

Sept. 25, 2017

U.S. Department of the Interior  
Director (630), Bureau of Land Management,  
Mail Stop 2134LM, 1849 C St. NW.  
Washington, DC 20240, Attention: 1004-AE52

Re: End Federal Public Land for Oil and Gas Leasing

Secretary Zinke and Acting Director Nedd:

The undersigned organizations submit the following comment pursuant to the 25 July 2017 Federal Register Notice (82 FR 34464) proposing to rescind Bureau of Land Management's 2015 "Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands" final rule (final rule) regulating fracking on federal public lands.

In proposing to rescind what was a very modest final rule, the Bureau of Land Management continues the Trump administration's campaign to maximize fossil fuel production on America's public land. Rather than defend the modest 2015 BLM fracking rule in court, BLM is proposing to essentially abandon all regulation of public lands fracking and leave the issue to the states. We argue that BLM should instead, in revisiting the issue of hydraulic fracturing on public lands, consider and adopt a rule that protects public lands, public health, and the climate by banning fracking altogether on public lands.

The Bureau of Land Management, exercising the authority granted to it by Congress under both the Commerce and Property Clauses of the Constitution, is charged with regulating both the management of mineral leases and the management of the public lands more broadly under multiple statutes, including the Mineral Leasing Act (MLA), 30 U.S.C. § 181-287, the Indian Mineral Leasing Act (IMLA), 25 U.S.C. § 396d, and the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701-1787. The MLA requires BLM to ensure that federal lessees conduct their operations with "reasonable diligence, skill and care," and instructed BLM to protect the "interests of the United States" and "the public welfare," 30 U.S.C. § 187, and authorizes BLM to "prescribe necessary and proper rules and regulations and to do any and all things necessary to carry out and accomplish the purposes" of the MLA. *Id.* § 189. FLPMA further provides that "In managing the public lands the Secretary shall, by regulation or otherwise, *take any action necessary to prevent unnecessary or undue degradation of the lands.*" 43 U.S.C. § 1732(b) (emphasis added).

BLM's duties to regulate drilling activities under the MLA, *see* 30 U.S.C. § 226(g), combined with its obligation to "take any action necessary to prevent unnecessary or undue degradation of the lands," under FLPMA, 43 U.S.C. § 1732(b), do not allow it to ignore the numerous adverse consequences of hydraulic fracturing on the public lands and the resources those lands support. Given the substantial risks that hydraulic fracturing and associated processes

pose to ground and surface water, air quality, and the climate, the Bureau should not be rescinding its rules regulating hydraulic fracturing on the public lands. Instead, FLPMA obligates the BLM to consider, and ultimately adopt, an alternative that prevents unnecessary or undue degradation by prohibiting hydraulic fracturing on public lands.

### **Fracking Harms Public Health**

As the base of scientific knowledge regarding risks from hydraulic fracturing continues to develop, the evidence continues to build that hydraulic fracturing and shale and tight gas development processes pose a wide range of risks to human health and the environment, including air pollution, water contamination, and risks to human health. Based on these risks, jurisdictions throughout the world and the country have imposed bans or moratoria on some or all hydraulic fracturing – including France, Bulgaria, and Scotland, and Germany. Vermont, New York, and local governments in Texas, Colorado, Florida, and California have banned (or attempted to ban) hydraulic fracturing. The most comprehensive review to date of the over 900 available published studies on risks and harms of hydraulic fracturing finds that:

fracking operations pose severe threats to health, both from water contamination and from air pollution. In the United States, more than two billion gallons of fluid are injected daily under high pressure into the earth with the purpose of enabling oil and gas extraction via fracking or, after the fracking is finished, to flush the extracted wastewater down any of the 187,570 disposal wells across the country that accept oil and gas waste. All of those two billion daily gallons of fluid is toxic, and it all passes through our nation's groundwater aquifers on its way to the deep geological strata below where it demonstrably raises the risk for earthquakes. In the air around drilling and fracking operations and their attendant infrastructure, researchers have measured strikingly high levels of toxic pollutants, including the potent carcinogen benzene and the chemical precursors of ground-level ozone (smog). In some cases, concentrations of fracking-related air pollutants in communities where people live and work exceed federal safety standards. Research shows that air emissions from fracking can drift and pollute the air hundreds of miles downwind.

Concerned Health Professionals of New York & Physicians for Social Responsibility. (2016, November 17). Compendium of scientific, medical, and media finding demonstrating risks and harms of fracking (unconventional gas and oil extraction) 7 (4th ed.)

### **Fracking Causes Earthquakes**

Substantial new information, never addressed in the 2015 BLM hydraulic fracturing rule, also reveals that both hydraulic fracturing itself and the underground disposal of drilling-related wastes prevents substantial risks of induced earthquakes. Scientific research has linked fracking

with induced earthquakes ranging up to magnitude 4.6. Induced earthquakes have been linked to fracking in Ohio and Oklahoma, England, British Columbia and Alberta, including larger events of magnitudes 3 and 4. Research also indicates that maximum earthquake size induced by fracking may be controlled by the size of the fault surface in a critical stress state, rather than the net injected fluid volume, meaning that large fracking-induced earthquakes are possible.

A 2016 study cautioned that fracking in the United States may be causing higher-than-recognized induced earthquake activity that is being masked by more abundant wastewater-induced earthquakes. The injection of oil and gas wastewater, often associated with fracking, has been linked to the dangerous proliferation of earthquakes in many parts of the country, including damaging earthquakes. For example, a magnitude 5.8 induced earthquake near Pawnee, Oklahoma, in 2016 caused at least one injury and severe structural damage; a magnitude 5.7 induced earthquake outside Oklahoma City in 2011 injured two people, destroyed 14 homes, and caused millions of dollars' worth of damage to buildings and infrastructure. A magnitude 5.3 induced earthquake near Trinidad, Colorado, in 2011 and magnitude 4.8 near Timpson, Texas, in 2012 also caused significant structural damage. In the central and eastern U.S., a U.S. Geological Survey analysis found that 7 million people live and work in areas vulnerable to damaging injection-induced earthquakes.

### **Fracking Worsens Global Warming**

Given the enormous health, air, water, and seismic risks associated with hydraulic fracturing and associated processes, and the risks not only to the public lands but to the health, property, and welfare of split-estate and public land adjacent residents and communities, the BLM should fully evaluate, and ultimately adopt, an alternative that prohibits hydraulic fracturing entirely on public lands. Moreover, BLM cannot, in evaluating its oversight of hydraulic fracturing on the public lands, overlook the obvious fact that extracting the new oil and gas resources made exploitable by modern hydraulic fracturing techniques are inconsistent with any reasonable likelihood of avoid the most catastrophic effects of global climate change.

With Hurricane Harvey, Hurricane Irma, Hurricane Maria and monsoonal flooding in South Asia, the United States and the world this summer witnessed natural disasters whose scope, severity, and impacts are unprecedented. Thousands of lives have been lost, millions of people have been displaced, and trillions of dollars of damage was done to property and infrastructure. In each case, warmer and higher seas – driven by anthropogenic warming – contributed to stronger storms, more precipitation, higher storm surges, and more severe flooding. A robust body of scientific research has established that most fossil fuels must be kept in the ground to avoid the worst dangers of climate change. The severe impacts of global warming from the 1°C warming that the planet has already experienced highlight the urgency for stronger climate action to avoid truly catastrophic dangers to people and planet. Human-caused climate change is already causing widespread damage from intensifying global food and water insecurity, the increasing frequency of heat waves and other extreme weather events, flooding of

coastal regions by sea level rise and increasing storm surge, the rapid loss of Arctic sea ice and Antarctic ice shelves, increasing species extinction risk, and the worldwide collapse of coral reefs. The Third National Climate Assessment makes clear that “reduc[ing] the risks of some of the worst impacts of climate change” will require “aggressive and sustained greenhouse gas emission reductions” over the course of this century.

The impacts from this summer’s warming-enhanced natural disasters heighten the moral imperative to reduce and end global greenhouse gas (GHG) pollution. Meanwhile, the administration’s policies, shown in its proposed rescission of the 2015 final rule regulating fracking on federal public land, its abandonment of the federal coal leasing moratorium, and its abandonment of the Paris Climate Accord, promote expanded fossil fuel development. To the extent that the administration’s policies continue to cause GHG pollution, they also contribute to warming-enhanced natural disasters and resulting human death and suffering.

As of 2012, greenhouse gas emissions from federal fossil fuel development comprised approximately 21% of total U.S. GHG emissions and 24% of energy-related GHG emissions. Onshore production caused about 77% of all federal fossil fuel production GHG emissions, and oil and gas production caused at least 17% of all onshore federal fossil fuel production GHG emissions. According to a 2016 analysis by Ecoshift Consulting, under the U.S. Energy Information Agency’s 2016 reference case scenarios for future fossil fuel production, federal crude oil under lease will produce for through 2055, and federal natural gas under lease will produce through 2044. Meanwhile, under current global GHG emissions rates, a likely (66%) chance of limiting warming to 1.5 C or 2 C will be forfeited in 2011 and 2036, respectively. Any pathway to averting climate catastrophe must include the United States’ grappling with the greenhouse gas emissions of its oil and gas extraction activities, including the substantial role played by public lands extraction and hydraulic fracturing. BLM must weigh the relative effects on oil and gas production, supply, markets, and ultimately emissions of its actions in regulating public lands hydraulic fracturing. This must include an assessment of the net emissions consequences of all reasonable alternatives – including the 2015 hydraulic fracturing rule, BLM’s proposed rescission of that rule, or an alternative rule banning public lands hydraulic fracturing.

## **Conclusion**

For these reasons, and because federal oil and gas development degrades and industrializes public land, destroys habitat, and pollutes air and water, the Bureau should immediately terminate both its proposed rescission of the final fracking rule and all new oil and gas leasing on America’s public lands.

Sincerely,

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