

Oil and Gas Program Overview.

DEP's Office of Oil and Gas Management is responsible for the statewide oil and gas conservation and environmental programs to facilitate the safe exploration, development, and recovery of Pennsylvania's oil and gas reservoirs. The office develops policy and programs for the regulation of oil and gas development and production pursuant to the Oil and Gas Act, the Coal and Gas Resource Coordination Act, and the Oil and Gas Conservation Law; oversees the oil and gas permitting and inspection programs; develops statewide regulations and standards; conducts training programs for industry; and works with the Interstate Oil and Gas Compact Commission and the Oil and Gas Technical Advisory Board. The office also regulates aboveground and underground storage tanks at oil and gas well sites.

To control impacts to water, the office issues permits requiring oil and gas operators to implement best management practices for erosion and sediment control, stabilize all areas where earth disturbance is conducted, and manage post-construction stormwater rate, volume and quality. When submitting a notice of intent for coverage under the Erosion and Sediment Control General Permit (ESCGP), oil and gas operators must also demonstrate that their post-construction stormwater management plans are consistent with county stormwater management plan requirements. Operators must also restore well sites and remove all drilling supplies and equipment not needed for production within nine months of drilling of the wells, or after the well permits expire. Routine inspections help to ensure compliance of these permits. From 2011 through 2018, DEP collected more than \$36.9 million in fines and penalties because of noncompliance at oil and gas sites in Pennsylvania. These fines and penalties are used to reimburse operating costs that are incurred by DEP in the oversight of oil and gas and related environmental programs and to deter noncompliance with environmental laws. An overview of the stream permits issued, inspections completed, and violation statistics for 2018 are provided in Table 1.

Table 1. Overview of the Oil and Gas Management statistics according to the latest report (2018).

Stream Crossing and Encroachment Permits Issued	413
Erosion and Sediment Control Permits Issued	458
Unconventional Drilling Permits Issued	1,868
Conventional Drilling Permits Issued	281
Inspections	36,873
Violations at Conventional and Unconventional Well Sites	4,060
Penalties Collected	\$4,140,382

To protect water quantity, the 2012 Oil and Gas Act (Act 13 of 2012) requires a Water Management Plan that covers the water sources to be withdrawn or utilized for drilling or hydraulic fracturing of each unconventional natural gas well project in Pennsylvania. There are additional requirements within the Susquehanna and Delaware River basins controlled by the Susquehanna River Basin Commission and the Delaware River Basin Commission, respectively.

Recycling of flowback and produced water from unconventional wells for new hydraulic fracturing operations reduces the amount of water to be withdrawn from freshwater sources in Pennsylvania and reduces the amount of wastewater for disposal or treatment. Based upon the 2018 waste data submitted by the Oil and Gas Operators, more than 90% of the flowback and produced water from unconventional wells has been recycled. DEP's 2018 Oil and Gas Annual Report is now available. This report includes data and trends related to DEP's permitting and inspection programs. Also highlighted in the report are notable accomplishments achieved during 2018 and some information about what to expect from this program in the future.