

## Analysis of Legislative Proposals to Expand Setback Distances for Unconventional Natural Gas Development to 2,500 Feet

### Original Purpose of Setbacks

Setbacks serve as a reasonable buffer between well development activity and a public or private resource over the life of a well. Setbacks complement a robust permitting and inspection regimen, along with industry best practices and standards.

### What are the Primary Means of Protecting Natural Resources and Public Health?

Pennsylvania employs a comprehensive statutory and regulatory framework to ensure that exploration, production and transportation of natural gas resources is done in a manner protective of the environment and public health.

Pennsylvania's primary statute for regulating natural gas development is Act 13 of 2012. This Act updated the Oil and Gas Act to modernize the well drilling, completion and production standards applicable to shale gas wells in Pennsylvania. To fulfill these statutory requirements, a host of permits are required of operators, accompanied by criteria specific to the particular facet of development. These permits and accompanying regulations are revised on a regular basis to ensure maximum protection for the environment and public health. Examples of permits include:

- An [erosion and sediment control permit](#) to construct the well pad, pipeline and related infrastructure.
  - This permit ensures proper and safe construction of the well site to protect from runoff and any earth-moving related impacts to environmental resources.
- A [well drilling permit](#) to drill and operate the well.
  - This permit and related regulations include comprehensive [well construction and operating standards](#), such as casing and cementing the well to protect water supplies and aggressive monitoring inspections of the wellbore's mechanical integrity.
- An [air quality permit](#), or adherence to robust operating and emission control criteria if the well will operate below applicable permit emission thresholds.
  - This permit ensures that all aspects of operations adhere to air quality and emissions standards.
- [Waste permits](#) to process or handle or transport liquid waste.
  - These permits ensure all waste is tested, handled, transported, and reused or disposed of in accordance with all laws and existing public health and safety standards.
- Strict regulations governing [production fluids](#) and [secondary containment](#) for activities on the well site. Operators also routinely test well water before drilling, and by [law](#) face a rebuttable presumption standard should a water supply appear to be impacted. This standard was significantly expanded in 2012 to reflect modern shale gas development.
- County and/or municipal requirements, as applicable.



Additional Pennsylvania statutes, such as the Clean Streams Law, the Air Pollution Control Act, the Waste Management Act, the Radiation Protection Act, and others also apply to the industry. Additional requirements of operators for both surface and subsurface activities are found in regulations promulgated by the PA Department of Environmental Protection (25 Pa. Code Chapter 78a).

### **Current Setback Distances in PA**

Under Act 13 of 2012, the General Assembly significantly expanded setback distances in Pennsylvania. Currently, distances from a vertical wellbore and a resource include:

- 300 feet from streams, springs, wetlands and bodies of water
- 500 feet from a water well and existing building
- 1,000 feet from a public drinking water supply intake

**PA's current setbacks are the strictest among the top five natural gas producing states in the nation.**

### **Legislative Proposals**

House Bill 170 was introduced by state Representative Danielle Otten. A companion bill will be introduced by state Senator Steve Santarsiero. These bills would increase existing setback distances while imposing new setback distances, as follows:

- From 500 feet to 2,500 feet for an existing water well or building
- From 1,000 feet to 2,500 feet for a public drinking water supply intake, except a reservoir
- From 1,000 feet to 5,000 feet for a reservoir
- 5,000 feet from a school, hospital, compressor station, tank or storage facility (new)

### **Neutralizing Existing Well Pads and Infrastructure**

A typical unconventional well pad may host numerous (perhaps more than 10) wells on the pad over its lifetime. This multi-well approach minimizes surface disturbances, including pipeline right of ways and access roads, while maximizing efficient development of the resource.

Notably, unlike Act 13 which applied the increased setbacks to newly constructed well pads, HB 170 would prohibit any well from being drilled within these setback distances after its effective date.

This restriction would render thousands of existing well pads already connected to existing infrastructure incapable of hosting additional wells thereby permanently stranding the resource underlying the well pad. As a result, property owners who had leased or are contemplating leasing their oil and natural gas rights would be prohibited from realizing royalties through the development of their property.

## Analysis of Impacts of House Bill 170 & Senate Companion Bill

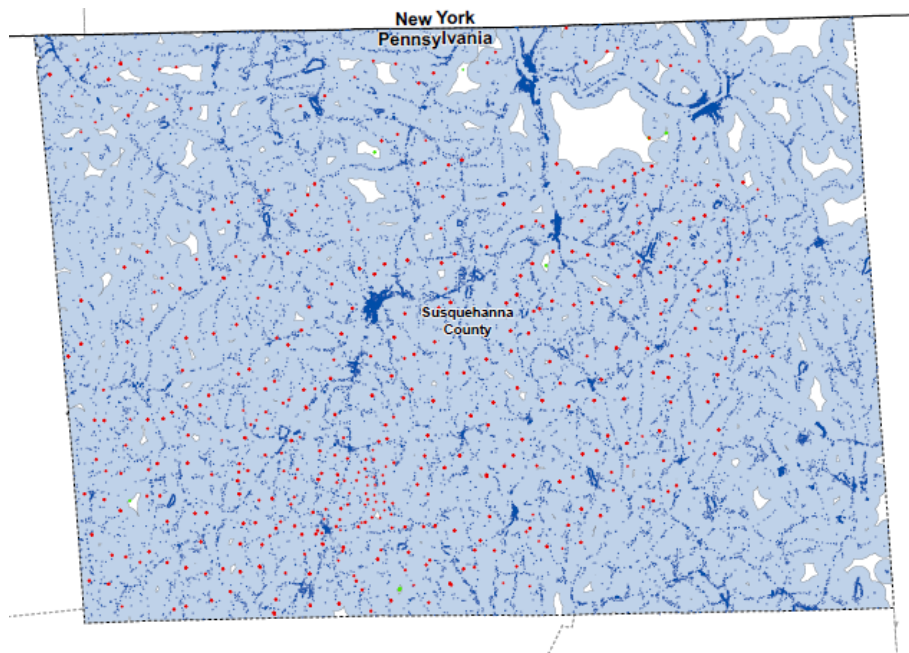
The proposed setback distances would prohibit the construction and development of unconventional natural gas wells in an overwhelming majority of the Commonwealth where unconventional natural gas is currently being produced safely and responsibly. This shortsighted approach will deprive tens of thousands of property owners who own oil and gas rights from realizing the financial benefit of their own property, is not justified or supported by any scientific or health data and would threaten energy production and therefore national security in the United States.

For example, an MSC analysis of the proposed legislation demonstrates that for some of the top producing counties in Pennsylvania, an overwhelming percentage of the county would be precluded from hosting an unconventional natural gas well. The following table illustrates this analysis:

| County      | Percent of Land Banned Under Current Setbacks* | Percent of Land Banned Under Legislative Proposals* |
|-------------|--|---|
| Allegheny   | 75%  | 99%   |
| Beaver      | 66%  | 99%   |
| Butler      | 69%  | 99%   |
| Lycoming    | 21%  | 65%   |
| Susquehanna | 30%  | 96%   |
| Tioga       | 26%  | 81%   |
| Washington  | 43%  | 99%   |

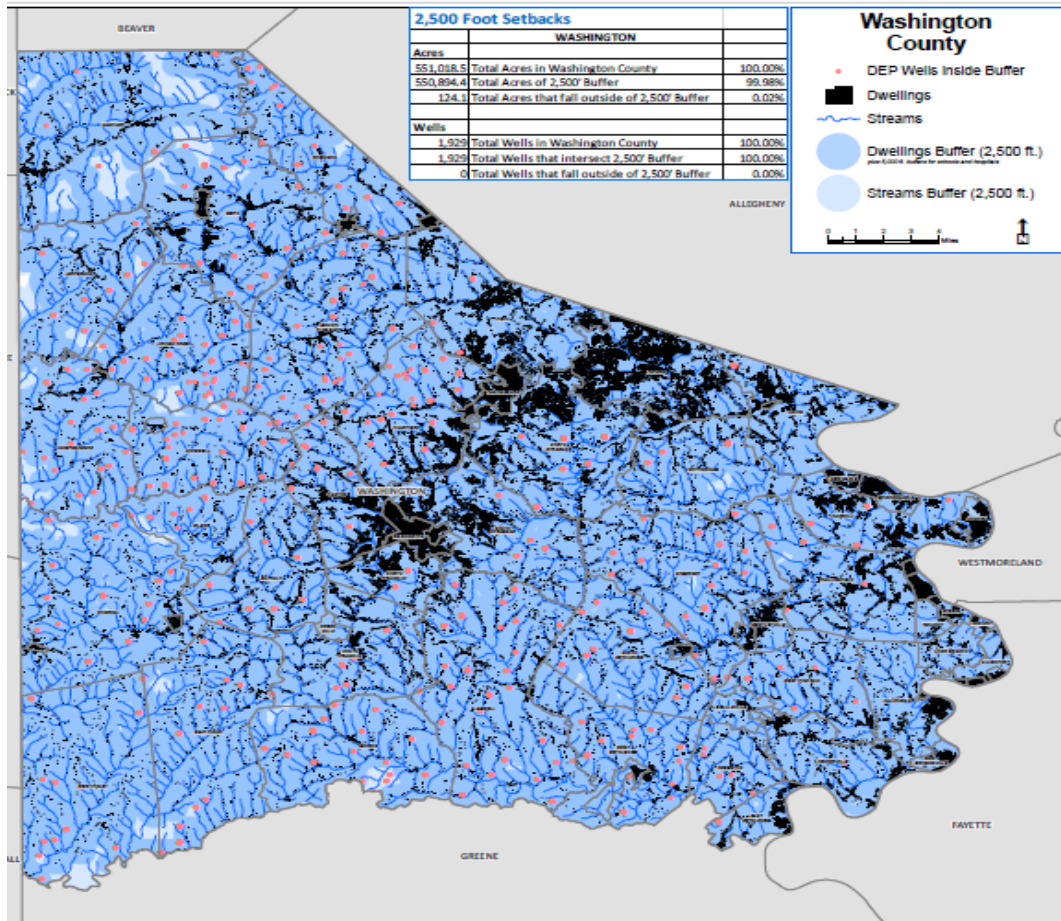
\* Percent of land refers to total land in county, not land actually available for development. See “Other Factors Limiting Amount of Developable Acreage” for additional context.

## SUSQUEHANNA COUNTY



*Blue areas represent land banned from development under proposed legislation.*

## WASHINGTON COUNTY



*Blue areas represent land banned from development under proposed legislation.*

### Other Factors Limiting Amount of Developable Acreage

It is worth noting that just because a limited amount of acreage may fall outside of the proposed setback distances does not mean that this acreage can be developed.

There are other factors, including geologic limitations of the resource, lack of legal surface access, or insufficient infrastructure to gather, process and transport natural gas or other considerations which may neutralize any acreage remaining outside of the proposed setback distances. For example, while 35% of land in Lycoming County *may appear* to still be available for development, in reality – when factoring in state parks and forests (under a leasing moratorium) and the lack of any developable Marcellus acreage in the southern portion of the county – **less than 1.5% of developable land in Lycoming County would actually be available for exploration and production under this legislation.**



## **Impacts of a Natural Gas Development Ban**

Increased setback distances are meant to prohibit further natural gas development and deprive property owners of their oil and gas rights. The consequences of doing so would be costly:

- Declining domestic energy production
- Increased electricity costs to consumers
- Decreased reliability of our energy grid
- Increased reliance on foreign dictatorships
- Increased threats to our energy – and thereby national – security
- Lost income for Pennsylvania royalty owners
- Precipitous decline in tax revenues collected from the industry, including:
  - Impact Fee revenue, which has generated over \$2.5 Billion to support local governments and environmental investments across Pennsylvania.
  - Personal income, corporate net income, sales and use and other business taxes which have generated billions of dollars to fund schools, hospitals, health care, public safety and other critical services.
- Jobs and capital investment devastated, threatening the livelihoods of 480,000 Pennsylvanians – many within the skilled trades unions – and pushing entire industries, service companies and downstream manufacturers out of Pennsylvania.

Pennsylvania citizens and consumers want affordable, clean, domestic energy. Pennsylvania-produced natural gas delivers on each of these needs. Increasing setbacks is a misguided policy that threatens our national security and prosperity while impeding the property rights of Pennsylvania citizens.