

3. PROJECT DESCRIPTION

SECTION 3

PROJECT DESCRIPTION

The proposed project, the **Draft Dairy Element of the Kings County General Plan** (developed by the Kings County Planning Agency), presents a comprehensive set of goals, objectives, and policies to guide development, expansion, and operation of milk cow (bovine) dairies within the County. The Draft Dairy Element and associated applicable zoning ordinance amendments (hereafter collectively referred to as the Element) is designed to accomplish two equally important major purposes. The first purpose is to ensure that the dairy industry of Kings County continues to grow and contribute to the economic health of the County. The second purpose is to ensure that the standards established in the Element protect public health and safety and the environment.

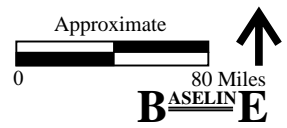
The County has determined that the best way to accomplish these combined goals is to adopt a separate General Plan element that establishes development and operational policies for the local dairy industry. The element and associated zoning ordinance amendments will replace existing regulations pertaining to dairy development presented in the current County General Plan and the Kings County Zoning Ordinance. The purpose of this Program Environmental Impact Report (PEIR) is the evaluation of the potential environmental impacts associated with implementation of the proposed Element.

SETTING

Kings County is located in the southern San Joaquin Valley (Figure 3-1). The County is comprised of 1,391 square miles (890,513 acres) of land, predominantly dedicated to agricultural production. The central and eastern portions of the County occupy the relatively flat valley floor; the southwestern portion is characterized by the low hills and intervening valleys of the Kettleman Hills. The 2000 census identified 129,461 people in all of Kings County. In the cities of Avenal, Corcoran, Hanford, and Lemoore, there were approximately 96,907 people, including the 17,874 inmates at the Avenal and Corcoran State Prisons. Another 14,024 people live in the rural communities of Armona, Home Garden, Kettleman City, Lemoore NAS, Santa Rosa Rancheria, and Stratford. The remaining 18,530 people live in the agricultural areas. Irrigated agricultural crop production is the dominant land use on the valley floor and grazing and dry farming predominate in the southwest portion. Kings County is ranked as the 12th leading agricultural county in California (25th in the nation), and is in the top 15 milk producing counties in the nation. Kings County shares boundaries with the top four agricultural counties in the state, Fresno, Tulare, Monterey, and Kern.

PROJECT LOCATION

Figure 3-1



Source: Kings County Planning Agency, 2000.

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Milk production has become a major agricultural industry in Kings County. According to the 1999 *Kings County Agricultural Commissioner's Annual Report*, dairy production has been the largest cash crop in Kings County in recent years. Milk represents about 31.8 percent of the gross value of agricultural commodities produced in Kings County. In 1999, there were 149 commercial dairies in the County supporting 124,668 milk cows (Appendix A, Table 3).¹ Under current conditions, a large portion of the milk produced within the County is exported to out-of-County processing facilities. However, the recently proposed expansion of the Leprino Foods cheese processing facility in Lemoore will provide additional local marketing options for the County's dairy operators.

As the producer of the leading cash crop, the dairy industry is very important to Kings County's economy. Expansion of the dairy industry within Kings County and the southern San Joaquin Valley is expected. Large dairy operations in southern California, primarily in the Chino Basin, are in the process of relocating their facilities, largely due to land use conflicts with urban uses. Kings County is an attractive option for relocation of these facilities due to the availability of large areas of land in agricultural settings and proximity to the large southern California milk market. Since 1988, an average of four new dairies has been approved by the Kings County Planning Agency on an annual basis. During that period, the yearly average increase in the number of dairy cows has been 4,573 milking cows per year.

Large tracts of agricultural cropland are necessary to implement "rural recycling"² of manure generated at the dairy facilities. Under this dairy management concept, manure and process water generated at the dairies are collected and used as fertilizer and soil amendment for production of feed crops to be used at the dairies. The process water also provides supplemental irrigation supply.

Despite these benefits, the generation and reuse of these materials can result in adverse effects on the environment. Volatile components of manure, including reactive organic gases (precursors to ozone formation), ammonia, methane, and hydrogen sulfide, can be released to the atmosphere. In addition, cattle movement in unpaved corrals generates particulate matter. The San Joaquin Valley Air Basin is currently in non-attainment of Federal and State air quality standards for ozone and PM₁₀ (particulate matter less than 10 microns in diameter). In addition to potential air quality impacts, overuse of nutrients contained in manure can result in migration of nitrate and salts into surface and subsurface

¹ Following completion of the analysis presented in this PEIR, the University of California Cooperative Extension released updated information on dairies in Kings County. In January 2000, the number of dairies was reduced to 147 and the milk cow herd increased to 130,443 cows (Appendix G).

² The reuse of manure generated at a dairy as a fertilizer and soil amendment for crop production and dairy process water as fertilizer and irrigation for crops is commonly referred to as "rural recycling."

waters. In recognition of these important issues, the Element of the *Kings County General Plan* was prepared to establish specific development and operational standards to ensure that the dairy industry can continue to grow while minimizing the potential adverse environmental impacts.

REGULATORY ENVIRONMENT

Water Quality

The design, construction, and operation of bovine dairies are controlled by local, State, and Federal laws and regulations. Confined animal facilities (CAFs), including dairies confining more than 1,000 animal units, must comply with specific provisions of the Federal Clean Water Act, including the requirement that such facilities prepare and implement a Clean Water Action Plan. Such facilities are also required to comply with the State regulations for confined animal facilities, which are codified in Title 27, Division 2, Chapter 7, Subchapter 2, Article 1 (“Confined Animals Facilities”) of the California Code of Regulations commencing with Section 22560. These regulations were promulgated by the State Water Resources Control Board in 1984 and are enforced by the Central Valley Regional Water Quality Control Board (RWQCB). The regulations specify that certain minimum standards shall either be implemented in the Waste Discharge Requirements (WDRs) for a particular CAF or made a condition to the waiver of such requirements. In an effort to address the need to permit numerous dairies throughout the Central Valley, the RWQCB adopted General Waste Discharge Requirements for Milk Cow Dairies (Order No. 96-270), which established the specifications for dairy manure and process water management and an application process for dairy operations intending to comply with the requirements of the Clean Water Act. At its discretion, the RWQCB can issue site-specific WDRs for individual dairy operations.

In addition, runoff water quality is also regulated by the Federal National Pollutant Discharge Elimination System (NPDES) Nonpoint Source Program (established through the Clean Water Act); the NPDES Nonpoint Source Program objective is to control and reduce pollutants to water bodies from nonpoint discharges. The Program is administered in California by the California Regional Water Quality Control Boards. Commercial dairies are required to comply with the State NPDES General Construction Permit for discharges of storm water associated with construction activity and with the General Industrial Permit during operation.

Air Quality

The California Air Resources Board (CARB) is responsible for enforcing the federally-required State Implementation Plan (SIP) in an effort to achieve and maintain the national ambient air quality standards. In addition, CARB has established State Ambient Air Quality Standards (SAAQS) for the criteria pollutants as well as for other pollutants for

which there are no corresponding Federal standards. The SAAQS for the criteria pollutants are equal to or more stringent than the Federal standards. CARB is responsible for assigning air basin attainment and nonattainment designations in California.

Analogous to the Federal Clean Air Act (CAA) and its amendments, the 1988 California Clean Air Act (CCAA) requires areas within the State to be designated as attainment or nonattainment with the SAAQS. The CCAA similarly requires that plans be prepared for nonattainment areas describing strategies to achieve the SAAQS. The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) was formed in 1991 and has jurisdiction over air quality issues in the San Joaquin Valley Air Basin, which includes Kings County. The SJVUAPCD and CARB have joint responsibility for attaining and maintaining the State and Federal ambient air quality standards in the San Joaquin Valley Air Basin. The San Joaquin Valley Air Basin is currently in nonattainment for the Federal and State PM₁₀ standards.

Agricultural and livestock operations are generally exempt from rules and regulations of the SJVUAPCD that pertain to stationary sources of air pollutant emissions. Therefore, dairies are not required to obtain permits for construction or operation. However, the SJVUAPCD enforces prohibitions for fugitive PM₁₀ emissions (Regulation VIII) from outdoor sources, including some aspects of agricultural operations. The SJVUAPCD is in the process of revising Regulation VIII in response to U.S. EPA requirements for approval of the SIP. Draft amendments to Regulation VIII have been developed by the district. The amendments include a new rule (Rule 8081) that addresses PM₁₀ emissions from off-field agricultural sources. Rule 8081 presents Best Available Control Measures (BACM), which would apply to dairy operations.

Dairy Design and Operation

The California Food and Agriculture Code (Sections 33481 through 33486) requires the development and enforcement of sanitary requirements and standards for the construction of dairy facilities. The California Code of Regulations (Title 3, Division 2, Chapter 1, Article 22) sets the required standards for dairy design and construction. The standards present specific design requirements for dairy buildings and corrals. Prior to construction, all dairy facilities are required to submit plans and specifications to the California Department of Food and Agriculture for review and approval. The Food and Agriculture Code also requires inspection of dairy farms by a certified milk inspection service. In Kings County, dairy farms are inspected by the Tulare County Environmental Health Services Division.

PROJECT COMPONENTS

DAIRY SITING

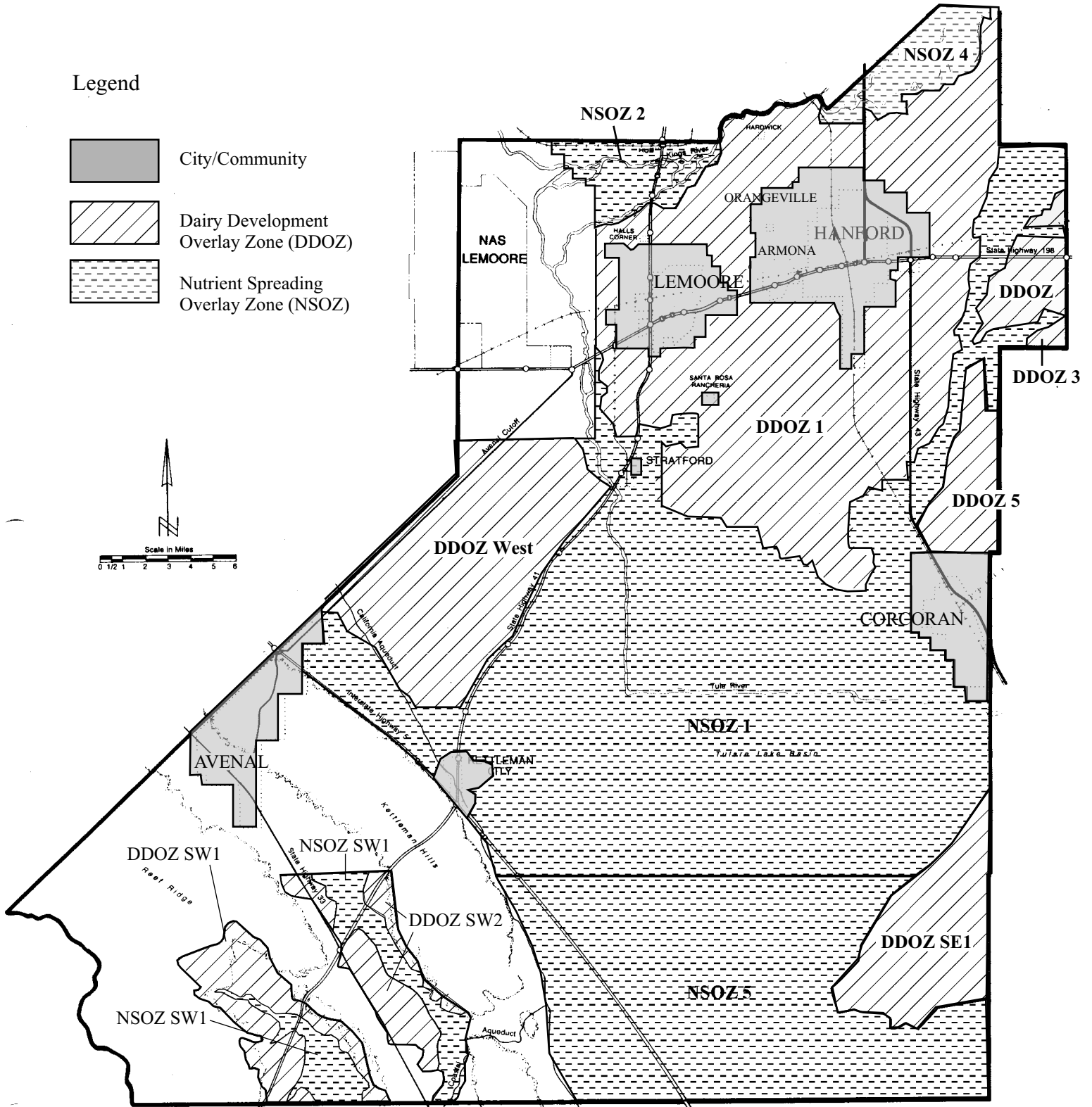
The Element designates areas (Figure 3-2) within the County suitable for the development and expansion of bovine dairy facilities (Dairy Development Overlay Zones, or DDOZs) and areas suitable for application of manure and process water generated at dairy facilities (Nutrient Spreading Overlay Zones, or NSOZs). The locations of the DDOZs are controlled by objectives and policies of the Element, which would restrict dairy development within and proximal to environmental constraints, including incompatible land uses (e.g., urban residential areas, schools, and the Lemoore Naval Air Station), flood zones, designated wildlife habitat, and areas of excessive slope. The DDOZs encompass approximately ~~394~~ 341 square miles (~~251,930~~ 217,657 acres) of land currently zoned for agricultural uses. Construction of dairy facilities and application of manure and process water would be allowed in the DDOZs.

The NSOZs encompass an additional ~~646~~ 642 square miles (~~413,693~~ 411,055 acres) for nutrient application. The combined areas of the DDOZs and NSOZs would total approximately ~~1,040~~ 983 square miles (~~665,623~~ 628,712 acres) for dairy facilities and nutrient spreading. On the basis of the available land within the DDOZs and NSOZs, the Element has estimated a theoretical capacity for the maximum herd size for the County under the provisions of the Element. The limiting factor for the theoretical herd size was assumed to be the rate of nutrient (nitrogen and salts) application recommended by the Central Valley Regional Water Quality Control Board (RWQCB) to be protective of water quality. The maximum theoretical milk cow herd is estimated to be 381,980 milk cows (534,772 animal units,³ AU) and 423,998 head of support stock (335,409 AU), after considering the nutrient loading related to other livestock and biosolids reuse. Accounting for the estimated current dairy herd within the County (124,668 milk cows and approximately 138,344 head of support stock) and other existing sources of manure nutrients, the potential available remaining capacity in the County is approximately 257,312 milk cows and 285,654 head of support stock.

³ An animal unit (AU) is a normalizing standard used to define equivalent numbers of animals managed at confined animal facilities. One animal unit is defined as one 1,000-pound mature dairy cow, specifically one Jersey cow. Support stock (e.g., heifers and calves) are smaller than milk cows and are assigned a fraction of an animal unit, depending on maturity (and weight). A mature Holstein cow is equivalent to 1.4 AU; a mature Guernsey cow is equivalent to 1.2 AU. For purposes of this EIR, all dairy cattle are conservatively considered Holstein cattle.

PROPOSED DAIRY DEVELOPMENT AREAS

Figure 3-2



ENVIRONMENTAL REVIEW

Currently, new and expanding dairies are required by the Kings County Zoning Ordinance to obtain a Conditional Use Permit (CUP). Granting a CUP is a discretionary action that requires project-specific environmental review to comply with the California Environmental Quality Act. Under the proposed Element, new dairies and existing dairy expansions proposed within the DDOZs would be approved following the ministerial site plan review (SPR) process. An SPR is conducted by the administrator in conformance with the requirements of Article 21 of the Zoning Ordinance.

An SPR would be approved only after the application for a proposed (new or expanded) dairy project is found to comply with all of the requirements contained in the goals, policies, and objectives of the Element. Those requirements include specific siting and design criteria, operational standards, and monitoring and reporting guidelines that are proposed as mitigation of potential adverse environmental impacts. Dairy projects that meet all of the requirements of the Element would be considered allowable and conforming land uses within the DDOZs. If the zoning administrator determines that a dairy application does not meet the requirements of the Element, the proposed dairy project would be subject to the CUP process, including additional project-specific environmental review under CEQA. In addition, proposed dairy expansion projects within the limited agricultural (AL-10) zones would also be required to obtain a CUP.

The purpose of this change in the zoning process is to meet one of the primary goals of the Element, streamlining of the dairy project approval process. Approval of SPRs for conforming dairy projects would be ministerial actions taken by the zoning administrator. Under the revised dairy approval process, all dairy applications would be forwarded to responsible agencies to ensure that any required permitting beyond the SPR approval by the County would be considered by State and local regulatory agencies. Additional site-specific environmental review under CEQA for individual conforming dairy projects would not be necessary. The appropriateness of allowing new and expanded dairies to be approved under the SPR process depends on the strength of the environmental controls imposed on all projects under the Element. Review of the adequacy of the goals, objectives, and policies in reducing or eliminating adverse environmental effects of dairy construction and operation is the subject of this PEIR.

DAIRY APPROVALS

New Dairies

Dairy operators seeking to construct a new dairy would be required to file an application, which contains all information required by the goals, objectives, and policies of the adopted Element, with the zoning administrator. The level of permitting for expansion projects would depend on the scale of the proposed expansion and, more specifically, on the

capacity of the land under the control of the dairy operator to effectively reuse manure and process water generated by the proposed dairy herd. The zoning administrator would be responsible for calculating the area of land required to apply manure and process water generated by the management of the proposed dairy herd in a manner that would not result in application of excess nutrients that could be released to the environment. The “calculated capacity” of the proposed dairy site⁴ would be determined by the zoning administrator in accordance with the methodology developed by the Central Valley Regional Water Quality Control Board for appropriate nutrient (nitrogen and salts) loading to reduce the potential for degradation of surface or subsurface water quality. The “calculated capacity” would define the size of the dairy herd that would be allowed at the proposed dairy site.

Existing Dairies

Under the Element, an SPR would be required for the expansion of any existing dairy if the expansion would include construction of new dairy facilities⁵ and/or proposes expansion of the existing dairy site. If the proposed expansion does not include the construction of additional dairy facilities or expansion of the dairy site, the need for SPR approval would depend on the size of the proposed increase in the dairy herd and the amount of land available at the dairy site for application of manure and process water. For dairies that existed prior to January 1, 1979, the zoning administrator would determine the “calculated capacity” for the dairy site (in accordance with RWQCB criteria) on the basis of the amount of land owned or controlled by the dairy operator prior to July 1, 1998. For existing dairies that began operation on or after January 1, 1979, the zoning administrator would set the herd expansion limit at the dairy cattle herd approved for the dairy’s existing zoning permit. If the proposed herd increase for an existing dairy does not exceed the “calculated capacity” or herd expansion limit, an SPR approval would not be required. Expansion of a dairy herd to above the “calculated capacity” for a dairy site would require a Conditional Use Permit.

ELEMENT OVERVIEW

The Element is organized into seven major sections. The initial section of the element describes the purpose and objectives of the element. The specific goals, objectives, and policies developed for control of dairy siting, design, and operation are presented in the

⁴ The Element defines a dairy site as all of the land used for a dairy, including the dairy facility and associated agricultural land.

⁵ The Element defines a dairy facility as that portion of a dairy site that includes corrals, barns, feed storage, milk barn, lagoons, and other manure handling facilities, but not including the associated agricultural land.

subsequent sections. The following description summarizes the organization and content of the Element:

Section I provides an introduction describing the purpose, objectives, and organization of the Element. Section II explains the rationale, assumptions, and methodology for estimating the theoretical capacity for the maximum herd size for the County.

Section III of the Element presents limitations on the siting of dairy facilities, which includes prohibition of dairies within sensitive areas and setbacks from sensitive uses. In addition, Section III establishes the SPR process for new and expanded dairies.

The requirements for the design, construction and operation of new and expanded dairies is presented in Section IV. The policies of Section IV set forth the required technical analysis to be presented in dairy development applications and considered in the application review process. These requirements include submittal of site-specific technical analysis of surface and subsurface water resources, cultural resources, geotechnical conditions, and biological resources. In addition, the policies of Section IV require the development and implementation of operational plans, including plans for ~~comprehensive~~ manure nutrient management, dead animal management, process water ~~disposal~~ management, odor management, and manure treatment, ~~and livestock management.~~

Section V of the Element establishes the Dairy Monitoring Office (DMO) within the Kings County Planning Agency and its responsibilities for implementing the requirements of the Dairy Monitoring Program. Requirements are also set for monitoring of dairy conditions by dairy operators, including reporting of annual inspections and documentation of quality assurance/control for required management plans. The policies of Section V also establish a program to be maintained by the DMO to track and evaluate compliance with the Element. Policies are included that provide funding for the DMO, establish a formal public complaint process, and ensure implementation of water quality monitoring at dairies. Section VI of the Element establishes the County policy to encourage certification of dairies under the California Dairy Quality Assurance Program.

~~Conformance of existing dairies with the goals, objectives, and policies of the Element is addressed in Section VI. The policies establish a Dairy Conformance Program under which legally existing dairies, not subject to existing or proposed permitting requirements, can voluntarily participate in evaluation and certification of conformance. A policy is also included that commits the County to working with the~~

~~Legislature, industry programs, and individual dairy operators to develop programs and funding to assist dairies in meeting current and future operating standards.~~

Section VII presents the results of an analysis of economic impact and job creation potential of the dairy industry. The economic analysis considers the consequences of the development of the maximum theoretical bovine herd established in Section II.

CONTACT PERSONS

The lead agency for the preparation of this PEIR is Kings County, which is also the project applicant. The environmental consultant for this PEIR is BASELINE Environmental Consulting. The key contact persons are as follows:

Lead Agency and Applicant:	Kings County Planning Department Mr. Bill Zumwalt, Director Government Center 1400 W. Lacey Blvd. Hanford, CA 93230 (559) 582-3211, Ext. 2686 or 2675
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COUNTY OBJECTIVES

California Code of Regulations (CCR), Title 14, Chapter 3, Article 9, Section 15124 requires in part, that the project description includes "A statement of the objectives sought by the proposed project." ~~The introduction of the Element presents three stated objectives: The following six stated objectives are presented in the Element:~~

- To evaluate the overall ability/capacity of Kings County to host dairies from the standpoint of the environment;
- To provide standards, including mitigation of impacts and monitoring and reporting of the mitigation measures applicable to the establishment of new and expanded dairies in Kings County;

- To streamline the dairy approval process, facilitating the orderly and efficient expansion of the dairy-based economy of the County;
- To maintain the viability of valued existing dairy operations within the County;
- To ensure that dairies approved in Kings County are competitive in the dairy industry;
- ~~To develop and adopt a voluntary, phased program to encourage existing dairies within Kings County to comply with these dairy standards within 5 years. To support the dairy quality assurance program.~~

The first of these objectives recognizes the importance of the dairy industry to the current and future economy of Kings County and the need to promote controlled growth of the County's most economically productive agricultural industry. The second objective acknowledges that appropriate siting, design, and operational standards are necessary to reduce or eliminate potential environmental impacts associated with dairy development. The fifth objective addresses the importance of improving the operation of existing dairies within a realistic period of time.

REQUIRED ACTIONS FOR APPROVAL OF ELEMENT

Implementation of the proposed Element would result in significant changes in the local regulation of dairies within Kings County. Its implementation would require modification or replacement of existing regulations. The specific required actions and approvals for the proposed project are:

1. Planning Commission - Recommend to the Board of Supervisors that it:
 - Certify the Program Environmental Impact Report and Mitigation Monitoring Program;
 - Approve and adopt the Element of the Kings County General Plan;
 - Amend the Kings County Zoning Ordinance with the changes shown in Appendix E of the Element to implement the policies in the Element.
2. Kings County Board of Supervisors:
 - Certify the Program Environmental Impact Report;
 - Approve and adopt the Element of the Kings County General Plan;

- Amend the Kings County Zoning Ordinance to ensure that dairy development is consistent with State law and implement the policies in the Element.

In addition, there are several other public agencies that could review and comment on various aspects of the proposed project. These include Kings County Health Department, Division of Environmental Health Services; Kings County Agricultural Commissioner; Kings County Public Works Department; California Department of Food and Agriculture; Kings County Mosquito Abatement District; San Joaquin Valley Unified Air Pollution Control District; Kings County/Tulare County Dairy Inspector (Tulare County Health Department); California Department of Water Resources, Division of Safety of Dams; and the California Department of Fish and Game, California Department of Conservation Division of Oil, Gas and Geothermal Resources; and the United States Fish and Wildlife Service.