects to controversy that could be avoided with a more technical and scientifically established approach based on monitoring water quality characteristics. Monitoring would help ensure that water produced by ASR recovery activities was actually injected water.

Water quality in bodies of water can vary greatly. Water quality testing of both the injected and recovered water should be done more than once a year as the bill would require, especially if injecting treated wastewater.

The bill should provide an option for TCEQ to deny a permit based on a determination that water loss as a result of the project was so high that the injection was wasteful or not consistent with public welfare. Instead, TCEQ merely would restrict the amount of water that could be recovered to account for the loss.

CSHB 655 would prohibit TCEQ from setting groundwater quality protection standards more stringent than applicable federal standard even when circumstances might require higher standards to protect an aquifer. There should be some authority granted to TCEQ to go beyond federal requirements in appropriate circumstances.

NOTES:

A Senate companion bill, SB 1903 by Perry, was placed on the April 21 Senate intent calendar. Another companion bill, SB 1724 by Creighton, was referred to the Senate Committee on Agriculture, Water, and Rural Affairs on March 23.

Comparison of original to substitute. CSHB 655 differs from the bill as filed in that the committee substitute would:

- define native groundwater;
- allow someone who contracted with a water right holder for use of the water to undertake an ASR project;
- expand the consideration of a project's potential for groundwater quality degradation; and
- exempt the Corpus Christi Aquifer Storage and Recovery Conservation District.