

From: [Sunset Advisory Commission](#)
To: [Brittany Calame](#)
Subject: FW: Public Input Form for Agencies Under Review (Public/After Publication)
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From: sunset@sunset.texas.gov <sunset@sunset.texas.gov> On Behalf Of Texas Sunset Commission
Sent: Thursday, August 16, 2018 4:53 PM
To: Sunset Advisory Commission <Sunset@sunset.texas.gov>
Subject: Public Input Form for Agencies Under Review (Public/After Publication)

Agency: TEXAS BOARD PROFESSIONAL GEOSCIENTISTS TBPG

First Name: Clay

Last Name: Robinson

Title: PhD, CPSS

Organization you are affiliated with:

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City: Bloomington

State: Illinois

Your Comments About the Staff Report, Including Recommendations Supported or
Opposed:

I am a Certified Professional Soil Scientist and was a licensed PG in Texas for several years, and practiced soil science in Texas while living in Texas and New Mexico.

While I was practicing as a licensed PG, soil scientist, I served as an expert witness several times, for both arbitration cases and before a jury in a civil suit. Some pertinent cases are listed below.

I had several cases related to the oil and gas industry.

Two of those were related to pipeline construction and remediation/revegetation. In one case, a landowner/producer filed suit against a power company alleging the company had not buried the pipeline to the proper depth. But an examination of the landowner's crop and tillage system revealed the most likely cause for the pipeline depth issue was long-term cultural practices that resulted in substantial erosion from the soil surface that decreased the depth to the pipeline. In another case, the pipeline installer was supposed to segregate topsoil and subsoil, and replace them in the appropriate order during backfill and reclamation. After examining the soils in the pipeline ROW, I found the materials had not been segregated, and were backfilled into the trench with a great deal of mixing.

This mixing resulted in an unfavorable environment for rangeland restoration.

Two cases were related to oilfield brine wastes. One of those was related to providing recommendations for remediation of a brine spill along a highway ROW. Another case evaluated the proposal for land application of oilfield brine wastes on rangeland. I evaluated the salinity of the brine water, the soil physical and chemical properties, and the salinity tolerance of existing vegetation. I found the application would cause irreparable damage to the rangeland in the given climatic conditions. Further, given the soil characteristics, depth, and proximity to a river, I expressed concern there was a potential for leaching of the brine waste constituents into the water table associated with the river.

Other cases I worked were related to irrigation with effluent or treated wastewater. In each case I considered the nutrient fate and potential for contamination of groundwater.

In a CAFO case, I considered the available fresh water and recommended against placing the CAFO there due to a lack of fresh water and the potential for damage to the existing ecosystem.

By request of a national government agency, I developed a limited irrigation/dryland cropping system that would have year-round growing vegetation to dispose treated wastewater in a subsurface drip irrigation system. I had to present information using historic climate data and the crop water balance to demonstrate there would be no downward water movement below the root zone with this system. I also had to argue the case that subsurface drip irrigation was not similar to subsurface injection systems, and there would be no danger of fracturing formations from the application of irrigation water within two to six inches of the soil surface. In a follow-up study, I led a study using suction lysimeters that determined near-saturated conditions did not exist, and so there was no hydraulic gradient that would cause water or contaminants to move downward to the aquifer at a depth of 130 ft.

In another case, as a result of conducting a wetland evaluation, I determined the three wetland criteria were met, and so did not approve land application of beef cattle effluent.

In each of these cases, my work as a PG was instrumental in protecting public water supplies and other natural resources, including native rangelands.

Further, my work was used to establish liability in civil suits associated with pipeline construction and reclamation. Further, my Texas PG provided additional credibility to my CPSS (certified professional soil scientist) certification when I served as an expert witness practicing soil science in non-licensing states.

With the continued oil and gas development in West Texas, and the increasing demand to provide water for urban areas, the amount of pipeline construction will only increase in the future. Licensed soil scientists are the ones who should assess soil and vegetation characteristics prior to construction as a baseline to use for reclamation. Only soil scientists have the expertise to evaluate the soils present and determine their suitability to use during reclamation, and to identify the depth of materials that should be harvested or segregated as construction begins.

Soil scientists are involved with the most successful and highly awarded coal mine reclamation projects in Texas and New Mexico.

Only soil scientists have the background and training to interpret soil profiles to determine the presence or absence of reduced conditions in a soil profile during seasons when a water table is not physically present in the soil.

Fluctuating water tables are common, and only soil scientists have the training to know what characteristics to observe to determine the depth to a seasonal water table. People who lack training in this area are responsible for many failed septic systems at a great cost to homeowners, and often to contamination of groundwater.

Any Alternative or New Recommendations on This Agency: The TBPG should remain intact with the authority to license practicing soil scientists. Soil scientists are instrumental in conserving natural resources, protecting water quality, and reclamation following construction and remediation of spills or other contamination.

My Comment Will Be Made Public: I agree