



House Professional Licensure Committee

Meeting Agenda

Feb. 4, 2026

9:15 a.m.

515 Irvis Office Building

Call to Order

Opening Remarks/Member Introductions

Panel of Presenters

- Gale Blackmer
Director, DCNR Bureau of Geological Survey

- Joseph “JJ” Mehalick
Vice President, Tri-State Drilling Contractors Association

- Bill Reichart
President, PA Groundwater Association

- Jason Floyd
Past President (2024), Board of Directors, and Continuing Education Committee Co-Chair, PA Council of Professional Geologists (PCPG)

- Sarah Miller
Director of Legislative & Regulatory Affairs, PA Builders Association

- Arion Clagett
Acting Commissioner, PA Bureau of Professional and Occupational Affairs

Member Questions

Closing Remarks

Adjournment

**Pennsylvania House Professional Licensure Committee
Informational Hearing on Well Driller Licensing Legislation**

February 4, 2026

**Testimony from the Pennsylvania Department of Conservation
and Natural Resources**

Good Morning Chairman Burns, Chairman Emrick and members of the Professional Licensure Committee.

My name is Gale Blackmer and I serve as the State Geologist and Director of Department of Conservation and Natural Resources' (DCNR) Bureau of Geological Survey. I am excited to be here today to talk about establishing professional licensing criteria for water well, geothermal, geotechnical, and environmental well drillers.

Driller licensure will establish statewide construction and siting standards for private wells through best industry practices and institute statewide certification and licensing standards for water, geothermal, and environmental/geotechnical well drillers. This has been a long-time policy priority for DCNR as well as for a diverse set of nonprofit and industry stakeholders across the Commonwealth.

Licensing is necessary to strengthen accountability within the industry; ensure industry construction and siting standards are upheld; and support public health and consumer protections.

Water wells are the primary source of drinking water for millions of Pennsylvanians. Yet, the Commonwealth is one of only two states to not enforce industry standards for well siting and construction and one of only three states that do not have statewide industry licensing requirements.

In Pennsylvania, there are no standards required for well drillers and no protections in place for homeowners. This leaves many Pennsylvanians

vulnerable to improperly sited and/or constructed wells that can result in water contamination, health issues, and costly repair bills.

Proper siting and construction protects a well from common sources of contamination like septic systems, roads, fuel tanks, livestock yards, and agricultural chemicals.

And even just one improperly sited or poorly constructed private well can threaten the integrity of neighboring private and public water supplies, potentially endangering entire communities. This means how your neighbor's well is sited and constructed can impact the quality of water coming out of your faucet.

Additionally, Pennsylvania is experiencing more periods of drought in recent years. Wells that are properly sited and constructed in bedrock are less susceptible to the impacts of a long-term drought than poorly sited and constructed shallow wells.

The drilling of water, geothermal, and environmental/geotechnical wells requires a level of expertise in geology, drilling techniques, environmental regulations, and industry standards to safeguard water quality and protect public health.

The Bureau of Geological Survey currently is responsible for licensing Pennsylvania water well drillers, however it is nothing more than a transactional process in which the company pays the department a nominal fee to be licensed. There are no demonstrations of aptitude or experience and no professional or industry standards enforced.

If we want to ensure that Pennsylvanians have access to safe water supplies, we need to do what 47 other states have done in terms of establishing licensing criteria and what 48 states have already done in requiring the industry uphold siting and construction standards.

We believe we can accomplish both of these important policy priorities through a commonsense approach that relies on existing industry standards without adding new regulations or permitting processes. In

doing so, licensed drillers would be required to uphold the industry standards that are set within the Uniform Construction Code (UCC) related to siting and constructing wells in Pennsylvania.

DCNR supports a licensing framework that would add the well drillers to the Crane Operating Board to build on efficiencies of an existing board. This pairing makes sense because these two occupations are both considered trades that do not require four-year degrees, are involved in pre-construction and construction activities, and require the operation of heavy machinery and mobile, hydraulic equipment.

This licensing criteria would propose two categories of licensing for water, geothermal and environmental/geotechnical drillers. An "expert well driller" category would demonstrate competency in three or more drilling techniques. A "specialized driller" category would show proficiency in just one. For example, if a driller solely constructs water wells, they would seek the specialized category for water well drilling. Additionally, a trainee category would establish a much needed entry point into the drilling workforce.

A two-year grandfathering phase would allow all existing qualifying drillers to acquire their licensing credentials by demonstrating the appropriate footage of drilling in the past five years.

New licensees would be required to pass applicable examinations, as determined by the board.

Licensing would be renewed every two years and licensed drillers would be responsible for upholding the licensing criteria and completing the necessary continuing education, as determined by the board.

This innovative approach achieves a key objective: improving the quality and safety of private water wells while relying on existing industry standards and without adding new permitting or regulatory processes.

Licensed well drillers will be required to uphold siting and construction criteria established through the International Plumbing Code and adopted

through the Uniform Construction Code (UCC); these are standards that already exist and are reviewed and approved within the Commonwealth every three years by the UCC Review and Advisory Council.

The UCC was established to provide a standardized set of building regulations that uphold safety standards and regulatory compliance and is rigorously vetted across various industry sectors.

This proposal simply requires licensed well drillers to uphold these UCC/IPC industry standards.

This licensing framework also ensures greater accountability within the industry by requiring companies to demonstrate bonding and liability coverage and ensure additional consumer protections are put in place in the case of an accident or incompetency.

Because Pennsylvania for too long has not had accountability in place for this industry, it is important to ensure drillers will not be held liable for wells that were drilled prior to the enactment of these licensing criteria or for the actions of another driller. There is specific language in the legislation that absolves well drillers of liability for wells drilled prior to the enactment of the licensing framework. Licensed well drillers shall inform the well owner of any structural deficiencies or well conditions that do not meet industry standards. It will be up to the well owner on how to proceed. For wells constructed after the licensing framework is in place, well owners will have the opportunity to submit a statement of complaint form if they have concerns that their well was drilled properly or out of compliance with the industry standards. These complaints would be investigated by the licensure board.

The current Water Well Drillers License Act (Act 610 of 1956) requires drillers to report location and certain well construction and operation data for each well drilled to DCNR's Bureau of Geological Survey. The Bureau manages the data in the Pennsylvania Groundwater Information System (PaGWIS), which holds hundreds of thousands of water well records and more than 2,000 spring records, making it an important public-access

source of groundwater, water well, and spring data. The new legislation would maintain existing reporting requirements that have been in place for decades while adding a new category for well modifications.

All licensed drillers would need to be associated with a registered well drilling company, and each drilling company would need to register through the Department of State. In an effort to improve efficiencies and reduce burdens on the industry, drillers would no longer be required to register their drill rigs with the licensing agency. They would only be required to acquire the proper registrations through PENNDOT.

A few things this legislation will not do:

- This is not intended to regulate oil and gas activity. In Pennsylvania, the regulation of natural gas and oil drilling is comprehensive and stringent. The state requires permits and approvals for oil and gas wells and related activities to protect the environment and public health. The process begins long before drilling and continues until the well is properly plugged and abandoned.
- This proposal does not require water well testing and leaves that up to the local and county jurisdictions. We certainly advise well owners to test their water annually to ensure that the water is safe; water well tests can detect contaminants and allow well owners to take corrective action.
- This proposal does continue the well reporting functionalities that have been in place for decades but does not include an individual well registration requirement.
- This proposal does not establish any permitting requirements for well drilling. That functionality most commonly occurs at the municipal and even county level.
- Finally, this proposal does not institute additional environmental regulations – it instead relies on the industry standards that have been adopted through the Uniform Construction Code.

This proposed licensing framework has been vetted across agencies and is supported not just by DCNR but by the Department of Environmental Protection, Department of State, Department of Labor and Industry, Department of Agriculture, Department of Health, and PENNDOT. Additionally, this proposed framework has received support by a wide variety of diverse private sector and non-profit partners.

The result is a commonsense bipartisan approach that establishes a licensing framework within the Department of State to emphasize public health, public safety, consumer protections, and industry accountability.

This licensing framework establishes a fair playing field within the industry so that certain drillers cannot simply underbid by building inferior and unsafe wells. The licensing criteria is consistent with what many states have in place and does not establish excessive or burdensome requirements for acquiring and maintaining licensure.

There are so many reasons why Pennsylvania should adopt this licensing criteria – but I want to reinforce these important points:

- We need to protect human health
- Safeguard our drinking and groundwater resources
- Advance professional accountability within the industry
- Promote workplace safety
- Uphold environmental laws and regulations
- Ensure continued education
- And establish ongoing workforce pipelines for entering into the drilling industry

This proposed legislation is a long time in the making and several attempts to bring accountability to the industry have failed over the past thirty years. The novel framework addresses the major concerns that have surfaced during these prior attempts with a deliberate effort to strengthen efficiencies and reduce redundancies while accomplishing our overarching goal of safeguarding Pennsylvania's drinking water.

If not now, when?

Thank you for this opportunity to testify. We look forward to working with this committee to pass legislation that establishes this licensing criteria. I am happy to answer any of your questions and please feel free to reach out to me directly if you have any follow-up questions.

ENHANCING SAFE DRINKING WATER



Establishing Professional Licensing Criteria for PA Well Drillers

House Professional Licensure Committee –
Informational Meeting
February 4, 2026

Gale Blackmer, Director
Bureau of Geological Survey
Department of Conservation and Natural Resources



OVERARCHING POLICY GOALS



CONSTRUCTION/SITING STANDARDS

Establish statewide construction and siting standards for private wells through best industry practices to safeguard the health and safety of Pennsylvanians by ensuring access to safe drinking water.

LICENSING/CERTIFICATION STANDARDS

Establish statewide certification and licensing standards for well drillers that include training requirements that demonstrate aptitude in the field and understanding of best industry practices.

WHY IS THIS IMPORTANT?



Water wells are the primary source of drinking water for millions of Pennsylvanians.

- Licensing is necessary to:
 - **Protect Pennsylvanians' health and welfare** by ensuring private water wells are built to industry standards
 - **Strengthen consumer protections** for homeowners whose homes rely on private water wells
 - **Safeguard Pennsylvania's shared groundwater resources** from contamination by poorly constructed wells



IF NOT NOW, WHEN?



- There are no standards in Pennsylvania that ensure wells are being sited and constructed properly.
- Pennsylvanians are exposed to unsafe drinking water contaminated by viruses, bacteria, and other toxins.
- Water wells are going dry during severe drought periods.
- Just one improperly sited or poorly constructed private well can threaten the integrity of neighboring private and public water supplies.
- Pennsylvania is an outlier across the country:
 - one of **only two states** to not enforce industry standards for well siting and construction.
 - only **one of three states** that does not have statewide industry licensing requirements.



WATER TWO PLANTS WITH ONE WATERING CAN



- Utilize Department of State's existing licensing mechanisms to optimize efficiencies for the Commonwealth and the industry.
- Rely on existing industry standards without adding new regulations or permitting processes.
- Licensed drillers would be required to uphold existing industry standards related to siting and constructing wells in Pennsylvania.

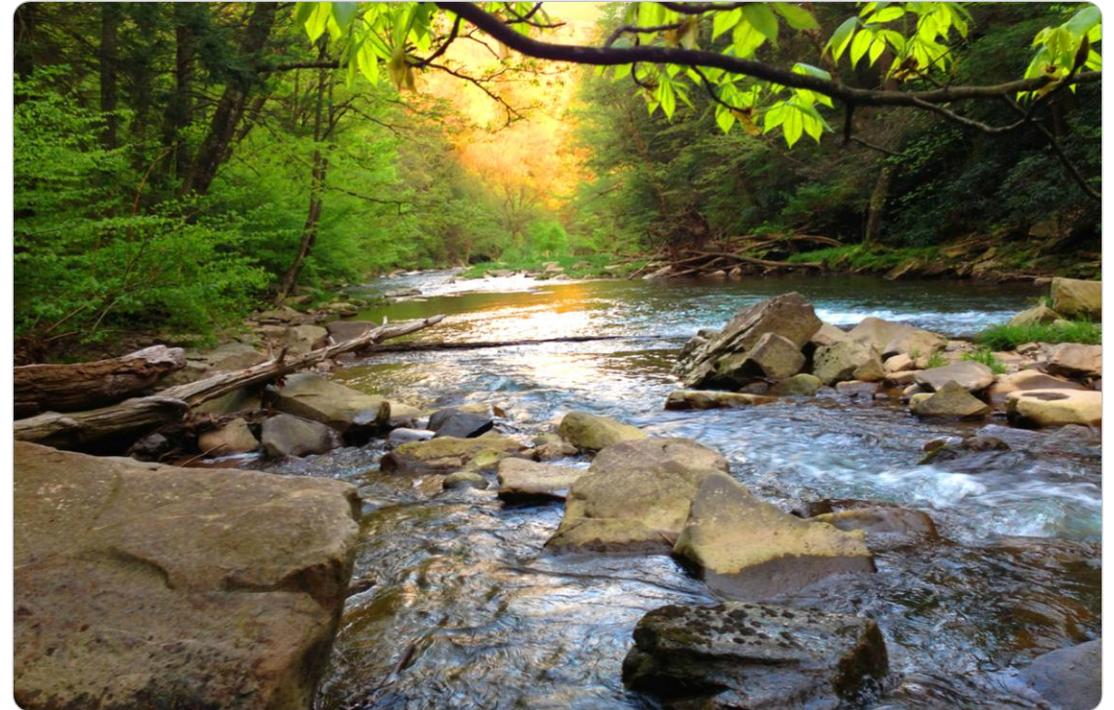


LICENSING CRITERIA

ENHANCING INDUSTRY ACCOUNTABILITY



- Two categories of licensing:
 - Expert Well Driller (3+ drilling techniques)
 - Specialized Well Driller (1 drilling technique)
- Trainee category
- Two-year grandfathering period
- New licensing – pass applicable exam(s)
- Biennial renewal cycle
- Continuing education (as determined by the board)



LICENSING CRITERIA

ENHANCING CONSUMER PROTECTIONS



- Uphold relevant industry standards established within the Uniform Construction Code and International Plumbing Code
- Demonstrate coverage through bonding and liability insurance
 - *A well driller shall not be held liable or accountable for work completed prior to the adoption of this Act or by another driller.*
- Reporting mechanisms
- Company Registration (Department of State)
- Rig Registration (PENNDOT)



WHAT THIS PROPOSAL IS NOT:



- Regulating oil and gas drilling activity
- Requiring well testing
- Registering private wells
- Requiring permitting
- Requiring additional environmental regulations



IF NOT NOW, WHEN?



PROTECTS
HUMAN HEALTH



SAFEGUARDS
GROUNDWATER
RESOURCES



ADVANCES
INDUSTRY
ACCOUNTABILITY



PROMOTES
WORKPLACE
SAFETY



UPHOLDS
ENVIRONMENTAL
LAWS AND
REGULATIONS



ENSURES
CONTINUED
EDUCATION



ESTABLISHES
CONTINUED
ENTRY INTO THE
WORKFORCE



THANK YOU!



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Geological Survey

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Pennsylvania
**Department of Conservation
and Natural Resources**
Bureau of Geological Survey



Good morning Chairman Burns, Chairman Emrick and members of the Professional Licensure Committee.

My name is Joseph Mehalick II and I am the Director of Drilling Operations for Terra Testing Inc. based out of Washington, PA. I currently serve as the Vice President of the Tri State Chapter of the National Drilling Association. The Tri State Chapter represents members from Pennsylvania, New Jersey and West Virginia.

I hold drilling licenses in the states of New Jersey, Maryland, Delaware, West Virginia and New Hampshire as well as maintaining my Certified Well Driller designation through the National Ground Water Association.

I am a third generation driller and have been actively involved with drilling for 35 years. Throughout these years, there have been a lot of changes and new technology for the drilling industry but one thing has remained the same: we are still putting a hole into the ground to study the soil, rock or groundwater.

Geotechnical drilling is the process of drilling into the earth to collect soil, rock and groundwater samples, which are essential for assessing subsurface conditions for construction and engineering projects. The highways and bridges that you travel on and the buildings that you work in all started with geotechnical drilling. Geotechnical drilling helps engineers to understand the physical and chemical properties of soil and rock layers. The data that is collected assists in determining the proper foundation for a structure based on soil bearing capacity and groundwater conditions. It also helps to identify geological hazards, unstable soil layers and groundwater issues that may cause delays or failures. The data that we deliver allows for efficient design and reduces unnecessary expenses.

Geotechnical drilling is crucial to the Pennsylvania infrastructure. Without our industry, roadways, bridges and buildings would take much longer to construct and the construction cost would greatly increase due to a higher probability of failure because there is no data to look at.

As I previously stated, I am licensed in multiple states and must follow their rules and regulations in order to drill a geotechnical bore hole, install a piezometer which is used to monitor the elevation of groundwater over an extended period of time or install a monitoring well to observe and measure groundwater conditions and possible contaminants.

The rules and regulations are put into place for each state based on geology and other contributing factors in order to maintain a standard operating procedure for the drilling of the borehole, the construction of the well and the abandonment of the borehole when completed. These standards are put into place so that the soil and the groundwater have a far less chance of becoming contaminated during and after the drilling process. The standards also allow for more of a professional completion of the project because there are rules and regulations that have to be met in order to: obtain a license, maintain the license, drill the borehole and complete any permits that are required.

Each state has its own rules and costs for maintaining the renewal of the drilling license but they all require continuing education and they have committees that meet to discuss the rules and regulations. As of this moment, there are no state rules or regulations in Pennsylvania for drilling boreholes or installing monitoring equipment. This allows for less reputable drilling companies to perform the work at a cheaper cost because there are no rules to follow and they may construct the equipment in a less suitable manner that may cause contamination.

It is my professional opinion, that drilling licenses should be required in the state of Pennsylvania in order to ensure that our industry takes all precautions to maintain clean soil and groundwater. Drilling licenses will also allow more companies to be on a "level playing field" each company will have to follow the rules and regulations of Pennsylvania.

It is also my professional opinion, that a committee should be created to review applications and be able to make changes to the rules and regulations since our industry and the technology are always changing. The committee should meet quarterly and include representatives from drilling companies, geologists or hydrogeologists, engineers and representatives from the Department of Conservation and Natural Resources.

Thank you for your time regarding this important matter.

Joseph J Mehalick II

The Pennsylvania House of Representatives

Professional Licensure Committee Testimony

William W. Reichart II – Executive Director Pennsylvania Ground Water Association

February 4, 2027 - Irvis Office Building – Harrisburg, PA

Ground Water - The Resource

Ground water is a precious and valuable resource lying just beneath the surface of the earth throughout almost all of Pennsylvania. Nationally, ground water supplies about 25 percent of the water used for domestic, agricultural and industrial purposes; and 50 percent of the population relies on ground water for its drinking water¹.

Ground Water - The Utilization of the Resource in Pennsylvania

The geologic conditions throughout almost all of Pennsylvania are suitable for the storage, transmission, withdraw and recharge of ground water in sufficient quantity and of high enough quality that create measurable benefits, reliability, and economic vitality so that it is classified as a resource. According to the United States Geological Survey², Estimated Use of Water in the United States in 2015, Pennsylvania:

1. Relies upon 45.9 mgd of ground water which accounts for 7.12% of total industrial water utilization within the Commonwealth,
2. Relies upon 622 mgd of ground water which accounts for 10.32% of all daily fresh water consumption within the Commonwealth,
3. Relies upon 227 mgd of ground water which accounts for 16.33% of all public supply water within the Commonwealth,
4. Relies upon 17.5 mgd of ground water which accounts for 51.02% to total irrigation water within the Commonwealth,
5. Relies upon 85.1 mgd of ground water which accounts for 62.8% of livestock and aquaculture water within the Commonwealth,
6. Relies upon 32.9 mgd of ground water which accounts for 86.35% of total mining water within the Commonwealth, and
7. Relies upon 208 mgd of ground water which accounts for 100% of nonpublic/individual supply water within the Commonwealth.

Ground Water – The Pennsylvanians That Rely on It

According to the last United States Census Bureau 2013 American Housing Survey and 2013 American Community Survey, Pennsylvania:

1. Has 3,470,000 people served by residential water wells supplying 100% of their water supply³, and
2. Has 1479 community water systems using ground water to supply water to 1,402,600 people⁴, and
3. Has 1,123 non-community, non-transient water systems using ground water to supply water to 435,900 people⁵, and
4. Has 5,263 non-community, transient water systems using ground water to supply water to 720,700 people⁶, and
5. Has 2,910 irrigation wells using ground water to supply water to 2,140 farms⁷.

Ground Water - The Industry Which Provides it in Pennsylvania

The hardworking women and men on the frontline who protect and provide ground water resources and supplies for the benefit of the people and businesses of the Commonwealth, as well as all visitors thereto, and products therefrom, comprise the ground water industry in Pennsylvania.

There are an estimated 203 businesses in Pennsylvania that employ an estimated 1,803⁸ people to:

1. Drill and service water wells,
2. Install and service well pumps and pumping systems,
3. Install and service water treatment equipment and systems.

The annual estimated sales of these businesses amounts to \$395.5 million. Many of these businesses are defined as small businesses and they are often multi-generational and family-owned.

Equally important to the protection, preservation and management of ground water resources within the Commonwealth are the competent women and men of the scientific, engineering and remediation businesses within the industry. These companies;

1. Number approximately 1,545 firms, which
2. Employ approximately 8,207 people, and
3. Account for estimated sales of \$1.806 billion per year⁹.

Ground Water – The BIG PICTURE

When people see lakes, ponds, streams and even springs, they typically assume that this water has accumulated and amassed and that it is all what is termed surface water because it is upon the surface of the earth – or that it is the water that comes from the direct runoff of precipitation. Conversely the water that is seldom and not-readily-seen, as it is under the surface of the earth, is called ground water.

Drilling down through the myriad of varying combinations of geologic, topographic, climatic and land use conditions that make up our landscape, it is estimated that one quarter of all the precipitation that falls upon the United States becomes ground water. The underground materials and structures that contain, store and transport ground water are called aquifers. The process by which precipitation from the surface of the earth enters the aquifers is referred to as ground water recharge¹⁰. The perpetual recurrence of this ground water recharge in combination with the movement of ground water within the subsurface aquifer systems results in the discharge of ground water to surface water conveyances and collectors. On average, one third of all stream flow originates as ground water discharging into springs, creeks, streams, rivers¹⁰. This discharge of ground water into streams is often obscured or hidden by the water that enters the water courses both during and after precipitation events in the form of runoff from the surface of the land. Often the only water that is observed in water courses during prolonged periods of time, where the fall of precipitation and the subsequent runoff thereof have not occurred, is the portion of stream flow that originated as ground water discharging to the watercourse. This flow is called the basal component of stream flow.

The truth is that most of our fresh water is not seen on the surface of the land but rather it can be found underground. In fact, at any given moment, the stored supply of groundwater is 20 to 30 times greater than the amount of surface water stored in all the lakes, streams and rivers of the United States combined¹¹. And because ground water is mostly unseen it often remains unrecognized, unnoticed and it correspondingly goes unprotected as well.

The headwaters of nearly every creek, stream and river can be followed upstream to a naturally occurring spring. That spring is a ground water discharge.

At these headwaters the discharge of ground water from the subsurface can be seen and measured. As the ground water flows downgradient it becomes classified as surface water. As the watercourse gains flow, the influx of discharging ground water becomes harder to identify. Further downgradient when the watercourse carries even larger flows and additional ground water enters the stream there isn't a clear line of separation that develops and continues downstream with the combined flow such that any differentiation between the two waters is discernable.

The surface water label is not necessarily the problem when it is applied after the waters combine and flow over the surface of the land. The label however may be problematic in that it does not recognize the unique attributes of ground water and thus the application of surface water management and protection strategies puts ground water at risk of degradation.

Ground Water – The Future

The future utilization of groundwater, as a valuable resource, needs to be safeguarded! The Pennsylvania Ground Water Association advocates a two-prong approach: the adoption of construction standards and the formation of a licensure system for the individuals who engage in water well drilling, construction, repair and maintenance activities. In general, the licensure component is an integral part of a sound management strategy that protects both the resource and all who use it. Moreover, a sound licensure program such as the license being requested for water well drilling professionals, should address 1) an amount of experience required, 2) a level of proficiency demonstrated, 3) a measure of financial responsibility proven, and 4) a continuing education within the industry earned.

The current Pennsylvania Water Well Drillers License, as issued by the Pennsylvania Department of Conservation and Natural Resources is a misnomer in that the equipment used in the drilling of a borehole is licensed not the individuals operating this equipment. The current PA DCNR “license” is more like registration than a license.

The current license can be likened to:

1. licensing the car but not the driver,
2. licensing the scissors but not the barber, or
3. licensing the scalpel but not the surgeon.

The inadequacy of the current PA DCNR Water Well Drillers License lends to an increased vulnerability of Pennsylvania’s ground water resources to negative impacts and subsequently Pennsylvania residents are at risk of adverse health effects and economic loss. In addition, the current licensing system falsely conveys a sense of the implicit safeguards that typically accompany licensure programs that license people rather than their tools.

As an organization of ground water professionals, the Pennsylvania Ground Water Association beseeches the Professional Licensure Committee of the Pennsylvania House of Representatives to assist with the development and implementation of a licensure program for the water well drilling industry.

¹Groundwater and Wells, 2nd Edition F. Driscoll 1986 p. v

²US Geological Survey, Estimated Use of Water in the United States in 2015, released 2018

³US Census Bureau 2013 American Community Survey

⁴US EPA Federal Safe Drinking Water Information System Data for 2019

⁵Ibid

⁶Ibid

⁷Consensus of Agriculture 2013 Farm and Ranch Irrigation Survey

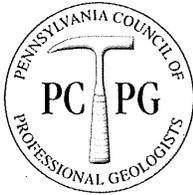
⁸InfoUSA, SIC 1781, June 2019

⁹Barnes Reports: Environmental Consulting Services Industry (NAICS 54162); C. Barnes & Co., 2019 & Barnes Reports: Remediation Services Industry (NAICS 56291); C. Barnes & Co., 2019

¹⁰Sustainability of Ground water Resources, US Geological Survey Circular 1186, 1999

¹¹NGWA Groundwater Facts 2026

Testimony of the Pennsylvania Council of Professional Geologists (PCPG)



In Support of Driller Licensure Legislation

Presented to the House Professional Licensure Committee, Pennsylvania General Assembly

By: Jason Floyd, P.G.

-2024 President, Current Board of Director, Education Committee Chair-
Pennsylvania Council of Professional Geologists (PCPG)

-Licensed Professional Geologist, Commonwealth of Pennsylvania (License
#PG004030)

Dear Chairpersons, members of the Committee, and fellow Pennsylvanians.

My name is Jason Floyd, and I am a licensed Professional Geologist in the Commonwealth of Pennsylvania and in New York and Tennessee. I am also the CEO / President / Chief Hydrogeologist of Mountain Research, LLC an employee-owned environmental consulting and drilling services firm located in Altoona, Pennsylvania. I appear today on behalf of the Pennsylvania Council of Professional Geologists (PCPG)—a non-profit organization representing licensed geologists and other allied environmental professionals across the Commonwealth. PCPG is a non-profit corporation founded in 1989 by geologists seeking licensure in the Commonwealth of Pennsylvania. Having since achieved that goal, PCPG now provides numerous services to its members, as related below.

PCPG members include both individuals and companies representing the diverse professions which are developing, managing, and protecting Pennsylvania's earth resources. Since 2006, when PCPG modified its membership structure, PCPG's membership has grown to over 600 members, and membership continues to grow.

PCPG offers many benefits and opportunities to its members:

- Representation on State Advisory Boards and Commissions, as well as access to PADEP
- Advocacy with State Legislature
- Continuing Education
- Networking opportunities for earth resource professionals, State officials, academic institutions, and business partners
- Information regarding state and national news relevant to earth resource professionals

PCPG strongly supports the creation of a state licensure program for water well, geotechnical, environmental, and geothermal drillers. This effort is not about adding bureaucracy—it is about ensuring that those who perform drilling operations possess the technical knowledge, experience, and ethical commitment needed to protect the environment and maintain public confidence in the professionals who interact with Pennsylvania’s subsurface.

I. Who These Drillers Are and What They Do

Pennsylvania has more than a million domestic water supply wells, plus an unknown number of other types of water wells, and boreholes are drilled each year.

To understand why licensure matters, it helps to know what these different types of drillers actually do.

- A **water well driller** drills and installs wells that provide clean, reliable groundwater for homes, businesses, farms, and public water systems.
- A **geotechnical driller** drills boreholes and recovers soil and rock samples that geologists and engineers use to design safe and stable foundations for buildings, bridges, roads, wind turbines, solar panel farms, and other vital utility infrastructure systems. Geotechnical drillers also perform mineral exploration for mines and quarries.
- A **geothermal driller** installs boreholes and subsurface loop systems that enable buildings to use the earth’s natural temperature for efficient heating and cooling through geothermal energy exchange.
- An **environmental driller** drills and constructs monitoring wells and borings that allow geologists, environmental scientists, and regulators to evaluate soil and groundwater contamination and guide cleanup efforts.

Although their goals differ—supplying water, supporting infrastructure, providing a source for heating/cooling, and/or protecting the environment—all four types of drillers perform technically complex work that directly affects **public health, safety, economic development, and natural resources**. Each must have a minimal understanding of geology, subsurface behavior, and the potential environmental consequences of their activities.

II. The Current Challenge

Pennsylvania is one of only a few states that does not have a formal process to license or certify drilling professionals. Currently, any person may legally operate a drill rig and be licensed in Pennsylvania simply by paying a fee to the Bureau of Geological Survey to collect soil, rock, or groundwater samples, install monitoring, domestic and public supply wells, or perform geotechnical and geothermal borings—without demonstrating any training, experience, or knowledge of geology, environmental and safety requirements.

Most Pennsylvania drillers are skilled tradespeople who take pride in their work. Yet, the absence of a recognized credential means there is no consistent benchmark for competency and no mechanism for accountability when problems arise, and no standardized pathway for professional growth or continuing education. This lack of licensure exposes the public, regulators, clients,

business and property owners, developers, contractors, environmental consultants, engineers, and responsible drillers to unnecessary risk. It also disadvantages responsible drilling companies that invest in training, appropriate equipment, and quality assurance.

Licensure simply ensures that those performing drilling activities have the technical understanding, experience, and ethical responsibility to carry out their work safely and competently.

III. Pennsylvania's Unique Geologic Diversity

Pennsylvania's geology is extraordinarily diverse—not only in rock type, but also in landforms and groundwater conditions. The Commonwealth contains sedimentary, igneous, and metamorphic rocks that have been shaped over hundreds of millions of years by folding, faulting, and erosion. Portions of northwestern and northeastern Pennsylvania have also been shaped by glaciation which left sediment deposits several feet to over a hundred feet thick.

Groundwater in bedrock aquifers is often obtained through fractures, joints, faults, and solutional voids rather than through uniform porous layers. These complex subsurface features vary from one county—or even one hillside—to the next. Understanding this variability directly affects drilling methods, drilling fluid management, the choice of drill rig or drill bit(s) used. A professional driller must be capable of recognizing these geologic variations and understanding how their work could affect groundwater flow and quality, soil stability, or environmental conditions.

For example, drilling methods and equipment used in glacial deposit terrain differ greatly from those used in fractured metamorphic rock. In karst regions, an inexperienced driller could unintentionally intersect voids that alter groundwater flow. In agricultural settings, improper drilling methods for water supply or irrigation wells could create vertical pathways for surface contamination from fertilizers or manure runoff.

Pennsylvania's subsurface also supports diverse natural resources. Extensive coal resources, which have supported the Commonwealth's economy for over a century but have also created complex abandoned mine void systems that influence groundwater flow and water quality in many regions. In addition, non-fuel mineral extraction—including crushed stone, clay, sand, gravel, and limestone—plays a vital role in construction and industry, often requiring specialized geotechnical drilling to evaluate mineral reserves and mine safety.

The Commonwealth is also a leader in oil and natural gas development, dating back to the 1859 Drake Well in Titusville. Today, hundreds of thousands of abandoned and orphaned oil and gas wells remain, some shallow and poorly constructed, creating pathways for groundwater contamination and stray methane gas migration. Proper environmental and water well drilling methods are essential to prevent further impacts.

Because of this incredible geological and natural resource diversity, driller licensure is critical. Licensure ensures that drillers maintain current knowledge of technologies, safety standards, and environmental considerations necessary to work safely and effectively across these varied conditions.

IV. Alignment with Surrounding States

The proposed Pennsylvania licensing structure follows the framework used by neighboring states such as Maryland, New Jersey, and West Virginia. Each requires drillers to demonstrate competence through examination or verified experience, maintain active licenses, carry proper insurance and bonding, and participate in continuing education.

These states have successfully shown that licensure enhances professionalism without burdening small drilling businesses. By aligning Pennsylvania's approach with surrounding states, we promote regional consistency, reciprocity, and public confidence. Licensed Pennsylvania drillers would have credentials recognized across state lines, supporting workforce mobility and regional collaboration.

It is important to recognize that licensing differs from well construction regulation. Neighboring states that license drillers also regulate well construction standards for private water supply, monitoring wells, soil borings, and geothermal borings through their DEP or health departments. Pennsylvania's proposed licensure focuses solely on professional competency, experience and ethical accountability—not the design of borings and wells.

V. Responsible Drilling Protects Public Health and Natural Resources

Every borehole drilled in Pennsylvania—whether for a private well, a bridge foundation, a geothermal loop, or an environmental study—interacts with the subsurface environment that supplies drinking water, determines whether contamination exists, or supports infrastructure.

Licensing ensures that drillers will:

- Use the proper drilling equipment, tooling and bits to install stable boreholes for sample recovery or construction of a water supply or monitoring well,
- Recognize geologic hazards such as sinkholes, mine voids, or methane,
- Manage drilling fluids and cuttings responsibly to prevent contamination, and
- Comply with safety and environmental protection requirements.

Although driller licensure does not govern well design or construction methods, it ensures that the drillers performing drilling activities are qualified to recognize sensitive geologic and land-use settings and minimize environmental impact.

For example:

- In limestone terrain, improper drilling techniques can create pathways that alter groundwater flow or spread contamination.
- For water supply wells, using improper drilling equipment, tooling and bits can cause a subsequent collapse of the well, poor groundwater quality, and/or reduced groundwater yield,

- In environmental investigations, inadequate drilling methods can misrepresent contamination levels and delay cleanup.
 - In geotechnical work, poor sample recovery can lead to unsafe foundation design.
 - In geothermal drilling, improper grouting or sealing can lead to groundwater contamination, loop system failure, or loss of borehole integrity.
-

VI. Advancing Professional Standards and Public Trust

Licensure establishes drilling as a recognized profession—a trade requiring judgment, technical skill, experience, and ethical responsibility. It brings drillers in line with other licensed professionals such as crane operators, engineers, surveyors, and geologists.

Under a licensure system, individuals who wish to operate as drillers would:

- Demonstrate competency through examination and/or verified experience,
- Adhere to a code of ethical conduct and professional responsibility, and
- Maintain continuing education to stay current with evolving drilling practices and safety standards.

This framework promotes public trust by assuring clients, regulators, and citizens that licensed drillers meet verified standards. It also creates a fair and transparent means of accountability in the rare cases of negligence or misconduct—benefiting the public, the profession, and responsible businesses.

VII. Economic and Practical Considerations

Some may worry that licensure could create barriers for small businesses or increase costs. In practice, it does the opposite.

Experience from surrounding states demonstrates that licensure strengthens the profession and supports fair competition.

Key benefits include:

- A level playing field, where all drillers must meet the same minimum qualifications;
- Consumer and municipal confidence, since licensed professionals are more likely to be hired for public or regulated projects;
- Reduced long-term costs by preventing drilling errors, data inaccuracies, and environmental incidents;
- Professional recognition, improving reciprocity and expanding working opportunities across state lines.

A Pennsylvania licensing system can be designed efficiently, using existing frameworks from states such as New Jersey, Maryland, and West Virginia, which successfully administer similar programs with minimal administrative burden.

VIII. Shared Responsibility: Geologists and Drillers Working Together

Geologists and drillers are professional partners in subsurface work. The geologist's role is to interpret the data and design subsurface investigations; the driller's role is to implement that plan safely and accurately. Both depend on each other's expertise.

Licensure will strengthen this partnership by ensuring that geologists can rely on accurate, well-documented field results and that drillers are recognized for their technical proficiency. This collaboration improves environmental assessments, enhances the reliability of geotechnical design, decreases groundwater quality and quantity concerns in supply wells, and increases confidence in data used by state and federal agencies.

When all professionals involved in subsurface work adhere to defined standards of competence and ethics, the public benefits through safer infrastructure, cleaner water, and better stewardship of Pennsylvania's natural resources.

IX. Impact on Key Industries

- Geotechnical and Construction Industry

Licensure will increase reliability of subsurface data, allowing engineers and architects to confidently use drilling results to design safe and stable structures. It will not create new project approvals or construction delays but will improve quality control and reduce risk of costly rework.

- Environmental Industry

Environmental consultants depend on accurate, properly obtained subsurface samples. Licensed drillers enhance the reliability of monitoring wells and soil borings used in site cleanups and groundwater investigations. Licensure supports environmental due diligence, remediation accuracy, and trust in environmental data.

- Private Water Well Industry

For homeowners and small businesses relying on private water supply wells, licensure provides confidence that the driller has the knowledge and training to perform the work safely. It also gives regulators a clear mechanism to address misconduct or unsafe practices. Licensing will not impose new construction standards beyond those already established by the International Building Code.

- Farming and Agricultural Practices

Driller licensing will not affect farming operations or restrict agricultural water use. Farmers who hire licensed drillers to install or repair supply or irrigation wells will benefit from knowing their water sources were accessed safely and responsibly. The goal is not to regulate farming practices but to ensure safe, competent drilling that supports agricultural sustainability.

- Mining and Quarrying Industry

Licensure would benefit the mining and quarrying industry by ensuring that geotechnical, mineral exploration, and environmental drillers conducting site investigations, soil and bedrock characterization, or groundwater monitoring at mine and quarry sites are qualified and accountable. This leads to more reliable data, safer operations, and stronger compliance with PADEP permitting requirements, ultimately supporting responsible resource management and public confidence in the industry.

X. Case Examples – When Drilling Goes Wrong

Even with good intentions, drilling performed without proper training, experience, or oversight can lead to serious environmental and safety consequences. The following examples highlight common errors and their potential impacts when drilling practices fall short of professional standards:

- **Contaminated Drinking Water:** At a retail petroleum site, a driller installed a replacement supply well in the facility's septic leach field after two existing supply wells were found to be contaminated with petroleum and had insufficient yield to support business operations. The improperly constructed replacement supply well allowed sewage and petroleum to enter the well, contaminating both the water supply and the deeper bedrock aquifer.
- **Improper Backfilling:** During geotechnical or mineral exploration drilling, boreholes can extend several hundred feet deep. In some cases, site owners or contractors instruct drillers not to backfill, or to use improper backfill materials to save costs. Failing to backfill correctly allows surface contaminants to enter the subsurface, degrading groundwater quality and threatening mine stability once operations begin.
- **Cross-Contamination from Equipment:** Water-well drillers occasionally perform environmental drilling services when larger drilling equipment is required. If drilling equipment and tools are not properly decontaminated after use at contaminated sites, they can transfer pollutants to clean residential locations, introducing new groundwater contamination.
- **Unfamiliar Geology:** Contractors traveling across the state to drill wells or borings may be unfamiliar with local geologic conditions or areas of poor water quality. This lack of site-specific knowledge can lead to mis-drilling, lost boreholes, or poor well performance.
- **Geothermal Well Interference:** A geothermal drilling contractor retained by a state agency to install borings for a park visitor center failed to account for groundwater flow and proximity to an existing supply well, which subsequently went dry as a result of the geothermal drilling activities.
- **Unrecognized Mine Hazards:** In western Pennsylvania, a geothermal drilling contractor installing a residential geothermal system began work near abandoned, water-filled coal mines. Fortunately, a consulting geologist alerted the homeowner, allowing the contractor to

adjust drilling depth and avoid penetrating mine workings that could have released contaminated water to the surface and into overlying aquifers.

- **Improper Water Well Construction:** PCPG members are frequently contacted by homeowners concerned about poor well yield or water quality. While many problems are naturally related to local geology, some result from inexperienced drillers who used incorrect drilling methods, improper equipment, or substandard well construction practices.

XI. Conclusion

Chairpersons and members of the Committee, thank you for the opportunity to testify today.

On behalf of the Pennsylvania Council of Professional Geologists, I urge you to support legislation establishing state licensure for water well, geotechnical, geothermal, and environmental drillers.

Licensure ensures that the people who drill beneath our feet—whether to secure drinking water, support foundation design, provide a source for heating/cooling, or monitor environmental quality—do so with the competence, professionalism, and respect for Pennsylvania’s environment and citizens.

By ensuring that drillers are trained, tested, and accountable, Pennsylvania strengthens its ability to protect the public, groundwater quality and natural resources—consistent with Article I, Section 27 of the Pennsylvania Constitution, which guarantees citizens the right to clean air, pure water, and the preservation of the environment.

This legislation is a practical, responsible step forward in protecting both our citizens and natural resources, while recognizing the important role that drilling professionals play in the Commonwealth’s environmental and economic future.

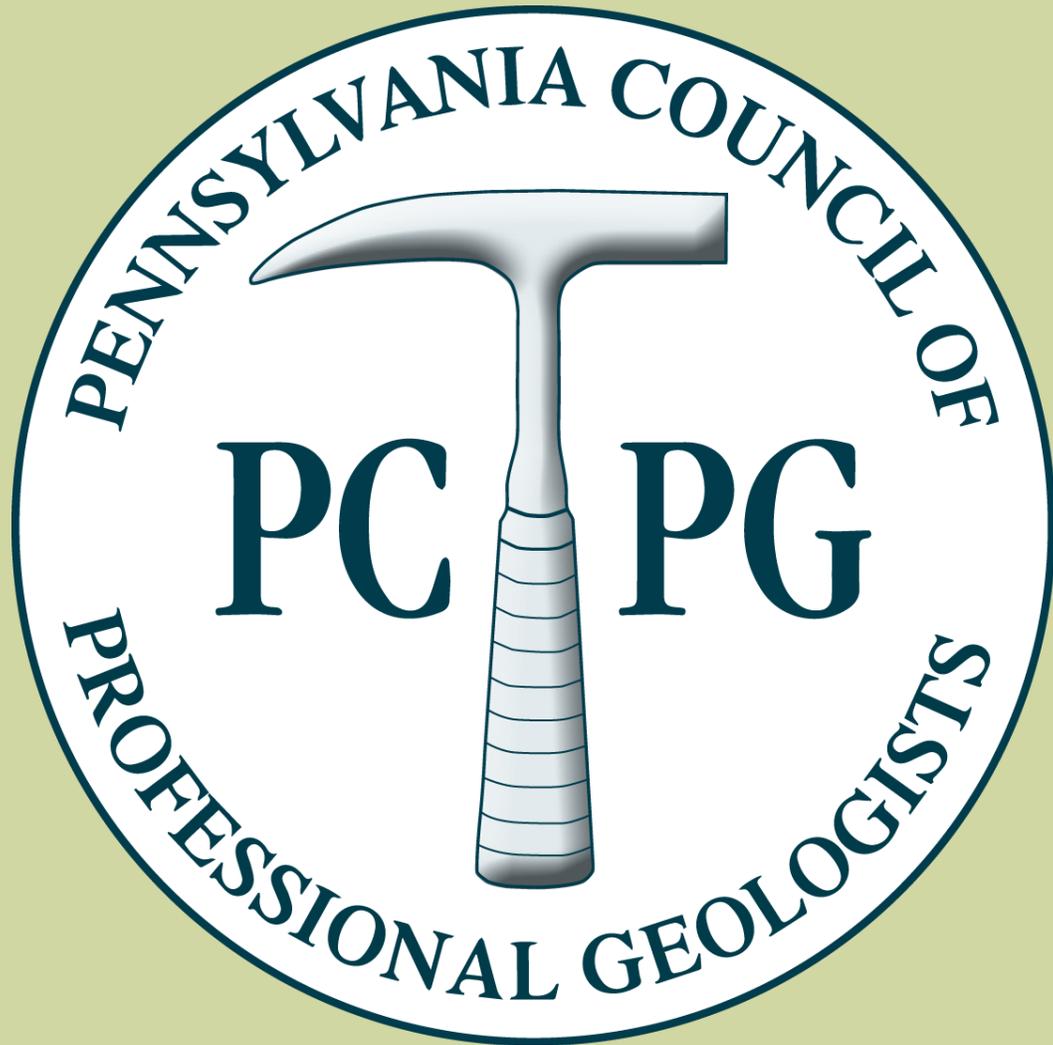
Thank you for your time and consideration. I would be happy to answer any questions.

Sincerely,



Jason D. Floyd, P.G.

PCPG Board of Director, Education Committee Co-Chair, and 2024 President



Testimony of the Pennsylvania
Council of Professional
Geologists – In Support of
Driller Licensure Legislation

Jason D. Floyd, P.G.

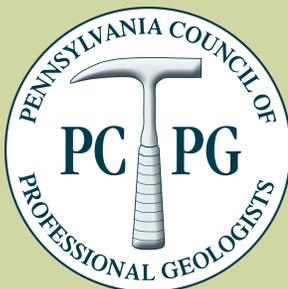
Past PCPG President, Current
Board of Director, Education
Committee Co-Chair

Pennsylvania Licensed
Professional Geologist – License
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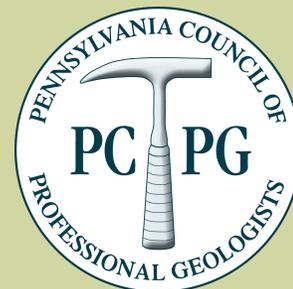
TYPES OF DRILLING RIGS

- Water and Geothermal Well Drilling Rigs



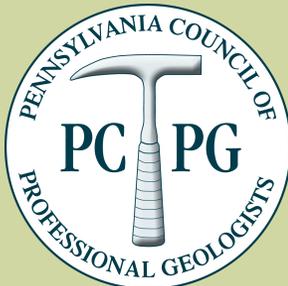
TYPES OF DRILLING RIGS

- **Water and Geothermal Well Drilling Rigs (cont'd)**



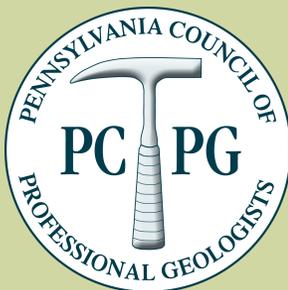
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- Geotechnical and Environmental Drill Rigs

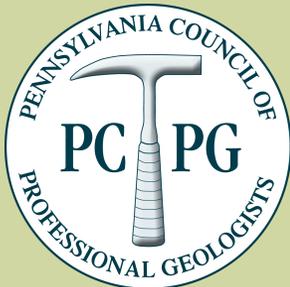


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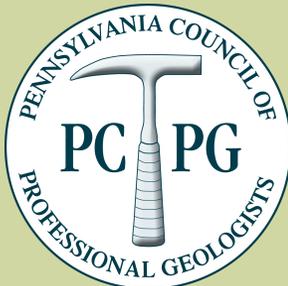
- Geotechnical and Environmental Drill Rigs (cont'd)



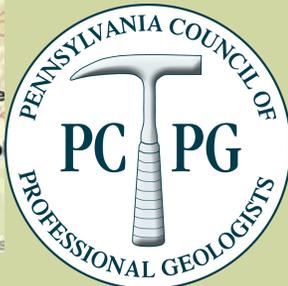
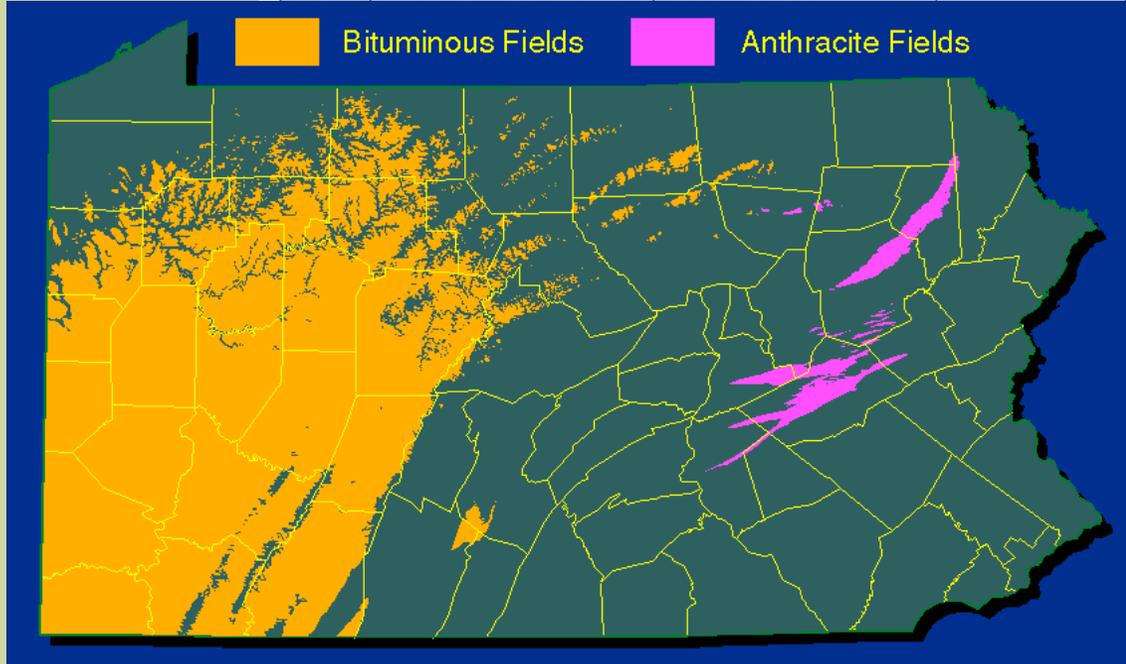
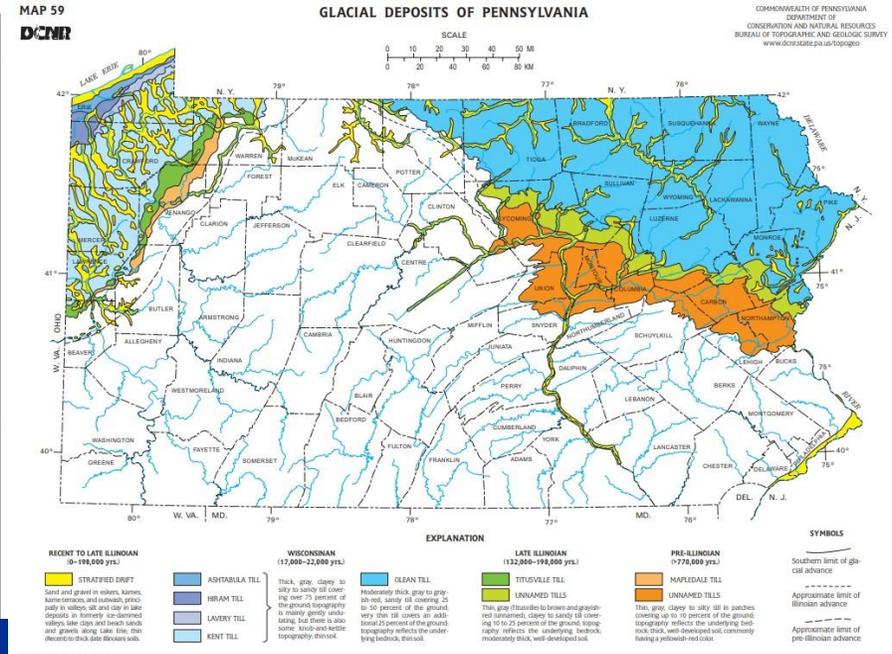
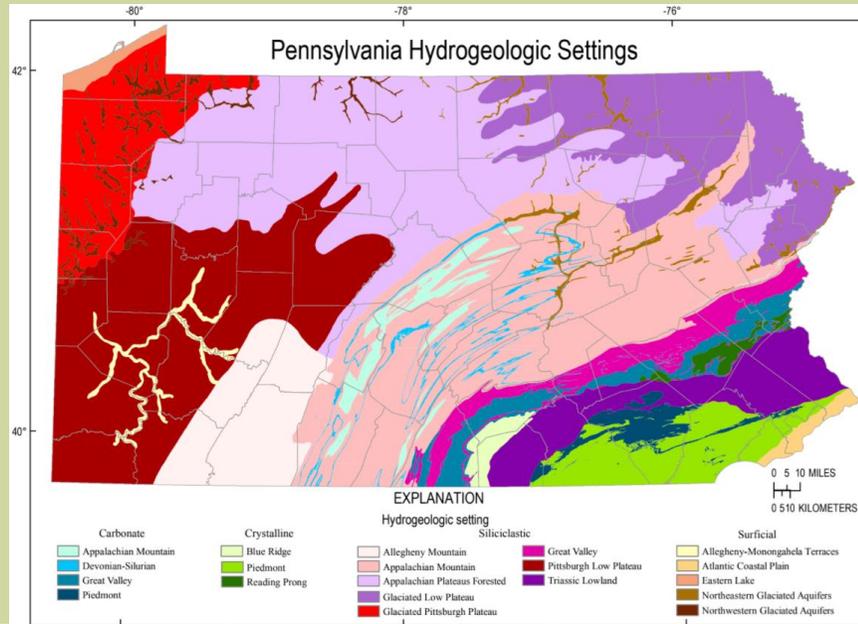
DRILLING OCCURS EVERYWHERE!!!



DRILLING OCCURS EVERYWHERE!!! (cont'd)



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February 4, 2026

Honorable Frank Burns, Chair
House Professional Licensure Committee
332 Main Capitol Building
PO Box 202072
Harrisburg, PA 17120-2072

RE: Well Driller Licensing Legislation

On behalf of the Pennsylvania Builders Association (PBA), thank you for the opportunity to provide feedback on draft legislative language to license well drillers in Pennsylvania. In the past decade PBA has been fortunate to be able to provide feedback to both the former House Environmental Resources and Energy Committee and the House Consumer Affairs Committee on legislative attempts to codify further standards for water well drillers in Pennsylvania.

Previous legislation introduced in 2013 (HB 343) and 2015 (HB 48) to regulate water well standards were opposed by PBA because the Department of Environmental Protection was granted broad authority to “promulgate similar construction or decommissioning standards as it deems necessary” for the construction of water wells. This approach overlooked the fact that water well design and construction standards are already addressed under the PA Uniform Construction Code (PA UCC), including adopted provisions of the International Residential Code (IRC), and the International Plumbing Code (IPC). PBA maintains that the standards required in the PA UCC, and its adopted provisions of the IRC, and IPC provide an appropriate and reliable foundation for ensuring safe drinking water and proper well construction.

The inclusion of Section 512 in this draft, which establishes the PA UCC adopted by the Review and Advisory Council as the governing standard for professional and industry practice of well drillers, enables PBA to take a neutral position on this draft legislation.

PBA remains neutral on the proposal to require state licensure of well drillers but urges the Committee to carefully evaluate the potential impacts of implementing new statewide licensure requirements.

On behalf of the Pennsylvania Builders Association, thank you for allowing us to provide feedback.

Sincerely,
Sarah E. Miller
Director, Regulatory and Legislative Affairs

