Maryland’s Proposed Comprehensive Gas Development Plan

Workshop on Governance of Risks of Unconventional Shale Gas Development
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Marcellus Shale Safe Drilling Initiative

► Gov. O’Malley’s Executive Order, June 2011
► Two cabinet agencies, in consultation with an Advisory Commission, shall make findings and recommendations to:
  ▪ Address the short-term, long-term and cumulative effects of Marcellus gas extraction
  ▪ Assist policy makers in determining whether and how gas production can be accomplished without unacceptable risks of adverse impacts to public health, safety, the environment and natural resources
Best Practices Report

- Recommendations for all aspects of natural gas exploration and production in the Marcellus Shale
- University of Maryland Center for Environmental Studies, Appalachian Laboratory (UMCES-AL)
  - Drs. Keith Eshleman and Andrew Elmore
  - Surveyed practices and made recommendations for Maryland
- Agencies consulted with Advisory Commission
- Agencies’ draft report posted for public comment
- Final Agency Report due December 2013
Comprehensive Gas Development Plan (CGDP)

► The “most important” Best Practice

► Modeled on voluntary Colorado and BLM programs and Pennsylvania program for leased state forest land

► Goal
  - Allow efficient exploitation of the resource
  - Minimize the impact on local communities, ecosystems and other natural resources
Broad Support for Comprehensive Planning

- The Case for Maryland’s Proposed Comprehensive Gas Development Plan Program
  - John Quigley, former Secretary of Pennsylvania Department of Conservation and Natural Resources
- The Need - lessons learned from Pennsylvania
- Endorsed and adopted by government, industry, non-profit and private sectors
- Win-win outcomes
CGDP

► Plan at the landscape scale
► Evaluate the cumulative impacts of multiple wells, pads and infrastructure
► Minimize surface disturbance, fragmented landscapes and public use conflicts
Landscape Impacts, Elk County, PA

(images from GoogleEarth, 2009)
(from Coleman and others, 2009)
Multi-well Pad Development

An idealized multi-well pad development (ancillary infrastructure not shown)

- **Total area drained** = 18 mi²
- **Area of pads** = 36 acres
- **Area of roads & utility corridors** = 44 acres (assuming 75 ft wide roads/co-located gas lines)
- In this highly idealized case, *less than 1% of the land area would be disturbed*
- **Caveat:** doesn’t include lands disturbed for siting of compressor stations and water impoundments

Keith N. Eshleman & Andrew J. Elmore
Two Step Process

► The CGDP must be approved
  - Covering development over at least 5 years
  - Addressing locations of pads, pipelines, roads
  - Meeting location restrictions and setbacks
  - Avoiding sensitive areas and minimizing cumulative effects

► Then, an application to drill a well can be processed if
  - The location is consistent with the approved CGDP
  - Plans for the well demonstrate that proposed activities will meet or exceed the regulatory standards
Leveraging Existing Infrastructure and Land Uses

- Co-locate linear infrastructure with existing roads, pipelines and power lines or share infrastructure
- Site well pads on disturbed, open lands
- Identify opportunities to develop joint comprehensive plans with other companies
Shale Gas Development Toolbox

Mapping data accessible through an interactive mapping site and for download

http://www.mdmerlin.net/
Initial Government Review
(State and Local)

► Are regulatory location restrictions and setbacks satisfied?

► Is plan consistent with local land use requirements?

► What opportunities exist for coordinated regulatory review?

► Should additional alternatives be analyzed?
Public Participation

- Applicant considers initial government comments and may revise CGDP

- Applicant initiates public participation process
  - Stakeholder group identified - Company, local government, resource managers, NGOs, surface owners, citizens
  - Facilitated process with stakeholders, open to the public, to consider the CGDP

- Applicant may modify the CGDP based on public review and alternatives analysis, before submitting it to the State for approval
Agency Roles

► DNR

- Leads and coordinates the CGDP planning and public review process
- Provides written assessment of submitted CGDP to MDE

► MDE

- Formally approves/disapproves CGDP plan if it meets regulatory requirements and minimizes unavoidable impacts to the maximum extent practicable
- Will process applications for individual well permits if consistent with the approved CGDP
Post-Approval Modifications to CGDP

- Approval good for 10 years
- Significant changes to an approved plan will require a streamlined public process and the submission and approval of a modified CGDP application
- Minor modifications that do not increase the surface impact may be approved by MDE upon request of the applicant
CGDP: Concerns Raised

► Should it apply to exploratory and extension wells?
► Can the approval criteria be adequately defined?
► Is there a better way to control cumulative impacts?
► Is it strict enough to be effective and flexible enough to be practical?
CGDP: More Concerns Raised

► Will efficiencies be reduced unless Maryland adopts forced pooling?
► Will plan disclosure make leases and rights of way more expensive to acquire?
► Can the CGDP and the individual permit complement each other without duplication?
Implementing the CGDP

► Public comments accepted until 9/10/13
► Agencies will revise report in consultation with Commission
► Report will contain a roadmap for implementing CGDP and other best practices included in the final report, in the event Marcellus shale gas development is allowed
For More Information