



1515 CLAY STREET, 20TH FLOOR
P.O. BOX 70550
OAKLAND, CA 94612-0550

Public: (510) 622-2100
Telephone: (510) 622-2142
Facsimile: (510) 622-2270
E-Mail: Susan.Fiering@doj.ca.gov

October 24, 2008

By facsimile and overnight
Board of Supervisors
County of Madera
200 West 4th Street
Madera, CA 93637

RE: Madera County Dairy Standards Final Environmental Impact Statement
SCH 2006081050

Dear Supervisors:

The Attorney General submits these comments on the Final Environmental Impact Report ("FEIR") for the Madera County Dairy Standards Project ("Project").¹ The Attorney General understands that the Board of Supervisors will be voting shortly on whether or not to approve the FEIR. While we take no position on the approval of the FEIR, we wish to make the Board aware that, because the FEIR does not adequately address the impacts of greenhouse gas ("GHG") emissions and global warming, future individual dairy projects must undergo separate environmental review on this issue.

Under CEQA, a permitting agency can "tier" environmental review by using analysis contained in a broader EIR (*e.g.*, program EIR) for later individual projects. (22 Cal. Code Regs. ("CCR"), § 15152, subd. (a).) A separate EIR for the individual projects is required, however, when the later projects may cause significant effects on the environment "that were not adequately addressed in the prior EIR," *i.e.*, that were not examined in sufficient detail to enable the effects to be mitigated. (*Id.* at subd. (f).)

In February of this year we sent a letter to Madera County on a draft EIR for the Dairy Standards Project. (Copy of letter attached as Exh. A.) Our letter noted that the draft EIR did not adequately address GHG emissions and global warming. In addition to pointing out the

¹The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Govt. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974).) These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

October 24, 2008

Page 2

problems with the draft, our letter noted that the EIR was a program EIR and was intended to be used to streamline environmental review for the individual projects. Because of the inadequacies, it could not serve this purpose for GHG emissions issues.

In July 2008 the County issued the FEIR. The FEIR does not resolve the problems we noted in the draft EIR concerning environmental review of GHG emissions. In responding to our comments, the County acknowledged that the purpose of the EIR is not to bypass the need for environmental compliance for future dairy projects, and a more site-specific environmental review might be required to assess future projects, which might also require more specific mitigation measures. (Copy of County response attached as Exh. B.) Accordingly, we note that, because of the inadequacies in the document, the County will not be able to use the FEIR to avoid thorough environmental review and mitigation of GHG emissions at the individual project level.

If you have questions or wish to discuss any of the above, please do not hesitate to call me.

Sincerely,

/S/

SUSAN S. FIERING
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

cc: Robert Mansfield, Planner

EXHIBIT A



1515 CLAY STREET, 20TH FLOOR
P.O. BOX 70550
OAKLAND, CA 94612-0550

Public: (510) 622-2100
Telephone: (510) 622-2142
Facsimile: (510) 622-2270
E-Mail: Susan.Fiering@doj.ca.gov

February 8, 2008

By Facsimile and Overnight
Robert Mansfield, Planner
County of Madera - Planning Department
2037 W. Cleveland Ave.
Madera, CA 93637

RE: Madera County Dairy Standards Project, Draft EIR
SCH No. 2006081050

Dear Mr. Mansfield:

The Attorney General submits these comments pursuant to the California Environmental Quality Act ("CEQA") on the Draft Environmental Impact Report ("DEIR") for the Madera County Dairy Standards Project ("Project").¹ The Project anticipates that the number of cows in Madera County will increase from about 160,400 cows in 2006 to 437,000 cows by 2030, and Madera County will go from being the smallest dairy county in the San Joaquin Valley Air Basin, to being the third largest, with the largest percent increase of any of the counties. Methane emissions in Madera County from the Project are projected to equal 51,533 tons per year by 2030 or an increase of 32,968 tons per year. The emissions are the equivalent of an increase of 692,328 tons per year of carbon dioxide (CO₂). The DEIR concludes that the impacts from the increased greenhouse gas (GHG) emissions from the Project will be "significant and unavoidable." As the DEIR itself acknowledges, the Project conflicts with the goal of California's Global Warming Solutions Act, Assembly Bill 32 ("AB 32") of reducing up to 174 million metric tons of CO₂ equivalents per year.

Because the DEIR is intended to be a program EIR, streamlining applications for individual projects and narrowing the scope of future environmental review, it is critical that the County, in the DEIR, adequately consider the effects of GHG emissions from the Project,

¹The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Govt. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners*, 11 Cal.3d 1, 14-15 (1974).) These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

analyze in detail potential mitigation measures, and require all feasible measures that would substantially lessen or avoid the Project's GHG-related impacts. As discussed below, the DEIR, as currently drafted, fails to do this. Further, the DEIR fails to consider feasible alternatives to the Project that would reduce impacts. Because of these fundamental defects, the DEIR does not comply with CEQA.

Summary of Relevant CEQA Legal Requirements:

Program EIRs: The CEQA Guidelines define a program EIR as one which is prepared on a series of actions that "can be characterized as one large project" and are related geographically, as part of a continuing program, or having similar environmental effects which can be similarly mitigated. (Cal. Code Regs., tit. 14 ("14 CCR"), § 15168, subd. (a).) The program EIR is intended to "(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) Avoid duplicative reconsideration of basic policy considerations, [and] (4) Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts. . . ." (*Id.* at subd. (b).)

In order to be useful in reviewing future projects, the program EIR must be sufficiently specific and detailed:

A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

(*Id.* at subd. (c)(5).) A program EIR that has not adequately dealt with a given impact at the programmatic level is, however, of limited utility in streamlining future individual projects.

Alternatives: The EIR must discuss a "range of reasonable alternatives to the project. . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The lead agency must disclose its reasoning for selecting a range of alternatives. (14 CCR § 15126.6, subd. (a).) The EIR must discuss the rationale for selecting certain alternatives, and must identify alternatives that were considered but rejected as infeasible and explain the reasons for the determination. (*Id.* at subd. (d).) Finally, the lead agency must consider alternatives that could eliminate significant effects or reduce them to a less than significant level, even alternatives that could impede the attainment of the project's objectives to some degree. (*Id.* at subd. (b).)

Comments on the DEIR:

The County Should Quantify All GHG Emissions and Adopt Enforceable Mitigation Measures to Reduce GHG Emissions from All Sources:

There is a growing recognition – in the science and in laws such as AB 32 – that profound measures are required to reduce our GHG emissions. AB 32 and Executive Order # S-3-05 set aggressive State emissions reductions targets: we must reach 1990 levels by 2020, and 80 percent below 1990 levels by 2050, even as California continues to grow. The recent Bali accord suggests that even more aggressive reductions, cutting GHG emissions from 25 to 40 percent below 1990 levels by 2020, may be required to avoid the most catastrophic impacts of climate change.

CO₂ and methane are the two most significant GHGs that result from dairy operations. CO₂ is generated by combustion and is produced by equipment and vehicles used at the dairies. Methane, which is 21 times more potent than CO₂, is generated by ruminant livestock and by manure decomposition. Methane accounts for approximately 5.7 percent of all GHG emissions in California, and half of the State's methane emissions comes from livestock and manure. Livestock and their manure emit GHGs equivalent to 13.2 million tons of carbon dioxide each year in California.²

Methane emissions in Madera County from the Project will increase by 32,968 tons per year by 2030, approximately a 0.12 percent increase in methane emissions from the United States,³ and the equivalent of an increase of approximately 692,328 tons of CO₂ equivalent emissions per year. (DEIR at p. 3.3-27.) According to the EPA, average annual yearly emission of CO₂ from one car is 5.5 tons.⁴ Thus, an increase in 692,328 tons of CO₂ equivalents is approximately equal to an additional 126,000 cars on the road. The Project therefore conflicts with the AB 32 goal of reducing GHG emissions. (DEIR at p. 3.3-27.) As the DEIR finds, such a substantial increase of GHG emission must be considered significant.

The Project will also result in other direct and indirect GHG emissions from the operation of the dairies, such as CO₂ emissions from equipment and vehicle operations and energy use. While the DEIR quantifies impacts from methane emissions (3.3-26 to 3.3-27), it does not

² California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, December 2006, Table 6.

³Based on U.S. Department of Energy figures, the U.S. emitted 26.6 million metric tons of methane in 2005. (DEIR at p. 3.3-27.)

⁴ U.S. Environmental Protection Agency, *Emission Facts*, EPA420-F-05-004, February 2005, at p.2, available at <http://www.epa.gov/otaq/climate/420f05004.pdf>.

quantify these other GHG emissions or analyze their impacts.⁵ It must do so.

One of CEQA's primary purposes is "to require public agencies to adopt feasible mitigation measures to lessen the environmental impacts of the projects they approve."⁶ Under CEQA "feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, social and technological factors." (Pub. Res. Code § 21061.1.) Based on the projected methane emissions from the Project, the County correctly determined in the DEIR that the global warming-related impacts of the Project are cumulatively significant. This triggers the obligation to require feasible mitigation.⁷ Further, the County must ensure that "measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, and other measures."⁸

The DEIR, however, fails in any meaningful way to discuss mitigation measures for the GHG emissions, instead incorporating by reference the Dairy Element. (DEIR at p. 3.3-27.)⁹ There is no analysis in the Dairy Element, however, that remedies the deficiencies in the DEIR. Nothing in the Dairy Element speaks directly to global warming. While the Dairy Element mentions some mitigation measures to reduce Reactive Organic Compounds (ROGs), of which methane is one example (Exhibit B to DEIR at p. 3-10), it does nothing to quantify the efficacy of those mitigation measures in terms of GHG reduction, and does not discuss or analyze other of the most significant mitigation measures. Further, it does not address any measures to reduce CO₂ emissions from the operation of the dairies themselves. Finally, the Dairy Standards component of the Project,¹⁰ which is intended to provide a set of regulatory standards and procedures the project proponents must implement to mitigate impacts from the Project (DEIR

⁵The Dairy Element mentions CO₂ emissions in the context of construction activities (DEIR at Exh. B, pp. 2-4), but does not address the CO₂ emissions from the dairy operations themselves.

⁶*Woodward Park Homeowners Ass'n, Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, 690. See also 14 CCR § 15021, subd. (a).

⁷Pub. Res. Code § 21002.1, subd. (b); 14 CCR § 15130, subd. (b)(5); *City of Marine Board of Trustees* (2006) 39 Cal.4th 341, 360.

⁸Pub. Res. Code, § 21081.6; *Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.

⁹The Dairy Element is intended to identify the goals, policies, and implementation programs related to the dairies. (DEIR, Exh. B at p. B-1.)

¹⁰ According to the DEIR, the Project consists of the Dairy Element and Dairy Standards components. (DEIR at ES-3-6.)

App. D at 1-1), does not address GHG emissions at all.¹¹

In order to be adequate as a program EIR, the final environmental document must discuss in detail and evaluate all GHG emissions from the Project and require all feasible mitigation measures to reduce those emissions. There clearly are specific mitigation measures that the County can consider. Just as one example, methane digesters can reduce methane emissions and produce electricity. Methane digesters process animal waste under anaerobic conditions, yielding methane gas that is collected on site. The collected methane can be sold directly to utilities or used to generate electricity that can be used on the farm or sold to the utilities, bringing in revenue to the dairy. Methane digesters are increasingly being used on dairies in California. The California Energy Commission has provided grants to 14 dairies to generate electricity from animal waste, and these dairies are producing 3.5 megawatts of power.¹² Also, the California Public Utility Commission has approved a contract between Pacific Gas & Electric Company and a company called BioEnergy Solutions in Bakersfield to produce 8,000 million British thermal units (Btu) of methane from dairy farms in central California.¹³ The AgSTAR program, a joint project of the U.S. Environmental Protection Agency, Department of Agriculture, and Department of Energy,¹⁴ provides resources about farm methane digesters, including technical advice, financial assistance information, and a free software program to help farmers determine the feasibility of recovering methane from their operations. Finally, consistent with this trend, Fresno County has recently issued permits to two dairies to use methane digesters.¹⁵ Technology is therefore available and increasingly being employed to turn a harmful emission into useful energy output. The DEIR must therefore examine the feasibility of methane digesters and other similar technology to mitigate methane releases from the new dairy.

Other feasible mitigation measures that may be considered and required include conservation practices and revised operational procedures to minimize the use of fossil-fuel vehicles and conserve water and energy. For example, the EIR should consider and impose more

¹¹The Standards for Air Quality Protection Measures (section 2.7) state only that the “County shall coordinate with the SJVAPCD and other local and regional agencies to develop air emissions control guidelines for agricultural uses, including dairy operations” (DEIR, Exh. D at 2-20), and that the County shall require each application to submit a Draft Conservation Management Practices in compliance with SJVAPCD Rule 4550 to address measures to reduce fugitive dust from the dairy.

¹²California Energy Commission, *Dairy Power Production Program, Dairy Methane Digester System 90-Day Evaluation Report, Eden-Vale Dairy*, December 2006 at p. 4.

¹³ http://cpuc.ca.gov/Final_resolution/68429.htm

¹⁴ <http://www.epa.gov/agstar/resources.html>

¹⁵ Fresno County Notices of Intention to Adopt a Mitigated Negative Declaration (Unclassified Conditional Use Permits 3215-3218)

innovative mitigation measures that would be reasonable and feasible for this Project. These include “cool” roofing materials with high reflectivity and emittance, which would reduce ambient temperatures and the need to cool animals through other energy-intensive means;¹⁶ solar hot water systems for heated water used in cleaning; and solar panels or wind turbines or other alternative energy sources for electricity generation.

Finally, to the extent that GHG emissions from the Project are not fully mitigated by such measures, the EIR should examine other options for reducing the global warming impact of the Project, such as the purchase of GHG offsets or payment into a mitigation fund. Dairies could, for example, fund off-site projects (*e.g.*, alternative energy projects) that will reduce GHG emissions, or could purchase “credits” from another entity that will fund such projects. The County should ensure that any mitigation taking the form of GHG offsets is specifically identified by project proponents and that such mitigation will in fact occur.

Because of the insufficiency of the discussion of GHG emissions and mitigation measures in the DEIR, future dairy project proponents will be unable to rely in any way on the Program EIR to address the GHG emissions from the individual projects. A sufficient program EIR that addresses and quantifies all of the GHG emissions, discusses their cumulative impacts, analyzes the effects of all feasible mitigations, and imposes those mitigations on the dairies, could streamline review of these issues in the individual project applications. The existing inadequate DEIR does not, however, serve this purpose.

The County Should Consider Additional Feasible Alternatives to the Project:

The DEIR is inadequate in its discussion of alternatives to the Project as well. The DEIR considers only two alternatives: the no-project alternative, which permits dairy growth to continue based on the County’s existing general plan (DEIR at pp. 4-8 - 4-9), and the reduced herd size alternative, which is ten percent below the current Dairy Herd Capacity (“DHC”) estimate, or 393,300 animal units, an expansion of 235,900 animals units from the current levels. (DEIR at p. 4-12.) Both alternatives result in significant impacts to air quality based on particulate emissions and ozone precursors, and GHG emissions.

As the DEIR itself notes, section 15126.6(b) of the CEQA Guidelines requires that the lead agency consider alternatives that could eliminate significant effects or reduce them to a less than significant level, including alternatives that could impede the attainment of the project’s objectives to some degree. (DEIR at p. 4-1.) The Project’s objectives include guiding the future growth of the dairy industry while protecting the environment, avoiding an over-concentration of dairies in Madera County, protecting established dairies, and streamlining the permitting of new dairies. (DEIR at p. 4-3.) A smaller DHC capacity, beyond the ten percent reduction considered in alternative 2, is consistent with these objectives. Thus, the DEIR should consider as Project alternatives more significant reductions in DHC size, and should evaluate the environmental

¹⁶See U.S. EPA’s Cool Roofs website at <http://www.epa.gov/hiri/strategies/coolroofs.html>; see also Lawrence Berkeley National Laboratory, Urban Heat Island Group, Cool Roofing Database at <http://eetd.lbl.gov/CoolRoofs>.

February 8, 2008

Page 7

impacts from such reduced DHC alternatives.

Through this Project and the program EIR accompanying it, Madera County has the opportunity to become a leader in reducing the global warming impact of livestock. We encourage the County to begin now, consistent with its obligations under CEQA, to evaluate the extent of the GHG emissions from the Project and to mitigate them to the fullest extent feasible.

We appreciate the opportunity to comment on the document and would be happy to meet with County staff to discuss these comments.

Sincerely,

/S/

SUSAN S. FIERING
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

EXHIBIT B

Letter A3. California Department of Justice

Response to Comment A3-1:

Commenter references several conclusions of the Draft EIR, including those impacts from increased methane emissions, due to an increased number of dairy farms, will be “significant and unavoidable.” Commenter notes that the Draft EIR acknowledges that this area of the Proposed Project conflicts with the goal of the California’s Global Warming Solutions Act, Assembly Bill 32 (AB 32), which aims to reduce greenhouse gas emissions (GHG emissions). Comment noted.

Response to Comment A3-2:

Commenter suggests that the County, in the Draft EIR, consider the effects of the Project’s GHG emissions and require all feasible measures to be taken in order to substantially lessen GHG-related impacts. Commenter states that “the Draft EIR does not comply with CEQA” because it fails to mention alternatives to the Project that would lessen GHG-related impacts.

As described on page 3.3-26 of the Draft EIR, the County did consider the effects of GHG emissions and identifies that methane emissions would be the primary GHG associated with the Proposed Project. In addition to providing an estimate of GHG emissions (resulting from the herd size), the Draft EIR also identifies the primary source of methane which involves the digestion of cellulose by bacteria in cattle stomachs as well as the decomposition of animal manure from dairy operations. Impact 3.3-6 (page 3.3-26 of the Draft EIR) states that even with implementation of various policies provided in the Dairy Element (specifically Policy DDS-2.5 “ROG Reduction Measures” and Policy DDS-2.6 “NOx Reduction Measures”), manure-related ROG emissions and methane resulting from the Proposed Project (Maximum Dairy Herd Size) would not be reduced to less than significant levels.

Although Impact 3.3-6 could not be reduced to a less than significant level, the commenter is incorrect in their statement that the County failed to analyze (in detail) potential mitigation measures to reduce the severity of this impact. Dairy Element policies (see Policy DDS-2.5 “ROG Reduction Measures” and Policy DDS-2.6 “NOx Reduction Measures”) designed to reduce manure-related ROG emissions and methane include a full range of feasible specific ROG reduction measures (including compliance with the San Joaquin Valley Air Pollution Control Districts’ Rule 4570 – Confined Animal Facilities) that would be implemented by dairy operators during the development of future dairy projects resulting from the Proposed Project. Both policies have been developed using air quality guidance from the San Joaquin Valley Air Pollution Control District (SJVAPCD) and are provided below (as identified in the Dairy Element – Appendix B of the Draft EIR) to highlight the County’s commitment to the reduction of GHG emissions:

Policy DDS-2.5 ROG Reduction Measures. The County shall ensure that dairy operators implement the following ROG reduction measures as part of all dairy operations:

The Proposed Project shall comply with SJVAPCD Rule 4570 (Confined Animal Facilities), which provides dairies with several options for reducing ROG, including:

- feed manipulation,
- improvement of manure and manure-water collection and treatment,
- capture and treatment of effluent gases using high-technology treatment systems , and,
- enhanced dispersion of manure and manure wastewater.

All animals shall be fed in accord with the National Research Council (NRC) guidelines (NRC, 2001), utilizing routine dairy nutritionist analyses of rations and maintaining feed analyses onsite for regulatory agency monitoring.

Feed lanes shall be cleared daily.

Silage piles shall be covered with tarps.

Proposed Project dairy facilities design and construction shall include concrete-base freestalls and walk lanes, as well as water drainage to separator facilities.

Manure water shall be either injected subsurface or placed on the surface in thin layers, blending such manure water with irrigation water at a ratio in compliance with the nutrient management plan that shall be required for each dairy.

Design and construction of the Proposed Project's lagoons shall comply with the specifications set forth in National Conservation Practice Standard 359 (Natural Resources Conservation Service, 2003).

Policy DDS-2.6 NO_x Reduction Measures. The County shall ensure that dairy operators implement control measures contained in the SJVAPCD GAMAQI during dairy operations to mitigate exhaust emissions from agricultural equipment and on-road vehicles. These measures may include:

- Use of alternative fueled or catalyst equipped diesel equipment, where feasible.
- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).
- Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.
- The idling time of all heavy-duty equipment used at the site shall not exceed 10 minutes.
- Employees shall be encouraged to carpool to and from the Proposed Project site.

In addition to these policies, the County is also proposing to include the following additional policies in the Dairy Element to address Climate Change and GHG emission issues:

- **Policy DDS-2.8 Methane Digesters.** The County shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants to help fund the construction of these digesters for individual dairies.
- **Policy DDS-2.9 Energy Conservation Measures.** The County shall review the design of individual dairy proposals and shall encourage the installation and implementation of all feasible energy reduction or alternative energy measures, which may include:
 - “Cool” roofing materials for all animal facilities;
 - Solar hot water systems;
 - Solar panels or wind turbines for electricity generation.

Although these policies would further reduce direct (methane) and indirect (electricity generation/power plant) GHG emissions, dairy development would still result in a significant and unavoidable impact at the broader programmatic level.

Regarding the commenter’s statement that the Draft EIR fails to mention alternatives to the Proposed Project, this is also incorrect. The Draft EIR considers a reasonable range of potentially feasible alternatives, as required by CEQA Guidelines Section 15126.6. CEQA does not require an EIR to consider every conceivable alternative that could be devised for the Study Area. The range of alternatives discussed is therefore governed by the “rule of reason” (CEQA Guidelines §15126.6(f)). The “rule of reason” requires that the alternatives chosen for evaluation could attain most of the project objectives, while avoiding or substantially lessening any of the significant impacts of the project. Because air quality (including GHG emissions) emissions from cattle contribute to one of the primary significant impacts of the project, measures that focused on a reduced herd size were considered in developing the range of alternatives to be address in the Draft EIR. Unfortunately, the estimated dairy herd size that is anticipated to fall below the air quality (ROG) threshold (resulting in a less than significant impact) is considered very low and estimated at 800 milk cows (with support stock – dry cows, heifers, or calves) or 1,000 milk cows (without support stock), which is far below the total future herd capacity (436,923 cows) identified for the Proposed Project (Shiraz Gill, personal communication).

As more fully described in Chapter 4.0 “Alternatives to the Proposed Project”, the Draft EIR provides an analysis of “Alternative 2: Ten Percent Reduced, County Herd Size Alternative”. Implementation of this alternative would result in reduced emissions of fugitive dust, methane, ROG, ammonia, hydrogen sulfide, and odors. However, dairy development proposed under Alternative 2 would also result in a significant and unavoidable impact. It may be possible to consider additional reduced dairy herd size alternatives; however, as indicated above, the overall herd size would need to be very small to eliminate any potential for a significant air quality (including ROG, GHG, etc.) impact. Consideration of such an alternative would meet none of the project objectives (managing the County’s dairy industry) and is considered infeasible.

The commenter is correct in stating that the Draft EIR is considered a program-level EIR. Consistent with the CEQA requirements for a program-level EIR (see Master Response #1), this EIR represents a first tier analysis that assesses and documents the broad environmental impacts of a program (Dairy Standards/Maximum Dairy Herd Size) with the understanding that a more detailed site-specific environmental review may be required to assess future projects, which may also require more specific mitigation measures to address identified air quality and climate change-related impacts.

Response to Comment A3-3:

Commenter cites an excerpt from the definition of a Program EIR as outlined under CEQA. Comment noted. No further response required.

Response to Comment A3-4:

Commenter describes the objectives of a Program EIR as defined by CEQA and addresses the need for specific details and a comprehensive scope of Project activities so that it may be used for its adequate documentation of environmental impacts in future projects. Please see Master Response #1, which highlights the County's understanding of the use of a program-level EIR.

The purpose of the Proposed Project (Dairy Element/Standards) is to incorporate or integrate key regulatory information required by the CVRWQCB and the SJVAPCD into the County's dairy permitting process to help streamline the dairy review process (to the extent feasible). It is not the County's intent to bypass the need for environmental and regulatory compliance of future dairy projects in the Study Area.

Response to Comment A3-5:

Commenter cites a passage that explains the qualifications for listing feasible alternatives to projects so that they may be compliant under CEQA. Please refer to the responses prepared for Comment A3-2. The Draft EIR considers a reasonable range of potentially feasible alternatives, as required by CEQA Guidelines Section 15126.6. CEQA does not require an EIR to consider every conceivable alternative that could be devised for the Study Area. The range of alternatives discussed is therefore governed by the "rule of reason" (CEQA Guidelines §15126.6(f)). The "rule of reason" requires that the alternatives chosen for evaluation could attain most of the project objectives, while avoiding or substantially lessening any of the significant impacts of the project. Because air quality (including GHG emissions) emissions from cattle contribute to one of the primary significant impacts of the project, measures that focused on a reduced herd size were considered in developing the range of alternatives to be address in the Draft EIR. Unfortunately, the estimated dairy herd size that is anticipated to fall below the air quality (ROG) threshold (resulting in a less than significant impact) is considered very low and estimated at 800 milk cows (with support stock – dry cows, heifers, or calves) or 1,000 milk cows (without support stock), which is far below the total future herd capacity (436,923 cows) identified for the Proposed Project (Shiraz Gill, personal communication).

As more fully described in Chapter 4.0 "Alternatives to the Proposed Project", the Draft EIR provides an analysis of "Alternative 2: Ten Percent Reduced, County Herd Size Alternative".

Implementation of this alternative would result in reduced emissions of fugitive dust, methane, ROG, ammonia, hydrogen sulfide, and odors. However, dairy development proposed under Alternative 2 would also result in a significant and unavoidable impact. It may be possible to consider additional reduced dairy herd size alternatives; however, as indicated above, the overall herd size would need to be very small. Consideration of such an alternative would meet none of the project objectives (managing the County's dairy industry) and is considered infeasible.

Response to Comment A3-6:

Commenter emphasizes the goals of AB 32 and suggests that the County “quantify all GHG emissions and adopt enforceable mitigation measures [in order] to reduce GHG emissions from all sources.” The Draft EIR addresses this concern in “Section 3.3 Air Quality, 3.3.4 Impacts and Mitigation Measures, Impact 3.3-6,” and in response, the Draft EIR states that the emission level at which project generated methane would result in or contribute to a significant impact has not been defined. The Draft EIR acknowledges that the Proposed Project conflicts with the goals of AB 32 and therefore, as a conservative determination, this impact would remain significant. Implementation of the Proposed Project including the adoption of air pollutant reduction policies listed in “Appendix B: The Dairy Element, Chapter 3 Goals, Policies, and Programs” would still result in a significant impact.

Response to Comment A3-7:

Commenter provides statistics on the amounts of carbon dioxide and methane emissions that are produced by livestock and manure in California each year. Comment noted. As indicated on page 3.3-19 of the Draft EIR, emission factors (developed in consultation with the SJVAPCD) used in developing the existing and future emission rates for the Proposed Project are provided in Table 3.3-6. Table 3.3-7 (page 3.3-20 of the Draft EIR) provides a summary of the emission rates for both livestock and dairy operations (including vehicle trips) associated with the Proposed Project.

Response to Comment A3-8:

Commenter references information from the Draft EIR that estimates the amount of GHG emissions that the Proposed Project would produce. Commenter notes that the Draft EIR states that the Proposed Project conflicts with the goal of the AB 32 to reduce GHG emissions. Comment noted. The Commenter agrees with the conclusion of the Draft EIR that the overall increase in GHG emissions resulting from the Proposed Project are considered significant.

Response to Comment A3-9:

Commenter requests that the Draft EIR quantify the amount of carbon dioxide emissions from equipment and vehicle operations as well as energy use. Section 3.3 “Air Quality”, “3.3.4 Impacts and Mitigation Measures, Methodology, Operational Impacts” the Draft EIR provides a table (see Table 3.3-6) of estimated air quality impacts of the Proposed Project that were evaluated by the type of operation activity and by the type of air pollutant.

Due to the lack of GHG thresholds of significance, as well as the present inability to know (without speculation) the potential location or size of all future new dairies or dairy expansions

(and associated electricity usage, truck, and equipment requirements) that could occur as part of the Proposed Project, future Study Area-wide GHG emissions and impacts associated with dairy development have been estimated at a broad scale (similar to those estimated for a city or county general plan update) consistent with the requirements for a program-level EIR. As a program-level EIR (please see Master Response #1), this document serves as a first-tier document that assesses and documents the broad environmental impacts of a program with the understanding that a more detailed site-specific environmental review may be required to assess future projects implemented under the program. As individual projects with specific site plans and facilities are planned, the County will evaluate each project to determine the extent to which this EIR covers the potential impacts of the project and to what extent additional environmental analysis may be required for each specific future project. (See Public Resources Code, Sections 21083.3, 21093, 21094; CEQA Guidelines, Sections 15152, 15168, 15183)

Response to Comment A3-10:

Commenter references CEQA's definition of "feasible" mitigation measures for offsetting GHG emissions and recommends that the Draft EIR include feasible mitigation measures. Commenter requests that the County oversee the enforcement of these mitigation measures in order to prevent significant environmental impacts. Implementation of Dairy Element policies (see Policy DDS-2.5 "ROG Reduction Measures" and Policy DDS-2.6 "NOx Reduction Measures") have been developed to reduce manure-related ROG emissions and methane by including a full range of feasible specific ROG reduction measures (including compliance with the San Joaquin Valley Air Pollution Control Districts' Rule 4570 – Confined Animal Facilities) that would be implemented by dairy operators during the development of future dairy projects resulting from the Proposed Project. Both policies have been developed using air quality guidance from the San Joaquin Valley Air Pollution Control District (SJVAPCD). Please also see the response prepared for Comment A3-2.

Implementation of Policy "DDS-2.5 ROG Reduction Measures," included as part of the Dairy Element, requires the County to ensure that dairy operators implement a variety of ROG reduction measures that would reduce manure-related ROG emissions and would also reduce emissions of methane. However, even with implementation of these policies, this impact is still considered significant and unavoidable at the program-level.

In consideration of these comments, the County is proposing to include the following additional policies in the Dairy Element to address Climate Change and GHG emission issues:

- **Policy DDS-2.8 Methane Digesters.** The County shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants for these digesters to make available for individual dairies.
- **Policy DDS-2.9 Energy Conservation Measures.** The County shall review the design of individual dairy proposals and shall encourage the installation and implementation of all feasible energy reduction or alternative energy measures, which may include:
 - "Cool" roofing materials for all animal facilities;

- o Solar hot water systems;
- o Solar panels or wind turbines for electricity generation.

Although these policies would further reduce direct (methane) and indirect (electricity generation/power plant) GHG emissions, dairy development would still result in a significant and unavoidable impact.

Response to Comment A3-11:

Commenter states that the Dairy Element fails to address: global warming, measures to reduce carbon dioxide emissions from the operation of individual dairies, and mitigation measures that would reduce the Proposed Project's contribution to GHG emissions. Commenter states that the Dairy Standards component is intended to provide a set of regulatory standards and procedures in order to mitigate the Proposed Project's impacts; however, it "does not address GHG emissions at all." The County does not agree, as evidenced by the responses to Comments A3-9 and A3-10.

Response to Comment A3-12:

Commenter states that the Final EIR must "discuss in detail and evaluate all GHG emissions from the Project and require all feasible mitigation measures to reduce those emissions." Commenter suggests that methane digesters be considered as a feasible mitigation measure for the Project. Commenter mentions the information on methane digesters that is provided by the federal government through the Ag STAR program. Please see the response to Comments A3-9 and A3-10.

Response to Comment A3-13:

Commenter suggests alternative methods for conserving water and energy, which may include: "cool" roofing materials with high reflectivity to reduce the cost of energy-intensive cooling means for livestock shelters, "solar hot water systems for heated water used in cleaning," and solar panels or wind turbines or other alternative energy sources for electricity generation.

Please also see the response to Comments A3-9 and A3-10. As indicated in the response to Comment A3-10, the County is committed to a variety of energy conservation measures and is therefore proposing to include the following additional policy in the Dairy Element:

- **Policy DDS-2.9 Energy Conservation Measures.** The County shall review the design of individual dairy proposals and shall encourage the installation and implementation of all feasible energy reduction or alternative energy measures, which may include:
 - o "Cool" roofing materials for all animal facilities;
 - o Solar hot water systems;
 - o Solar panels or wind turbines for electricity generation.

Response to Comment A3-14:

Commenter suggests that the Draft EIR examine other options for reducing the global warming impact of the Project, which may include purchasing GHG offset credits or making payments into a mitigation fund. Comment noted. Please also see the response to Comments A3-9 and A3-10.

As indicated in the response to Comment A3-10, the County is committed to the reduction of GHG emissions and is therefore proposing to include the following additional policy in the Dairy Element:

- **Policy DDS-2.8 Methane Digesters.** The County shall encourage the use of methane digesters at new or expanding dairies and shall pursue available grants to help fund the construction of these digesters for individual dairies.

Response to Comment A3-15:

Commenter states the need for a complete Draft EIR that addresses the GHG emissions component of the Proposed Project so that it may be used to streamline the review of this issue in individual dairy project applications in the future. The Draft EIR addresses this topic by stating that CO₂ and methane are GHGs that would result from the Proposed Project and the intensity of their presence is influenced by factors such as the operation of farm equipment and the feeding level of livestock, among others (see “Section 3.3 Air Quality, 3.3 Environmental Setting, Pollutants Affecting Air Quality/Health Effects, Non-Criteria Pollutants Generated by Dairies, Climate Change and Greenhouse Gases”). In addition, the Draft EIR includes “Policy DDS-2.5”, which will require the County to ensure that dairy operators implement a variety of ROG reduction measures including those identified as part of the SJVAPCD’s Rule 4570. Please also see Master Response #1 and the responses to Comments A3-9 and A3-10.

Response to Comment A3-16:

Commenter states that “the County consider additional feasible alternatives to the Project” because the current alternatives listed in the Draft EIR fail to alleviate impacts to air quality due to particulate emissions, ozone precursors, and GHG emissions. Please also see the response to Comment A3-2.

As indicated in the response to Comment A3-2, The Draft EIR considers a reasonable range of potentially feasible alternatives, as required by CEQA Guidelines Section 15126.6. CEQA does not require an EIR to consider every conceivable alternative that could be devised for the Study Area. The range of alternatives discussed is therefore governed by the “rule of reason” (CEQA Guidelines §15126.6(f)). The “rule of reason” requires that the alternatives chosen for evaluation could attain most of the project objectives, while avoiding or substantially lessening any of the significant impacts of the project. Because air quality (including GHG emissions) emissions from cattle contribute to one of the primary significant impacts of the project, measures that focused on a reduced herd size were considered in developing the range of alternatives to be address in the Draft EIR. Unfortunately, the estimated dairy herd size that is anticipated to fall below the air quality (ROG) threshold (resulting in a less than significant impact) is considered very low and estimated at 800 milk cows (with support stock – dry cows, heifers, or calves) or 1,000 milk cows

(without support stock), which is far below the total future herd capacity (436,923 cows) identified for the Proposed Project (Shiraz Gill, personal communication).

The intent of the Proposed Project is to provide the County with a framework for future orderly growth and development of its dairy industry and to integrate key regulatory information required by the CVRWQCB and the SJVAPCD into the County's dairy permitting process to help streamline the dairy review process (to the extent feasible). In Chapter 4.0 "Alternatives to the Proposed Project", the Draft EIR provides "Alternative 2: Ten Percent Reduced, County Herd Size Alternative" for reducing GHG-related impacts of the Project. The implementation of Alternative 2 would result in reduced emissions of fugitive dust, methane, ROG, ammonia, hydrogen sulfide, and odors. However, dairy development proposed under Alternative 2 would still result in a significant and unavoidable impact due to the growth of the County's dairy industry. This alternative was developed in an attempt to reduce environmental impacts as well as to meet most of the basic objectives of the Proposed Project. The alternative is a variation of the Proposed Project. Although it may be possible to consider additional reduced dairy herd size alternatives, the overall herd size (as indicated above) would need to be very small. Consideration of such an alternative would meet none of the project objectives (managing the County's dairy industry) and is considered infeasible.

Since the Dairy Element is a broad document with no proposed individual projects, many of the impacts are assumed to be significant and unavoidable because site-specific mitigation measures are unavailable. Instead, the impact analysis in the Draft EIR for the alternatives and the Proposed Project can only provide broad policies and mitigation measures intended to lessen the impacts of the Proposed Project to the extent feasible.

Response to Comment A3-17:

Firstly, commenter references the CEQA Guidelines in stating, "Section 15126.6(b) of the CEQA Guidelines requires that the lead agency consider alternatives that could eliminate significant effects or reduce them to a less than significant level, including alternatives that could impede the attainment of the project's objectives to some degree." Secondly, Commenter suggests that a smaller DHC capacity than that listed in Alternative 2 of the DEIR be considered as a potential Project alternative, but it should be evaluated regarding its environmental impacts at reduced DHC capacities. Please see the response to Comment A3-16.

Response to Comment A3-18:

Commenter requests that the County thoroughly evaluate the Proposed Project so that all GHG emissions from the Project are mitigated "to the fullest extent feasible." Please see Master Response #1 and the responses to Comments A3-9 and A3-10.

Response to Comment A3-19:

Commenter gives thanks for the opportunity to comment on the Draft EIR and is willing to meet with County staff for further discussion of these comments if needed. Comment noted. No further response required.