



TBPG Winter Newsletter - January 2022

Rollout of TBPG's New Exam: Texas Fundamentals of Geophysics



Do you know a recent geophysics graduate with less than 5 years of experience who is interested in obtaining a Geoscientist in Training (GIT) certificate?

The Texas Board of Professional Geoscientists is pleased to now offer the Texas Fundamentals of Geophysics Exam (TFGE).

Please see the [Geophysics Exams](#) page of our website for more information on the new TFGE exam.

Continuing Education Opportunities

- **January 25, 2022**, Texas Ground Water Association (TGWA) [2022 TWGA Geoscience Seminar](#) – Carrizo-Wilcox Aquifer
- **January 27, 2022**, [TCEQ Emissions Inventory Workshop](#), virtual half day workshop

See more: [CE Opportunities](#)



TBPG is now hiring!

TBPG is seeking to hire a Compliance Coordinator to join our team. If you or someone you know is a Professional Geoscientist and would like to join TBPG as a Compliance Coordinator, please view the employment opportunity and submit an application today!

[TBPG Compliance Coordinator](#)

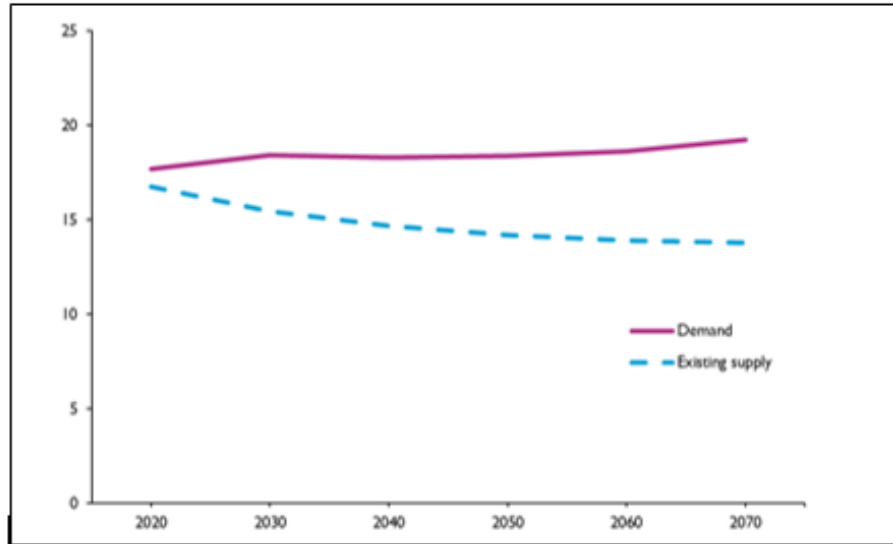
In the last Newsletter, you read that future Texas water demands are forecast to rise in response to projected population growth. I recently reviewed the TWDB State Water Plan 2022 and researched some other sources to learn about this topic. You may be surprised by the challenges before us.

Most of this information, and all the figures, have been excerpted from the 2022 State Water Plan. Take a look at this document...you will find it very interesting. It can be accessed at:

[2022 State Water Plan | Texas Water Development Board](#)



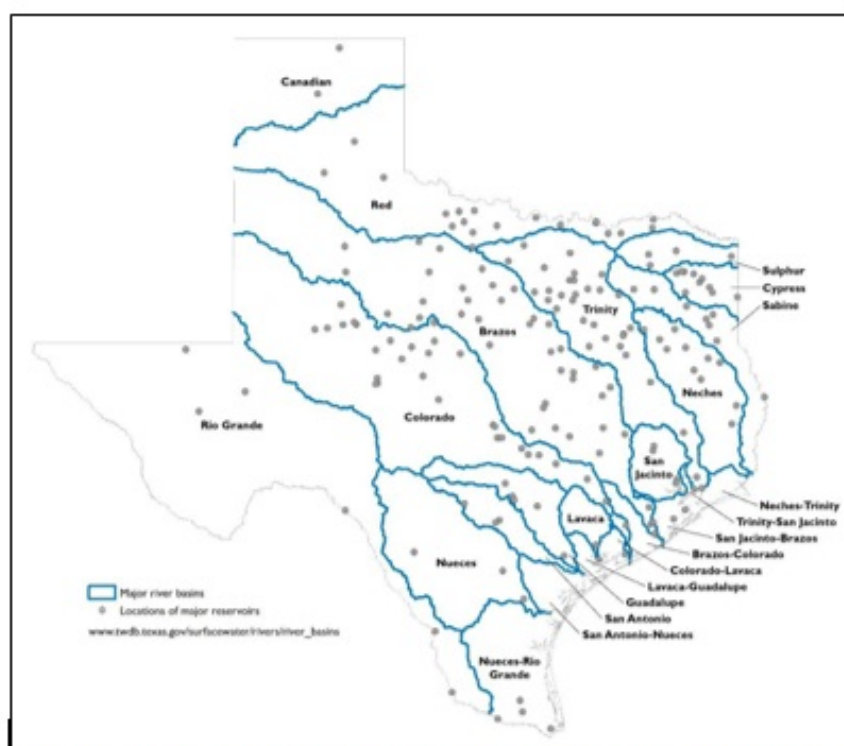
Mark N. Varhaug, P.G., CPG
TBPG Board Member



Projected total annual water demand and existing water supply for all sectors in Texas (millions of acre-feet) (Source: TWDB)

Currently, Texas water sources are a combination of surface water (rivers and lakes), groundwater from subsurface aquifers, and reuse water. The majority (96%) of water used in Texas comes from surface water and groundwater.

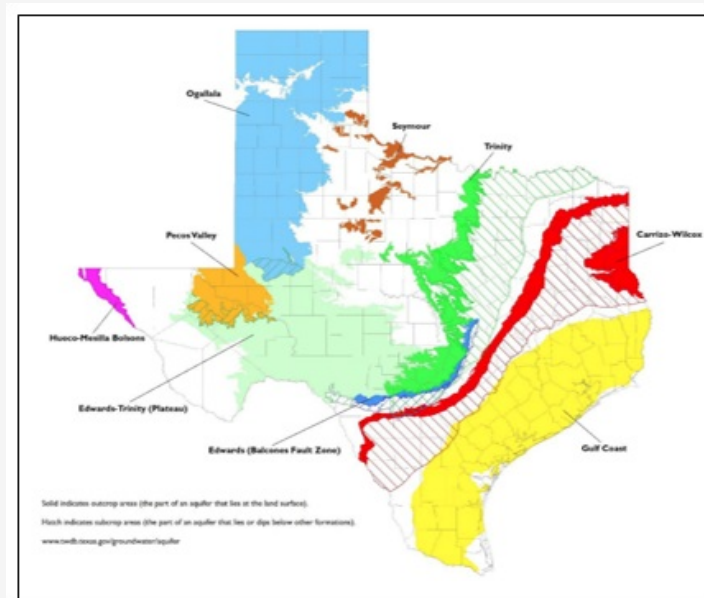
Surface water. Total surface water availability in 2020 in Texas is projected to decline by 3 percent over the period from 2020 to 2070. The decline is primarily due to sedimentation, which reduces reservoir storage. The decline is small and it may be overcome by efficiencies implemented during that time.



Major river and coastal basins and major surface water supply reservoir locations (Source: TWDB)

Surface water supplies in Texas come from Texas' 15 major river basins, 8 coastal basins, 187 major reservoirs, and numerous river diversions. The Trinity, Neches, Sabine, Brazos, and Colorado River basins provide the majority of surface water.

Groundwater. Total groundwater availability is 15 percent higher in 2020 than in the 2017 State Water Plan, primarily due to changes in groundwater management policy. However, total groundwater availability declines by 25 percent over the 2020 to 2070 planning horizon.



Major aquifers of Texas (Source: TWDB)

Groundwater supply in Texas comes from 9 major and 22 minor aquifers and other water-bearing geologic formations. Major aquifers produce large amounts of water over large areas. Minor aquifers produce minor amounts of water over large areas or major amounts of water over small areas.

Summary. The existing water supplies—water already being provided in a drought from sources including surface water, groundwater, and reuse—are expected to decline about 18 percent between 2020 and 2070.

The majority of Texas' water supply comes from river basins and aquifers, but seawater and reclaimed wastewater for reuse represent other available sources of water. Seawater availability is generally limited only by the ability to legally access it along the coast. The availability of reclaimed wastewater for reuse changes over time and is limited by the amount of wastewater generated by water users.

Because hydrology is highly complex, there will always be significant uncertainty over the future of available water resources. Precipitation, temperature, evaporation, wind, and soil moisture conditions all play roles in determining how much water moves in and through Texas' streams, reservoirs, and aquifers. Further, the interrelated nature of these variables makes it difficult to predict when, where, or to what degree hydrologic events will impact water supply.

Need for hydrogeologists. Again, we remind you that Texas needs more young professionals to enter the groundwater business. Many PGs in this state, and across the country, are approaching retirement.

Please continue to work with, mentor, and develop the next generation of PGs who can ensure sufficient water supplies for our expanding population. The incoming professionals will need time in service and training to reach full potential for helping Texas meet its needs.

We remind all PGs that TBPG will partner with you to promote licensure and, if you are willing, to actively participate in these discussions to encourage the next generation of professionals. We encourage you to send any information or thoughts to: volunteer@tbp.org

From The Chair | Becky L. Johnson, P.G.

I have two main things to talk with you about: 1) changes to the firm registration rules, and 2) we need your stories! Read on....

FIRM REGISTRATION RULES

Please take a look at the changes we've proposed to firm registration rules - you spoke and we listened! Over the years, we've heard from incorporated sole proprietors that they are "paying double" to be both a PG and a Firm when they are the only PG at the company.



The problem was that the Texas Comptroller's definition of "sole proprietor" prohibited incorporation. While the Board always wants to be congruent with other state regulations, we decided to move away from the Comptroller's terminology and definitions. Therefore, you'll see the new term "sole practitioner" that replaces "sole proprietor" and effectively moves us away determining your incorporation status. Instead, we opted to mirror other state agencies such as TCEQ and the Department of State Health Services (DSHS) with regard to firm registration. For petroleum storage tank work, TCEQ requires a CAPM (corrective action project manager) and a RCAS (registered corrective action specialist) signature on submittals. DSHS requires you to register as an asbestos agency if you employ more than one licensed asbestos professional (I'm over-simplifying here for clarity).

TBPG's proposed rules now state simply that you are a sole practitioner and not required to register as firm as long as you don't employ other PGs. If you employ more than 1 PG, whether full time, part time or on contract basis, then you must register as a firm. Your incorporation status no longer matters to TBPG.

Since the proposed changes were posted to the Texas Register, we received only positive comments, and the Board will take action to adopt (or not) these changes at the February board meeting. We hope that these changes will be positive for those sole practitioners who incorporated and therefore could not previously qualify as a sole proprietor!

YOUR STORIES

All of us understand why licensure is so important to protecting public health and safety. However, we don't do a great job of communicating that on our website. Scientists as a whole are not terribly good at communicating what they do to the non-science community - I'd like to change that for TBPG. At our last Board meeting, I provided a couple of very famous examples; specifically, the Love Canal disaster that resulted in the world's first Superfund site, and the Hinkley California disaster that resulted in the world's largest plume of hexavalent chromium (you may know this as the Erin Brockovich story). In both of these cases, geologists were key in proving liability for the source(s) of the contamination and saved hundreds or thousands of lives by doing so. We all know that we protect the public, but we don't communicate it.

I'm asking each of you to send me your stories - large or small - about how your practice protected the public or how someone else's poor practice endangered the public. Perhaps it's a corner gas station that threatened a nearby water well, or a new soil amendment that killed an entire crop, or "voodoo" geophysics that caused an unrecoverable financial loss. The compilation of these experiences is critical to the future of geoscience. The newly-minted GITs and PGs can learn from your experience, and as I've indicated in previous articles, the vast majority of licensees are approaching retirement. We can't sit by and watch all of that experience and knowledge walk away - help us create a knowledge base for future licensees. This is a crucial mechanism for communicating what it is that we do. I'm certain that each and every licensed PG has a story that needs to be told, so tell it! Make sure your legacy of competent practice lives on!

The engineers are great at compiling these stories. Try an internet search for "engineering disasters" and you'll see links to literally hundreds of stories. Then try searching "geologic disasters" and you'll see that the stories are primarily tied to natural disasters (flood, earthquake, etc.). We need the stories of our everyday careers - things we've seen, corrected, and prevented - and the people's lives we've saved or protected by doing our jobs. Personally, I know I have several stories to tell, but I never thought about writing them down to help TBPG and the next generation of PGs!

Your stories can be emailed to me bjohnson@tbpge.texas.gov or to TBPG staff at licensing@tbpge.texas.gov. You don't have to name names, provide addresses, or other sensitive info - your stories should be anonymous (we're happy to give you credit for the story). And you don't need pretty prose or proper formats. Just give us the information and we'll take care of the rest. Please, won't you help me on my mission to communicate the critical role of geoscience in the protection of human health and the environment?

Becky L. Johnson, P.G., Chair
Texas Board of Professional Geoscientists

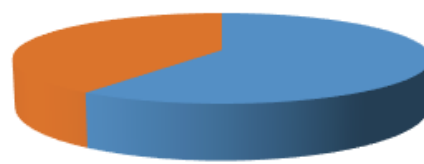
October 1, 2021 ASBOG Exam Results

ASBOG FG exam in Texas
October 1, 2021
Passing Rate 54%



■ Took Exam 90 ■ Passed Exam 49

ASBOG PG exam in Texas
October 1, 2021
Passing Rate 68%



■ Took Exam 47 ■ Passed Exam 32

ASBOG Fundamentals of Geology Exam Results

Out of the **90 individuals** who sat for the ASBOG Fundamentals of Geology examination on October 1, 2021, **49 passed** the exam for a passing rate of 54%.

ASBOG Practice of Geology Exam Results

Out of the **47 individuals** who sat for the ASBOG Practice of Geology examination on October 1, 2021, **32 individuals passed** the exam, for a passing rate of 68%.

ASBOG Examinations Deadline

The next ASBOG examination will be held on **March 18, 2022**.
The deadline to submit your request to TBPG is 5:00 p.m. on **January 18, 2022**.

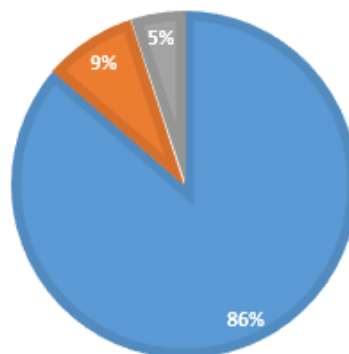
For more information about the ASBOG examinations, please visit:

[Exam Information](#)

CURRENT LICENSING, REGISTRATION, AND CERTIFICATION NUMBERS FOR 12/1/2021

LICENSING NUMBERS

■ PGs 3311 ■ Firms 331 ■ GITs 191



Highlights from the November 19, 2021 Board Meeting

Firm Registration Advisory Committee Report

The Board discussed the Firm Registration Advisory Committee Recommendations Report that was initially presented to the Board at its April 28, 2021 Board Meeting. The Board considered the issues and recommendations addressed in the report and voted unanimously to keep firm registration and to follow the recommendations in the report.

Requests For Waiver of Examination

The Board received 5 applications for P.G. license requesting waivers of the ASBOG licensing examinations. After review of TBPG's waiver policies and the specific requests of each applicant, the Board unanimously approved 3 waiver requests for both the ASBOG FG and PG examinations, and unanimously approved 2 waiver requests of the PG examination for the other two applicants.

Proposed Agreed Board Orders

Proposed Agreed Board Orders are disciplinary orders that are proposed by TBPG's Complaint Review Team, and subsequently agreed to by the Respondent of a Complaint. After review of the proposed orders on the agenda, the Board unanimously approved Agreed Board orders for Complaints #2021-00008 and #2021-0009.

Proposed Amendment

The Board unanimously approved proposing an amendment to 22 TAC 851.158 regarding its compliance and enforcement procedures. This amendment would require a Respondent to a complaint to respond to the complaint within 20 days of receiving a Notice of Violation.

Upcoming TBPG Meetings Austin, Texas

February 10, 2022

Application Review and Continuing Education Committee
General Issues Committee
Financial Review and Strategic Planning Committee
Compliance and Enforcement Committee

February 11, 2022

TBPG Board Meeting

Meeting agendas will be available on the TBPG website at least one week prior to the meetings.

Texas Board of Professional Geoscientists
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