



American Rivers

Thriving By Nature

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BASIN COMMISSION

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Delaware River Basin Commission
P.O. Box 7360
25 State Police Drive
West Trenton, NJ 08628
Attn: Commission Secretary

Dear Delaware River Basin Commissioners and Executive Director Collier:

Thank you for the opportunity to comment on the Delaware River Basin Commission's *Draft Natural Gas Drilling Regulations*.

American Rivers is the leading conservation organization standing up for healthy rivers so communities can thrive. We aim to protect and restore the nation's rivers and the clean water that sustains people, wildlife, and nature. As a result of our concern for river health, in 2010 we listed the Upper Delaware River as *America's Most Endangered River™* due to the threat of natural gas extraction. The nation's use of natural gas must be efficient, and natural gas must be produced by methods that best protect clean water, human health, and sensitive ecosystems. We ask you to revise the draft regulations to ensure that contaminated water supplies, destroyed streams, and devastated landscapes are not tolerated in the rush to develop natural gas resources. We must protect our water from the potentially harmful impacts of natural gas extraction and create a healthy future for our rivers and future generations.

As we have previously requested, American Rivers continues to insist that the Delaware River Basin Commission (DRBC) and Executive Director Collier postpone the adoption of final gas drilling regulations and the issuance of any gas drilling permits until a full analysis is conducted that evaluates the cumulative impacts of natural gas drilling on the Delaware River system, its communities, and its fish and wildlife.

As you know, the upper and middle segments of the Delaware River have been designated as Scenic and Recreational Rivers under the Wild and Scenic Rivers Act. The DRBC is charged with a legal mandate to "Do No Harm" to the Special Protection Waters of the Delaware River. DRBC must maintain the exceptional water quality that now exists in the river and improve it where it is impaired. In two separate Determinations, dated May 19, 2009 and June 14, 2010, respectively, DRBC Executive Director Collier recognized that there is a potential for water withdrawals, wastewater disposal, and other activities associated with Marcellus Shale gas drilling to have a cumulative impact on water quality of Special Protection Waters within the Basin. Additionally, in Section 7.4 (b) of the draft regulations, the DRBC acknowledges that gas drilling and the massive water withdrawals required "may have a substantial effect, either individually or cumulatively, on the surface water and groundwater resources of the basin". Despite these acknowledgements, the DRBC has rushed to release draft regulations without the basic fundamental understanding of cumulative impacts that is necessary to properly manage natural gas drilling and to protect water resources.

The draft rules simply do not address the tenuous situation caused by rushing regulations forward without needed scientific studies. The rules do not protect water supplies from the risk of catastrophic harm from individual wells, nor do they address the cumulative impacts of water withdrawal and well development. There is no method proposed to control the accumulated environmental toll that natural gas drilling, land transformation, and water depletion, and pollution will take on habitats, streams, communities, and the river.

In the absence of a cumulative impact study, we request that the DRBC promptly gather stream data for all parameters including water chemistry (real time and grab samples), benthics, fish, and mussels throughout the Basin. This data must be collected at least one full year before drilling can begin and the cost of this work must be borne by the drillers. In addition, stream sampling must be established around the entire drilling zone beyond the vertical well pad and must also include reference site monitoring.

Recently, the New York Times (*Regulation Lax as Gas Wells' Tainted Water Hits Rivers*, February 26) noted reasons for concern about the lack of treatment of Marcellus Shale wastewater. Many highly dangerous chemicals are present in natural gas drilling wastewater, but because of the federal exemption from disclosure and a dearth of scientific data on what is extracted from natural gas wells, these hazards are not all known. DRBC's draft rules do not prescribe wastewater standards for all of the specific constituents of gas drilling wastewater; under the draft rules the removal of all toxic substances will not happen. While the DRBC rules do require some testing for treatment systems, treatment facilities must also be required to test for other key parameters such as radionuclides and chemicals that are synergistically formed in the wastewater, such as hydrogen sulfide and 4 Nitroquinoline 1-oxide (4NQO), one of the most powerful carcinogens known. In addition, this testing must be required universally, without allowance for waivers and weakening of the standards.

Further concern about the chemicals used in natural gas extraction can be found at the well site. The DRBC proposes to ask for full disclosure of all fracturing chemical formulas, which is a good first step. However, the same cloak of secrecy for industry trade secrets will remain in place to shield companies from public exposure. In addition, the draft rules do not place any restrictions on the chemicals that drillers can use to drill and hydraulically fracture gas wells. Many of the chemicals used are carcinogenic and hazardous, and the DRBC has a responsibility to the public to set boundaries in order to protect the public water supply. For example, the U.S. House of Representatives Energy and Commerce Committee released the result of its investigation into the composition of hydraulic fracturing fluids, finding that oil and gas developers injected more than 32 million gallons of diesel fuel in wells in 19 states, despite an industry pledge not to do so. The Commission's draft regulations must be revised to prevent the use of diesel in hydraulic fracturing fluids.

While the draft DRBC regulations address the potential hazards associated with open pits for wastewater on well sites, the regulations expressly allow centralized wastewater storage facilities and defers to state standards for them. One of the major sources of air pollution is from these wastewater impoundments, from which toxic contaminants volatilize to the air, then are breathed in or deposited on soil and water, causing highly mobile pollution. Further,

DRBC proposes no setback requirements for impoundments, again deferring to the states. For on-site pits up to 250,000 gallons, Pennsylvania's setbacks are the same as for gas wells, which are only 100 feet from a water body, as close as 20 inches above the seasonal high water table, and no setback from a water supply well.

In relation to other setbacks, we commend the DRBC for taking a step toward protecting sensitive resources by requiring a 500 foot setback requirement from water bodies, wetlands, and water supply reservoirs, and the prohibition of siting well pads within the 100-year floodplain. However, setbacks from homes, public buildings, public roads, public water supply wells, and domestic water supply wells are all left out of DRBC oversight and relegated to inadequate state setbacks that have resulted in pollution incidents from gas drilling throughout Pennsylvania (most notably, the U.S. Environmental Protection Agency is investigating water well pollution in Dimock and Bradford County, Pennsylvania). Furthermore, while setbacks are a key preventive safeguard and need to be increased, it should be recognized that regulation of construction, drilling, and completion practices of the well bore must also be adequately addressed by DRBC regulations.

Similarly, the lack of spacing requirements for the tens of thousands of wells expected to be drilled will facilitate an industrial landscape. Proposed Natural Gas Development Plan spacing thresholds are too high—much gas development will not be captured and it is not clear how the plans will address individual and cumulative impacts. Adequate spacing requirements are essential to maintain the character of the Delaware River Basin, and keep it from becoming a patchwork of well pads.

Due to federal and state exemptions of natural gas from the stormwater management provisions of the Clean Water Act, DRBC must take responsibility and set standards to protect the river from stormwater, erosion, and nonpoint source pollution related to natural gas development. This gross oversight alone could violate the “no measureable change in water quality” standard that the DRBC is required to maintain in Special Protection Waters.

The express lane provided by the “Approval by Rule” provision will lead to lax analysis of the specific conditions present for a given project. Speeding up gas development has led to communities and the environment suffering unacceptable numbers of violations on well sites. 2,755 natural gas wells were drilled in PA in 2010; in the same timeframe, 2,486 violations were noted by PADEP. The DRBC cannot allow this breakneck speed to continue and expect to maintain the river's exceptional quality.

The DRBC proposed regulations include “Financial Assurance Requirements” that amount to a \$125,000 bond per natural gas well for plugging, abandonment, and restoration. This proposal places a value on potential damages without complete understanding of such damages. As previously mentioned, cumulative impacts must be assessed before an appropriate bond can be set. Certainly, the potential damage from abandoned wells will be much higher than \$125,000 as well infrastructure degrades. Furthermore, bonding should not be tied to remediation. The industry should not be given an option to pay to destroy resources, and language implying that would be the case should be removed from the regulations.

Finally, we request that additional public hearings be scheduled and the comment period extended again to allow the public adequate time to review and digest the proposed rules. We appreciate the 30 day extension, but it is not long enough to reach the 17 million people that may be affected by this decision. Expanding the opportunity for the public to participate is absolutely essential in order to make this a meaningful rulemaking process. DRBC needs to extend the public comment period and hold hearings in major metropolises that receive their drinking water from the Delaware River Basin, like New York City and Philadelphia, as well as in the communities most directly affected by drilling.

We urge the DRBC not to rush into these regulations, and to seriously consider the potential irreversible impacts of allowing drilling for natural gas before a comprehensive study of those impacts is completed. The Delaware River Basin is a very precious resource that supplies drinking water for 17 million Americans. The safety of that water supply should not be taken lightly.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andrew Fahlund', written in a cursive style.

Andrew Fahlund
Senior Vice-President for Conservation