

APA-PA Annual Conference  
*October 21, 2013*

# What will be APA/PA's Unconventional Shale Gas Development Strategy & Policy?

Session 1: The Trends and Issues to Think About

# The Grand Experiment / Session Comparisons



- Session 1: Trends / Issues
  - Highlight Key Trends
  - Identify Key Issues
  - Stimulate Thoughts for Interactive Survey
  - Not an in-depth look

- Session 2: Interactive Survey
  - 6 General Questions
  - 13 Issue Questions
  - Real Time Survey Results
  - Panel Reactions to Survey
  - Attendee Reactions

# Session #1 Panel



- Joy Ruff – Marcellus Shale Coalition
- Jonathan Williamson – Lycoming College
- Daniel Lapato – Pennsylvania DEP
- Kurt Hausammann, Jr. – Lycoming County Planning
- Jorge Pelaez – Boenning & Scattergood
- Dennis Auker – Auker Consulting

# Session #2: Interactive Survey Panel



## Panelists:

- Bruce Snyder – Range Resources
- Ed Knittel – PA State Association of Boroughs
- Marvin Meter – Wyalusing Township, Bradford County
- Brian O’Leary – Montgomery Co. Planning / APA-PA President
- Audience Input

**End Result will be White Paper on Results and Recommendations**

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# What will be APA/PA's Unconventional Shale Gas Development Strategy & Policy?

Session 1: The Trends and Issues to Think About

# **Responsible Shale Development**

## **2013 State Conference of the American Planning Association – Pennsylvania Chapter**

**Joy M. Ruff, AICP**  
**Community Outreach Manager**  
**October 21, 2013**



## About Us

- ✓ Industry Trade Association
- ✓ Approximately 300 members strong
- ✓ From producers to midstream to suppliers

## Our Focus

- ✓ Responsible shale development
- ✓ Fact-based dialogue
- ✓ Addressing landowner, government and public issues
- ✓ Support the viability of the industry through regulatory and legislative engagement



MARCELLUS  
SHALE COALITION

- ✓ Tips for those hunting near active areas of development

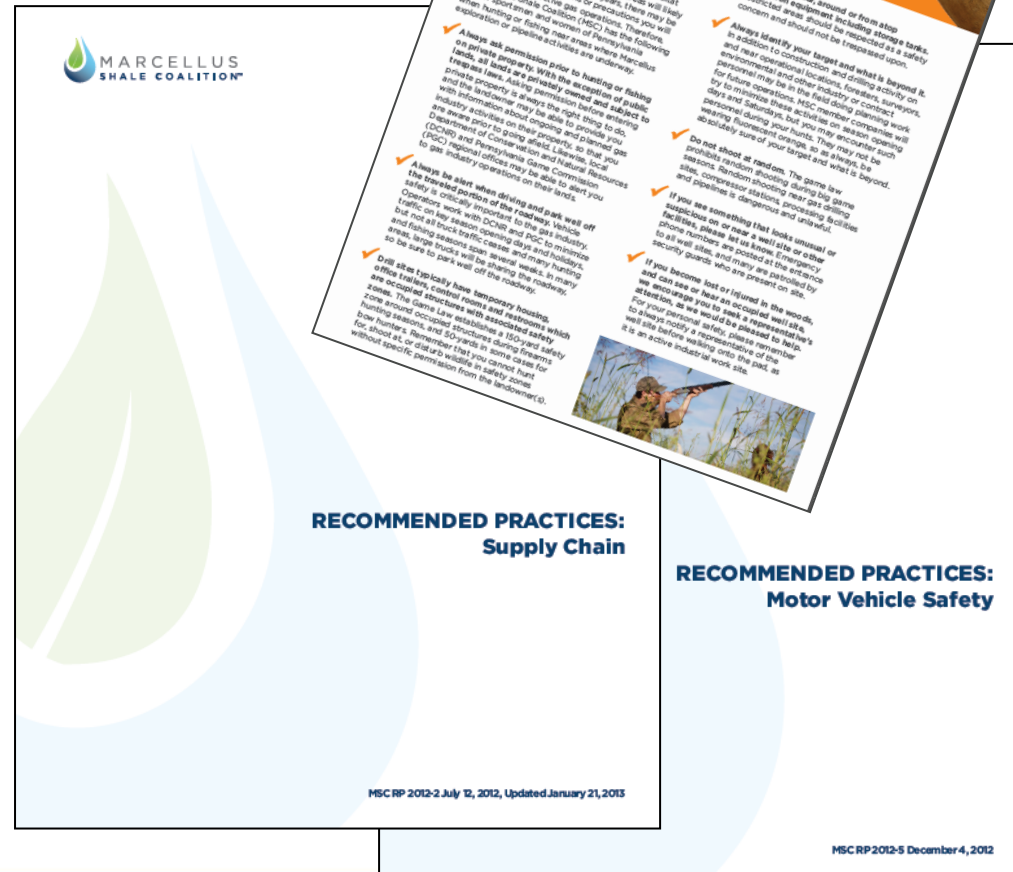
- ✓ Acknowledging the need and benefits to sourcing and hiring locally

- ✓ Ensuring companies know the rules of the road

to the highly technical:

- ✓ Pre-Drill Water Supply Surveys, Responding to Stray Gas Incidents, Water Pipelines, Pipeline Boring

9 published – more in development



# Collaborative & Fact Based Dialogue



- ✓ > 300 interviews and op-ed pieces in 2012
- ✓ Thousands of presentations
- ✓ Hundreds of well tours
- ✓ LearnAboutShale.org
- ✓ MarcellusonMainStreet.org



# Responsible Shale Development

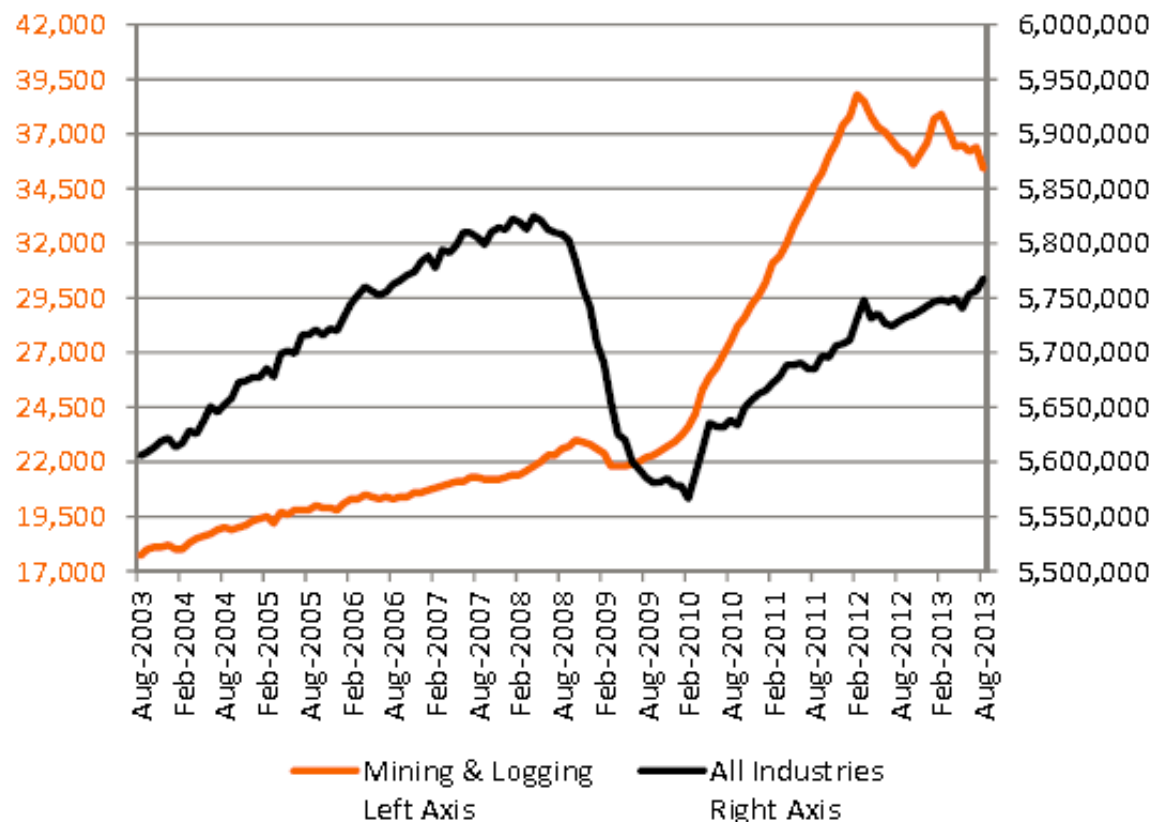


- Highly regulated, highly sophisticated
- Improved predictability/transparency of permitting
- Staffing increases with substantial permit fee increases
- Major technical advances in water recycling and reuse
- Even more protective well casing standards, including additional venues for chemical disclosure
- Continued best practice sharing between industry and regulators



## **MINING JOBS VS. TOTAL JOBS IN PENNSYLVANIA**

Mining & Logging<sup>1</sup> Compared to Total Employment



Source: PA Department of Labor & Industry,  
Marcellus Fast Facts, September 2013

<sup>1</sup> Mining & Logging data are seasonally adjusted.  
Mining data, which are included in Mining & Logging,  
are not seasonally adjusted.

# Revenue for Pennsylvania



Paid by Natural Gas Industry	
Overall taxes since 2006 <sup>1</sup>	> \$1.8 billion
Road construction investments since 2008 <sup>2</sup>	> \$700 billion
Royalty payments to state in 2011 <sup>3</sup>	\$177 million
Permitting and enforcement fees to increase DEP personnel since 2009 <sup>4</sup>	\$40.5 million
Impact Fee in first two years <sup>5</sup>	> \$400 million

<sup>1</sup> – Fox News, July 23, 2013

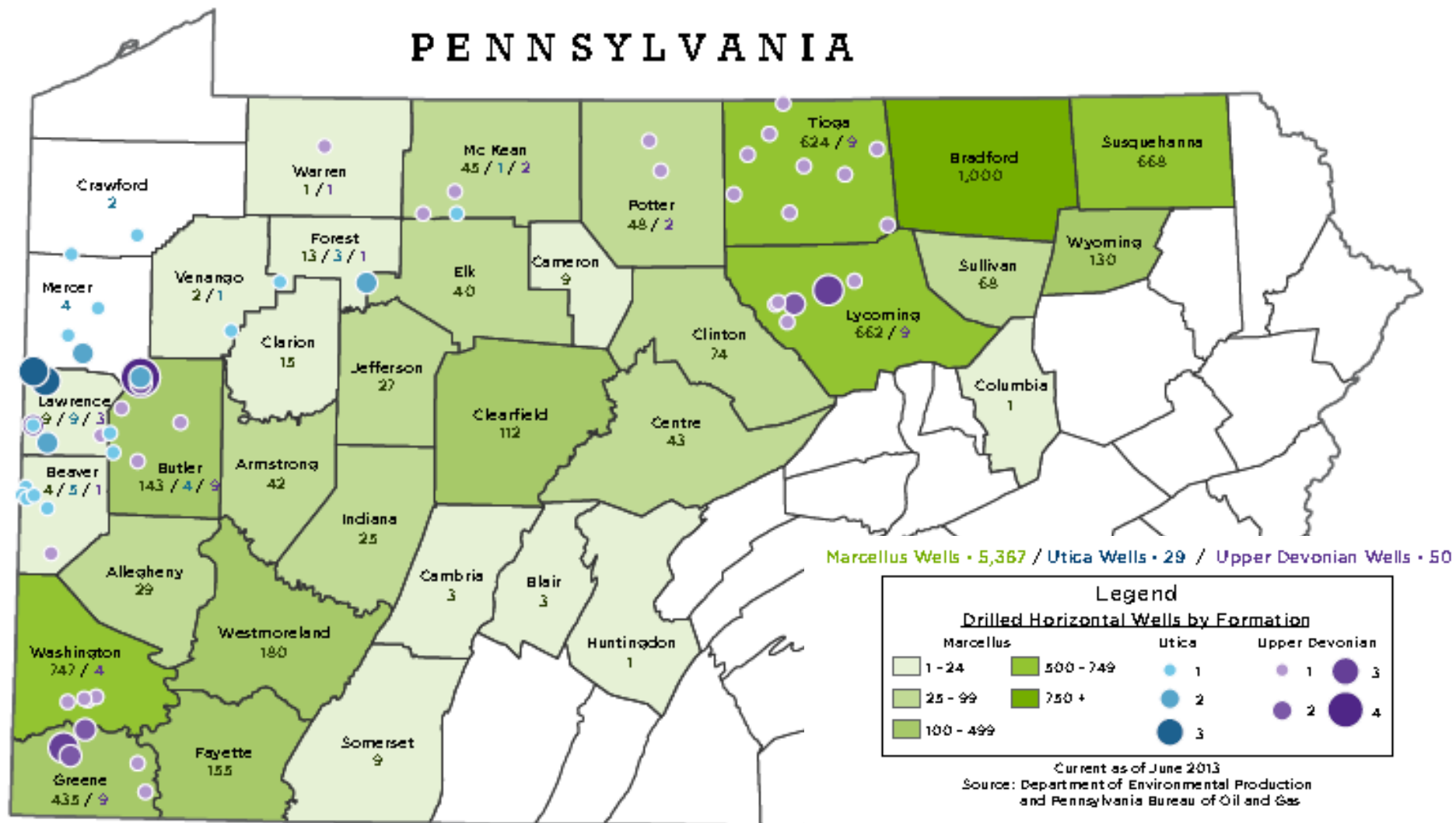
<sup>2</sup> – On-going Survey of Marcellus Shale Coalition Members

<sup>3</sup> – Pennsylvania Department of Conservation and Natural Resources, 2013

<sup>4</sup> – Pennsylvania Department of Environmental Protection, 2013

<sup>5</sup> – Pennsylvania Public Utility Commission (2007-2011 grandfathered wells plus 2012 assessment)

# Shale Development in Pennsylvania



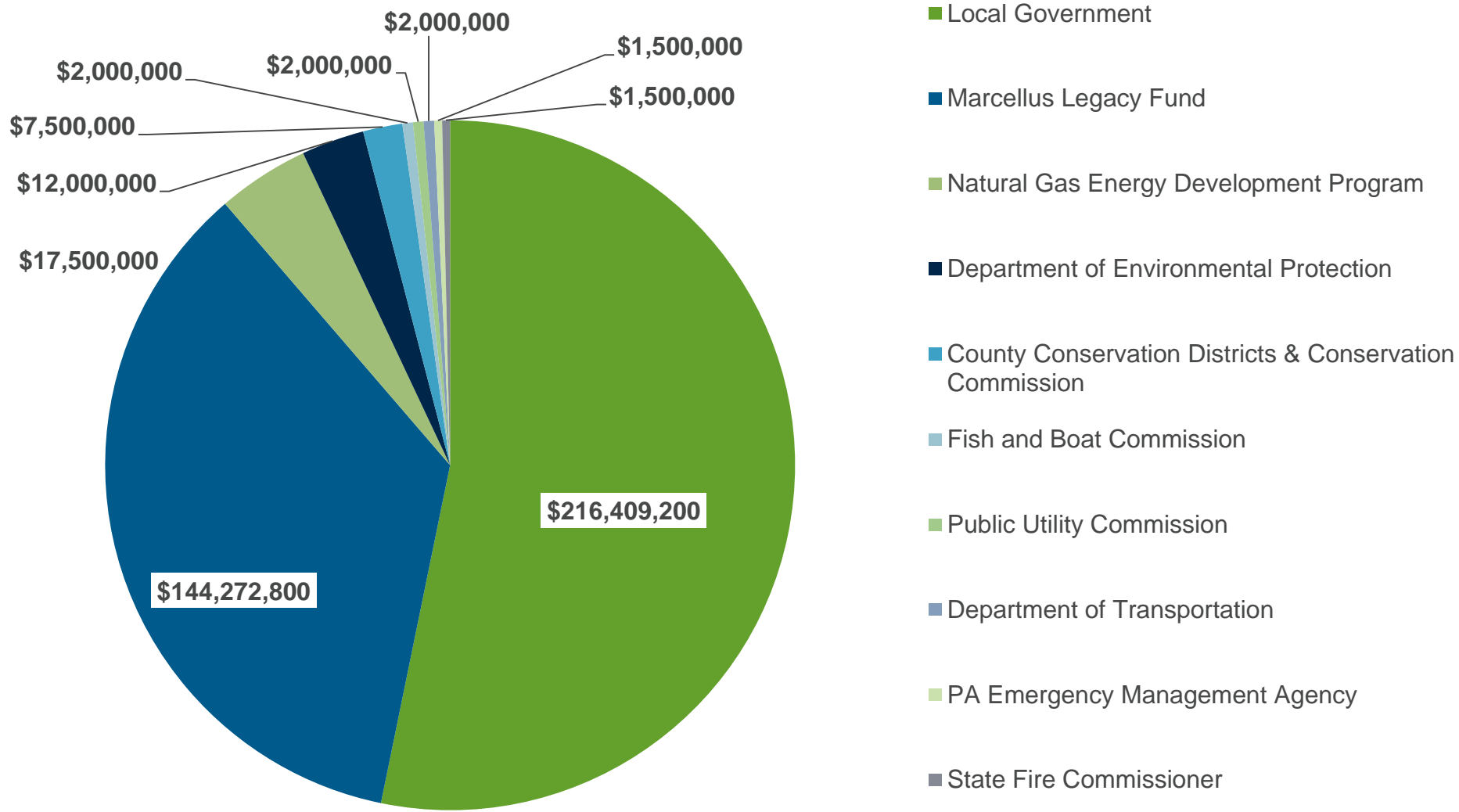
- Act 13 of 2012 amends Title 58 of the Pennsylvania Consolidated Statutes (Oil and Gas Act of 1984)
  - ✓ Impact Fee - Per well fee assessed and collected on unconventional wells
  - ✓ *Municipal Uniformity – Authority to enact uniform development standards at the municipal level was challenged and this provision uncertain until State Supreme Court issues a decision.*
  - ✓ Substantial revisions to environmental protections for both surface and subsurface activities – including but not limited to:
    - Increased record keeping for transportation of waste water fluids
    - Source reporting for air contaminant emissions
    - Strict spill prevention requirement during drilling and hydraulic fracturing
    - Increased permitting, siting, and protection of water supplies
    - Well control emergency response

## Act 13, §2302 – Unconventional gas well fee

- *“Wells drilled to produce natural gas from shale existing below the base of the Elk Sandstone or its geological equivalent where natural gas generally cannot be produced at economic flow rates or in economic volumes except by hydraulic fracturing or by the use of multilateral well bores”*
- Per well fee that extends over the first 15 years of the well's life
  - ✓ *Pa Public Utility Commission assesses, collects and distributes*
  - ✓ *Fee determined by average annual price per million British thermal units (MMBtu) in the previous year*
- Retroactive fee for all wells drilled from 2007 through December 31, 2011

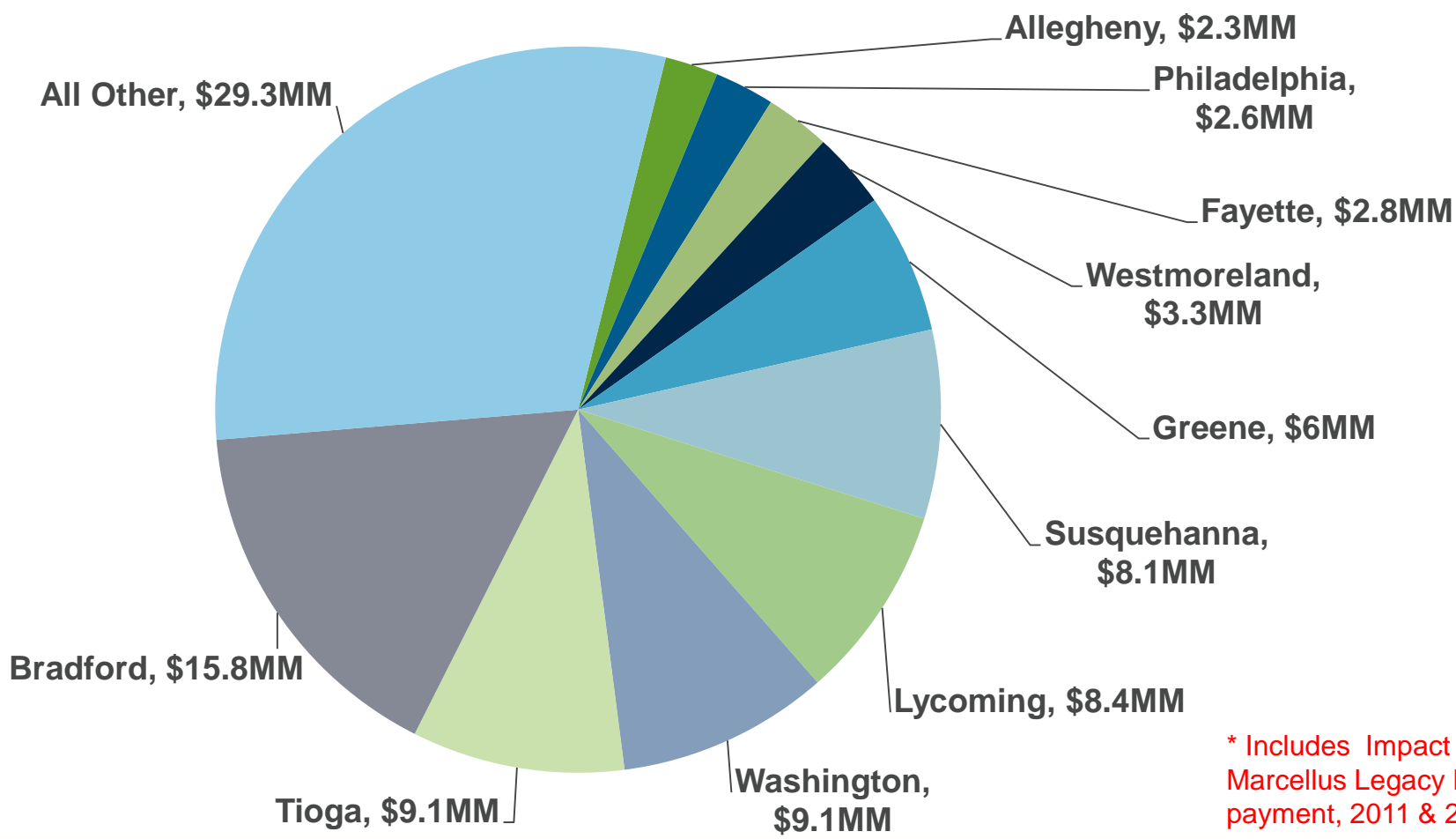
- “Off the top” allocations made to various state agencies
  - ✓ County Conservation Districts (\$7.5MM/annually)
  - ✓ PA Fish and Boat Commission
  - ✓ Public Utility Commission
  - ✓ Department of Environmental Protection
  - ✓ PA Emergency Management Agency
  - ✓ Office of State Fire Commissioner
  - ✓ PA Department of Transportation
  - ✓ Marcellus Shale Legacy Fund for Natural Gas Energy Development Program (3 year allocation 2011-2013)
  - ✓ Marcellus Legacy Fund\* grant program
- Housing Affordability & Rehabilitation Enhancement Fund (\$5MM annually beginning 2012)

## Impact Fee Allocations 2011 & 2012 \$400MM+



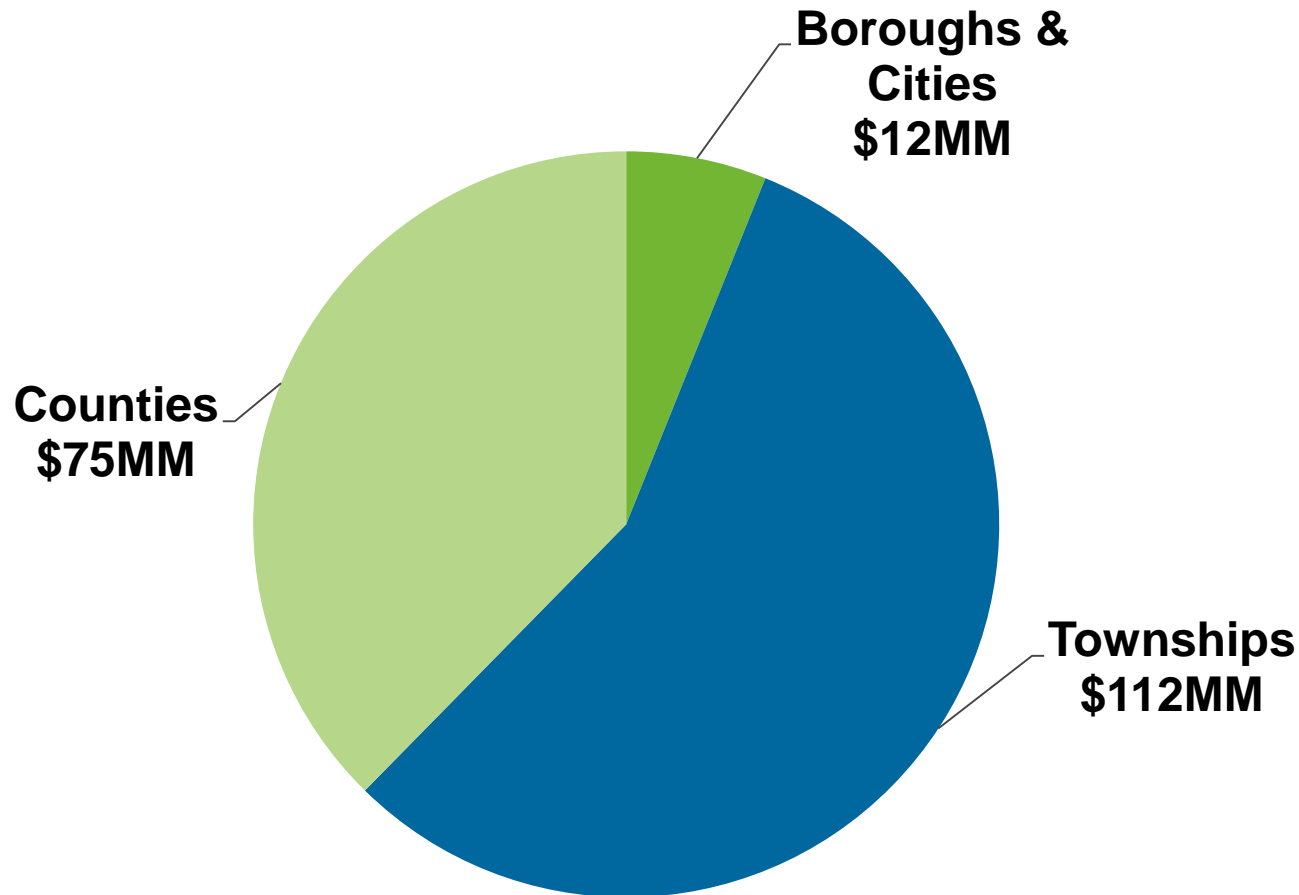
- *Counties and Municipalities receive 60% of remainder*
  - ✓ *Of that amount:*
    - *36% to counties hosting unconventional wells*
    - *37% to municipalities with unconventional wells*
    - *27% to all municipalities in host counties*
      - *50% to municipalities with wells in host counties based upon population and road mileage*
      - *50% to ALL municipalities in host counties based on population and road miles*
      - *Municipality allocation limit: The greater of \$500,000 or 50% of the municipality's budget for the prior fiscal year, adjusted for the CPI. All remaining money is allocated to the Housing Affordability and Rehabilitation Enhancement Fund.*
- *Marcellus Legacy Fund (40%)*

## Total 2011 & 2012 \$96.8MM\*



\* Includes Impact Fee and Marcellus Legacy Fund payment, 2011 & 2012

## Impact Fee Payment 2011 & 2012 County and Municipal Government \$200MM



Excludes Marcellus Legacy Fund & Housing Affordability and Rehabilitation Fund

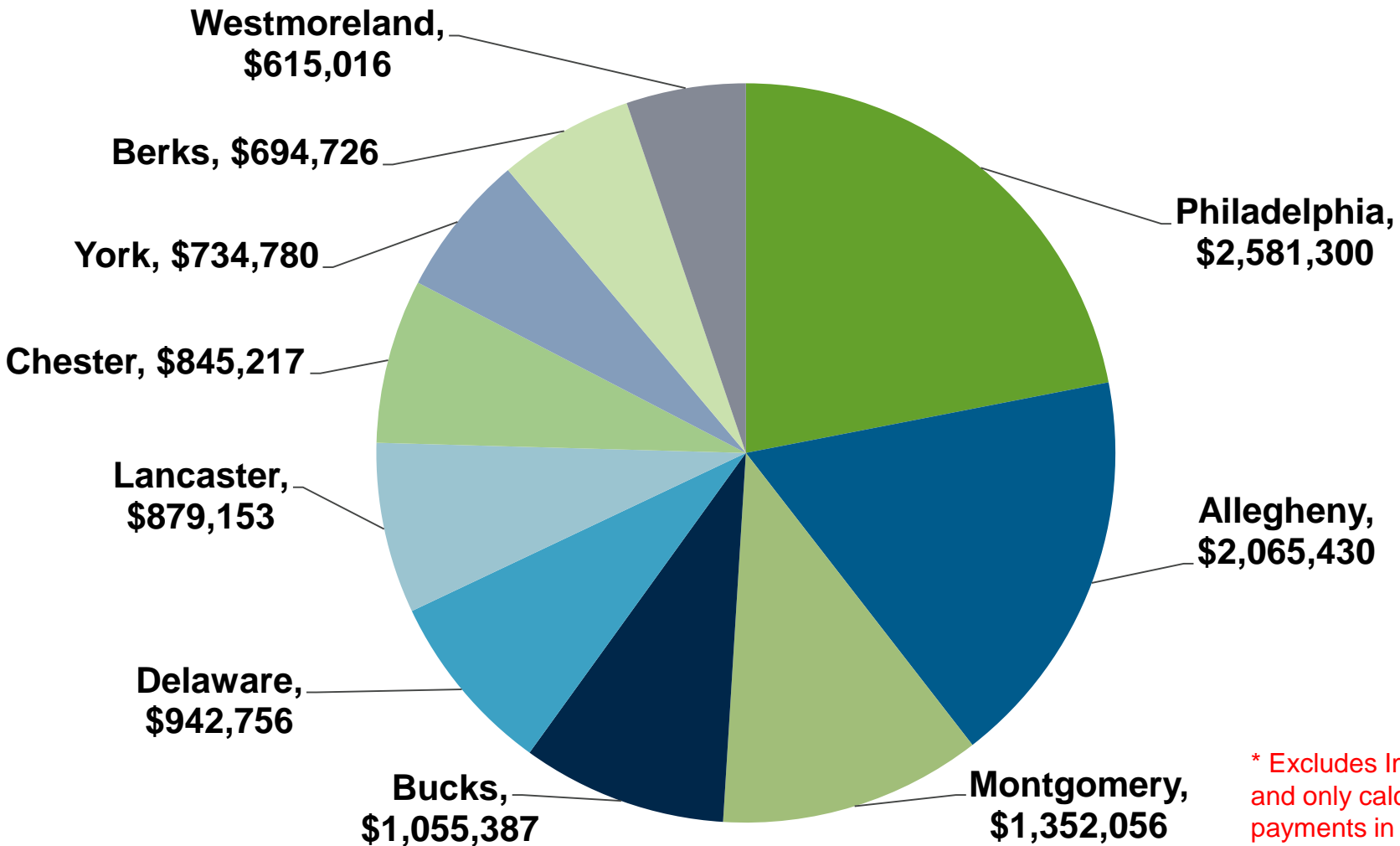
# Act 13 Impact Fee Authorized Uses



1. Roadways, bridges and public infrastructure
2. Water, storm water and sewer systems
3. Emergency preparedness and public safety
4. Environmental, recreational, and agricultural programs
5. Preservation and reclamation of surface and subsurface waters and water supplies
6. Tax reductions, including homestead exclusions
7. Safe and affordable housing
8. Records management, geographic information systems and information technology
9. Social services
10. Judicial services
11. Deposit into the capital reserve fund if the funds are used solely for a purpose set forth in Act 13
12. Career and technical centers for training of workers in the oil and gas industry
13. Local or regional planning initiatives

- The Marcellus Legacy Fund addresses statewide and county impacts
  - ✓ After state distributions and the 60% of the remainder to local government, the rest is deposited into the Marcellus Legacy Fund to address abandoned mine issues, watershed restoration and protection, greenways, trails and recreation, and orphan/abandoned well plugging
- Legacy Fund provides funding for:
  - ✓ Natural Gas Energy Development Program
  - ✓ Commonwealth Financing Authority
  - ✓ Environmental Stewardship Fund
  - ✓ The Highway Bridge Improvement Restricted Account
  - ✓ H2O PA Program
  - ✓ Pennsylvania Infrastructure Investment Authority
  - ✓ Department of Community and Economic Development
- A portion (15%) goes to counties for environmental uses

# Top 10 earning counties 2011 + 2012\*



\* Excludes Impact Fee and only calculates MLF payments in 2011 & 2012

- Pennsylvania Housing Affordability and Rehabilitation Enhancement Act (PHARE):
  - ✓ Increase affordable housing for low and moderate income families, the disabled, and the elderly persons in counties with active development.
  - ✓ Provide rental assistance for families whose household income does not exceed the area median income in counties with active development.
  - ✓ No less than 50% of the funds are to be used in fifth, sixth, seventh and eighth class counties.
- A yearly allocation from the local distribution funds - \$5 million each fiscal year beginning in 2012 and thereafter
- *Windfall/Spillover Funds*—Additional funds due allocated to qualifying municipalities that exceed 50% of the budget or \$500,000 are deposited into the PHARE Fund

- Have a plan
- Communicate
- Urbanized areas especially on key transportation systems - Rail, water, highway – have opportunity for infill development
  - ✓ Brownfields with laydown facilities
  - ✓ Office Space & Housing
- Invest in community infrastructure and character
- Learn the facts and understand *possible* impacts/benefits
- Case Studies/Model Communities
  - ✓ Clearfield Economic Development; Planning & Redevelopment Entities of Crawford, Lycoming & Washington Counties

# Thank you!

## Marcellus Shale Coalition

[www.MarcellusCoalition.org](http://www.MarcellusCoalition.org)

[Twitter.com/marcellusgas](https://twitter.com/marcellusgas)

[Facebook.com/marcelluscoalition](https://facebook.com/marcelluscoalition)





# Marcellus' Effects on Housing in Pennsylvania

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# Marcellus-Housing Research

- PHFA Study
  - 6 Counties Across Marcellus Region
  - Rental Housing
  - Owner Occupied Housing
  - Housing Affordability
  - Development Capacity
- Lycoming County Housing Impact Study
- *Environmental Practice* Article
- 2013 Update



# Effect: Pricing & Supply

- Rental Pricing
  - At peak doubling or tripling of rents
  - Today no surplus, prices adjusted somewhat
- Consequences
  - Below-standard choices
  - Sub-standard choices
  - New forms of homelessness
  - Section 8 ineffective
- House sale prices less evident



# Effect: Seniors and Crisis Housing

- Senior Housing
  - Limited availability
  - Home not available for sale
  - Pressure on rentals
- Crisis Housing
  - Hotel rooms no longer option
  - Social service funding pressure
  - Aggravates other problems
    - Children removed to foster care
    - Loss of custody by one parent
    - Potential for domestic conflict

# Themes: Interconnected Housing Reality

- Housing need at all levels
  - Low cost rentals
  - Professional-level rentals
  - Starter homes
  - Professional homes
- Shortage in one area affects others
- Effect felt heaviest at bottom
  - Nowhere to go



# Themes: Varying Scale of Housing Needs

- Communities affected differently
- Depends on
  - Pace of industry growth
  - Industry activity types
  - Pre-existing development of housing
- Response complicated by cyclical nature of industry
  - Sustainable Solution: Focus on old housing problems
  - Leveraging Marcellus to upgrade housing & strengthen communities



# Act 13: Opportunities and Limits

- Variation in response
- Barriers not completely overcome by Act 13
  - Competing priorities for local revenue
  - Land & Infrastructure availability
  - Lack of local developers & financing
  - Planning responsiveness
  - Time
  - Doubts about industry
  - Local leadership



# What Planners Need to Think About

- Moving beyond pro vs. con of gas
- Sustainability
  - Impact fee revenue & expenditures
  - Boom & bust?
- Leveraging the opportunity:  
Economic diversity
- Cyclical impacts





# Marcellus' Effects on Housing in Pennsylvania



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of External Affairs



# **An Overview of DEP's Oil and Gas Program**

## **APA-PA Unconventional Gas Session**

### **October 21, 2013**

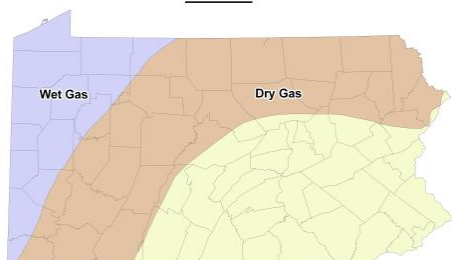


# Black Shale Formations

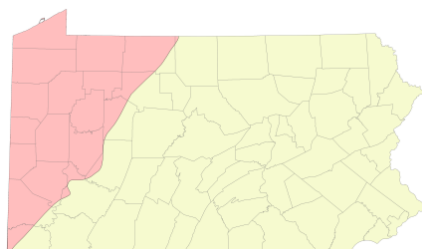
## Generalized Stratigraphic Section for Oil and Gas Region

- **Marcellus**
  - **Utica**
  - **Rhinestreet**
  - **Huron**
- **Upper Devonian**
    - **Dunkirk**
    - **Pipe Creek**
    - **Middlesex**
    - **Geneseo**
    - **Burket**

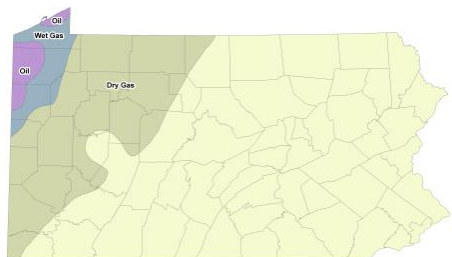
Marcellus



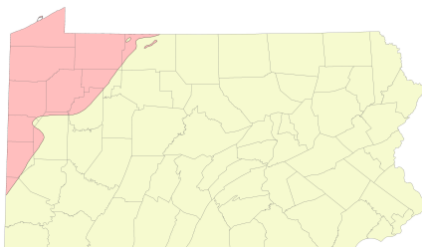
Rhinestreet



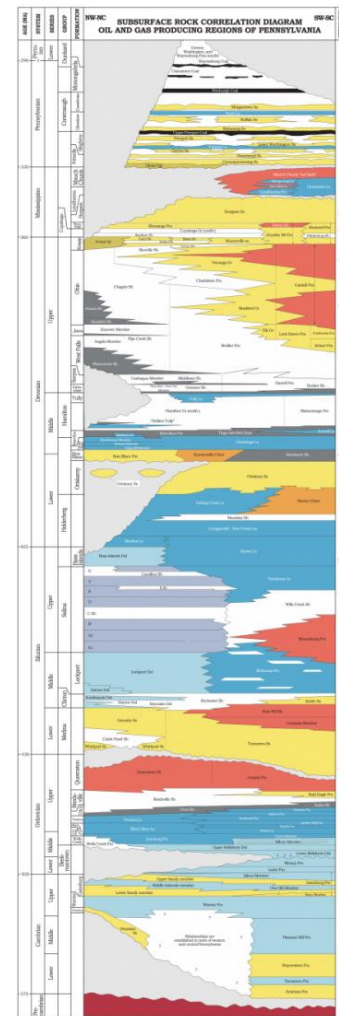
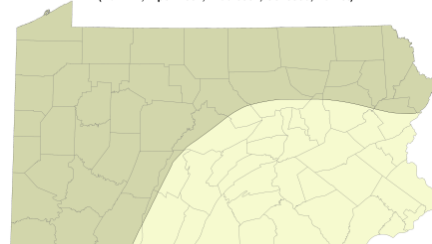
Utica



Huron

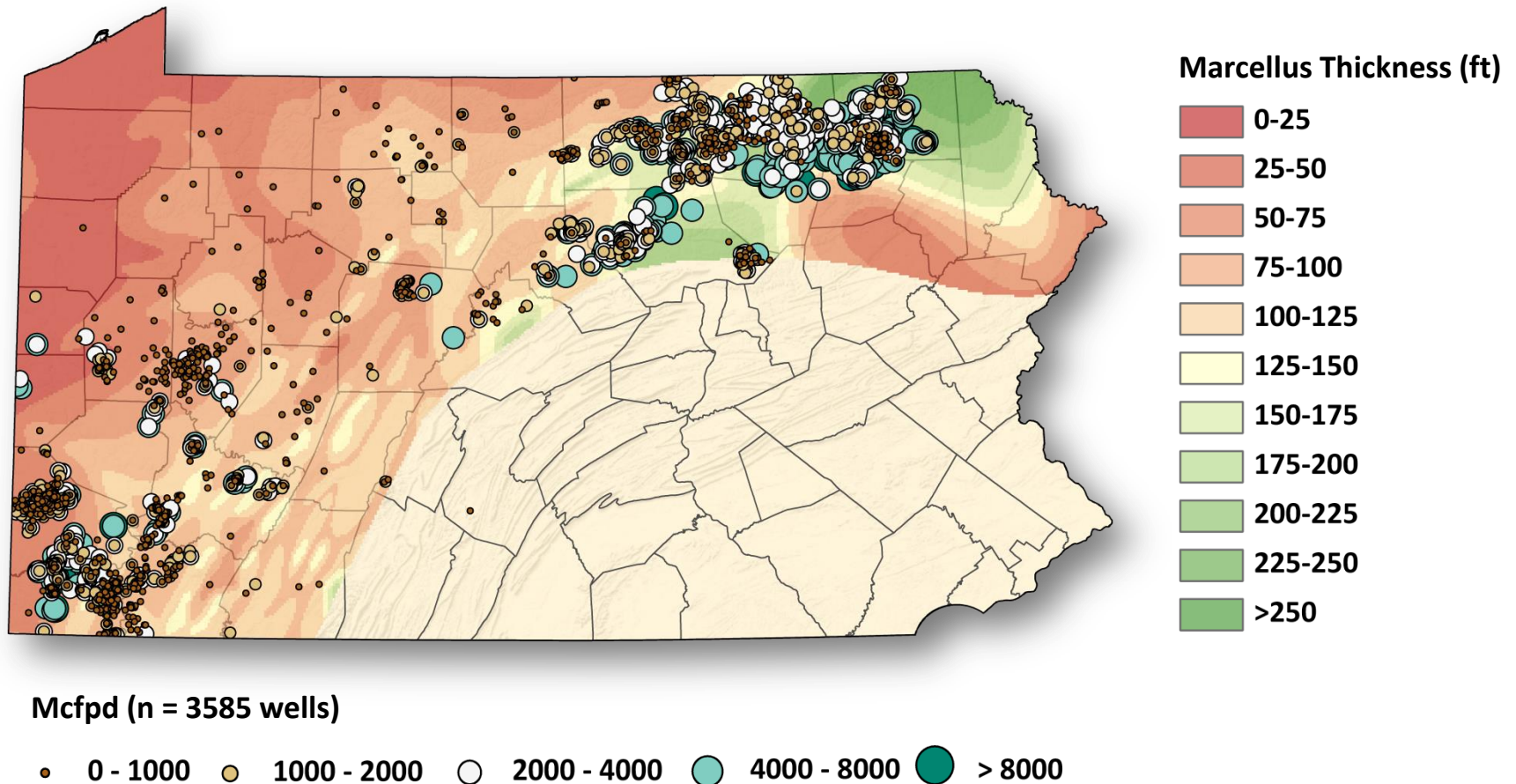


Miscellaneous Upper Devonian Formations  
(Dunkirk, Pipe Creek, Middlesex, Geneseo, Burket)



Modified from Higgins, J.A., 1979. Subsurface rock correlation diagram, Allegheny Plateau, Pennsylvania. Pennsylvania Geological Survey, 40 p. (Open File Report OF-79-1).

# Marcellus Shale Production Data 2012



# Energy Initiatives

- Keystone Energy Education Program (KEEP)
- DEP at home display
- Energy efficiency workforce training
- DOC CHP study
- Small business outreach program
- Energy Management for Public Wastewater and Drinking Water Utilities
- Energy Star certification for schools

# ▶ Energy Grant and Loan Programs

- Natural Gas Vehicle Programs
  - Act 13
  - AFIG Grant
  - AFIG Rebate Program
- Sunshine Solar Rebate Program
- Keystone HELP Loan Program
- PA Energy Development Authority (PEDA)
- Small Business Advantage Grant
- Commonwealth Financing Authority (CFA)
- Energy Education Grants

# Pa. NGV Act 13 Grant Program

## Act 13 Focus Areas

- “Larger” fleet vehicles:
  - Dedicated CNG over 14,000 lbs,
  - Dedicated LNG over 14,000 lbs,
  - Bi-fuel over 14,000 lbs.
- 50% of the incremental cost up to \$25,000

# Pa. NGV AFIG Grant Program

## AFIG Focus Areas

- “Smaller” natural gas vehicles. This is intended to complement the Act 13 NGV program.
- Any size electric, propane or other alternative fuel vehicles per application.
- Other innovation, development and alternative fuel for non-road vehicles.

# Areas of interest for the APA-PA

- Brownfield redevelopment
  - Funding for HSCA now derived from Act 13
- Mapping of facilities
- Development associated with industry
- Growth of infrastructure



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of External Affairs



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# Lycoming County Responds to Marcellus

Kurt Hausammann, Jr., AICP  
Director

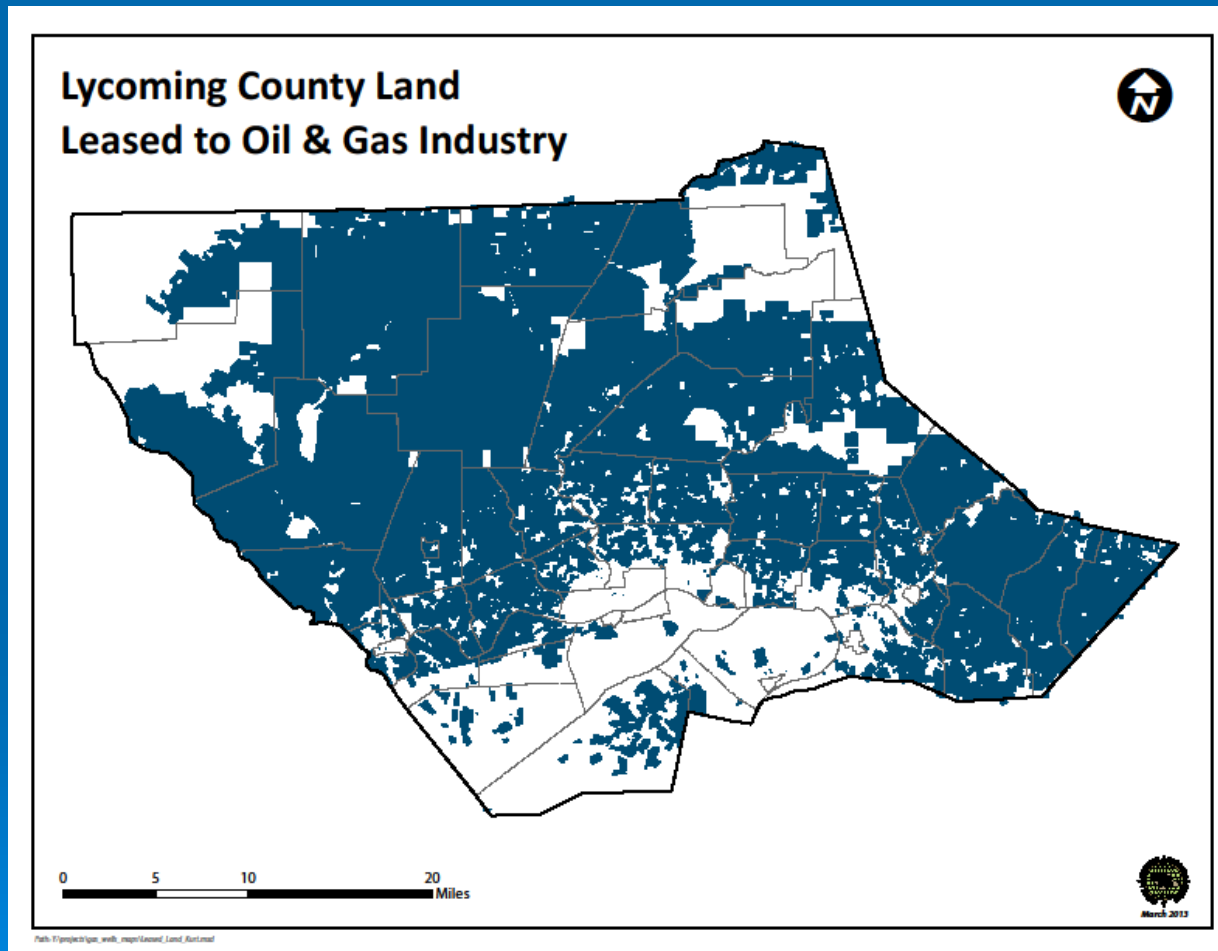
Lycoming County  
Planning and Community Development



# Something is Happening

- First Became Aware that Something was Happening - 2007
- Lines in Register & Records Office
- Large Increase in Assignment of Uniform Parcel Identification Numbers – UPI's

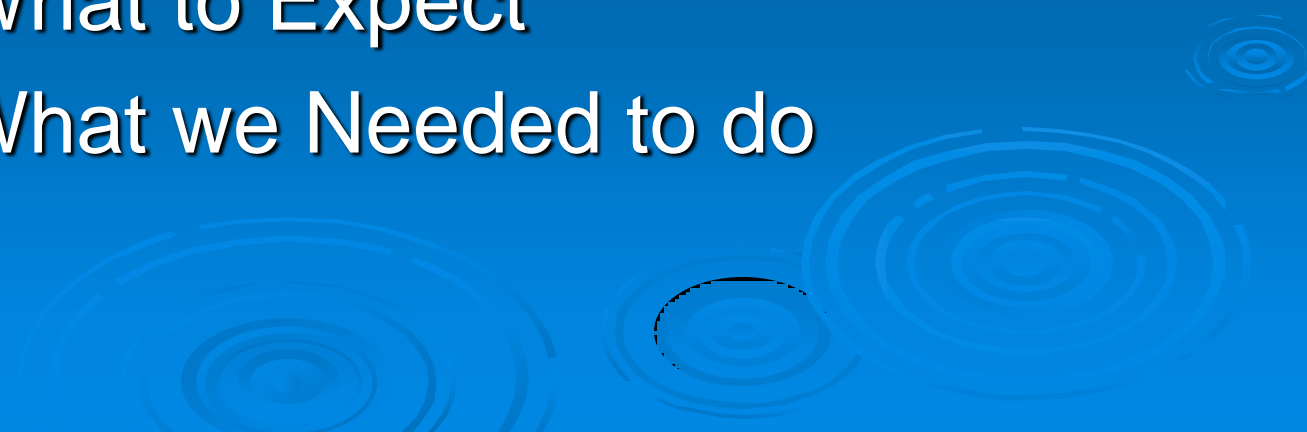
# Gas Leases



# Community Gas Task Force

- Formed January 2008
- Membership – County & Municipal Officials, Chamber, Banking, Real Estate, Education
- Sub – Committees Formed
- Met Monthly
- Interfaces with Gas Industry Companies

# Texas Field Trip

- Traveled To Fort Worth – July 2008
  - Met with County Officials, Texas DOT, Gas Industry Representatives,
  - Toured Well Sites
  - Crash Course on Gas Industry
  - Learned What to Expect
  - Learned What we Needed to do
- 

# Updated Zoning Ordinance

- Prepared Zoning Ordinance Amendment for Oil & Gas 2009-2011
- Worked with Industry to Prepare Ordinance
- Prohibits Drilling in Residential Districts
- Prohibits Drilling in Floodplain
- Adopted February 2011
- Working Well

# Comprehensive Planning

- Oil & Gas Exploration Needs to be Addressed in Comprehensive Plan
- Not Addressed in 2006 Plan
- Prepared Supplemental Impact Studies
- Studies are Sewer & Water, Housing, Transportation, and Social Justice
- Studies on Website – [lyco.org](http://lyco.org)


# Response to Studies

- Williamsport Housing Strategy 2012 – 3 Parts
- Memorial Homes, Brodart Neighborhood Revitalization, Grove Street
- 40 Affordable Apartments and 32 Market Rate Townhouse Units Constructed on Brownfield Site
- 150 Homes Improved
- 32 Senior Housing Units

# Memorial Homes, Grove Street



# Funding Strategy

- PHARE Funds – Returned Act 13 Dollars – PHFA Priority to Counties of Origination
  - County Act 13 Funds – Grant Program
  - City Act 13 Funds
  - City Home Funds
  - City CDBG Funds
  - DCED Keystone Communities Fund
  - Reinvestment Fund
  - Private Funds
- 

# Corridor Management Plan

- Truck Traffic Greatly Increased
- Route 44 over 300% - Pine Creek Valley
- East End – Traffic Congestion
- Corridor Management Plan Underway
- PennDOT Must Follow Corridor Management Plan - Incorporated in Land Use Ordinances

# Lycoming County Act 13 Grant Program

- Lycoming County Planning Designed County Act 13 Grant Program – Fall 2012
- Commissioners Approve Grant Program January 2013
- Municipalities and Authorities May Apply for Funds
- Grants – Airport Terminal, Sewer & Water Projects, Levee Repair, Children & Youth, Register & Recorder

# Contact Information

- Kurt Hausammann, Jr., AICP  
48 West Third Street  
Williamsport, PA 17701  
Phone 570-320-2132  
Email – [khausammann@lyco.org](mailto:khausammann@lyco.org)

Unconventional Shale Gas: Sustaining the Opportunity  
*Class #101: Introduction to Gas Strategies*

## Region or County-Based Shale Gas Strategy

Maximizing the Benefit, Minimizing the Cost

American Planning Association – PA Chapter  
October 21, 2013

# Region or County-Based Shale Gas Strategy

Maximizing the Benefit, Minimizing the Cost

# Why a Need for a Strategy?



- Need to meet long-term industry needs
- Need functional communities to sustain the Shale Gas Opportunities
- Trending towards winners & losers
- Current efforts are reactionary / tactical
  - Good in short-term
  - Not so good in long-term

# What Should We Do?

## A balanced approach:

- Transition from Tactical to Strategic
- Match Industry Needs with Community Needs
- Transition from Winners & Losers to *“Win Win”*
- Clearly Defined Strategy =
  - Goals
  - Objectives
  - Strategic Actions
  - Roles & Responsibilities
  - Financial Plan



# Strategy Development



## Gas Development Phases

- Upstream Exploration & Production
- Midstream Pipelines & Distribution Networks
- Downstream Users & Markets

***Each Phase Offers Different Opportunities & Issues!***

# Key Issues for Industry & Community

## Finding Synergetic Solutions

- Workforce Development
- Transportation Infrastructure
- Community Infrastructure & Social Services
- Housing Needs
- Cost- effective & Timely Regulatory Processes
- Public Relations & Issue Polarization
- Develop Markets for the Product!

# Comprehensive Planning Issues

- Kurt Hausammann Addressed
- Plan for growth
- Identify most appropriate areas and means for growth
- Update land use management tools – zoning and land development ordinances
- **Develop Long-term Capital Investment Plan / Programs – Where and How to Invest**

# Community Infrastructure: Water & Wastewater Treatment Issues

***When you plan for HOUSING  
GROWTH you must plan for  
Water!***

- Aging Water Supply Infrastructure
- Onsite Well Water Supplies
- Aging Public WWTPs at Hydraulic Capacity



# Mutual Benefits / Comprehensive Planning



## Municipalities

- Provides more flexible and cost effective options
- Help deal with ups and downs and better manage the boom and bust

## Industry

- More surety on where a community is going and what to expect
- More consistent regulatory environment
- Can be more integrated with community thus positive public relations

# Transportation Infrastructure Issues

- Infrastructure Integrity - Inadequate Cartway Widths & Weight Limits
- Regional Accessibility for Long-term Development
- Secondary Growth over the Long-term from Service Industries Impact Capacity and Safety
- Inadequate Funding from Harrisburg for State and Local Roads
- Vehicle Safety Issues & Driver Certifications
- Law Enforcement & Emergency Response
- Impact on Scenic By-ways used by Tourists



# Transportation Strategies

- County-wide assessments of roadway needs and project prioritization system
- Local Funding Options (Impact Fees & Partnership Act) Only Address Capacity Issues
- Shared Use of Roadways & Improvement Costs warrant fair and equitable distribution system
- Public / Private Partnership strategies for Transportation Improvement Program
- Partnership support for fair bonding requirements and regional bonding authority



# Mutual Benefits / Transportation Strategies



## Municipalities

- Cost Effectively Maintain Transportation System over the Long-term
- Avoid roadway and bridge closures
- Better ability to fund projects with less fees and taxes that impact local community and businesses

## Industry

- Maintains bridges and roads with no weight restrictions
- Reduced logistical costs by eliminating detour issues
- Integral part of community benefit strategy that helps public relations



# Creating the “Win – Win”

- Local Use of Natural Gas Resources
- Encourage & Develop Natural Gas-Based Industry
- Partnerships to Convert Vehicles to Natural Gas
- Partnerships for Educational Platforms
- Foundation Support for Sustainable Community Development
- Hazard Mitigation Planning
- Integrated Planning & Benefit Stacking



# Strategy Process

## Three Phases

- Phase 1: Situational Analysis
- Phase 2: Defining Scope & Budget
- Phase 3: Strategy Development



## Key Points

- Can we really develop a cost-effective strategy?
- What do we do and what will it cost?
- Extensive Research
- Extensive Stakeholder Coordination
- Document goals, objectives, strategic actions, roles & responsibilities, and financial plan