ATTACHMENT B

California Regional Water Quality Control Board
San Francisco Bay Region

General Waste Discharge Requirements

Ranch Water Quality Plan
Minimum Requirements
(Dischargers without liquid waste retention ponds within Tiers 1 or 3)

Order No. R2-2016-0031 (hereafter, General WDRs) requires Dischargers of confined animal facilities (CAF) that do not utilize liquid waste retention ponds, to prepare and implement a Ranch Water Quality Plan (RWQP) for activities within the production and/or confined areas including, but not limited to, the corrals, barns, feed storage area, compost piles, dry manure storage areas, animal wash areas, and onsite ancillary operations such as food processing. The RWQP must also include pollution prevention measures for grazing activities and pasture land activities such as grazing and solid manure applications. The complexity of a RWQP depends on each facility's activities, location, size of operation, intensity of land use, etc.

The level of regulatory oversight is dependent upon each Discharger's designated water quality tier (as defined in General WDRs, Finding 5). Tier specific requirements are described below.

Tier 1 (CAFs without liquid waste retention ponds):

1. Dischargers have the option to prepare their own RWQP, with or without the assistance of a qualified professional. Examples of these professionals include, but are not limited to, registered professional engineers (PE), or the qualified staff of the Natural Resource Conservation Service (NRCS), Resource Conservation Districts (RCDs), the University California Cooperative Extension, or technical service providers (TSPs) certified by the NRCS. The Executive Officer may approve the use of alternative specialists.

2. The RWQP shall be <u>completed and implemented within two years</u> of submitting an NOI. A statement attesting that the RWQP is complete must be submitted to the Executive Officer by separate letter or as an attachment to the Annual Report within this two year period.

3. The RWQP must include a statement from the Discharger or responsible professional that the RWQP was developed in accordance with the requirements of the General WDRs, that it includes all necessary documentation (including calculations), and that all contents of the RWQP were done consistent with requirements of the General WDRs and Title 27.

4. The RWQP must be kept on the CAF site and must be made available for review by Water Board staff during inspections. Temporary controls must be in place to prevent waste discharges to surface water and groundwater prior to implementation of the completed plan.

Tier 3 (Designated by Executive Officer due to threat to water quality):

1. The RWQP must be prepared by a qualified professional, as described above in Requirement A.1.

2. Within one year of Tier 3 designation or submittal of a Notice of Intent, the RWQP must be completed and submitted to the Water Board for review. A copy must also be kept on the CAF site and made available for review by Water Board staff during inspections. Temporary controls must be in place to prevent waste discharges to surface water and groundwater prior to implementation of the completed plan.

3. The RWQP must include a professional assessment of the overall facility, evaluating any conditions or problems preventing compliance with the State's minimum standards and/or requirements of the General WDRs (i.e., overgrazed areas, erosion problems, condition of waste collection system, proximity of confined areas to waterways, etc.).

4. The RWQP must include an improvement schedule, including short-term corrective measures to immediately address identified pollutant sources, and needed corrective measures that may require a long-term schedule due to logistics and economic considerations. Such a schedule shall not exceed 3 years.

5. If a Tier 1 facility cannot comply with all conditions and provisions of the General WDRs within 2 years, the Executive Officer may designated the facility into Tier 3. Within 1 year from this designation, the RWQP must be revised and updated by a qualified professional and all facility improvements must be completed within 2 years.

A. Minimum Pollution Prevention Standards

The purpose of the RWQP is to ensure that the CAF is designed, constructed, operated, and maintained so that wastes, nutrients, and contaminants generated by the facility are managed to prevent adverse impacts to surface water and groundwater quality. The RWQP must evaluate existing facilities and pollutant sources/problems and describe how these sources are controlled utilizing Best Management Practices (BMPs) depending on the type and size of the confined animal facility. At a minimum, the plan must demonstrate how the facility complies with or will comply with the following:

1. Facility Design and Management

a. Animal confinement areas (barns, corrals, stalls, wash racks, etc.) and storage areas for manure, feed, soil amendments, and other potential sources of contaminants shall be designed, constructed, operated and maintained to retain all waste, wastewater, and stormwater contacting these areas that are likely to accumulate up to and during a 25-year, 24 hour storm event.

b. The animal confinement areas are designed, constructed, and operated to minimize stormwater contact with manure or waste materials and to collect and divert all wastewater away from surface waters and groundwater wells. If a retention pond must be used to prevent contaminated stormwater from discharging to surface waters, then the CAF is defined as a Tier 2 facility and must comply with Tier 2 requirements.

c. Storage areas for manure, soil amendments, feed and other materials are designed and constructed to minimize infiltration of leachate and to divert clean stormwater runoff away from these areas. Where practicable, these areas should be covered to prevent stormwater contact;

d. All precipitation and clean surface drainage outside of manured and waste storage areas, including that from roofed areas and tributary drainages, shall be diverted away from manured and waste storage areas, unless such drainage is fully contained. Covers shall be used where practical during precipitation to reduce leaching and runoff.

e. All animal confinement areas, and feed and waste storage areas, shall be managed to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into underlying soils.

f. Water Wells, Section 8, Par II, in the California Well Standards, Supplemental Bulletin 74-90 (June 1991), and Bulletin 94-91 (December 1981), California Department of Water Resources (DWR), contains well setback standards. A setback of 100 feet is required between supply wells and animal enclosures in the production area. A minimum setback of 100 feet, or other control structures (such as housing, berming, grading), shall also be required for the protection of existing wells or new wells installed in the cropland. If a county or local agency adopts more stringent setback standards than that adopted by DWR, then these local standards shall carry precedence over the DWR Well Standards, and the Discharger shall comply with the more stringent standards.

2. Pasture and Land Management

The RWQP must include pollution prevention measures and/or BMPs that reduce nonpoint source pollution due to grazing, trail use, onsite roads, etc. In selecting what BMPs to use at the facility, the Discharger must take in consideration the vegetation, terrain, kind of livestock, and general facility operation procedures. An effective plan for pasture and land management shall accomplish the following:

a. Minimize delivery of sediment from ranching lands to surface waters.

b. Minimize delivery of pathogens and nutrients from ranching lands to surface waters.

c. Establish manure management operations designed to minimize runoff from entering watercourse.

d. Manage animal use areas to minimize sediment/pathogen/nutrient runoff to water course(s).

e. Construct and maintain access and ranch roads to minimize erosion.

f. Manage existing grazing operations to prevent additional erosion of legacy sediment delivery sites.

g. Manage and design animal crossings to minimize pathogen/sediment/nutrient runoff into watercourses.

h. Protect vegetation along flowing watercourses from overgrazing to maintain natural water temperatures and protect stream banks.

3. Application of Manure to Land

If manure or manure-laden debris is applied to land as fertilizer, BMPs must be in place to prevent discharges to surface and groundwater and to comply with the General WDRs Discharge Prohibitions and Waste Discharge Specifications, as follows:

a. The collection, treatment, storage, or application of manure or process water shall not:

   - Degrade surface water or groundwater,
   - Contaminate or pollute surface water or groundwater, or
   - Create a condition of nuisance (as defined by the California Water Code section 13050).

   This requirement applies to any degradation products or any constituents of soil mobilized by the interactions between applied materials and soil or soil biota.

b. The application of manure and/or wastewater shall not violate any applicable local, State, or federal laws or regulations or contribute to an exceedance of any applicable water quality objective in the Basin Plan or of any applicable State or federal water quality criteria.

c. Manure and wastewater discharges to land shall be conducted during non-rainy or non-saturated conditions must not result in runoff to surface waters and must infiltrate completely within 72 hours after application.

d. Land application areas that receive dry manure and/or process water shall be managed to minimize erosion.

e. The timing of nutrient application must correspond as closely as possible with plant nutrient uptake characteristics, while considering cropping system limitations, weather and climatic conditions, and land application area accessibility. The anticipated maximum time between land application events (i.e., the storage period) shall be used to determine the needed storage capacity.

f. Discharges to land of solid or liquid waste shall be applied at rates that are reasonable for crop, soil, climate, special local situations, management system and type of manure. The total nutrient loading shall not exceed the amount needed to meet crop demand.

g. Manure, manured bedding and process water shall not be stored or applied within a 100-foot setback to any down-gradient surface water unless a 35-foot wide vegetated buffer or physical barrier (i.e., a berm) is substituted for the 100-foot setback; or an alternative conservation practice or field-specific condition that provides pollutant reductions equivalent to or better than achieved by the 100-foot setback. Any alternative practice utilized must be described in the RWQP.

4. Flood Protection

The RWQP shall contain documentation (engineering report or a copy of flood zone map) that the concentrated confined areas have adequate flood protection in accordance with the following Title 27 requirement:

"Retention ponds and manured areas at CAFs in operation on November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak flows. CAFs existing before November 27, 1984, and that are protected against 100-year peak stream flows must continue to provide such protection. New CAFs, or portions thereof, that began operating after November 27, 1984, shall be protected against 100-year peak stream flows."

B. RWQP Outline

1. Facility Description / Map

a. Facility Name and Address.
b. Assessor's Parcel Number, and Township, Range, Section(s), and Baseline Meridian of the property where the CAF is located.
c. The name(s), address(es), and telephone number(s) of the property owner(s), facility operator(s), and the contact person for the facility.
d. A description of all activities and operations on the facility (type of animals, where and how are the animals housed and/or confined, type of waste containment facilities used, other onsite food processing operations such as cheese-making).
e. Maximum animal population categories as listed in the Notice of Intent (General WDRs Attachment F, G or H).
f. A site map (or maps) of appropriate scale to show property boundaries, all existing and proposed land-use designations (crops, grazed areas, buildings, pastures, covered and uncovered confined areas, feeding areas, etc.) and the following in sufficient detail:

- ✓ Structures used for animal housing, milk production, food processing, and other buildings; corrals and ponds; solids separation facilities (settling basins or mechanical separators); other areas where animal wastes are deposited or stored; feed storage areas; drainage flow directions and nearby surface waters; all water supply wells (domestic, irrigation, and barn wells) and groundwater monitoring wells.
- ✓ Process wastewater conveyance structures, discharge points, and discharge/mixing points with irrigation water supplies; pumping facilities and flow meter locations; upstream diversion structures, drainage ditches and canals, culverts, drainage controls (berms/levees, etc.), and drainage easements; and any additional components of the waste handling and storage system.
- ✓ The basic location and features of all land application areas under the Discharger's control (total acres of each field, whether it is owned, rented, or leased) to which manure or process wastewater from the production area is or may be applied for nutrient recycling
- ✓ The location of pasture lands and the pathways which animals travel to and from the production areas (if applicable).

2. Facility Evaluation and Improvement Plan

Each operator must assess their own facility and identify if problem areas exist that will contribute to adverse water quality impacts. If additional minor structural or management measures are required in order to ensure compliance with the terms of the General Permit, a schedule for improvement must be included within the RWQP and must not exceed 2 year.

3. Operation and Maintenance Best Management Practices

The RWQP shall describe ongoing facility operation and maintenance activities that demonstrate compliance with the discharge prohibitions and specifications of the General WDRs. The plan must describe how the operator complies with the Minimum Pollution

Prevention Standards listed above, including the management practices and stormwater pollution prevention measures for the following:

- ✓ Confined area stormwater management
- ✓ Waste storage/composting/transferring/onsite use
- ✓ Pasture management
- ✓ Design and maintenance for roads, trails, and stream crossings
- ✓ Erosion and sediment control

The plan may include daily, monthly or yearly operational check lists, and must also include, but not be limited to:

a. A description of pollution prevention measures for confined areas including heavily used areas devoid of vegetation, such as travel lanes, corrals and feed racks. Uncovered feeding and/or confined loafing areas must be scraped / cleaned of manure prior to the start of the rainy season, but no later than October 31. These areas should not be used during the rainy season, if they are a source of polluted stormwater discharges.

b. A determination of the facility's overall animal capacity with respect to existing facility design and which will prevent the discharge of animal waste or polluted stormwater to waters of the State.

c. An evaluation of any areas where animals may have access to creek channels and identification of pollution prevention measures both currently used and needed in the future to restrict animal access. All confined animals shall be fenced or excluded from any surface water or perennial streams passing through the confined area. Creek crossings shall be bridged in a manner that prevents animal waste from entering the waterway.

d. The plan must describe the methods by which manure and any process water are applied to land application areas and describe the BMPs that are implemented to protect surface water and groundwater.

e. A description of all surface water or potential conduits to surface water that are within 100 feet of any area where manure is applied as a fertilizer. Operators must take appropriate actions to protect water quality, such as utilizing vegetated buffers and setbacks from surface waters.

f. A description of pollution prevention measures for all non-manure waste or wastewater streams including, but not limited to, silage leachate, compost leachate, dead animals, waste milk, veterinary medical waste, solid and liquid waste from onsite slaughtering, solid and liquid waste from onsite food processing (such as cheese), spoiled feed, bedding, and any precipitation contacting these materials. The disposal of dead animals at the facility is prohibited. The Discharger must dispose of dead animals in compliance with all applicable federal, State, county, and local laws and regulations.

g. A detailed description of any onsite activities or operations that may generate additional waste and/or wastewater that may discharge offsite (such as onsite cheese-

making operations or animal wash water). Such a description must include, at a minimum, an analysis of all waste constituents and concentrations, estimates of daily volumes generated, pollution prevention management measures for such activities, and documentation that the waste and/or waste water is contained.

h. Manifests are required to be kept onsite to record transfer of waste to outside facilities and must be kept as part of the RWQP. The application of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner is prohibited.

i. Chemicals, including, but not limited to pesticides, herbicides, fungicides, cleaning products, equipment/machinery fluids, fertilizers and other contaminants at the facilities must be used according to manufacturer's directions and in accordance with federal, State, county, and local regulations. Chemicals must not be disposed of in any manure or process water, or stormwater storage or treatment system, unless the unit is specifically designed to treat such chemicals and other contaminants. The use of disinfectants per label directions is allowed.

j. Wellheads must be protected to prevent movement of contaminants to groundwater. The RWQP must discuss the manner by which wellheads are protected. The RWQP must contain documentation from a trained professional (i.e., a person certified by the American Backflow Prevention Association, an inspector from a State or local governmental agency who has experience and/or training in backflow prevention, or a consultant with such experience and/or training) that there are no cross-connections that would allow the backflow of waste into a well. The Executive Officer may approve the use of alternative specialists. If testing or modification of the well and/or associated piping is recommended by a responsible professional, then all testing and modifications are to be completed within 90 days from the time of the recommendation.

k. A description of all erosion and sediment control measures implemented at the CAF to protect surface water. Such measures may include, but are not limited to, installation of bridges, culverts, or armored crossings, fencing, barriers, vegetative buffers, vegetative cover and/or other control measures to protect surface waters and water quality. Feeding and locating water troughs, shade, and salt/nutrient blocks away from the watercourses may also be appropriate and are encouraged wherever possible.