BRAZOS VALLEY GROUNDWATER CONSERVATION DISTRICT

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August 23, 2016

To: Bryan City Council

Re: Statutory Agenda Item 9b – SWIRFT Funding agreement with Texas Water Development Board

Mayor Bienski and City Council Members,

I am Alan Day, General Manager of the Brazos Valley Groundwater Conservative District (BVGCD) here on behalf of the Board of Directors to comment on Agenda Item 9b relating to the City of Bryan Aquifer Storage & Recovery Project.

The City of Bryan has entered into a SWIFT Fund loan agreement with the Texas Water Development Board (TWDB) to obtain funding for an Aquifer Storage & Recovery (ASR) project that ostensibly meets peak demand shortfalls predicted to occur by 2040. The revised plan presented to the Region G Water Planning Group in December, 2015 listed both conservation and conjunctive use as "signature" pieces of the project.

The abridged application completed on February 5, 2016 states that the "proposed project addresses: Conservation". Further, it states that "Annual volume of Water Produced/Conserved by the project: 4,960 ac-ft/yr". In the narrative it describes the project as being one incorporating "conjunctive use".

The Texas Administrative Code strictly defines conjunctive use as "*The combined use of* ***groundwater and surface water*** *sources that optimizes the beneficial characteristics of each source…"* **There is no surface water aspect contained in the Bryan ASR project.**

There is inherent water loss with any ASR project. Injected water mixes with native groundwater in the target aquifer creating a "buffer zone". The Bryan plan estimates a 10% loss associated with the project. The Texas Commission on Environmental Quality (TCEQ) requires injected and recovered water to be the same thereby excluding the recovery of water in the buffer zone. The percentage of loss could easily go up once the formal study, which you are considering tonight, has been completed.

The purpose of ASR projects is to **"capture water that would otherwise be lost"**. This would include:

- Acquiring "Run of the River" water during times of high flow
- Use of treated effluent (treated to potable standards)
- Pumping water from a karst aquifer (an aquifer characterized by large underground streams, sinkholes and ravines) where water would "otherwise be lost" to spring flow feeding streams and rivers. An example would be the City of San Antonio pumping groundwater from the Edwards Aquifer.

The intent of an ASR is to create "new water" for future use and take pressure off of groundwater assets. The Bryan ASR project proposes to pump groundwater from the Simsboro Aquifer, water already stored and in place, move it closer to the city, treat and inject the water back in the very same formation, loose at least 10% and call this "conservation". What has been described is the exact opposite. It is a loss scenario.

I will stress that the BVGCD is ASR-friendly. The Board grasps the importance of Brazos County municipalities' needs to find alternative methods to extend groundwater resources to meet the needs of their expansive growth. **But groundwater modeling indicates they will not be able to depend on groundwater pumping as a sole source of water forever** but must integrate other conservation techniques into their repertoire to meet their future demands. These could include using water from the Brazos River, Direct Potable Reuse (toilet to tap), desalination and, the cheapest of all, extensive conservation education of their citizens.

The BVGCD Board is legally mandated by the Texas Water Code to "provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater". This is the reason I am here tonight. This district is all about conservation.

The Board urges the City of Bryan to reconsider using groundwater pumped from permitted wells as the source of water for this project and instead seriously consider using a source that creates "new water" taking pressure off of our precious groundwater resources. Thank you for your time.

Alan M. Day
General Manager
Brazos Valley Groundwater Conservation District