

SECTION IV

DESIGN CRITERIA STANDARDS FOR INDIVIDUAL DAIRY PROJECTS:

A. Design Capacity Component:

A focus of this *Dairy Element*, and accompanying *Program EIR*, is on the capacity of dairy systems to recycle the by-products, i.e., nutrients, produced from a dairy operation. This concept is not based on a strict animal units (AU) count. Different methods of herd management, dairy process water and manure management, soil types, ground and surface water conditions, crop production management, proximity of receptors, etc., ~~effect~~ affect the ability of a dairy operator to properly use or recycle by-products generated by a dairy operation, and the degree to which those effects may be significant. The by-products generated by a dairy operation must be properly managed to ensure ~~no~~ significant adverse effects will ~~occur~~ be reduced or eliminated. Therefore, the by-products that are generated ~~should be~~ are the controlling factor when considering a new or expanding dairy. A simple head count with assumptions about average by-product production per animal unit does not address the environmental differences from site to site. A simple animal unit calculation does not account for any innovative practices used to reduce the amount of dairy process water and manure that is generated in the first place, or the way in which it is managed. The *Dairy Element* takes the following principles shall be considered into account when evaluating the capacity of a dairy system:

1. Manure contains unused nutrients from feed that needs to be controlled and directed to crops that could benefit from fertilization.
2. ~~At dairies the~~ The reuse of water to flush manure at dairy sites is an efficient and environmentally sound management activity if combined with an effective manure and dairy process water collection and management system and a crop irrigation management program.
3. A total farm nutrient program that balances the utilization of manure nutrients through crops with the manure produced by the cattle is an essential step toward environmental accountability and sustainability.
4. Because of variations in production levels and systems used in feeding cows, each dairy shall develop its own program for nutrient use manure and process water management.
5. Dairy farmers need to monitor their nutrient manure management system even after theoretical nutrient balance is achieved in order to avoid excess nutrient releases to the environment.

A new dairy, or the expansion of an existing dairy, shall be evaluated for how much process water and solid manure (nutrients such as Nitrogen (N), Potassium (K), Phosphorus (P), salt, etc.) ~~a dairy system is designed to~~ it can accommodate without creating a significant adverse environmental effect. For existing dairies, changes that reduce the dairy process water and manure components of the operation may be implemented. Under such circumstances an increase in the herd size within the approved design

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capacity of the dairy process water and manure handling systems of the operation will trigger a new site plan review (SPR) requirement.

Such changes must be documented and submitted ~~to the Zoning Administrator~~ with the SPR application for review ~~and finding of consistency of the dairy operations compliance~~ with the regulations, policies, mitigation requirements, ~~and standards, etc~~ in the *Dairy Element* and Program EIR. This review is necessary in order to retain the credit for the reduced nutrient output. Any increase in herd size using the documented credit shall be processed as a SPR. The SPR process is performed to document that the capacity of the dairy's nutrient balance system is not overloaded by the change. Additional evaluation will be required when an expansion of the design capacity of the system occurs to ensure overloading does not occur.

B. General Restriction for Siting Dairies in Kings County:

When dairies, ~~and other animal concentrations,~~ are not operated properly they can cause adverse impacts related to the environment and surrounding land uses. ~~The following~~ Goals Nos. 3, 4, 5, and 6, and their Objectives, and Policies have been established to minimize ~~the any~~ degradation of the environment due to the establishment and operation of new dairies, and the future expansion of existing dairies. These Goals, Objectives, and Policies apply to the construction and operation of new dairies and the portions of the dairies that are expanded on existing dairies.

GOAL DE 3: Develop a countywide policy for the evaluation and distribution of dairy locations and their operation.

Objective DE 3.1: ~~Consider~~ Apply the mitigation measures in the Program EIR ~~when evaluating proposals for to new or expanded~~ dairies.

Policy DE 3.1a: ~~Consider, at a minimum,~~ With each application for a new or expanded dairy a technical report shall be prepared and shall address the following criteria for both the general dairy siting criteria and site specific dairy projects siting issues:

- A. Ground and surface water quality and quantity,
- B. Soil characteristics,
- C. Air quality, including dust control during construction, and operation, ~~and~~ PM₁₀, odors, ROG, NOx, hydrogen sulfide, ammonia, and methane,
- D. Traffic and road conditions,
- E. Dead animal disposal management,
- F. Insect, i.e., fly, ~~and~~ mosquito ~~control,~~ and rodents control,
- ~~G. Loss of agricultural land,~~
- ~~HG.~~ Light and glare, and noise,
- ~~H.~~ Biological resources,
- ~~J.~~ Cultural and archeological resources,

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- ~~KJ.~~ Slope stability and ~~erodibility~~ potential for erosion,
- ~~LK.~~ Proximity to the nearest residences, and
- ~~M.~~ ~~Other potential health, safety, and/or nuisance problems that may be identified on a case by case basis, and.~~
- L. Irrigation management.

This shall be accomplished by the preparation of the following components of the Technical Report as detailed in Appendix J:

- 1a. Geotechnical Report (Policy DE 2.1f and DE 3.2b),
- 1b. Groundwater Evaluation (Policy DE 3.2a),
- 1c. Soils Evaluation (Policy DE 3.2b),
- 1d. Hydrologic Sensitivity Assessment (HSA) (Policy DE 3.2h),
- 1e. Gas and Oil Well Evaluation (Policy DE 3.5a),
- 2a. Manure Nutrient Management Plan (MNMP) (Objective 4.1, Policy 4.1a, 4.1b, 4.1c, 4.1e, and 4.1f),
- 2b. Comprehensive Dairy Process Water Application Plan (CDPWAP) (Objective DE 4.2, Policy DE 4.2a, 4.2b, 4.2c, and 4.2d),
- 2c. Manure Treatment Management Plan (MTMP) (Policy DE 5.1c, 6.1e, 6.2c, and 6.2d),
- 2d. Odor Management Plan (OMP) (Policy DE 5.1b, 6.1e, and 6.2d),
- 2e. Irrigation Management Program (IMP) (Policy DE 4.1b.C),
- 3. Hazardous Materials Business Plan (HMBP) (Policy DE 4.3a),
- 4. Pest and Vector Management Plan (PVMP) (Policy DE 4.3b),
- 5. Dead Animal Management Plan (DAMP) (Policy DE 4.1d),
- 6. Biological Resources Survey (Policy DE 3.3a),
- 7. Cultural Resources Evaluation by the California Historic Resources Information System (CHRIS) (Policy DE 3.1d and 3.1e),
- 8. Traffic Impact Study (Policy DE 3.1g),
- 9a. Air Quality Assessment (Policy DE 5.1e, 5.1i, and 6.2e),
- 9b. Fugitive Dust Emissions Control Plan (FDECP) (Policy DE 5.1g, 5.1h, and 6.1e), and
- 10. Light and Glare, and Noise Assessment.

Additional details for specific areas are listed below in Policies DE 3.1b through 3.2j.

(Mitigation for Impact 4.1-1, 4.2-3, 4.2-5, 4.2-6, 4.2-7, 4.2-8, 4.2-9, 4.2-13, 4.2-14, 4.2-15, 4.3-5, 4.3-7, 4.3-9, 4.5-1, 4.5-4, 4.6-2, 4.7-5, 4.9-1)

Policy DE 3.1b: When nearby rural residences that are not associated with the dairy are located within one-half (½) mile of a proposed new ~~dairy facility~~ Dairy Facility, the ~~dairy facility~~ Dairy Facility improvements shall be ~~constructed~~ located as far as possible from the those ~~nearby~~ rural residences.

(Mitigation for Impact 4.2-5, 4.6-2, 4.7-5)

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Policy DE 3.1c: When nearby rural residences that are not associated with the dairy are within one-half (½) mile of a proposed expansion of an existing ~~dairy facility~~ Dairy Facility, the ~~barns, corrals, and lagoons and manure storage areas~~ new improvements of the Dairy Facility shall be located so that the existing separation shall not be reduced.

(Mitigation for Impact 4.2-5, 4.6-2, 4.7-5)

Policy DE 3.1d: The *Technical Report* submitted for new or expanded dairies shall include documentation that a review of records of known cultural resources has been completed by the California Historical Resources Information System (CHRIS) and that no significant cultural (historic or archaeological) resources would be disturbed by the proposed dairy development (see Component 7 of Appendix J). In addition, the report shall document that a Sacred Lands File Check has been completed by the Native American Heritage Commission (NAHC). If CHRIS or NAHC indicates that known resources are present or suspected within the construction area of the proposed dairy development, the *Technical Report* shall include an evaluation of the resource by an archaeologist qualified under the Secretary of the Interior's Standards and Guidelines for archaeologists which includes an appropriate mitigation plan that will be implemented by the dairy developer. If the survey identifies any impacts on historical, archaeological or paleontological resources, then the applicant will not be eligible to obtain SPR approval by the Zoning Administrator and will instead complete a conditional use permit application process.

(Mitigation for Impact 4.11-1)

Policy DE 3.1e: If potential historical, archaeological or paleontological resources were are encountered at during construction of any site proposed for dairy development, work in the vicinity of the find shall be suspended or diverted. The applicant shall retain a qualified archaeologist to perform an assessment of the resource. Depending on the nature of any such find, evaluation may include determination of site boundaries and assessment of site integrity and significance. Standards for site evaluation shall comply with appropriate State and Federal requirements (including *California Public Resources Code Section 21083.2(i)*). Evaluation shall include, if necessary, site mapping and/or limited subsurface testing using standard archaeological methods in accordance with *CEQA Guidelines Section 15064.5*.

If, after evaluation, ~~an~~ the qualified archaeological or paleontological resource judges an historical, archeological, or paleontological resource to be of importance, a mitigation plan shall be prepared in accordance with appropriate guidelines and submitted to the Zoning Administrator. Mitigation could include avoidance, site capping, data recovery, or a combination of these or other measures, as determined by the qualified archaeologist or paleontologist. Consultation with representatives of recognized local Native American groups

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shall be reflected in the development of any mitigation plan affecting Native American cultural resources.

(Mitigation for Impact 4.6-2, 4.11-1)

Policy DE 3.1f: All applications for new dairies or expansions of existing dairies shall continue to be submitted to the Kings County Public Works Department and CalTrans for a determination as to whether encroachment permits or other site-specific transportation improvements are required by those agencies.

(Mitigation for Impact 4.9-1)

Policy DE 3.1g: The Technical Report for new and expanded dairies shall include a Traffic Impact Study (see Component 8 of Appendix J) prepared by a qualified traffic engineer in conformance with guidelines provided by the California Department of Transportation, which demonstrates that the project will not result in degradation of the level of service of adjacent roadways to below Level of Service (LOS) D on County roadways and LOS C on State highways. Additionally, the Traffic Impact Study shall demonstrate that the proposed dairy project will not result in significant safety hazards.

Where the Traffic Impact Study determines that the LOS will be degraded to a LOS E or lower on adjacent roadways, a conditional use permit and additional environmental review focused on traffic related environmental issues will be required before any new dairy development or expansion of an existing dairy may occur.

(Mitigation for Impact 4.9-1)

Policy DE 3.1h: The Technical Report for new and expanded dairies shall include a design of the outdoor lighting of the Dairy Facility which ensures that the outdoor lighting is so arranged as to reflect light away from adjoining properties.

(Mitigation for Impact 4.6-21)

Policy DE 3.1i: The Technical Report for new and expanded dairies shall include an assessment of potential noise generated from the Dairy Facility showing that noise levels comply with the standards in the Noise Element of the Kings County General Plan.

(Mitigation for Impact 4.5-1 and 4.5-4)

Objective DE 3.2: Suitability for dairy facilities shall be based upon the ability of the site to adequately manage the dairy process water, manure, and associated nutrients generated by the dairy and other potential impacts. Specific nutrient management practices and other ~~criteria~~ standards shall be used to make such determination.

Policy DE 3.2a: ~~The zoning administrator shall compare the suitability of a proposed new dairy or the expansion of an existing dairy to the various groundwater and~~

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~~surface water conditions in Kings County~~ Technical Report shall address water issues in the Groundwater Evaluation (see Component 1b of Appendix J), the Hydrologic Sensitivity Assessment (see Component 1d of Appendix J), the Manure Nutrient Management Plan (see Component 2a of Appendix J), the Comprehensive Dairy Process Water Application Plan (see Component 2b of Appendix J), and the Irrigation Management Plan (see Component 2e of Appendix J), including:

- A. ~~Depth to first groundwater:~~ There must be Minimum separation from bottom of all lagoons, manure and feed storage areas, and corrals and the groundwater level shall be at least five (5) feet between the highest recorded groundwater level and the lowest point of the dairy facility, e.g., corrals, lagoons, and manure and feed storage areas at all times.
- B. ~~Depth to first useable groundwater for human consumption:~~ What is the source of potable water for the dairy facility Dairy Facility and nearby properties, and what are the safeguards to protect that water source must be identified.
- C. ~~Minimum separation from bottom of (lined and unlined) lagoons and corrals to ensure no contamination will occur to the ground water shall be a minimum of five (5) feet.~~
- C.D. ~~Proximity to watercourses:~~ Identify adjacent watercourses and the improvements to protect those watercourses from discharges from a dairy into watercourses or water bodies.

In the event there is a variance between these standards and the RWQCB requirements, the more restrictive requirement shall prevail, unless RWQCB specifies a lesser standard in a Waste Discharge Requirement (WDR). In the latter case, the RWQCB standard will prevail.

(Mitigation for Impact 4.3-7)

Policy DE 3.2b: ~~The zoning administrator shall compare the suitability of various types of soils in Kings County to the crop requirements of the crops grown using the manure and process water from the dairy facility~~ Geotechnical Report (see Component 1a of Appendix J), Manure Nutrient Management Plan (see Component 2a of Appendix J), and the Irrigation Management Plan (see Component 2e of Appendix J), shall:

- A. ~~The Technical Report shall d~~Demonstrates the soil type's capacity at the dairy site to assimilate the various nutrients in the dairy process water and manure produced on dairies the dairy for crop production.
- B. ~~The Technical Report shall d~~Demonstrate the agronomic rates for crop production needs for the nutrients for the various crops that are grown on cropland irrigated with dairy process water and fertilized with solid manure generated by the dairy, with consideration for the soil types and depth to groundwater.

(Mitigation for Impact 4.3-7)

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Policy DE 3.2c: ~~The m~~Minimum Dairy Facility setbacks from water wells, surface waters, including rivers, creeks, intermittent streams, canals, reservoirs, lakes, ponds, sloughs, stormwater basins, groundwater recharge basins, floodplains, floodways, etc., of any manured area within the dairy facility limits shall be and water bodies shall be required:

A. Manured and feed storage areas on dairy facilities shall be set back at least 150 feet from wells and water bodies, or as required by the RWQCB in Waste Discharge Requirements.

B. Dairy Facilities shall be designed to ensure that no runoff into surface waters, including rivers, creeks, intermittent streams, canals, reservoirs, lakes, ponds, sloughs, stormwater basins, groundwater recharge basins, floodplains, floodways, etc., will occur. This can be done by constructing barriers or grading the facility away from such water bodies.

(Mitigation for Impact 4.3-2, 4.2-8, 4.3-9)

Policy DE 3.2d: Dairy process water shall not be discharged into any surface water, including rivers, creeks, intermittent streams, canals, reservoirs, lakes, ponds, sloughs, stormwater basins, or groundwater recharge basins, floodplains or floodways. Discharge of dairy process water onto land in floodplains or floodways shall not occur during periods of flooding. Manure applied to floodplains or floodways must be worked in to the soil immediately upon application. Additional storage capacity for dairy process water and solid manure shall be designed into the Dairy Facility to ensure there is sufficient capacity in case of flooding.

Flood protection shall also be provided according to California Regional Water Quality Control Board regulations found in Title 27, Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1, Section 22562, Calif. Code of Regulations.

(Mitigation for Impact 4.3-2)

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

Policy DE 3.2f: Each dairy shall Ddesign, implement, and maintain a monitoring and reporting program for each dairy, and other animal concentrations, to ensure that the operation of the facility meets the adopted standards is in conformance with the Mitigation Monitoring Plan (MMP) in the Program EIR, and that significant adverse impacts are avoided. This monitoring program shall include self testing and reporting of specified factors that will indicate whether the operating program

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~~is meeting the adopted standards~~ See Section V (Goal 6) for monitoring and reporting standards.

Policy DE 3.2g: Existing dairy facilities proposing to expand that are preliminarily determined to be located within the 100-year flood hazard zone shall either:

A. Show that the location of the Dairy Facility is outside of the 100-year flood hazard zone; or

~~AB.~~ Be based on detailed site-specific hydraulic analysis conducted by a licensed civil engineer, demonstrating to the Zoning Administrator that the facilities are not located within the 100-year flood hazard zone by securing a letter of map amendment, letter of map revision, or similar instrument from the Federal Emergency Management Agency; or

BC. Provide 100-year flood protection for the dairy facilities by constructing levees berms or other flood control structures. The applicant must acquire all necessary permits and regulatory approvals, or for such structures.

~~C.~~ ~~Show the location of the dairy facility outside of the 100-year flood hazard zone.~~

(Mitigation for Impact 4.3-4, 4.3-9)

Policy DE 3.2h: A Hydrologic Sensitivity Assessment (HSA) (see Component 1d of Appendix J), shall be required as part of the *Technical Report* submitted with all applications for new or expanding dairies. All applicants for new ~~and modified~~ dairies or proposed expansions of existing dairies shall retain a qualified Certified Hydrogeologist or Professional Engineer to conduct a ~~Hydrologic Sensitivity Assessment (the HSA)~~ when either: A1) drinking water wells screened above the E clay are located within one-half ($\frac{1}{2}$) mile of the dairy site, or where the E clay is not present, and therefore does not provide a hydrogeological barrier to pollutant transport, or B2) the site is located within the Kettleman Plains or Sunflower Valley (areas of limited water supply).

A. Nearby wells screened above the E clay (or E clay is not present): The HASSA must consider whether potential pathogen and/or nitrate sources at the dairy could affect the water quality of existing drinking water wells. The HASSA must evaluate whether hydrogeologic setting would offer adequate barriers to pollutant migration to drinking water supplies. The evaluation must be conducted in accordance with the principles contained in the EPA's Ground Water Rule.

B. Dairies Proposed in the Kettleman Plains or Sunflower Valley: Water supply in the Kettleman Plains and Sunflower Valley is limited due to the lack of substantial recharge of the aquifers. Dairies proposed in these areas must complete a HASSA to demonstrate that adequate sustainable water supply would be available for each proposed project. The HASSA must provide a detailed description of the proposed project water demand

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and how that demand would be met without overdrafting groundwater supplies. If the project proposes use of groundwater supplies, the HASSA must quantify the safe yield of the underlying aquifer. Allowable groundwater use must be limited to the quantified safe yield. Any additional water requirements must be met with surface water supplies that the applicant can demonstrate are available and reliable.—~~Any proposed dairies located within the Kettleman Plain or Sunflower Valley would be required to complete both components of the HAS (described above).~~

(Mitigation for Impact 4.10-1)

~~A summary report, including conclusions and recommendations, shall be submitted and approved prior to approving SPRs for proposed dairy projects within these areas.~~

Policy DE 3.2i: All existing domestic and irrigation water supply wells (including those located away from the dairy facilities in the cropland areas) at a proposed new dairy or modified proposed expansion of an existing dairy site shall be inspected by a qualified professional to ensure that each well is properly sealed at the surface to prevent infiltration of waterborne contaminants into the well casing or surrounding gravel pack. If any of the wells are found not to comply with the California Well Standards, or RWQCB Standards, the applicant or dairy operator shall retain a licensed well driller to install the required seal or functional equivalent certified by a licensed engineer or other qualified registered professional. Documentation of the inspections and seal installations, if any, shall be ~~provided to the County Planning Department prior to commencement of dairy operations~~ maintained on the dairy site and made available to the Dairy Monitoring Office personnel upon their request. This policy applies to all wells located on the Dairy Facility or on any farmland controlled by the dairy and used for the application of dairy process water or solid manure.

(Mitigation for Impact 4.3-7, 4.3-8)

Policy DE 3.2kj: In addition to local zoning requirements all dairies must comply with the Waste Discharge Requirements (WDR) issued by Regional Water Quality Control Board (RWQCB) for each dairy. ~~This includes WDRs for new dairies and for modifications to existing dairies.~~ The local zoning and RWQCB requirements are separate requirements and must both be followed. In the event there is a variance between these standards and the RWQCB requirements, the more restrictive requirement shall prevail, unless RWQCB specifies a lesser standard in a Waste Discharge Requirement (WDR). In the latter case, the RWQCB standard will prevail.

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Objective DE 3.3: ~~The County shall p~~Protect any sensitive biological and wetland resources when evaluating proposed new and expanded dairies ~~by conducting detailed surveys and providing adequate mitigation.~~

Policy DE 3.3a: ~~Prior to approval of~~ All applications for new or expanded dairy operations, biological and wetland surveys, conducted by qualified biological and wetland specialists, shall be required for properties that: contain pasture or range land or natural vegetation; have natural waterways or other wetland features traversing or adjacent to the property; are located within a one mile radius of an established refuge/preserve; or native areas. The surveys shall be conducted in compliance with U.S. Fish and Wildlife Service, California Department of Fish and Game, and U.S. Army Corps of Engineers guidelines, where applicable. Based on the results of the required surveys, the biologist or wetlands specialist shall recommend measures to avoid or minimize impacts on identified biological and wetland resources. These measures may include but are not limited to preferably setting aside sensitive habitat on site, or providing protection of alternative habitat in another location; locating project features at least 150 feet away from stream banks, lakes and riparian habitat; providing appropriate buffers to protect vernal pools and other wetlands; and designing dairy projects in flood prone areas so that sensitive resources on and off the site will not be inundated with dairy manure or process water during flood events. Mitigation conditions may be required as part of permits issued by jurisdictional agencies for impacts on wetlands and listed special status species. When appropriate, such conditions shall be addressed in the mitigation plans prepared by the biologist or wetland specialist dairies must submit a Biological Resources Survey (see Component 6 of Appendix J). The survey shall be conducted in compliance with the U.S. Fish and Wildlife Services, California Department of Fish and Game, and U.S. Army Corps of Engineers guidelines, where applicable. If the survey identifies impacts on wetlands or habitat for sensitive species, then the applicant will not be eligible to obtain SPR approval by the Zoning Administrator and will instead complete a conditional use permit (CUP) process and additional environmental review. It is the policy of the County, for purposes of siting dairies under this Element, that land continuously cultivated since 1985, or before, will not be considered wetlands or wildlife habitat. Temporarily fallow land which otherwise meets this requirement shall not be considered to be habitat for sensitive species simply because it is not being cultivated at any given time.

(Mitigation for Impact 4.4-1, 4.4-2, 4.7-3)

Objective DE 3.4: ~~The County shall p~~Protect public roads from the potential adverse effect of dairies.

Policy DE 3.4a: All buildings and structures on dairy facilities shall be set back from all public road right-of-ways at least 50 feet. Corrals, feed and manure storage areas,

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open sided shade structures shall be set back at least 20 feet from public road right-of-ways.

(Mitigation for Impact 4.9-1)

Objective DE 3.5: ~~The County shall p~~Protect the public from potential hazards associated with active or abandoned oil or gas wells.

Policy DE 3.5a: All applicants for new or ~~modified~~ expanded dairies shall submit documentation with the *Technical Report* indicating that the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) has reviewed their records for the potential presence of active and abandoned oil or gas wells at or adjacent to (within 100 feet) the proposed dairy site (see Component 1e of Appendix J). If DOGGR identifies wells, the *Technical Report* shall include a scaled map showing the location of the wells on the site plan of the proposed ~~dairy facility~~ Dairy Facility.

(Mitigation for Impact 4.8-6)

Policy DE 3.5b: Any identified abandoned oil or gas wells identified by DOGGR within the proposed dairy site that are located beneath or within 300 feet of a proposed dairy structure shall be properly closed in accordance with specifications provided by DOGGR.

(Mitigation for Impact 4.8-6)

Objective DE 3.6: ~~The County shall m~~Minimize the potential for increased fire hazards at new and expanded dairy facilities.

Policy DE 3.6a: Applications for all new and expanded dairy projects shall demonstrate conformance with all applicable Kings County Fire Department minimum standards for dairy developments. These minimum standards include: ~~provisions for storage of fire suppression water supply, minimum access roadway widths, minimum setback requirements for hay storage, and limitations on hay storage height and weight.~~

- A. Twenty thousand gallons of water must be stored in a tank on site for fire suppression. The storage tank shall be equipped with a pressure system and a float devise to keep the tank full at all times. The tank shall have a 3-inch discharge line with a 2½ inch National Standard Hose Thread male fitting for Fire Department connection. The male fitting shall have a cap to prevent accumulation of trash and debris within the fitting. The discharge line shall have a valve capable of controlling the flow of water.
- B. Access road 15 feet in width shall be provided to all structures, water storage and hay storage areas. The roads shall be of an all-weather surface capable of supporting heavy fire apparatus.

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- C. Hay storage shall not exceed 20 feet in height. Individual stacks of hay shall be limited to 400 tons and shall have a minimum 20-foot separation between aisles and rows of adjoining haystacks.
- D. Hay storage shall not be allowed within 100 feet of a structure.
- E. Storage of hay within structures shall be limited to 100 tons. This does not include pole barns.
- F. Agricultural shops over 3000 square feet with cutting and welding equipment are required to have automatic fire suppression systems installed. Fire hydrants may be required around structures depending on operation and size.
- G. The fire department reserves the right to address requirements on a case-by-case basis depending upon the hazard and size of the risk involved.

(Mitigation for Impact 4.10-3)

~~**Policy DE 3.6b:** As part of the SPR review process, all applications for new and expanded dairy approvals shall be submitted to the Kings County Fire Department to ensure conformance of proposed dairy facilities with minimum fire protection standards for dairies.~~

Objective DE 3.7: The expanded portions of existing dairies must comply with the standards in the *Dairy Element* and all other regulatory requirements.

Policy DE 3.7a: Nothing in this *Dairy Element* shall be construed as a guarantee that any existing dairy that does not meet the standards and regulations for the operation of dairies will be able to make the changes necessary for future expansion. Any dairy that is improperly located, or has other specific characteristics that conflict with the standards of this *Element* or other regulatory requirements, may not be able to expand. Such dairies, with or without expansion, may become nuisances and may be required to take specific corrective action which may include, but not limited to, reducing herd size, increasing cropland application area, or ceasing operation.

C. Dairy System Design Policy:

The following policies are derived from various sources, including local experience with the regulation of the Kings County dairy industry, California Regional Water Quality Control Board (RWQCB) regulations, *CEQA*, the *Kings County Zoning Ordinance*, and the *USDA/USEPA Unified National Strategy for Animal Feeding Operations*, dated March 9, 1999.

GOAL DE 4: Use specific and comprehensive ~~system~~ manure nutrient management techniques in the operation of dairies.

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Objective DE 4.1: A *Comprehensive Manure Nutrient Management Plan* (€MNMP) shall be required as part of the *Technical Report* (see Component 2a of Appendix J) submitted with each application to either establish a new dairy or expand an existing dairy. The specific practices used to implement each component may vary to reflect site-specific conditions or needs.

Policy DE 4.1a: €MNMP Components: The following components shall be addressed in the €MNMP.

- A. *Feed Management* – Evaluate the possibility of modifying diets and feed of the animals to reduce the amounts of nutrients in manure. ~~For example, enzymes such as phytase can be added to animal diets to increase the utilization of Nitrogen and phosphorus. Greater utilization of phosphorus by the animal reduces the amount of phosphorus excreted and produces a manure with a Nitrogen-phosphorus ratio closer to that required by crop and forage plants.~~
- B. *Manure Handling and Storage* – Manure must be handled and stored properly to prevent water pollution from dairies. Manure and dairy process water handling and storage practices shall consider odor and other environmental and public health problems. Handling and storage considerations shall include:
 1. *Diversion of clean water* – Dairy siting and management practices ~~shall~~ may include diverting clean water from contact with any manured area, including, but not limited to, corrals, pens, freestalls, feeding lanes and areas, feed storage areas, interiors of barns and milking parlors, manure storage and handling areas, dead animal storage areas, and other areas exposed to manure, feed, or dead animals. Clean water includes rainfall falling on roofs of facilities and runoff from adjacent lands, or other sources. If clean water is not diverted from manured areas, the capacity of process water storage facilities (i.e., lagoons) shall be sufficient to collect the additional runoff.
 2. *Prevent leakage* – Construction and maintenance of buildings, collection systems, conveyance systems, and storage facilities shall prevent releases of organic matter, nutrients, and pathogens to ground or surface water by implementing the following measures:
 - a. All manure separation pits and process water lagoons shall be constructed so that the bottoms of the pits and lagoons are at least five feet above the highest expected groundwater levels.

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- b. The pits and lagoons shall be maintained so that ~~losses due to infiltration are minimized~~ the integrity of the liners is ensured.
- c. The specific discharge of process water through the ~~soils lining bottom and sides of the manure separation pits and lagoons~~ shall not exceed be greater than $1 \times 10^{-5-6}$ cm/s centimeters per second in compliance with the Geotechnical, Design, and Construction Guidelines published by the Natural Resource Conservation Service (1997).
- d. A qualified professional (i.e., Professional Engineer or Certified Engineering Geologist) shall ~~supervise~~ certify that the design and installation of the liner system of a lagoon or pit is installed according to the NRCS design standards.
- e. The soil sampling and permeability testing program shall be designed to be representative of all soils lining all proposed pond areas.
- f. Construction of the lagoons shall be inspected by a qualified professional to ensure that geologic heterogeneities (e.g., channel deposits and sandy lenses) are identified and properly mitigated to ensure integrity of the liner in compliance with the NRCS standards. The liner must be protected against damage during operation and maintenance activities.
- g. At the corrals, naturally occurring or imported clayey (not less than 10% clay) soils shall underlie the corrals and dry manure storage areas. ~~Positive Site drainage shall be included in the project design and construction of any manured area, including but not limited to, dairy surroundings, corrals, and ramps, pursuant to Title 3, Division 2, Chapter 1, Article 22, §646.1 of the California Code of Regulations to ensure that excessive ponding does not occur. The design shall comply with Title 3, Division 2, Chapter 1, Article 22, §646.1 of the Food and Agriculture for construction and maintenance of dairy surroundings, corrals, and ramps, as described below.~~
- h. Regular maintenance of corrals and dry manure storage areas shall include filling of depressions. Care shall be taken not to disturb the seal layer in the corrals. Dairy personnel shall be taught to correctly use manure collection ~~machines (wheel loaders or elevating scrapers)~~ equipment.

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- i. The potential for discharge of water-borne pathogens to existing and proposed domestic water supply wells shall be minimized by ensuring that the domestic wells are constructed in accordance with the California Well Standards and that appropriate minimum setbacks (150 feet, or other distance set in the Waste Discharge Requirements issued for the dairy by the RWQCB) between the domestic wells and potential sources of pollution are maintained.
3. *Provide adequate storage for manure:*
 - a) Dry manure shall be stored in ~~production buildings, storage facilities, or otherwise covered to prevent precipitation from coming into direct contact with the manure~~ a manner to ensure all runoff from the manure storage areas is captured and diverted to the dairy process water collection system.
 - b) ~~Liquid manure~~ Dairy process water storage systems shall be designed and constructed to store, handle, and transport all of the quantity and contents of ~~animal manure and~~ dairy process water produced on the Dairy Facility, runoff from the ~~dairy facility~~ Dairy Facility, and rainfall that falls on the Dairy Facility. Location of manure storage systems areas shall consider proximity to water bodies, floodplains, and other environmentally sensitive areas be consistent with Policy DE 3.2c.
 4. *Manure ~~treatments~~ Management* – Manure shall be ~~handled and treated~~ 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, as appropriate in compliance with DE Policy 5.1c.
(Mitigation for Impact 4.1-3, 4.3-9, 4.8-3, 4.10-2)

Policy DE 4.1b: Land Application of Manure – Land application is the most common, and usually most desirable, method of utilizing process water and dry manure because of the value of the nutrients and organic matter to plant growth. Land application shall be planned to ensure that the proper amounts of all nutrients are applied in a way that does not cause harm to the environment or to public health. Land application of manure in accordance with the ~~CMNMP~~, shall minimize water quality degradation and public health risk. Considerations for appropriate land application shall include:

- A. *Nutrient balance* – The primary purpose of nutrient management is to achieve the application of nutrients at the agronomic rates required to grow the planned crop by balancing the nutrients that are already in the soil and from other sources with those that will be applied in manure and

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commercial fertilizer. At a minimum, nutrient management shall prevent the application of nutrients at rates that will exceed the capacity of the soil and planned crops to assimilate nutrients, and will reduce the potential for degradation of water resources. ~~Soils and manure shall be tested to determine nutrient content.~~

Soils and manure shall be tested at least annually to determine nutrient content. The results of the testing shall be evaluated by a qualified soil scientist or agronomist to determine whether adjustments to the *Manure Nutrient Management Plan* are required to prevent crop damage or salt buildup. In the evaluation of salinity, which requires data on concentration variation over time, a statistical methodology for determining trends in numerical data, e.g., Mann-Kendall, shall be selected by the County. The first trend analysis shall be conducted for each dairy after five years of data collection, and then each year thereafter. Buildup of salt in the soil is detrimental to growing crops. Consequently farmers will have a natural incentive to take remedial action upon receiving a report that a salt buildup has occurred.

- B. *Timing and methods of application* – Care must be taken when applying manure and process water to the land to prevent it from entering groundwater, streams, other water bodies, or environmentally sensitive areas. The timing and method of application shall prevent the loss of excess nutrients to groundwater or surface water. Additionally, process water shall be applied ~~so as~~ to minimize unnecessary contact with air in order to minimize the release of ammonia into the atmosphere. Manure application equipment shall be calibrated to ensure that the quantity of material being applied is ~~what is planned~~ at agronomic rates. Manure application shall be avoided during periods of high winds (in excess of 20 miles per hour) and when winds are directed at populated areas within ½ mile of the manure application.
- C. *Irrigation Management Program* – The owner/operator of the proposed dairy development/redevelopment shall ~~present~~ include an Irrigation Management Program with the *Technical Report* (see Component 2e of Appendix J) to the County Planning Department that ensures that irrigation water and runoff from fields at each dairy unit would not be allowed to migrate away from the project site or into surface water features.

(Mitigation for Impact 4.3-2, 4.3-5, 4.3-7, 4.3-9)

Policy DE 4.1c: *Land Management* – Tillage, crop residue management, grazing management, and other conservation practices shall be utilized to minimize movement (~~erosion sediments~~) to surface water and groundwater of soil, organic

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materials, nutrients, and pathogens from lands where manure is applied. ~~Riparian buffers, filter strips, field borders, contour buffer strips, and other conservation buffer practices shall be installed to intercept, store and utilize nutrients that may migrate from fields to which manure is applied.~~

(Mitigation for Impact 4.3-2, 4.3-5, 4.3-9)

Policy DE 4.1d: *Dead Animals Management Plan (DAMP)* – A Dead Animal Management Plan (see Component 7 of Appendix J) shall be prepared and implemented for the disposal of all dead animals in a way that does not adversely affect groundwater or surface water, create public health concerns, or cause nuisances due to odor or vectors. The plan shall specify at a minimum that dead animals shall be removed from the dairy within 24 72 hours ~~(or 48 hours over a weekend or holiday)~~. Carcasses shall be stored in an area screened from public view and accessible via an all weather road or driveway. No animals shall be buried on site unless by order of an officer of a regulatory agency with jurisdiction over dead animal management, including, but not limited to, the County Agricultural Commissioner, the County Health Officer, and State and Federal Agencies.

Since rendering is the most common method used to dispose of dead animals, a ~~contract with a company that picks up dead stock and delivers it to~~ plan for the timely delivery of dead stock to appropriately permitted facilities that will process the dead stock will adequately serve as a the *Dead Animal Management Plan (DAMP)* ~~if the contract meets all of the above requirements. Submittal of a contract for dead animal removal to the Dairy Monitoring Office may serve as the DAMP.~~

(Mitigation for Impact 4.3-5)

Policy DE 4.1e: *Record Keeping* - Dairy operators shall keep records that indicate the quantity of manure produced and ultimate utilization, including where, when, and amount of nutrients applied on-site through irrigation with process water or as dry manure, or sold to a commercial broker. Soil and manure testing shall be incorporated into the records management system. These records will be ~~kept on~~ maintained by the dairy site and shall be made available to the Dairy Monitoring Office personnel ~~for on-site review and inspection~~ upon their request.

Policy DE 4.1f: *Other Utilization Options* – In environmentally sensitive areas, where the potential for environmentally sound land application is limited, alternative uses of manure, such as the sale of manure to other farmers, composting and sale of compost to home owners, and using manure for power generation may need to be considered in the Manure Treatment Management Plan (MTMP). All manure utilization options shall be designed and implemented to reduce the risk to all environmental resources and must comply with Federal, State, and local law.

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Objective DE 4.2: A "*Comprehensive Dairy Process Water Application Plan*" (CDPWAP) (see Component 2b of Appendix J) shall be required as part of the *Technical Report* submitted with each application to either establish a new dairy or expand an existing dairy.—~~The specific practices used to implement each component may vary to reflect site specific conditions or needs.~~

Policy DE 4.2a: CDPWAP Components: The following components shall be addressed in the CDPWAP, as necessary:

- A. ~~Enforceable and recordable~~ When an applicant for a new dairy or the expansion of an existing dairy will use his or her own land for the application of process water use documents must be provided as follows and/or manure:
1. ~~The applicant CDPWAP shall include a legal description of all lands that will be used for process water and/or manure application.~~
 2. ~~The CDPWAP shall submit an enforceable and recordable agreement in a form approved by the Zoning Administrator specifying the terms of the use of the dairy's process water and manure. This shall include the estimated amount of water and/or manure that will be delivered and accepted generated by the dairy (including an estimate of the Nitrogen and salt content of the dairy process water and/or manure). The dairy operator and the owner of the land where the dairy's process water will be applied, and the County shall sign the agreement. This agreement will be recorded after issuance of the SPR for the proposed new dairy, or expansion of an existing dairy, but before the new dairy, or expansion area, becomes operational. This agreement is also required when the dairy operator owns the land where the dairy process and solid manure will be used/disposed. The term of the SPR shall not exceed the term of the agreement. In order to operate the dairy, the operator must have a valid dairy process water and manure agreement in force. Termination of the agreement approved by the zoning administrator is a violation of the SPR and the dairy operation becomes illegal unless an alternate agreement is substituted and approved by the zoning administrator. The agreement must specify:~~
 3. ~~Prior to selling any land on which process water and/or manure is applied, the dairy owner/operator shall notify the Zoning Administrator and:~~
 - a. ~~Provide substitute land or enter into an agreement with another land owner to replace the land upon which the process water and/or manure is applied, or~~

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- b. Immediately reduce the dairy herd to a level that can be accommodated by the remaining land identified in the SPR or CUP.
 4. Changes made in the operation pursuant to section 3. above must be reflected in an amendment to the dairy's SPR or CUP.
- C. When the application for a new dairy or the expansion of an existing dairy will use land other than his or her own land for application of dairy process water and/or manure:
1. The CDPWAP shall include a legal description of all lands that will be used for process water and/or manure application.
 2. The CDPWAP shall estimated amount of water and/or manure that will be generated by the dairy (including an estimate of the Nitrogen and salt content of the dairy process water and/or manure).
 3. An agreement shall be recorded by the dairy owner/operator and the owner of the land identified in the CDPWAP where the dairy's process water and/or manure will be used containing the following provisions:
 - a) The agreement is for the proposed dairy or expansion, and identifies the dairy facility by name and location. The agreement shall include a legal description of all lands burdened by the obligation of the agreement.
 - b) The land identified in the agreement for the use of dairy process water and manure shall not have any other dairy process water or water disposal agreement currently upon it or added in the future. The agreement shall identify the Dairy Facility generating the process water and/or manure by name and location.
 - c) The agreement may not be transferred to any other dairy or animal feeding operation without the prior approval of the Zoning Administrator. If such transfer occurs the original dairy must cease operation or simultaneously enter into a new agreement elsewhere which the Zoning Administrator must approve shall state that the identified land shall not be converted to any use which cannot accommodate the dairy's process water and/or manure.
 - d) The agreement must restrict the use of the land to cropping patterns which use the nutrients from the dairy process water and manure generated from the new or expanded dairy facility. The lowest nutrient utilization rate of the cropping pattern shall be used in the calculations for nutrient utilization shall be binding on all successors in interest as long as the agreement is in force.

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- e) The agreement must be binding upon the current property owner's successors in interest as long as the agreement is in force restrict the use of the land to cropping patterns which use all of the nutrients from the process water and/or manure generated from the new or expanded Dairy Facility (less any nutrients used on the dairy owners own land). The nutrient utilization rate used in the calculations for nutrient utilization of the cropping pattern shall be established by a Certified Agronomist.
 - f) The dairy operator agreement shall have control of the coordinate timing of the delivery of the dairy process water and/or manure application on the land subject to the agreement in conformity with the Dairy Facility's IMP (Policy DE 4.1b.C) and MNMP (Policy DE 4.1a) to assure adequate storage capacity is available at he Dairy Facility.
 - g) The agreement must be approved by the zoning administrator and will become part of the SPR. The Zoning Administrator must approve any change in the terms of the agreement To ensure that the process water and/or manure is applied to crops in accordance with the requirements of the Dairy Element, the agreement shall either:
 - i. Allow the dairy owner/operator to enter the land the land identified in the agreement to carry out the application of the dairy process water and/or manure in accordance with the requirements of the Dairy Element, or
 - ii. Obligate the owner of the land identified in the agreement to carry out the application of the dairy process water and/or manure in accordance with the requirements of the Dairy Element.
4. The agreement shall be recorded after the SPR of CUP is approved, but before any cows are brought to the site.
5. Prior to terminating the agreement, the dairy owner/operator shall notify the Zoning Administrator and either:
- a. Provide a substitute agreement with another land owner to replace the land within the terminated agreement, or
 - b. Immediately reduce the dairy herd to a level that can accommodated by the remaining land under the SPR or CUP, or agreement.
6. Changes made in operation of the dairy pursuant to section 5 above shall be reflected in an amendment to the dairy's SPR or CUP.
7. The land identified in the agreement for the use of dairy process water and/or manure shall not already be subject to any other dairy process water and/or manure use agreement.

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8. The Zoning Administrator for an amendment of the SPR, or the Planning Commission for an amendment of the CUP must approve any change in the terms of the agreement.
 9. If application of process water and/or manure on land identified in the agreement is not carried out in conformity with the requirements of the Dairy Element, it shall be the responsibility if the dairy owner/operator to correct such problems. Any such violations of the Dairy Element Standards shall subject the owner/operator of the Dairy Facility to enforcement action by the County or other responsible agency, as provide in the Dairy Element, the Zoning Ordinance, or State law.
- C. When the applicant for a new dairy or the expansion of an existing dairy uses a combination of his or her land and land other than his or her own land for application of dairy process water and/or manure, both A and B above shall apply.

Policy DE 4.2b: Lagoons for treating and storing dairy process water and manure may be used provided that ~~approved control of air emissions are controlled using best available control measures (BACM) is implemented~~ advanced manure treatment technology, as required by Policy DE 5.1c. All areas occupied by cows shall be graded in such a manner that ensures runoff water will flow into and be contained within a lagoon until used for fertilizer or irrigation purposes. Water that does not come into contacts with manured areas ~~occupied by cows or feed storage areas~~ shall may be diverted away from such areas and not allowed into the lagoon. All contents of a lagoon shall be managed so that it is applied to cropland at agronomic rates and used only for approved purposes and in an approved manner.

Policy DE 4.2c: The sale of ~~dry~~ manure from a dairy to other farmers or commodity brokers shall not require an agreement as described in Policy DE 4.2a above. Sale of ~~solid~~ manure produced on a dairy site as a fertilizer or soil amendment shall not be regulated ~~as long as the manure is from that dairy operation,~~ but the quantity, date removed, and location where it was transported shall be documented. These records shall be maintained on site and made available to Dairy Monitoring Office personnel upon their request.

Transporting manure from other dairies into ~~the~~ a dairy for subsequent sale or distribution to a third party would constitute a "fertilizer sale yard" and is subject to a separate conditional use permit application and approval.

Policy DE 4.2d: Failure to obtain the Zoning Administrator's approval of any change to the agreement described in Policy DE 4.2a will be a violation of the *Kings County Zoning Ordinance* and the site plan review (SPR), and may result in the revocation of the dairy's ~~zoning permit~~ SPR or CUP approval. Failure to implement an agreement as approved by the Zoning Administrator shall also be a

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violation and may be grounds for revocation of the dairy's ~~zoning permit~~ SPR or CUP approval.

Objective DE 4.3: Promote dairy management facility practices that protect workers, and public health, and the environment.

Policy DE 4.3a: Dairy operators shall conform to all applicable laws and regulations controlling the management of hazardous materials, including fuels, pesticides, and other agricultural chemicals (see Component 3 of Appendix J).

(Mitigation for Impact 4.8-1)

Policy DE 4.3b: ~~The County shall require that dairy operators include an Integrated Pest A Pest and Vector Management Plan (IPVMP) as part of the Technical Report shall be submitted with each application to either establish a new dairy or expand an existing dairy as part of the Technical Report (see Component 4 of Appendix J). The IPM plan shall be designed to use good housekeeping practices as the primary tool to combat vector infestation. Controlled chemical use may supplement the program when chemicals are recommended by a pest management professional to be applied. In addition, dairies are encouraged to implement an Integrated Pest Management (IPM) system.~~

(Mitigation for Impact 4.8-3)

Policy DE 4.3c: The County shall require that all dairy operators ~~agree to~~ follow all Kings Mosquito Abatement District requirements concerning vector control at the ~~dairy facility~~ Dairy Facility.

(Mitigation for Impact 4.8-3)

Objective DE 4.4: Promote protection of San Joaquin Valley water quality through the adoption of compliance with the water quality objectives of the Water Quality Control Plan for the Tulare Lake Basin-Second Edition 1995 (Tulare Lake Basin Plan) for dairy projects.

Policy DE 4.4a: On August 17, 1995, the California Regional Water Quality Control Board, Central Valley Region, adopted the current Water Quality Control Plan for the Tulare Lake Basin. Such plans are required by the state *Porter-Cologne Water Quality Control Act* and federal *Clean Water Act*.

Under *CEQA Guidelines section 15064.7*, a County may adopt thresholds of significance to determine the significance of environmental effects. ~~In this Element, the County determines that~~ The County hereby adopts compliance with the water quality objectives of the Basin Plan as the threshold of significance for impacts to water quality from implementation of the Dairy Element Therefore, dairy projects that 1) comply with the Basin Plan and 2) comply with the provisions in the Element allowing approval of a site plan review (SPR), do not create cumulatively significant environmental impacts on water quality. ~~The~~

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~~Element expressly incorporates compliance with all applicable provisions of the Basin Plan. Thus, once the Zoning Administrator determines that a dairy project is consistent with the Element, no further review of the dairy's cumulative environmental impacts on water quality will be necessary. (*Pub. Resources Code, §21083.3; CEQA Guidelines, § 15183.*) Furthermore, implementation of the Element will not create a significant environmental impact on water quality because the Element adopts and requires compliance with the Basin Plan.~~

GOAL DE 5: Promote protection of the San Joaquin Valley air quality through the reduction of potential adverse air emissions from dairies.

Objective DE 5.1: Implement air emissions control practices and technologies at dairies to reduce the potential for degradation of air quality and odor generation.

Policy DE 5.1a: The County shall ~~participate in~~ monitor the efforts of the San Joaquin Valley Unified Air Pollution District (SJVUAPCD) in developing air emissions control guidelines for agricultural uses, including dairy operations.

Policy DE 5.1b: An “*Odor Management Plan*” (OMP) (see Component 2d of Appendix J) shall be required as part of the *Technical Report* submitted with each application to either establish a new dairy or expand an existing dairy. The Plan shall specifically address standard operating practices for livestock handling, and manure collection, treatment, storage, and land application.

The plan shall also identify existing residences located near (at least within a ½-mile radius) the proposed new or expanded dairy. The ~~plan~~ OMP shall also provide standard operating procedures/control measures to be implemented to protect these ~~receptors~~ residents from ~~potential~~ odors that ~~could~~ may be generated from dairy operations. At a minimum, standard operating procedures shall include providing advance notification to nearby residences prior to the spreading of manure or dairy process water on cropland adjacent to the residences.

In addition, the standard operating practices in the OMP shall include provisions to facilitate the reduction or control of odors from dairy operations, and shall be consistent with the *Manure Treatment Management Plan* (MTMP), required under Policy DE 5.1c of the Dairy Element. The MTMP shall also include quality assurance/quality control protocol to monitor the implementation and effectiveness of the OMP. The OMP shall be revised as necessary, based on the results of the monitoring program, to ensure that standard operating procedures are conducted in a manner that will reduce or control odor from dairy operations.

(Mitigation for Impact 4.2-5)

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Policy DE 5.1c: A “*Manure Treatment Management Plan*” (MTMP) shall be required as part of the *Technical Report* submitted with each application to either establish a new dairy or expand an existing dairy. The technical report shall present an estimate of the anticipated increase in reactive organic gases (ROG), ammonia, and methane emissions generated by manure and process water management proposed by the dairy development project. The MTMP shall provide for treatment of all manure to reduce emissions of ROG, nitrous oxides, ammonia, methane, hydrogen sulfide, and odor. The MTMP for all new dairies and dairy expansions, which include construction of new dairy facilities, shall include advanced manure treatment technology to reduce ROG emissions. The Plan shall specify the advanced treatment technology and a schedule for implementation. The appropriate treatment technology, or combination of technologies, shall be selected on the basis of expected manure volumes and site-specific management strategies. Effective advanced treatment technologies for reducing the potential for emission of air pollutants from dairy manure and process water include:

- A. Controlled anaerobic digestion;
- B. Aerobic treatment; or
- C. Combined aerobic and controlled anaerobic treatment.

The selected treatment system shall be designed to minimize, ~~to the extent economically feasible,~~ the release of air emissions into the environment. The MTMP shall include quality assurance/quality control protocol to monitor the implementation and effectiveness of the identified manure treatment system. An estimate of the volatile solids removal efficiency of the proposed treatment system shall be presented in the MTMP. The MTMP shall demonstrate that the proposed advanced treatment system shall meet or exceed the goal of 50 percent reduction in volatile solids ~~within the treated manure and dairy process water from the manure and process water generated at the dairy.~~ The MTMP shall be revised as necessary, based on the results of the monitoring program, to ensure that selected treatment technology is being implemented in a manner that will reduce or control air emissions and odor from dairy operations in accordance with the 50 percent reduction standard.

~~The requirement for implementation of advanced treatment technologies shall be waived for proposed existing dairy expansion projects which do not include proposed construction of new dairy facilities and for which the expanded dairy herd would not exceed the calculated capacity and would not result in ROG emissions that would exceed the SJVUAPCD threshold limits set for stationary source.~~

(Mitigation for Impact 4.2-5, 4.2-6, 4.2-7, 4.2-7, 4.2-8, 4.2-9, 4.2-12, 4.2-13, 4.2-14, 4.2-15, 4.8-5)

Policy DE 5.1d: The owner/operator of a proposed new dairy development or expansion shall ~~also~~ comply with the most recently adopted Regulation VIII rules ~~(e.g., rules~~

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~~8021 and 8081) established by the SJVUAPCD for construction activities, during facility pre-construction, construction, inactive construction period, and post construction, when applicable. In addition, the owner/operator of a proposed dairy development or expansion shall implement the following SJVUAPCD enhanced and additional control measures as deemed necessary by the Kings County Planning Agency with consultation, if needed, from the SJVUAPCD:~~

- ~~1. Limit traffic speeds on unpaved roads to 15 miles per hour;~~
- ~~2. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent;~~
- ~~3. Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site;~~
- ~~4. Install temporary wind breaks at windward side(s) of the construction areas;~~
- ~~5. Suspend excavation and grading activity when winds exceed 20 miles per hour; and~~
- ~~6. Limit the area of land subject to excavation, grading, and other construction activity at any one time.~~

(Mitigation for Impact 4.2-1)

Policy DE 5.1e: To ensure that potential fugitive dust emissions from cattle movement and maintenance activities ~~at the~~ in unpaved corrals, perimeter roadways, and other unpaved areas throughout dairy sites Dairy Facilities are reduced, unpaved areas shall be effectively stabilized ~~by use of~~ Water (expected efficiency of 50 percent) or chemical stabilizer/suppressant (expected efficiency of 75 percent) that is safe for the environment and cattle may be used. Stabilization shall be conducted in a manner that will not result in the potential for breeding of mosquitoes and other vectors. The owner/operator shall also ensure that manure generated in the corrals is removed frequently to prevent the manure from becoming a PM₁₀ source; ~~and removal activities shall be conducted in a manner that will minimize dust emissions.~~

(Mitigation for Impact 4.2-3, 4.2-7, 4.2-11)

Policy DE 5.1f: A “Livestock Management Plan” (LMP) shall be required as part of the Technical Report submitted with each application to either establish a new dairy or expand an existing dairy. The “Livestock Management Plan” will identify practices to reduce methane emissions from ruminant livestock; and shall be consistent with the voluntary practices incorporated in EPA’s Ruminant Livestock Efficiency Program.

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Policy DE 5.1gf: The owner/operator of a proposed dairy development or expansion shall ~~ensure that the following measures are implemented~~ to control emissions (ROG, NO_x, and PM₁₀) generated from heavy-duty ~~construction~~ equipment during construction as required by the SJVUAPCD.:

- ~~1. The idling time of all construction equipment used at the site shall not exceed ten minutes;~~
- ~~2. Minimize the hours of operation of heavy duty equipment and/or the number of equipment in use at one time;~~
- ~~3. All equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications;~~
- ~~4. When feasible, alternative fueled or electrical construction equipment shall be used at the project site;~~
- ~~5. Use the minimum practical engine size for construction equipment;~~
- ~~6. Gasoline powered equipment shall be equipped with catalytic converters, where feasible;~~
- ~~7. Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak hour of vehicular traffic on adjacent roadways;~~
- ~~8. Implement activity management (e.g., rescheduling activities to reduce short-term impacts).~~

(Mitigation for Impact 4.2-2)

Policy DE 5.1hg: All applications for proposed dairies and all dairy expansions requiring a site plan review (SPR) shall include a *Fugitive Dust Emissions Control Plan (FDECP)* as part of the *Technical Report* (see Component 9b of Appendix J) which describes and demonstrates conformance with Policy DE 5.1e and the most recently adopted SJVUAPCD requirements for the control of Regulation VIII controls for fugitive dust emissions.

(Mitigation for Impact 4.2-3, 4.2-11)

Policy DE 5.1ih: All dairies shall comply with the ~~Best Available Control Measures (BACM) control measures~~ for fugitive dust emissions from agricultural sources as established by the most recently adopted SJVUAPCD Regulation VIII. The Fugitive Dust Emissions Control Plan, as required by Policy DE 5.1hg, shall specify the ~~BACMs control measures~~ that will be implemented during dairy operation.

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(Mitigation for Impact 4.2-3, 4.2-11)

Policy DE 5.1jj: As part of the *Technical Report* to be submitted with each application to either establish a new dairy or expand an existing dairy, dairy applicants shall ~~be required to~~ estimate the anticipated net increase in ROG, NO_x, and PM₁₀ emissions generated from anticipated dairy operation equipment (~~including cropland and dairy farm equipment~~) compared to existing conditions and demonstrate that the net increase will not exceed the SJVUAPCD threshold limits for ROG, NO_x, and PM₁₀ (see Component 9a of Appendix J).

(Mitigation for Impact 4.2-4)

Policy DE 5.1kj: Prior to conversion of dairy facilities to other land uses not involving livestock, the operator/owner of the facility shall submit documentation to the Kings County Dairy Monitoring Office ~~that demonstrates~~ demonstrating that all residual manure and process water has been removed ~~and~~ or managed in ~~accordance~~ an appropriate manner consistent with the facility's CPWDAP and MTMP.

(Mitigation for Impact 4.8-5)

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