



STATE OF NEW YORK  
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN  
ATTORNEY GENERAL

DIVISION OF SOCIAL JUSTICE  
ENVIRONMENTAL PROTECTION BUREAU

**Comments of the New York State Attorney General's Office on the  
Proposed Regulation of the Delaware River Basin Commission to  
Prohibit High Volume Horizontal Hydrofracking in the Basin**

March 30, 2018

The New York Attorney General's Office respectfully submits these comments in support of the proposed rule of the Delaware River Basin Commission (Commission) to prohibit high volume hydraulic fracturing (hydrofracking)<sup>1</sup> for natural gas in shale and other rock formations in the Delaware River Basin. The Attorney General supports the proposed rule because hydrofracking poses an unwarranted risk of harm to the environment and public health of New York and to that of the Basin as a whole.

**I. Summary**

In December 2010, the Commission published proposed regulations that would allow hydrofracking within the Basin subject to various conditions. It did so without preparing an environmental impact statement (EIS) to study the potential adverse impacts to the environment and public health. In May 2011, the New York State Attorney General brought suit in federal district court on behalf of the State to compel the Commission to prepare an EIS under the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*, to address those potential impacts. The court dismissed the lawsuit as premature because the proposed regulations had not yet been finalized. *State of New York v. Army Corps of Engineers*, 896 F. Supp.2d 180 (E.D.N.Y. 2012).

Subsequently, the New York State Department of Environmental Conservation (NYDEC or the Department), with the assistance of the New York State Health Department (NYDOH), completed its own comprehensive environmental review under the New York State Environmental Quality Act, New York Environmental Conservation Law, article 8 (SEQRA) for potential impacts from hydrofracking to New York State and its resources. NYDEC determined

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<sup>1</sup> See "Proposed Amendments to the Administrative Manual and Special Regulations Regarding Hydraulic Fracturing Activities; Additional Clarifying Amendments," Delaware River Basin Commission, November 17, 2018, at <http://www.state.nj.us/drbc/programs/natural/>. For simplicity, we use the term "hydrofracking" to describe the activity DRBC proposes to prohibit, even though at times the term is used to encompass vertical hydraulic fracturing which is not within the scope of the proposed ban. Vertical hydrofracking is a long-used and well-understood technology with a far smaller potential for adverse effects than high volume hydraulic fracturing, which entails extracting natural gas by using high volumes of fracking fluids and drilling horizontally over long distances.

that “authorizing high-volume hydraulic fracturing under any scenario would not adequately mitigate adverse impacts to ecosystems and wildlife, air and water resources, community character and public health and would likely have diminished economic and social benefits.” Final Supplemental Generic EIS on the Oil, Gas and Solution Mining Regulatory Program (FSGEIS), Findings Statement, June 2015, p. 34, attached as Exhibit A. Accordingly, the Department prohibited hydrofracking everywhere in New York. *Id.*, p. 42. As discussed below, we believe that the Commission should follow the lead of New York and prohibit hydrofracking in the portion of the Delaware River Basin outside of New York.

## **II. Risks of Adverse Impacts to New York’s Water Related Interests in the Upper Delaware River, and to the State’s Air Quality Human Health**

In its lawsuit, the State submitted un rebutted factual and expert declarations showing the following:<sup>2</sup>

### **A. Water-Related Impacts**

The Delaware River Basin covers over 13,500 square miles and drains portions of four states (New York, New Jersey, Delaware, and Pennsylvania). The basin supplies drinking water to 15 million people, which includes 9 million New Yorkers each day. It also includes the beautiful and pristine Upper Delaware River, designated by the federal government as a “Scenic and Recreational River.”

New York has significant interests in the environmental resources of the New York portion of the Basin, including the water of the Delaware River; the eagles, mussels and other wildlife that live in or near the river which are owned by the State; and State boat launches, fishing access points, eagle observation areas, wildlife preserves, and roads near the River. The State also has interests in the air, water, wildlife, and scenic vistas in the New York portion of the Basin. These resources and interests would be at risk if hydrofracking is not prohibited in the portion of the Basin outside of New York just as they are prohibited in the portion within the State.

Hydrofracking has the potential to result in development of thousands of natural gas wells within the Basin in Pennsylvania. This would have the potential to cause significant adverse environmental and human health impacts. Among other things, natural gas development employing hydrofracking poses a significant risk of water pollution. Gas extraction using hydrofracking produces large quantities of wastewater – as much as several million gallons from an individual well. The wastewater is contaminated with toxic metals, radioactive substances and dissolved solids. There have been repeated spills or other discharges of wastewater to surface waters and groundwater over the past few years in parts of Pennsylvania outside the Basin.

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<sup>2</sup> The declarations, attached as Exhibits B1 and B2, were authored by Dr. Charles Silver (Attorney General’s Office), William Rudge (NYDEC), Dr. Lyle Chinkin (Sonoma Technology, Inc.), and Dr. Joel Schwartz (Harvard Medical School).

Pennsylvania issued over 1,600 environmental violations to drilling operators in 2008-2010.<sup>3</sup> Some of these violations have been very serious, including discharges of wastewater that contaminated miles of the Monongahela River, rendering that important drinking water source not potable for several months.

Pollution of New York's portion of the Upper Delaware River could threaten the survival of aquatic organisms, such as the endangered dwarf wedgemussel, trout, and other wildlife that rely on food or water from the River, including the bald eagle. Pollution could also reduce New Yorkers' usage of State-owned facilities that the State makes available to the public for recreation on the River, including boat launches, fishing access points, eagle observation areas, and wildlife preserves. In addition to the water pollution, the installation of drilling rigs and other equipment on the Pennsylvania side of the Upper Delaware River threatens to degrade the scenic vistas viewed from New York, including from New York's scenic byway that snakes along that river.

## **B. Air Quality and Human Health**

Many areas in New York suffer from high ozone levels. In particular, the New York City metropolitan area exceeds the current national air quality limit for ozone. Ozone is an air pollutant that harms human health in many ways. For example, breathing ozone can trigger chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma and reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. As a result, ozone causes premature mortality and results in increased emergency room visits and hospitalizations. Increases in ozone produce increases in these medical conditions and related costs.

In general, ozone is not directly emitted from pollution sources, but instead forms in the air when various types of nitrogen oxides ("NO<sub>x</sub>") react with sunlight and certain hydrocarbons, known as volatile organic compounds. The source of the NO<sub>x</sub> that produces ozone in the atmosphere is predominantly the combustion of fossil fuels, including the diesel fuel used in on- and off-road vehicles and equipment such as drilling rigs and hydraulic fracturing pumps.

Gas drilling and production activities using hydrofracking in the Pennsylvania portion of the Basin would increase emissions of NO<sub>x</sub>, thereby producing more ozone able to travel significant distances across state lines. According to projections, during the peak-year of drilling, annual emissions are expected to increase by 870 to 12,420 tons, while during an average year annual emissions would increase by about two-thirds of those amounts. With a high degree of certainty, these increases in NO<sub>x</sub> emissions would reach New York and increase ozone levels in the State, and in particular in the New York City metropolitan area and other counties near Pennsylvania, such as Orange County. The increased ozone in New York would likely cause increases in respiratory illness and premature mortality among New Yorkers. This would

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<sup>3</sup> These problems have continued. Between 2008 and September of 2016, natural gas developers employing hydrofracking in Pennsylvania were cited for 4,351 environmental violations in that state. "Fracking Failures 2017: Oil and Gas Industry Environmental Violations in Pennsylvania," released March 28, 2017, Frontier Group, at <https://frontiergroup.org/reports/fg/fracking-failures-2017>.

increase emergency room visits and hospitalizations, including for individuals covered by Medicaid, so that New York's Medicaid expenditures would increase as well.

### **III. NYDEC Has Prohibited Hydrofracking in New York Because of its Risks of Harm to the Environment and Human Health**

NYDEC has studied hydrofracking in the context of its SEQRA review and concluded in June 2015 that it would ban hydrofracking in New York. Exh. A, p. 42. In 1992, the Department issued a Generic EIS on the Oil, Gas and Solution Mining Regulatory Program, which addressed vertical gas drilling and hydraulic fracturing. But, because the technology for high volume hydrofracking had not yet been developed NYDEC did not address it. When hydrofracking was proposed for New York, NYDEC studied the environmental issues associated with this new technology, releasing a Draft Supplemental Generic EIS in 2009 and a revised draft in 2011.

At NYDEC's request, NYDOH conducted a review to determine whether proposed mitigation measures were adequate to protect public health. FSGEIS, Executive Summary, p. 2, attached as Exhibit C. In December 2014, NYDOH identified several potential adverse public health and environmental impacts that can result from hydrofracking used in the development of natural gas. These included: drinking water impacts from underground migration of methane and/or fracturing fluid chemicals associated with faulty well construction or seismic activity; surface spills potentially resulting in surface water, groundwater, and soil contamination; surface water contamination resulting from inadequate wastewater treatment; air impacts that could affect respiratory health due to increased levels of particulate matter, diesel exhaust, or volatile organic chemicals; and climate change impacts due to methane and other volatile organic chemical releases to the atmosphere. *Id.*; see "A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development, NYSOH (December 2014), at [https://www.health.ny.gov/press/reports/docs/high\\_volume\\_hydraulic\\_fracturing.pdf](https://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf). NYDOH advised NYDEC that hydrofracking should not be permitted in New York "until the science provides sufficient information to determine the level of risk to public health . . . and whether the risks can be adequately managed." *Id.*

After receiving thousands of comments from academia, industry, municipalities, environmental organizations, and the general public, and following completion of NYDOH's review, in June 2015 NYDEC released the FSGEIS and its findings concerning hydrofracking. NYDEC determined that "there are no feasible or prudent alternatives that would adequately avoid or minimize adverse environmental impacts and that address the scientific uncertainties and risks to public health" from hydrofracking, and prohibited use of the technology in New York. Exh. C, p. 42.

#### **IV. Conclusion**

The proposed prohibition against hydrofracking in the Basin should be adopted by the Commission. As discussed above, there is ample evidence that hydrofracking there would harm the environmental, public health, and related interests of New York and of the Basin as a whole.

Respectfully submitted,

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Philip Bein  
Watershed Inspector General  
and Senior Counsel  
Environmental Protection Bureau  
Office of the Attorney General  
The Capitol  
Albany, New York 12224  
(518) 776-2413  
[Philip.bein@ag.ny.gov](mailto:Philip.bein@ag.ny.gov)

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Dr. Charles Silver  
Environmental Scientist  
Environmental Protection Bureau  
Office of the Attorney General  
The Capitol  
Albany, New York 12224  
(518) 776-2395  
[Charles.silver@ag.ny.gov](mailto:Charles.silver@ag.ny.gov)