

Millionaires Don't Milk Cows

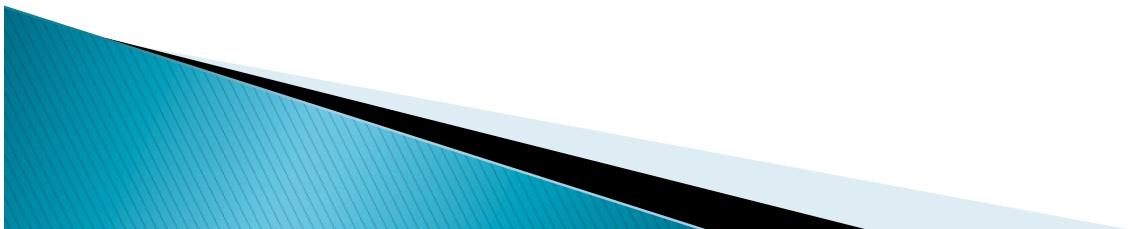
The Impact of Marcellus Shale Gas Development on Pennsylvania Agriculture

D. Robert Davidson, AICP, Esq.



Threats to Pennsylvania Farmland

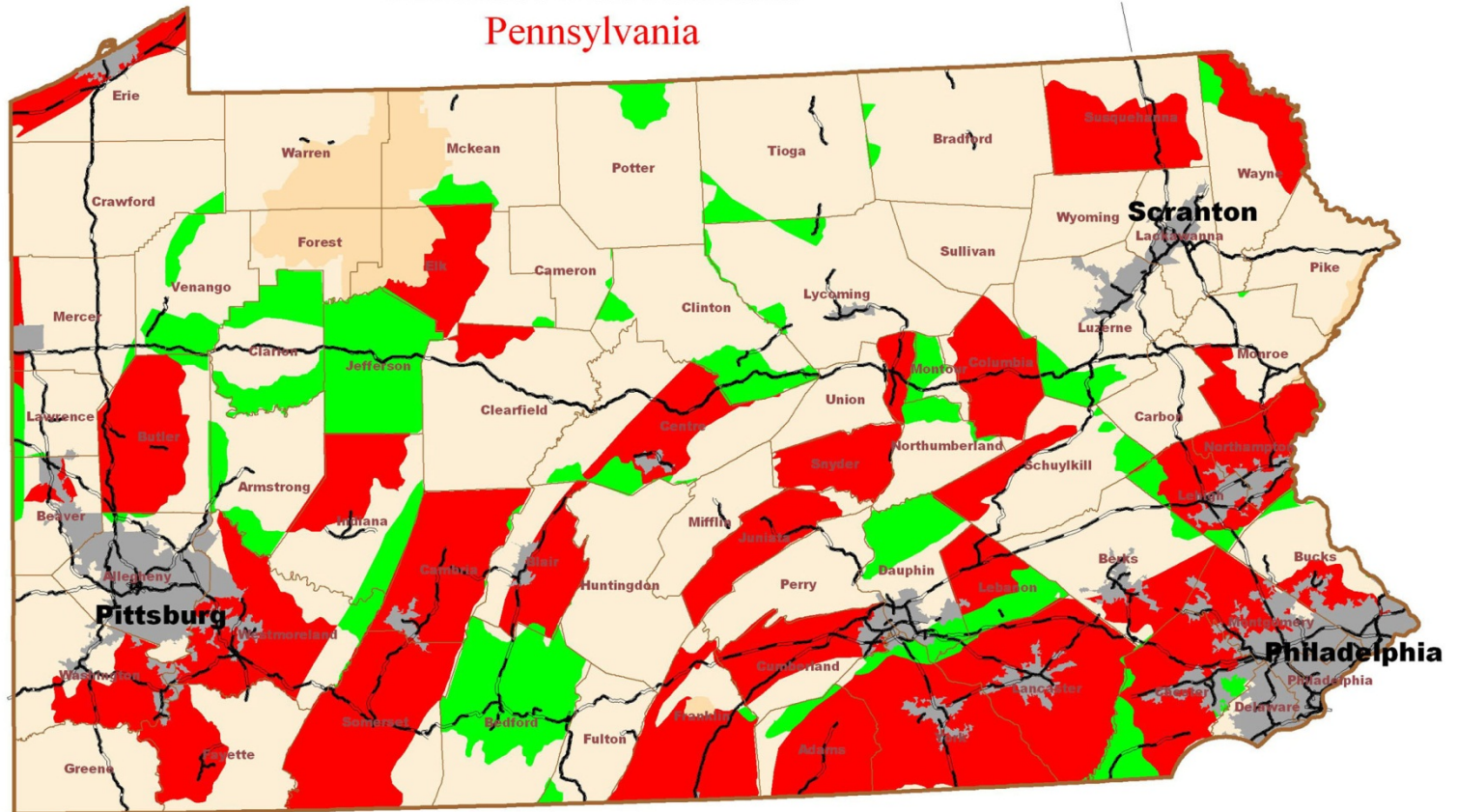
- ▶ Low Commodity Prices
- ▶ Graying Farmers
- ▶ Dwindling Employment Pool
- ▶ High Land Values
- ▶ Development Pressure



FARMING ON THE EDGE

Sprawling Development Threatens America's Best Farmland

Pennsylvania



Legend:

- High-Quality Farmland & High Development
- High-Quality Farmland & Low Development
- Urban Areas
- Other Lands
- Federal & Indian Lands

0 12 Miles

American Farmland Trust
www.farmland.org

09/20/02

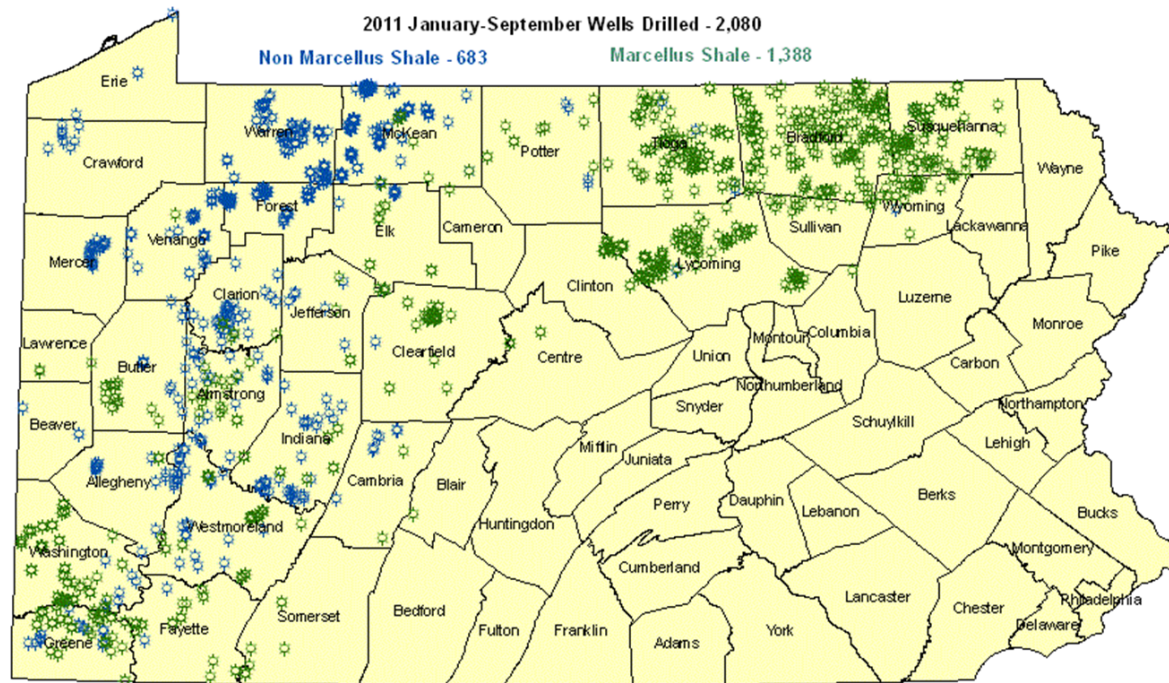
Threats to Farmland from Marcellus Shale Gas Development

Department of Environmental Protection
Bureau of Oil and Gas Management
Wells Drilled

2011 January-September Wells Drilled - 2,080

Non Marcellus Shale - 683

Marcellus Shale - 1,388



As Reported by Operators

Updated 10/06/2011

FARMING ON THE EDGE Sprawling Development Threatens America's Best Farmland Pennsylvania



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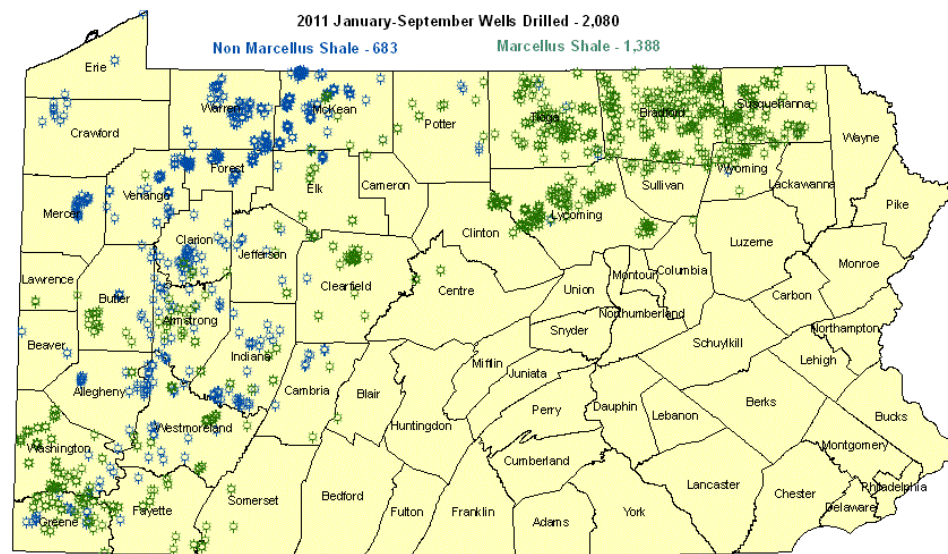
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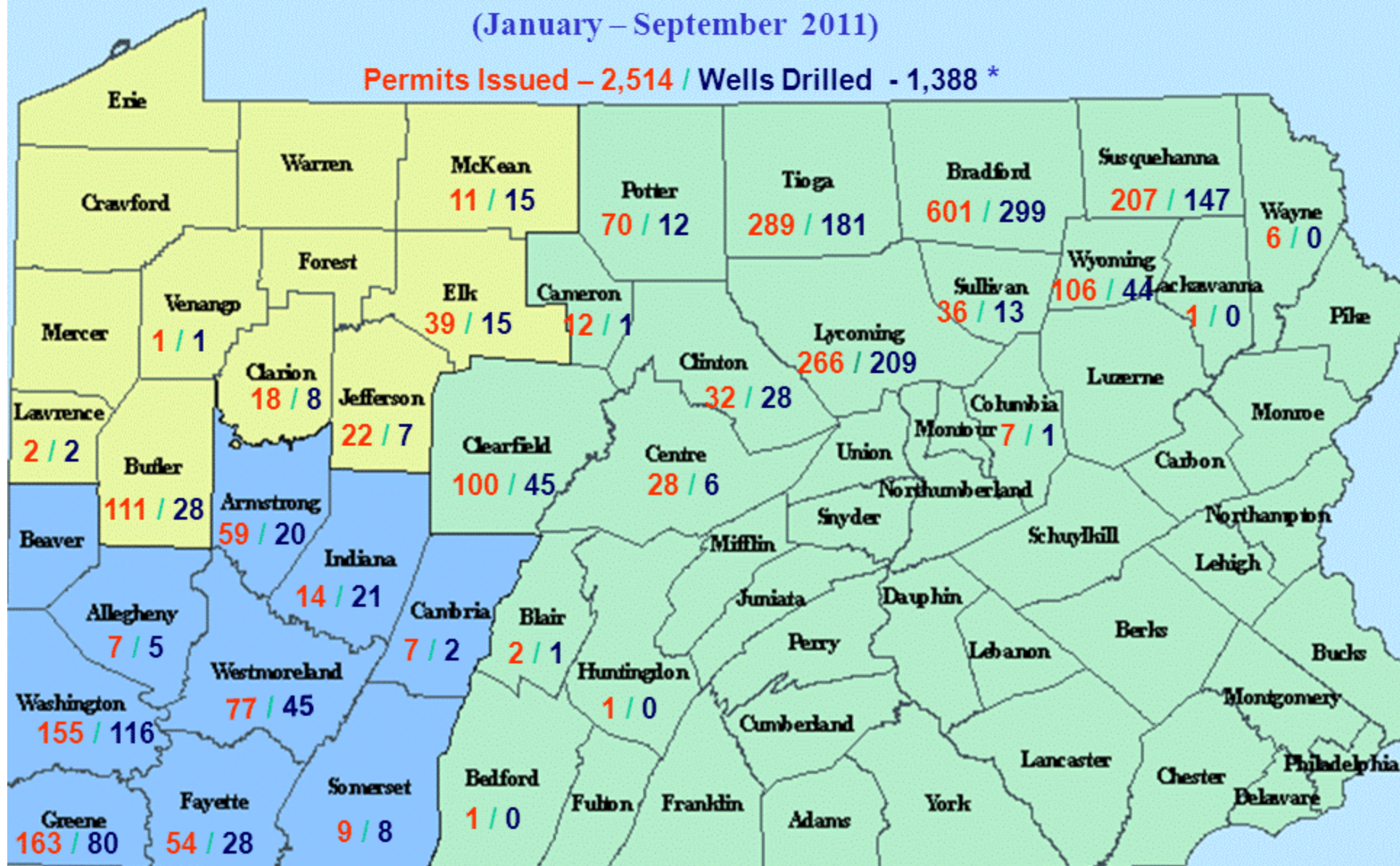
Updated 10/06/2011

- ▶ Retired Farmers
- ▶ No Employees
- ▶ Land Speculators
- ▶ Gas Production Related Development
- ▶ Increased Regulations
- ▶ Increased Traffic
- ▶ Environmental Issues



Department of Environmental Protection
Bureau of Oil and Gas Management
Marcellus Shale Permits Issued & Wells Drilled
(January – September 2011)

Permits Issued – 2,514 / Wells Drilled - 1,388 *



Retired Farmers

- ▶ Bonus Payments
 - Up to \$7,000/Acre
 - Typically \$2,000/\$4,000/Acre
 - Average PA Farm Size is 158 Acres
 - \$316,000 – \$632,000
- ▶ Multiple Opportunities to Lease
- ▶ Multiple Wells Per Pad



Retired Farmers

Natural Gas Royalty Estimate

12.5

Your royalty rate.

\$4.00

Average wellhead gas price.

6

Average well production rate in millions of cubic feet per day.

100

Acres you own within the well's production unit.

640

Number of acres in the well's production unit.

\$171,093.75

Your expected royalty payment per year.

Natural Gas Royalty Estimate

18

Your royalty rate.

\$4.00

Average wellhead gas price.

6

Average well production rate in millions of cubic feet per day.

100

Acres you own within the well's production unit.

640

Number of acres in the well's production unit.

\$246,375.00

Your expected royalty payment per year.

Natural Gas Royalty Estimate

20

Your royalty rate.

\$12.00

Average wellhead gas price.

10

Average well production rate in millions of cubic feet per day.

100

Acres you own within the well's production unit.

640

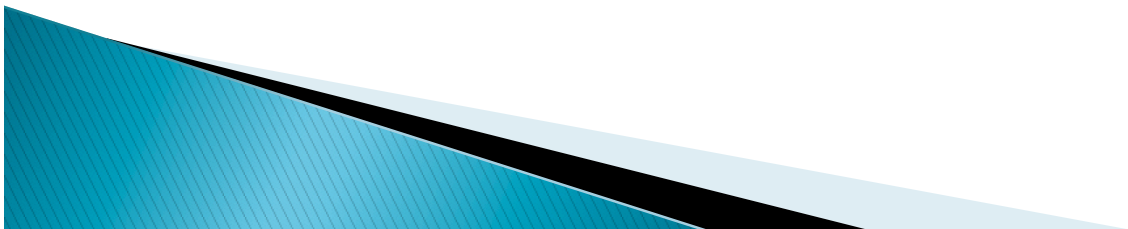
Number of acres in the well's production unit.

\$1,368,750.00

Your expected royalty payment per year.

Farm Succession

- ▶ Next Generation
- ▶ New Beginning Farmers
 - Owner vs. Lessee
- ▶ Farm Expansion/Transition
- ▶ Farms with severed oil and gas rights



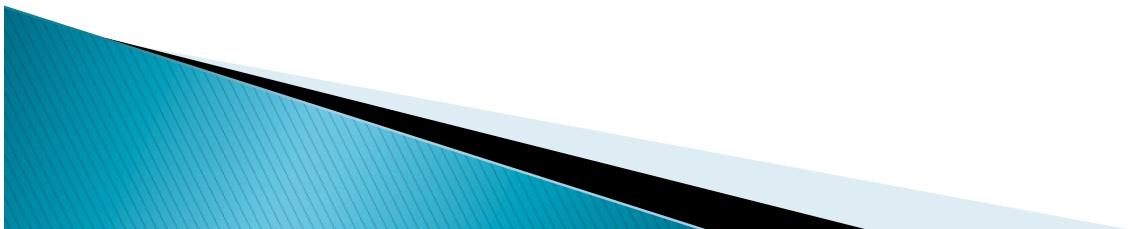
No Employees

- ▶ Current Employees have left to work in the gas industry
- ▶ Immigrant Labor
- ▶ Technology
- ▶ Farm Transitions



Land Speculators

- ▶ 54.81 Acres Clifford Twp., Susquehanna County, Pennsylvania \$475,000 Large meadows, woodlands, stone walls. No gas lease! \$8,666/Acre
- ▶ 77.31 Acres Mansfield, Tioga County, Pennsylvania \$899,900 Well Maintained Farm! OGM's TRANSFER TO BUYER. Pickle Hill Farm is just minutes to Mansfield and is currently a hay and dairy farm with an updated farmhouse. Lots of level land, rolling hay fields and fenced pasture. Home is large with 3 bedrooms 2 baths, spacious kitchen and more! \$11,640/Acre



- ▶ 41 Acres Hughesville, Lycoming County, Pennsylvania \$4,750,000 100% of the GAS and Oil RIGHTS in the Marcellus Shale area with 11 Wells. Asking \$4,750,000.00 The 41 Acres is located in a really nice setting with Views in many directions. 31 Acres open and 10 Acres of woodland. The owners are current receiving Gross Royalty payments paid on 3 wells. Permits for 8 more wells are in place. The lease is a Chief Oil & Gas nonsurface lease



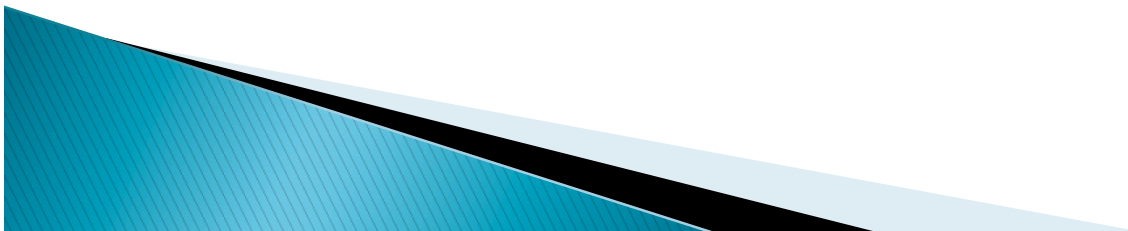
- ▶ 130 Acres Millville, Columbia County, Pennsylvania \$1,289,900 130 Acres 100% of the Gas Rights with no lease and over 515 neighboring acres that are under lease with EXCO., 71 tillable acres, woods, good hunting \$18,167/Acre
- ▶ 110 Acres Snyderstown, Northumberland County, Pennsylvania \$320,000 110 Acres in Northumberland County, PA. This property offers approx. 45 acres of good tillable fields and 65 acres of wooded property. The 65 acres of wooded makes for amazing hunting. There is an old railroad bed that runs through the entire property, along with several patches of pine trees. There is also a sizable creek that dissects the wooded acres in half. \$2,909/Acre

These properties are only 23 miles apart



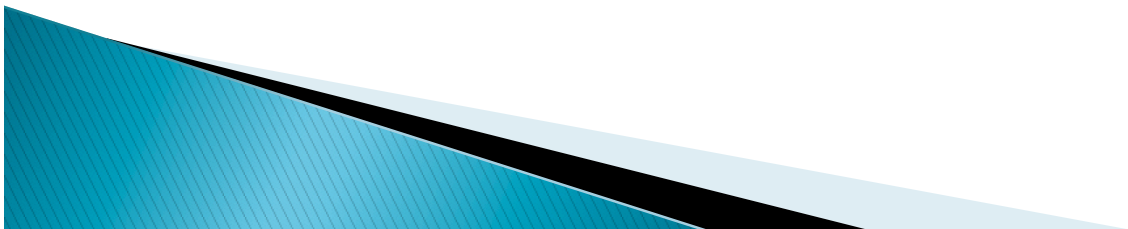
Gas Production Related Development

- ▶ Well pads
- ▶ Access Roads
- ▶ Compressor Stations
- ▶ Metering Stations
- ▶ Gathering Lines
- ▶ Transmission Lines



Increased Regulations

- ▶ Posted Roadways
- ▶ Motor Carrier Inspections
- ▶ Permit Review Times



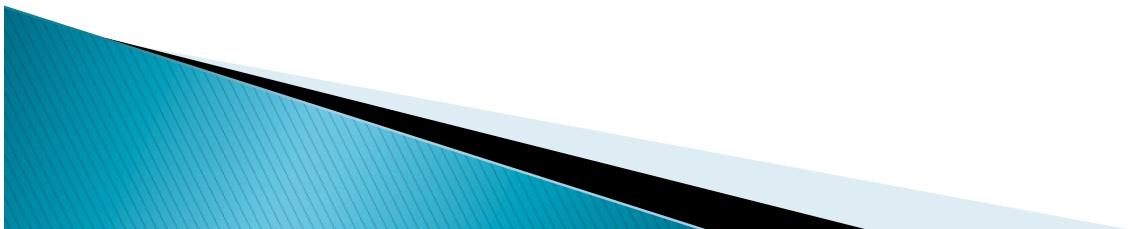
Increased Traffic

- ▶ Dangerous to Move Farm Equipment
- ▶ Milk and Feed Trucks
- ▶ Road Deterioration



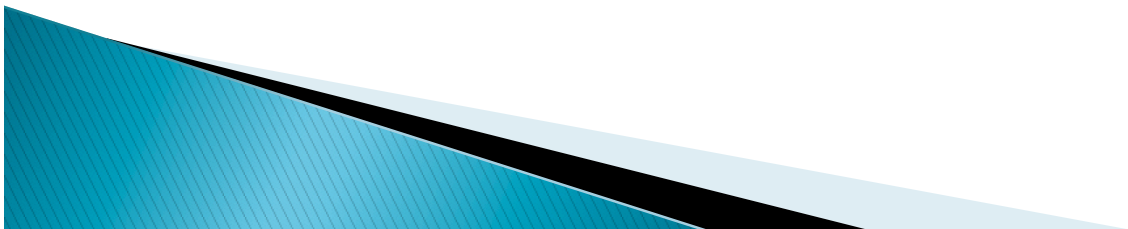
Environmental Issues

- ▶ Noise
- ▶ Air
- ▶ Water
- ▶ Soil



Steps to Preserve our Farms

- ▶ Good Pro–Agriculture Leases
- ▶ Local Land Use Regulations that Promote and Support Modern Production Agriculture
- ▶ Educate Officials and the Public on the Importance of a Thriving Agricultural Sector to Rural Economies and Lifestyles.



Thank You

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