

Sense of the Senate Resolution on Hydraulic Fracturing on Land Owned by Ohio University

Finance & Facilities Committee
Faculty Senate
March 12, 2012

Horizontal high-pressure hydraulic fracturing of oil and gas, also known as fracking, is an extractive industry that may soon come to Southeast Ohio and our university. Our region has experienced short-lived boom-to-bust resource extraction before. The coal boom of the late 19th and early 20th century left Southeast Ohio in a state of environmental degradation and deforestation. The economic benefits went one-sidedly to a few corporations and individuals, while the population remained impoverished. The consequences are still tangible 100 years later. A fracking boom without attention to and remediation of undesirable short- and long-term effects may result in similarly devastating consequences for our social and natural environment.

Whereas fracking is an industrial method of extracting natural gas involving the extended use of chemicals and hazardous materials during all phases of the process, but relevant federal environmental regulations do not apply to fracking and state regulations are still under development and in their current form insufficient and inconsistent (see appendix (1) for a list of unregulated desiderata);

Whereas fracking has been presented by extractive industries to landowners, institutions, and the public at large as an inexpensive, environmentally attractive way to extract gas and oil from deep-level shale;

Whereas studies show that projections about the economic benefits seem to overestimate the expected impact on local economic development and an increasing number of studies indicate that fracking, in all phases of the process, may result in significant negative effects on the health and well-being of humans and animals, and may cause serious damage to our environment, particularly to water, soil, and air (see appendix [2]);

Whereas Ohio University and its regional campuses gain their attraction from and depend directly on the beauty and physical integrity of our natural environment and fracking-related contamination and pollution would significantly affect the university's ability to attract and retain students and faculty;

Whereas Ohio University President McDavis has publicly expressed his reservations against fracking on public land—the Wayne National Forest—until all risks are assessed and assurances of the safety of the local water supply and the local economy can be provided (see appendix [3]); and

Be it resolved that Ohio University refrain from opening up its land to hydraulic fracturing until better knowledge about potential side effects—specifically water, air, and soil contamination—is available;

That Ohio University support every effort to maintain and promote safe, sustainable, and environmentally friendly activities on Campus and on university-owned land to preserve the health and safety of its students, employees and the community;

That if Ohio University should ultimately choose—or be legally mandated—to lease its land for hydraulic fracturing, all of the precautions listed in appendix (1) be included and guaranteed in every lease contract.

Appendices:

(1) Minimum precautions to be included in any lease agreements between Ohio University and horizontal hydraulic high-pressure fracturing companies:

- Water withdrawal for fracking must be regulated to prevent draining of local streams, ponds, and lakes (currently, Ohio allows a single company to withdraw up to 100,000 gallons of water per day without permit).
- Tier 1-3 baseline water testing of all potentially affected ground water supplies must be conducted prior to initiation of fracking activities so that valid correlations can be made subsequent to the fracking process.
- The type and quantities of all chemicals used in the fracking process must be disclosed prior to use. Such transparency would guide health and environmental monitoring such that health issues associated with toxic chemical releases and spills could be addressed with the proper causal information (currently, Ohio law only requires after-the-fact disclosure and many chemical mixes remain undisclosed as "proprietary" formulas).
- Pressure testing of concrete well casings must be performed regularly to ensure quality control, as this is the most common source of failure and water contamination;
- Vapor recovery systems must be implemented to prevent release of toxic gases into the air.
- Independent (third-party) air quality monitoring systems must be required at all fracking sites to identify the release of toxic fumes from wellheads, compressors, tanks, pipelines, and storage pits.
- Well gas must not be flared, but either captured or used to generate electricity via microturbines or other efficient devices.
- Noise and light pollution must be kept to a minimum; compressor stations and drilling pads must not be in visible or audible vicinity of Ohio University campuses.
- Drilling-mud-containing chemicals must be handled and disposed of as hazardous waste, and not be stored in open ponds.
- Frack wastewater-containing-chemicals must be handled and disposed of as hazardous waste.
- Enforceable agreements for the remediation of losses and damages due to all and any fracking-related activities must be included.

(2) See, for instance:

- Bamberger, M., Oswald, R.E. Impacts of Gas Drilling on Human and Animal Health. *New Solutions*, Vol. 22(1) 51-77, 2012. Available at http://ia700801.us.archive.org/1/items/ImpactsOfGasDrillingOnHumanAndAnimalHealth/Bamberger_Oswald_NS22_in_press.pdf.
- See, e.g.: Colborn, T., Kwiatkowski, C., Schultz, K., & Bachran, M. (2011). Natural Gas Operations from a Public Health Perspective. *Human & Ecological Risk Assessment*, 17(5), 1039-1056.
- EPA: *Investigation of Ground Contamination near Pavillion, Wyoming, Draft Report EPA 600/R-00/000*, December 2011. http://www.epa.gov/region8/superfund/wy/pavillion/EPA_ReportOnPavillion_Dec-8-2011.pdf
- Finkel, M. L. (2011). The Rush to Drill for Natural Gas: A Public Health Cautionary Tale. *American Journal of Public Health*, 101(5), 784-785.

- Howarth, R. W., Santoro, R. & Ingraffea, A. Methane and the greenhouse-gas footprint of natural gas from shale formations. *Climatic Change*, March 2011, DOI 10.1007/s10584-011-0061-5.
- Howarth, R. W., Ingraffea, A. & Engelder, T. Natural gas: Should fracking stop? *Nature* 477, 271–275, 15 September 2011. Available at <http://www.nature.com/nature/journal/v477/n7364/full/477271a.html>.
- Kinnaman, T.C. (2011). The economic impact of shale gas extraction: A review of existing studies, *Ecological Economics*, vol. 70, pp. 1243-124.
- Mooney, C. The Truth about Fracking: Fracturing a deep shale layer one time to release natural gas might pose little risk to drinking-water supplies, but doing so repeatedly could be problematic. *Scientific American*, Oct. 19, 2011. Available at <http://www.scientificamerican.com/article.cfm?id=the-truth-about-fracking>
- Powers, E. C. (2011). Fracking and Federalism: Support for an Adaptive Approach that Avoids the Tragedy of The Regulatory Commons. *Journal of Law & Policy*, 19(2), 913-971.
- Weinstein, A.L. & Partridge, M.D. *The Economic Value of Shale Natural Gas in Ohio*. Ohio State University, Swank Program in Rural-Urban Policy Summary and Report, Dec. 2011 Available at at <http://aede.osu.edu/sites/drupal-aede.web/files/Economic%20Value%20of%20Shale%20Dec%202011.pdf>.

(3)

Quote from President McDavis’s letter, dated Oct. 6, 2011:

“Interest of Protesting Party: Ohio University is accountable for the health and safety of its students, employees and the communities we serve. To date, there is insufficient research on the effects the proposed activities from the sale of oil and gas leases would have on our community and our campus. We understand that the Athens City Council has also offered a protest of this sale. We echo their concerns for regional water safety.

Statement of Reasons: It is our duty as an institution of higher education to lead and support our campus and greater community as we seek safe living conditions, healthy economies and fertile lands where we live and work. The potential December 7, 2011 sale of the publicly owned lands referenced above poses a threat to a healthy living and learning environment at Ohio University.

Ohio University is currently unable to support a practice that is not strictly regulated and highly accountable. We request the withdrawal of the lease sale until a comprehensive, objective environmental and economic analysis is conducted and the absence of risk to our water supply, community health, and local economy can be assured.”

(Copy of letter available at:

http://thepost.ohiou.edu/sites/default/files/Ohio_University_Bureau_Land_Management_Letter_10062011.pdf)