



March 9, 2017

**Testimony in Support of Senate Bill 197
Senate Committee on Environment and Natural Resources**

Chair Dembrow and Members of the Committee,

The Center for Biological Diversity is a national, nonprofit conservation organization with more than 1.2 million members and online activists dedicated to the protection of endangered species and wild places. Pursuant to that mission, the Center advocates against unsustainable industrial agricultural practices and for sustainable agricultural solutions. We are testifying today in support of Senate Bill 197, a bill to require the Environmental Quality Commission to adopt by rule a program for regulating air contaminant emissions from large industrial dairy confined animal feeding operations.

We support this legislation because it establishes a common-sense, Oregon Dairy Task Force-approved approach to overseeing and limiting dangerous air pollution and enabling greater protections to Oregon's public health and the environment.

Over the last twenty years, Oregon has seen a steep rise in large industrial dairy operations, with the average size of a large dairy herd in the state nearly doubling between 1997 and 2012, and the number of dairy cows more than tripling during that same time period. These expanding, industrial dairies can generate dangerous amounts of air contaminants, including ammonia, hydrogen sulfide, methane, nitrous oxide, particulate matter, and volatile organic compounds, which can have broad negative impacts on the public health, the environment, and endangered and threatened species.

The release of pollutants such as ammonia, VOCs, and hydrogen sulfide, for example, can acutely affect both the environment and human health. Ammonia emissions can contribute to regional haze, acidification, and the generation of fine particulate matter, and, through wet and dry deposition, can further contribute to the impairment of land and water resources. Human exposure to ammonia emissions can produce significant health problems, including respiratory illnesses such as asthma and respiratory distress syndrome; irritation to the eyes, nose, and throat; neurological impairment; memory loss; and can even lead to death. Non-fatal effects of acute exposures to high concentrations of ammonia can be long-lasting, and even permanent. These effects are amplified in vulnerable populations such as children and the elderly.

Industrial animal agricultural operations, including large dairy operations, are also major drivers of climate change, producing conservative estimates of between 10 and 25 percent of all global greenhouse gas emissions, especially as a result of methane and nitrous oxide production. Indeed, animal agriculture is the second largest anthropogenic source of methane emissions in the United States, and manure management practices rank nationally as the third largest source of nitrous oxide emissions, just behind agricultural soil management and stationary combustion. Increases in methane and nitrous oxide production are of special concern because, based on their chemical

composition, each exhibits a far greater warming effect on the atmosphere than carbon dioxide -- methane has more than 20 times the global warming potential of carbon dioxide, while nitrous oxide has nearly 300 times the warming potential of carbon dioxide over a 100 year period.

Domestically, between 1990 and 2014, total greenhouse gas releases attributable to manure management practices alone rose by a total of approximately 53.8 percent. Recent spikes in methane production, for example, can be largely attributed to increases and concentration of domestic cattle populations - including dairy cattle.

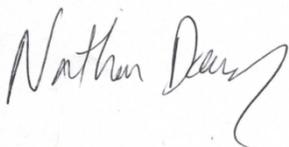
The full extent to which dairy operation in Oregon specifically contribute to environmental degradation through air emissions is currently unclear because of uncertainty in quantification measures and lack of general oversight. Senate Bill 197 will help solve that informational problem. However, in 2008 Oregon's Dairy Air Quality Task Force estimated dairy emissions to be of concern generally, and, specifically, a notable portion of Oregon's ammonia and methane emissions.

The largest dairy in Oregon, and one of the largest in the nation, is Threemile Canyon Dairy, which houses an astonishing 70,000 cows - producing nearly four times as much waste as the entire human population of Oregon. This operation is a troubling source of air pollutants, including ammonia and the greenhouse gas methane. In addition, Oregon's Department of Agriculture and Department of the Environment are currently contemplating permitting another mega-dairy, the Lost Valley Ranch, near to the Threemile Canyon operation that would bring an additional 30,000 dairy cows into this already taxed ecosystem. This operation, if approved, will generate and store approximately 187 million tons of manure each year in open-air lagoons to be disposed of on fields, posing significant risk to air and water quality. And these are just two examples out of many. Yet, Oregon's current regulations do not prevent or even address air pollution from these operations.

Given that two of the most common threats to wildlife and ecosystem health from industrial animal agricultural operations are climate change and degradation of air and water quality, the Center for Biological Diversity is increasingly concerned about the effect of large dairy operations in the state on species biodiversity and health. Therefore, we respectfully request for you to support Senate Bill 197 and finally ensure that a long over-do structure is put in place to address and control noxious air pollution from large-scale industrial dairy operations.

Given the substantial risk of continuing to allow the ongoing release of pollutants from these operations without oversight, we believe these additional steps are necessary and will benefit public health, air quality, water quality, and species health. In sum, in facilitating efforts to lessen the impacts of these large dairy operations on surrounding communities and preventing future problems from arising, Senate Bill 197 is a necessary accountability and sustainability measure that is in the best interest of Oregon.

Respectfully submitted,



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