

# Centre County Natural Gas Industry Update

February 2012



# Centre County Natural Gas Wells and Marcellus Shale Activity

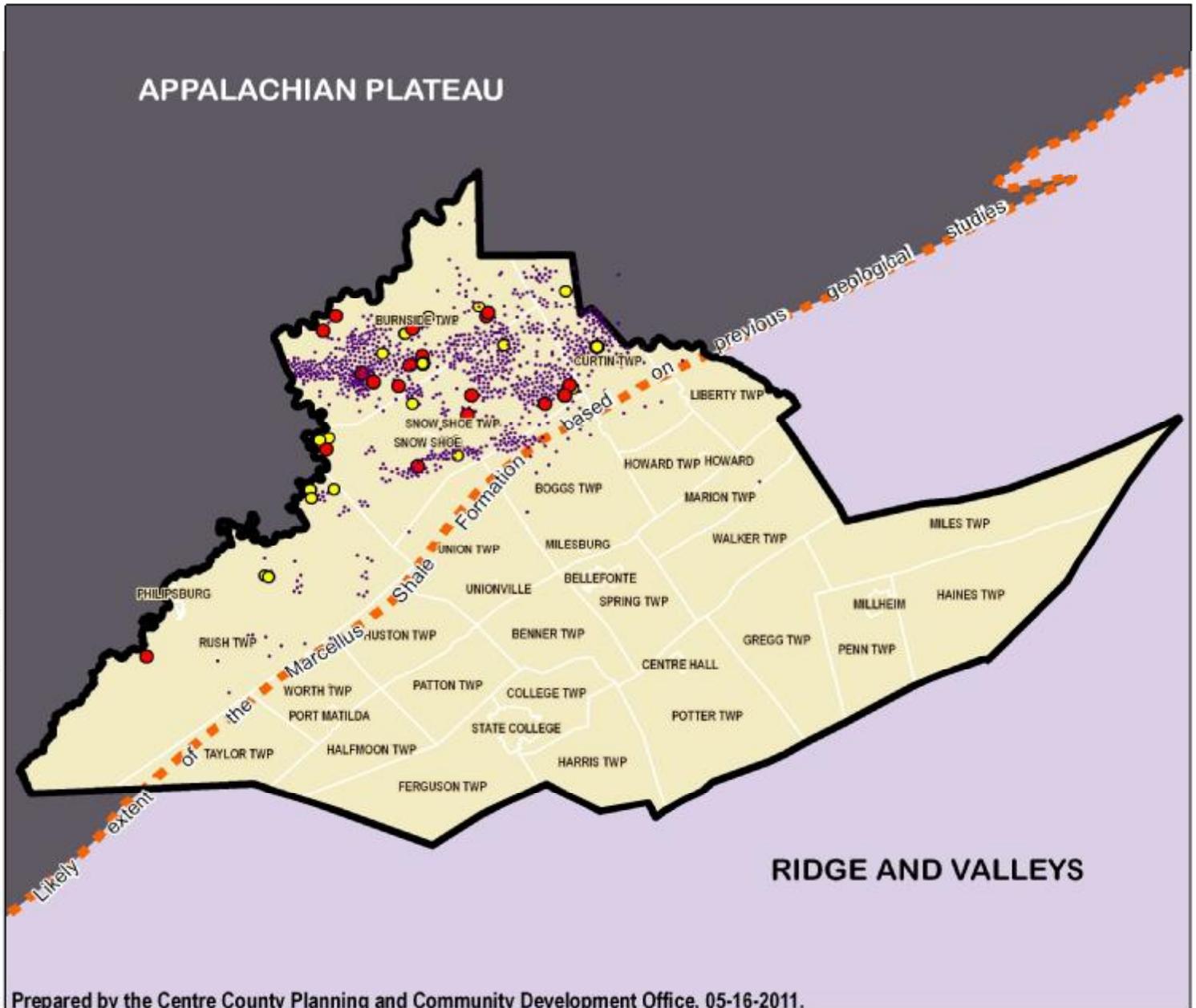
## All Wells and Status

- SHALLOW
- MARCELLUS - DRILLED
- MARCELLUS - PERMITTED

## Physical Statewide Provinces

- APPALACHIAN PLATEAU
- RIDGE AND VALLEYS
- Physical Province Boundary

This boundary marks the likely extent of the Marcellus Shale Formation based on previous geological studies. Well data provided by the PA Dept. of Environmental Protection. Geological data provided by the U.S.G.S. Map prepared 05-16-2011.

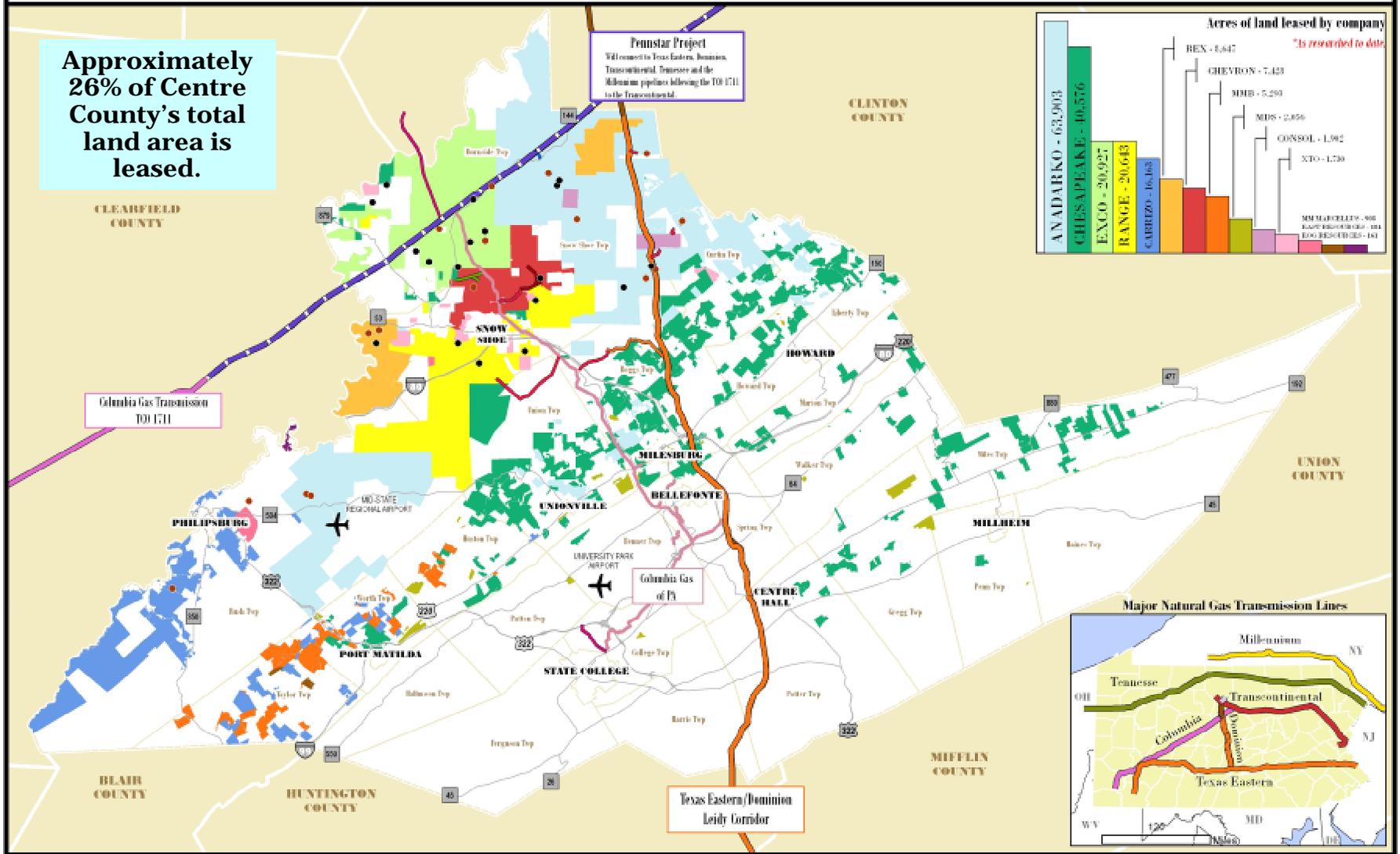


# Active and Forecasted Development Areas

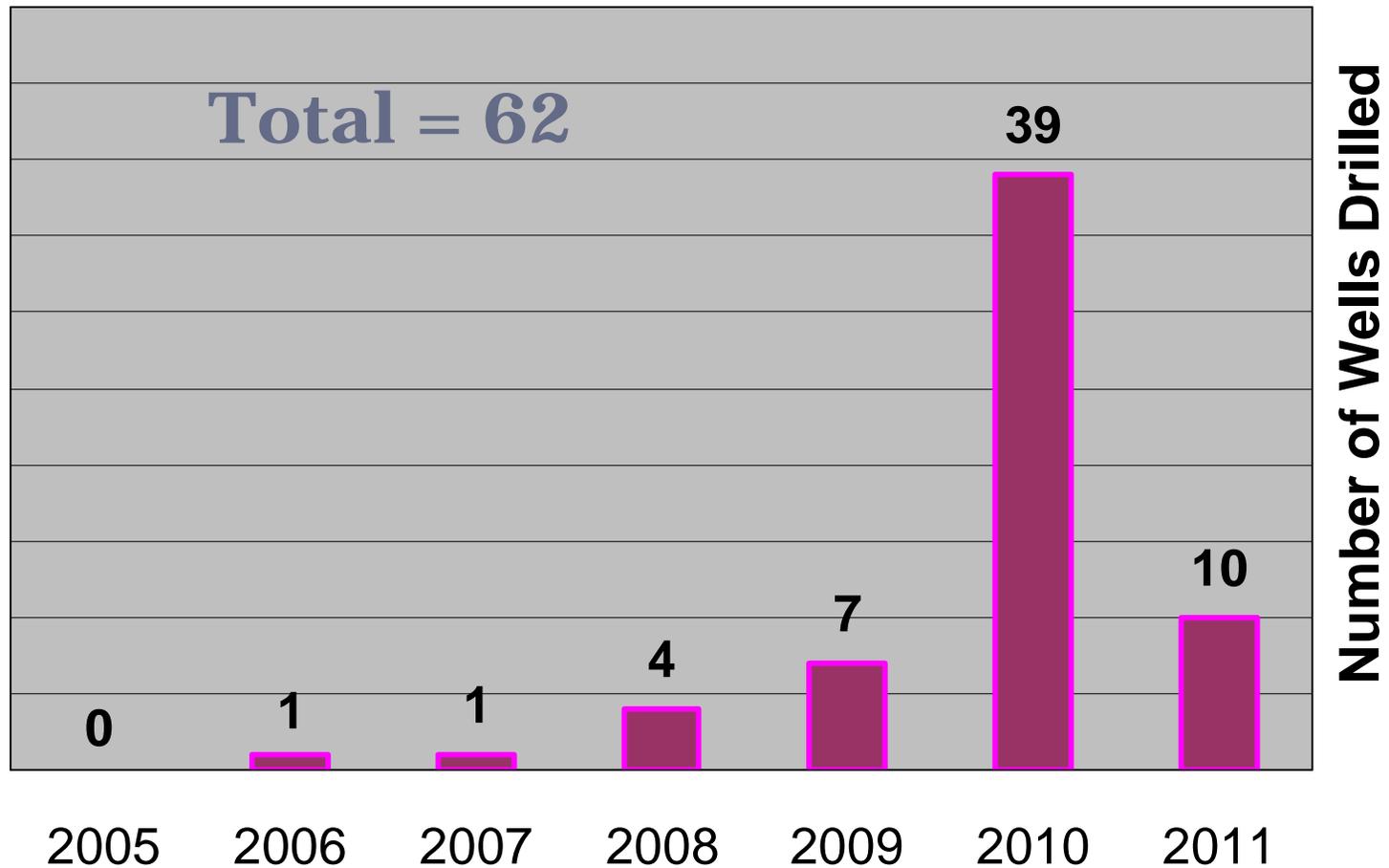
Active and forecasted development related to natural gas well drilling

**CENTRE COUNTY NATURAL GAS TASK FORCE: FEBRUARY 21, 2012**  
**PLANNING AND COMMUNITY DEVELOPMENT OFFICE**

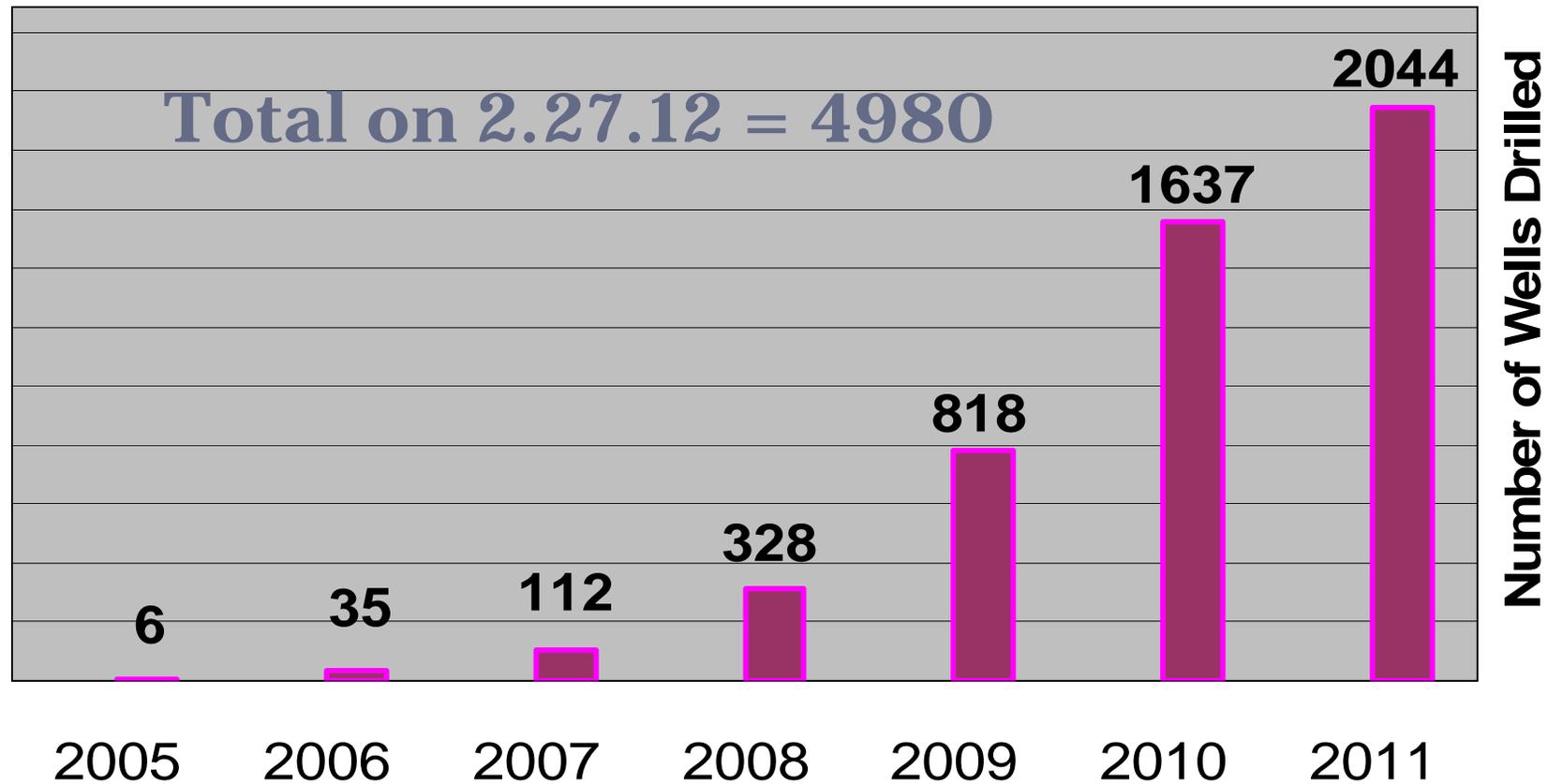
Approximately  
**26%** of Centre  
 County's total  
 land area is  
 leased.



# Marcellus Wells Drilled In Centre County by Year

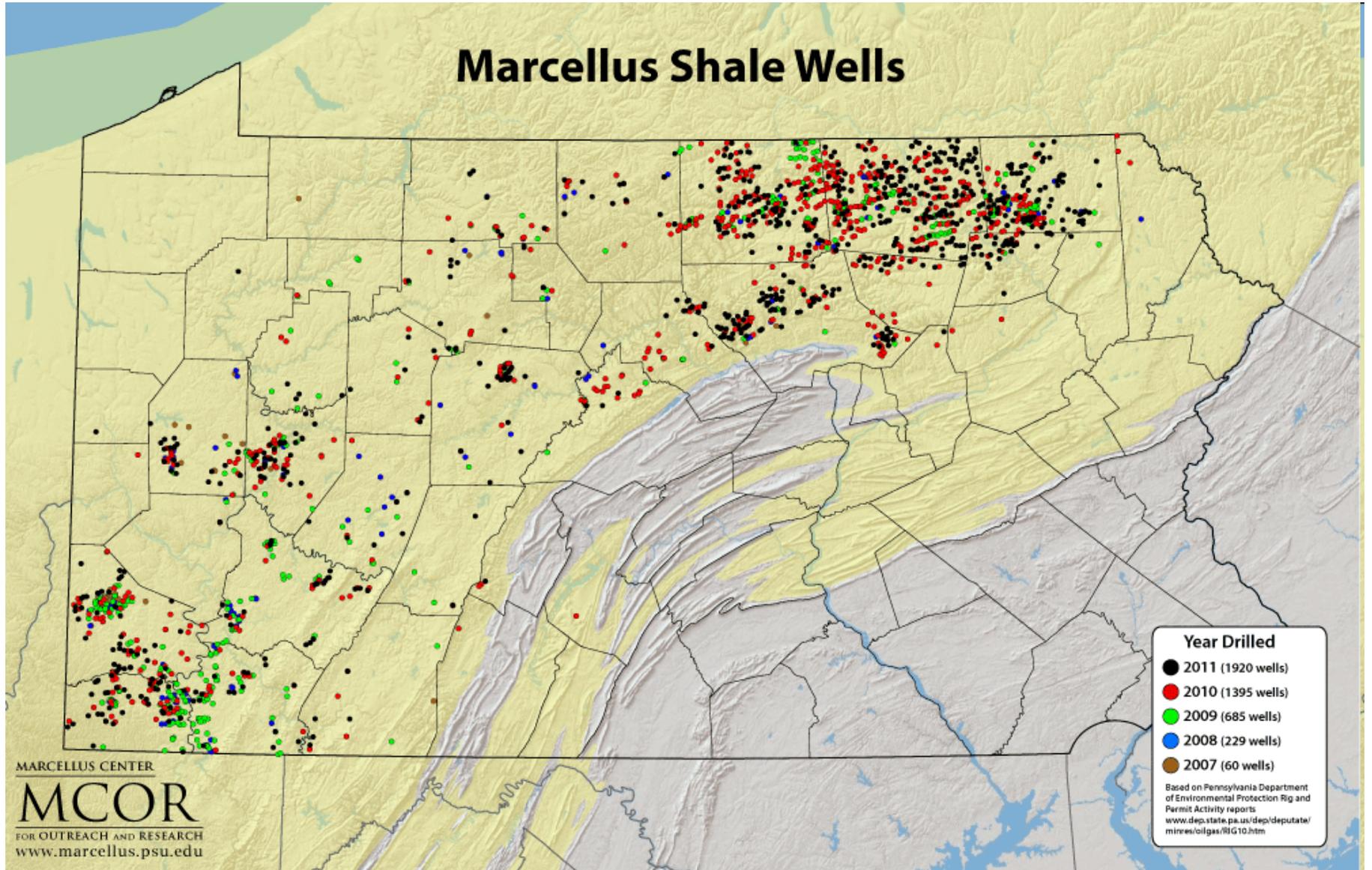


# Marcellus Wells Drilled In PA by Year



Data Source: PA Department of Environmental Protection    Data Current to November 2011

# Marcellus Shale Wells

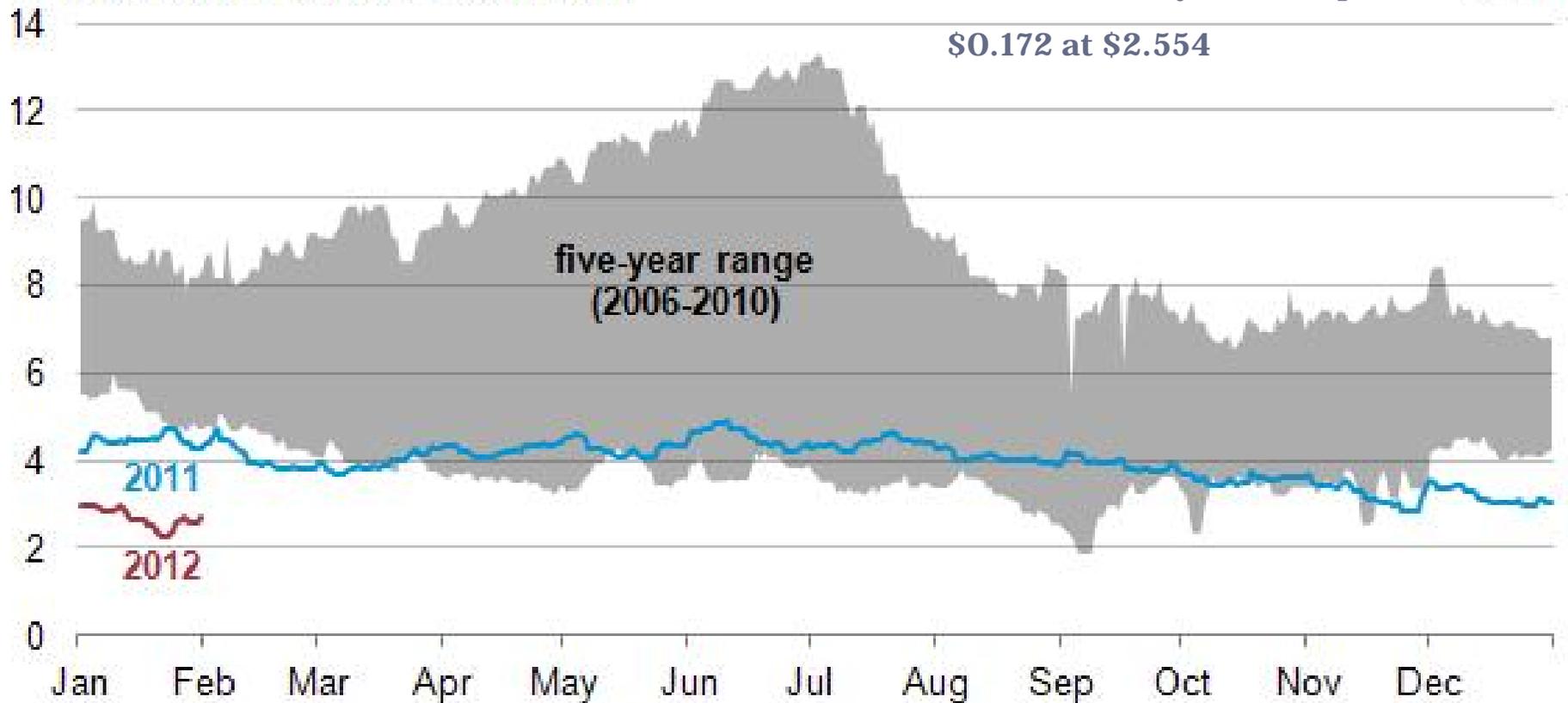


## Wells Drilled 2007 – December 2011

# Natural Gas Price

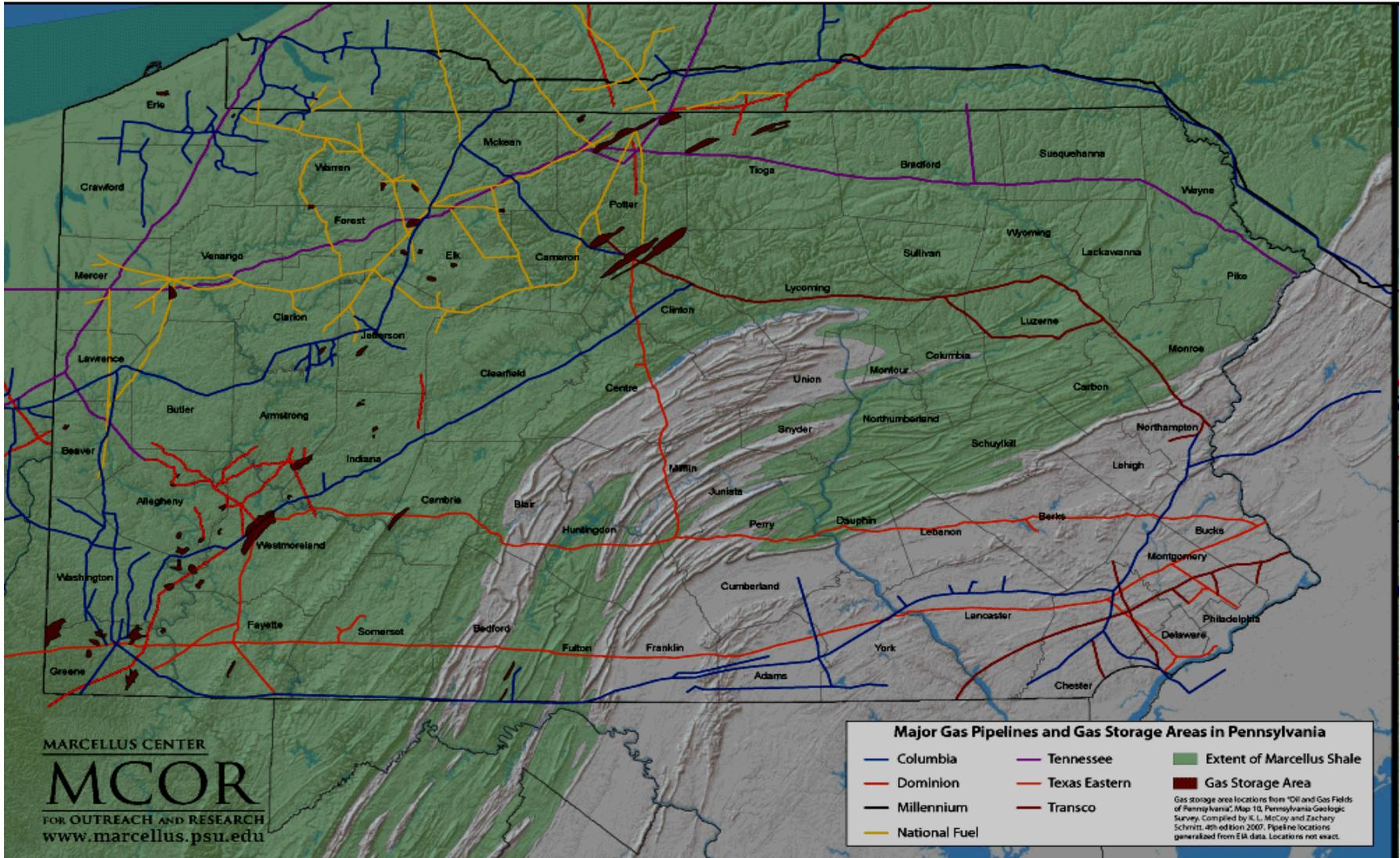
Spot Henry Hub natural gas price  
dollars per million British thermal units

February 2, 2012: NYMEX  
Natural Gas Futures for  
March delivery closed up

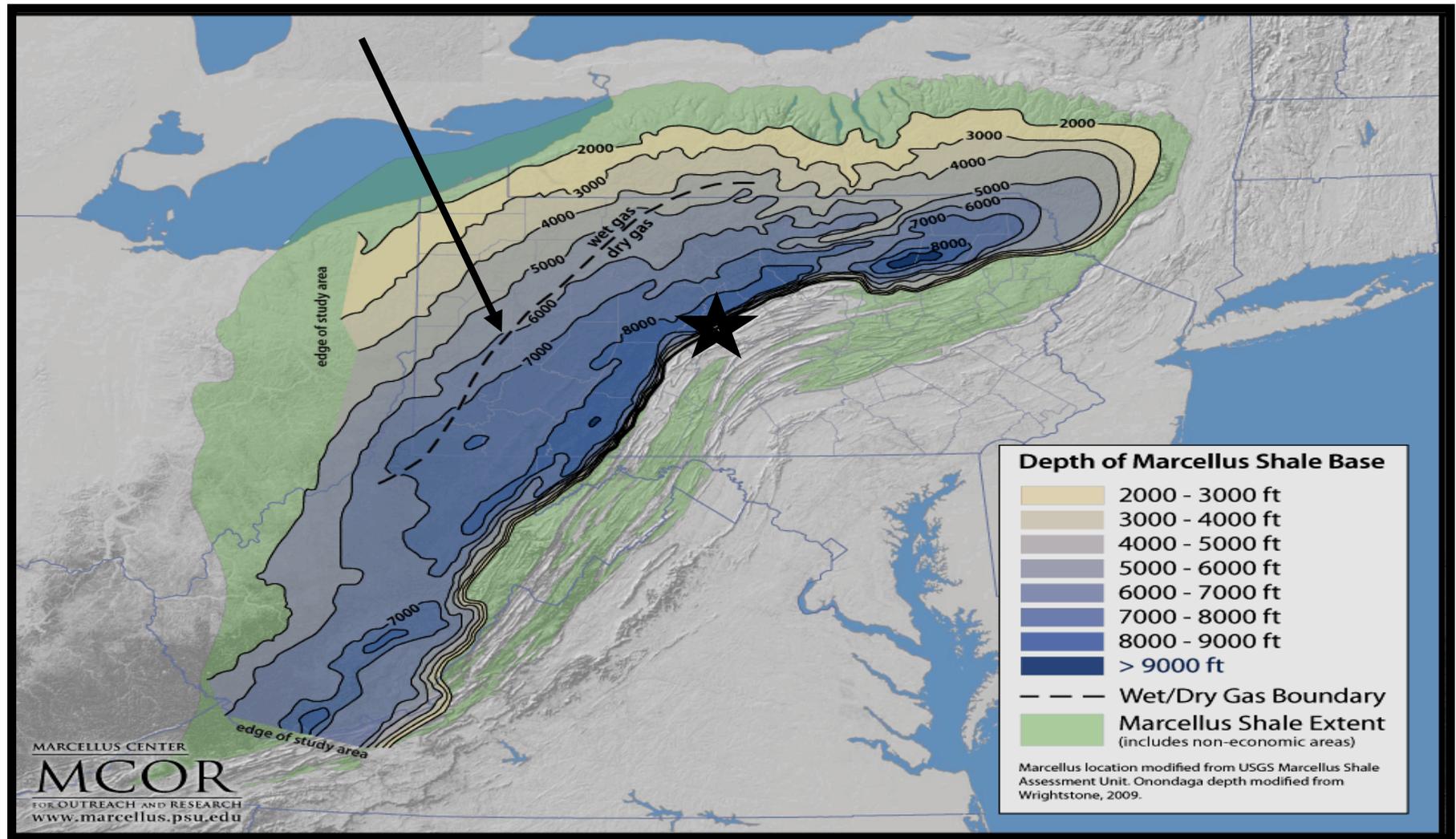


Source: US Energy Information Administration  
<http://205.254.135.7/todayinenergy/detail.cfm?id=4810>

# Major Gas Pipelines in PA



# Wet Gas / Dry Gas / Hot Gas / Cold Gas



# Centre County Natural Gas Task Force Activities and Accomplishments

## **Sub-Committee Structure:**

- § **Economic Development**
- § **Education**
- § **Environmental / Infrastructure**
- § **Planning / Public Policy and Legal**



# Economic Development

## Under-Utilized Site Inventory

### Purpose:

To identify and compile data on vacant land and under-utilized buildings into a single document for easy distribution.

### Detailed site data collected:

- address and/or tax parcel number,
- owner's name and contact information,
- building and/or land specifications,
- available utilities,
- current and past uses, zoning, and
- adjacent land uses.



# **Economic Development Concept for Construction of Well Pad Housing**

- **To retain and expand local, trained workforce**
- **Market units to NG service companies who have relocated to Central PA**
- **Benefit: Cost savings due to reduced transportation costs**



**Fully Furnished  
Wheel Mounted or Skid  
Mounted**

# Economic Development

## Utilization of Natural Gas

### Natural Gas Vehicle Conversions



Clamshell Cowling



CNG Tanks



Fueling Station

## CCNGTF Guideline Document #6 – Considerations for Fleet Applications

# Economic Development

## Utilization of Natural Gas

### Expansion of Natural Gas Distribution for Residential, Commercial and Industrial Use



§ *Stranded Gas* = discovered but due to location or economics can not be delivered to market.

§ *Tasks Ahead*: identify end users and develop concept for a transport supply system.



## Education

# Central PA Institute (CPI) Emerging Energy and Infrastructure Technology Center

**Program opened September 2011**



## Education

# CPI Transportation Training Center Building Project (\$10M)

**Groundbreaking – Late April /  
Early May 2012**



**Education**  
**Centre County Public Safety**  
**Training Center**

**Expansion -- to include natural gas  
emergency response training.**



## **Educational Opportunity**

**MEET-U Trailer – April 19 – 20, 2012**

**Mobile Energy Education Training Unit**

**Location: CPI**

**540 N. Harrison Road, Pleasant Gap**



# Environmental / Infrastructure Road Use Maintenance Agreement (RUMA)

Guideline document to help municipalities ensure that their respective roadway infrastructure is restored to pre-drilling condition.



*COUNCIL Resolution Document 02*

**MUNICIPAL ROAD USE AGREEMENT**

I, \_\_\_\_\_, hereinafter referred to as "User", and the municipality of \_\_\_\_\_, hereinafter referred to as "Municipality", hereby commit ourselves to a "Municipality" agreement to the mutual and mutual benefit of the following agreement, and:

WHEREAS, User desires to use public roadways within the Municipality to cross \_\_\_\_\_, User's operations; and,

WHEREAS, the public recognize that the Municipality's roadways are not designed and will not be intended for heavy truck traffic and oversize vehicles of User's operations;

WHEREAS, the public roadways to be used are described on "Exhibit A" and are described herein as "roadways"; and,

WHEREAS, as a condition to the use of the roadways by the User, the Municipality requires the User to execute this agreement to obligate the User to maintain the municipal roadways which it makes use of, in the same or better condition the roadways had prior to the commencement of User's operations, and to maintain the roadways in a good state of repair during the User's operations; and,

WHEREAS, in order to secure the User's obligation to maintain the municipal roadways, the User is required to execute this agreement to obligate the User's promise, contractual agreement to maintain the roadways;

NOW, THEREFORE, in consideration of the mutual promises and covenants herein contained and other good and valuable consideration, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, the parties do hereby agree as follows:

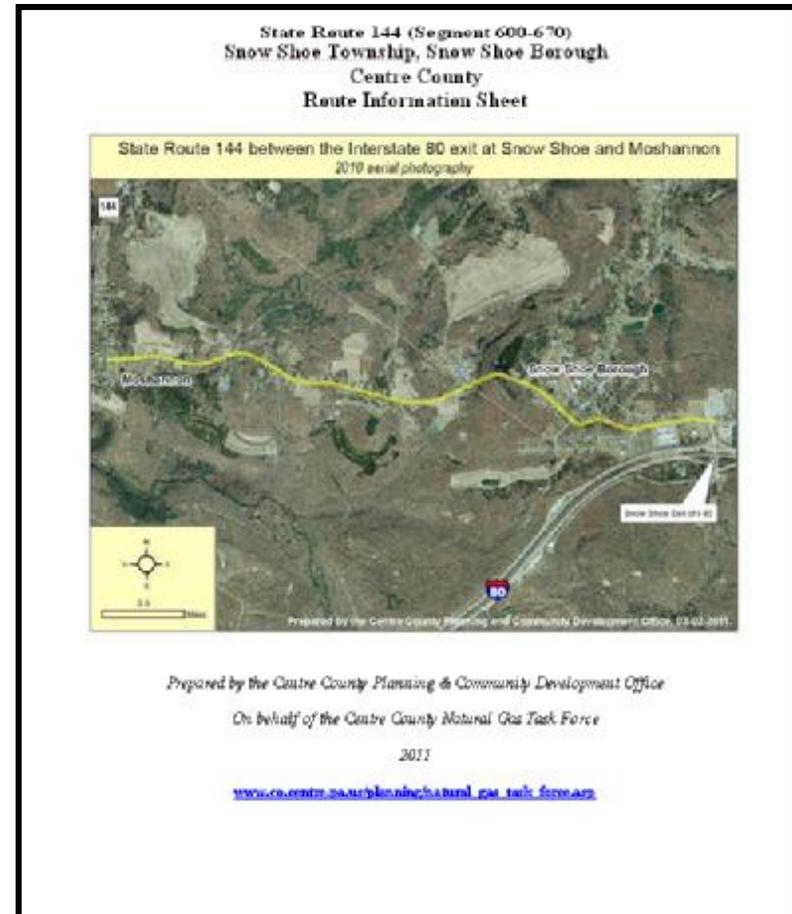
This document was prepared by the Town of Council Bluffs, Iowa. For more information, see the Town of Council Bluffs, Iowa, Council Bluffs Planning and Development Department, 200 West 10th Street, Council Bluffs, Iowa 51501. For more information, contact the Council Bluffs Board of Commissioners in October 2010.

# Environmental / Infrastructure Route Information Sheets

A concise document for roadway users to help them with trip planning, by identifying factors such as:

— General route info

- i Traffic volumes
- i Lane & shoulder widths
- i Speed limits
- i Pavement condition
- i Crash history



# Environmental / Infrastructure Route Information Sheets

## Potential hazards

- i Stacking areas
- i School bus stop areas
- i Blind turns
- i Bridges
- i Pedestrian/Bicycle routes
- i Etc...



# Small Bridge Inventory

**MPO project to identify small local bridges between 4' and 20' spans. Two surveys completed in Rush and Snow Shoe Townships**



# **Environmental / Infrastructure**

## **Pre-Drilling Water Well Testing**

### **Guidelines**

- § Third party collection of water samples is critical.**
- § Test within a year before drilling.**
- § Use a state-accredited water lab.**
- § DEP testing parameters**
- § Allow testing by drilling company**

**March 7<sup>th</sup> – Drinking Water  
Testing Results Workshop --**

**BEA Cafeteria, 7 p.m.**



## **Environmental / Infrastructure**

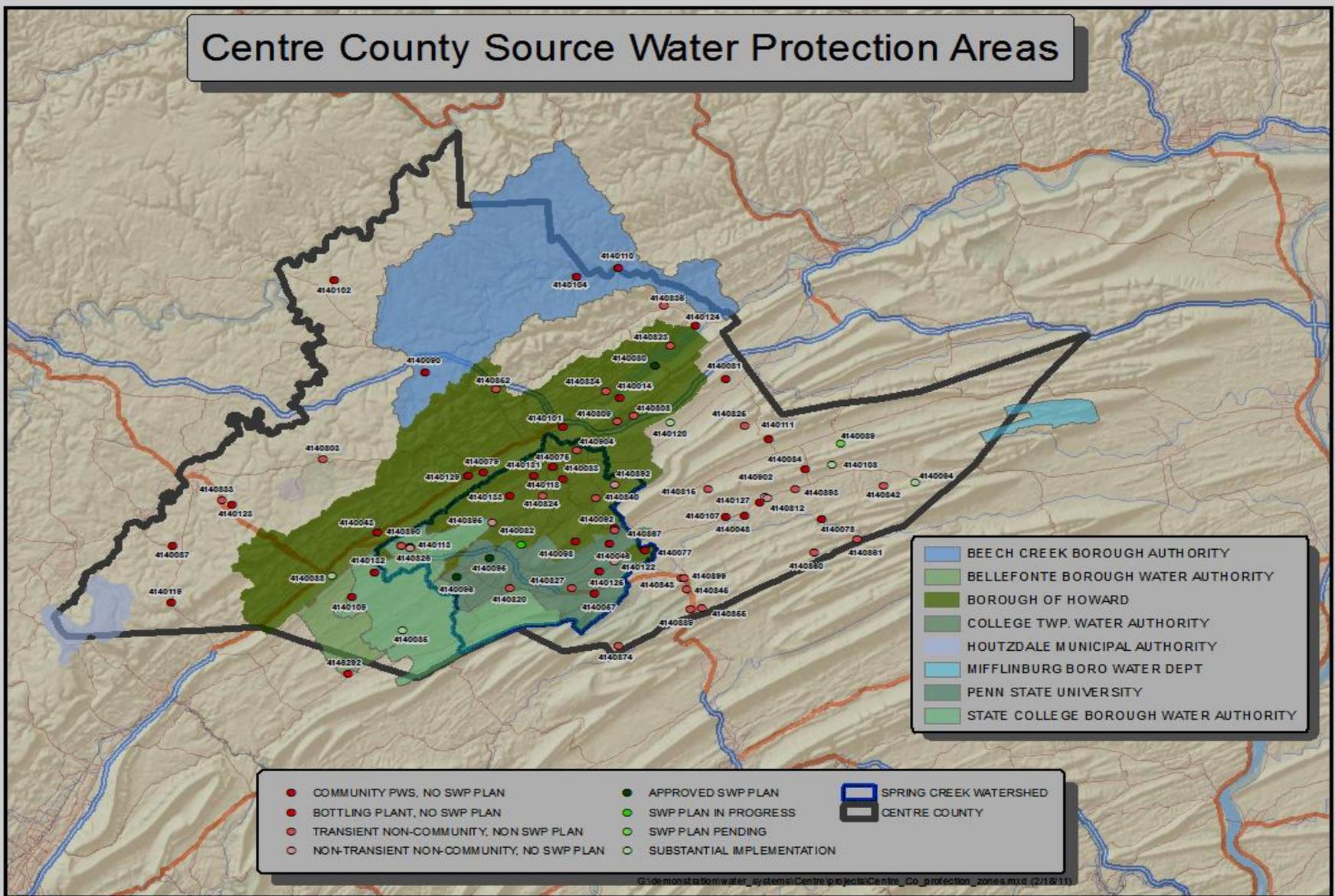
# **Source Water Protection Planning**

- § **Mountaintop Regional Water Authority**
- § **Rush Township Municipal Water Systems**

### **Purpose -- To Identify:**

- § **Zones of contribution for municipal water supplies**
- § **Potential sources of contamination**
- § **Likely locations for future water sources**

# Centre County Source Water Protection Areas



# Planning / Public Policy and Legal Guidelines Completed in 2011

- **Lease Considerations**  
**23 Aspects**
- **Seismic Considerations**  
**34 Aspects**
- **Pipeline Considerations**  
**25 Aspects**



# Centre County's 2012 Prospective

- ⌘ Little if any drilling activity.
- ⌘ Mid-Stream Pipeline Construction.
- ⌘ More interest in wet gas – Centre County has dry gas.
- ⌘ Expansion of educational opportunities / CPI.
- ⌘ Expanded economic development approaches for county: vehicle conversions, increased distribution of natural gas, business expansion.
- ⌘ More perspectives on environmental issues: forest defragmentation, injection wells, air quality, water, erosion and sedimentation . . .
- ⌘ HB 1950 / Act 13 Implementation

# **HB 1950 / Act 13**

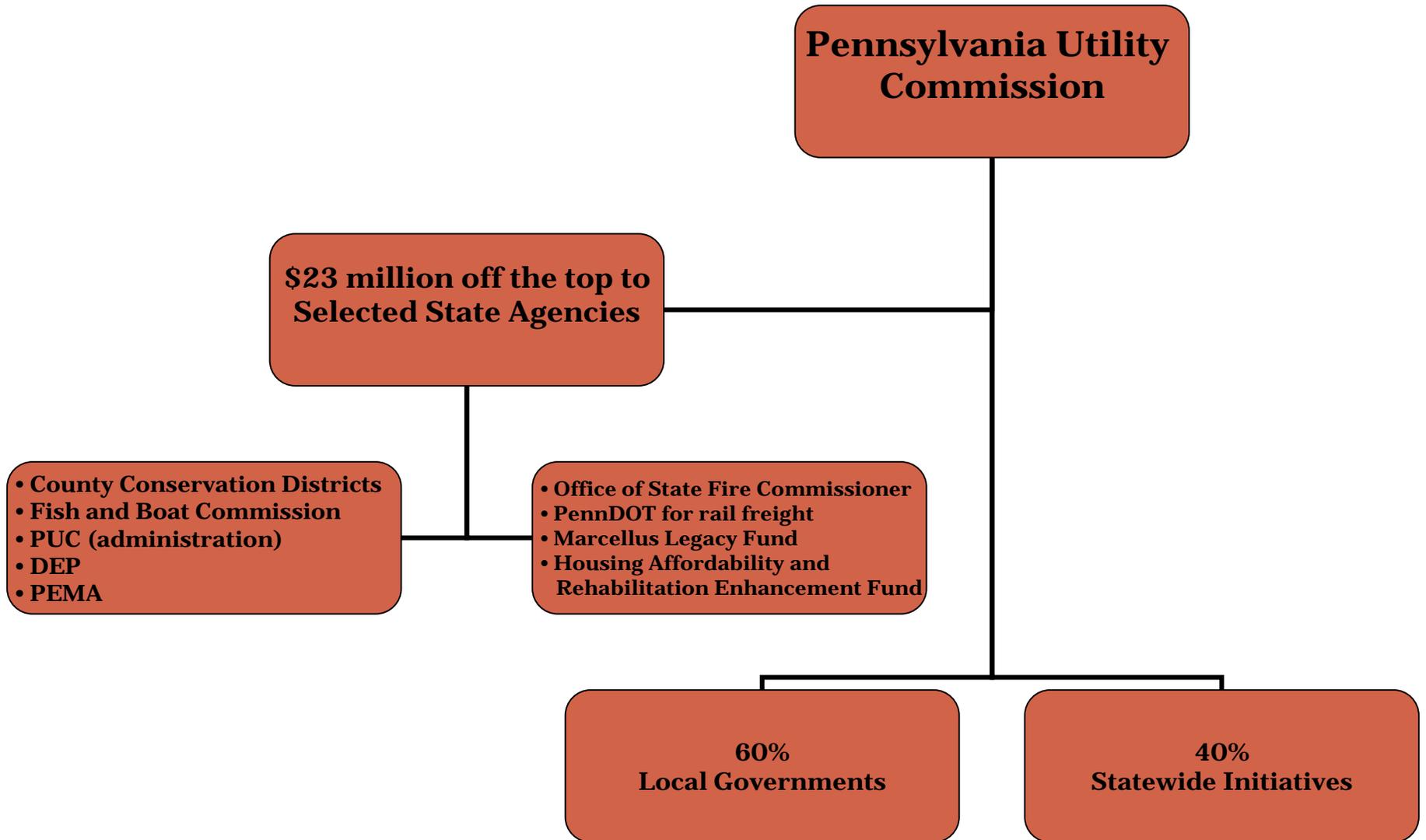
**Three Broad Areas of Focus:**

**Impact Fees**

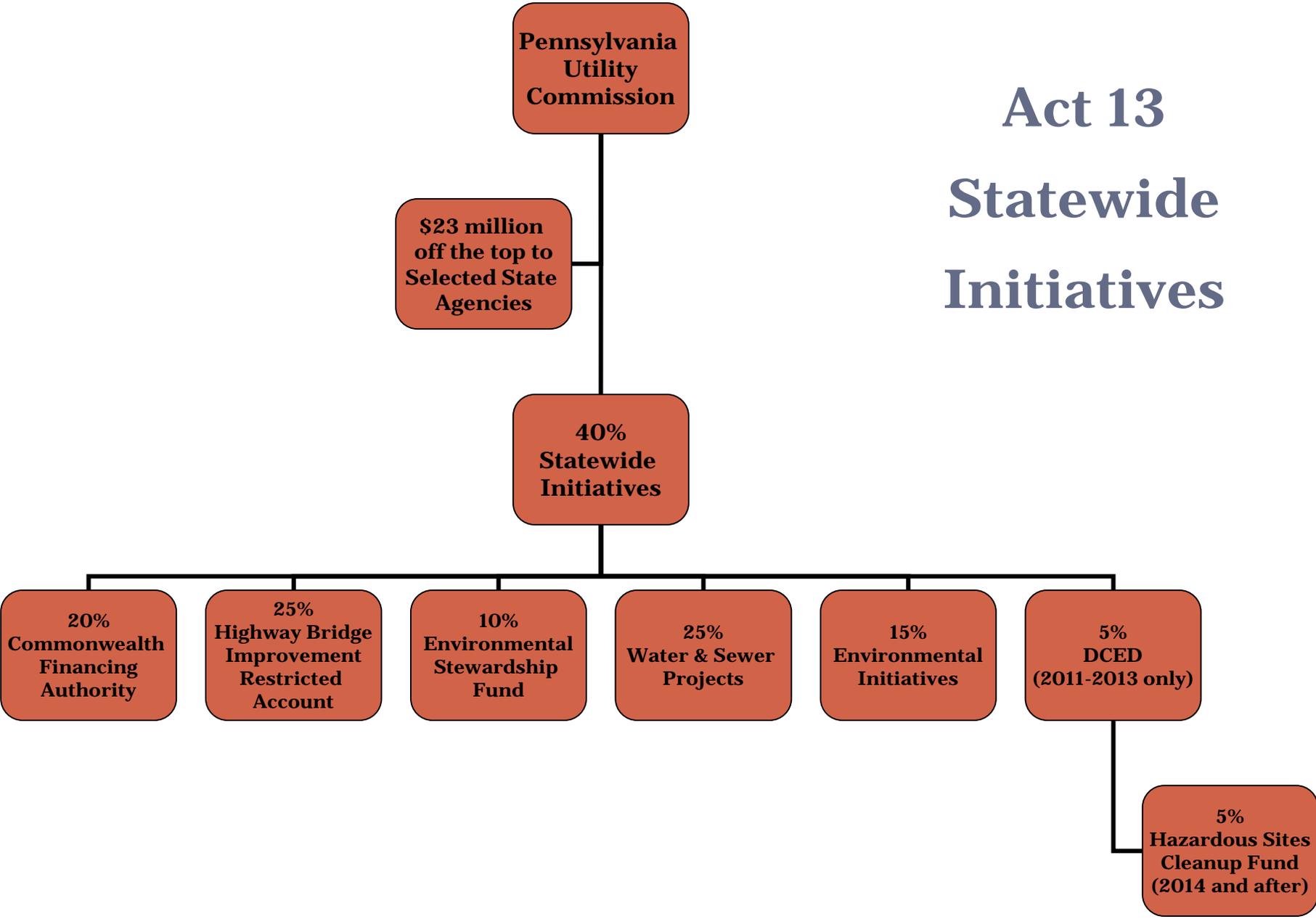
**Industry Regulations**

**Local Municipal Ordinances**

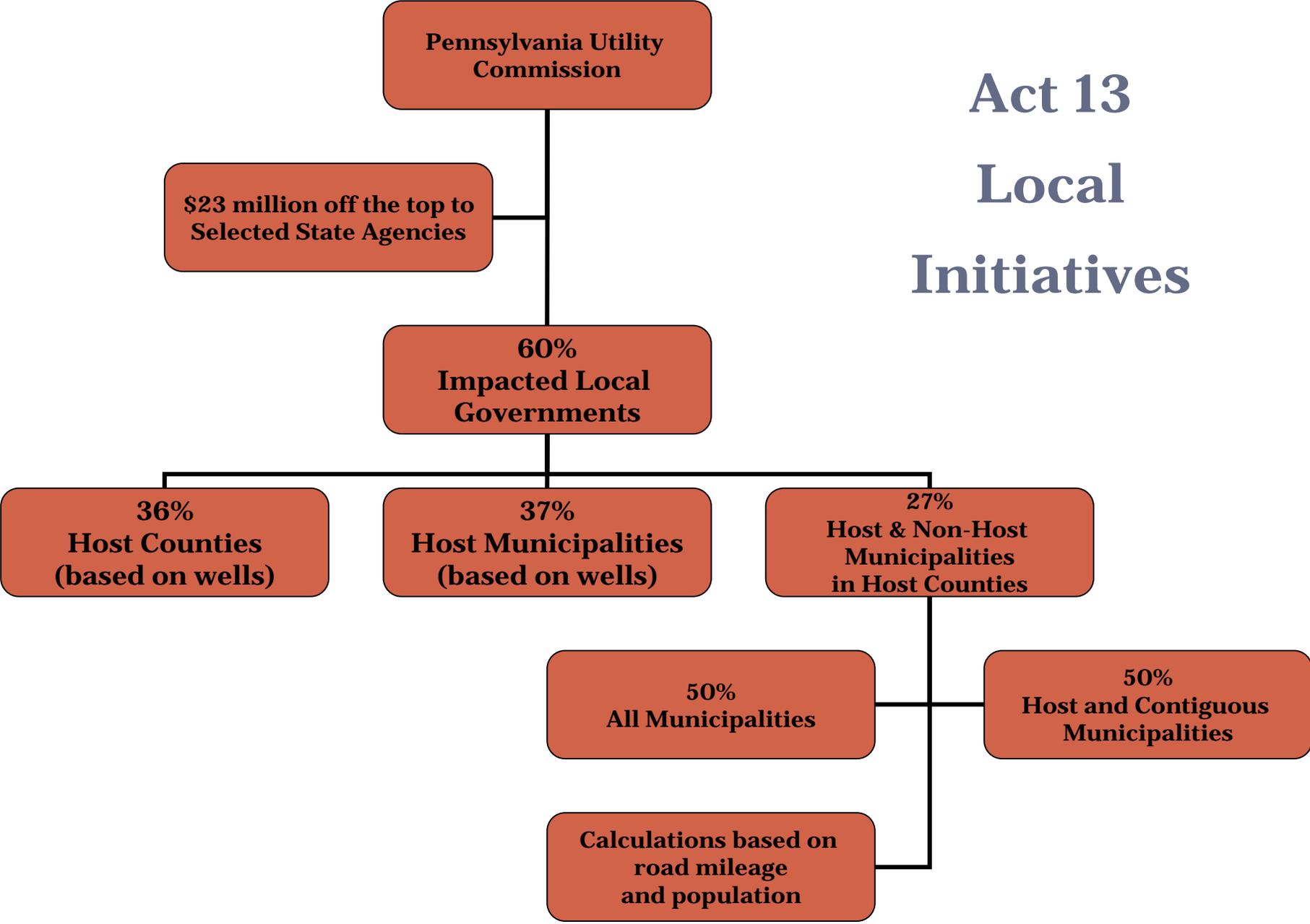
# HB 1950 / Act 13 – Impact Fees



# Act 13 Statewide Initiatives

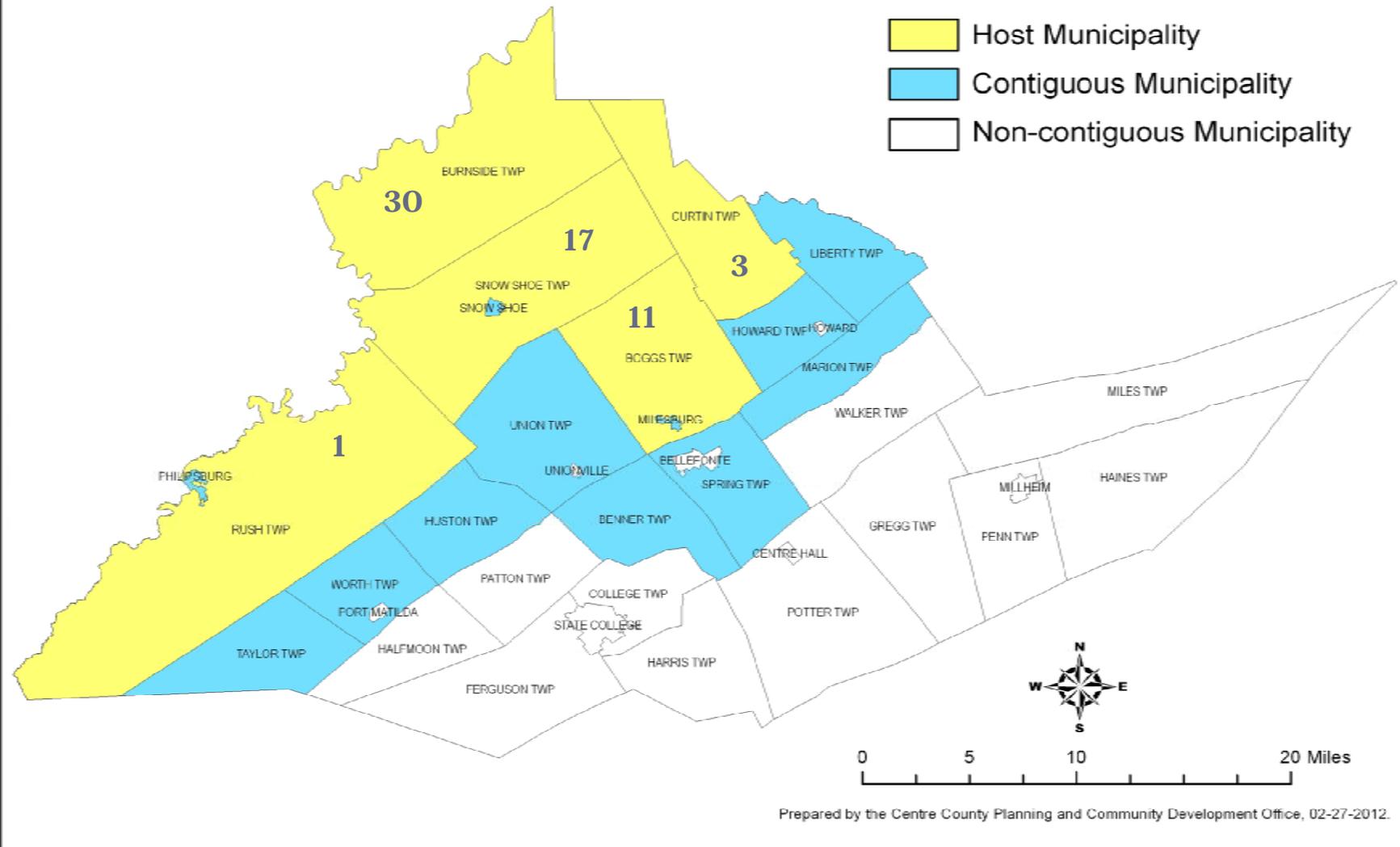


# Act 13 Local Initiatives



# Natural Gas Impact Fee Municipal Distribution

Centre County, PA

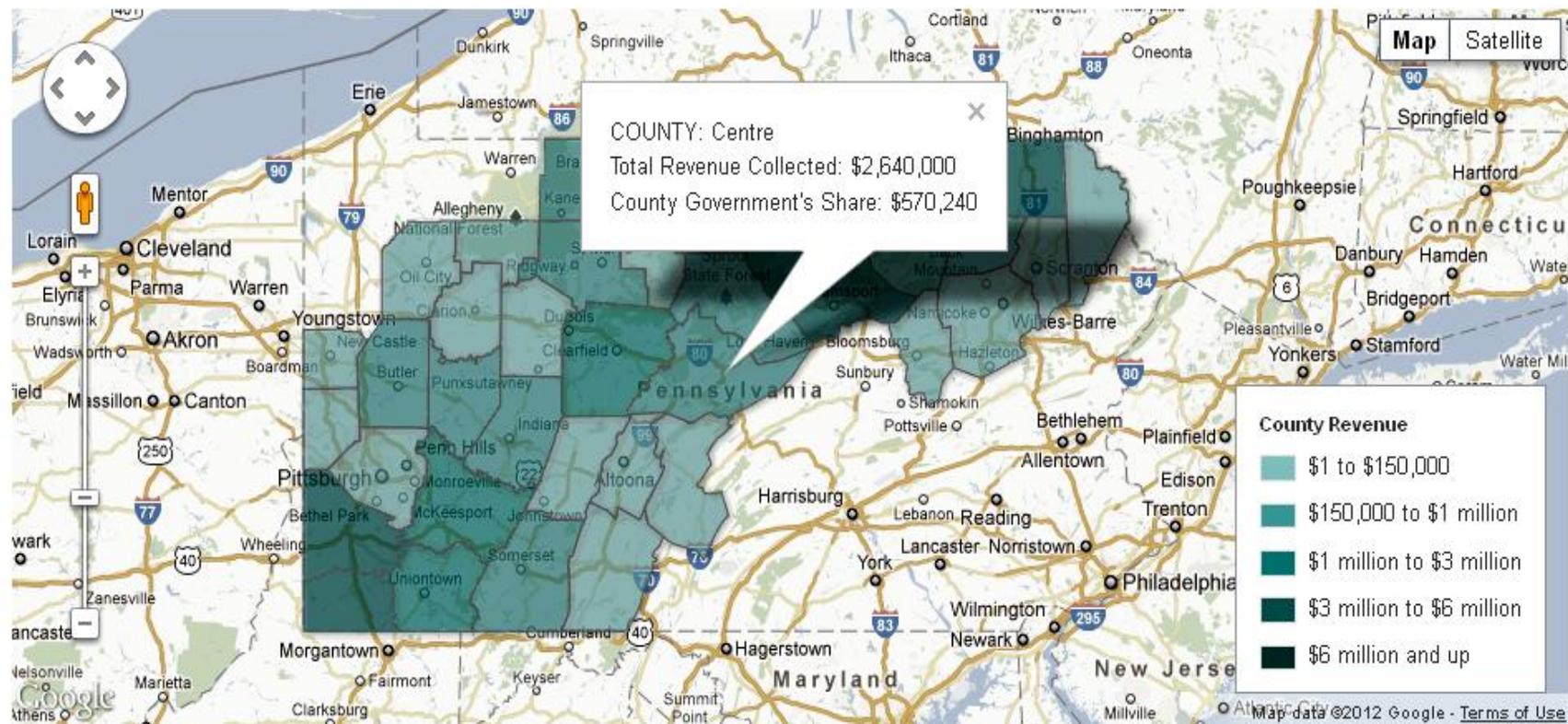


# Mapping the Impact Fee by County

<http://stateimpact.npr.org/pennsylvania/maps/mapping-the-impact-fee-by-county/>

This map tracks how much money county governments will receive from the first round of **impact fee** payments, which is due September 1, 2012.

It applies the retroactive 2011 fee — \$50,000 for horizontal wells and \$10,000 for vertical operations — to every well from 2005 to 2011 listed in the Department of Environmental Protection's most recent "spud report."



# Additional Information

## Centre County Natural Gas Information:

§ [www.centre.co.pa.us/](http://www.centre.co.pa.us/)



The screenshot shows the Centre County Government website. The header includes a map of Centre County, Pennsylvania, and the text "Centre County Government Centre County, Pennsylvania". The navigation menu includes "Home", "Directory", "Services", "Offices", and a search bar. The "Media Information" page is highlighted, featuring a blue icon of a classical building. The page content includes a paragraph about the Media page's purpose, a "Media Registration" section, and a "WEB IA" section with a "Log In" button. The "Natural Gas Industry Information" link in the left sidebar is highlighted with a black border.

Centre County Government Centre County, Pennsylvania

Home Directory Services Offices Offices Go Search Go

Home Page  
What's New  
Features  
Archive  
Links  
Contact Us

**Media Information**

[RSS Feed: What's New](#)

An initiative of the Board of Commissioners [ [Agendas](#) | [Minutes](#) ]

**WEB IA**

Get **information** about Centre County's fee-based Web Information Access System. Existing users can log in below.

[Log In](#)

**Natural Gas Industry Information**

The Media page was established to provide information on the case of Commonwealth vs. Gerald Sandusky filed in Centre County, Pennsylvania. Updates will be provided by the Court Administrator's Office as they occur.

**Media Registration**

Any media planning on attending the hearing for the case of Commonwealth vs. Gerald Sandusky scheduled for Friday, February 10, 2012, at 10:00 a.m. in Courtroom #1 of the Centre County Courthouse, Bellefonte, PA. must **register online** by noon

# Questions and Comments



Photo Source: Centre Daily Times July 20, 2011

<http://www.centredaily.com/2011/07/20/2845378/group-issues-landowner-tips.html#storylink=cpy>

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## *Centre County Natural Gas Task Force*

**Public Meetings: Second Monday Monthly at 4 p.m.**

**Central PA Institute of Science and Technology (CPI)**

**Centre County Planning and Community Development Office**

**814-355-6791**

