## **Ohio Department of Natural Resources**

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Testimony on
"Natural Gas – America's New Energy Opportunity: Creating Jobs, Energy and
Community Growth"
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Chairman Lamborn and members of the House Subcommittee on Energy and Mineral Resources, thank for the opportunity to testify today on behalf of the Ohio Department of Natural Resources on this topic that is so critical to protection and conservation of our precious water resources and to the future development of energy in a safe and reliable manner.

I am a professional hydro-geologist, with a Masters degree in Geology from the University of Akron and was recently appointed as the Chief of the Ohio Department of Natural Resources, Division of Oil and Gas Resources Management (DOGRM). I have spent my entire professional career (26 years) working with the DOGRM with an emphasis on groundwater resource protection. I am a resident of Stark County, a county with an extensive history of oil and gas resource development. My family is dependent upon our private water well as our sole source of domestic water supply. This is also true for most of my field inspectors and enforcement staff. My staff and I share the strongest of possible convictions regarding the importance of protecting Ohio's groundwater resources. In order to maximize protection of groundwater resources, it is absolutely critical that the states retain authority to permit and regulate the development of oil and gas resources.

All energy resource development activities have associated environmental and public safety risks. The question of our time is "What is the best regulatory framework for managing those risks?" The states currently have authority to permit and regulate oil and gas resource development, while the United States Department of Interior, Bureau of Land Management, oversees leasing, issues permits and regulates oil and gas development on federal lands in coordination with the states. Today there are some that believe in order to adequately protect public safety; we must further expand the federal bureaucracy through passage of the FRAC Act, requiring a federal permit to stimulate a well by hydraulic fracturing. Some environmental NGOs have called for expansion of U.S.EPA's powers in other areas including rescission of the RCRA exemption, requiring

produced water to be managed and disposed as hazardous waste, subjecting hydraulic fracturing and produced water disposal to the Toxic Release Inventory reporting requirements. The proposed expansion of federal authority would dramatically increase the cost of developing oil and gas resources without improving environmental protections.

Beginning in 2007, a growing number of sources including various media outlets, environmental NGO resolutions, and NGO blogs began to claim or imply that thousands of alleged groundwater contamination incidents across the country, including Ohio, had been linked to hydraulic fracturing. Collectively, these accounts, including the movie *Gasland*, have had a profound effect on public opinion. As a result, there is a tremendous amount of misinformation circulating through the internet about hydraulic fracturing. Anecdotal accounts and speculative statements made by persons without credentials or expertise on the topic are circulated, embellished and eventually treated and recycled as established fact. In September, 2009, a consortium of 160 national, regional, state, and local environmental and conservation organizations sent a letter to Congress urging sponsorship of the FRAC Act stating that "our organizations represent communities across the country that are concerned about drinking water contamination linked to hydraulic fracturing operations. Reports of drinking water contamination come from Colorado, Texas, Arkansas, Ohio, Pennsylvania, Alabama, and Wyoming."

As Ohio starts down the path toward shale gas development, state leaders under the Kasich administration have been meeting with local government officials to discuss issues and concerns. During those meetings state officials are often surprised to learn the breadth of local fears. At a recent meeting one municipal official asked what the state was going to do when their municipal groundwater supply was ruined by hydraulic fracturing. Based upon all this official had read, it was not a matter of "if" but "when" they would lose their municipal water well field. On September 6, 2011, a bill (SB No. 213) was introduced to ban hydraulic fracturing in Ohio until U.S.EPA had completed their study and the states had implemented all regulatory enhancements in response to U.S.EPA recommendations.

As part of the call for federal oversight, there was a concerted effort to undermine state agency credibility. In recent years, the popular literature has painted a picture of oil and gas regulatory agency officials as complicit, incompetent, indifferent, and an obstacle to positive regulatory reform. The popular portrayal of regulatory personnel stands in stark contrast with the sacrifices and effort that I've personally seen over the course of my career. I am proud to be a part of an agency composed of dedicated and competent public servants who work around the clock to inspect oil and gas resource development activities to ensure protection of groundwater resources and public safety, including witnessing of hydraulic fracturing operations.

The claims that Ohio has identified groundwater resources contaminated by hydraulic fracturing are patently false. Hence, the very premise undergirding the NGO demand for a federal takeover is inaccurate and misguided. In August 2011, the Ground Water Protection Council (GWPC) posted on line a report entitled *State Oil and Gas Agency* 

Groundwater Investigations and Their Role in Advancing Regulatory Reforms. This report can be viewed at <a href="http://fracfocus.org/publications">http://fracfocus.org/publications</a>. The study includes an evaluation of Ohio DOGRM groundwater investigations covering a 25-year period from 1983 through 2007. I personally participated in most of these investigations. Notably, during the 25-year period, Ohio did not find any incidents where groundwater contamination was linked to well stimulation including hydraulic fracturing.

Stimulation by hydraulic fracturing has been a routine part of completing most Ohio oil and gas wells in Ohio since 1951. During the study period (1983-2007), the DOGRM estimates that nearly 28,000 oil and gas wells were stimulated by hydraulic fracturing. The truth is that the Ohio DOGRM, other state oil and gas regulatory agencies, and the regulated industry have stellar track records relative to protecting groundwater resources from potential impacts. All energy development activities, including hydraulic fracturing operations, have some level of associated environmental and safety risks. The risks associated with hydraulic fracturing are well understood and are routinely managed through the diligence of the Ohio oil and gas industry and by the DOGRM through enforcement of state regulations.

Although Ohio has not identified a single groundwater contamination incident linked to the specific practice of hydraulic fracturing, the DOGRM has recognized the need to improve monitoring and record keeping, including public disclosure of chemical additives, and has passed legislation during the past year to accomplish those objectives. In Ohio, SB-165 (2010) establishes notification and reporting requirements to improve documentation of the process and composition of stimulation fluids including additives.

Amongst other provisions, SB-165 establishes:

- a. Clear well construction performance objectives that require isolation of all Underground Sources of Drinking Water behind cemented surface casing, and isolation of petroleum reservoirs prior to, during and after well stimulation operations;
- b. Notification of inspectors prior to commencement of stimulation operations;
- c. Immediate notification of an inspector upon detection of defective cement or casing during well stimulation operations;
- d. Submittal of additional records including job logs, pumping and pressure charts, and invoices listing additives by volume; and
- e. Mandates for disposal of produced water generated during the poststimulation flowback process at Class II injection wells.

The regulatory framework for hydraulic fracturing in Ohio has been evaluated by a team of national experts. In December 2010, an independent eight-person team appointed by

STRONGER completed a review of the DOGRM's regulatory framework for hydraulic fracturing against a set of national guidelines developed in 2010.

STRONGER is the acronym for a multi-stakeholder, non-profit organization named State Review of Oil and Natural Gas Environmental Regulations, Inc. that evaluates state oil and gas agency regulatory standards against a set of national guidelines. The original guidelines were developed in 1990 by the Interstate Oil Compact Commission (IOCC) and the U.S. Environmental Protection Agency (U.S.EPA). The published guidelines developed by state, environmental, and industry stakeholders, provided the basis for the State Review Process, a multi-stakeholder review of state exploration and production (E&P) waste management programs against the guidelines. In 2009, STRONGER expanded their guidelines to include the practice of hydraulic fracturing. The purposes of the State Review Process are to document the successes of states in regulating E&P wastes and to offer recommendations for program improvement.

After an in-depth review of the Ohio hydraulic fracturing regulatory program was completed, the multi-stakeholder review team concluded that the Ohio program is "overall, well-managed, professional and meeting its program objectives". The review team commended the DMRM for the following:

- a) Strengthening Ohio Oil and Gas Law through amendments in Senate Bill 165 (effective June 30, 2010);
- b) Expanding well completion and hydraulic fracturing reporting requirements;
- c) Reviewing potential contaminant pathways during the permit review process;
- d) Strengthening enforcement tools;
- e) Increasing field enforcement staff levels; and
- f) Improved usage of the website to disseminate information. [A full copy of the STRONGER review report can be viewed at <a href="https://www.dnr.state.oh.us/Portals/11/oil/pdf/stronger\_review11.pdf">www.dnr.state.oh.us/Portals/11/oil/pdf/stronger\_review11.pdf</a>
  Ohio Hydraulic Fracturing State Review]

The review team recommended that Ohio proceed with plans to promulgate new regulations regarding well construction. Draft standards have been developed and are currently under review through Governor Kasich's Business Common Sense Initiative. Once this process is complete, the DOGRM will make final amendments and submit the new standards for approval through JCARR. We believe that the new well construction rules are amongst the best in the nation and will further strengthen protection of water resources.

Ohio is not unique in its efforts to strengthen well construction standards or expand reporting requirements for hydraulic fracturing operations including chemical disclosure. Ohio actively participates in two state associations, the Ground Water Protection Council (GWPC) and the Interstate Oil and Gas Compact Commission (IOGCC), which provide forums for state regulators to interact and discuss positive regulatory advancements with peers. The states and these associations are proving to be the leaders that are driving regulatory enhancements throughout our nation. By visiting the GWPC website at <a href="https://www.gwpc.org">www.gwpc.org</a> - Groundwater Protection Council one can see the outstanding work that is being led by the diligent efforts of my peers in other states. States are best equipped to understand local geologic conditions, define protected groundwater resources, and grasp the unique aspects of petroleum reservoirs within their respective jurisdictional boundaries. States will continue to provide the best regulatory framework.

While the states have been updating and improving regulatory standards for years, only recently did federal government (BLM) announce its intent to update their chemical disclosure requirements associated with hydraulic fracturing. While anyone can claim to be a leader, the true test of leadership occurs when one turns around and determines if anyone is following. With regard to hydraulic fracturing, the states have been, and will continue to be the standard bearers.

In conclusion, Mr. Chairman and Committee members, the states should retain regulatory authority over the practice of hydraulic fracturing. The states have established a strong track record of performance, have demonstrated proven leadership, and will continue to improve their regulatory standards, data management systems, and other programmatic tools necessary to ensure protection of groundwater resources and public safety.

Again, thank you for allowing me the opportunity to testify before you today with an indepth explanation of shale development in Ohio and the authority given to ODNR to regulate it. I'll be happy to take any questions you may have at this time.