

To: Edward Hanlon/DC/USEPA/US@EPA  
Date: 04/06/2010 03:25 PM  
Subject: Comments on upcoming EPA study

Dear Mr. Hanlon,

I am writing to offer some general comments that I hope will be addressed as the EPA again studies the issue of high volume slick water hydraulic fracturing for natural gas.

Your study must address not only the major water concerns (high fresh water withdrawals per well, treatment of flowback water and contamination of surface and ground waters--both confined and unconfined aquifers), but also air pollution and the effects this process will have on accumulated greenhouse gases, methane being the major component of natural gas and a much more potent greenhouse gas than carbon dioxide

Cumulative impacts from high volume hydraulic fracturing must be adequately considered. Consideration must be given to all cumulative impacts. In the case of water withdrawal, consideration must be given to the issue both inside and outside of the Delaware and Susquehanna River Basins, as the Marcellus Shale extends beyond these regions, in particular the Great Lakes watershed. It is essential that a plan for the mitigation of cumulative impacts on water usage be in place for this region before drilling is considered.

Other cumulative impacts affecting communities such as truck traffic and road damage, erosion and siltation, air pollution, noise pollution, light pollution, chemical spills and accidents, traffic accidents, worker safety, community emergency response burden, water consumption and regulation, water pollution, water waste treatment and disposal, illegal dumping, human and animal health risks from chemicals, habitat fragmentation, industrialization of rural landscape, increased rents and decreased property values, and degradation of the existing economy must be studied in depth; cumulative impact analysis is commonly used in sociological and environmental research and could easily be adapted to your study. This analysis can and must be done before issuing drilling permits could be considered.

References:

- 1) Health Issues Follow Natural Gas Drilling In Texas, by John Burnett <http://www.npr.org/templates/story/story.php?storyId=120043996>
- 2) Horseheads couple sues gas services company, by G. Jeffrey Aaron

<http://www.pressconnects.com/article/20091125/NEWS01/911250384/1112/Horseheads-couples-gas-services-company>

3) Energy Boomtowns & Natural Gas: Implications for Marcellus Shale Local Governments & Rural Communities NERCRD Rural Development Paper

No. 43 January 2009, 63 pp. Prepared by Jeffrey Jacque see:

<http://nercrd.psu.edu/Publications/rdppapers/rdp43.pdf>

4) <http://www.binghamtonsustainability.org/files/gas/What%20Is%20Different%20About%20Drilling%20in%20the%20Marcellus.pdf>

5) Local leaders' perceptions of energy development in the Barnett Shale, by Brooklynn J. Anderson and Gene L. Theodori

<http://gasleasing.cce.cornell.edu/documents/LocalLeadersBarnettShale.pdf>

6) Hancock and the Marcellus Shale, prepared by Columbia University

<http://www.osiny.org/custom/HancockAndTheMarcellusShale.pdf>

I look forward to hearing from you. Please feel free to contact me with any questions.

Please confirm receipt of this e-mail.

Thanks,

Dr. Michelle Bamberger

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