Evaluating the Environmental Harms Posed by Fracking

Dan Raichel
Natural Resources Defense Council

Yale Center for Environmental Law and Policy
Emerging Issues in Shale Gas Development Webinar Series
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Kate Sinding, Senior Attorney
Natural Resources Defense Council
Outline

• Overview of NRDC’s fracking position
• Overview of regulatory framework
• Some primary areas of concern
• State regulatory patchwork
• Local land use issues
NRDC’s National Fracking Position

NRDC opposes expanded fracking until effective safeguards are in place.
What does this mean?

- Pragmatic
- Flexible
- Protective
Federalism and a Regulatory Patchwork

• Exemptions from major federal environmental statutes
  o Safe Drinking Water Act
  o Clean Air Act
  o Clean Water Act
  o Waste laws – RCRA and CERCLA

• State laws vary widely
  o From none to comprehensive
  o No state is good enough

• Extent of local control varies widely
Some Primary Areas of Concern

Photo by Jacques del Conte, c/o amytiemann.com.
Water Pollution

Photo credit: National Energy Technology Laboratory.
Contaminant Migration

Image c/o Southwestern Energy.
Wyoming's smog exceeds Los Angeles' due to gas drilling

By Wendy Koch, USA TODAY
Updated 2011-03-09 11:52 AM

Rural Wyoming, known for breathtaking vistas, now has worse smog than Los Angeles because of its boom in natural gas drilling.

Residents who live near the gas fields in the state's western corner are complaining of watery eyes, shortness of breath and bloody noses, reports the Associated Press. The cause is clearer than the air: local ozone levels recently exceeded the highest levels recorded in the biggest U.S. cities last year.

Preliminary data show the region's ozone levels last Wednesday got as high as 148 parts per billion, which is two-thirds higher than the Environmental Protection Agency's maximum healthy limit of 75 parts per billion and above the worst day in Los Angeles all last year, 144 parts per billion, AP reports. On March 1, the ozone levels hit 116 parts per billion.

Last year, too, Wyoming's gas-drilling area had days when its ozone levels exceeded Los Angeles' worst for 2000.

http://content.usatoday.com/communities/greenhouse/post/2011/03/wyomings-smog-exceeds-los-angeles-due-to-gas-drilling/1
Methane Emissions

Published on Thursday, January 3, 2013 by Common Dreams

'Alarming High Methane Emissions' from Natural Gas Extraction

New findings suggest higher than previously noted levels of potent greenhouse gas leaked

- Andrea Germanos, staff writer

New research on "alarmingly high methane emissions" brings further environmental scrutiny to natural gas extraction including fracking, and illustrates how the boom in the industry may well be a plan for climate disaster.

The findings, led by researchers at the National Oceanic and Atmospheric Administration (NOAA), were presented at the American Geophysical Union (AGU) meeting in San Francisco, the journal Nature reports, and reiterated data the team first noted in February of 2012 that 4% of the methane produced at a field near Denver was escaping into the atmosphere. The team also presented preliminary findings from a Utah study that suggested an even higher rate of methane emissions—9% of the total production.

NOAA describes methane as 25 times more potent of a greenhouse gas than CO2.

"We were expecting to see high methane levels, but I don't think anybody really comprehended the true magnitude of what we would see," says Colm Sweeney, who led the aerial component of the study as head of the aircraft program at NOAA's Earth System Research Laboratory in Boulder.

Jeff Tollefson explains in Nature that the percentage of methane leaked is key to determining whether switching to natural gas from coal-fired generators has a climate benefit; it must be less than 3.2% for that to be the case, he writes.

The Obama administration has embraced fracking as part of its "all-of-the-above" energy strategy.
Health Risks
Community Impacts

Photo credit: Amy Mall.

Photo source: www.catskillmountainkeeper.org.

Photo c/o nofrackingwaywestvirginia.blogspot.com.
State Regulatory Patchwork

PA and NY: A Study in Contrasts

Photo c/o www.earthisland.org.

Photo c/o marcellus-shale.us.
A Brief History of (Not) Fracking in NY

• Spring 2008: spacing legislation enacted
• Summer 2008: Governor orders environmental review
• Fall 2009: first draft EIS
• Fall 2010: moratorium enacted
• December 2010: moratorium vetoed; new review ordered
• Fall 2011: second draft EIS and proposed regs
• Summer 2012: “demo project” leaked
• Fall 2012: health review ordered
• Winter 2013: regs deadline passes
• Spring 2013: ???
States in play
Local Land Use Issues and Implications
Two Principal Questions

1. Can you pass local laws re fracking?
   • *The preemption question*

2. Must you pay?
   • *The takings question*
The OGSML:

“shall supersede all local laws or ordinances relating to the regulation of the oil, gas and solution mining industries, but shall not supersede local government jurisdiction over local roads or the rights of local governments under the real property tax law.”

NY ECL § 23-0303(2).
“No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.”

5th Amendment, U.S. Constitution
A Different Twist: Restricting the Right to Speak in Sanford, NY

Photo c/o www.dailytech.com.
Questions?