

February 19, 2016

Dr. Sanjeev Kalaswad  
Director of Conservation &  
Innovative Water Technologies  
Texas Water Development Board  
P.O. Box 13231  
Austin, TX 78711-3231  
Send via email: [sanjeev.kalaswad@twdb.texas.gov](mailto:sanjeev.kalaswad@twdb.texas.gov)

Re: TWDB Implementation of H.B. 30  
Designation of Brackish Groundwater Production Zones

Dear Dr. Kalaswad,

These comments are submitted on behalf of the Duval County Groundwater Conservation District (Duval District) on the matter referenced above. The District has been told that you and the outside consultant will consider stakeholder comments, even those filed after the end of the formal comment period. The District is asking that the TWDB consider these comments and the District's request that no brackish groundwater production zones (BGPZs) be designated in the District in the following formations that yield fresh-to-slightly saline water - the Goliad Sand, Oakville Sandstone, and shallow portions of the Catahoula Tuff and Jackson Group - because they serve as a significant source of water for municipal, domestic, and agricultural purposes.

The District is coterminous with Duval County. The District encompasses approximately 1,150,000 acres in south Texas and is located in Groundwater Management Area 16. The primary economic activities are oil and gas production and agriculture. No major inland surface water bodies exist within the District. The sole source of water in the District is groundwater. Three public utilities utilize groundwater to provide drinking water: Duval County Conservation & Reclamation District, Freer Water Control Improvement District, and San Diego Municipal Utility District No. 1. Agriculture and livestock demands are of critical importance within the District. In addition to livestock and agricultural uses, groundwater supplies for oil and natural gas production are important as well.

Under H.B. 30, the TWDB is tasked with identifying and designating local or regional BGPZs in areas "with moderate to high availability and productivity of brackish groundwater." (The TWDB has defined brackish groundwater as having greater than 1,000 milligrams per liter of total dissolved solids and less than 10,000 mg/L of TDS.) In order to be designated as a BGPZ, the area must be "separated by hydrogeologic barriers sufficient to prevent significant impacts to water availability or water quality" to fresh groundwater, defined as water with a TDS level of 1,000 mg/L or less. Pertinent to the District and these comments, if the area otherwise qualifies but serves "as a significant source of water supply for municipal, domestic, or agricultural purposes," it may not be designated as a BGPZ. See H.B. 30, Section 3, amending Texas Water Code section 16.060.

The Duval District retained Dr. Ronald T. Green, P.G. who prepared the enclosed report to support this request. The overall goal of this study was to perform a preliminary assessment of groundwater quality within the Duval District and use existing data to evaluate the delineation of potential BGPZs. As the report states, it is imperative that delineation of the BGPZs is based on the best available data and existing science. Duval District commissioned this study in the spirit of fostering communications on this important topic with the overarching goal of developing initial ideas and recommendations with regards to BGPZs in the District.

Based on the data presented in the enclosed report, the Goliad Sand, Oakville Sandstone, and the shallow portions of the Catahoula Tuff and Jackson Group within the District fall within the Texas Water Code section 16.060(b)(5)(B)(iii) exception to areas that can be delineated as BGPZs and thus should **not** be designated as BGPZs. In summary:

- In general, groundwater resources in Duval County have marginal quality in terms of TDS. Groundwater with a TDS concentration higher than 1,000 mg/L is commonly used for municipal, domestic, and agricultural purposes due to the lack of surface water resources and the scarcity of fresh groundwater (< 1,000 mg/L TDS). This groundwater serves as a significant source of water supply for municipal, domestic, and agricultural purposes.
- A review of well data in the Texas Water Development Board Groundwater Database shows that wells are producing from the Catahoula Tuff, Oakville Sandstone and Goliad Sand formations, which contain fresh-to-slightly brackish groundwater.
- Insufficient information is available to fully evaluate the Catahoula Tuff in eastern Duval County and the Jackson Group, both of which are found at depths in excess of several thousand feet.

We appreciate your consideration of these comments. The District is available to assist you and your team in any manner you require on this important issue.

Sincerely,



Atlee Parr  
President

Encl.

Cc: District Board of Directors  
Mr. Steve Young, Intera  
Mr. Luis Peña  
Mary Sahs, Esq.  
Dr. Ronald T. Green