

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2009-XXXX

INDIVIDUAL WASTE DISCHARGE REQUIREMENTS
FOR
BERT WESTSTEYN AND WESTSTEYN DAIRY FARMS,
DBA WESTSTEYN DAIRY
GLENN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

Findings

Facility Owner & Location

1. The Weststeyn Dairy (hereafter "facility") is owned by Weststeyn Dairy Farms and operated by Bert Weststeyn. In addition, Bert Weststeyn owns the land application area. Weststeyn Dairy Farms and Bert Weststeyn are collectively hereafter "Discharger." The facility is located in Section 12, and portions of Sections 2 and 11, Township 18N, Range 4W, Mount Diablo Base & Meridian, at 5747 County Road 65, Willows, Glenn County (see Attachment A, which is hereby made part of this Order).
2. The facility will begin milking about 8 months from the adoption of this Order.
3. The facility is not currently regulated under Order No. R5-2007-0035, Waste Discharge Requirements General Order for Existing Milk Cow Dairies (hereafter "General Order") because the facility was not operating as a dairy in October 2005. Pursuant to Finding 2 of the General Order, the Order does not apply to such facilities. The Report of Waste Discharge was submitted on 11 June 2009.

Facility Description

4. The Discharger will milk 2,200 cows and will have up to 357 dry cows and 1,000 heifers (15-24 months), 800 heifers (7-14 months), 300 heifers (4-6 months) and 300 baby calves (0-3 months). The total herd size at the facility is 4,957 Holstein animals. The maximum herd size at the facility is 4,957 animals based on the final Mitigated Negative Declaration. The maximum number of animals in each age category will not exceed the numbers given in this Finding.

5. The facility is located on 1382 acres, all of which is owned by Bert Weststeyn. Land under agricultural production at the facility is located on Assessor's Parcel Numbers 014-170-021, 014-170-028, 014-170-039, 014-170-041, 014-170-042, and 014-170-043. Of the 1382 acres at the facility, 104 acres are production area and 1278 acres are cropland. Of the 1278 acres of cropland, 520 acres can receive solid and liquid manure; 758 acres can only receive solid manure. The cropland is single and double cropped with different combinations. Specifically, 228 acres are cropped in oats, 463 acres are cropped in sorghum, 663 acres are cropped in corn, and 595 acres are alfalfa. Manure solids are used on the cropland or for bedding. (See Attachment B1)
6. The dairy production area includes four lactating cow barns, one dry cow barn/special needs barn, four heifer barns, one baby calf pen facility, hay and commodity storage pads, one mechanical separator, one wastewater storage lagoon, and one stormwater pond (See Attachment B2). No open corrals are proposed for the facility.
7. The facility is located outside the 100-year floodplain.

Waste Production

8. Waste produced at the facility consists of wastewater from facility wash down operations and storm water containing manure, urine, milk products, spoiled feed material, bedding (litter), soil, and cleaning compounds. Solid wastes are also produced at the facility and primarily consist of manure with additional fractions of spoiled feed, bedding material and soil. The barn feed lanes will be dry scraped, stacked on a concrete pad, and drained to the storage lagoon. The manure in the resting area of the barns will be composted inside the barn. The transfer lanes between the animal barns and the milk barn will be flushed.
9. The compost barns are completely covered except for the ridgeline, which extends the length of the barns and is open to vent heat. With the exception of the concrete center feed lanes, the barns will be open resting areas for the cows. The resting areas will have an earthen floor covered with a minimum of one foot of compost. The only moisture added to the compost will be from waste excreted by the resting cows. The compost will be tilled twice a day to incorporate animal waste, and additional bedding materials such as rice hulls or straw will be added as needed to keep the compost dry. The sides of the compost barns, which are partially open, will be curtained during wet weather to keep rain from entering the resting areas and wetting the compost. Twice a year, the compost will be removed and either land applied at the dairy or sold to nearby farmers. A fresh base layer will then be spread in the barn. To verify that waste constituents are not moving into the earthen floor, soil samples will be taken before the barns are put into operation and at the end of the first year of operation. If the sampling indicates that waste constituents are moving into the soil beneath the barns, the resting areas will be retrofitted with concrete floors.

10. An estimated 110,000 gallons per day (gpd) of clean water from the on-site water supply wells is used to wash down the holding pen, wash pen, and milking parlor floors, and wash down miscellaneous dairy equipment. This water will be recycled and used for sprinklers and flushing for the transfer lanes. Over 120 days, the volume of barn wastewater generated will be 13,200,000 gallons plus 3,357,257 gallons of manure loading from the flushing in the transfer lanes. One hundred twenty days (December 1 through March 30) is the maximum amount of time that waste needs to be stored at the facility between land applications.
11. Rainfall onto impervious areas of the facility, onto the ponds, and onto corrals is estimated at 6,388,579 gallons over the December through March storage period, using average rainfall figures times 1.5, removing the losses due to evaporation, and including rainfall from one 25-year, 24-hour storm.
12. The total amount of wastewater requiring storage over the 120-day maximum storage period is 22,945,836 gallons.

Wastewater Storage Lagoon

13. Wastewater generated at the facility is collected in a sump and pumped to the wastewater storage lagoon, where it is then used for irrigation of the land application area and used to flush.
14. The facility will have one wastewater storage lagoon. The wastewater storage lagoon will have dimensions of 950 feet long by 290 feet wide. The lagoon will be 18 feet deep with a 3:1 side slope. The lagoon will be lined with a 60-mil HDPE liner over a 6" thick low permeability subbase. A gas venting system will be installed below the liner to reduce the potential for the formation of gas bubbles underneath the liner that could cause the liner to float. The total storage capacity of the existing wastewater storage lagoon, allowing for two feet of freeboard, will be 23,422,703 gallons. The design of the synthetic liner has been provided in a Lagoon Design Report and must be approved by the Executive Officer prior to the commencement of construction.
15. The storage lagoon will be constructed to handle runoff from the 25-year, 24-hour storm event as long as it is properly managed throughout the year. Clean storm water, not contacting manure or animals, is diverted into the stormwater pond. Roof runoff is diverted to the stormwater pond as well.

Groundwater Monitoring

16. The Discharger has installed a monitoring well system to characterize groundwater flow and direction and gradient beneath the site, and characterize groundwater quality downgradient of the storage lagoon. There are three monitoring wells currently on site. Monitoring Well 1 is located

upgradient of the dairy. Monitoring Well 2 is downgradient of the wastewater lagoon. Monitoring Well 3 is downgradient of the barns. The discharger has submitted a Monitoring Well Installation and Sampling Plan for one additional well downgradient of the land application area.

17. Groundwater samples were collected from the existing monitoring wells in May 2008 and January 2009. Groundwater results showed that nitrate-nitrogen levels were below the Maximum Contaminant Level (MCL) and Electrical Conductivity was below the secondary MCL in all wells sampled. Depth to groundwater in the area ranged from 16 to 19 feet below ground surface. Groundwater flow was determined to be to the southeast.
18. The dairy has seven existing irrigation wells and two domestic wells on the property. Two of the irrigation wells have nitrate-nitrogen concentration in excess of the MCL, while the others are much below the MCL. The Discharger will be required to conduct a study to determine the cause of the high nitrate-nitrogen levels in the two wells and propose an appropriate remedy.

Land Application Area

19. Wastewater generated at the facility will be applied to land owned and/or operated by the dairy at agronomic rates as described in the certified Nutrient Management Plan. Any manure solids applied to land application areas will be applied at agronomic rates as described in the certified Nutrient Management Plan.
20. All land application areas that receive wastewater have tailwater recovery systems.
21. All fields, ditches, and pipelines exposed to wastewater are flushed with clean water during the last irrigation or usage of the season to remove any waste residue.

California Environmental Quality Act

22. The Glenn County Department of Planning and Public Works was the lead agency for purposes of the California Environmental Quality Act (CEQA). A Mitigated Negative Declaration (State Clearinghouse Number 2007022120) for this project was submitted to the California State Clearing House for distribution on 28 February 2007. On 11 April 2007 Board staff provided comments on the Mitigated Negative Declaration. The Mitigated Negative Declaration was adopted on 20 June 2007. The Mitigated Negative Declaration identified mitigation measures to lessen or avoid significant effects on the environment. This Order includes requirements to assure compliance with the Porter-Cologne Water Quality Control Act and the applicable Water Quality Control Plan for the Sacramento and San Joaquin

River Basins (4th Ed. Revised October 2007) (Basin Plan). This Order prohibits discharges of waste to surface water and prevents degradation of groundwater.

Antidegradation Considerations

23. State Water Resources Control Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California") (Resolution 68-16) requires that the Board maintain the high quality of waters of the State unless it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of such water, and will not result in water quality less than that prescribed in the policies. Any activity which produces or may produce waste must be required to meet waste discharge requirements which will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure that a pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the State will be maintained. This Order is consistent with Resolution 68-16. It does not authorize pollution of waters of the State. It prohibits the discharge of waste to surface waters from the production area; it prohibits the discharge of waste to surface waters from the land application area; and it prohibits pollution of surface and groundwater. This Order requires the Discharger to meet requirements that constitute best practicable treatment or control. The facility includes groundwater monitoring. This Order requires the Discharger to meet waste discharge and land application specifications, monitoring and reporting requirements, and other provisions.
24. The Weststeyn Dairy will satisfy the requirements of Resolution 68-16 through specific actions taken by the Discharger. The wastewater lagoon will be lined with a 60-mil HDPE liner over a compacted, low permeability subbase. Dirt will be placed over the bottom of liner to ensure there will be no whaling and be sure that use of the pump does not cause uplift of the liner. The land application area also has the potential to impact groundwater. The application of nutrients to crops combined with over-irrigation can cause leaching of nitrogen into the groundwater. This Order requires the Discharger to implement a certified Nutrient Management Plan that limits application of nitrogen to cropland to 1.4 times the crop uptake and controls the amount of irrigation to the fields so leaching is minimized. Groundwater monitoring will be used to verify that the requirements of the WDR are protective of groundwater.

General Findings

25. This Order regulates the storage, management, and disposal of wastes on the dairy production area and land application area to protect the beneficial uses of underlying ground water and the surface waters that receive discharges from the facility.
26. For the purposes of this Order, “waste” includes, but is not limited to, manure, leachate, wastewater and any water, precipitation or rainfall runoff that contacts raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, bedding, or sediment. Wastewater is defined as water directly or indirectly used in operation of a milk cow dairy for any or all of the following: washing, cleaning, or flushing pens, barns, manure pits, or other dairy facilities; washing or spray cooling of animals; or dust control and includes any water or precipitation and precipitation runoff which comes into contact with any raw materials, products, or byproducts including, feed, milk, or bedding. Storm water is defined as storm water runoff, surface runoff, and drainage.
27. This Order does not authorize violation of any federal, state, or local law or regulation. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from his liabilities under federal, state, or local law.
28. As stated in California Water Code Section 13263(g), the discharge of waste into waters of the State is a privilege, not a right, and this Order does not create a vested right to continue the discharge of waste. Failure to prevent conditions that create or threaten to create pollution or nuisance will be sufficient reason to modify, revoke, or enforce this Order, as well as prohibit further discharge.
29. If not controlled or retained, surface water drainage from the area flows into Logan Creek, Hunter’s Creek and Baker’s Slough. All of these creeks are tributary to the Sacramento River. Beneficial uses of the Sacramento River are: municipal, industrial supply, agricultural supply, recreation, fresh water habitat, fish migration, fish spawning, and wildlife habitat.
30. Beneficial uses of groundwater in the surrounding area are domestic, municipal, industrial, and agricultural supply.
31. The Board adopted a Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed. Revised October 2007) (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. These requirements are consistent with the Basin Plan.
32. These requirements are consistent with Title 27, Division 2, Chapter 7, Subchapter 2, California Code of Regulations, regulating confined animal facilities.

33. On 12 June 2009, the Board notified the discharger and interested parties of its intent to issue Waste Discharge Requirements for this discharge and has provided them with a copy of the proposed Order and an opportunity to submit written comments.

IT IS HEREBY ORDERED that Weststeyn Dairy Farms and Bert Weststeyn, dba Weststeyn Dairy, its owners, tenants, agents, successors, and assigns, pursuant to California Water Code Sections 13260, 13263, and 13267 and in order to meet the provisions contained in Division 7 of the California Water Code and regulations and policies adopted there under shall comply with the following;

A. Prohibitions

1. The discharge of waste other than as defined in Finding 26 above or from septic tanks, or of hazardous waste, as defined in the California Water Code Section 13173 and Title 23 CCR Section 2521 (a), respectively, is prohibited.
2. The direct or indirect discharge of waste and/or storm water from the production area to surface waters is prohibited.
3. The discharge of wastewater to surface waters from a land application area is prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this Prohibition.
4. The discharge of storm water to surface water from a land application area where manure or wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan.
5. The disposal of waste not generated by on-site animal production activities is prohibited except where a Report of Waste Discharge for the disposal has been submitted to the Executive Officer and the Board has issued or waived waste discharge requirements (WDRs).
6. The application of wastewater to a land application area before, during, or after a storm event that would result in runoff of the applied water is prohibited.
7. The discharge of waste from the facility to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plan or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations is prohibited.
8. The collection, treatment, storage, discharge or disposal of waste from the facility that results in pollution or nuisance is prohibited.

9. The disposal of dead animals in any liquid manure or wastewater system is prohibited. The disposal of dead animals at the facility is prohibited except when federal, state or local officials declare a State of Emergency and where all other options for disposal have been pursued and failed and the onsite disposal complies with all state and local policies for disposal of dead animals.
10. All animals shall be prohibited from entering any surface water within the animal confinement area (Title 27 CCR Section 22561).
11. The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner or in a manner not approved by the Executive Officer, is prohibited.
12. The land application of manure or wastewater to land application areas for other than nutrient recycling is prohibited.
13. The use of manure to construct containment structures or to repair, replace, improve, or raise existing containment structures is prohibited.
14. The direct discharge of wastewater into groundwater via backflow through water supply or irrigation supply wells is prohibited.

B. Specifications

Waste Discharge Specifications

1. The collection, treatment, storage, discharge, or disposal of wastes at the facility shall not result in: (1) discharge of waste constituents in a manner which could cause degradation of surface water or groundwater, (2) contamination or pollution of surface water or groundwater, (3) a condition of nuisance, (4) exceedance of water quality objectives, or (5) unreasonably affect beneficial uses (as defined by the California Water Code Section 13050).
2. The wastewater storage lagoon at the facility shall be operated and maintained to be protective of water quality. If at any time the design, construction, operation, and/or maintenance of the lagoon is not protective of water quality, the Discharger shall notify the Board and propose modifications in accordance with Required Reports and Notices F.1.b.
3. Prior to the construction of the proposed wastewater lagoon; construction of any new lagoon or settling pond; enlargement of any lagoon or settling pond; or in the event that the design, construction, operation and/or maintenance of the lagoons and/or ponds is not protective of water quality the Discharger

shall submit a design for review and approval by the Executive Officer. The design shall conform to either of the options described below:

- i. Tier 1: A pond designed to consist of a double liner constructed with 60-mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of Title 27) between the two liners will be considered to be consistent with Resolution 68-16. Review for ponds designed to this standard will be conducted in less than 30 days of receipt of a complete design plan package submitted to the Board.
 - b. Tier 2: A pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 or equivalent and which the Discharger must demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality as required in Specification B.4 below.
4. Prior to the construction of the proposed wastewater lagoon; construction of any new lagoon or settling pond; enlargement of any lagoon or settling pond; or in the event that the design, construction, operation and/or maintenance of the lagoons and/or ponds is not protective of water quality the Discharger shall submit a design report for review and approval by the Executive Officer prepared by, or under the direct supervision of, and certified by, a Civil Engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work. The design report shall include the following:
- a. Design calculations demonstrating that adequate containment will be achieved.
 - b. Details on the liner and leachate collection and removal system (if appropriate) materials,
 - c. A schedule for construction and certification of completion,
 - d. A construction quality assurance plan describing testing and observations needed to document construction of the pond in accordance with the design and Sections 20323 and 20324 of Title 27,
 - e. An operations and maintenance plan for the pond, and

- f. Unless waived by the Executive Officer, a technical report and groundwater model that demonstrates the proposed pond is in compliance with the groundwater limitations in this Order, including calculations that demonstrate the amount and quality of seepage from the proposed pond and its effect on water quality.
5. Prior to the placement of waste in any enlarged existing settling, storage, or retention pond or any such newly constructed pond, the Discharger shall submit a post construction report prepared by, or under the direct supervision of, and certified by, a Civil Engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work. Waste shall not be placed into the pond until the Executive Officer notifies the Discharger in writing that the post construction report is acceptable. The post construction report shall include: (1) verification that the pond meets the requirements of this Order including documentation of the results of the construction quality assurance testing and observations, (2) certification that the pond was constructed as designed and (3) as-built diagrams.
6. The facility shall have a lagoon and conveyance structures that are designed, constructed, operated, and maintained to retain all facility wastewater generated during the storage period (maximum period of time anticipated between land application of wastewater), together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm.
7. The level of waste in the storage lagoon at the facility shall be kept a minimum of two (2) feet from the top of the pond. Less freeboard may be approved by the Executive Officer when a Civil Engineer who is registered pursuant to California law, or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work, demonstrates that the structural integrity of the pond will be maintained with the proposed freeboard.
8. The wastewater storage lagoon at the facility shall be managed and maintained to prevent breeding of mosquitoes and other vectors. In particular,
 - a. Small coves and irregularities shall not be allowed around the perimeter of the water surface;
 - b. Weeds shall be minimized through control of water depth, harvesting, or other appropriate method;
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface; and

- d. Management shall be in accordance with the requirements of the Mosquito Abatement District.
9. All precipitation and surface drainage from outside of the facility (i.e., "run on") shall be diverted away from any manured areas unless such drainage is fully contained (Title 27 Section 22562(b)).
10. The lagoon designated to contain the 25-year, 24-hour storm event runoff must have a depth marker that clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation from a 25-year, 24-hour storm event.
11. The discharger will take pre-operation soil samples of the earthen floors of barns and repeat the sampling after the barns have been in operation for one year. The soil samples will be collected at depths between 3 and 6 inches below surface of the ground, and shall be tested for electrical conductivity. If the sampling indicates that waste constituents are moving into the soil beneath the barns, the barns will be retrofitted with concrete floors.
12. All roofs, buildings, and non-manured areas located in the production area at the facility shall be constructed or otherwise designed so that clean rainwater, including roof drainage, is diverted away from manured areas, including corrals and waste containment facilities, unless such drainage is fully contained in the wastewater retention system (Title 27 Section 22562(b)).
13. The milk parlor, animal confinement area, and manure and feed storage areas shall be designed and maintained to convey all water that has contacted animal wastes or feed to the wastewater retention system and to minimize standing water and the infiltration of water into the underlying soils. The Discharger shall, at a minimum of once per year, backfill any slope loss with compacted, non-manured material to maintain pre-existing slopes.
14. Unlined ditches, swales, and/or earthen-berm channels may not be used for storage of wastewater, manure, or tailwater and may only be used for conveyance of wastewater collected in the production area to the storage lagoon, conveyance of wastewater from the storage lagoon to the land application area, irrigation return water management, or temporary control of accidental spills.

Land Application Specifications

15. Land application of all waste from the facility shall be initially conducted in accordance with the certified Nutrient Management Plan. The Nutrient Management Plan is consistent with Resolution No. 68-16. Land application of wastes at the facility shall not pollute underlying groundwater or cause the underlying groundwater to contain any waste constituent, degradation

product, or any constituent of soil mobilized by the interactions between applied waste and soil or soil biota, to exceed the groundwater prohibitions and specifications set forth in this Order. The Nutrient Management Plan shall be modified within 90 days if monitoring shows that discharge from the land application is degrading ground water or fails to comply with surface water quality objectives or criteria. The modifications must be designed to bring the facility into compliance with this Order.

16. The Discharger shall have a written agreement with each third party that receives wastewater from the Discharger for its own use. Each written agreement shall be included in the Discharger's Nutrient Management Plan and Annual Report. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements that are adopted by the Central Valley Water Board and that are specific to the application of the Discharger's wastewater to land under the third party's control. The written agreement shall:
 - a. Clearly identify:
 - i. The Discharger and dairy facility from which the wastewater originates,
 - ii. The third party that will control the application of the wastewater to land application areas,
 - iii. The Assessor's Parcel Number(s) and the acreage(s) of the land application areas where the wastewater will be applied, and
 - iv. The types of crops to be fertilized with the wastewater.
 - b. Include an agreement by the third party to:
 - i. Use the wastewater at agronomic rates appropriate for the crops to be grown, and
 - ii. Prevent the runoff to surface waters of wastewater, storm water or irrigation supply water that is blended with wastewater.
 - c. Include a certification statement, as specified in General Reporting Requirements in C.7 of the Standard Provision and Reporting Requirements (which is attached to and made part of this Order), which is signed by both the Discharger and third party.
17. The application of waste to land application areas shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the certified Nutrient Management Plan. Application shall be timed to minimize nitrogen movement below the root zone.

18. Land application areas that receive dry manure shall be managed through implementation of erosion control measures to minimize erosion and must be consistent with the certified Nutrient Management Plan.
19. All wastewater applied to land application areas must infiltrate completely within 72 hours after application.
20. Wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with the certified Nutrient Management Plan.
21. Manure and wastewater shall not be applied closer than 100 feet to any down gradient surface waters, open tile line intake structures, sinkholes, or other conduits to surface waters, unless a 35-foot wide vegetated buffer or physical barrier is substituted for the 100-foot setback or alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions achieved by the 100-foot setback. Manure and wastewater shall not be applied, and corrals and wastewater ponds shall not be located, closer than 100 feet to an agricultural or domestic well. Because some of the irrigation wells and domestic well DW-1 appear to be within 100 feet of areas proposed for manure and/or wastewater application, and because domestic well DW-2 appears to be within 100 feet of the proposed animal housing, the Discharger shall conduct a Setback and Buffer Analysis to determine if the wells are within 100 feet and what protective measures are necessary to ensure that future dairy operations do not impact the wells.
22. Animal waste (manure solids) shall not be applied for disposal to any land that is not being used to grow crops. Crops must be planted within 60 days of waste application.
23. Waste and land application areas shall be managed to prevent contamination of crops grown for human consumption.

C. Interim Groundwater Limitations

1. These interim groundwater limitations are to be applied at the shallowest groundwater beneath the facility. These limitations are based on current limited information on groundwater quality at the site, but they may or may not reflect the appropriate final groundwater limitations for this site. Final Limitation will be established following completion of work required by the Order. Samples shall be analyzed for the constituents outlined in the Monitoring and Reporting Program Order No. R5-2009-XXXX. Release of

waste constituents from any treatment, storage, or disposal component associated with the facility shall not cause or contribute to groundwater:

- a. Containing constituent concentrations in excess of the concentrations specified below or background quality:
 - i. Nitrate as nitrogen of 10 mg/L (title 22 CCR MCL);
 - ii. Electrical Conductivity of 900 μ mhos/cm (Title 22 CCR Secondary MCL);
 - b. Containing taste or odor-producing constituents, toxic substances, or any other constituents, in concentrations that cause nuisance or adversely affect beneficial uses.
2. Two of the seven existing irrigation wells show anomalously high levels of nitrate-nitrogen when compared to the other five existing irrigation wells and the groundwater monitoring wells. The Discharger will conduct a study to determine the cause of the high levels of nitrate-nitrogen and will propose remedial measures. The study will be done in conjunction with a Setback and Buffer analysis for the irrigation wells and domestic wells.

D. Provisions

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Individual Waste Discharge Requirements for Dairies in the Sacramento and San Joaquin River Basins* (Standard Provisions) dated **August 2007**, which is attached to and made part of this Order.
2. The Discharger shall comply with all applicable provisions of the California Water Code, Title 27 CCR, and the applicable Water Quality Control Plans.
3. The Discharger shall comply with the attached Monitoring and Reporting Program No. R5-2009-XXXX which is part of this Order, and future revisions thereto as specified by the Board or the Executive Officer.
4. The number of animals shall not be increased above the maximum herd size stated in Finding No. 4 until the Discharger submits a new Report of Waste Discharge (ROWD) and the Regional Board has issued new Waste Discharge Requirements. The ROWD shall clearly demonstrate that the increase in animals will not constitute a threat to water quality.
5. The Discharger shall submit a complete Report of Waste Discharge in accordance with the California Water Code Section 13260 at least 140 days prior to any material change or proposed change in the character, location, or volume of the discharge, including any expansion of the facility or

development of any treatment technology, or construction of an anaerobic digester.

6. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Board.
7. The Board will review this Order periodically and may revise requirements when necessary.
8. If site conditions threaten to violate Specification B.1 or Prohibition A.2, the Discharger shall take immediate action to preclude the violation, documenting the condition and all corrective actions. Such actions shall be summarized in the annual monitoring report. Alterations of the Waste Management Plan (see Required Reports and Notices F1.b) for the production area to avoid a recurrence shall be submitted as a modification to the Waste Management Plan.
9. If a discharge of waste creates, or threatens to create, significant objectionable odors or nuisance odor and vector conditions, enforcement and/or revocation of coverage under this Order may result.
10. The Discharger shall comply with all requirements of this Order and all terms, conditions, and limitations specified by the Executive Officer.
11. Any instance of noncompliance with this Order constitutes a violation of the California Water Code and its regulations. Such noncompliance is grounds for enforcement action, and/or termination of the authorization to discharge.
12. The Discharger must maintain coverage under this Order or a subsequent revision to this Order until all manure, wastewater, and animal waste impacted soil, including soil within the wastewater lagoon, is disposed of or utilized in a manner which does not pose a threat to surface water or groundwater quality or create a condition of nuisance. At least 90 days before seeking to terminate coverage under this Order, the Discharger must submit to the Executive Officer a closure plan that ensures protection of surface water and groundwater. No more than 30 days after completion of site closure, the Discharger shall submit a closure report which documents that all closure activities were completed as proposed and approved in the closure plan. Coverage under this Order will not be terminated until cleanup is complete.
13. This Order shall become effective upon adoption by the Board.

14. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Board or court orders requiring corrective action or imposing civil monetary liability.
15. Technical reports required by this Order must be certified by an appropriately licensed professional as required in this Order and its Attachments. If the Executive Officer provides comments on any technical report, the Discharger will be required to address those comments.
16. The Discharger shall maintain a copy of this Order at the site so as to be available at all times to site-operating personnel. The Discharger, landowner and his/her designee shall be familiar with the content of this Order.

E. Permit Reopening, Revision, Revocation, and Re-Issuance

1. If more stringent applicable water quality standards are adopted in the Basin Plan, the Board may revise and modify this Order in accordance with such standards.
2. This Order may be reopened to address any changes in state plans, policies, or regulations that would affect the water quality requirements for the discharges and as authorized by state law.

F. Required Reports and Notices

1. Discharger must prepare and submit the following pursuant to Water Code Section 13267 in accordance with this Order:
 - b. The Discharger shall submit Annual Reports, Groundwater Reports, and Storm Water Reports as described in the Monitoring and Reporting Program.
 - c. **Waste Management Plan:** The Discharger has submitted a Waste Management Plan that describes and evaluates the facility's design, construction, operation, and maintenance for flood protection and waste containment. If, in the course of operation the Discharger or the Board determines that the design, construction, operation, and/or maintenance of the dairy facility is not protective of water quality, the Discharger must

notify the Board and propose modifications and a schedule for modifications that will bring the dairy facility into compliance. Certification that the modifications have been implemented shall be submitted to the Executive Officer within 30 days of completion of the modifications.

- d. **Nutrient Management Plan:** The Discharger has submitted a field-by-field Certified Nutrient Management Plan that addresses the application of wastewater to land for nutrient recycling (See Attachment C). The Plan must be maintained at the dairy, submitted to the Executive Officer upon request and must provide for protection of both surface water and groundwater. The Nutrient Management Plan shall be updated as necessary or if the Executive Officer requests that additional information be included. Groundwater monitoring will be used to determine if implementation of the Nutrient Management Plan is protective of groundwater quality.
- e. **Salinity Report:** As part of the first Annual Report, the Discharger shall submit a report that identifies sources of salt in waste generated at the dairy, evaluates measures that can be taken to minimize salt in the dairy waste, and includes a commitment to implement measures identified to minimize salt in the dairy waste. If a third party (for example, the California Dairy Quality Assurance Program) produces an industry-wide report that is acceptable to the Executive Officer, the Discharger may refer to that report rather than generating his own report, but must certify that the appropriate measures will be implemented to reduce salt in his dairy waste.
- f. **Wastewater Lagoon Design Report:** Before the construction of the wastewater lagoon can begin, the Discharger shall submit a design report and receive Executive Officer approval of the design and related documents. The design report shall meet the requirements of this Order as specified in Waste Discharge Specification B. 4.
- g. **Wastewater Lagoon Post Construction Report:** Before the wastewater lagoon can be used, the Discharger shall submit a post construction report for the newly installed wastewater lagoon and receive Executive Officer approval for its use. The post construction report shall meet the requirements of this Order as specified in Waste Discharge Specification B.5.
- h. **Monitoring Well Installation Completion Report:** Within 45 days after completion, the Discharger shall submit a completion report for the one additional monitoring well installed, and certification. The Monitoring Well Installation Completion Report shall meet the requirements of this Order as specified in Attachment D.

- i. **Setback and Buffer Analysis and Irrigation Well Study:** Before the first application of wastewater or manure solids to Field #2 or Field #3, and before the housing of animals in the barn closest to domestic well DW-2, the Discharger shall determine if DW – 1 and DW – 2 and all the irrigation wells will be within 100 feet of a source of manure or wastewater. If so, the Discharger shall prepare and submit a Setback and Buffer Analysis to identify appropriate and effective methods to protect the wellheads. In addition, before the first application of wastewater or manure solids to Field #2, the Discharger shall complete and submit an analysis of the reasons for the elevated nitrate-nitrogen concentration seen in Irrigation Wells #5 and #6 together with a plan for remediation.

- j. **Composting Barn Soils Report:** Before animals are housed in the composting barns, the Discharger shall propose to the Board locations where soil will be sampled within the composting barns for the purpose of establishing the electrical conductivity in the soils prior to implementation of the composting operation. Pre-operation soil samples will be collected, additional samples will be collected after one year of operation, and all results will be submitted in a report within 18 months of commencement of use of the composting barns.

G. Reporting Provisions

1. All annual reports or information submitted to the Board shall be signed and certified in accordance with C.7 and C.8 of the Standard Provisions.
2. The Discharger shall submit all reports as specified in the attached Monitoring and Reporting Program No. R5-2009-XXXX.
3. The Discharger shall furnish, within a reasonable time, any information the Board may request, to determine whether cause exists for modifying, revoking, and reissuing, or terminating this Order. The Discharger shall, upon request, also furnish to the Board copies of records required to be kept by this Order.
4. All reports prepared and submitted to the Executive Officer in accordance with the terms of this Order shall be available for public inspection at the offices of the Board.

H. Record Keeping

The Discharger shall create, maintain for five years, and make available to the Board upon request by the Executive Officer any reports or records required by this Order including those required under Monitoring and Reporting Program No. R5-2009-XXXX.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on Date.

PAMELA C. CREEDON, Executive Officer