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NY's clean water advocate

Testimony of:
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U.S. Environmental Protection Agency
Science Advisory Board
Environmental Engineering Committee, Augmented for Advice on EPA's Research Program Related to Hydraulic Fracturing

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Introduction

I would like to thank EPA and the Science Advisory Board (SAB) for allowing the opportunity for public comment on this important study.

I am here today representing Riverkeeper, a non-profit environmental watchdog organization that protects the Hudson River and the 2,000-square-mile New York City Watershed that supplies unfiltered drinking water to more than 9 million New Yorkers. Riverkeeper is also a founding member of the Waterkeeper Alliance, a global environmental movement uniting more than 190 Waterkeeper organizations around the world.

We submitted written comments to EPA about the scope of this study on March 29, 2010 on behalf of Riverkeeper, Natural Resources Defense Council (NRDC), and 13 other Waterkeeper member organizations that protect watersheds that have been or may be affected by hydraulic fracturing. Those comments are before the SAB and are also available on our web site, www.riverkeeper.org.

To date, there has been no comprehensive study of the potential environmental impacts of hydraulic fracturing. We commend EPA for its commitment to conduct such a study and we trust that the Environmental Engineering Committee of the SAB will provide an independent and unbiased assessment, utilizing experts in areas of geology, hydrology, and toxicology, among other areas

The Need for Increased Regulation and Oversight

In the absence of proper federal regulatory guidance on horizontal drilling and high-volume hydraulic fracturing, most states have allowed extensive industrial gas production operations to proceed without even attempting to study and/or mitigate environmental impacts. In reality, implementation and enforcement of adequate regulations is needed to address these increasing concerns.

It is important to remember that there is one overarching reason why we have clean drinking water in this country: regulation. Many regulations are enacted after in-depth scientific studies

confirm concerns about certain environmentally destructive practices. It is regulation that has allowed us to reclaim our streams and rivers from pollution, and it is regulation that enables cities like New York City to maintain a high quality unfiltered drinking water supply. In the case of New York City, regulation has been augmented by cooperative agreements, equitable land acquisition programs, and conservation.

The Precautionary Approach

The approach taken by most states thus far flies in the face of the Precautionary Principle, a fundamental and globally recognized scientific and legal policy that underlies nearly all of our nation's environmental laws. This principle dictates that in the face of scientific uncertainty or lack of scientific consensus on a proposed action, the proponent of such action bears the burden of proving that the activity will not be significantly harmful. In such instances, the role of decision makers is to err on the side of caution in order to protect public health and the environment.

And this principle is something that the oil and gas industry has tried to get around time and again. I read the comments submitted to this Board by the Independent Petroleum Association of America (IPAA), Energy in Depth, Penneco Oil, and Noble Energy, among other industry advocate groups. Frankly, their comments were completely misguided and off base. And that's not surprising given the clear financial interests that such advocates have in seeing increased oil and gas production at the cheapest possible cost.

Reports from State Regulators

But in order to properly assess what we know, what we don't know, and what we need more information in order to know, there is no room for conflicts of interest. There is no room for undue influence. There is no room for partisan politics. Riverkeeper, and dozens of other environmental groups, have provided you with specific instances in which affected landowners and state regulators have reported links between hydraulic fracturing and drinking water contamination.

Attached to our written comments is a Case Studies report on impacts and incidents from around the country involving hydraulic fracturing. Riverkeeper prepared these Case Studies as part of our comments on the *New York State Department of Environmental Conservation Draft Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program – Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs* (" NY DSGEIS"). New York State prepared this DSGEIS under a state law that is the equivalent of the National Environmental Policy Act.

In its draft EIS, the State of New York relied on statements from regulators from 12 states – Alabama, Alaska, Colorado, Indiana, Kentucky, Louisiana, Michigan, Oklahoma, Tennessee, Texas, South Dakota, and Wyoming – all denying any historical incidence of groundwater contamination due to hydraulic fracturing. As we have documented, there is current evidence of contamination that may be related to hydraulic fracturing in virtually every one of these states.

In the Case Studies report, Riverkeeper analyzed impacts and incidents that have occurred as a direct result of horizontal drilling using high-volume hydraulic fracturing. These case studies examine impacts in the Marcellus Shale (Pennsylvania, Ohio, and West Virginia), the Barnett Shale (Texas), and gas drilling activity in Colorado and Wyoming. Importantly, the case studies rely primarily on the investigations, findings and statements of ***state regulators*** from these areas.

In Pennsylvania, state regulators found that gas drilling using high-volume hydraulic fracturing has caused contaminated drinking water, polluted surface waters, polluted air, and contaminated soils. Specifically, the Pennsylvania Department of Environmental Protection (PA DEP) concluded that in one instance high-volume hydraulic fracturing "caused…gas from lower formations to enter fresh groundwater." In another instance the PA DEP found that a well using high-volume hydraulic fracturing had "communicated with [an] abandoned gas well" resulting in natural gas migrating to shallow groundwater and surface soils. In Bainbridge Township, Ohio, state regulators found that inadequate well casing from a nearby high-volume hydraulic fracturing operation resulted in drinking water contamination and a house exploding. In the Barnett Shale, state regulators found benzene and other toxics in very high concentrations in neighborhoods with nearby gas compressors.

These unambiguous findings by state regulators that industrial gas production utilizing hydraulic fracturing has contaminated drinking water (and resulted in other serious environmental and health impacts) demand that EPA's proposed research approach examine all aspects of hydraulic fracturing, including an analysis of cumulative impacts.

The oil and gas industry will tell you that these incidents cannot be definitively linked to hydraulic fracturing. However, following the Precautionary Principle, the burden is on the proponent of an action to prove that these cases are ***not*** linked to its operations. Unfortunately, state regulators, and the industry at large, do not have a control study to compare with the field study they've been conducting on the American public.

Where is the baseline monitoring data that tested for benzene in private water wells in Pavillion, Wyoming *before* gas drilling operations began? Where is the data from the Monongahela River that shows that the discharge of wastewater resulting from gas drilling operations *has not* caused a sharp reduction in water quality? How can we even know what chemicals of concern we might be monitoring when the industry *refuses to disclose* the chemical blend it uses in its drilling operations?

Concluding Remarks

The bottom line is that when an industry asks for the scope of a scientific study to be narrow, it means that the industry probably has something to hide. However I believe that we will start seeing more and more state regulators calling for further, expanded studies. In New York, for instance, the Department of Environmental Conservation's own union members were so concerned about the deficiencies in the state's draft environmental impact statement for hydraulic fracturing that the union submitted its own comments on the EIS saying that further study was needed.

And they were right. Further study is needed. And this SAB should not bow to scare tactics by the industry that further study and increased regulation is going to be bad for the American public. Or that it will be bad for private landowners. Or that it will be bad for the economy. Or that it is a waste of time. On the contrary, it would be inexcusable to continue to let these companies operate with impunity, without accountability, without oversight, without permits, without proper regulations and without adequate enforcement.

As scientists for the United States Environmental Protection Agency, it is up to you to take an unbiased, hard look at what we know, what we don't know, and what we need more information to know.

In closing, we propose the following specific topics for SAB consideration during the advisory process:

1. The adverse impacts to groundwater supplies associated with all aspects of hydraulic fracturing; including but not limited to groundwater consumption; wastewater containment and disposal; potential contamination through existing pathways such as abandoned wells and existing geological faults and fractures; and spills and leaks.

2. The adverse impacts to surface water supplies associated with all aspects of hydraulic fracturing, including but not limited to surface water consumption, wastewater containment and disposal, the addition of impervious surfaces, stormwater impacts, and spills and leaks.

3. The cumulative impacts to drinking water resources (both groundwater and surface water supplies) from region-wide industrial gas drilling utilizing hydraulic fracturing.

4. The need for actual field studies to supplement any review of existing literature and data.

Thank you for your consideration and for your ongoing commitment to environmental protection and scientific excellence.

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