SIERRA CLUB ATLANTIC CHAPTER
May 2011
Some Human Health Concerns from Gas Drilling
and
Comments for Policymakers, Legislators and Community

Practicing physicians, researchers in health sciences, and other health care
professionals are urging the New York State Department of Health (DOH) to do
more to prepare for and defend against the significant adverse impacts of massive
unconventional gas drilling in upstate New York. Specifically, Dr. Larysa Dyrszka, retired
pediatrician, and Dr. Eric London, physician and research scientist with expertise in
autism and development disorders sent a letter to Dr. Nirav Shah, the newly appointed
Commissioner of Health on February 28, 2011. They asked for an opportunity to meet and
discuss the department’s readiness. At that time, organizations representing thousands
of physicians and other health care professionals, scientists and other organizations,
including the Sierra Club’s Atlantic Chapter, added their voices to this letter. (Partial
signatories list on reverse side). All are encouraged to adopt their message - the NYDOH
must play a leading role in the consideration, study, and mitigation of the health impacts
of unconventional drilling.

Shale gas extraction performed using existing technology has the potential to
compromise the quality of our water and air for decades to come. It also has the potential
to significantly and negatively impact the health of our citizens, especially those with
respiratory ailments, the elderly, infants and children, and especially pregnant women
and their unborn children.

Risks to human health are present at every step of the gas extraction process, including:

- contamination of drinking water sources and aquifers by drilling and fracking
  fluids through surface spills, well casing failures or blowouts, or through
  naturally occurring fissures.
- noise and VAD (Vibro-Acoustic Disease)
- radioactive contamination of air and water. The Marcellus formation is considered
to be a “highly radioactive” shale. The subsurface formations contain low
levels of radioactive materials such as uranium and thorium and their daughter
products, radium 226 and radium 228, collectively referred to as “Naturally
Occurring Radioactive Materials” or NORM. Fluids pumped out of extraction
wells carry the soluble forms of these materials, while the natural gas itself often
contains radon gas, a radium daughter.
- contamination of air by emissions from venting, pipeline leaks, compression
  stations and the intense truck traffic required over each well’s life-cycle.
Excerpted from August 24, 2010, Center for Children's Environmental Health, Mount Sinai School of Medicine “Testimony to NYC Town Hall regarding Hydrofracking & Natural Gas Drilling in New York State.”

As pediatricians specializing in environmental medicine, The Center for Children’s Environmental Health are opposed to the current use of hydraulic fracturing not only due to the multiple known risks to children’s health, but also due to the substantial lack of research into the health effects of this practice...The burden of childhood asthma has grown substantially over the past several decades, as the prevalence of asthma in children has steadily increased. Since many of the products of diesel fuel combustion have been linked to asthma, respiratory symptoms, and various other health effects, the impact of exposing more children to these air pollutants should be examined...children are exposed to toxic substances to a greater degree than adults...they breathe more rapidly than adults, increasing their exposure to air pollution.

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Concerns about human health impacts must be addressed by the departments tasked with preserving the health, safety and welfare of the citizens prior to issuing any permits, regulations or policies.

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**Partial list of Medical and Scientific Societies, Organizations and Professionals signed on to the letter to Dr. Shah:**
Mt. Sinai School of Medicine Children’s Environmental Health Center, Philip Landrigan, (MD, MSc, Director, Ethel H. Wise Professor and Chairman, Department of Preventive Medicine, Professor of Pediatrics, Dean for Global Health; American Academy of Pediatrics District II; Physicians for Social Responsibility (National); Donna Bacchi, MD, MPH, Chair, Department of Public Health and Preventive Medicine, Director, CNYMPH Program, SUNY Upstate Medical University; Broome County Medical Society; Cortland County Board of Health; Theo Colborn, PhD, President, The Endocrine Disruption Exchange; Adam Law, MD, Endocrinologist, Ithaca, NY; Mt. Sinai Global Health Training Center, Natasha Anushri Anandaraja, MD, MPH, Director; Jeanne Mager Stellman, PhD, Professor Emerita and Special Lecturer, Mailman School of Public Health, Columbia University

**Partial list of Community and Environmental Organizations signed on:**
Sierra Club Atlantic Chapter (Rachel Treichler, J.D.); Binghamton Regional Sustainability Coalition (Chris W. Burger); Catskill Citizens for Safe Energy (Bruce Ferguson); Catskill Mountainkeeper (Kathleen Nolan, M.D., MSL); Chenango Community Action for Renewable Energy (Erin Heaton); Coalition to Protect New York (Jack Ossant and Kate Bartholomew); Community Environmental Defense Council, Inc. (David Slottje, J.D.); Concerned Citizens of Ulysses (Michelle Bamberger); Croton Watershed Clean Water Coalition, Inc. (Fay Muir); Damascus Citizens for Sustainability (Barbara Arrindell); Delaware Riverkeeper Network (Tracy Carluccio); Earthworks Oil & Gas Accountability Project (Nadia Steinzor); Food & Water Watch (Eric Weltman); Frack Action (Claire Sandberg); Frack Action Buffalo (Patricia Corson); Gas Drilling Awareness Coalition (Tom Junita, D.P.M.); Gas Drilling Awareness for Cortland County (Sheila Cohen, Ed.D.); Landowners Against Natural-gas Drilling(Teresa Winchester); Lexington Cooperative Market–Buffalo(Tim Bartlett); Marcellus Accountability Project for Tompkins County (Bill and Sandy Podulka); Neighbors of the Onondaga Nation (Jack Ramsden); New York Residents Against Drilling (Kevin Milliar); Northeast Organic Farming Association of New York (Lea Kone); NYH20 (Joe Levine); Otisco Lake Preservation Association (Anita Williams); Otsego County Conservation Association (Martha Clarvoe); Otsego 2000 (Nicole Dillingham, J.D.); Park Slope Food Coop (Jess RobiEnvironment, Inc. (Frank Patterson); Skaneateles Lake Association (Mary Menapace); Sullivan Area Citizens for Responsible Energy Development (Karen London, J.D.); Sustainable Otsego (Ron Bishop, Ph.D., CHO); The Committee to Preserve the Finger Lakes (Melanie Steinberg); Tioga Peace and Justice (Cecile Lawrence, J.D., Ph.d.); United for Action (Owen Crowley)

To find out more or sign onto Dyrszka and London letter, contact Geri Aird geri@aird.us