Texas Conservative Coalition Research Institute

Written Testimony to the

Senate Committee on Natural Resources & Economic Development

&

Senate Committee on Water & Rural Affairs

January 22, 2020

Regarding the Following Charges:

***Future Water Supply**: Examine current laws, processes, and water storage options and availability. Make recommendations promoting the state's water supply, storage, availability, valuation, movement, and development of new sources.*

***Groundwater Regulatory Framework**: Study the state's groundwater regulatory framework and make recommendations to improve groundwater regulation, management, and permitting*

The charges before the Senate Committee on Natural Resources and Economic Development and the Senate Committee on Water and Rural Affairs are of the utmost importance to the State of Texas. The Texas Conservative Coalition Research Institute (TCCRI) takes an interest in these issues because the policies adopted by the state have a broad impact in terms of state needs, growth, private property, and a variety of other factors.

I. ***Future Water Supply**: Examine current laws, processes, and water storage options and availability. Make recommendations promoting the state's water supply, storage, availability, valuation, movement, and development of new sources.*

The first charge asks the committee to "examine current laws, processes, and water storage options and availability." Water storage is a key component to ensuring clean, reliable, uncontaminated water. As the Environmental Protection Agency explains, water storage facilities create a barrier "that prevents contamination of water as it travels to the customer."[i] Improper storage can have health impacts such as microbial growth and

chemical changes, but also relevant is the capacity for water storage, which is directly relevant to Texas and the committee's charge today.

Texas pays considerable attention to its storage needs, and one way Texas can increase its water storage capacity is through the use of aquifers. The House Committee on Natural Resources issued its Interim Report of 2018, which included a brief discussion on aquifer storage and recovery (ASR). As the Report explains, "[t]here are more than 175 ASR systems installed around the country, and the number in Texas is increasing."[ii] Indeed, the 2017 State Water Plan explains that water storage is an important aspect of the state's water management.[iii] In particular, aquifer storage, which "refers to the practice of injecting water, when available into an aquifer where it is stored for later use," is growing as a recommendation in the plan. Whereas 43,000 acre-feet per year in aquifer storage are recommended in 2020, 152,000 acre-feet per year is recommended in 2070.[iv]

These ASRs are governed by Chapter 27 of the Water Code, cited as the Injection Well Act. The Injection Well Act is extensive, and ASRs are covered under Subchapter G, which sets out the regulatory authority of the Texas Commission on Environmental Quality (TCEQ), which has exclusive jurisdiction over the regulation and permitting of ASR injection wells. In addition to TCEQ's extensive oversight of ASRs, the Injection Well Act sets out technical standards governing the approval of ASR wells, monthly reporting on injection and recovery from ASR wells, annual reporting on the water quality of ASR wells, and projects involving recharge of aquifers using injection wells.

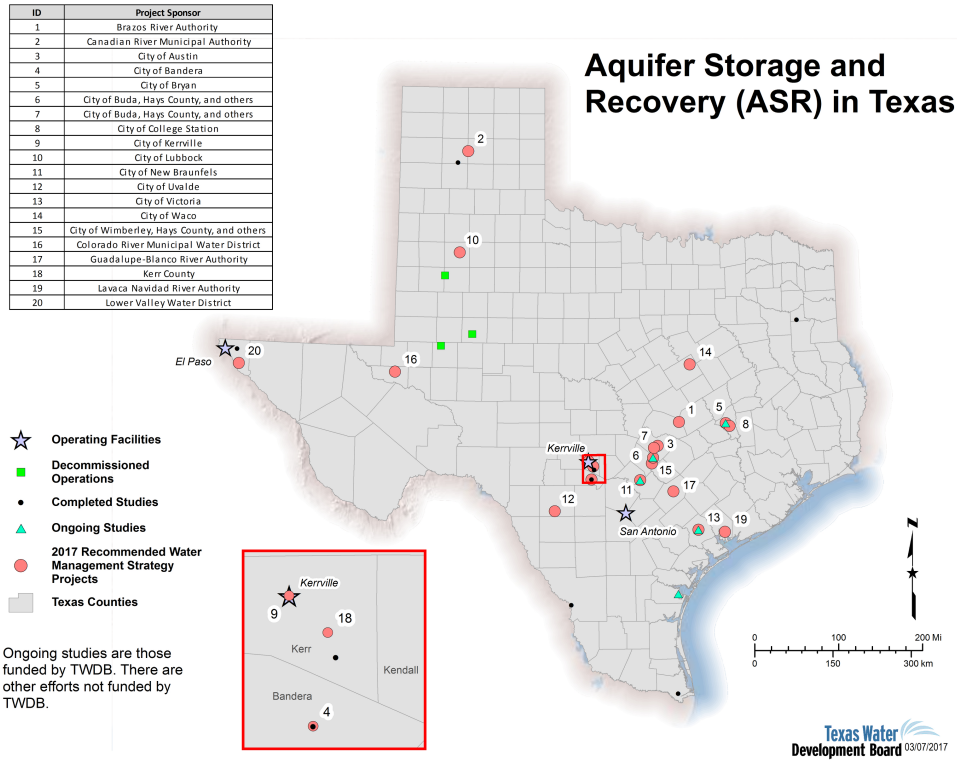
ASRs were first authorized in 1989, and permitting was improved in 2015 by the 84th Legislature in House Bill 655. Most recently, within the context of flood control and runoff management, the 86th Legislature passed House Bill 720 (Larson). The passage of HB 720 allowed unappropriated water, such as flood water and storm water, to be stored in aquifers with greater regulatory ease.[v]

Also passed during the 86th Legislative Session was House Bill 721, which directs the Texas Water Development Board to study Texas's aquifers with respect to water storage, among other things. The findings are due at the end of 2020 and will no doubt augment the Committee's understanding of Texas's water storage capabilities.

Recommendation: Continue to Develop ASRs as State Need Demands

With respect to water storage, House Bills 720 and 721 are key. Many of TCCRI's recommendations will flow from the reports produced by the Texas Water Development Board pursuant to HB 721. However, it is clear that ASRs

play an important role in water storage and could to an even greater extent. Currently, where water is stored above ground, it is subject to higher levels of contamination, and it also evaporates.[vi] ASR storage mitigates those issues. Currently it is practiced in the following locations:



Source: Texas Water Development Board[vii]

Continued expansion in proportion to Texas's needs is critical. A study from the University of Texas points out that "from 2015 to 2017 more than twice as much water as Texas used to meet all its water supply needs in 2016 flowed from inland basins to the state's coast."[viii] The increased ability to store this water will help Texas manage its water demands.

II. ***Groundwater Regulatory Framework****: Study the state's groundwater regulatory framework and make recommendations to improve groundwater regulation, management, and permitting*

The second charge on today's agenda touches on issues that TCCRI has weighed in on in testimony on several occasions in the past.

The Current Regulatory Structure for Groundwater

Water in Texas is heavily regulated by at least two state agencies—the Texas Water Development Board (TWBD) and the Texas Commission on Environmental Quality (TCEQ) —and over a hundred local government entities, the majority of which are groundwater conservation districts. In the face of so many tiers of government, the emergence of a free market for water is severely hampered.

Texas' regulatory approach is different for the water in lakes, streams, and rivers ("surface water") than it is for the water in underground aquifers ("groundwater"). While surface water is "the property of the state" (Section 11.021) and "are held in trust for the public" (Section 11.0235), groundwater is subject to a different regulatory framework.

Groundwater exists in nine major aquifers and 22 minor aquifers that underlie Texas.[ix] These aquifers hold approximately 430 million acre-feet, ninety percent of which is in the Ogallala aquifer beneath the Texas Panhandle. Aquifers supply slightly more than 60 percent of Texas' annual water consumption, but nearly 80 percent of agricultural water consumption.[x]

The rule of capture has governed the use of groundwater in Texas for more than a century and has been repeatedly affirmed by the Texas Supreme Court.[xi] Derivative of the common law rule that the owner of the land has absolute ownership of the surface and everything below it, the rule of capture gives landowners:

> [T]he right to capture all the water under their land and use it or sell it even if their groundwater use deprives their neighbor of his or her groundwater use. Unless groundwater is pumped with a malicious intention to harm or is willfully wasted, under Texas law the landowner is not liable to a neighbor.[xii]

This fundamental right was reaffirmed in a 2012 Texas Supreme Court decision, *Edwards Aquifer Authority v.* Day, in which the Court held that "a landowner cannot be deprived of all beneficial use of the groundwater below his property."[xiii]

However, within that broad framework, the legislature has authorized the local creation of more than one hundred groundwater conservation districts that are empowered to control the pumping of groundwater and to regulate the transfer of groundwater out of the district's jurisdiction. Legislation enacted in 2001 that expanded the power of groundwater conservation districts sought to address fears were being felt across the state about cities or other

entities "grabbing" water by water ranching. Groundwater districts were seen as a way to hold the line against unreasonable withdrawals and subsequent transfers of water from an area.[xiv]

The authority given to groundwater conservation districts serves as a significant check on the rule of capture and private property rights. As attorney Russell Johnson puts it: "most of the groundwater conservation districts in Texas want to preserve the status quo and that's going to be hard to do and simultaneously respect groundwater rights."[xv] Johnson successfully sued the Edwards Aquifer Authority (EAA) on behalf of pecan farmers in Medina County who argued that the amount of water allocated to them by EAA was "insufficient for mature pecan trees, diminishing their crop and economically wrecking their livelihood."

The Texas Fourth Court of Appeals, applying the *Day* decision for the first time ruled that "landowners do have a constitutionally compensable interest in groundwater" and that such landowners are "entitled to compensation for the amount by which their property was impaired by the [regulatory] taking." House Bill 4112 (84R, 2015) codified this common law right by entitling a landowner to have any other right recognized under common law relating to groundwater ownership and rights.[xvi]

Two subsequent cases have also applied oil and gas law to groundwater. In *Del Rio v. Clayton Sam Colt Hamilton Trust*, the court held that groundwater ownership can be severed from surface ownerships, just as it can in the oil and gas context.[xvii] In, perhaps, a more direct application of oil and gas law in 2016, the Texas Supreme Court applied the accommodation doctrine, which requires that the surface estate owner provide access to the mineral estate owner to recover the minerals, to water.[xviii]

Recommendation: Facilitate Greater Efficiency in Exporting Groundwater from One District to Another

One of the key hurdles in creating a more market-based exchange of water in Texas is the difficulty in exporting water from one groundwater conservation district to another. Representative Lyle Larson attempted to address this issue in the 86th Legislative Session through House Bill 726, which would have streamlined the permitting process for exporting groundwater from a conservation district. Currently, a separate permit is required. The author's bill analysis for HB 726 noted during attempts to pass the bill across multiple sessions that some groundwater conservation districts have used mechanisms such as changing the rules after the submission of a permit application, or a moratorium on permits, to treat water rights holders who are not favored differently. Passage of legislation

similar to HB 726 would help to ensure fair treatment for water rights holders in the territory covered by those districts.

Creating Water Markets: Exercising Property Rights

The effectiveness with which private investors can meet the state's demand for water is restricted by excessive regulation of the water market and it is clear that many of the restrictions placed by statute on the use of water hinder the efficient operation of Texas' water market. There are many incremental reforms that can address these obstructions and bring the state closer to a more free water market.

The state has a role to play ensuring that water supplies are neither over-used nor unnecessarily wasted. However, allowing the demand for water to be met as fully as possible through a competitive market is preferable to large-scale public works projects contemplated by the State Water Plan. Therefore, a range of recommendations are suggested which will help ensure that the regulatory and statutory impediments to meeting Texas' water needs are addressed.

Recommendation: Use regulation of the oil and gas industry as a model for the state's water market

The oil and gas industries in Texas are regulated by one agency (the Railroad Commission), which has four primary statutory roles, including the protection of "the correlative rights of different interest owners."[xix] The Texas oil and gas industries are the largest in the United States with almost 375,000 oil, gas, and projection wells currently in operation.[xx] Light-handed regulation allowed the oil and gas industry to grow from employing just 7,000 people in 1900 to a total employment of 366,200 at the industry's peak in 1981, which represented around 6 percent of all non-agricultural employment in Texas.[xxi]

To encourage private development, a statement of legislative intent should be included in the Water Code to the effect that:

> The use of private capital in water projects is necessary if the state's future water needs are to be met. The state and the private sector should work to provide for the conservation and development of the state's water resources, including the development of a free, open, and competitive water market in the state.

Doing so may help the state become a national leader in water development. The lighter-handed regulation of oil & gas exploration, production and refining in Texas show how an industry can grow. There is no reason that Texas' water industry could not grow as the oil and gas industry did in the absence of such heavy-handed regulation.

Revisiting House Bill 3298 (84R, 2015) could also be instructive. The bill, which passed the House 111-28 but stalled in the Senate, would have directed TWDB to study the development of a market and conveyance network for water in Texas. The study would have included an assessment of the features of an efficient market for water, a review of water markets in other jurisdictions, an evaluation of water rights and ownership, and would identify methods to fund establishment of a "water grid" in Texas.

As noted above, there are significant regulatory barriers that impede the use of water in the state, the removal of which could help facilitate movement of water and which may also spur greater private sector investment in water development and infrastructure. The study proposed by HB 3298 would further those goals. The bill has not been filed since the 84th Legislative Session.

Conclusion

This committee is charged with make recommendations to improve groundwater regulation, management, and permitting. The answer to this charge is simple: the free market, which rests on the fundamental principle of private property rights. As Nobel laureate economist Milton Freeman put it, "[i]n an ideal free market resting on private property, no individual can coerce any other, all cooperation is voluntary, all parties to such cooperation benefit or they need not participate."[xxii] Embracing a free market for water in Texas is the only way to ensure an adequate supply of water to where it is needed while also guaranteeing that private property water rights are respected and property owners receive just compensation when their rights are infringed.

ENDNOTES

[i] "Finished Water Storage Facilities," *Environmental Protection Agency* (Aug. 15, 2002), https://www.epa.gov/sites/production/files/2015-09/documents/2007_05_18_disinfection_tcr_whitepaper_tcr_storage.pdf 1

[ii] "Interim Report to the 86th Texas Legislature," *House Committee on Natural Resources* (Dec. 2018), https://house.texas.gov/_media/pdf/committees/reports/85interim/Natural-Resources-Committee-Interim-Report-2018.pdf

[iii] "Water For Texas: 2017 State Water Plan," *Texas Water Development Board*, http://www.twdb.texas.gov/waterplanning/swp/2017/chapters/08-SWP17-MANAGEMENT-STRATEGIES.pdf

[iv] *Ibid.*

[v] House Bill 720 (Larson, 86R), https://www.capitol.state.tx.us/BillLookup/History.aspx?LegSess=86R&Bill=HB720

[vi] "Bill Analysis: House Bill 720," *House Research Organization* (Apr. 29, 2019), https://hro.house.texas.gov/pdf/ba86r/hb0720.pdf#navpanes=0

[vii] "Aquifer Storage and Recovery in Texas," *Texas Water Development Board* (March 7, 2017), http://www.twdb.texas.gov/innovativewater/asr/img/ASR_phase_030817.jpg

[viii] "Bill Analysis: House Bill 720," *House Research Organization* (Apr. 29, 2019), https://hro.house.texas.gov/pdf/ba86r/hb0720.pdf#navpanes=0

[ix] "Texas Aquifers," *Texas Water Development Board*, http://www.twdb.texas.gov/groundwater/aquifer/index.asp

[x] http://www.twdb.texas.gov/groundwater/aquifer/index.asp

[xi] *See, e.g*. *Sipriano v. Great Spring Waters of America Inc.,* 1 S.W.3d 75.

[xii] Kathleen Hartnett White, "The New Value of Water," *Texas Public Policy Foundation* (Aug. 2004).

[xiii] "Fiscal Notes 1204," *Texas Comptroller of Public Accounts*.

[xiv] Senate Bill 2 (77R).

[xv] Forrest Wilder, "Come and Take It: Court Ruling Dares Regulators to Limit Pumping, *Texas Observer* (Sep. 3, 2013), http://www.texasobserver.org/texas-court-upholds-takings-claim-landmark-water-case/.

[xvi] "Bill Digest: House Bill 4112 (Burns, 84R), *House Research Organization* (May 7, 2015), http://www.hro.house.state.tx.us/pdf/ba84r/hb4112.pdf#navpanes=0.

[xvii] *In Del Rio v. Clayton Sam Colt Hamilton Trust*, 269 S.S.3d 613 (Tex. App.–San Antonio 2008, pet denied)

[xviii] *Coyote Lake Ranch, LLC v. City of Lubbock*, No. 15- 0572, 2016 WL3176683 (Tex. May 27, 2016)

[xix] "Oil and Gas Division," *Railroad Commission of Texas*, https://www.rrc.state.tx.us/about-us/organization-activities/divisions-of-the-rrc/oil-gas-division/.

[xx] *Ibid.*

[xxi] "Do Higher Oil Prices Still Benefit Texas?" *Federal Reserve Bank of Dallas* (Oct. 2005).

[xxii] "The Social Responsibility of Business is to Increase its Profits", Milton Friedman, *The New York Times Magazine* (Sep. 13, 1970).