Emerging Legal and Political Issues in Shale Oil & Gas Production

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Emerging Legal and Political Issues in Shale Oil & Gas Production

Major Policy Questions:

How should we regulate?

- Which risks demand more/better regulation?
- Bans vs. regulation

Evolving regulation & political pressure

Who should regulate?

- **Federal government**
- **State government**
- **Local government**

Litigation conflicts between state govt, local govt, and property owners

Private Sector Economic Benefits

Jobs
Investment

Public Sector Economic Benefits

State and local budget impacts

Environmental Benefits

Displacement of Coal (and Oil?)

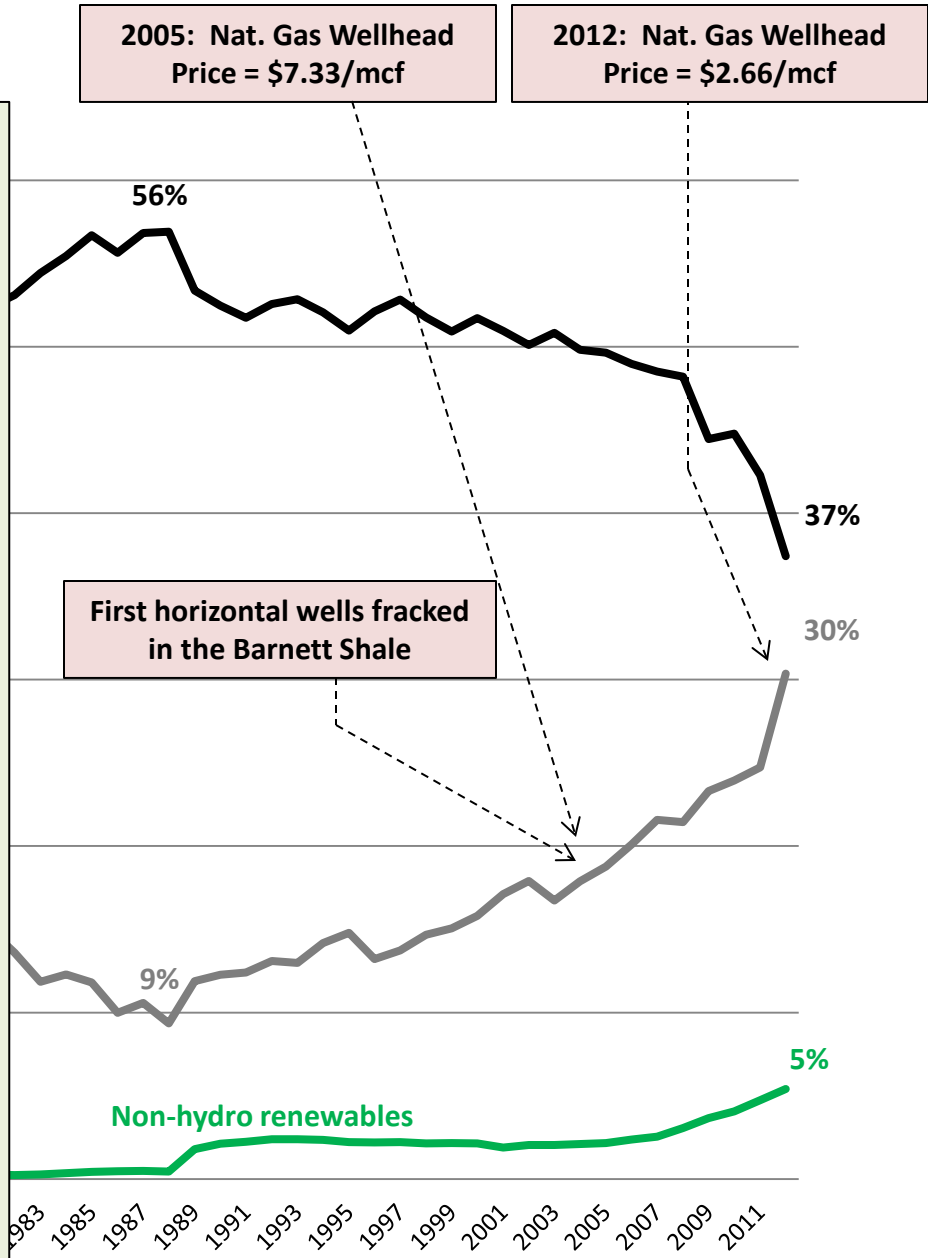
U.S. Electric Generation, Fuel Shares*

The Environmental Cost of Coal Dwarfs That of Other Fuels

National Research Council (2009) – estimated *non*climate air pollution/health costs of **$62 billion**; **3.2 cents/kwh**

Harvard Public Health Grp. (Epstein, et al., 2011) – estimated full life cycle environmental/health costs of approx. **$500 billion**; electricity costs would "**double or triple**"

American Economic Review (MMN, 2011) – estimated general environmental damages and value added for 800+ inidustries; **costs>benefits** for coal, but not natural gas.



* Data source, US EIA. Nuclear power (~20%) and hydropower (<10%) omitted.

Water-related Risks

Groundwater
Surface Waters
Water Supply

Seismicity Risks

Causes

Air Pollution Risks

Conventional Pollutants
Greenhouse Gases

Risks to Local Quality of Life

Noise
Local emissions
Roads

Socioeconomic “boomtown effects”

Ideally: Hypothesis → Evidence → Inference, but …

ENERGYINDEPTH®

anga
America's Natural Gas Alliance

350.org

MoveOn.ORG
DEMOCRACY IN ACTION

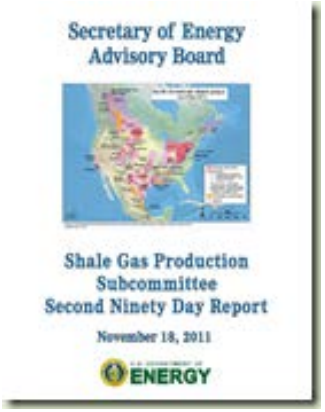
GREENPEACE

AMERICANS AGAINST FRACKING
AMERICANSAGAINSTFRACKING.ORG

SIERRA CLUB
FOUNDED 1892

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

GROUNDWATER PROTECTION COUNCIL



State Review of Oil & Natural Gas Environmental Regulations
STRONGER

Center for Sustainable Shale Development

Variety of approaches at state level, depending on which view predominates

<u>Updaters</u>
E.g., Pennsylvania
Texas
Ohio

<u>New Regime</u>
Illinois
California
(New York)

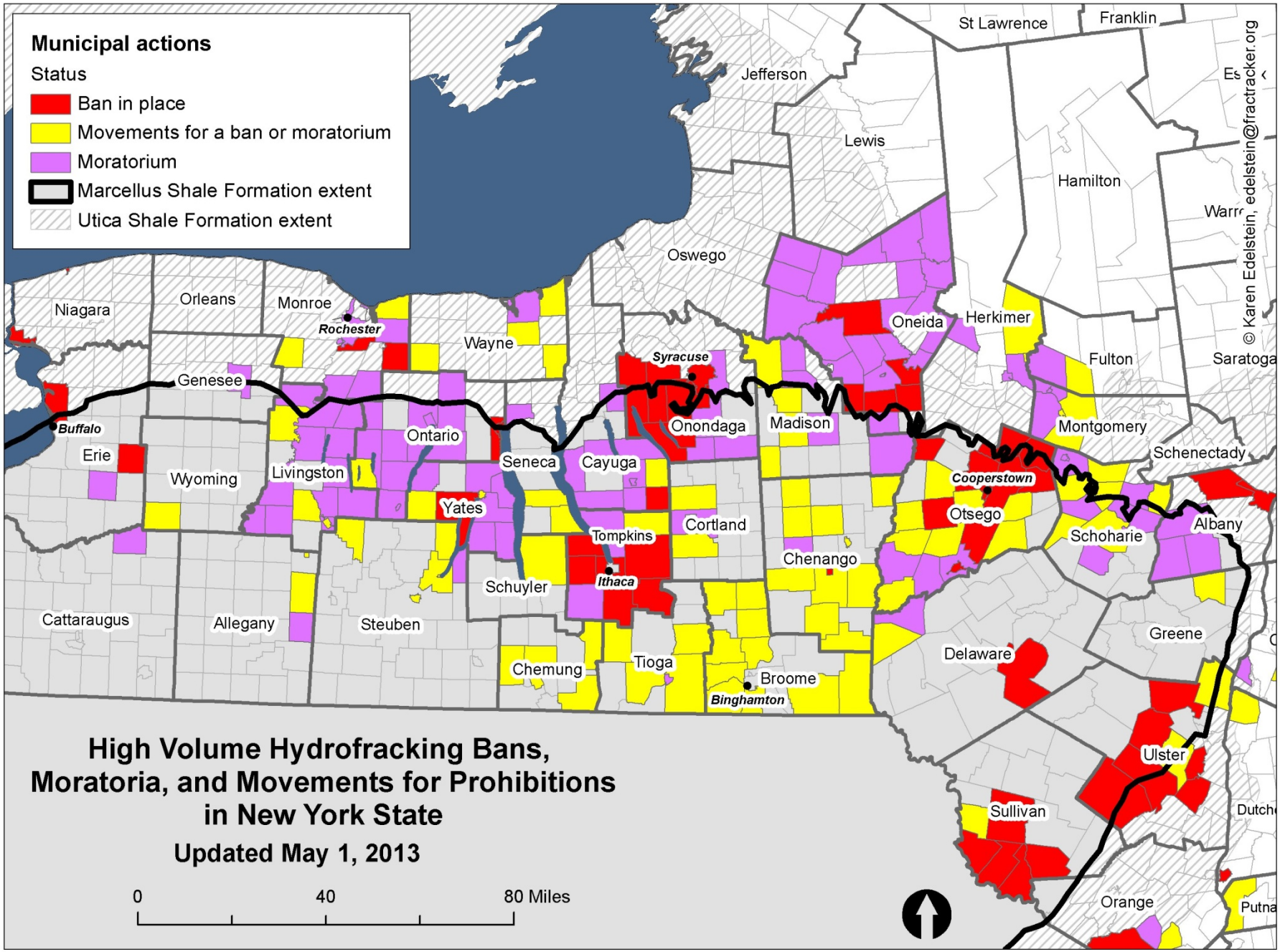
<u>Moratorium</u>
New York

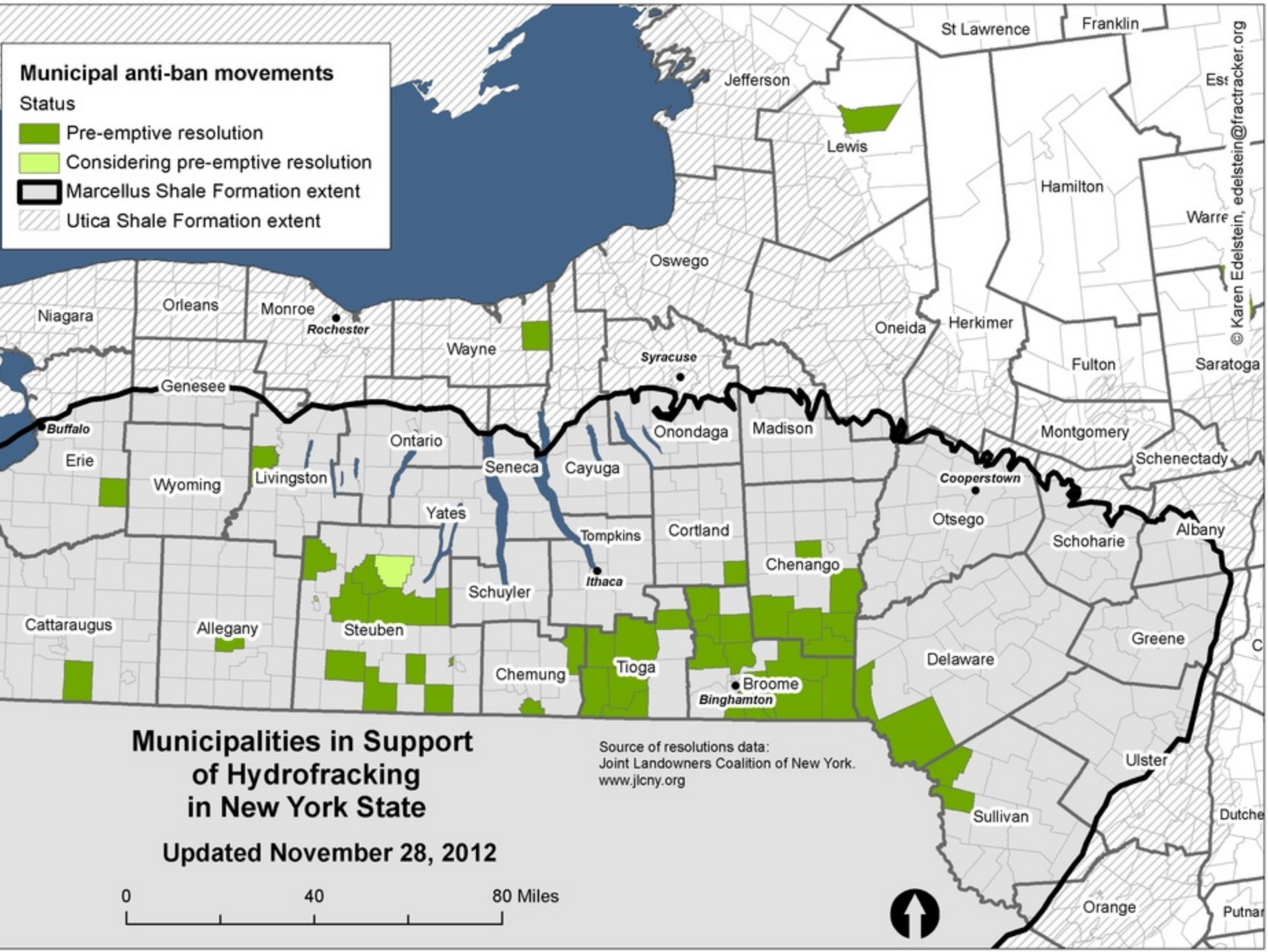
<u>Study & Moratoria</u>
<u>Until New Rules</u>
New Jersey
Maryland
Michigan
North Carolina

<u>EPA</u>
Fugitive emissions
Wastewater disposal

(No comprehensive regulation)

Local Bans vs. Stae Regulation


Municipal actions
Status
Ban in place
Movements for a ban or moratorium
Moratorium
Marcellus Shale Formation extent
Utica Shale Formation extent
High Volume Hydrofracking Bans, Moratoria, and Movements for Prohibitions in New York State
Updated May 1, 2013
0
40
80 Miles
© Karen Edelstein, edelstein@fractracker.org
St Lawrence
Franklin
Jefferson
Lewis
Hamilton
Oswego
Niagara
Orleans
Monroe
Rochester
Wayne
Oneida
Herkimer
Fulton
Saratoga
Syracuse
Genesee
Buffalo
Erie
Ontario
Onondaga
Madison
Montgomery
Schenectady
Wyoming
Livingston
Seneca
Cayuga
Cooperstown
Yates
Otsego
Cortland
Tompkins
Schoharie
Albany
Chenango
Ithaca
Schuyler
Cattaraugus
Allegany
Steuben
Greene
Delaware
Chemung
Tioga
Broome
Binghamton
Ulster
Sullivan
Orange


Municipal anti-ban movements
Status
Pre-emptive resolution
Considering pre-emptive resolution
Marcellus Shale Formation extent
Utica Shale Formation extent
St Lawrence
Franklin
Jefferson
Lewis
Hamilton
Oswego
Niagara
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© Karen Edelstein, edelstein@fractracker.org
Municipalities in Support of Hydrofracking in New York State
Updated November 28, 2012
Source of resolutions data:
Joint Landowners Coalition of New York.
www.jlcny.org
0
40
80 Miles

Who should regulate?

- ~~Federal government~~
- State government
- Local government

Conflict:

State Interest in managing (promoting?) development of resource

vs.

Local interest in land use control and "home rule"

State preemption of local law

West Virginia

Ohio

Louisiana

No preemption

New York

Pennsylvania

Future Cases

Colorado

California

(Everywhere else?)

How courts analyze local preemption claims:

1. Often state oil and gas statute preempts local "regulation" of oil and gas development.
2. Often home rule provision makes local police power subject to limits of state law.

3. BUT, what is "regulation" of O&G development?

"where" vs. "how" vs. "if"

Who should regulate?

- ~~Federal government~~
- State government
- Local government

Conflict:

Local interest in land use control

vs.

Property rights (5th and 14th amendments)

State preemption of local law

West Virginia

Ohio

Louisiana

No preemption

New York

Pennsylvania

Regulatory takings?

Future Cases

Colorado

(Everywhere else?)

How courts analyze takings claims:

When the ban destroys all the property value, (e.g., for holder of only the O&G mineral interest), compensation is required (unless fracking is a nuisance).

When ban takes less than all of the value (e.g., for a farmer), courts balance (i) the importance of the governmental interest in regulating, (ii) the economic impact of the ban on the property owner, and (iii) the degree to which the ban defeats the owner's "investment-backed expectations."

Solutions?

- **Local property taxation of mineral rights**
- **Distribution of severance tax revenues to locals (impact fees)**
- **Direct compensation from developers to locals**

Key: More even distribution of costs and benefits should produce better local regulation

Questions?

Hydraulic Fracturing

Water is delivered, mixed with sand and chemicals and pumped into the well.

Natural gas flows out of the well and into storage tanks. Meanwhile, the recovered water is stored in open pits and then delivered to a treatment facility.

The stored gas is then sent to market via a network of pipes.

Storage Tank

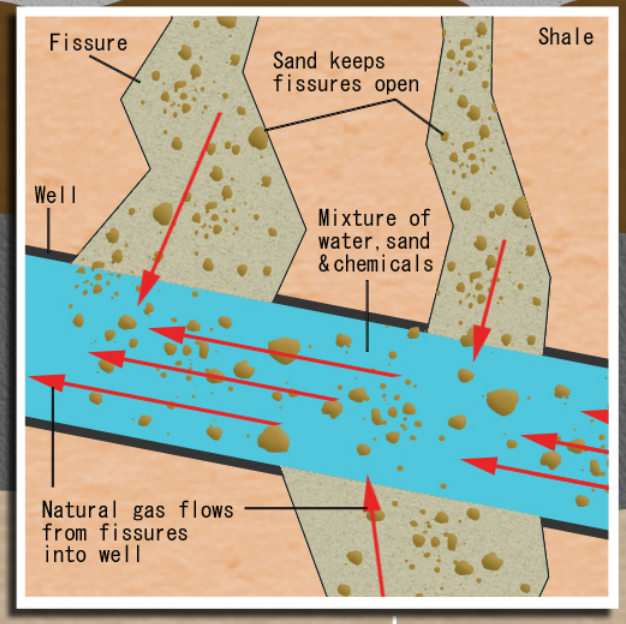
Water Pit

Water Table (0 ft.)

Well

Hydraulic Fracturing

Hydraulic fracturing, often called fracking or hydrofracing, is done from a wellbore drilled into reservoir rock formations. The energy from the injection of millions of gallons of highly pressurized fluid, such as water, creates new channels in the rock which can increase the extraction rates and ultimate recovery of fossil fuels. The fracture width is typically maintained after the injection by introducing a proppant into the injected fluid, such as grains of sand, ceramic or other particulates, that prevent the fractures from closing when the injection is stopped.



Marcellus Shale (7,000 ft.)

Fissures

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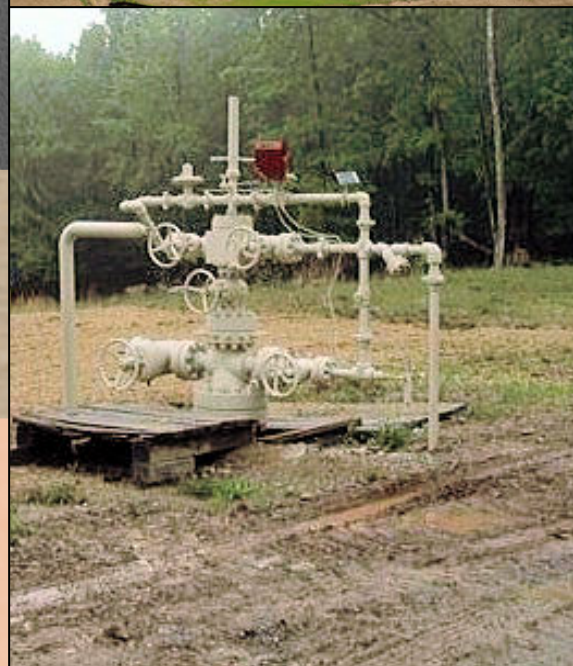
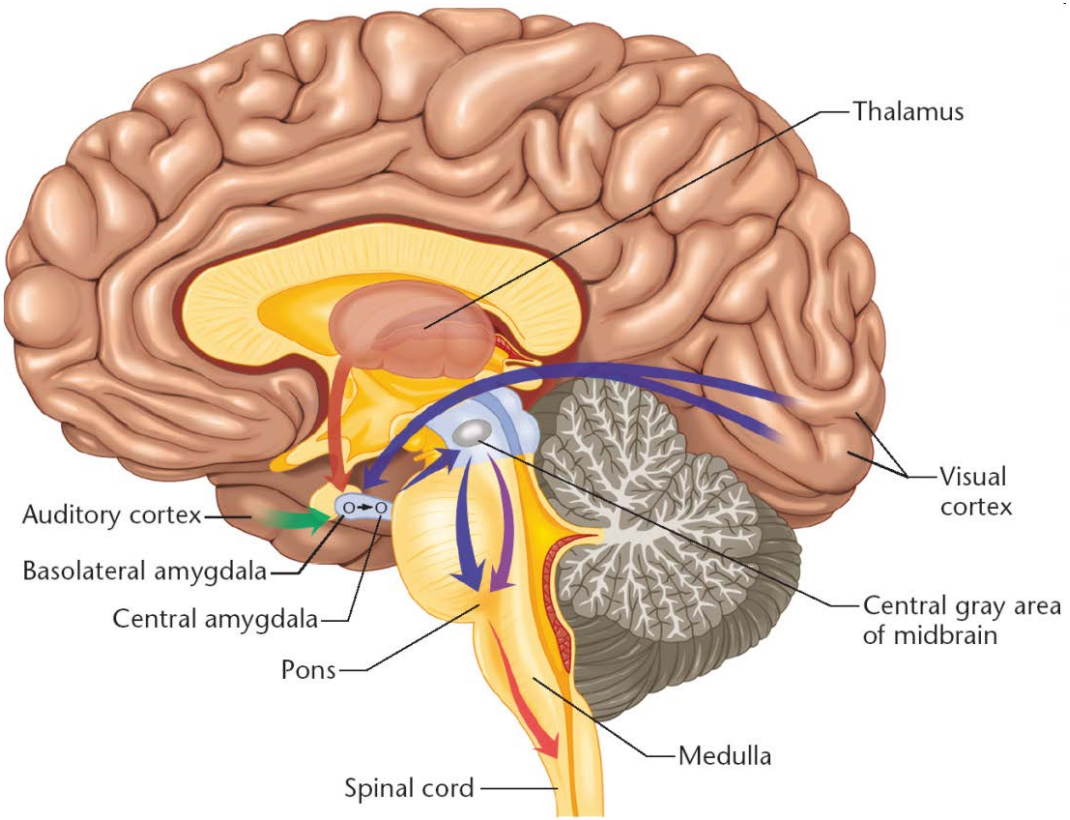
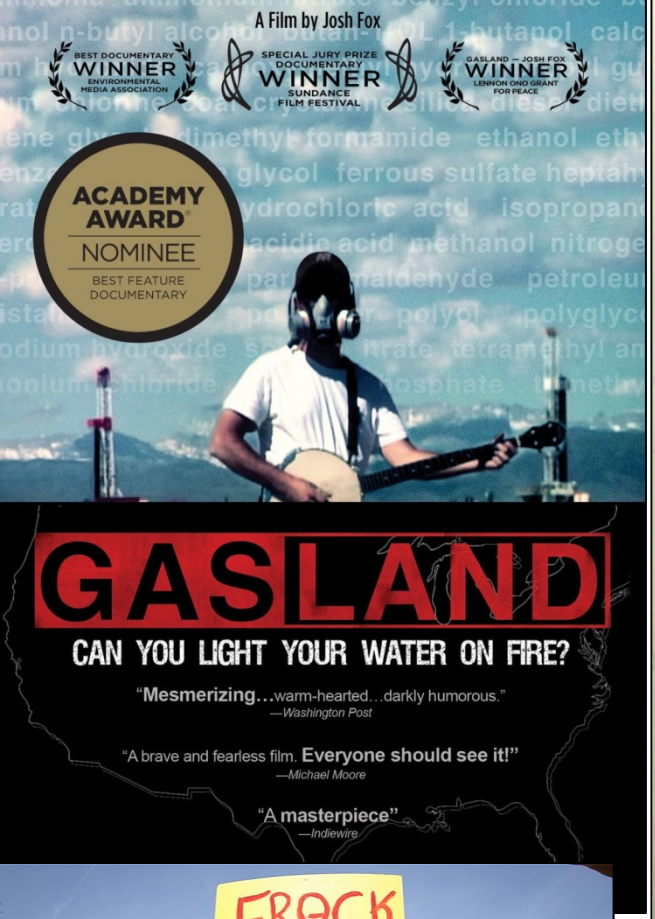


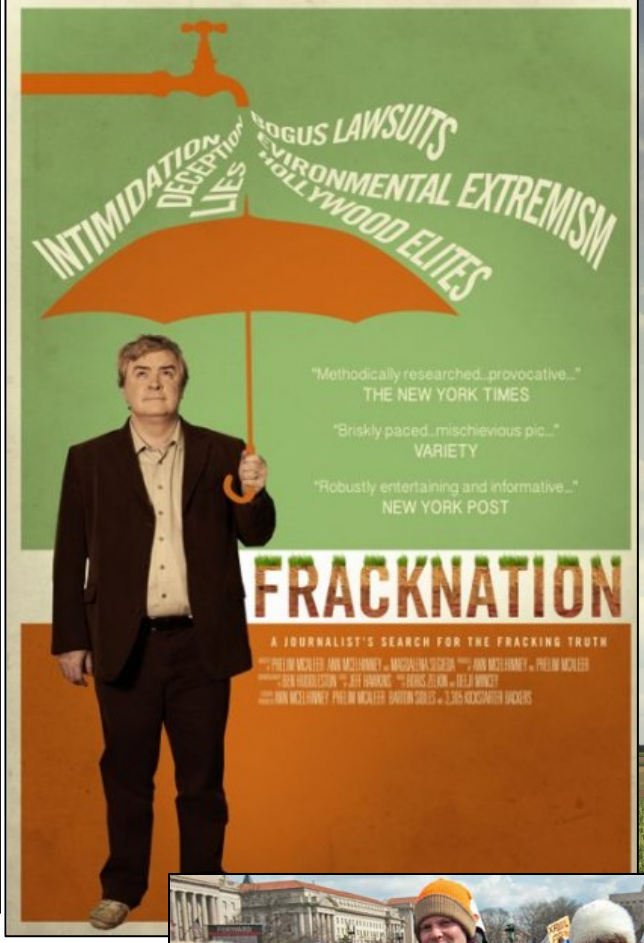
Source: U.S. Energy Information Administration based on data from various published studies. Canada and Mexico plays from ARI.
Updated: May 9, 2011



Framing effects and "associations" -- The brain creates hard (neural) connections as it stores information.

"amygdala politics" – **fear circuitry** dominates cerebral cortex


A Film by Josh Fox
BEST DOCUMENTARY WINNER ENVIRONMENTAL MEDIA ASSOCIATION
SPECIAL JURY PRIZE DOCUMENTARY WINNER SUNDANCE FILM FESTIVAL
GASLAND — JOSH FOX WINNER LENNON ONO GRANT FOR PEACE
ACADEMY AWARD NOMINEE
BEST FEATURE DOCUMENTARY
GASLAND
CAN YOU LIGHT YOUR WATER ON FIRE?
"Mesmerizing…warm-hearted…darkly humorous."
—Washington Post
"A brave and fearless film. Everyone should see it!"
—Michael Moore
"A masterpiece"
—Indiewire


INTIMIDATION
DECEPTION
LIES
BOGUS LAWSUITS
ENVIRONMENTAL EXTREMISM
HOLLYWOOD ELITES
"Methodically researched...provocative..."
THE NEW YORK TIMES
"Briskly paced...mischievious pic..."
VARIETY
"Robustly entertaining and informative..."
NEW YORK POST
FRACKNATION
A JOURNALIST'S SEARCH FOR THE FRACKING TRUTH

FROM THE DIRECTOR OF 'GOOD WILL HUNTING'
MATT DAMON
JOHN KRASINSKI
FRANCES McDORMAND
PROMISED LAND
What's your price?

FRACK OFF!

FRACK YOU

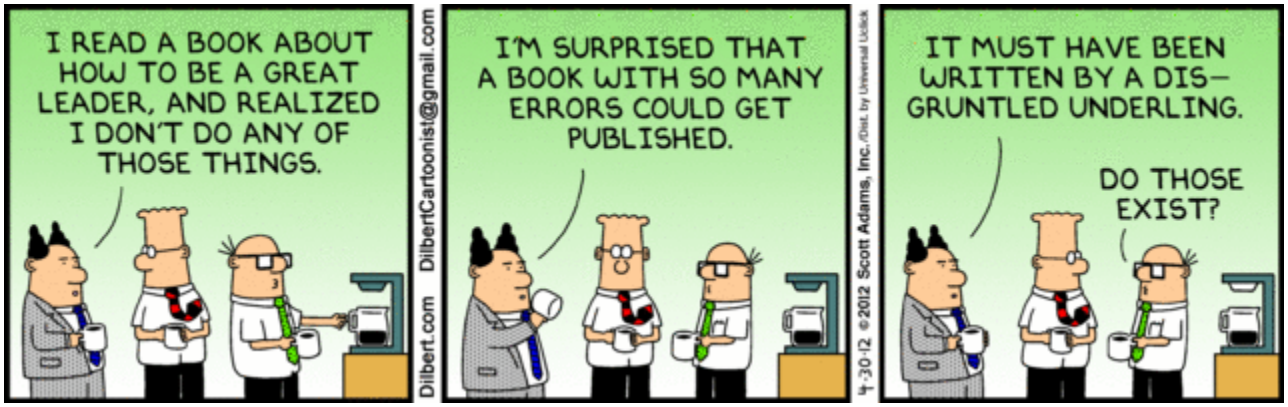
LEAVE OUR COMMUNITIES
THE FRACK ALONE!!

NO FRACKING
ONLY YOU CAN PREVENT FAUCET FIRES.

Biased Assimilation of Information

Two explanations:

#1. Confirmation Bias → We are motivated to defend and protect **cherished beliefs**, and so assimilate and interpret new information in ways that protect those beliefs.



Biased Assimilation of Information

Two explanations:

#2. Cultural Cognition of Risk → We are each psychologically committed to our own **social identity** (group memberships, ideology, etc.), which "operate as a kind of heuristic" that prevents the rational processing of information on public policy matters

Which side am I on ...?

Industry vs. Environment

People vs. Profits

Pro-fossil fuels vs. Anti-fossil fuels