

LETTER 19 - Carol Collar, University of California Cooperative Extension

Response to Comment 19-1

The comment is noted for the record. The County appreciates the input that the commentor has provided throughout development of the Element and the PEIR.

Response to Comment 19-2

Estimation of emissions to the atmosphere presented in the Draft PEIR were developed on the basis of adapted standard methodologies referenced by the San Joaquin Valley Unified Air Pollution Control Board. For many of the wide range of activities that could occur during implementation of the proposed Element, standard methodologies have been developed by U.S. EPA, CARB, SJVUAPCD, and other regulatory agencies. Some of these activities include vehicle operation on paved and unpaved roads, operation of heavy equipment during construction, vehicle operation, and cultivation of cropland. These outdoor activities, which occur over relatively wide and variable areas, are typically considered “nonpoint” sources of air emissions; as compared to “point sources,” which are localized activities with distinct emission discharge points. Most standard air emission estimation methodologies are based on emission rates developed by the regulatory agencies and the scientific community. Emission rates for nonpoint sources are usually based on empirical data gathered during long-term environmental monitoring programs. Significant variability in the natural environment, including seasonal and diurnal climate changes, changes in soil conditions, and variable topography, presents a complex set of conditions affecting the emission of air pollutants. In addition, the atmosphere is an environment of turbulent fluid flow and dynamic chemistry that is difficult to sample and characterize. The emission rates are estimates of the rate of discharge of gases, vapors, and particulates into the atmosphere under typical or average conditions. Although the emission rates are inherently uncertain, they are established and used as the best reasonable estimates.

Considerable research has been and continues to be undertaken to develop emission rates. Long-term monitoring is performed under controlled research conditions as well as at uncontrolled sites. In some cases, air quality modeling is used in the development of the emission rate. This research is time-consuming and expensive. In most cases, the emission rates are developed by the U.S. EPA and adopted by CARB and local air districts largely because of the expense and technical expertise required to develop these estimates. Even after emission rates are established, continued research is performed to evaluate the accuracy of these estimates and in consideration of developments in control technologies. It is not uncommon for emissions rates to be revised on the basis of new research.

As discussed in the PEIR, there is current debate on the accuracy and appropriateness of existing rates for particulate matter emissions from cattle feedlots. Difficulties in

establishing accurate emissions rates for that activity are described in detail in the July 2000 “white paper” prepared by the Confined Livestock Air Quality Committee of the USDA Agricultural Air Quality Task Force (ACDF, 2000) and summarized in the Draft PEIR (page 4.2-30). In light of the controversy related to the current emissions rate for particulate matter, the preparers of the PEIR presented a range of potential particulate matter emissions using different emissions factors. In addition, the emissions rates were adjusted to account for local conditions in Kings County and assumptions regarding the differences between beef feedlot conditions and dairy corrals. The County considers that this approach provides the public and the decision makers with a full disclosure of the potential particulate matter emissions from dairy operations.

Response to Comment 19-3

Policy DE 1.2d has been modified to include the following phrase: "..., or the expansion of existing dairies, ...". This will include the expansion of existing dairies in this policy as intended. Other changes to this policy have also been made.

Response to Comment 19-4

Policy DE 2.1f has been modified to include the following phrase: "..., or the expansion of existing dairies, ...". This will include the expansion of existing dairies in this policy as intended. Other changes to this policy have also been made.

Response to Comment 19-5

Policy DE 2.2a describes an informal service the Kings County Planning Agency will provide for existing dairy operations. The information provided to the operator will be based on an evaluation of the site's conformity with the RWQCB's Fact Sheet No. 4. Some of the information required in the components of the Technical Report will be required to complete the evaluation. Principally, the review is concerned with an operations ability to handle manure and process water, and Fact Sheet No. 4 provides the necessary calculations for that. Should any dairy expand its herd beyond the established capacity of the dairy site, that dairy owner or operator, will be required to obtain a conditional use permit from the Planning Commission pursuant to **Policy DE 2.1g**. Additional environmental review will be required. Any dairy that is found to have more cows than the established capacity determined by the Dairy Monitoring Office will be required to either reduce the herd size consistent with the calculated capacity of the dairy site, or make modifications to accommodate the herd. These modifications must be made pursuant to an SPR that is consistent with the Element to bring the dairy up to standard.

Response to Comment 19-6

Goal DE 4 is concerned with environmentally sound dairy design and operation. Based on this comment, and others, references to “comprehensive nutrient management plan” are

changed to “manure nutrient management plan.” The manure nutrient management plan will include several components outlined in **Policy DE 4.1a**. The County recognizes that development of standardized manure management guidelines may be developed by State or Federal agencies and that the standards are likely to be developed over time. However, protection of the environment against overapplication of nutrients contained in manure can only be provided if dairy facilities develop and implement site-specific procedures outlined in **Policies DE 4.1a** through **4.1c** for appropriate storage and application of manure and process water.

Response to Comment 19-7

In response to the comment, **Policy DE 3.2e** has been modified to read as follows:

“**Policy DE 3.2e:** Each dairy shall apply dairy process water to crops at agronomic rates, and ensure even distribution of nutrients over the entire crop area so excessive amounts of nutrients do not cause ‘hot spots,’ where excessive amounts of the nutrients cause crop damage and migrate below the root zone where they cannot be used by the crops.”

This policy will be addressed in the Technical Report as part of the dairy's management program. The specific procedures for meeting the requirements of this policy will depend on site-specific conditions, including the topography and hydrology of the cropland, the type of crops grown, the method of irrigation, and the nutrient content of treated manure and process water.

Response to Comment 19-8

In response to the comment, **Policy DE 4.1a.B.4** has been changed to read:

“4. *Manure Management* – Manure shall be managed to reduce the loss of nutrients to the atmosphere during storage, to make the managed manure a more stable fertilizer when land applied, and to reduce pathogens, vector attraction and odors, in compliance with Policy 5.1c.”

Policy DE 5.1c of the Element requires that new and expanded dairies develop and implement an advanced treatment technology and demonstrate that the system meets the performance standard of a fifty percent reduction in the volatile solids content in treated manure and process water. The policy recognizes anaerobic digestion, aerobic treatment, or combined aerobic and anaerobic treatment as effective and proven technologies for the treatment of organic materials, including animal manure. The effectiveness of these technologies was described on pages 4.2-21 through 4.2-24 of the Draft PEIR. The Draft PEIR (pages 4.2-24 through 4.2-27) also acknowledges that additional research is underway to further evaluate aspects of manure treatment. The potential for these technologies to

reduce significant impacts identified in the PEIR and the fact that these technologies have been used for decades to treat other organic materials promotes inclusion of the policies of the Element that require their implementation.

Response to Comment 19-9

In response to the comment, **Policy DE 4.2b** has been modified to read: "...may be diverted...". **Policy DE 4.1a.B.1** has also been modified to allow, but not require, the diversion of clean water.

Response to Comment 19-10

Policy DE 5.1e has been modified to simply require effective stabilization. Water may be used, but is not required. It is important to note that, if water is used as a dust suppressant, it is not necessary to apply the water at rates that would result in saturation of the soil and potential surface water ponding (i.e., conditions that could promote odors, excess humidity, breeding of flies or other nuisances). Effective suppression would only require moisture content in the soil to be raised to 10 percent or less.

Response to Comment 19-11

All projects, for which an EIR is prepared that includes mitigation measures, must be accompanied by a Monitoring and Reporting Program (CEQA Guidelines Section 15097). This is "...to ensure that the mitigation measures and project revisions identified in the EIR ... are implemented ...". The proposed Dairy Monitoring Office is a subsection of the Code Compliance Section of the Kings County Planning Agency, and it will be directed by the Director of Planning and Building Inspection who is also the zoning administrator and responsible for the Code Compliance section. The Dairy Monitoring Office will carry out the monitoring that is required by CEQA for the dairy program. To do the monitoring, operators of new and expanded dairies must keep a written record of their efforts to implement their activities to operate the dairy within the Dairy Element standards and demonstrate their compliance.

Response to Comment 19-12

The Element establishes the minimum regulations, mitigation requirements, standards, and the like for the Kings County dairy program. Standards of other regulatory agencies must be met based on the regulatory requirements of those agencies, but enforcement and monitoring by other agencies is in addition to this program.

Response to Comment 19-13

The commentor's opinion regarding the appropriateness of the requirement of groundwater monitoring wells at new and expanded dairies is noted for the record. The Element contains several policies specifically directed at the protection of groundwater

quality and analyzed in the Draft PEIR (pages 4.3-23 through 4.3-38). Although implementation of these policies would significantly reduce the potential for infiltration of pollutants into the subsurface, it is appropriate for the County to confirm the success of these measures through periodic long-term groundwater quality monitoring.

The County is committed to ensuring that the goals, objectives, and policies of the Element are successfully implemented. The establishment of the Dairy Monitoring Office is considered essential to ensure that the provisions of the Element, the CEQA monitoring and reporting requirements, are abided by and documented. Dairy Monitoring Office staff will work with those other agencies so that duplication of efforts does not occur. On-site monitoring will be random for compliance with Dairy Element standards, as well as on a complaint basis.

Response to Comment 19-14

The term “legally established” comes from Article 17 of the Kings County Zoning Ordinance that deals with nonconforming uses of land and structures. Specifically Section 1709 A states in part:

“A non conforming use is a use of a structure or land which was lawfully established and maintained prior to the adoption of this ordinance but which, under this ordinance, does not conform with the use regulations for the district in which it is located. This section is intended to limit the number, extent, and duration of non conforming uses and to serve their gradual elimination by prohibiting their enlargement and their re-establishment after abandonment and by prohibiting the alteration of the structure they occupy and their restoration after destruction.” (emphasis added)

All dairies established prior to the changes in the ordinance in 1979, which began the regulation of dairies under the zoning ordinance, were “legally established” but nonconforming. After 1979, any dairy that enlarged (expanded its herd size or enlarged the “footprint” of the dairy facility) was required to first obtain a zoning permit for those changes. Any dairy that has expanded without first obtaining the required zoning permit may have expanded illegally.

Response to Comment 19-15

Goal DE 8 has been deleted, and Section VI has been completely rewritten to simply state that Kings County encourages all dairies in the County to operate in efficient and economically and environmentally sound ways and recommends that all dairies work toward certification under the California Dairy Quality Assurance Program.

Response to Comment 19-16

The stated purpose of the Economic Analysis presented in Section VII (and Appendix F) of the Element is to consider:

"... the economic impact and job creation potential of the dairy industry, including the multiplier effect attributable to the creation of "spin off" industries that will occur as a result of a strong dairy industry."

The analysis was never intended to evaluate the cost to the individual dairy for meeting the standards of the Element. Because of the various ways available to meet each standard it would be speculative to try to determine this cost.

Response to Comment 19-17

The Element and the PEIR address the requirements for changing the Kings County Zoning Ordinance to streamline the processing of applications for new and expanding dairies and comply with the requirement of CEQA to accomplish the program change. Monitoring the effects of the change is required by CEQA. The entire dairy program process hinges around the Technical Report required for every new or expanding dairy. The Technical Report provides the basis for demonstrating that the project is consistent with the policies of the general plan which are the mitigation measures of the PEIR. Once approved the monitoring program is the method for ensuring the policies (mitigation) are being carried out. Where possible, reports from other regulatory agencies, such as the RWQCB, will be used instead of requiring a duplicate report.