COLLECTED RESPONSES TO SUNSET STAFF REPORT ON TBPG

1. NEGATIVE CONSEQUENCES TO THE STATE: Will Boettner.

There are many Texas enacted laws, directives, and regulations requiring that certain services be conducted by recognized and qualified professionals, e.g. P.E.'s or P.G.'s IN ORDER TO PROTECT THE interests of the sellers and purchasers in land transactions. Thus, environmental surveys associated with property transfer, e.g. Phase 1 and Phase 2, which is defined by the ASTM Standard 1527-13 regarding site environmental screening and CFR 40, Section 312 which define the requirements for "All Appropriate Inquiries" on land transfers. CFR 40 Section 312.10 defines an "environmental professional" as a licensed P.E. or a P.G. and CFR 40 Section 312.21 further elaborates on the need to have all work done under the direct supervision of an "Environmental Professional" defined as a PE or PG.

Obviously, all of the rules on the Edwards Aquifer Protection specify the role of TXPG licensed geo's, as does the GW availability requirements for planning, municipal solid waste, RCRA, site cleanup, and Superfund type actions. Additionally,

Since the TCEQ Subchapter A rules have the term TXPG "Geoscientist" woven throughout Sections 213.1-213.14, Chapter 230 , 230.1-230-11 on "Groundwater Availability Certification for Planning", and Chap 330 Municipal Solid Waste, there is an obvious intent of the Legislature to recognize and require Texas P.G. along with P.E.certification as one of the accepted criteria for professionals responsible for "protecting human health, public welfare and the natural resources of Texas".

Therefore, if the TXPG certification goes away, the existing rules will need to be revised by the legislature, creating an added economic burden on the public. Not only that, but until the rules are revised, only out-of-state geoscientists will be able to work on the projects covered by these regulations, which will create an added burden on the public because these out-of-state geoscientists will have to charge enough to cover their travel and accommodation costs incurred while working in Texas.

2. POINT-BY-POINT REBUTTAL - Brian Hunt

Protecting the public was the intent of the agency when it formed, and that mission is still just as valid as when it was when created. Making reforms that would raise the level of the minimum standards of practice is preferable to the proposed path of removing standards completely.

1- "No measurable impact to public protection."

It is inherently difficult to point to measurable impacts in geoscience, because geoscience-related impacts typically occur on a time scale that is long when compared to the life of a legislature or even of a person. While there are certainly areas where bad geoscience work can lead to catastrophic events such as subsidence, sinkhole collapse, flooding, bridge collapse, or acid mine drainage, in my world of water availability, impacts can take decades to develop. Unlike a bridge or building collapse that one can clearly point to, most geologic impacts are inherently slow-moving. The public is entitled to standards of practice in geoscience work that REQUIRE that the public's interests be evaluated and considered regardless of the time scale of impact.

Remove the license and I don't see a vehicle to keep the public's interests at the forefront of geoscience work, nor a mechanism to police or keep out bad actors.

2- "Historical lack of meaningful enforcement."

I think this is likely a true statement; however, rather than dissolve the agency and the standards of geoscience practice, the report should recommend ways to improve meaningful enforcement. For example, perhaps make the rules clearer about conflicts of interest and the public interest. Is the language of enforcement of standards ambiguous?

I think the disciplinary action taken against a geologist for financial impropriety actually demonstrates a process that works, albeit imperfectly. There was clearly a report of misconduct in this case, and the board considered the evidence and took an action. There was no criminal complaint, indictment or conviction: therefore, without the PG Board notice of probation, as indicated on the website, would anyone know of this infraction? Many may feel that probation was insufficient discipline --and I might agree too, if I knew all the facts--but just because you don't like that outcome doesn't make the agency and its mission invalid. Instead, I would argue that the Sunset Commission should make recommendations to improve the Board's enforcement and standards. Let's raise the bar rather than get rid of it.

3- "Direct oversight of geoscientists' work provided by other agencies render state regulation of geoscientists unnecessary to protect the public."

This is simply a spurious observation. Oversight by agencies is true of nearly all other professional work, such as PEs, surveyors, doctors, etc. Would this argument be used to abolish licensure for those professions? Yes, state agencies review geoscience work, but they require a minimum standard of practice as defined by the PG rules to accept that work for review. The PG licensure assures both agencies and the public of minimum standards. The public generally knows too little about geoscience work, and uses geoscientists too infrequently to be able to easily evaluate providers, for this market to operate under a 'buyer beware" philosophy when hiring geoscientists. However, this market in which one side has access to only incomplete information is exactly what the Staff Report is advocating here.

4- "The need for regulation is even further diminished by the fact that effectively half of the practicing geoscientists in Texas are exempt from regulation."

While this is true, my understanding is that this was a compromise required for the oil and gas industry to get behind the act. However, oil and gas geoscientific work is done in a more free-market world, one that can usually self regulate itself. There is a difference between the corporate world of O&G and the public interest world in which the other half of practicing geoscientists practice.

5-"Additionally, the Board grandfathered about 78% of current licensees into the profession without licensees passing the rigorous requirements..."

This is a disingenuous comment that simply ignores the reality of implementing a license in 2001 on a profession and its practitioners. The sponsors of the act fully understood this was going to be the case initially, but would change over time. This statistic will be flipped in the next 20 years as practicing grandfathered geologists die off. Also, note that in order to be grandfathered one had to meet minimum standards of education, experience, and professional and personal reference. Grandfathered geoscientists were vetted, just maybe not "extreme vetted.

It should also be noted that there are still a large number of grandfathered geoscientists because geoscientists tend not to retire, but to "die with their boots on", thus continuing to contribute to the Texas economy long after most people have become a burden on the public finances.

3. POINT-BY-POINT REBUTTAL - Bruce Darling

1. "No complaints have been brought by the public, and history shows that there was no demand *from the public* to create the agency in the first place.+

Not sure where to go with this, and I am not sure that there was ever a public demand to establish an architecture board in Texas. Feel free to wade in on this one.

2. "There has been no measurable impact of Geoscientist licensing on Public protection".

Geologists have been involved in nearly all areas of water-resource planning, management, and development for many years, especially since the passage of Senate Bill 1 in 1997. Geologists(hydrogeologists) have been developers of conceptual and numerical models of groundwater flow systems and groundwater availability, as required by the State for all of Texas' water-planning regions. This work has been fundamental to the State's development of strategies to ensure that groundwater will be a sustainable resource for all Texans over the next 50 years. ALL Texans are beneficiaries (direct and indirect) of this work by geologists. Furthermore, geologists assume leading roles in assessments of soil and groundwater contamination, remediation of contaminated sites, and in the assessment of sites for the disposal of municipal and hazardous wastes, including radioactive wastes. There is also the work of qualified geologists with respect to assessments of coastal subsidence and erosion, and the stability of substrates for construction of roads and large private and public-works projects.

3. "The Board was not established in the first place to protect the Public, but primarily "to legitimize the profession" and to protect Geoscientists from the Engineers and from untrained competitors."

This sounds more like an uninformed opinion than anything based on a reasonable grasp of factors that motivated geologists to seek licensure in Texas. It is difficult to respond to the above comment without reference to specific factors that Sunset Commission's staff considered in its report to the Commission. In our negotiations with engineers in 2001, we noted that there is a clear need to partition "risk" on projects involving geological and engineering components. In a document produced in support of the licensure effort (Value of Licensing Geologists in Texas [attached]), we cited many instances of geologically-induced failures of engineering projects ... all of which have had great significance for public safety, health, and welfare. Licensing geologists would remove engineers from liability for failure traceable to geological factors for which engineers do not have the background/experience to render professional assessments. The objective was not to "protect geoscientists from engineers" ... but to add the perspective of the geologist, along with the assumption of liability where that liability rightfully belongs.

With respect to protection from "untrained competitors" ... that is what licensure in any area of professional services is intended to ensure.

4. "Almost no geologists deal directly with the public – our clients are mainly organizations. Therefore, licensing is not necessary for public protection."

This is patently absurd. Geologists deal with a broad cross-section of clients in the public and private sectors. Both public-sector and private-sector clients seek services from qualified professional geologists, especially where such services involve reports submitted to local, county, and state agencies, or in matters involving assessments of investment for development of land and energy or mineral resources or the valuation of groundwater for development of public supply, or assessments of land for disposal of hazardous waste (commercial and municipal). The PG credential clearly identifies the individual who assumes responsible charge for such work and ensures that all such work is conducted in accordance with established professional standards.

5. There are too many (50%) Texas geologists who are exempted from the requirement to get a license.

When we wrote what became the geoscientist licensure bill, we adopted the exemptions that were granted by all other states at that time. In all such cases, geologists whose work did not involve matters of public safety, health, and welfare were exempt from regulation. This included geologists employed in mining, in oil and gas exploration and development, and geologists employed by state or national agencies such as the US Geological Survey, the US EPA, the US Bureau of Land Management, etc. The number of geologists working in the oil and gas industry of Texas is not a factor that should bear any weight in the assessment of geoscientists' licensure program because they are, by definition, not involved in matters of public safety, health, and welfare. Geologists who work in the private sector and who deal with the effects of oil and gas, mining, construction, etc. bear that liability.

Additional point: Texas is the world center of the Oil and Gas industry, and therefore has many more petroleum geologists than anywhere else in the world. Texas is unique in this respect.

6. "No meaningful enforcement action over the life of the Board".

This is a failure of management, not of the geoscience licensure program. The matter of enforcement is easily addressed by replacing the current Executive Director with a properly credentialed manager (that is, one who holds a Texas PG license). The current director is neither a geologist nor a PG, and there is sufficient reason to question his grasp of technical issues and his willingness and ability to pursue enforcement when and where required. Acting on this comment would be tantamount to "tossing out the baby with the bath water".

7. "More direct oversight of geoscientists' work is provided by other state agencies' (Texas RRC, TDEQ), which renders ongoing state regulation of geoscientists unnecessary to protect the public."

The PG credential establishes a common (that is, across the board) basis for assessing the qualifications of geoscientists to assume LIABILITY for work conducted for clients in the private sector and in the public sector. This eliminates the necessity of defining fundamental credentials on an agency-by-agency basis. It does not eliminate the ability of an agency to require additional certification for specific objectives.

8. "78% of CURRENT Texas PGs were Grandfathered, therefore did not take ASBOG, therefore there is no guaranty that they are, in fact, well-trained."

This goes back to point #5 above. Grandfathering is a fact of life for any licensing program enacted by any state. This was a central factor in our discussions when we wrote the licensure bill in 2001. The standards for qualification as a grandfathered licensee or as a future applicant for licensure were based on the certification requirements established in 1963 by the American Institute of Professional Geologists (AIPG). In fact, all PG licensure programs established after 1963 are based on AIPG standards. Grandfathered geologists in Texas were typically practitioners who had accumulated years of experience well in excess of the AIPG standard in the public sector or in the private sector, and many held advanced degrees.

9. "The licensee population is steadily declining, from 6,600 in 2003 to 4,200 in 2017."

Can someone with access to licensing numbers address this one? John Berry comment: shrinking for two reasons (1) computers and sophisticated software have enabled each of us to do much more, and (2) younger professionals these days are not joiners, and most traditional organizations are losing number fast: AAPG, GSA, Kiwanis, Rotary, you name it. It doesn't undermine the need for licensing: a single bad actor can do much more damage than before.

10. "Less restrictive means exist to ensure the safe practice of geoscience (i.e. certification by AIPG, AEG, AAPG, etc.)"

None of the above-listed organizations has statutory authority to enforce continuing education requirements or disciplinary actions on geoscientists in Texas or in any other state. They exist to establish credentials for professional certification for members of different voluntary organizations, not to act as regulatory agents for the state.

11. "Only just over half of the states regulate the practice of geoscience or geology, while all states regulate engineers and architects."

As of 2018, 32 states and the protectorate of Puerto Rico regulate the practice of geoscience. This is 65 percent of the 50 states and Puerto Rico ..., which is a bit more than "just over half". States which have chosen not to regulate the practice of geology have done so for reasons unrelated to those of the 32 states and Puerto Rico (e.g., small numbers of geologists working in private practice related to public safety, health, and welfare) ... reasons which are unrelated to factors that drove the Legislature of Texas to enact the geoscientist licensure bill in 2001. Texas is in charge of its own affairs and of its own destiny. It need not look to decisions elsewhere to decide how to regulate professions in Texas.

RESPONSES TO SOME BULLET POINTS - John Mikels

1. "The public is not the primary consumer of most direct geoscience services." (Commission's Staff Report, last item on page 11)

I wonder how the Commission defines "consumer" and "direct"? Even if our work is being done for a governmental entity (TCEQ, GCD, TxRRC, city, county, etc.), the ULTIMATE consumer IS the public. Our work is being done to comply with or support some governmental rule/regulation that is usually intended to "protect the public" (e.g. groundwater for Public Water Supply, development on the Edwards Aquifer Recharge Zone, Certification of Groundwater Availability for subdivisions that will depend on individual wells to supply each home, etc.). Yes, our work prod-

uct goes to a regulatory entity, but they need it to help them "protect the public".

2. "Minimal enforcement referrals from other state agencies". (p.13 of report, 2nd bullet)

This IMPLIES (probably NOT the intention of the Commission!) that the work done by us, how it is done, and what is submitted to a state agency IS acceptable to these agencies. My conclusion - we do good work and satisfy the requirement of the agencies. If we weren't doing so, I'd expect far more complaints from the agencies to TBPG.

3."Other state agencies provide more direct and robust evaluation of geoscience work than the board". (p.15)

This is a grossly erroneous conclusion:

- (1) It is NOT the role/mission of TBPG to review all of our work, but rather to ensure the qualifications of those who conduct geoscience work particularly for the public and for the agencies who represent/protect the public. Do the Engineers, Architects, Doctors, etc. licensing boards review all the work done by their licensees I don't think so! I believe it's critical that any regulatory agency that accepts/requires work product prepared, signed, and sealed by an appropriately licensed professional (PE, PG, RPLS, etc.) have on its staff similarly licensed professionals to do a qualified review of our work.
- (2) I believe there's a significant potential financial impact from NOT having properly qualified, and licensed, professionals do geoscience work. If this work is done by non-qualified "professionals", there is a significant risk of it NOT being approved by the reviewing regulatory agency (TCEQ, TxRRC, GCDs, etc.) and then being sent back to whoever prepared and/or submitted it, to correct or re-do.....in turn burdening their clients with added time and costs to get it done right. Proper qualification and licensing, such as provided by TBPG, better ensures that the geo-work gets done right the first time a definite advantage to our clients!