

Impact Analysis of the Maryland Marcellus Shale Safe Drilling Initiative

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Overview

- Review of Study Goals
- Review of Work Plan and Timeline
- Overview of Analyses and Tools
- Questions

Review of Study Goals

1. Quantify the **economic and community impacts**
2. Deliver **analyses and associated findings**
3. Acknowledge and understand the **local context**

Review of Work Plan and Timeline

Delivered

Stakeholder Engagement June 14 & 15, 2013

Draft Outline August 9, 2013

In-Person Survey August 13 – 15, 2013

Due

Final Outline September 9, 2013

Online Survey End of September

Survey Analysis End of October

Hedonic Price Analysis End of November

Economic Impact Analysis End of January

Fiscal Impact Analysis End of January

Community Impact Analysis End of January

Draft Report March 14, 2014

Final Outline May 9, 2014

Stakeholder Engagement: Purpose

- To learn more about the local economy and what might be impacted
 - RESI met with 42 individuals representing 24 groups and businesses from Allegany and Garrett Counties
 - Groups represented local government, property owners, tourism, recreation, agriculture, and other impacted groups
- To identify major concerns of the local community

Stakeholder Engagement: Major Concerns



Infrastructure Education, Public Health & Safety, and Roads



Local Economy Regulation, Local Business, Property Rights, and Housing



Environment Watersheds, Forest Area, Viewsheds, and Wildlife Habitat

Community Survey

- **Purpose:** To provide RESI with variables to quantify nonmarket impacts of potential drilling in Garrett and Allegany Counties
- **Administration:** online and in-person
- **Progress:** **150** responses to date
- **Goal:** **300 to 500** responses by end of September

Survey Format

30 Questions

- Environmental Usage
- Residence
- Hypothetical Scenario
- Demographic Information



Survey Locations

Garrett County

- Oakland Farmers' Market
- Shop n Save Fresh
- Swallow Falls State Park
- Deep Creek Lake
- Wisp Adventure Park
- Downtown Oakland

Allegheny County

- Cumberland Farmers' Market
- Downtown Cumberland



Online Survey

The online survey is **LIVE** and available on the Garrett County website and at this hyperlink

<http://resisurvey.resiusa.org/surveydata/ContingentValuation.htm>



Impacts

- Impacts of shale gas drilling experienced by other states
- Impacts of special interest identified by residents
- Potential community impacts
- Potential economic and fiscal impacts

Community Impacts Discussed

- Housing
- Transportation
- Recreation/tourism
- Land use
- Rural character



Community Impacts Quantified

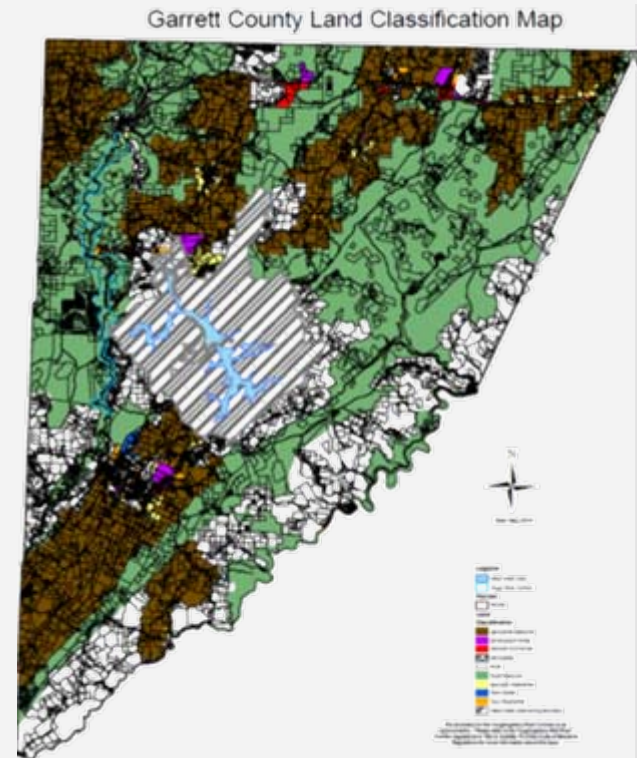
Changes in demand resulting from permanent and transitory workers impacting

- Housing
- Truck traffic on local roadways
- Public health services
- Infrastructure

Community Impact Mapping: Constraints Map

GIS-based map used to depict constraints

- Existing wells
- Historic lease data
- Sensitive lands
- Setbacks



Economic and Fiscal Impacts

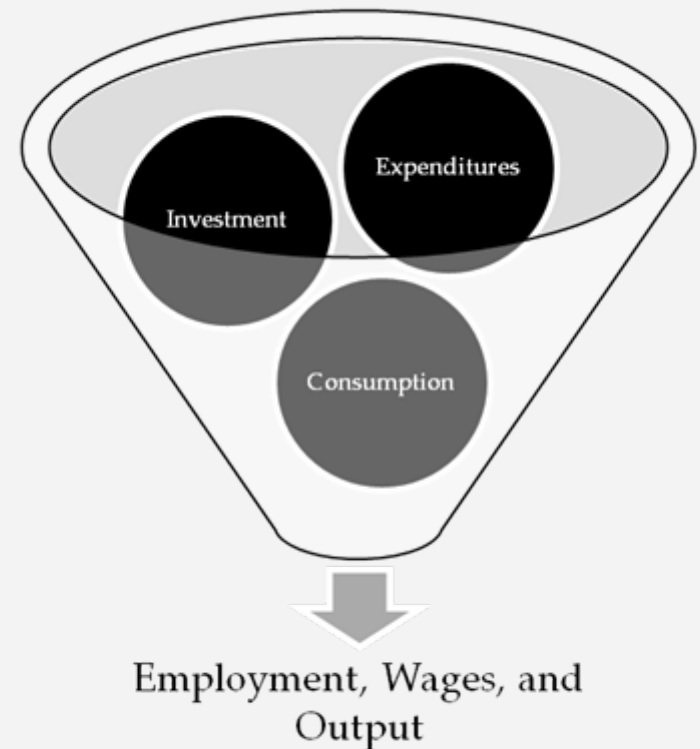
Economic Impact Analysis

- Three key factors will be quantified for three scenarios: low, mid, high
 - Employment
 - Wages
 - Output

- Inputs: Nonmarket and Market Values

Fiscal Impact Analysis

- State and Local tax impacts
 - Investment phase
 - Operation phase



Market vs. Nonmarket Impacts

Market Impacts

- Values that can be readily observed in the marketplace
- Measures the reduction or benefit from Shale Drilling in the area

Nonmarket Impacts

- Values cannot be readily observed
- Measures the reduction in environmental goods resulting from natural gas production
- “Willingness-to-pay”

Scenarios and Tools

- Low, mid, and high drilling scenario
 - Low – no drilling, preliminary baseline
 - Mid – best practices drilling
 - High – highest level of drilling extraction
- IMPLAN and REMI PI+



Assumptions

- Production potential
- Number of wells and wells per pad
- Location of well pads and well infrastructure
- Production curve/well lifespan
- Rate and pace of drilling



Question & Answer