From: Sunset Advisory Commission
To: Brittany Calame
Subject: FW: Public Input Form for Agencies Under Review (Public/After Publication)
Date: Thursday, August 16, 2018 10:47:54 AM

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From: sunset@sunset.texas.gov <sunset@sunset.texas.gov> On Behalf Of Texas Sunset Commission
Sent: Thursday, August 16, 2018 10:36 AM
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

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Your Comments About the Staff Report, Including Recommendations Supported or
Opposed:
I am opposed to the recommendation to abolish the TBPG. This is a frustrating recommendation because it reads as if the SAC did not do its due diligence and research, and, frankly, comes across as out of touch with reality. The main contention that PGs do not protect public health is lazy and unfounded in reality as I am sure you are hearing from numerous PGs and others.

Example: Back in 2009, just before I received my PG, I was working on a Municipal Setting Designation (MSD) application for a property near downtown Houston that had heavy metals, chlorinated solvents (dry cleaning chemicals), and petroleum hydrocarbon impacts. Before the MSD could be approved, a public meeting was required to allow interested citizens from within a certain radius of the subject property the opportunity to learn about the site, impacts identified at it, review the data, ask questions, etc. We were asked, "Why should we trust what you're telling me?" My boss at the time, who was and is a PG, was able to confidently stand in front of the gathered crowd of about 50 people who owned properties near the subject property, and say that his PG seal was on the drawings submitted in the MSD. Having that seal was an indication that he had the experience and training to assert in the MSD application that the contaminated groundwater would not affect their property values or their health. His livelihood was on the line because the fallout and press from misrepresenting conditions at the subject property were not worth the risk of seal maps and documents of poor geological quality. Without that seal, why should the public trust what he's telling them?

Another example: Just this week I have had numerous conversations about groundwater flow direction at a property in San Antonio that has arsenic concentrations well above the TCEQ Texas Risk Reduction Program (TRRP) protective concentration level (PCL) and Federal Maximum Contaminant Level
(MCL) and may be contributing to off-site groundwater impact. If there is off-site impacted groundwater then that has potentially major implications to the off-site owner and affects the usability of the groundwater at his property. If the off-site property owner ingests groundwater beneath his property then he could very well suffer from well-

known negative health effects from arsenic. Any engineer or person with basic statistical knowledge can run a kriging interpolation to draw groundwater elevation contours on a map based on the individual groundwater elevation values shown on the map.
But it takes someone with fundamental and advanced understanding of depositional systems and hydrogeology to be able to evaluate the statistical map, lithology observed during drilling and on soil boring logs, monitoring well logs from which the groundwater gauging measurements and samples were collected, and impacts from an adjacent river for which the statistical software doesn't account. Based on the geology and hydrogeology, a knowledgeable geoscientist can identify where and why the groundwater flow might be different than what the numbers show. Maybe the groundwater is flowing in a different direction and additional monitoring wells are needed to fully assess the arsenic plume. Maybe it's a different property owner who is the cause of the arsenic impact, or maybe it's a different property owner whose groundwater has been affected. That is just one example of real world, every day geological and hydrogeological evaluation that requires a level of understanding beyond what a layman or anyone without adequate geological training can provide. I would much prefer a licensed and vetted geoscientist make those interpretations than leave it to the untrained who won't give such evaluations the attention they need to protect human health.

It's also important to remember that in the realm of geology and often hydrogeology, we might not be talking about immediate impacts. This is different from a bridge collapsing where the impact is immediate. Negative health effects from drinking contaminated groundwater are not usually immediate. You can see this in Flint, Michigan where it took a few years before the widespread health effects of lead in the drinking water were observable at a scale to be able to point back to the water supply. Many thought there were other reasons for the health issues these folks had. And that was a relatively quick period for health impacts to be evident because the concentrations were so high. Lower concentrations of arsenic or lead may take longer for health effects to be measurable, but that doesn't mean the impacts are any less damaging--they're just slower to be noticeable.

A GIT or PG also is required to do work on many state contracts. For example, TCEQ contracts for the Dry Cleaner Remediation Program (DCRP) require having a GIT or PG for oversight of soil boring or monitoring well drilling, groundwater yield testing, and other investigative work involving geological interpretation. There is a reason the state requires these licenses to perform that work. Knowing that the work is done by someone with a background in geology is important to protect human health and the state’s interests because it will reflect back on the state if the work is performed poorly. It also helps a PG know that work for which they are in responsible charge of is conducted well by having a GIT in the field. The Railroad Commission is hiring a Chief Geologist and having a PG is a requirement. PGs have been required on City of Austin engineering/construction projects to ensure that while trenching in karst environments, voids (AKA caves) can be properly identified and appropriately handled. An untrained person may not know how to identify honeycomb features that may lead to a cave that is directly connected to the Edwards Aquifer Recharge Zone or potentially has endangered species present. Clearly those state agencies and municipalities see the importance of PG licensure.

If I make a bad decision as a PG and, as a result, there are negative health effects or someone's property becomes impacted (affecting resale as well as risk of negative health effects), my seal, credibility, and livelihood are on the line. Just because there have not been more enforcement actions against PGs does not mean it's not effective. To the contrary, it likely means licensure has been effective and people are taking seriously so they do not suffer the harms of enforcement action. I will not seal a geological interpretation that I disagree with and there have been plenty of maps, cross sections, and geological interpretations put before me that were not good evaluations even though were performed by people with many "years of experience." They weren't geologists. My seal being required on figures and reports is what prevented a poor geological interpretation from being submitted for public record. Take away the seal and licensure and you will have many maverick "geologists" making poor geological decisions. It won't be intentional most of the time, but requiring a license helps protect against those poor decisions.

Any Alternative or New Recommendations on This Agency:
Alternative recommendation is DON'T ABOLISH THE PG. If the issue is that PG doesn't protect human health, then I hope you read my examples above, listen to others' stories, and look deeper. PGs do help protect human health on a daily basis.

If the issue is that the TBPG is not self-sustaining as an agency, then fix the agency; don't abolish a license that protects human health. Raise licensing and renewal fees to increase revenue. Don't even consider making it easier to obtain a license. Geology is complicated; it should be challenging and require a lot of training to be licensed.

If the issue is that people think that obtaining a license is only useful for their professional standing--that's asinine. Of course having the license improves my professional standing, but that's because it requires significant experience and training and isn't easy to get. If anyone could be licensed it then it wouldn't mean nearly as much. It doesn't mean the license serves no other purpose.

My Comment Will Be Made Public: I agree