EXHIBIT E-2

Site Plan Review Application Requirements for New or Expanding Dairy Projects in Kings County, CA

The following objectives and policies are requirements of the *Dairy Element* of the Kings County General Plan that must be completed for the Site Plan portion of either a Site Plan Review or Conditional Use Permit application. The following policy issues must be addressed on the Site Plan or in an attached narrative explaining the proposal and how it is consistent with the standards and policies of the *Dairy Element*. All proposals including the Site Plan and the attached narrative in the application that are consistent with the *Dairy Element* and other local, State and Federal, the Site Plan, are requirements that must be implemented by the applicant.

Policy DE 1.2a: *Limited Agricultural (AL-10) zone districts*. This zone district prohibits intensive agricultural activities and uses. It is applied to areas adjacent to cities and rural communities. Animal concentration facilities, including associated dairy process water and manure storage areas, are intensive agricultural uses that are not appropriate in this urban-to-agricultural buffer area. However, manure used as fertilizer and dairy process water used to irrigate cropland may be transported to, and used in, the AL-10 zone districts.

Dairies that have been in operation since before 1979 or were issued a zoning permit after 1979 may continue to operate and expand. However, the expansion portion of the activity will be subject to approval of a conditional use permit (CUP) by the Planning Commission.

Policy DE 1.2b: *Exclusive Agricultural (AX) zone districts*. This zone district is designed to protect the Lemoore Naval Air Station (LNAS) from encroachment of uses that are not compatible with the noise generated from the jet aircraft operations at the air station and potential hazards from aircraft accidents. This restriction is on new dairies and is designed to protect the huge investment of tax money at the air station from potential land use conflicts due to jet aircraft noise and accident potentials. Areas used for manure and dairy process water storage and use are not prohibited from the AX zone district, only the location of the actual animal concentration facilities, e.g., corrals, freestall barns, milk barns, pens, lagoons, feed storage, manure storage, etc.

Dairies that have been in operation since before 1979 or were issued a zoning permit after 1979 may continue to operate and expand. However, the expansion portion of the activity will be subject to a site plan review (SPR).

Policy DE 1.2c: *Flood Zones (Flood Hazard Areas).* Flood Zones are areas of the County that are subject to periodic flooding. New Dairy Facilities or the expansion of existing dairies, including corrals, barns, manure storage areas, feed storage areas, dairy lagoons, etc., shall not be located on any territory designated on the latest adopted *National Flood Insurance Program, Flood Insurance Rate Maps (FIRM) (Community-Panel Numbers 060086 0001 - 0425)* as Special Flood Hazard Areas Inundated by 100-Year Flood, *Zones A, AE, AO and AH*, *Floodway Areas in Zone AE,* or *Other Flood Areas in Zone X*. The latest Special Flood Hazard Areas Inundated

Map is dated August 4, 1988. However, manure used as fertilizer and dairy process water used to irrigate cropland may be transported to and used in the flood zones, if specific safeguards are in place to prevent pollution from these materials (see Policy DE 3.2d).

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*.

Policy DE 1.2d: *High groundwater areas.* New dairies, or the expansion of existing dairies, are prohibited in shallow or perched groundwater areas of the County unless the applicant can demonstrate that the minimum vertical distance between proposed lagoon bottoms/corral surfaces and highest anticipated groundwater levels is at least five feet. Highest groundwater levels shall be established based on available records and site-specific geotechnical investigation by qualified registered professional engineer or hydrogeologist.

Policy DE 1.2e: *Designated wetlands and wildlife habitat for sensitive species*. Except as allowed by the conditional use permit process, new Dairy Facilities or the expansion of existing dairies shall not locate on wetlands or habitat for sensitive species. The SPR process is only available for lands where the detailed survey required by Policy DE 3.3a does not identify wetlands or habitat for sensitive species. Where the survey identifies the presence of wetlands or habitat for sensitive species, a conditional use permit and additional environmental review will be required before any new dairy development or expansion may occur.

Policy DE 1.2f: *Areas of excessive slope*. New Dairies Facilities are prohibited in the mountainous southwestern part of Kings County West of Interstate-5 or the California Aqueduct (whichever is farther west), except for the Sunflower Valley and portions of the Kettleman Plains along State Route 33 south of Utica Avenue (see Figure 2, page DE-14). This is due to the prevalence of slopes exceeding 5% that will make it difficult to contain manure and dairy process water on site.

Policy DE 1.2g: *Areas in the immediate vicinity of schools.* New dairies facilities are prohibited from locating within a one-half (½) mile buffer zone around all existing public or private school sites. An existing dairy which proposes to decrease the separation between its dairy facilities and a school site to less than one-half (½) mile may do so only after approval of a conditional use permit by the Planning Commission. If the existing separation between an existing dairy's facilities and a school site is not proposed to be reduced regardless of its distance to the school site, the site plan review process may be utilized.

Manure used as fertilizer and dairy process water used to irrigate cropland may be transported to and used within school buffer zones, but must be scheduled during weekends or summer vacation when the schools are closed.

Policy DE 1.2h: *Separation of dairy facilities by ¼ mile.* The minimum distance between a Dairy Facility and other Dairy Facilities or confined animal feeding operations shall be one-quarter (¼) mile. This restriction includes only the actual dairy facilities, i.e., corrals, milk barns, feed storage areas, manure storage areas, etc., but not cropland used to spread dairy process water and manure. These separations are required to avoid potential nuisance problems, potential inter-

herd disease transmission, soil and groundwater contamination, and cumulative air quality degradation.

An existing dairy which proposes to decrease the separation between its dairy facilities and another dairy's facilities to less than ¼ mile may do so only after approval of a conditional use permit by the Planning Commission. If the existing separation between the expanding dairy's facilities and the other dairy is not proposed to be reduced to a distance of less than ¼ mile, the site plan review process may be utilized.

Policy DE 1.2i: *Areas in the immediate vicinity of residential zones.* Facilities for new dairies, including corrals, barns, feed and manure storage areas, lagoons, etc., are prohibited from locating within a one-half (½) mile buffer zone around any residential zone (land zoned or designated for residential uses by Kings County or any city General Plan or zoning ordinance). However, manure used as fertilizer and dairy process water used to irrigate cropland may be transported to and used within a residential buffer zone.

Existing legally established dairies that do not meet the separation required from residential zones may only be expanded after the approval of a conditional use permit by the Planning Commission. However, the nonconformity in the separation shall not be increased by further encroachment of the actual Dairy Facility toward the residential zone.

Policy DE 1.2j: The "compatibility zone" boundaries around the cities of Hanford, Lemoore, and Corcoran shall be updated periodically to ensure that changes, especially expansions of any city General Plan and/or Sphere of Influence area, are reflected in the "compatibility zone" boundaries.

Objective DE 3.1: Apply the mitigation measures in the Program EIR to new or expanding dairies.

Policy DE 3.1a: With each application for a new or expanded dairy a technical report shall be prepared and shall address the following siting issues:

A. Ground and surface water quality and quantity,
B. Soil characteristics,
C. Air quality, including odors, dust and PM_{10} control during construction and operation at the Dairy Facility,
D. Traffic and road conditions,
E. Dead animal disposal management,
F. Insect, (i.e., fly, and mosquito control), and rodent control,
G. Light, glare, and noise,
H. Biological resources,
I. Cultural and archeological resources,
J. Slope stability and potential for erosion,
K. Proximity to the nearest residences, 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 DE4.2a, 4.2b, 4.2c, and 4.2d),
2c. Odor Management Plan (OMP) (Policy DE 5.1b and 6.2d),
2d. 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),
9. Fugitive Dust Emissions Control Plan (FDECP) (Policy DE 5.1g, and 5.1h),
10. Light, Glare, and Noise Assessment (Policy DE 3.1h and 3.1i).

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

Policy DE 3.1b: No new Dairy Facility shall be constructed within one-quarter (¼) mile of any existing rural residence that is not associated with that dairy.

Policy DE 3.1c: When nearby rural residences that are not associated with the dairy are within one-quarter (¼) mile of a proposed expansion of an existing Dairy Facility, the new improvements of the Dairy Facility shall be located so that the existing separation shall not be reduced.

Policy DE 3.1d: The *Technical Report* submitted for new or expanding 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 unless the area of concern is specifically excluded from the application.

Policy DE 3.1e: If potential historical, archaeological or paleontological resources are encountered 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, the qualified archaeologist 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 shall be reflected in the development of any mitigation plan affecting Native American cultural resources.

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.

Policy DE 3.1g: Upon the request of an applicant for a SPR or CUP, the Kings County Regional Transportation Planning Agency will evaluate the effect a new or expanding dairy project will have on surrounding roadways and highways using its traffic model. If the traffic model run demonstrates that the dairy project will not result in degradation of the Level of Service (LOS) of adjacent County roadways below LOS D, or below LOS C on State highways, no additional evaluation will be required.

If the Kings County Regional Transportation Planning Agency's traffic model demonstrated that the LOS will be degraded to a LOS E or lower on adjacent roadways, or to LOS D on State highways, a conditional use permit (CUP) will be required. In such a case the *Technical Report* accompanying the CUP application 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. Any additional environmental review shall focused on traffic related environmental issues and the Traffic Impact Study shall demonstrate that the proposed dairy project will not result in significant safety hazards.

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 (see Component 10 of Appendix J).

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* (see Component 10 of Appendix J).

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 standards shall be used to make such determination.

Policy DE 3.2a: The *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. 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 at all times.
B. The source of potable water for the Dairy Facility, and the safeguards to protect that water source must be identified.
C. 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 RWQCB standard will prevail.

Policy DE 3.2b: The 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. Include an evaluation by a certified agronomist of the soil type's capacity at the dairy site to assimilate the various nutrients in the dairy process water and manure produced on the dairy for crop production.
B. 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.

Policy DE 3.2c: Minimum Dairy Facility setbacks from water wells and water bodies shall be required:

A. Manured and feed storage areas on dairy facilities shall be set back 150 feet from wells and water bodies as required by the RWQCB.
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.

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. Discharge of dairy process water onto land in floodplains or floodways shall not occur during periods of flooding. Solid 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*.

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
B. Be based on detailed site-specific hydraulic analysis conducted by a licensed civil engineer, demonstrate 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
C. Provide 100-year flood protection for the dairy facilities by constructing berms or other flood control structures. The applicant must acquire all necessary permits and regulatory approvals for such structures.

Policy DE 3.2h: *A Hydrologic Sensitivity Assessment (HSA) (see Component 1d of Appendix J)*, Whenever groundwater is being pumped from a hydrogeologic setting within one-half (½) mile of a proposed dairy site, or an expanding dairy, which is underlain by karst, fractured bedrock, or gravel, the applicants shall retain a qualified Certified Hydrogeologist or Professional Engineer to conduct a HSA.

A. The HSA shall evaluate whether hydrogeologic setting would offer adequate barriers to pollutant migration to drinking water supplies. The evaluation shall be conducted in accordance with the principles contained in the EPA's Ground Water Rule.
B. *Dairies Proposed in the Kettleman Plain or Sunflower Valley*: Water supply in the Kettleman Plains and Sunflower Valley is limited due to the lack of substantial recharge of the aquifers. In addition to paragraph A above, dairies proposed in these areas must complete a HSA to demonstrate that an adequate sustainable water supply would be available for each proposed project. The HSA must provide a detailed description of the proposed project water demand and how that demand would be met without overdrafting groundwater supplies. If the project proposes use of groundwater supplies, the HSA must quantify the safe yield of the underlying aquifer. Allowable groundwater use must be limited to the quantified safe yield.

Policy DE 3.2i: All existing active and inactive domestic and irrigation water supply wells (including those located at the dairy site) at a proposed new dairy or proposed expansion of an existing dairy 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 maintained on the dairy site and made available to the Code Compliance 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.

Objective DE 3.3: Protect any sensitive biological and wetland resources when evaluating proposed new and expanded dairies.

Policy DE 3.3a: 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 sensitive species 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. All applications for new or expanded 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.

Objective DE 3.4: 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, open sided shade structures shall be set back at least 20 feet from public road right-of-ways.

Objective DE 3.5: Protect the public from potential hazards associated with active or abandoned oil or gas wells.

Policy DE 3.5a: All applicants for new or 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. Copies of the pertinent maps will be maintained by the Kings County Planning Agency for consultation purposes by applicants for new or expanding dairies.

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.

Objective DE 3.6: 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**:**

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. In lieu of the storage tank a well with a pump capable of producing at least 300gallons per minute of water may be used to meet water requirements. The well shall have a 2½ inch National Standard Hose Thread male fitting located on the discharge plumbing. The well location shall be on the initial property and approved by the fire department. Any other source of water supply shall be submitted to and approved by the fire department.

B. Fires involving the storage of hay and/or feed commodities shall be brought under control by the fire department. Once the exigent circumstances cease to exist, it is at the fire department's discretion to turn the incident over to the responsible party/property owner for final extinguishment and removal of additional exposure, such as additional hay and feed commodities that may be ignited by drifting ambers. The fire department may continue to remain on scene at the responsible parties/property owners request if the responsible party/property owner agrees to pay the costs of additional suppression activities and stand-by time for all personnel and equipment used after the fire department determines that the exigent circumstances cease to exist.

C. 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.

D. Hay storage shall not exceed 20 feet in height. Individual stacks of hay shall be limited to 1,000 tons and shall have a minimum 20-foot separation between aisles and rows of adjoining haystacks.

E. Hay storage shall not be allowed within 100 feet of a structure.

F. Storage of hay within structures shall be limited to 100 tons. This does not include pole barns.

G. Agricultural shops that have repair facilities may be required to have automatic fire suppression systems installed depending upon operations and size of the structure. Fire hydrants may be required around structures depending on operations and size.

H. 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. The aforementioned standards are only a minimum and more stringent requirements may be applied.

Objective DE 4.1: A *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.

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 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.
    b. The pits and lagoons shall be maintained so that the integrity of the seal is ensured.
    c. The specific discharge of process water through the soils lining the bottom and sides of the manure separation pits and lagoons shall not be greater than 1×10^{-6} 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 certify that 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 20% clay and silt) soils shall underlie the corrals and dry manure storage areas. 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 ponding does not occur.
    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 equipment.
    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 domestic wells and potential sources of pollution are maintained.

3. *Provide adequate storage for manure:*
   a) Dry manure shall be stored in a manner to ensure all runoff from the manure storage areas is captured and diverted to the dairy process water collection system.
   b. Dairy process water storage systems shall be designed and constructed to store, handle, and transport all of the quantity and contents of dairy process water produced on the Dairy Facility, runoff from the Dairy Facility, and rainfall that falls on the Dairy Facility. Location of manure storage areas shall be consistent with Policy DE 3.2c.
4. *Manure Management* – Manure shall be managed to reduce the loss of nutrients to the atmosphere during storage, to make the managed manure a more stable fertilizer when land applied, and to reduce pathogens, vector attraction and odors.

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 MNMP 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 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 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 shall be selected by a certified agronomist. 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 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 at agronomic rates. Manure application shall be avoided during periods of winds in excess of 20 miles per hour.

C. *Irrigation Management Program* – The owner/operator of the proposed new or expanded dairy shall include an Irrigation Management Program with the *Technical Report* (see Component 2e of Appendix J) to 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.

Policy DE 4.1d: *Dead Animals Management Plan (DAMP)* – A Dead Animal Management Plan (see Component 5 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 72 hours. 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 plan for the timely delivery of dead stock to appropriately permitted facilities that will process the dead stock will adequately serve as the *Dead Animal Management Plan (DAMP)*.

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.

Policy DE 4.2a: The following components shall be addressed in the CDPWAP:

A. 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:
   1. The CDPWAP shall include a legal description of all lands that will be used for process water application.
   2. The CDPWAP shall include the estimated amount of water that will be generated by the dairy (including an estimate of the Nitrogen and salt content of the dairy process water).
   3. Prior to selling any land on which process water 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 is applied, or
      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.

B. 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:
   1. The CDPWAP shall include a legal description of all lands that will be used for process water application.
   2. The CDPWAP shall include the estimated amount of water that will be generated by the dairy (including an estimate of the Nitrogen and salt content of the dairy process water).

3. The 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 will be used. The agreement shall contain the following provisions:
   a) The agreement shall include a legal description of all lands burdened by the obligation of the agreement.
   b) The agreement shall identify the Dairy Facility generating the process water by name and location.
   c) The agreement shall state that the identified land shall not be converted to any use which cannot accommodate the dairy's process water.
   d) The agreement shall be binding on all successors in interest as long as the agreement is in force.
   e) The agreement must restrict the use of the land to cropping patterns which use all of the nutrients from the process water 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 agreement shall coordinate timing of the delivery of the dairy process water 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) To ensure that the process water 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 identified in the agreement to carry out the application of the dairy process water 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 in accordance with the requirements of the *Dairy Element*.
4. The agreement shall be recorded after the SPR or 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 be accommodate 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 shall not already be subject to any other dairy process water use agreement.
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 on land identified in the agreement is not carried out in conformity with the requirements of the *Dairy Element*, it shall be the responsibility of 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 provided 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, both A and B above shall apply.

Objective DE 4.3: Promote dairy management facility practices that protect workers, 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).

Policy DE 4.3b: A *Pest and Vector Management Plan* (PVMP) 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). In addition, dairies are encouraged to implement an *Integrated Pest Management* (IPM) system.

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 5.1b: 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 within a ¼-mile radius of the proposed new or expanded dairy facility. The OMP shall also provide standard operating procedures/control measures to be implemented to protect these residents from odors that may be generated from dairy operations.

In addition, the standard operating practices in the OMP 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.

Policy DE 5.1d: The owner/operator of a proposed new dairy development or expansion shall comply with the most recently adopted Regulation VIII rules established by the SJVUAPCD for construction activities, during facility pre-construction, construction, inactive construction period, and post construction, when applicable.

Policy DE 5.1d: The owner/operator of a proposed new dairy development or expansion shall comply with the most recently adopted Regulation VIII rules established by the SJVUAPCD for construction activities, during facility pre-construction, construction, inactive construction period, and post construction, when applicable.

Policy DE 5.1e: To ensure that potential fugitive dust emissions from cattle movement and maintenance activities in unpaved corrals, perimeter roadways, and other unpaved areas throughout Dairy Facilities are reduced, unpaved areas shall be effectively stabilized. 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 minimize the extent to which the manure becomes a PM_{10} source.

Policy DE 5.1g: 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 9~~b~~ of Appendix J) which describes and demonstrates conformance with Policy DE 5.1e and the most recently adopted SJVUAPCD Regulation VIII controls for fugitive dust emissions.

Policy DE 5.1h: All new and expanding dairies shall comply with the 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 5.1g, shall specify the control measures that will be implemented during dairy operation.

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