Update to NYS SGEIS on HV HF Wells
What’s happened since Sep. 2009

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Update to time line

• **Review Process Time Line**
  
  1992 - DEC developed a [Generic Environmental Impact Statement](#) ("GEIS") which sets parameters that are applicable statewide for SEQRA review of oil and gas well permitting.
  
  2/06/09 - The Final Scope described the topics that needed to be reviewed related to well permit issuance for high-volume hydraulic fracturing in a Draft Supplemental Generic Environmental Impact Statement (SGEIS). Written and verbal comments from all interested parties were considered in the preparation of the Final Scope.
  
  9/30/09 - The Draft SGEIS was released for additional public review and comment. More than 13,000 comments were received until the close of the comment period on December 31, 2009.
  
  12/13/10 - Governor Paterson ordered DEC to conduct further environmental review to ensure that all environmental and public health impacts are mitigated or avoided and to present this information to the public for further review.
  
  1/26/2010 - My last GWPC presentation on this subject
Update to time line

- 7/01/11 - DEC released the Executive Summary of the Preliminary Revised Draft SGEIS, prepared after considering the many comments received on the Draft SGEIS.
- 7/08/11 - DEC released the full Preliminary Revised Draft SGEIS.
- 9/7/2011 - DEC released the Revised Draft SGEIS and supporting socioeconomic study. The public comment period was opened and will conclude on December 12, 2011.
- Fourth quarter 2011 release of draft regulations
- The Final SGEIS will be prepared after consideration of public comments and will set additional parameters for SEQRA review. The Department will then process and, as appropriate, issue well permits for gas well development using high-volume hydraulic fracturing in accordance with both the GEIS and the SGEIS.
Main Changes Since 2009

Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program (September 2011) - NYS Dept. of Environmental Conservation - Mozilla Firefox

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Home » Energy and Climate » Oil and Gas » SGEIS on the Oil, Gas and Solution Mining Regulatory Program » Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program (September 2011)

Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program (September 2011)

Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing in the Marcellus Shale and Other Low-Permeability Gas Reservoirs

DEC received more than 13,000 public comments on the Draft Supplemental Generic Environmental Impact Statement (SGEIS) issued in September 2009. The Draft SGEIS addresses permit conditions required for gas drilling in Marcellus Shale and other areas of the State.

In response to issues raised, DEC has prepared a Revised Draft SGEIS. As of September 7, the document is available for public review. To help those interested in understanding the issues involving horizontal drilling and high-volume hydraulic fracturing, several fact sheets are also available.

2011 Document Availability
Document Revisions

- Chapter 1 – Introduction summarizes the changes to the document
- Chapter 2 – Description of Proposed Action provides an overview of the anticipated scope of development and the possible length of development brief overview of socio-economic impacts pros and cons
Document Revisions

• Chapter 3 – Proposed SEQRA Review Process base assumptions
  – New HVHF Enivron Assess Form (EAF)
  – Top of production interval > 2000’
  – Greater than 1,000’ below base of freshwater
  – Not in or w/in 500’ of a defined principal aquifer
  – Not closer than 150’ to a water body
  – Water withdrawals with sufficient pass byflow
  – Not w/in 1000’ of NYC water infrastructure
Document Revisions

- Chapter 4 – Geology no significant changes from 2009 version including NORM issues
- Chapter 5 – Natural Gas Development Activities & HV HF
  - Revisions based on PA data
  - Casing strings- use of intermediate
  - Potential production
Chapter 6 – Potential Environmental Impacts

• Water resources impacts
  – Water withdrawals
  – Stormwater flows
  – Spills
  – Disposal of liquids and cutting

• Flood Plains
Potential Environmental Impacts

• Ecosystems and wildlife
  – Fragmentation of lands
  – Invasive species
  – Impact to endangered / threatened species

• Impact on air resources
  – Limiting number of wells drilled on a pad annually
  – No centralized flowback impoundments
  – GHG impacts
Potential Environmental Impacts

- Socioeconomic impacts –
  - State broken out to three regions
  - Economic impacts
    - Incomes
    - Population
  - Visual, noise & community character
    - Temporary but adverse
- Transportation
  - Truck traffic
Potential Environmental Impacts

• NORM –
• Seismicity
Chapter 7 Mitigation Measures

- No High-Volume Hydraulic Fracturing Operations in the New York City and Syracuse Watersheds (filtration avoidance)
- No High-Volume Hydraulic Fracturing Operations in Primary Aquifers or 500’ buffer
- No High-Volume Hydraulic Fracturing Operations on Certain State Lands (surface)
- No High-Volume Hydraulic Fracturing Operations on Principal Aquifers Without Site-Specific Environmental Review
Mitigation Measures

- No High-Volume Hydraulic Fracturing Operations within 2,000 feet of Public Drinking Water Supplies
- No High-Volume Hydraulic Fracturing Operations in Floodplains or Within 500 Feet of Private Water Wells
- Mandatory Disclosure of Hydraulic Fracturing Additives and Alternatives Analysis
- Enhanced Well Casing
Mitigation Measures

• Required Secondary Containment and Stormwater Controls
• Conditions Related to Disposal of Wastewater and Solid Waste
• Air Quality Control Measures and Mitigation for Greenhouse Gas Emissions
• Mitigation for Loss of Habitat and Impacts on Wildlife
• Other Control Measures
Chapter 8 – Permit Process and Regulatory Coordination

- Notification of locality of application
- Local land use issues
Final chapters

• Chapter 9 – Alternative Actions
  – Phased permitting
  – Green or non chemical alternatives
• Chapter 10 – Review of Selected Non-Routine Incidents in Pennsylvania
• Chapter 11 – Summary of Potential Impacts and Mitigation Measures
Next Steps

• Public comment period until Dec 12, 2011
• Release of draft regulations
• HVHF General Permit
• Four Public Hearings
• Review of comments
  – Revisions to document based on comments
• Final SGEIS
• Promulgations of Regulations
Comment System

New York State Department of Environmental Conservation
Division of Mineral Resources
DEC wants your input!

New York State High-Volume Hydraulic Fracturing Comments

CONTACT INFORMATION

Please enter your first and last name for your comment to be accepted. All other information is appreciated. If you are commenting on behalf of an organization, please enter the name of it in the space provided. Next, please re-type the phrase you see in an image on the screen. This will help protect the system from malicious entries.

* First Name

* Last Name

E-Mail

Address1

Address2

CONTINUE
Map of Prohibited Areas

Areas where High-Volume Hydraulic Fracturing Surface Drilling Would Be Prohibited

- State Parks and Lands within the Extent of the Marcellus Shale Formation
- Primary Aquifers within the Extent of the Marcellus Shale Formation
- Surface Water Drinking Supply Watersheds with Filtration Avoidance Determinations (FADs)
- Extent of Marcellus Shale Formation
- Marcellus Shale Deeper than 2000 feet South of this Line
- County Boundary

Documents Published in 2011

- 2010-01-26 Final Narrative for Gradient HHRA (271kb .pdf)
- 2011-01-14 Final Alpha Narrative for Myers (314kb .pdf)
- 2011-01-14 Final HESI - CSI letter response (32kb .pdf)
- 2011-01-19 Final Narrative - Arcadia (142kb .pdf)
- 2011-01-20 Final Narrative - Harvey (344kb .pdf)
- 2011-02-04 Final USGS letter-Alpha response (106kb .pdf)
- Final narrative response - Hazen & Sawyer 2011-01-26 (226kb .pdf)
- NTC Final Report 02-10-11 Rev A (769kb .pdf)
- URS Report_Revised PO10665_3-28-11 (1,291kb .pdf)

Revised Documents Published in 2010

- Transmittal Letter 5-21-10 (69kb .pdf)
- URS Report_Revised PO10665_5-21-10 (504kb .pdf)

Documents Published in 2010

- Chapter 1: Issues Related to Developing the Marcellus Shale and Other Low-Permeability Gas Reservoirs (1.3 mb .pdf)
- Chapter 2: Water-Related Issues Associated with Gas Production in the Marcellus Shale (407 kb .pdf)
- Chapter 3: Impacts on Community Character of Horizontal Drilling and High Voluma Hydraulic Fracturing in Marcellus Shale and Other Low-Permeability Gas Reservoirs (650 kb .pdf)
- Figures (4.2 mb .pdf)
- Appendix: Recommended Information to Accompany Drilling Applications—Sample Forms (7.9 mb .pdf)
- ICF Task 1: Technical Analysis of Hydraulic Fracturing (640 kb .pdf)
- ICF Task 2: Technical Analysis of Potential Impacts to Air (430 kb .pdf)
Economic Assessment Report
for the
Supplemental Generic
Environmental Impact Statement on
New York State's Oil, Gas, and
Solution Mining Regulatory Program

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Questions?