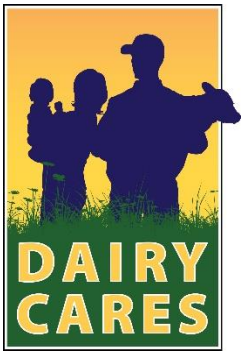

Submitted electronically

January 17, 2017

Mary D. Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Short-Lived Climate Pollutants Strategy, November 2016 version

Dear Chair Nichols:

Dairy Cares appreciates the opportunity to comment on the California Air Resources Board's (ARB's) Proposed Short-Lived Climate Pollutant Reduction Strategy (SLCP Plan) as revised and re-released in November 2016.

Formed in 2001, Dairy Cares (www.dairycares.com) is a coalition of California's dairy producer and processor organizations, including the state's largest trade associations representing dairy farmers (*California Dairy Campaign, California Farm Bureau Federation, Milk Producers Council and Western United Dairymen),* other cattle ranchers (*California Cattlemen's Association*) and the largest milk processing companies and cooperatives (including *California Dairies, Inc., Dairy Farmers of America-Western Area Council, Hilmar Cheese Company, and Land O' Lakes, Inc.*), and others with a stake in the long-term environmental and economic sustainability of California dairies.

Dairy Cares continues to recognize the importance of reducing greenhouse gases (GHGs) and short-lived climate pollutants (SLCPs) to slow global warming. In our previous extensive comment letters to your agency, we have:

- Discussed the significant progress California dairy farms have made to date reducing SLCPs and other GHGs through milk production efficiency and adoption of renewable energy (solar and anaerobic digesters) as well as energy efficiency measures;
- Suggested promising areas for research to continue and expand our abilities to cost-effectively reduce SLCPs from dairy farms, while embarking on our own efforts to begin such research; and

- Made numerous suggestions toward preserving the economic and social benefits of a healthy dairy community in California via development of a robust incentive-based program to develop renewable energy and reduce SLCP emissions even further from dairy farms.

For the sake of brevity, we incorporate our previous comments by reference[1] and continue to support suggestions therein on creating an achievable incentive-based plan to further reduce dairy methane emissions. While we appreciate many favorable revisions ARB staff made in the SLCP Plan as a result of the passage of Senate Bill 1383 (Lara, 2016) and in responding to public comments, we must continue to express our concerns with what we see as unrealistic targets that are likely not achievable in the timeframes outlined in the SLCP Plan, and inconsistent, incomplete or fundamentally flawed analysis related to viable pathways related to achieving those goals.

Nevertheless, we are extremely appreciative of the important work that ARB staff has done to revise the SLCP Plan, and efforts by ARB staff to reach out to dairy community stakeholders, including technology providers, to discuss strategies for working together moving forward. We remain committed to assisting and supporting efforts to make reasonable progress toward these goals, particularly through voluntary incentive-based programs, which offer the most viable pathway forward to achieve reductions without harming California's dairy farming and cattle ranching sector, and the many disadvantaged communities it supports economically.

Our attention must now focus primarily on developing an effective and robust program to incentivize methane-reduction projects on California dairy farms, and this work must proceed quickly and be funded adequately if we are to avoid the disastrous effects of a premature "command-and-control" regulatory program.

We elaborate on this below.

1. **The near-term focus should be to accomplish as much of the goals outlined in SB 1383 and the SLCP Plan as possible through voluntary measures; any rulemaking to reduce emissions should not be initiated before 2020.**

SB 1383 wisely recognizes that mandatory regulation of dairy-related SLCPs will result in significant leakage of SLCP emissions to other states or countries and negatively impact the California economy, particularly that of rural disadvantaged communities who depend on dairy farming and dairy processing to create and maintain tens of thousands of jobs. The SLCP Plan itself also recognizes that mitigation accomplished via regulation will be significantly more costly than voluntary, incentive-based mitigation.

Therefore, ultimate success in reducing methane emissions will depend on accomplishing as much of the SLCP (dairy methane) reductions as possible through incentives so that their

[1] See especially our comment letters submitted to ARB on June 12, 2015; August 24, 2015; October 30, 2015; and May 26, 2016.

economic impacts will not only be minimized, but may possibly create the economic stimulus so often promised by California policymakers as they adopt increasingly stringent environmental regulations. To make this happen, the initial focus must be an intensive effort, collaborating with a broad group of stakeholders to:

- Conduct additional research to identify viable cost-effective methods for reducing methane emissions from dairies;
- Remove obstacles to employing methane-reducing strategies, whether those obstacles be regulatory, financial or otherwise;
- Construct a robust incentive program as soon as possible – considering not just capital investment needs but also long-term revenue stability from projects – and put that program in place as soon as possible so there will be adequate time for the state's dairy farms to respond and pursue incentives.

Once the important work described above is completed, the situation can be reassessed. We anticipate that this process will take several years to be fully completed. With all of this in mind, we are concerned about the statement on page 67 of the SLCP Plan that:

> "Initially, as the recently appropriated $50 million in Cap-and-Trade funds become available, the State will incorporate lessons learned from previous incentive programs to improve the effectiveness and efficiency of new incentives, while overcoming persistent barriers and challenges. ***At the same time***, ARB will initiate a rulemaking process, pursuant to SB 1383, to develop regulations for reducing dairy and livestock manure emissions in California." *[emphasis added]*.

Given the work ahead and the timelines in SB 1383 – especially the progress analysis required to be completed by July 2020[2] – and the important information that will be gained as research is completed and incentives are developed, it seems unnecessary and inefficient to enter a rulemaking process before 2020 "to develop regulations for reducing dairy and livestock emissions," especially considering that 1383 prescribes no regulation taking effect before 2024 (except monitoring and reporting). We hope ARB can clarify that this is what is intended in the plan, as seems to be implied elsewhere in the report:

> "The rulemaking process will first focus on developing measures to require regulated parties to both report and maintain records covering the parameters that affect GHG emissions at California dairies and other livestock operations. Reported information will be used to refine inventory quantification, evaluate policy effectiveness, assess

[2] See Health and Safety Code Section 390730.7 (c): "No later than July 1, 2020, the state board [ARB], in consultation with the [California] department [of Food and Agriculture], shall analyze the progress the dairy and livestock sector has made in achieving the goals identified in the strategy and specified in paragraph (1) of subdivision (b). The analysis shall determine if sufficient progress has been made to overcome technical and market barriers, as identified in the strategy. If the analysis determines that progress has not been made in meeting the targets due to insufficient funding or technical or market barriers, the state board, in consultation with the department and upon consultation with stakeholders, may reduce the goal in the strategy for the dairy and livestock sectors, as identified pursuant to paragraph (1).

> methane reduction progress, and aid in ***future policy planning and regulatory development."*** *[emphasis added]*[3]

Clarification that rulemaking other than monitoring and reporting will not occur before 2020 would be helpful to the process.

Again, we appreciate statements by ARB staff, particularly Executive Officer Richard Corey, who recently restated a commitment to working closely with the dairy community, methane-reducing project developers, finance and lending professionals, technical and scientific experts, and others to ensure an effective, collaborative process. We appreciate Mr. Corey's commitment to that process, as evidenced by his personally visiting Central Valley dairies earlier this month to learn more about the issues and challenges we face together moving forward.

We also appreciate the statements in the SLCP Plan recognizing the importance of pursuing economically sustainable reductions, e.g., the stated goals of "significantly cut methane emissions from dairy and livestock operations while providing farmers with new, potentially lucrative revenue streams,"[4] and "before ARB regulates dairy and livestock manure emissions, as required by SB 1383, California agencies will encourage and support near-term actions by dairies to reduce manure emissions through financial incentives, collaboration to overcome barriers, development of policies to encourage renewable natural gas production, and other market support."[5] We especially note the statement on page 64:

> "Through this SLCP Strategy and related efforts, we have a tremendous opportunity to work with the industry to reduce methane emissions from the State's largest source, ***while creating economic value in farming communities.*** If markets are fully enabled, efforts to reduce methane from manure management at California dairies could lead to billions of dollars of investment and thousands of new jobs, concentrated in the Central Valley. Depending on the strategies pursued to reduce emissions, individual dairies may be able to reduce emissions while generating new revenue streams, and the industry as a whole may be able to meet the targets established in this SLCP Strategy ***at little or no net cost."*** *[emphasis added]*

This should certainly be the minimum goal for implementation of the SLCP and our success in meeting it will determine whether the Plan is ultimately seen as an example for how to achieve methane reductions from dairies without significant economic harm and leakage of emissions and jobs to other regions, or simply a failed regulatory strategy.

Finally, we appreciate the SLCP Plans identification of specific actions that must be taken in the very near term, such as forming a "dairy workgroup to identify and address barriers to the collection and utilization of biomethane" in the first quarter of 2017 and that "ARB, in

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[3] SLCP Plan (November 2016), p. 69.
[4] Ibid., p. 5.
[5] Ibid., p. 8

consultation with CPUC and CEC, [will develop] policies to encourage development of infrastructure and biomethane projects at dairy and livestock operations" by January 2018.[6]

2. Significant, continued funding of incentives via the state Legislature through the Greenhouse Gas Reduction Fund (GGRF) and other mechanisms will be essential to success of the dairy components of the SLCP Plan.

While all of the coordinating functions described above are critical, the incentives program will ultimately succeed or fail based on whether it receives adequate financial support. We appreciate that the SLCP Plan, noting the $50 million already allocated in 2016 to methane-reducing projects on dairies, recognized that far more is needed: "CalRecycle and CDFA both estimate that direct State investments or incentives on the order of $100 million per year for five years could significantly scale project development to cut SLCP emissions associated with dairy manure and waste management."[7]

In fact, as suggested later in the report, investments of closer to $2 billion may be needed to reach the ambitious goals outlined by ARB for the dairy sector.

3. Reporting and monitoring regulations, when developed, should be as painless and efficient as possible, not resulting in new fees or significant reporting burdens for dairy farming operations.

Virtually all California dairies already report extensive environmental performance information to multiple government agencies, and are subject to inspection by state, regional and county governments. Preparation and maintenance of records and submittal of reports to the government has become in the past decade a major expense of time and money for California dairy farm operators.

For this reason, Dairy Cares is particularly concerned that the SLCP Plan's stated intent to initiate a rulemaking process toward developing measures to "require regulated parties to both report and maintain records covering the parameters that affect GHG emissions at California dairies and other livestock operations." Such a rulemaking presents the risk of creating another costly and burdensome monitoring and reporting program for dairies.
However, this can be avoided by simply utilizing the existing reporting systems, with perhaps slight modifications. For example, in the San Joaquin Valley Air Pollution Control District, where the vast majority of California dairy cows are located, most dairies are already required to describe their operations and manure management strategies to the air district to maintain a permit to operate. Similarly, virtually all dairies in the state must submit regular reports to their Regional Water Quality Control Boards, detailing how manure is stored and handled, total cattle on the operation, and other facility data. It is likely that these already required reports contain

[6] Ibid., p. 14
[7] Ibid., p. 32

most if not all of the necessary information to support monitoring and reporting, or could be easily adjusted to include such additional information without creating a duplicative and onerous reporting process that would likely lead to additional costs and time burdens. Dairy Cares urges ARB to work closely with stakeholders to minimize the intrusiveness of any monitoring and reporting program.

4. The SLCP Plan still includes language that sets overly ambitious goals, creating unrealistic expectations for future reductions, or is based on inaccurate and incomplete assessment.

As noted above, the November 2016 version of the SLCP Plan contains many revisions to be consistent with the passage of AB 1383. We hope ARB will consider further revisions before adoption. Examples of our concerns include:

- Page 63 incorrectly states that ***"Senate Bill 1383 directs ARB to develop a manure management strategy that will reduce dairy and livestock sector methane emissions by up to 40 percent from 2013 levels by 2030."***

In fact, SB 1383 does not direct ARB to create a strategy to reduce "dairy and livestock sector emissions by up to 40 percent from 2013 levels by 2030." Rather, SB 1383 clearly sets the reduction target at reducing "manure management" related emissions by 40 percent, and not emissions from the entire dairy and livestock sector. The latter interpretation is not only clear in the letter of the law, but also is recognized by the California Department of Food and Agriculture (CDFA), which states on its website that SB 1383's goal is to "reduce dairy manure methane emissions to 40% below 2013 levels by 2030."[8] In fact, the SLCP Plan description above also conflicts with descriptions in other ARB documents, such as the December 2016 Update of the Scoping Plan (for reduction of GHGs), which states: "The Short-Lived Climate Pollutant Reduction Strategy, authorized by Senate Bill 1383, sets forth a process through which methane emissions from manure management will be reduced by forty percent below 2013 levels by 2030."[9]

This is not an insignificant difference; the two figures are separated by several million metric tons carbon dioxide equivalent emissions. We suggest ARB consider a rewording of this to be consistent with CDFA and SB 1383, such as: ***"Senate Bill 1383 directs ARB to develop a strategy to reduce dairy and livestock manure methane emissions by up to 40 percent from 2013 levels by 2030."***

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[8] https://www.cdfa.ca.gov/oefi/ddrdp/docs/2016_DDRDP-ListeningSessions.pdf, slide 4, accessed January 16, 2017.

[9] From p. 61 of the December 2, 2016 Discussion Draft, 2030 Target Scoping Plan Update, https://www.arb.ca.gov/cc/scopingplan/2030target_sp_dd120216.pdf

- Page 65 inaccurately assesses the pros and cons of utilizing flush systems as part of a manure management system:

  "Dairies with flush water lagoon systems typically flood irrigate dairy feed crops, such as corn silage and alfalfa, to dilute and disperse nutrients from manure in the lagoon. This practice can lead to soil and groundwater contamination despite being subject to regulation by regional water quality control boards, including the Dairy General Order in the Central Valley."

The above statement is misleading and appears to attribute pollution risk to the flush system itself and/or flood irrigation. In fact, any agricultural system using nitrogen fertilizers may pose a risk to groundwater, depending on a number of factors, including irrigation efficiency, precision of nitrogen applications, types of crops grown, soil composition, and others. There is no evidence to support, and indeed ARB cites no such evidence, that a general conversion from liquid to solid systems will reduce risk to water quality – in fact, it could increase risk factors in some cases. Dairy Cares disputes overly broad characterizations of these complex issues and notes that comparisons between systems should consider a broad array of factors and be made on a case by case basis.

- The plan continues to include and rely upon a fundamentally flawed economic analysis of potential methane reduction projects, including "digester clusters" relying on transporting manure from dairies to centralized locations.

The analysis continues to present the financial "best case" development of up to "55 regional digesters" that would receive fresh manure trucked in daily from multiple dairies that are more than ten miles away in some situations. This proposed approach adds significant complexity to project development, project economics and project operations. Additionally, there is no proven model for transporting thousands of tons of heavy wet manure to a centralized facility in California. Moreover, the one regional digester project built in California to serve multiple dairies in the Chino area failed economically and is no longer in operation. Project developers who have considered this model have rejected it for multiple reasons and, thus, it is unclear who would own and operate these regional projects and how they would get financed.

However, concerns expressed here about the economic analysis should not be taken to mean that Dairy Cares opposes development of digester cluster projects. We strongly support development of digester clusters where feasible, especially projects where collected gas is piped to a centralized location for use as a vehicle fuel or renewable natural gas. And if a more thorough economic analysis demonstrates that it is feasible and economic to move (wet)[10] manure to a central location for digestion, despite past failures, we are open to further examination of this concept. Finally, we note the importance of making cluster digester projects (and all other methane-reducing concepts) economically accessible to small and large dairies alike. Clusters or

[10] Dry manure weighs much less than wet manure and can be transported economically, but typically is not suitable for anaerobic digestion.

other projects that allow smaller dairies to coordinate and cooperate with each other may help overcome economy-of-scale barriers.

While we recognize that the ARB describes the analysis as a "boundary exercise" and not a "preferred or expected path forward,"[11] the content of the analysis is so incomplete and inaccurate that its conclusions are rendered not only useless but unhelpful for the purposes of this report. This is exacerbated by assumptions that electricity projects will use microturbines to generate electricity, even though no such project has ever been constructed and successfully operated on a dairy. Dairy Cares suggests that gathering data, research and revising cost-effectiveness scenarios on dairy digester and other methane-reducing projects must be a high priority for the collaborative process moving forward. Further, we believe improved analysis will show that any model including the true costs of transporting large amounts of wet manure (rather than more cost-effective models such as gas pipelines and distributed electricity) is extremely unlikely to be cost-effective.

Conclusion

With a slowly increasing knowledge base on how to achieve methane reductions on California dairy farms, coupled with important guidance captured in SB 1383, there is a much clearer path forward to moving toward the state's SLCP reduction goals without causing unnecessary leakage of emissions or economic benefits by causing dairies to relocate to other states or countries. Much work lies ahead; we are appreciative of ARB's stated commitment to a collaborative process and recognize that dairy organizations must also be actively engaged in the stakeholder process continuing forward.

The process is clear: continued research, removal of obstacles, development and financing of incentives and reassessment before regulation. We urge ARB to work closely with us on this process and are committed to doing our part to further decrease dairy methane emissions in California.

Sincerely,

Michael Boccadoro

J.P. Cativiela

For Dairy Cares

[11] SLCP Plan (November 2016), p. 119

C: Charles "Chuck" Ahlem, Chairman, Dairy Cares
Paul Sousa, Environmental Services Director, Western United Dairyman
Kevin Abernathy, Environmental Services Director, Milk Producers Council
Lynne McBride, Executive Director, California Dairy Campaign
Cynthia Cory, California Farm Bureau Federation
Justin Oldfield, California Cattlemen's Association
Emily Rooney, Agricultural Council of California