Methane

The oil and gas industry is the nation’s largest contributor of methane pollution, the main component in natural gas, a potent agent of climate change, and a precursor to the ozone-containing smog marred some of our greatest western landscapes. Curbing methane pollution is an achievable step towards reducing these impacts of energy development, which would protect our wildlife, the habitat they depend on, and our climate.

Luckily, cutting methane can be achieved in a cost-effective, efficient manner using existing technologies that often pay for themselves in a matter of months. In many cases, it simply means preventing leaks and waste of a public resource, to capture more of a useful product. Under recent directive from the Obama Administration, the U.S. Environmental Protection Agency (EPA) and Bureau of Land Management (BLM) are moving to regulate methane pollution to take advantage of this triple win for wildlife, habitat, and climate.

Protecting Wildlife and our Health from Methane

Energy development can have many impacts on wildlife and their habitat. Between noise and light disturbances, road construction, traffic, fences, and networks of pipelines, oil and natural gas development can dramatically fragment habitat and is contributing to the decline of many cherished species. Energy developments impact wildlife ranging from bald eagles to mountain plovers, black-tail prairie dogs, sage grouse, and big game species like mule deer and pronghorn. On top of this is the added danger of incredibly potent methane pollution that fuels climate change. Methane regulations will help protect wildlife and the wild landscapes on which they depend by reducing industrial pollution.

Shrinking populations of game such as mule deer also mean shrinking opportunities for hunters and wildlife watchers. This has negative ramifications for state economies and wildlife programs because of dwindling revenue from hunting licenses and other expenditures. For example, hunters in New Mexico spent over $130 million dollars in 2011, generating substantial economic benefit for the state. However, due to dwindling populations, the New Mexico Game Commission proposed cutting the number of deer hunting licenses by 11% statewide and up to 50% in some areas –

Oil and gas development in the west is already fragmenting critical pronghorn habitat. Photo credit:

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4 http://www.census.gov/prod/2013pubs/fhw11-nm.pdf
5 http://www.npr.org/2013/01/04/168642093/disappearing-mule-deer-a-new-reality-throughout-western-u-s
and that’s on top of a roughly 20% cut last year. Strong regulations will help protect wildlife populations and the local economies that depend on them.

In addition to methane, oil and gas sources also emit other dangerous pollutants that are harmful to public health and wildlife, including smog-forming volatile organic compounds (VOCs), nitrogen oxides, and cancer-causing pollutants like benzene. Exposure to toxic air pollutants like benzene can have similar impacts on wildlife and humans, including reproductive failure. Methane standards will deliver significant public health co-benefits, by simultaneously cutting these pollutants that blanket communities downwind of oil and gas development across the country. Direct methane regulation would lead to substantially more reductions of both methane and other VOCs, compared to relying on co-benefits from just regulating VOCs.

Climate Change
Reducing methane leakage is an important and necessary piece of a greenhouse gas reduction strategy. Methane is a powerful greenhouse gas - 86 times stronger than carbon over 20 years - which means a small amount of leakage can have a big effect on the climate. While methane emissions account for about 14% of total U.S. greenhouse gas emissions, over 25% of all manmade global warming we are experiencing today is caused by methane emissions.

Climate change poses an unprecedented threat to the natural resources, wildlife, and wild places we cherish and depend on. Changes to our climate are destroying critical wildlife habitat, causing habitat ranges to shift, increasing incidence of pests and invasive species, decreasing available food and water, and dramatically increasing the rate of species’ extinction. If we don't take decisive action now to reduce greenhouse gas pollution, like methane, in the lifetime of a child born today one-third of all wildlife species will face increased risk of extinction. Unaddressed methane pollution may also erase much or all of the carbon advantage natural gas has over other fossil fuels. Analysis indicates that methane pollution leakage at levels above 3% is enough to negate the climate benefits of natural gas over coal.

6 [http://www.wildlife.state.nm.us/recreation/hunting/](http://www.wildlife.state.nm.us/recreation/hunting/)
7 [http://www.epa.gov/ttnatw01/hltheff/benzene.html](http://www.epa.gov/ttnatw01/hltheff/benzene.html)
10 [http://www.epa.gov/climatechange/ghgemissions/global.html](http://www.epa.gov/climatechange/ghgemissions/global.html)

Big game species like mule deer are already being significantly impacted by climate change. Photo credit: Flickr user m01229
Cutting methane pollution is also vital to securing the climate benefits of the EPA’s Clean Power Plan (CPP), which will put first-ever limits on carbon pollution from our electric power sector. Because increased reliance on energy from natural gas is one of the main options states can use to comply with this plan, it is critical that we establish strict limits on methane pollution from the natural gas sector if the CPP is to deliver the intended climate benefits. If methane pollution from the natural gas sector goes unchecked, up to 36% of the climate benefits derived from the CPP may be undermined.13 We need a strong set of national methane regulations to avoid increasingly devastating impacts of climate change on our wildlife, ecosystems, and communities and to ensure the CPP truly delivers the full intended benefits to our climate.

Common Sense Rules to Curb Methane Pollution: Ongoing Efforts

In early January 2015, President Obama announced a significant new goal to reduce methane emissions from the oil and gas sector by 40 – 45% from 2012 levels by 2025.14 The announcement included actions from four federal agencies. The EPA will issue regulations requiring reductions of methane from new and modified oil and gas production sources and natural gas processing and transmission sources. The BLM will propose standards reducing the venting (intentional release) and flaring (intentional burning) of natural gas from both new and existing oil and gas wells on public lands. EPA’s draft rule is expected this summer and BLM’s standards are expected in the spring. Further, Department of Energy will work to develop advanced technologies to reduce waste from natural gas transmission and distribution and Department of Transportation will propose new natural gas pipeline safety standards. These efforts will help form a comprehensive strategy to ensure full implementation of a key part of the Climate Action Plan and establish a more deliberate process for extracting oil and gas resources, which can minimize impacts to wildlife and their habitat while reducing methane waste.

Cheap, effective solutions to reduce methane pollution exist that can help maintain the integrity of the CPP and simultaneously safeguard wildlife and communities alike. Colorado, Ohio and Wyoming have already begun implementing methane regulations, and a national effort should build on the lessons learned in these states.15 American companies in over 40 states are developing, manufacturing and implementing these technologies – providing high-quality jobs and stimulating local economies.

Moreover, these technologies allow methane to be captured as a resource, rather than escape as pollution. One of the strongest arguments for methane regulation is simply that it cuts waste. Methane

13 http://blog.nwf.org/2014/07/clean-power-plan-heightens-need-for-methane-regulations/
kept ‘in the system’ rather than flared or released cuts waste of a useful energy resource in addition to delivering climate, health, and wildlife benefits. Many of the available technologies capture gas to be sold back into the market that would otherwise be wasted, resulting in cost savings for producers.\(^\text{16}\) Unless strong reforms are made to reduce waste, taxpayers could lose almost $800 million over the next decade from wasted natural gas from public lands.\(^\text{17}\)

These proven, low-cost technologies can eliminate as much as half of all climate-warming methane emissions from onshore oil and gas operations in the next five years.\(^\text{18}\) But reductions of this magnitude are achievable only through issuing strong methane pollution standards that govern both new and existing oil and gas sources.\(^\text{19}\) None the less, these new rules will make major strides in ensuring that continued oil and gas development minimizes impacts to wildlife, protects the habitat that they depend on, and safeguards our cherished outdoor traditions as well as our climate.

Contact: Lena Moffitt  
Manager, Federal Policy  
Climate and Energy Program  
202-797-6632  
moffittl@nwf.org

\(^{16}\) [http://www.nrdc.org/energy/leaking-profits.asp](http://www.nrdc.org/energy/leaking-profits.asp)  