Primer
House Appropriations Committee (D)
JOE MARKOSEK, DEMOCRATIC CHAIRMAN September 6, 2018

Oil & Gas Management Funding

The **Marcellus Shale** is a rock formation sitting beneath two-thirds of Pennsylvania and portions of New York, Ohio, West Virginia, Maryland, Kentucky, and Virginia, and it holds trillions of cubic feet of natural gas. While economically advantageous, the rapid growth of the Marcellus Shale natural gas industry in Pennsylvania has to be responsibly managed and maintained.

The Department of Environmental Protection's Office of Oil and Gas Management regulates the exploration, development, and recovery of Marcellus Shale natural gas reservoirs while working to protect the commonwealth's other natural resources and its environment.

A funding crisis has been developing for DEPs legally required oil and gas management efforts in the face of a burgeoning natural gas industry. The well plugging restricted receipt account funds these statutorily required operations but expenditures have outpaced revenues for a number of years. DEP has supplemented this account with revenue it receives from Pennsylvania's natural gas impact fee (Act 13 of 2012). However, this critical budget-balancing maneuver has been insufficient to cover expenses.

Ironically, the well plugging account is not indicative of its purpose. Separate accounts pay for plugging abandoned or orphaned wells and today's businesses are required to plug their own wells, which leads to another issue. In the case of orphaned and abandoned wells, the ability to close these wells is artificially limited by the funds available in spite of demand.

These funding problems could be avoided by enacting a severance tax and dedicating a portion to these efforts. The tax could, annually generate $300 million.

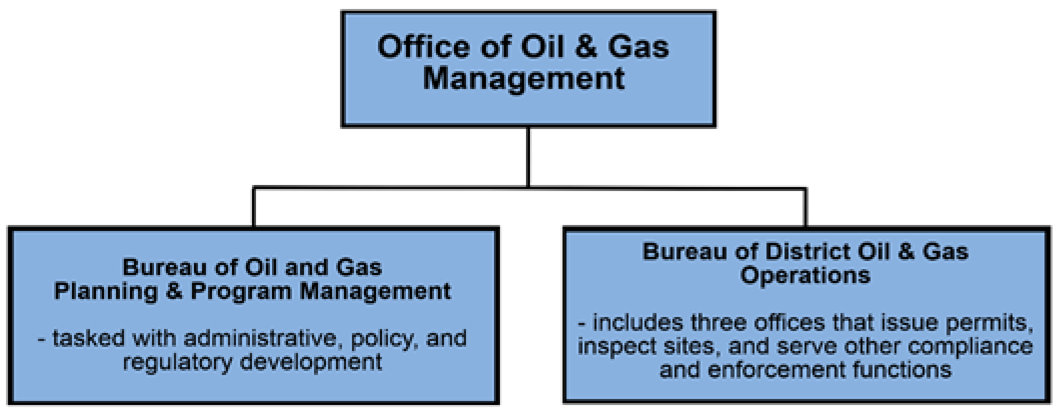
Improvements to the permit review process

The Environmental Quality Board (EQB) associated with DEP is seeking to increase permitting fees to help cover expenses associated with legally required government oversight of well drilling-related activities. To its credit, and prior to this proposed increase, the administration has been working to improve administrative efficiencies.

As part of its oversight of the construction of oil and gas wells and the development of drilling sites, the Office of Oil and Gas Management reviews permit applications. Gov. Wolf and DEP announced a plan to reduce permit backlogs, modernize the permitting processes, and use new technology to improve the commonwealth's oversight and efficiency on Jan. 26, 2018. As part of this effort, DEP has developed an online permit application consultation tool, or PACT, which is designed to help potential applicants determine which environmental permits, authorizations or notifications are needed for a specific project. The most common options include:

- *Erosion and Sediment Control General Permits* – required for well operators that plan to disturb more than five acres of land during the well construction process;
- *Water Obstruction and Encroachment Permits* – to build bridges and pipelines that cross waterways, and;
- *Drill and Operate Well Permits* – to authorize the actual construction of a conventional or unconventional well.

Statutory Authority for Managing Oil and Gas Activity



Source: 2017 Oil & Gas Annual Report

A number of state and federal regulations direct the Department of Environmental Protection in its management of all oil and gas activity in Pennsylvania.

Title 58 codifies the commonwealth's oversight, and was last amended by Act 13 of 2012. Act 13 is best known for implementing the impact fee on unconventional natural gas wells, but it contains many other oil and gas-related provisions.

Under Title 58 today, the Environmental Quality Board must promulgate regulations affecting the oil and natural gas industry, including fee setting.

Other provisions require oil and gas well operators to pay for permits and other fees that are deposited into the well plugging account to support the legally required administration of oil and gas programs. Additionally, DEP annually receives $6 million from the impact fee to administer clean air and water statutes, which DEP has been using to shore up the faltering well plugging account.

Title 58 requires today's well operators to plug non-producing wells. Also, other permit surcharges are dedicated to separately support orphaned and abandoned well plugging programs housed outside the well plugging account but part of oil and gas management efforts.

Expenditures Outpace Revenues in the Well Plugging Account

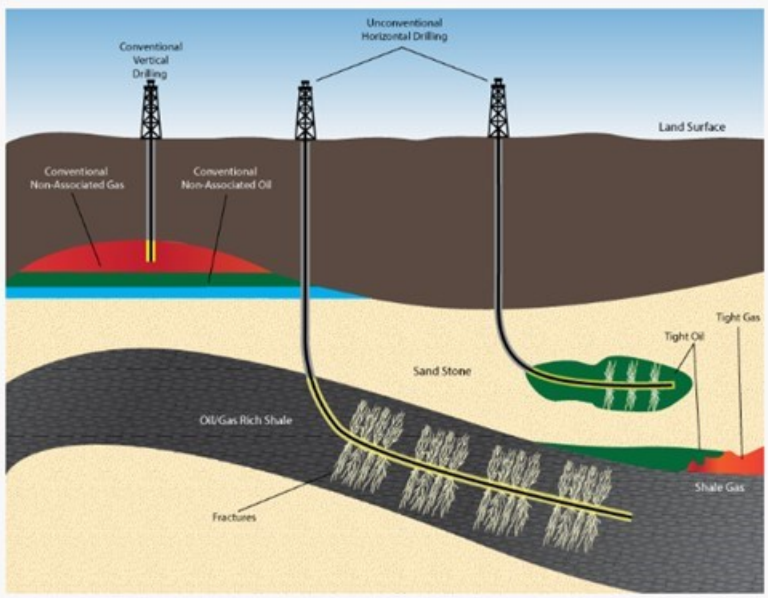
The well plugging account is the depository for revenues generated by permit and registration fees, bond forfeitures, and fines and penalties from oil and gas well operators. Collected revenue finances the Office of Oil & Gas Management. It also pays for personnel, operating, and other miscellaneous costs associated with oil and gas industry oversight, which includes inspectors, permitting enforcement, management, administrative, and legal staff.

Permitting fees held at $100 for nearly a quarter century after the enactment of the Oil and Gas Act of 1984, a precursor to today's statute. But in response to the increase in operating expenses required to regulate the burgeoning Marcellus Shale natural gas industry, the EQB increased permit fees in 2009 from $100 to a sliding scale based on the linear length of the drilled well bore. With the sliding scale, the average Marcellus Shale well permit fee increased to $3,200.

In 2013, DEP's 3-Year Regulatory Fee and Program Cost Analysis Report proposed a rulemaking to change the sliding scale to a flat fee. In 2014, the Independent Regulatory Review Commission approved the EQB proposal to implement the current flat fee of $5,000 for non-vertical unconventional wells and $4,200 for vertical unconventional wells.

As part of its effort to reduce the amount of time for site inspections, DEP launched a mobile app in 2017 to enable inspectors to conduct electronic inspections via tablet computers. Electronic inspections increase efficiency and the quality of the collected data, and provide faster public access to the inspection results using DEP's eFACTS database.

DEP is now seeking to increase unconventional well permit application fees to $12,500. This requested increase is driven by the disparity between oil and gas program revenues (generated by the fees, etc.) and DEP's cost of administering the program to remain compliant with state law. This disparity is caused by a decrease in well permit applications and the expansion of DEP program obligations and operations due to well inventory, development activity, and the need to provide industry guidance and technical tools.



Conventional Vertical vs. Unconventional Horizontal Drilling

Unconventional vs. Conventional Wells

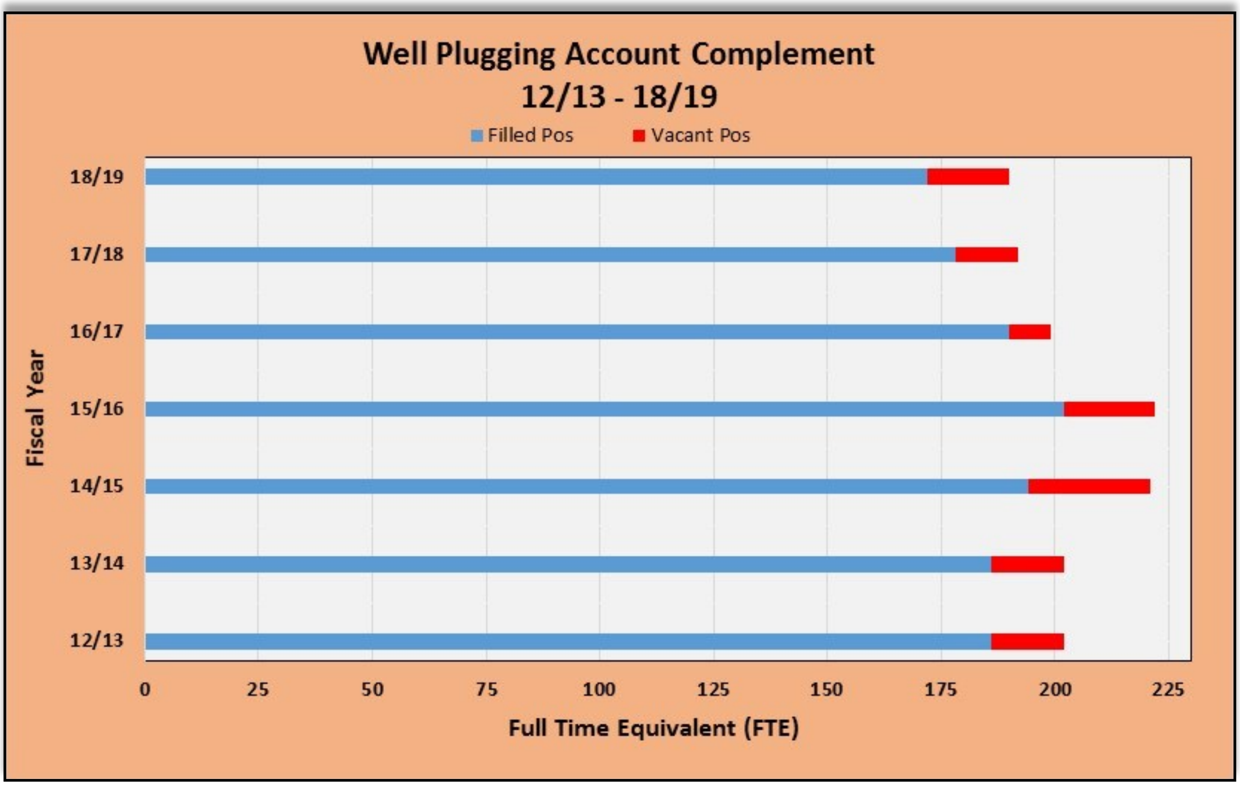
An **unconventional well** is one that is drilled in an unconventional formation, which is defined as a geologic shale accumulation below the base of the Elk Sandstone or its geologic equivalent where natural gas generally cannot be produced except by horizontal or vertical well bores stimulated by hydraulic fracturing due to low permeability and porosity.

A **conventional well** is one that produces oil or gas from a more typical formation (rock formations that have high porosity and permeability). In a conventional well, oil/gas is extracted by natural pressure from the well and pumping operations.

http://www.sanchezenergycorp.com/media-center-2/industry-library/shale-development/

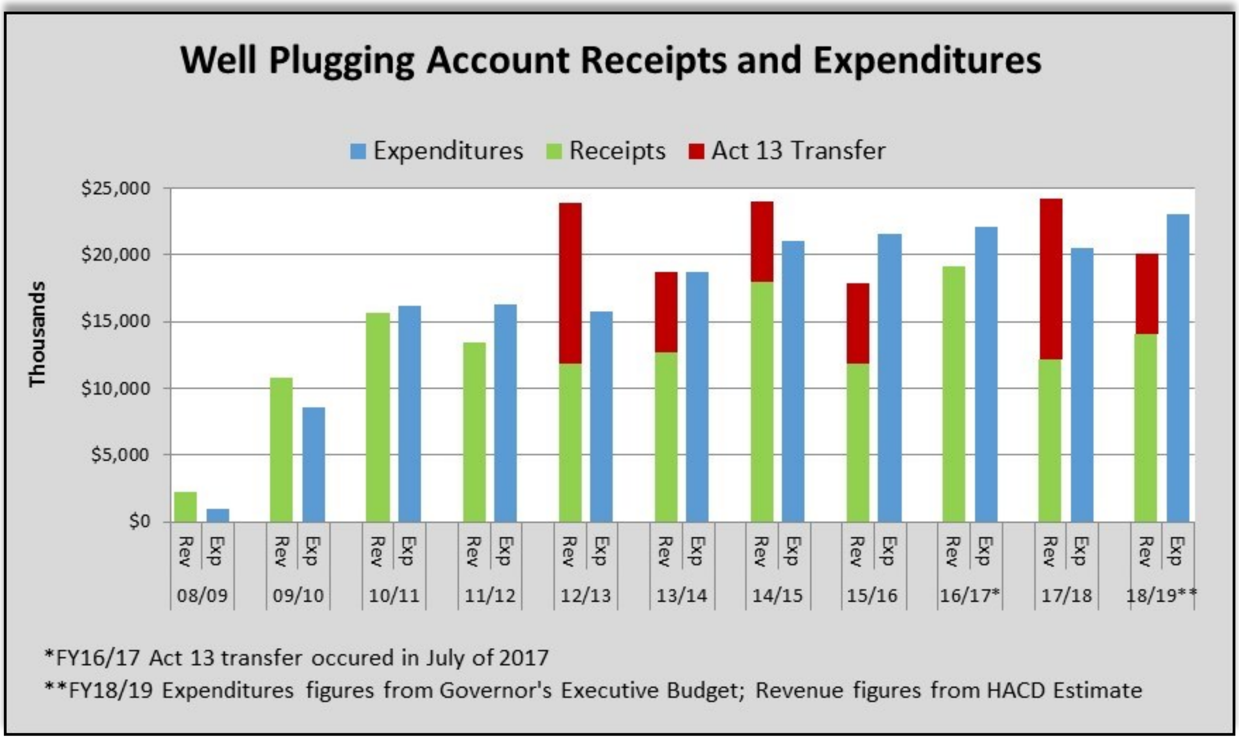
Along with revenues from various permit fees, a portion of the Act 13 impact fee levied on unconventional natural gas wells is deposited in the well plugging account. Since this 2012 amendment to Title 58, DEP receives $6 million annually from the impact fee, which it has transferred into the well plugging account.

The rapid growth of the Marcellus Shale natural gas industry in Pennsylvania has financially strained the department. Coupled with rapid growth, the decline in the level of authorized positions in the Office of Oil and Gas Management has additionally created pressure on the department. The complement has not kept up with the demands of industry expansion (graph, pg. 4).

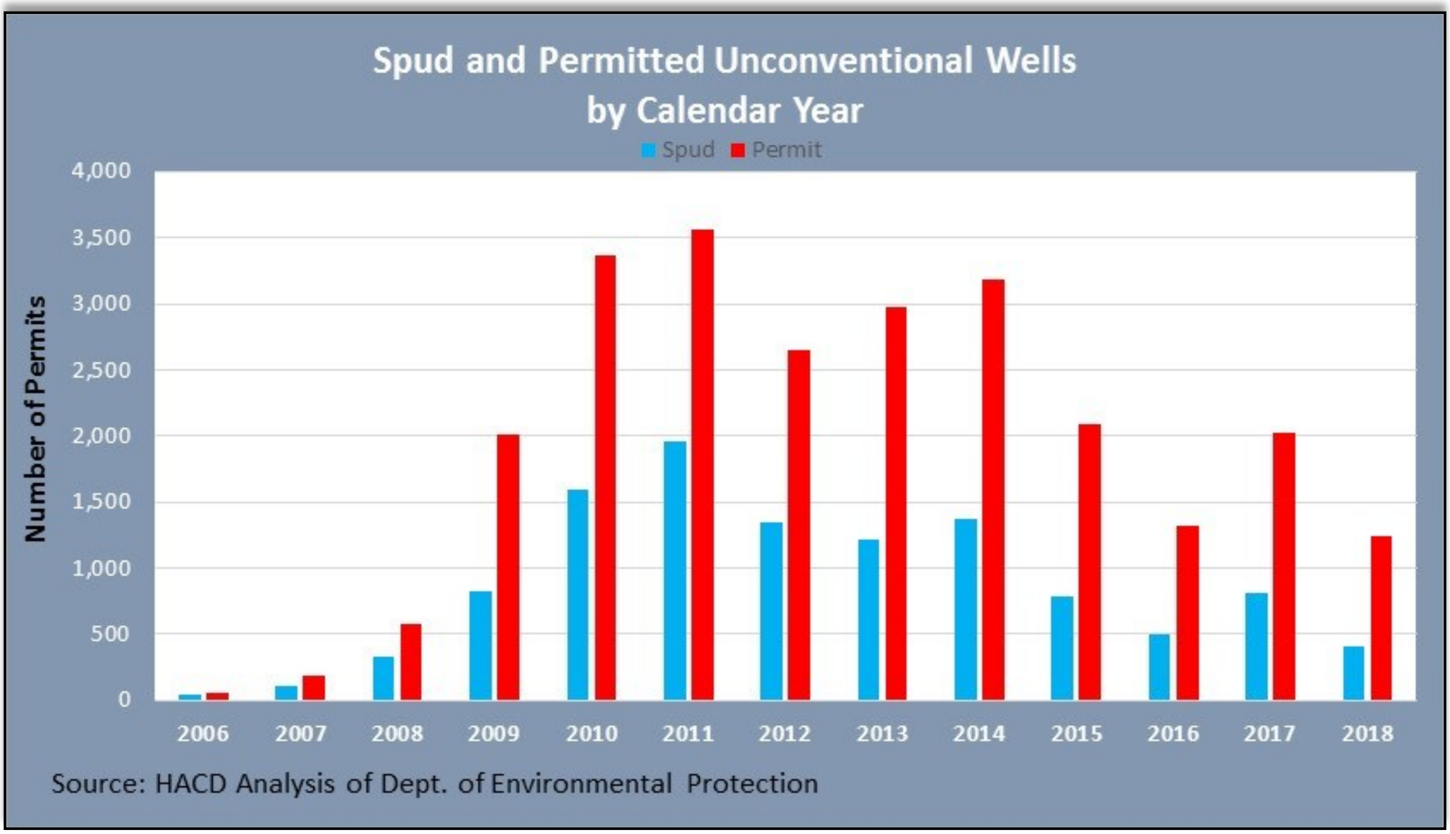


Since 2010/11, well plugging account expenditures have outpaced revenues. The Act 13 transfer, since 2012/13, has been vital to DEP's ability to do this work. But from 10/11 through 18/19 (projected), expenditures have grown by an average of 14.28 percent per year while revenues have grown by an average of 8.20 percent.

Funds from the well plugging account cover personnel and operational expenditures; the former constituting the majority of the account's payments. As previously discussed, disbursements are made for oil and gas field operations, resource management, and water management. Ironically, DEP depends on revenues received by the Marcellus Shale natural gas industry to ensure sound production procedures and the proper use of available resources.



A root cause of the decline in revenues in the well plugging account is the drop-off of approved permits in the face of a flourishing industry. From January through the end of August 2018, DEP issued 1,237 unconventional and 193 conventional well permits. If annualized, 2018 will deliver a 42 percent drop in unconventional and 77 percent drop in conventional well approved permits, compared to 2014.



DEP's 2015 Oil and Gas report cites the lack of available oil and gas drilling infrastructure for the drop in permit approvals, which has affected the regional hub price of natural gas.

The gap between regional and national (Henry-Hub) natural gas prices is diminishing as commonwealth pipeline projects come online, including the Rockies Express Zone 3 expansion and the Algonquin Incremental Market pipeline.

Abandoned and Orphan Well Plugging Program

DEP pays to close abandoned and orphaned wells with separate appropriations dedicated to each type of well.

An **abandoned well** is one that has not produced gas or oil within the preceding 12 months or one that no longer holds production equipment. **Orphaned wells** are those that were abandoned prior to April 18, 1985, and have not been operated by the present owner or the present owner has not received an economic benefit, other than royalty interest.

Plugging abandoned and orphaned wells is prioritized based on DEP inspections. DEP plugged its first abandoned well in 1989. Surcharges to fund orphaned and abandoned well-plugging operations were established in the Oil and Gas Act of 1984, a pre-cursor to current law.

The Oil and Gas Act of 2012 continued the provision for surcharges within Section 3271. Permit surcharges are in addition to the permit application fees paid by oil and gas operators. The abandoned well surcharge is $50 for all permits, while the orphaned well surcharge is $200 and $100 for gas and oil well permits, respectively. DEP is required by law to be notified within 60 days if an abandoned well is discovered.

Since the first commercial oil well in Pennsylvania in 1859, as many as 760,000 oil and gas wells have been drilled, but the locations of nearly three-quarters of them (560,000) are unknown. DEP has plugged 3,577 wells and it counts 8,736 orphaned and abandoned wells in the commonwealth. Unfortunately, the demand to address these wells is artificially limited by the funds available.

DEP's Oil and Gas Management division is critical in ensuring a proper balance between the public health and welfare of the citizens of the commonwealth and support for the natural gas industry. Therefore, proper funding is critical.

The Wolf administration and the General Assembly must work together to determine viable ways to better support Oil and Gas Management and its missions.

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