

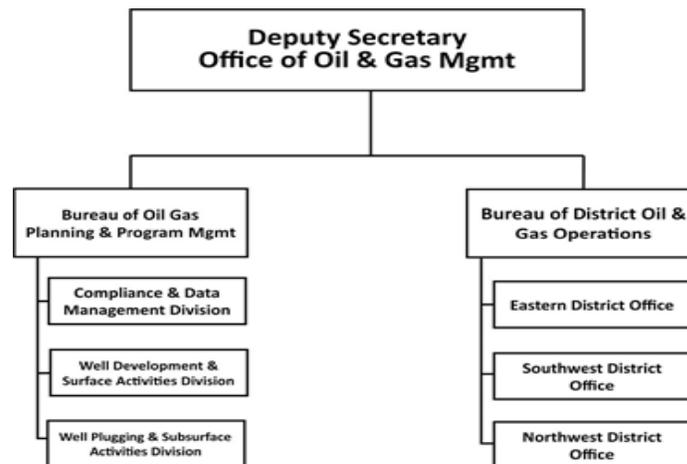
3-YEAR REGULATORY FEE AND PROGRAM COST ANALYSIS REPORT TO THE ENVIRONMENTAL QUALITY BOARD

Pursuant to 25 Pa. Code §§ 78.19(e) (conventional oil and gas wells) and 78a.19(b) (unconventional gas wells), at least every 3 years the Department of Environmental Protection (DEP) will provide the Environmental Quality Board (EQB) with an evaluation of the well permit fees received. DEP last submitted a well permit fee report to the EQB at its January 21, 2014 meeting. In accordance with regulatory requirements, DEP has conducted a comprehensive review of its resource needs to administer the oil and gas oversight program along with projected revenues. This 3-Year Regulatory Fee and Program Cost Analysis Report summarizes that review and analysis. In short, DEP's inspection and program administration responsibilities have increased; however, the number of well permits submitted to DEP does not generate sufficient revenue to cover the costs of administering DEP's oil and gas program. Current fiscal trends will result in a deficit in the first quarter of FY 2019-20.

The well permit fee is paid with the permit application at the beginning of a well's operating life; therefore, it is a one-time source of revenue that is used to fund continuing obligations. A well typically remains active for decades before being plugged, during which time the cost for DEP to conduct investigations of the well site must be borne by the receipt of new drilling permit application fees. While in prior years DEP received enough oil and gas drilling permit fees to meet its basic financial needs, current permit volumes are insufficient to maintain DEP's Office of Oil and Gas Management (Oil and Gas Program) into the future. Despite the lack of funding to support the Oil and Gas Program, its oversight responsibilities have increased.

BACKGROUND:

DEP's Oil and Gas Program is responsible for overseeing the environmentally responsible development of Pennsylvania's oil and gas resources. The office consists of two bureaus. The organization chart for the Office of Oil and Gas Management is depicted below.



The Bureau of Oil and Gas Planning and Program Management is located in DEP's central office (Harrisburg) and is responsible for administrative, policy and regulatory development functions.

The Bureau of District Oil and Gas Operations consists of three district oil and gas offices located in the oil and gas producing regions of the state and is responsible for permitting, inspection, compliance and enforcement functions.

The Bureau of Oil and Gas Planning and Program Management includes the following three divisions:

Well Development and Surface Activities – This division is responsible for developing policies and guidance related to surface activities associated with well site and gathering line design, construction, and operation. This includes waste management and engineered components such as erosion and sediment control structures, post construction stormwater management features, spill and release reporting and remediation, and stream and wetland crossings and encroachments.

Well Plugging and Sub-Surface Activities – This division consists of the Subsurface Activities Section and the Well Plugging Section. The Subsurface Activities Section is responsible for the management of subsurface oil and gas activities and offers expertise in drilling, casing, cementing, completion, workover, and production activities and operations. The Well Plugging Section maintains and implements DEP’s Orphaned and Abandoned Well Plugging Program.

Compliance and Data Management – This division works closely with DEP's Bureau of Information Technology to oversee the development, operation and maintenance of data management systems that track reports, notifications, records, applications and other information or documents that are submitted to DEP by the regulated community. This division is also responsible for assisting in the development of statewide data management tools such as electronic well permitting and mobile site inspection as well as statewide enforcement efforts related to electronic data submittal.

The Bureau of District Oil and Gas Operations includes three district offices that implement the operational programs in the eastern, northwest, and southwest areas of the state. Staff in the district offices are responsible for permitting and inspecting oil and gas well sites and gathering lines and responding to complaints. The district staff are also responsible for compliance and enforcement activities. The district offices are located in Williamsport, Meadville and Pittsburgh.

The full range of responsibilities and achievements of the Office of Oil and Gas Management can be reviewed in its 2016 [Annual Report](#).

PROGRAM FUNDING HISTORY:

Original Well Permit Fee

The Oil and Gas Act, which was originally passed on December 19, 1984 and replaced in 2012 by Act 13 (the Act), initially established a \$100 fee for oil and gas well permits. Section 3211(d) of the Act allows the EQB to increase the fee by regulation, provided the fee “bears a reasonable relationship to the cost of administering” the Act. For nearly 25 years, permit fee levels were stagnant and remained at \$100, despite escalating program expenses.

2009 Permit Fee Rulemaking

In April 2009, in response to the dramatic increase in program resources required to regulate unconventional gas development, the EQB increased permit fees for Marcellus Shale wells through a final-omitted rulemaking. The fee structure implemented through that rulemaking increased fees from a flat \$100 to a sliding scale based on the length of the well bore.

At the same time the final-omitted rulemaking was adopted, another rulemaking was developed by the EQB that was functionally equivalent to the final-omitted rulemaking. This latter rulemaking was initiated to allow for public review and comment on the issue of fees.

2013 Permit Fee Rulemaking

As a result of the passage of the Act in 2012, additional statutory provisions increased DEP's workload across the agency and particularly in the Office of Oil and Gas Management. On April 23, 2013, DEP presented a proposed rulemaking to the Oil and Gas Technical Advisory Board that streamlined the sliding-scale permit fee structure that EQB adopted in 2009. The 2013 proposed rulemaking eliminated the sliding scale for unconventional operators in lieu of a fixed fee of \$5,000 for horizontal unconventional wells and \$4,200 for vertical unconventional wells. At the time of the proposal, the average fee of an unconventional well permit was \$3,200. The existing sliding-scale permit fee structure for conventional operators was not changed.

The proposed rulemaking was adopted by the EQB on July 16, 2013 with publication for a 30-day public comment period. The proposed rulemaking was published in the *Pennsylvania Bulletin* on September 14, 2013. On January 21, 2014, EQB adopted the final rulemaking and the Independent Regulatory Review Commission approved this final rulemaking on May 1, 2014. The rulemaking became effective on June 14, 2014 when published as final in the *Pennsylvania Bulletin*.

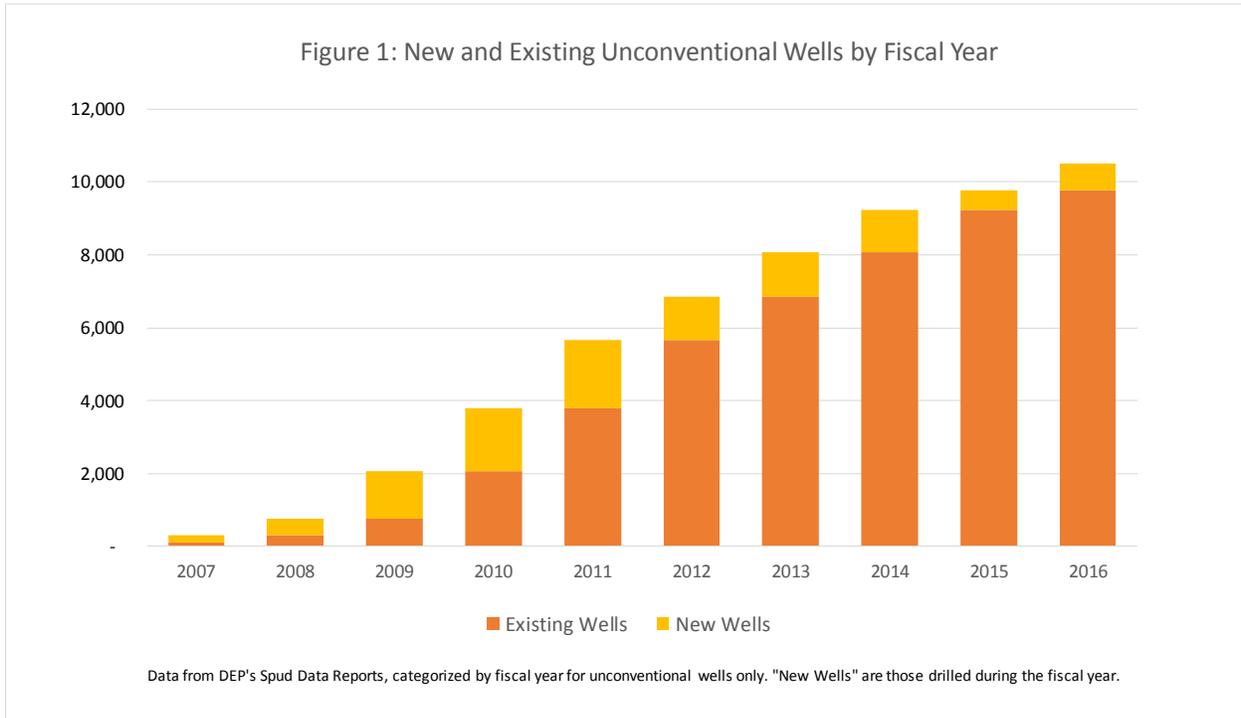
ANALYSIS:

Workload

Although well permitting and drilling volumes have recently tapered, DEP's workload has increased since DEP's oversight responsibilities do not end when a well is permitted and drilled. For each well that has been drilled in Pennsylvania there are associated well sites, gathering pipelines, access roads, water withdrawal locations, well development impoundments and other support facilities with their own authorization and inspection obligations. In addition, after a permit application is submitted and the fee is paid, the well is drilled and put into production necessitating inspections during the operating life of the well. The initial permit fee provides no ongoing revenue to the Oil and Gas Program for work conducted in future years.

As shown in **Figure 1**, the universe of active unconventional gas wells has been steadily increasing since 2007 to the present time. Since the unconventional natural gas industry began ramping up in 2007, the number of unconventional gas wells has increased more than ten-fold or

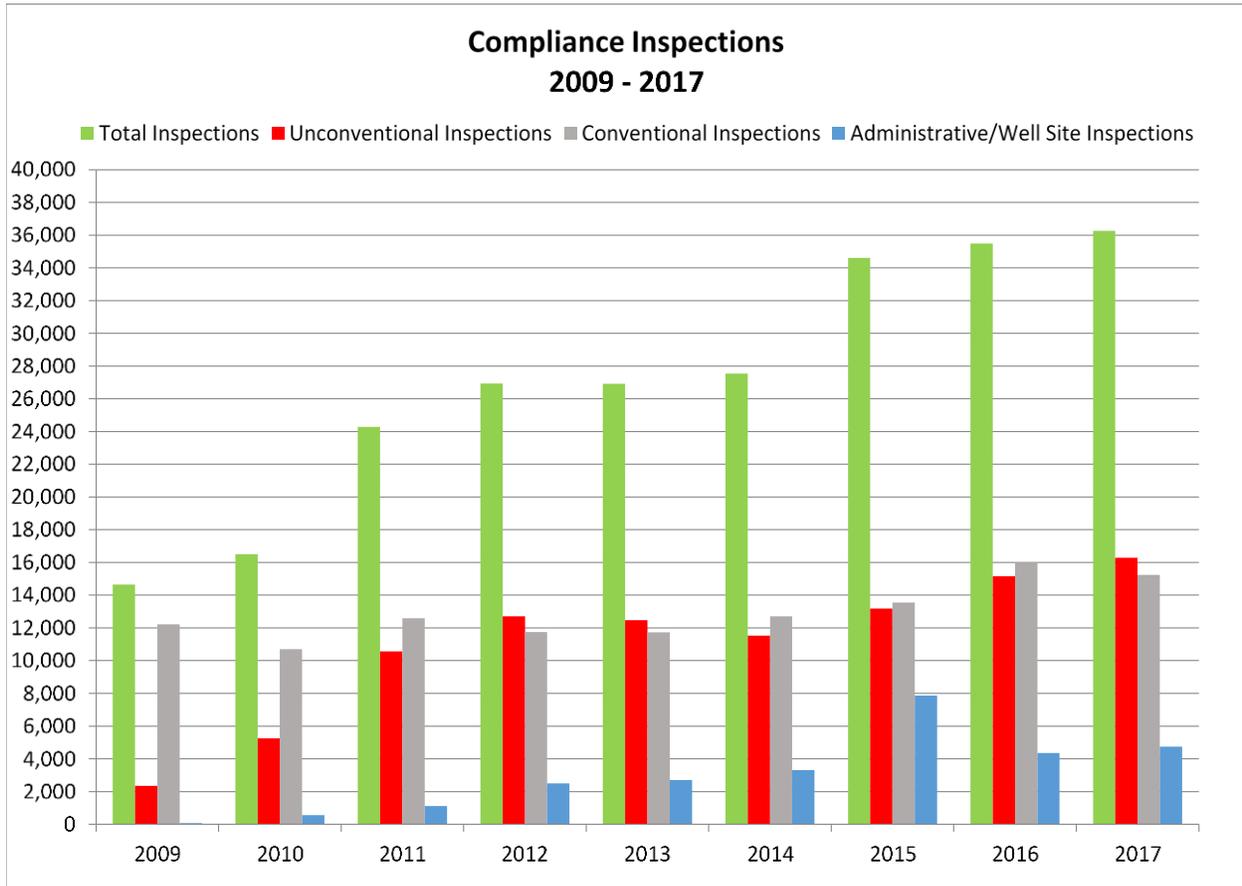
1,000%. Given that the estimated lifespan of an unconventional gas well can exceed 20 years, the number of active gas wells is projected to continue to increase over the next 10 to 15 years before the total inventory of active gas wells begins to stabilize.



DEP employs Oil and Gas Inspectors and Water Quality Specialists to inspect sub-surface and surface related oil and gas operations, respectively. DEP inspectors are also responsible for responding to stray methane gas inspections and citizen complaints related to stray gas events and water supply impacts.

For every well drilled in Pennsylvania, DEP must commit resources to inspect and monitor the increasing universe of wells. As depicted in **Figure 2**, DEP has increased the total number of compliance inspections at conventional and unconventional well sites from 14,651 to 36,268 between calendar year 2009 and 2017. This represents an increase of more than 147 percent for the number of inspections that have been conducted by DEP staff over this timeframe.

Figure 2: “DEP Compliance Inspections (CY 2009 – 2017)



New wells are accompanied with new infrastructure, including support facilities, water withdrawals, well development impoundments, access roads, and gathering pipelines, further increasing DEP’s oversight obligation, that are not accounted for in the permit fee. There are also several other activities that do not generate fees, such as water withdrawals, alternative waste management facilities, permit transfers, monthly production reports and other data management issues.

Cost-Saving Measures

In response to the decrease in permit revenue, DEP’s Office of Oil and Gas Management has implemented multiple cost-saving measures to conserve available funds until a sustainable funding stream is implemented. First, DEP has reduced its oil and gas staff complement from 226 employees to 190 employees. Staff costs are the largest expenditure required to administer an effective Oil and Gas Program. During FY2016-17, personnel costs were on average \$1.6 million per month, while operating expenses and fixed asset purchases averaged less than \$125,000 per month.

The Office of Oil and Gas Management has also reduced operating costs, including the purchase of fixed assets and supplies. Over the past three fiscal years, DEP’s oil and gas program has

reduced operating and fixed asset costs from \$2,456,084 to \$1,497,356. This represents a 39% reduction in costs.

New Policy Initiatives

As a result of increased workload described above and the continually advancing oil and gas industry, DEP has increasing responsibilities to develop guidance, update forms, provide training, improve data management and to study and evaluate new and evolving issues all to ensure that the Oil and Gas Program operates effectively and efficiently while providing clarity to the regulated community. Examples include:

- Develop implementation guidance, training, procedures and forms to implement Chapter 78a
- Industry and DEP training on well site/natural gas gathering line permitting issues
- Review of underground injection control well permit applications
- Development of seismic protocols and monitoring for hydraulic fracturing and underground injection
- Coordination of coal and natural gas interests and issues
- Evaluation of methane and stray gas emissions from orphan and abandoned wells
- Evaluation of natural gas storage in underground reservoirs
- Addressing orphan and abandoned well issues efficiently and effectively
- Development of data submission and management tools
- Development of electronic permitting platforms for all permits issued by the Office of Oil and Gas Management
- Development of mobile inspection platforms for both surface and subsurface inspections

Plugging Orphan and Abandoned Wells

An ongoing issue that remains severely underfunded relates to orphan and abandoned oil and gas wells (legacy wells) across Pennsylvania. In 2000, the Independent Petroleum Association of America estimated that 325,000 legacy wells exist in the Commonwealth. Since 1956, 131,000 wells have been permitted to operate in Pennsylvania and DEP has located 8,300 legacy wells and has recorded them in an electronic database. This results in approximately 200,000 legacy wells that are currently unaccounted for in Pennsylvania.

Legacy wells pose risks to human health and the environment and these risks will continue to increase in future years if this situation is not addressed. Currently, DEP does not have the financial resources to adequately address this problem. For example, this fiscal year DEP received less than \$755,000 to plug abandoned wells from the surcharges contained in the Act. 58 Pa.C.S. § 3271(b) – (c). This is only sufficient to address wells that pose an imminent risk to public safety and DEP was only able to plug four such wells this fiscal year.

The Well Plugging Fund contains no surplus monies to aid in the plugging of abandoned and orphan wells. Despite its name, the purpose of the Well Plugging Fund is to pay for the general operations of the Oil and Gas Program, and its plugging operations are funded by the Abandoned Well Plugging Fund and the Orphan Well Plugging Fund. The Abandoned and Orphan Well

Plugging Funds receive revenue from a nominal permit surcharge authorized by the 2012 Oil and Gas Act (\$150 per oil well permit and \$250 per gas well permit). 58 Pa.C.S. § 3271. The permit surcharge is grossly insufficient to cover the cost of properly plugging all orphan and abandoned wells that currently exist in Pennsylvania. At current surcharge rates and per-well plugging costs, DEP will not have any material impact on reducing the number of unplugged orphan and abandoned wells in Pennsylvania for more than 100 years.

Current Revenue and Permit Fee Status:

The cost to operate the Office of Oil and Gas Management is funded through the receipt of well permit fees, civil penalties and \$6 million in impact fees that are allocated annually to DEP in accordance with the 2012 Oil and Gas Act. 58 Pa.C.S. § 2314(c.1)(3). The \$6 million impact fee could, by law, be distributed to support DEP’s Oil and Gas, Clean Water, and Clean Air Programs, but the Department has been unable to do so since all such funding has been required to maintain a positive balance in the Well Plugging Fund. No General Fund revenue is used to support the Office of Oil and Gas Management.

As shown in **Attachment A**, permit fee revenue increased from \$9.5 million in FY2012-13 to \$13.5 million in FY2014-15. This increase is attributed to moving from the sliding scale permit fee to the fixed permit fee; however, permit revenues did not remain at this level. Permit fee income dropped by more than 41% in fiscal year 2015-16 and remained 28% below the FY2014-15 income threshold in the second fiscal out-year, due to the decline in permit applications received from oil and gas operators. The number of permits received from FY2014-15 to FY2016-17 are listed below.

	Number of Unconventional Permits Received
FY2014-15	2,533
FY2015-16	1,646
FY2016-17	1,993

Expenditures, in contrast to revenues, have remained steady with limited growth, and are tied to the Program’s responsibilities. Personnel remains the dominant expenditure, approximately 90% of total operating costs. These personnel are necessary to review permit applications and inspect facilities, in service to the oil and gas industry and the health and safety of Pennsylvania’s citizens.

CONCLUSION:

When the unconventional well permit fee was amended in June 2014, DEP projected that the \$5,000 flat fee would be adequate to support the full complement of 226 Oil and Gas Program staff, provided DEP received 2,600 unconventional well permits annually (along with \$6 million in impact fees). While that projection was accurate during the pendency of the previous rulemaking, the number of oil and gas permits received in FY2015-16 and FY2016-17 was significantly lower than anticipated.

Although the number of unconventional natural gas permits have fallen off dramatically, the volume of natural gas produced by unconventional operators has continued to steadily rise. In calendar year 2016, the total volume of natural gas produced in Pennsylvania climbed to an all-time high of 5.1 trillion cubic feet. Pennsylvania continues to maintain the distinction as the second largest producer of natural gas in the nation, behind Texas.

Given the low number of permits received over the past two fiscal years and all indications that permit volumes are not expected to rebound in the near term, the current well permit fee is no longer sufficient to fund DEP's Oil and Gas Program; even with substantial cost-saving measures that have been implemented as described above. While revenues are declining, the Oil and Gas Program's responsibility to inspect and monitor existing wells continues to increase as the inventory of active oil and gas wells grows in addition to the other workload requirements and policy initiatives described above.

Despite reductions in staff and operating expenditures, the Office of Oil and Gas Management will soon reach a funding deficit at current well permit fee levels. As depicted in **Attachment A**, the Well Plugging Fund is expected to reach a negative balance by the first quarter of FY 2019-20, given current expense and revenue projections.

A regulation should be developed to address the disparity between the program income generated by permit fees and DEP's costs of administering the Oil and Gas Program with an objective of ensuring fees meet program costs and are self-sustaining. To ensure the solvency of the Oil and Gas Well Plugging Account and the resources necessary for the continued proper management of the Department's Oil and Gas Program, the Department recommends that the Environmental Quality Board revise the permit fees for all unconventional wells and charge a flat fee of \$12,500. The Department also recommends that the fees for conventional wells, which are typically vertical wells, remain unchanged.

ATTACHMENT A

**COMPARATIVE FINANCIAL STATEMENT
WELL PLUGGING RESTRICTED REVENUE ACCOUNT**

	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
							Projection	Projection
BEGINNING BALANCE:	5,836,205	2,975,275	11,093,426	11,118,108	14,005,857	10,265,076	7,321,124	7,114,846
Revenue:								
Permit Fees	11,316,801	9,465,100	11,387,865	13,504,728	7,910,959	9,703,101	9,500,000	9,500,000
Fines and Penalties	2,287,519	2,346,923	1,419,447	4,403,553	4,076,710	9,590,432	2,000,000	2,000,000
Act 13 Impact Fees	-	12,000,000	6,000,000	6,000,000	6,000,000	-	12,000,000	6,000,000
Other Revenue	(132,900)	51,479	(96,981)	66,415	(101,327)	(168,185)	(454,522)	(75,000)
Total Revenue:	13,471,420	23,863,502	18,710,331	23,974,696	17,886,341	19,125,347	23,045,478	17,425,000
Total Funds Available:	19,307,625	26,838,777	29,803,757	35,092,803	31,892,199	29,390,423	30,366,602	24,539,846
Expenditures:								
Personnel	(14,300,038)	(13,069,356)	(16,263,904)	(17,984,651)	(19,450,600)	(19,777,394)	(20,155,000)	(21,153,000)
Operating	(1,552,936)	(1,733,091)	(1,472,626)	(1,809,728)	(1,457,284)	(1,392,752)	(2,154,756)	(2,234,659)
Fixed Assets	-	(332,120)	(383,578)	(646,356)	(73,888)	(104,604)	(242,000)	(358,000)
Transfers and Other	(479,376)	(610,785)	(565,541)	(646,210)	(645,351)	(794,550)	(700,000)	(700,000)
Total Expenditures:	(16,332,350)	(15,745,352)	(18,685,649)	(21,086,946)	(21,627,122)	(22,069,300)	(23,251,756)	(24,445,659)
ENDING BALANCE:	2,975,275	11,093,426	11,118,108	14,005,857	10,265,076	7,321,124	7,114,846	94,187

Note: The Act 13 Impact Fee payment for 2016-17 was received after the end of the fiscal year, and therefore is not shown until 2017-18.