EXHIBIT G-2

Dairy Monitoring Program Requirements for New or Expanding Dairy Projects is Kings County, CA:

The following objectives and policies are requirements of the *Dairy Element* of the Kings County General Plan and must be completed for each new or expanded dairy permit application. The following policy issues must be addressed in the Dairy Monitoring Program submitted with the application. These are the complete objectives and policies from the *Dairy Element*.

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

Policy DE 3.2f: Each dairy shall design, implement, and maintain a monitoring and reporting program to ensure that the operation is in conformance with the *Mitigation Monitoring Plan* (MMP) in the Program EIR, and that significant adverse impacts are avoided. See Section V (Goal 6) for monitoring and reporting standards.

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.

Policy DE 3.2j: In addition to local zoning requirements all dairies must comply with the Report of Waste Discharge (RWD) issued by Regional Water Quality Control Board (RWQCB) for each dairy. 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 RWQCB standard will prevail.

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 4.1c: *Land Management* – Tillage, crop residue management, grazing management, and other conservation practices shall be utilized to minimize movement to surface water and groundwater of soil, organic materials, nutrients, and pathogens from lands where manure is applied.

Policy DE 4.1e: *Record Keeping* - Dairy operators shall document the annual estimated quantity of solid manure produced at the dairy and transported off-site. Documentation of this estimate shall be maintained by the dairy and shall be made available to the County Code Compliance personnel upon their request.

Policy DE 4.2b: Lagoons may be used for treating and storing dairy process water and manure. 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 contact with manured areas or feed storage areas 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 solid 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 is not regulated.

Transporting manure from other dairies into 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 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 5.1f: The owner/operator of a proposed dairy development or expansion shall follow measures to control emissions (ROG, NOx, and PM_{10}) generated during construction as required by the SJVUAPCD.

Objective DE 6.1: Establish a *Dairy Monitoring Program*: Develop and implement as part of the monitoring program a method to document the data for all of the dairies as the overall county monitoring program. Individual dairy information will include such data as:

A. Location of the animal concentrations on dairies,
B. "Dairy process water/nutrient use areas" covered by dairy process water use agreements,
C. Soil characteristics, including types and classification,
D. Dairy process water and nutrient usage and demand,
E. Groundwater conditions, including depth, local perched water, etc.,
F. Crop patterns and production,
G. Floodplain designation, inundation potential, and incidental flooding,
H. Other Confined Animal Feeding Operations (CAFOs) within one-quarter (¼) mile,
I. Urban area development within one (1) mile,
J. Dust control practices and Fugitive Dust Emissions Control Plan, and
K. Odor control practices as specified in the Odor Management Plan (OMP).

Policy DE 6.1a: Under the direction of the Director of Planning and Building Inspection the Code Compliance division of the Kings County Planning Agency shall:

A. Track required data from the new and expanding dairies to determine whether the *Dairy Element* and Program EIR standards and conditions of approval are being complied with.
B. Prepare, as needed, specific reports on a case-by-case basis to address problems, and work with dairies to solve any problems and ensure compliance in a timely manner.
C. Prepare a written report at least annually, and submit it to the Planning Commission on the general results of the monitoring program.

Policy DE 6.1b: The Code Compliance division shall include a qualified compliance specialist capable of reviewing the data of the monitoring programs prepared by the dairies subject to the *Dairy Element*. The compliance specialist shall be familiar with environmental issues associated with dairy operations. The compliance specialist shall determine whether the practices documented are consistent with the monitoring and reporting requirements of all of the components of the Technical Report as outlined in Appendix J, and shall provide recommendations to modify the ongoing practices.

Objective DE 6.2: Protect the environment through monitoring individual dairy operational activities so that adjustments in the operation can be made when necessary to comply with the standards.

Policy DE 6.2a: *Continuous monitoring:* Although the total county capacity of cows in the dairy industry in Kings County can only be estimated in terms of dairy process water, manure, and nutrients generated, the overall industry can be monitored to determine whether the individual operations are being operated within the limits of the standards established by this Element, and whether the theoretical limit of the County has been reached.

If the "Theoretical Dairy Herd Capacity" for Kings County is exceeded then proposed new or expanded dairies will be required to go through a full conditional use permit and individual project environmental assessment process under CEQA.

Policy DE 6.2b: Every operator shall be responsible for conducting an annual inspection of the interior and exterior slopes surrounding the manure separation pits and process water lagoons following the rainy season of each year. The inspections shall document the occurrence of any significant erosion (e.g., formation of rills or gullies longer than ten feet and/or deeper than one foot) or any significant slope failures (e.g., soil slips greater than 100 square feet in area). A report of the inspections shall be maintained at the dairy site and made available to the County Code Compliance personnel upon request. The report shall include recommendations and schedule for completing any necessary corrective action.

Policy DE 6.2c: *Minimum standards for dust control monitoring:* The County Code Compliance division shall establish requirements for monitoring the dust control measures specified under Policy DE 5.1d and e. At a minimum, the requirements shall include:

A. Performance of periodic visual inspections at dust sources throughout the dairy (i.e., cattle movement at unpaved corrals and all other unpaved or gravel paved areas).
B. Visual inspections shall be conducted and documented by the dairy operator to determine the effectiveness of dust control measures required under Policy DE 5.1e and presence/absence of breeding of mosquitoes and other vectors due to the implementation of dust control measures.
C. Visual inspections shall be conducted at the dairy site boundaries and shall be conducted at least on a monthly basis during the dry season (April through October), once during the remainder of the year, and during periods of high winds.
D. All visual inspections shall be documented by the dairy operator and the documentation shall be maintained at the Dairy Facility.
E. Performance of inspection and documentation on the implementation of the Fugitive Dust Emissions Control Plan (FDECP) required by Policy DE 5.1g and control measures required by the most recently adopted SJVUAPCD Regulation VIII by the dairy operator at the dairy shall be done at least monthly.

Policy DE 6.2d: *Minimum standards for Odor Management Plan (OMP) monitoring:* The Code Compliance division shall establish requirements for monitoring the implementation of the OMP specified under Policy DE 5.1b. At a minimum, the requirements shall include:

A. The dairy operator shall conduct quality assurance/quality control on the implementation of the standard operating procedures described in the OMP.

B. Quality assurance/quality control shall be conducted and documented by the dairy operator in a manner that will determine whether the implementation of the specified standard operating procedures indicated in the OMP are effectively reducing or controlling odors generated from livestock handling, manure collection, treatment, storage, and land application.

C. Quality assurance/quality control shall be conducted by the dairy operator when the potential for odor release/migration is high (e.g., high temperature) and on a monthly basis during the remainder of the year.

D. The results of quality assurance/quality control shall be documented. The documentation shall be maintained at the Dairy Facility.

Policy DE 6.2f: *Minimum standards for water quality monitoring program:* Water quality monitoring shall comply with all requirements and orders of the RWQCB. Copies of all reports that are required by, and submitted to, the RWQCB by any new or expanded dairy regulated under this *Dairy Element* shall also be provided a copy of those reports to the Kings County Zoning Administrator.

A. Installation of groundwater monitoring wells at each dairy adequate to characterize the variations in depth to uppermost groundwater at the Dairy Facility and chemical quality of the uppermost groundwater zone. If non-continuous perched groundwater zones underlie the facility, deeper aquifers may require monitoring. Vadose zone monitoring using lysimeters shall be required to monitor the quality of soil water, particularly in the vicinity of the lagoons. The design and installation of water quality monitoring system shall be preformed under the direction of a Registered Geologist or a Professional Engineer in accordance with California Well Standards.

B. Groundwater and soil water samples shall be analyzed, at minimum, for TDS, electrical conductivity, general mineral content, Nitrogen as nitrate and nitrite, phosphorus, and coliform or other appropriate indicator of biological contamination. This list of constituents to be analyzed may be modified at the request of the RWQCB. All samples should be analyzed by a State-certified analytical laboratory.

C. Sampling of all wells and/or lysimeters shall be conducted prior to dairy operation to establish background levels and thereafter on an annual basis. In addition, the depth to water in each well shall be measured to within an accuracy of 0.01 feet twice each year, once in the spring and once in the fall.

D. Reporting requirements shall be according to the RWQCB and Policy DE 6.4d, below.

Policy DE 6.2g: The documentation shall be kept on-site at all times and shall be made available to the *Code Compliance personnel* upon request.

Objective DE 6.3: Implement a continuous monitoring program for each dairy regulated by these policies so that adjustments in the operation can be made when necessary.

Policy DE 6.3a: *Continuous Evaluation Program:* Each new or expanded dairy will be required to conduct an annual evaluation to demonstrate that the dairy is operating within its approved parameters. The evaluation results shall be kept on the dairy site and shall be made available to the Code Compliance personnel upon request. If those parameters are exceeded, the operator must make changes to bring the dairy into conformance with the requirements of the *Dairy Element*. If the changes in operation cannot or do not correct the problem, the County may modify or revoke the facility zoning permit.

Objective DE 6.4: Establish a formal and effective process to evaluate and respond to public complaints regarding nuisances or conditions of approval violations at specific dairy operations to be managed by Code Compliance personnel.

Policy DE 6.4a: All public complaints regarding dairy operations and facilities shall be recorded with the Code Compliance division. It is the responsibility of that office to authenticate the conditions cited in the complaint through inspection of the subject dairy. As necessary, the Code Compliance personnel shall rely on the expertise of other County Departments to verify the basis and severity of a complaint and establish appropriate corrective action. Timely performance of necessary corrective action shall be required of dairy operators and verified by the Code Compliance personnel.

Policy DE 6.4b: All applications for new or expanded dairies shall include the name of, and contact information for, the person(s) responsible for responding to complaints regarding that dairy.

Policy DE 6.4c: Code Compliance personnel shall notify dairy operators of complaints and provide them opportunity to participate in the development of corrective action, if required.

Policy DE 6.4d: Each dairy operator shall retain a qualified professional (i.e., Professional Engineer or Certified Hydrogeologist) to compile and evaluate the water quality data required by Policy DE 6.2f. The Code Compliance personnel shall review the data to determine whether violations have occurred, or if corrective action is required. When considering response action for identified violations, the County shall consult with the RWQCB.