



FRIENDS OF THE COLUMBIA GORGE

SUBMITTED VIA EMAIL

March 8, 2017

Senate Committee on Environment and Natural Resources
900 Court St. NE
Salem, OR 97301
senr.exhibits@oregonlegislature.gov

Re: Friends of the Columbia Gorge Comments in Support of SB 197

Dear Chair Dembrow and members of the committee:

Friends of the Columbia Gorge (“Friends”) submits the following comments on SB 197. Friends is a non-profit organization with approximately 6,000 members. Friends is dedicated to protecting and enhancing the resources of the Columbia River Gorge. Friends’ membership lives, works, and plays in the Columbia River Gorge and would be adversely affected by the direct, indirect, and cumulative impacts caused by further unmitigated development of large Confined Animal Feeding Operations (“CAFOs”) near the Eastern end of the National Scenic Area.

During its tenure, the Oregon Dairy Air Quality Task Force examined a wide body of scientific literature regarding major air pollutants from large dairy farms — none of which Oregon currently regulates from livestock operations. These pollutants include: ammonia, hydrogen sulfide, methane, volatile organic compounds, nitrogen oxides, particulate matter, and odors. The Columbia River Gorge National Scenic Area is already severely impaired by air pollution, especially nitrogen oxides (NOx) and particulate pollution. The Gorge now stands among the most polluted places in the country, including Pittsburgh and Los Angeles. A 2005 joint study by the U.S. Forest Service and National Park Service studied twelve federally managed areas around the West and found that the Columbia River Gorge National Scenic Area and Sequoia National Park had by far the worst “annual standard visual range[s]” of the twelve areas.¹ Similarly, a 2000 Forest Service study of air quality monitoring data from 39 federally managed “visibility protected” areas in the West found that the Scenic Area has “the highest levels of haze” and “the sixth worst visibility pollution of these areas.”² Gorge air quality has been

¹ Mark Fenn, USDA Forest Service et al., *Why federal land managers in the Northwest are concerned about nitrogen emissions*, at 10 (Dec. 2004).

² Arthur Carroll, USDA Forest Service, Letter to Columbia River Gorge Commission, at 3 & attach. 3 (Feb. 7, 2000).

monitored for the last twenty years. The Forest Service has documented that visibility impairment occurs on at least 95% of the days that have been monitored.³

Deposition of pollutants also has profound negative impacts on ecosystems. Studies demonstrate that in the Western United States, some aquatic and terrestrial plant and microbial communities are significantly altered by nitrogen deposition.⁴ Sulfur and nitrogen concentrations in lichen tissue found in the Gorge are comparable to those found in lichen tissue sampled in urban areas. Nitrogen deposition rates in the Gorge are comparable to the most polluted areas in the United States.

Particulate matter pollution also threatens human health and welfare. In fact, when reviewing the National Ambient Air Quality Standards for PM_{2.5}, the EPA found that there is no level of particulate matter pollution at which there are no human health effects. According to the EPA, fine particulate matter pollution causes a variety of adverse health effects, including premature death, heart attacks, strokes, birth defects, and asthma attacks.⁵ Even low levels of PM_{2.5} can cause low birth weights, damage lung function, and increase risks of heart attack and premature death. Studies reviewed by EPA revealed a linear or almost linear relationship between diseases like cancer and the amount of fine particulate matter in the ambient air.⁶ Consequently, particulate matter contamination has adverse health effects at any concentration.

The Management Plan for the National Scenic Area requires that “air quality shall be protected and enhanced, consistent with the purposes of the Scenic Area Act.” NSA Management Plan at I-3-32–33. Pursuant to this requirement, the Gorge Commission approved the *Columbia River Gorge Air Study and Strategy* (Sept. 2011). It summarizes the existing science on air quality impacts, adopts thresholds for significant impacts to visibility, and adopts an overall goal of “continued improvement” in visibility in the National Scenic Area.⁷ In addition, guidance documents prepared by Federal Land Managers provide methodologies and thresholds for evaluating air pollution impacts to sensitive federal lands in both Class I and Class II areas.⁸ The Forest Service has been monitoring lichen and air quality throughout the National Scenic Area.⁹ Since thresholds for significant adverse impacts have already been exceeded for particulate matter and nitrogen deposition, any significant additional source of pollutants will likely contribute to cumulative significant adverse impacts to Gorge resources.

³ Robert Bachman, USDA Forest Service, *A summary of recent information from several sources indicating significant increases in nitrogen in the form of ammonia and ammonium nitrate in the Eastern Columbia River Gorge and the Columbia Basin*, at 2 (June 24, 2005).

⁴ See Mark E. Fenn, et al, *Ecological Effects of Nitrogen Deposition in the Western United States*, *BioScience* Vol. 53:4, Apr. 2003, available at <http://www.bioone.org/doi/abs/>

⁵ 71 Fed. Reg. 2620, 2627–36 (Jan. 17, 2006).

⁶ *Id.*

⁷ The *Columbia River Gorge Air Study and Strategy* and appendices are available at <http://www.deq.state.or.us/aq/gorgeair/>.

⁸ The Federal Land Managers have adopted the following guidance documents that can be used to evaluate air pollution impacts to the Columbia River Gorge: *Federal Land Managers' Air Quality Related Values Work Group (FLAG) Phase 1 Report—Revised* (2010) and *Federal Land Managers' Interagency Guidance for Nitrogen and Sulfur Deposition Analyses* (2011). These reports are available at <http://www.nature.nps.gov/air/permits/flag/>.

⁹ The Forest Service maintains a database of all lichen/air quality monitoring sites at <http://gis.nacse.org/lichenair/index.php?page=query&type=community>.

Ammonia and nitrous oxides are two of the three major components of haze pollution that affect the Columbia River Gorge National Scenic Area. They also contribute to acid rain, which threatens ecosystems and Native American rock paintings. The Oregon Department of Environmental Quality reports that livestock manure management, which includes field applications of manure, is “by far the most significant source of ammonia” contributing to regional haze. When operating with just over 50,000 cows in 2005, Threemile Canyon Farms reported ammonia emissions that ranked among the highest reported in the nation.

SB 197 would simply empower the Environmental Quality Commission and ODA to regulate air emissions from large dairy CAFOs so that the work of the Dairy Air Task Force can be completed and the Gorge can be protected from further degradation of its airshed. **Friends asks you to pass SB 197 out of committee with a do pass recommendation.** Thank you for the opportunity to testify.

Sincerely,



Steven D. McCoy
Staff Attorney

cc: Lynn Burditt, Area Manager, USDA Forest Service, CRGNSA Office
Krystyna U. Wolniakowski, Executive Director, Columbia River Gorge Commission