

A Resolution Concerning Fracking

Resolved, the 137th Convention of the Diocese of Southern Ohio supports:

- The efforts of the United States Environmental Protection Agency (U.S. EPA) to conduct a comprehensive, transparent, peer reviewed study of the impacts of natural gas on water resources and the life cycle impacts of fracking fluids.
- A moratorium on high-risk, unconventional deep-shale gas drilling in Ohio until the U.S. EPA study is completed and regulatory agencies have conducted a comprehensive review and revision of Ohio's regulatory framework in relation to the new technologies of high-volume, horizontal hydraulic fracturing.

Resolved, this Convention authorizes the Social Justice and Public Policy Commission to:

- Organize educational opportunities about fracking (high-volume, horizontal hydraulic fracturing) for people of the diocese and our communities.
- Advocate on behalf of landowners who are vulnerable to coercive fracking lease tactics.
- Collaborate in advocacy with other dioceses where fracking is a practice.

Resolved, that this Convention:

- Communicate this resolution to the Governor, Lt. Governor and Director of the Ohio Department of Natural Resources of the State of Ohio; and encourage each congregation to communicate the same to their state legislators.
- Submit this resolution to the 77th General Convention of the Episcopal Church.

Resolved: this Convention encourages the Bishop, clergy, and lay members of the Diocese:

- To educate themselves about high-volume, horizontal hydraulic fracturing as comprehensive, peer-reviewed scientific evidence becomes available.

Explanation:

Natural gas extraction/Hydraulic fracturing from shale is a complex process which includes: 1) building access roads, centralized water and flow-back holding ponds and of the site itself ; 2) construction of pipe lines and compressor stations; 3) drilling ; 4) hydraulic fracturing of shale deposits; 5) capturing the natural gas;; 6) and disposal (or recycling) of, flow-back water and drill cuttings.

Advances in horizontal drilling and hydraulic fracturing now make it economically feasible to extract natural gas held in the Marcellus and Utica shale layers that lie deep underground throughout much of eastern Ohio. This new approach, high-volume, horizontal fracturing, combines high volume fracturing (in terms of water, chemicals, and pressure) with horizontal drilling that can extend wells out thousands of feet. This new method of fracturing, commonly called fracking, also incorporates chemicals into fracturing fluids that pose immediate and long term risks to human health, including benzene and lead. Prior generations of fracturing relied heavily on the use of brine, which is relatively benign.

As it has become increasingly clear in states such as Texas, Colorado, Wyoming, West Virginia, and Pennsylvania, and as documented in a recent series of articles published in the *New York Times*, fracking is inherently risky, and has resulted in a record of below-ground migration of methane gas into aquifers and drinking water wells, toxic air emissions, surface spills of highly contaminated "fracking" fluids, explosions and fires. Many of the chemicals known to be used in the fracturing process and released in these types of incidents have serious long- and short-term effects on human health. Others are classified as carcinogens.

The Pediatric Environmental Health Specialty Units (PEHSU) Network encourage families, pediatricians, and communities to work together to ensure that children are protected from exposure to environmental hazards. Questions regarding the possible health effects of Natural gas extraction/Hydraulic fracturing (NGE/HF) have been raised about water and air quality.

One of the potential routes of exposure to toxics from the NGE/HF process is the contamination of drinking water, including public water supplies and private wells. This can occur when geologic fractures extend into groundwater or from leaks from the natural gas well if it passes through the water table. In addition, drilling fluid, chemical spills, and disposal pit leaks may contaminate surface water supplies. While many of the chemicals used in the drilling and fracking process are proprietary, the list includes benzene, toluene, ethyl benzene, xylene, ethylene glycol, glutaraldehyde and other biocides, hydrochloric acid, and hydrogen treated light petroleum distillates. These substances have a wide spectrum of potential toxic effects on humans ranging from cancer to adverse effects on the reproductive, neurological, and endocrine systems (ATSDR, Colborn T, et al, U.S. EPA 2009).

Sources of air pollution around a drilling facility include diesel exhaust from the use of machinery and heavy trucks, and fugitive emissions from the drilling and NGE/HF processes. These air pollutants are associated with a spectrum of adverse health outcomes in humans. Increases in particulate matter air pollution, for example, have been linked to respiratory illnesses, wheezing in infants, cardiovascular events, and premature death (Laden F, et al, Lewtas J, Ryan PH, et al, Sacks JD, et al). Since each fracturing event at each well requires up to 2,400 industrial truck trips, residents near the site and along the truck routes may be exposed to increased levels of these air pollutants (New York State DEC/DMR, 2009). Volatile organic compounds can escape capture from the wells and combine with nitrogen oxides to produce ground-level ozone (CDPHE 2008, CDPHE 2010). Due to its inflammatory effects on the respiratory tract, ground-level ozone has been linked to asthma exacerbations and respiratory deaths.

High-volume, horizontal hydraulic fracturing will take millions of gallons of fresh water for each well that will come from Ohio's lakes, rivers, and streams and ground water. Only a portion of the water, chemicals, and sand that are injected deep underground will remain there. As these fluids (which contain toxic fracturing waste) flow back to the surface, they bring up heavy metals and naturally occurring radioactive materials that otherwise would remain trapped deep underground. Ohio's wastewater treatment plants and regulatory agencies are not sufficiently prepared to safely treat or dispose of these toxic wastes. Regrettably, experience from other states has shown that this waste is often illegally dumped into rivers and streams or injected into the ground. Current plans to inject these wastes into Class 2 injection wells (i.e., deep disposal wells) may not be adequate in light of what we are learning about the extremely hazardous (and often carcinogenic) content of hydraulic fracturing wastes.

In 2005, natural gas production was largely exempted from important provisions of federal laws, including the Clean Water Act, the Clean Air Act, the Safe Drinking Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act, and the Emergency Planning and Community Right to Know Act. Thus, the contents of fracturing fluids do not need to be disclosed to the appropriate regulatory agencies; and, thus, are not regulated by the Ohio EPA or US EPA. The lack of any relevant regulatory protections at the federal level adds urgency to Ohio's need to take time before it permits high-volume horizontal hydraulic fracturing to occur in Ohio in order to allow Ohio's leaders to carefully review our own state laws and regulatory systems to ensure that we protect and conserve our precious natural resources and the health and safety of all who live in Ohio. Taking time on this matter also will allow the U.S. Environmental Protection Agency to conclude its studies on the effects of high-volume horizontal hydraulic fracturing.

Senator Michael Skindell of Lakewood has proposed two bills that would temporarily halt the controversial process of horizontal hydraulic fracturing and would place rules on companies that use fracking to drill for oil and natural gas in Ohio. Senator Skindell says that his bills do not ban fracking but impose a halt until the USEPA finished a study in two years. The bills would also ask the drilling companies to disclose both the chemicals used in fracking water and impose rules on where the waste water from the drilling site can be disposed.

Ohio is fortunate to have the opportunity to learn from the experiences of other states. We have the chance to conduct the necessary examination of the risks of high-volume horizontal hydraulic fracturing and to determine whether – and the conditions under which – this new and unconventional method of deep-shale gas drilling might occur in our state. Additionally, as noted above, the U.S. EPA currently is conducting a comprehensive study of the impacts of natural gas on water resources and will examine

the life cycle impacts of fracking fluids. The study will be transparent and peer reviewed. Preliminary results are expected to be released in 2012, with the study completed by 2014.

We believe that it would be premature and irresponsible to allow high-risk, unconventional deep-shale gas drilling in Ohio until the U.S. EPA study is completed and our regulatory agencies have conducted a comprehensive review and revision of Ohio's regulatory framework in relation to the new technologies and regulatory challenges inherent in high-volume, horizontal hydraulic fracturing.

A similar resolution is being presented this month to the Convention of the Diocese of Ohio in tandem with this proposed resolution as a result of joint discussions between the Social Justice and Public Policy Committee (Diocese of Southern Ohio) and the Advocacy Committee (Diocese of Ohio).

References:

Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological profile for Benzene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

American Academy of Pediatrics (AAP), Committee on Environmental Health and Committee on Infectious Disease. Drinking Water from Private Wells and Risks to Children. *Pediatrics* 2009;123:1599--1605.

Colborn T, Kwiatkowski C, Schultz K, Bachran M. Natural Gas Operations from a Public Health Perspective. IN

Colorado Department of Public Health and Environment (CDPHE). Public Health Implications of Ambient Air Exposures as Measured in Rural and Urban Oil & Gas Development Areas – an Analysis of 2008 Air Sampling Data, Garfield County, Colorado. 2010.

Colorado Department of Public Health and Environment (CDPHE). Public Health Implications of Ambient Air Exposures to Volatile Organic Compounds as Measured in Rural, Urban, and Oil & Gas Development Areas, Garfield County, Colorado. 2008.

Laden F, Neas LM, Dockery DW, Schwartz J. Association of fine particulate matter from different sources with daily mortality in six U.S. Cities. *Environ Health Perspect.* 2000 October;; 108(10): 941-947.

Pediatric Environmental Health Specialty Unit, available at www.pehsu.net.

PRESS: Ohio Statehouse correspondent Karen Kasler.

Impact on formation and mission

Providing measures to ensure reverence for the earth, to use its resources rightly and to protect the health of the citizens of God's creation.

Impact to budget

Cost of communication from the secretary of convention to designation officers of the State of Ohio and the cost of communication from local congregations to their representatives who represent the geographic boundaries of the Diocese of Southern Ohio.

Program Impact

Implementation of this resolution involves some effort on the part of the Social Justice and Public Policy Commission but minimal effort on the staff and individual congregations.

Presented by:

Social Justice and Public Policy Commission
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