

**Kellie Martinec**

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**From:** Carmen Catterson <ntgcd@northtexasgcd.org>  
**Sent:** Monday, September 29, 2014 11:56 AM  
**To:** rulescoordinator  
**Subject:** North Texas GCD Comments on proposal to amend 16 TAC Sections 3.9 and 3.46  
**Attachments:** 09-29-2014 RRC Comments.pdf

Please find attached for your consideration the comments of the North Texas Groundwater Conservation District on the Commission's proposed amendments to Sections 3.9 and 3.46 of Title 16 of the Texas Administrative Code (Oil and Gas Docket No. 20-0290951). Thank you in advance for your consideration of these comments.

Sincerely,

Drew Satterwhite

# **NTG** NORTH TEXAS **CD** GROUNDWATER CONSERVATION DISTRICT

**COLLIN COUNTY COOKE COUNTY DENTON COUNTY**

September 29, 2014

Rules Coordinator  
Railroad Commission of Texas  
Office of General Counsel  
P.O. Drawer 12967  
Austin, Texas 78711-2967

Re: Comments on proposal to amend 16 T.A.C. § 3.9 and 3.46

To The Honorable Railroad Commission of Texas and Staff:

The North Texas Groundwater Conservation District (the "District") is generally supportive of the Railroad Commission of Texas's ("Commission's") proposed amendments to Rules 3.9, relating to disposal wells, and 3.46, relating to fluid injection into productive reservoirs, that enable the Commission to better regulate Class II Injection Wells in regards to seismic events. The District's regulatory boundaries include Collin, Cooke, and Denton Counties, which are partially located within the Barnett Shale region, an area that has experienced exponential growth in oil and gas activities in recent years, including wastewater disposal and hydraulic fracturing. And, consequently, residents of the District and North Texas generally have experienced an increase in the number of seismic events occurring in the area, which were vertically non-existent prior to the start of the Barnett Shale play.

The better regulation of Class II Injection Wells is highly important to the District given the District's statutory obligation to protect the groundwater resources underlying Collin, Cooke, and Denton Counties, and the fact that Class II Injection Wells pose a significant threat to endanger the quality of surface and subsurface water resources in the area. Therefore, District offers the following comments for the Commission's consideration that promote the better regulation of disposal wells by ensuring injectate fluids are confined to the injection interval and the quality of groundwater resources are not jeopardized by the migration of fluids or the transmission of pressure caused by the injection wells.

The District is pleased with the Commission's proposed amendments to the rules that require a site-specific approach to calculating the estimated radius for reviewing the history of seismic events as part of the disposal well application process. As set forth in the proposed rules, the area of review shall include the estimated radius of the 10-year, five pounds per square inch pressure front boundary from the disposal operations. However, because the means of achieving this calculation may vary (i.e., operators may use best case assumptions or inputs, and opponents may use worst case assumptions or inputs), the District recommends that the Commission include additional language in the proposed rules that require the applicant of a disposal well permit to demonstrate the method by which the pressure front boundary was

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calculated, which shall then be reviewed and approved by the Commission based on the relevant site-specific information provided.

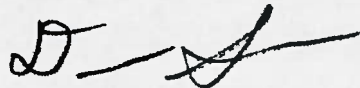
Additionally, the District encourages the Commission to require a similar site-specific approach to calculating the area of review under 3.9(7) to ensure the protection of groundwater resources. In Commission Rule 3.9(7), related to the area of review that a disposal well applicant must review for abandoned, unplugged, or improperly plugged wells that could serve as a conduit for injectate to migrate to freshwater resources, the Commission continues to require applicants to look at a fixed radius area of review of ¼ mile. As the Commission's seismologist, Dr. Craig Pearson, stated in his testimony before the subcommittee of the Texas House Committee on Energy Resources, the site-specific area of review calculation proposed promotes "science and engineering" to allow the Commission to determine "on a case-by-case basis an estimate of the area of influence that a disposal operation is going to have" in terms of the pressure front boundary. Furthermore, Dr. Craig states that "the parameters that go into the equations are easy to obtain from typical oil and gas operations" and "straightforward." Therefore, it seems only reasonable that the Commission require such site-specific science and engineering for the area of review analysis under Rule 3.9(7).

The District also recommends that the Commission amend the term "baserock" used in Rule 3.9(3)(C) and Rule 3.46.46(D) to "basement rock," which is the correct geologic terminology. Furthermore, the Commission should amend the term "disposal zone" in Rule 3.9(6)(A)(v) to and the term "injection zone" in Rule 3.46(d)(1)(E) to "injection interval" in order to be consistent with the use of the term "injection interval" throughout the proposed rules.

Finally, the District recommends that the Commission extend the proposed amendments in Rule 3.46 regarding the better regulation of seismic activity to also apply to enhanced recovery. As provided in the summary report published in the Texas Register, the new proposed language in Rule 3.46 relating to seismic activity would apply only to those wells permitted under 3.46 for disposal purposes. However, seismic activity certainly results from enhanced recovery as well, and studies clearly indicate that the impacts of such seismic activity are far-reaching and detrimental to the land surface as well as water resources. Therefore, it is necessary that enhanced recovery also be regulated in a manner that allows for the prevention of seismic activity to protect the surface and subsurface water resources and promote public safety.

Again thank you for the opportunity to provide these comments and take part in the rulemaking process. We appreciate the work that the Commission and its Staff have done in drafting the proposed amendments and requirements related to seismic activity, and taking steps in the right direction for protecting groundwater.

Sincerely,



Drew Satterwhite  
General Manager