



April 22, 2020

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Director Whitman,

The Stand Up to Factory Farms Coalition requests that the Department of Environmental Quality (“DEQ”) and Environmental Quality Commission (“EQC”) initiate and expedite a rulemaking to begin quantifying and regulating air emissions from large dairy concentrated animal feeding operations (“Large CAFOs”). Pursuant to Executive Order No. 20-04 (“Climate EO”), DEQ must “exercise any and all authority and discretion vested in [it] by law to help facilitate Oregon’s achievement of” greenhouse gas (“GHG”) emissions reductions to 45% below 1990 levels by 2035 and 80% below 1990 levels by 2050.¹ The Climate EO further requires DEQ and EQC to prioritize and expedite actions that could accelerate GHG reductions, and requires DEQ to report its planned actions by May 15, 2020.² Restricting mega-dairy emissions of the potent GHGs methane and nitrous oxide--along with co-pollutants such as ammonia, particulate matter, and volatile organic compounds that harm public health, water quality, and the Columbia Gorge National Scenic Area--would move the state closer to achieving its ambitious climate change goals. The state has never taken meaningful action to address mega-dairy emissions, despite the 2008 Dairy Air Quality Task Force recommendations.³ The Coalition respectfully requests that

¹ Exec. Order 20-04, Directing State Agencies to Take Actions to Reduce and Regulate Greenhouse Gas Emissions 5 (Mar. 10, 2020).

² *Id.*

³ Oregon Dairy Air Quality Task Force, *Final Report to the Department of Environmental Quality & Department of Agriculture* (Jul. 1, 2008).

DEQ include a rulemaking to require dramatic emissions reductions from the state's Large CAFOs in its May Report on Proposed Actions.

Large CAFOs, especially mega-dairies with thousands of dairy cows, contribute significantly to climate change in Oregon and nationwide, through methane and nitrous oxide emissions.⁴ Livestock production is the main source of the powerful greenhouse gas methane in the United States, and in Oregon, agriculture is the leading source of methane emissions.⁵ Dairy and other CAFO manure management is the fastest growing major source of methane (increasing nearly 65% from 1990 to 2018); indeed it is the *only* source of methane that has increased since 1990 other than enteric fermentation (cattle burps and flatulence).⁶

As we saw with the approval of the ill-fated Lost Valley mega-dairy in 2016, and its purchase and new CAFO permit application by Easterday Farms from Washington, Oregon is an attractive state for new mega-dairies to set up shop. Despite several legislative attempts to codify and enforce the recommendations of the 2008 Dairy Air Quality Task Force, Oregon is still without controls for this significant source of GHGs. As neighboring states like California put controls into place, Oregon becomes even more of a magnet for climate polluting mega-dairies. Further, the industry continues to consolidate into fewer, but larger, facilities: an average of nine family dairy farms went out of business each month between 2002 and 2007 and Oregon has lost more than a third of its licensed dairies since 1997, while numbers of cows continue to rise.⁷ A failure to appropriately regulate mega-dairies' industrial-scale emissions, which are in large part a result of CAFO waste storage methods, is contributing to this consolidation and loss of Oregon's family farms.

The Climate EO establishes a broad mandate that DEQ and the EQC use the full extent of their authority to require GHG reductions. Oregon law authorizes the EQC to apply the state's air pollution laws to dairies when necessary "to implement a recommendation of the Task Force on Dairy Air Quality."⁸ While the Task Force made numerous recommendations, more than a decade has elapsed, and a multi-stage implementation that does not immediately focus on methane emissions and mandatory controls is inadequate to comply with the Climate EO. The EQC and DEQ must implement the mandatory emissions reductions Task Force recommendations, by focusing on mega-dairy GHG emissions and establishing mandatory best management practices (BMPs) as soon as possible.

⁴ U.S. EPA, *Greenhouse Gas Emissions: Overview of Greenhouse Gases*, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases> (last accessed Feb. 6, 2020). *See also* The Urgent Case for a Moratorium on Mega-Dairies in Oregon (Mar. 2019),

https://stoporegonmegadairies.files.wordpress.com/2019/03/fs_2903_or-dairies-web.pdf.

⁵ *See* Urgent Case for a Moratorium on Mega-Dairies in Oregon, n.39-40 (Mar. 2019),

https://stoporegonmegadairies.files.wordpress.com/2019/03/fs_2903_or-dairies-web.pdf.

⁶ EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018 – Executive Summary*, ES-7 (2020), <https://www.epa.gov/sites/production/files/2020-02/documents/us-ghg-inventory-2020-chapter-executive-summary.pdf>.

⁷ Fridley, Dallas. "Oregon dairy production stalls as milk prices fall." State of Oregon Employment Department. August 30, 2018 at 12.

⁸ ORS 468A.020(2)(c) (SB 235).

In initiating a rulemaking to comply with the Climate EO and establish mandatory BMPs, Oregon must address the root causes of the dairy sector's contributions to the state's GHG inventory: the concentration of many cows' waste in lagoons, which gives rise to the anaerobic conditions that lead to methane production, and the stocking densities that lead to significant enteric methane emissions. Only BMPs like prohibiting liquid manure storage and requirements to keep animals on pasture, thereby lowering herd size, will effectively reduce emissions; they will also bring significant co-benefits for the environment, family farms, rural communities, and animal welfare.

GHG emissions from mega-dairies cannot be addressed with biogas digesters and other infrastructure built to produce "renewable natural gas." Even at optimum performance, digesters capture only about half of a mega-dairy's methane emissions--those emitted from the waste storage area--leaving the enteric emissions to escape uncaptured.⁹ In reality, studies show that digesters have an even smaller impact, reducing GHG emissions only 25%.¹⁰ Burning biogas also emits CO₂ and other air pollutants, offsetting some of the purported climate benefit. Moreover, mega-dairy digesters can actually increase ammonia emissions,¹¹ and can make nutrients in waste more soluble and susceptible to contaminating surface and groundwaters.¹²

Even if mega-dairies voluntarily attempt to "control" their methane emissions through manure digesters, these technologies are expensive and typically divert public funding from truly renewable energy. Oregon taxpayers are already subsidizing this dirty gas production: Threemile Canyon Farms, one of the largest dairy CAFOs in the country, and its corporate affiliates received \$1.84 million in 2018 through Oregon's Bovine Manure Tax Credit.¹³ Moreover, by creating a revenue source from the sale of methane capture "credits," digesters incentivize mega-dairy expansion, along with increased GHG emissions.¹⁴ This, combined with the fact that digesters are increasingly connecting mega-dairies to long-term fossil fuel infrastructure to produce pipeline quality natural gas, serves to further entrench this harmful method of food production.

⁹ Research indicates that "enteric emissions are normally the largest source of greenhouse gas on a dairy farm." C. Alan Rotz, *Modeling Greenhouse Gas Emissions from Dairy Farms*, Journal of Dairy Science Vol. 101 Iss. 7 6677 (Jul. 2018).

¹⁰ Holly, et al., *Greenhouse gas and ammonia emissions from digested and separated dairy manure during storage and after land application*, Agriculture, Ecosystems & Environment (Feb. 2017), <https://www.sciencedirect.com/science/article/pii/S0167880917300701>.

¹¹ *Id.*

¹² USDA NRCS, Conservation Practice Standard 366, Anaerobic Digester 6 (Oct. 2017).

¹³ Paul Shukovsky, *Farms' Plans to Make Gas from Manure Draw Environmentalists' Ire*, Bloomberg Environment, (June 14, 2019), <https://news.bloombergenvironment.com/environment-and-energy/farms-plans-to-make-gas-from-manure-draw-environmentalists-ire>.

¹⁴ Jessica McKenzie, *The misbegotten promise of anaerobic digesters*, The Counter (Dec. 3, 2019), <https://thecounter.org/misbegotten-promise-anaerobic-digesters-cafo/?fbclid=IwAR3JHUu-I4hMpRcPF29SOTLLuRF6rMVXc5J4UrFhWsOIpi15eCHOL0fKd9A>; Food & Water Watch, *FACT SHEET: Dirty Biogas Has No Place in the United States' Clean Energy Future*, <https://www.foodandwaterwatch.org/insight/biogas-factory-farm-waste-has-no-place-clean-energy-future>.

As Oregon faces another year without comprehensive legislation to address climate change, strong actions to mandate GHG reductions by state agencies are more important than ever. Mega-dairies are an increasingly significant contributor to Oregon's climate change emissions, and particularly in light of the Climate EO, continued inaction to address these emissions is simply not an option. DEQ and the EQC must initiate a rulemaking to mandate BMPs to reduce mega-dairy emissions and reject false solutions like biogas production that rely on perpetuating the very model of dairy production harming the climate.

Sincerely,

Lauren Goldberg
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Steve McCoy
Friends of the Columbia Gorge

Shari Sirkin
Friends of Family Farmers

Brian Posewitz
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