



The Center of Excellence in Environmental Toxicology (CEET)
and the Center for Public Health Initiatives (CPHI)

present

Impact of Unconventional Natural Gas Drilling Operations on the Environment and Public Health

Tuesday, February 18, 2014

8:30 A.M. – 5:30 P.M.

Smilow Center for Translational Research

A day-long exploration of the polarizing topic of hydraulic fracturing.

Discussions include current research, its effects on the environment and public health, and the laws affecting it. Included in the day's agenda are researchers, legislators, and concerned citizens.

The symposium is open to the public but registration is required.

For more information or to register:

https://www.med.upenn.edu/ceet/center_activities.shtml#retreats

Or contact Mary Webster: webster@upenn.edu

Registration closes Monday, February 10, 2014

Impact of Unconventional Natural Gas Drilling Operations on the Environment & Public Health

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National Institute of
Environmental Health Sciences



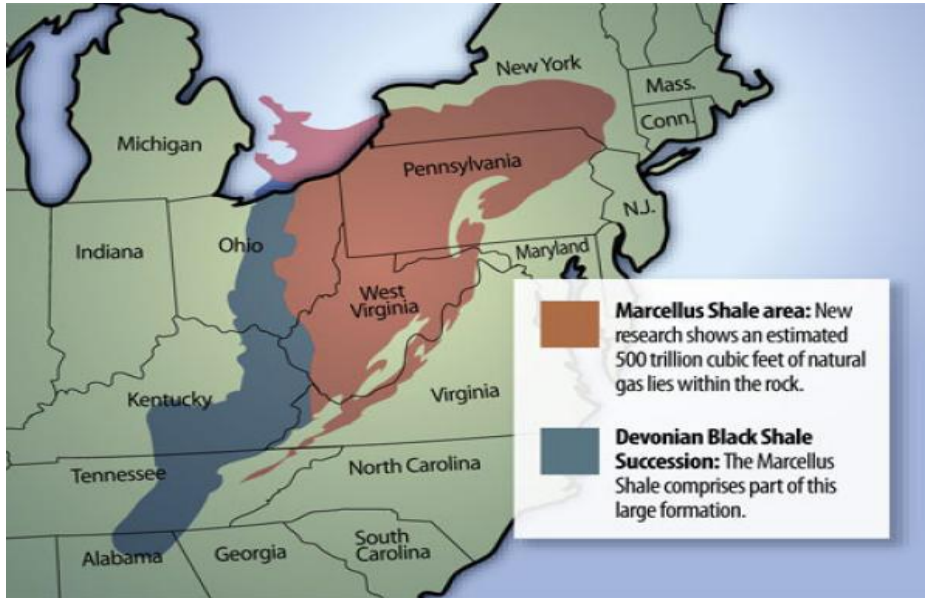
CENTER OF EXCELLENCE IN ENVIRONMENTAL TOXICOLOGY

Who we are?

- ❑ One of only 20 designated Environmental Health Science Core Centers (EHSCC) in the country funded by NIEHS
- ❑ Only EHSCC in the Commonwealth of PA
- ❑ 55 Investigators from 16 Departments and 5 Schools at UPenn and CHOP
- ❑ Equal distribution of basic and clinician scientists
- ❑ Community Outreach & Engagement Core- identifies environmental health problems affecting our regional communities

The CEET elucidates the mechanistic links between environmental exposures and human disease and translates its findings into action to improve the health of vulnerable individuals, and local, national and global communities.

Natural Gas in the Marcellus Shale



□ Half the land mass of Pennsylvania

□ 22,835 sq miles

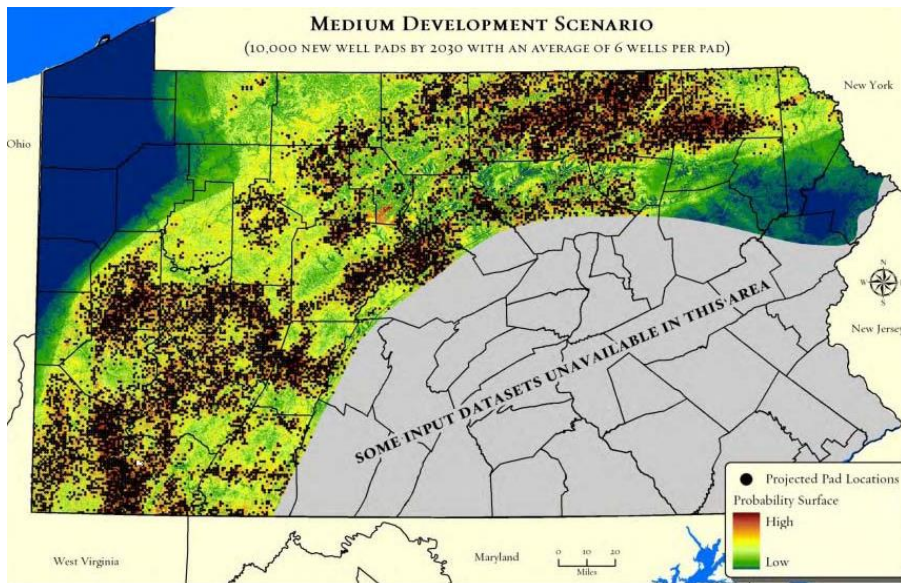
□ 84 trillion cubic ft of natural gas

□ Price is \$2 - \$14 per thousand cu. ft

□ Enough for the entire US population for 4 yrs

□ > 12,000 wells permitted

□ What is the environmental and public health impact??





State of Affairs in Pennsylvania

- ❑ **Gov. Tom Corbett (R) assumed office Jan 2011**
 - no impact fee was placed on the natural gas industry
- ❑ **PA-DEP Secretary Krancer placed moratorium on waste water treatment-May 2011**
- ❑ **Delaware Basin Water Commission postpones decision on hydrofracturing indefinitely-Nov 21, 2011**
- ❑ **Act 13 – Feb 14, 2012 : Impact fee introduced**
 - state takes back zoning authority
 - imposes CDA for health care professionals to treat patients
- ❑ **PA-DEP Sec. Christopher Abbruzzo appointed Dec 10, 2013**
- ❑ **Zoning portions of Act 13 held unconstitutional by PA-Supreme Court- Dec 19, 2013**
- ❑ **Provisions of Chapter 78-Act 13 codify regulations for the industry -open for public comment Mar 14, 2014**

Gov. Tom Corbett: “ I will direct the DEP to... return to its core mission of protecting the environment based on sound science”

Our Symposium

- The hydraulic fracturing process
 - Are there effects on air and water quality?
- Public health impact - What is happening now?
- Industry- Practices and Regulation
 - Russell White, PhD – Health Services API
 - Rep Greg Vitali-PA State Legislature-166th District
- Citizen's concerns
 - What are the concerns of the community?
- Panel Discussion
 - Kurt Klapkowski-Dir. Bureau Oil & Gas Panning-PA-DEP
- Where do we go from here?

How to communicate?

- ❑ Panel discussion-flash cards
- ❑ Please interact with us on Social Media
#UPennFrack
- ❑ Follow Us on Twitter
@UPennCEET
@UPennCEET_COEC
- ❑ Like Us on Facebook
facebook.com/COECatCEET