California Regional Water Quality Control Board
Central Valley Region
Katherine Hart, Chair

11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

BOARD ORDER NO. R5-2010-0118 (as revised by Order R5-2011-0091)
NPDES NO. CAG015001

GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

Owners and operators of existing milk cow dairies (hereinafter Dischargers), who have complied with the requirements for coverage under this Order, are authorized to discharge wastes, once permit coverage is effective, as described in this Order.

For the purposes of this Order, references to the “Discharger”, “Permittee”, or “Enrollee” in applicable federal and state laws, regulations, plans, or policies are held to be equivalent to references to the Discharger herein.

This Order was adopted by the Regional Water Quality Control Board on:	10 December 2010
Revisions to this Order (see Order R5-2011-0091) shall become effective on:	12 March 2012
This Order shall expire on:	10 December 2015

IT IS HEREBY ORDERED that, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, all Dischargers who submit a Notice of Intent (NOI) seeking coverage under this permit, who have submitted site-specific supplemental information required under this permit, and who then are issued a Site Specific Order by the California Regional Water Quality Control Board, Central Valley Region shall comply with the requirements in this permit and in the Site Specific Order.

I, Pamela Creedon, Executive Officer, do hereby certify that this Order, with all attachments, is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 1 December 2011.

ORIGINAL SIGNED BY

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PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
BOARD ORDER NO. R5-2010-0118
NPDES NO. CAG015001

GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

BOARD ORDER NO. R5-2010-0118
NPDES NO. CAG015001

GENERAL WASTE DISCHARGE REQUIREMENTS
AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING
OPERATIONS WITHIN THE CENTRAL VALLEY REGION

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

ORDER AREA AND COVERAGE

1. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S, Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from milk cow dairy facilities to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

2. The Federal Clean Water Act (CWA) defines “concentrated animal feeding operation (CAFO)” as a point source subject to the National Pollutant Discharge Elimination System (NPDES) permitting program.

3. The USEPA has promulgated federal regulations implementing the NPDES program, including regulations for CAFOs. The federal regulations define animal feeding operations (AFOs) as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season.

4. The federal regulations define a dairy concentrated animal feeding operation (CAFO) as any dairy AFO that is either large (AFO with 700 mature dairy cows), medium (AFO with 200-699 mature dairy cows and which discharges pollutants to waters of the United States as specified), or small (less than 200 mature dairy cows and which has been specifically designated as discharging pollutants to waters of the United States).

5. This Order applies to owners or operators (hereinafter Dischargers) of any existing dairy AFO that meets a definition of a large CAFO <u>and</u> discharges ~~or proposes to discharge~~ pollutants to waters of the United States on or after 17 October 2005.

6. This Order applies to Dischargers of any existing dairy AFO that meets the definition of a medium CAFO on or after 17 October 2005 or any small AFO which is designated as a CAFO.

7. Dischargers of any existing large CAFO that does not discharge ~~or propose to discharge~~ pollutants to waters of the United States may request coverage under this Order.

8. Dischargers of any existing medium (200-699 mature dairy cows) or small (less than 200 mature dairy cows) dairy AFO may request coverage under this Order.

~~9.~~The requirement to apply for coverage under this Order is based on the discharge of pollutants to "waters of the United States", as defined by this Order. If the Discharger does not know whether it discharges ~~or proposes to discharge~~ to a water that meets the definition of "waters of the United States", the Discharger should assume that the water meets the definition of "waters of the United States" unless notified otherwise by the Executive Officer. ~~As defined by 40 CFR §122.23(d), "proposes to discharge" means~~
~~10.~~9. ~~that a facility is designed, constructed, operated, or maintained such that a discharge will occur.~~

~~11.~~10. If a CAFO has a discharge of pollutants to waters of the United States on or after 17 October 2005, the CAFO may obtain a one-time exclusion from the requirement to enroll under this Order if it does all of the following:
   a. makes any necessary modifications to the facility's design, construction, operation, and/or maintenance to permanently address the cause of the discharge and ensures that no discharge from this cause occurs in the future;
   b. has not previously requested exclusion from this Order after a discharge from the same cause and
   c. the Discharger submits to the Executive Order for review the following documentation:
      i. A Priority Reporting of Significant Events found at Attachment D; and
      ii. A detailed explanation of the steps taken by the facility to permanently address the cause of the discharge.

~~12.~~11. Once a facility is covered under this Order, the provisions of the Order apply with respect to all animals in confinement at the operation and all waste generated by those animals or the production of those animals, regardless of the type of animal.

~~13.~~12. This Order offers NPDES permit coverage to existing milk cow dairies in the area regulated by the Regional Water Quality Control Board, Central Valley Region.

~~14.~~13. For Dischargers receiving coverage under this Order, this Order replaces coverage under Waste Discharge Requirements General Order for Existing Milk Cow Dairies, Order No. R5-2007-0035 (General Order).

~~15.~~14. Each Discharger covered by this Order shall submit an application fee equal to the annual fee, pursuant to CWC section 13260. The amount of the annual fee for confined animal facilities is currently determined based primarily upon the number of

animals of the facility, as detailed in Section 2200 (c), Chapter 9, Division 3, Title 23, CCR. Fees for dischargers covered by this Order are set forth in the "Dairy" subgroup of the confined animal facilities group.

~~16.~~15. Storm water discharges that are not addressed under the effluent limitations in this Order remain subject to applicable industrial or construction storm water discharge requirements.

ELIGIBILITY FOR AND LIMITATIONS ON COVERAGE

16. Only existing milk cow dairies or milk cow dairies which are not a "new source" are eligible for coverage under this Order. CAFOs that meet the definition of a "new source" must submit information and obtain coverage under individual Waste Discharge Requirements or an individual NPDES CAFO permit.

17. For the purposes of this Order, an "existing milk cow dairy" means a dairy:

    a. That was operating as of 17 October 2005, and

    b. For which a complete Report of Waste Discharge was submitted in response to the Central Valley Water Board's 8 August 2005 request for such a report, and

    c. Which has not expanded since 17 October 2005 ("expansion" is defined in Attachment H).

18. For the purposes of this Order, a milk cow dairy which is not a "new source" means a dairy which does not meet the definition of a new source as that term is defined in CWA section 306 and Code of Federal Regulations, title 40, sections 122.2 and 122.29, For the purposes of this Order, a facility is a new source if it is a "building, structure, facility, or installation from which there may be a 'discharge of pollutants,'" the construction of which commenced after 14 April 2003. A CAFO that expanded in herd size since 17 October 2005, but with no new construction of buildings, structures, etc. will not usually be a new source.

19. Dischargers with dairies not eligible for coverage under this Order may apply for individual waste discharge requirements or for an individual NPDES CAFO permit.

20. Dischargers with existing milk cow dairies not placed under this Order will continue to be regulated pursuant to the General Order.

21. Persons discharging~~, or proposing to discharge,~~ wastes from other types of CAFOs must obtain coverage under a separate general permit or individual waste discharge requirements.

EXPIRATION AND CONTINUATION OF THIS ORDER

22. This General Order will expire five (5) years from its effective date. This Order continues in force and in effect until a new Order is issued or the Central Valley Water

Board rescinds this Order. Facilities authorized to discharge under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

a. Authorization for coverage under a reissued permit or a replacement of this Order following a timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and compliance with the requirement of the new permit; or

b. A formal decision by the Executive Officer to grant the permittee's request for termination of permit coverage; or

c. A formal decision by the Central Valley Water Board to rescind this Order, at which time the Executive Officer will identify a reasonable time period for Dischargers to either seek coverage under the General Order or, if not eligible for coverage under the General Order, file a complete Report of Waste Discharge for Individual Waste Discharge Requirements. Coverage under this Order will cease at the end of this time period.

REASON FOR THE CENTRAL VALLEY WATER BOARD ISSUING THIS ORDER

23. The Central Valley Water Board authority to regulate waste discharges that could affect the quality of the waters of the state, which includes both surface water and groundwater and to prevent nuisances, is found in the Porter-Cologne Water Quality Control Act (California Water Code Division 7).

24. The Clean Water Act (CWA) specifically includes CAFOs in the definition of the term "point source" where discharges from point sources to waters of the United States are subject to regulation under the National Pollutant Discharge Elimination System (NPDES) program.

25. The Clean Water Act authorizes the Administrator of the Environmental Protection Agency (EPA) to approve state programs to issue permits for point source discharges of pollutants into waters of the United States.

26. The State Water Resources Control Board, through its Regional Water Boards and pursuant to California Water Code Division 7, Chapter 5.5, in 1973 received authorization from the EPA Administrator to issue NPDES permits, and in 1989 received authorization from the EPA Administrator to issue general NPDES permits.

27. In regulating discharges of waste, the Central Valley Water Board implements Federal and State laws and regulations. The Central Valley Water Board implements Federal laws and regulations under California Water Code Division 7, Chapter 5.5. California regulations governing discharges from confined animal facilities are contained in Title 27 of the California Code of Regulations (CCR), Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1 (Title 27).

28. **Technology-based Effluent Limitations**. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of

Federal Regulations (40 CFR 122.44), require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Any discharge authorized by this Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards for the CAFO Category in 40 CFR Part 412, Subpart C (Dairy and Beef Cattle other than Veal Calves). A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet.

29. **Water Quality-Based Effluent Limitations (WQBELs).** Section 301 (b) of the CWA and 40 CFR 122.44 (d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains additional requirements that are necessary to achieve water quality standards for surface waters. A detailed discussion of the basis for the WQBELs is included in the Fact Sheet.

301. This Order implements the applicable requirements of State Water Resources Control Board Resolution 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*) (Resolution 68-16),40 CFR § 131.12 (federal antidegradation policy), Title 27 CCR for confined animal facilities, the Central Valley Water Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed.) and Water Quality Control Plan for the Tulare Lake Basin (2nd Ed.) (Basin Plans) and other applicable plans and policies of the State Water Resources Control Board (State Water Board) and the Central Valley Water Board described in the Fact Sheet (Attachment F), which is attached to and made part of this Order.

31. For the purposes of this Order, "waste" includes, but is not limited to, manure, litter, leachate, process wastewater and any water, precipitation or rainfall runoff that contacts raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, or bedding.

32. This Order does not authorize any further degradation to groundwater and prohibits discharges from production areas to surface waters. This Order also contains many restrictions, including the requirement to comply with a Nutrient Management Plan, for the application of waste to land application areas. However, it is possible that some minor degradation to surface waters from the application of waste to land application areas could occur despite compliance with this Order. That degradation would be limited because any such discharge may not cause or contribute to the exceedance of any water quality objective in the surface water. Such possible minor degradation is consistent with the maximum benefit to the people of the state. This Order would continue to impose relatively new and more stringent requirements on these existing facilities than has been imposed in the past and as a result, water quality will be improved. While this Order will continue those requirements, it will still accommodate important economic activities in mostly rural areas of the Central Valley Region, which is considered to be a benefit to the people of the State. Given that these are existing facilities, this Order would reduce the impacts that may have occurred under previous regulation of these facilities.

This Order will result in implementation of best practicable treatment or control as set forth in the Fact Sheet.

This Order will assure that 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. For example, the proposed Order prohibits discharges to surface water from the production area (except as provided in Effluent Limitations and Standards for the Production Area) and prohibits discharges from land application areas with certain exceptions, including but not limited to, storm water discharges when the dairy prepares and implements a Nutrient Management Plan. Any authorized discharge from the land application area must not cause or contribute to an exceedance of any applicable water quality objective or federal water quality criteria. The proposed Order prohibits any further degradation of groundwater. The Order addresses impacts from future discharges of waste, but does not address the cleanup of existing degraded surface and groundwater from past dairy operations. Any required cleanup would be handled under separate authority under the Water Code.

DAIRY IMPACTS ON WATER QUALITY

33. Groundwater monitoring shows that many dairies in the Region have impacted groundwater quality. A study of five dairies in a high-risk groundwater area in the Region found that groundwater beneath dairies that were thought to have good waste management and land application practices had elevated levels of salts and nitrates beneath the production and land application areas. The Central Valley Water Board requested monitoring at 80 dairies with poor waste management practices in the Tulare Lake Basin. This monitoring has also shown groundwater pollution under many of the dairies, including where groundwater is as deep as 120 feet and in areas underlain by fine-grained sediments.

34. No set of waste management practices has been demonstrated to be protective of groundwater quality in all circumstances. Since groundwater monitoring is the most direct way to determine if management practices at a dairy are protective of groundwater, the Monitoring and Reporting Program (Attachment D), which is attached to and made part of this Order, requires groundwater monitoring to determine if a dairy is in compliance with the groundwater limitations of this Order.

35. The Central Valley Water Board has documented discharges of waste from existing milk cow dairies to surface water and has taken appropriate enforcement actions in such cases. This Order prohibits discharges of: waste and/or storm water to surface water from the production area (except as provided in Effluent Limitations and Standards for the Production Area); manure and process wastewater to surface waters from cropland; and storm water to surface water from a land application area where manure or process wastewater has been applied unless the land application area has been managed consistent with a certified Nutrient Management Plan. When such storm water discharges do occur, this Order requires the Discharger to monitor these discharges.

36. The milk cow dairies at which this Order is directed were in existence prior to October 2005 and many were constructed several decades ago. Historic operation of these dairies has presumptively resulted in an adverse effect on the quality of waters of the state. Groundwater data are needed to determine the existence and magnitude of these impacts. If data document impacts, continued operation of dairies without waste management improvements will perpetuate the ongoing adverse water quality effects caused by the generation and disposal of dairy waste.

STATE AND FEDERAL ANTIDEGRADATION POLICIES

37. This Order is consistent with State Board Resolution 68-16 and with Code of Federal Regulations Title 40, section 131.12. State Water Board Resolution 68-16 (State Antidegradation Policy) requires that any discharge of waste to waters of the state be regulated to achieve the highest water quality consistent with the maximum benefit of the people of the state. With respect to surface water, Resolution 68-16 must be implemented consistent with Title 40 Code of Federal Regulations Section 131.12 (Federal Antidegradation Policy). Resolution 68-16 incorporates the Federal Antidegradation Policy where the federal policy applies. The Central Valley Water Board's Basin Plan implements, and incorporates by reference, both the State and Federal Antidegradation Policies. As discussed in detail in the Fact Sheet (Attachment F), the permitted discharge is consistent with both the State and Federal Antidegradation Policies. If however, the Central Valley Water Board, subsequent to review of any application, finds that the impact of a discharge will not be consistent, then authorization for coverage under this Order will be denied and coverage under an individual permit will be required (including preparation of an antidegradation analysis).

ENVIRONMENTAL STEWARDSHIP PROGRAMS

38. Environmental stewardship programs, such as the California Dairy Quality Assurance Program, and local ordinances can greatly assist the Central Valley Water Board efforts to assure compliance with this Order. Since its inception in 1998, the California Dairy Quality Assurance Program's efforts have resulted in dairy operators having a greater understanding of the need for water quality protection. Recently adopted local ordinances in several counties throughout the Region have also increased dairy operators' understanding of the needs for water quality protection. Dairies that are certified under a quality assurance program approved by the State Water Board or under a County regulatory program approved by the Central Valley Water Board receive a 50 percent reduction in their annual fee.

39. Participation in an Environmental Stewardship Program or operation of a dairy in a county that has a local ordinance regulating dairies may assist an existing dairy facility in meeting the requirements of this Order but these programs are not a substitute for regulation under this Order.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

40. Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of California Environmental Quality Act (CEQA), Public Resources Code sections 21100-21177, Requirements for "new sources" as defined in the Federal Water Pollution Control Act Are not covered by the exemption.

41. Any facility that is a "new source," as that term is defined in CWA section 306 and Code of Federal Regulations, title 40, sections 122.2 and 122.29, must demonstrate that it is an "existing facility" under CEQA Guidelines Exemption 1 for Existing Facilities (Cal. Code of Regs., tit. 14, §15301) before coverage under this Order can be issued for the project. New sources that do not qualify for the Existing Facilities categorical exemption will be required to submit an application for an individual NPDES permit and action on that application will require compliance with CEQA.

42. CEQA Guidelines Exemption 1 for Existing Facilities (Cal. Code of Regs., tit. 14, §15301) applies to "*…the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination…*" Consistent with Waste Discharge Requirements General Order No. R5-2007-0035, under which the majority of dairy AFOs are currently regulated in the Central Valley, the environmental baseline for this action is considered the milk cow dairies as they and their surrounding physical environment existed on 17 October 2005. Board action with regard to facilities existing as of 17 October 2005 is categorically exempt from the requirements of CEQA. A complete definition of existing facilities is provided in Attachment H.

43. Two additional CEQA categorical exemptions are also applicable to this action. CEQA Guidelines Exemption 2 for Replacement of Existing Structures (Cal. Code of Regs., tit. 14, §15302) exempts "*replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced."* Consistent with the categorical exemption for Replacement of Existing Structures, this Order may require covered dairies to replace or reconstruct ponds or other structures on the facility to ensure proper function in compliance with this Order. CEQA Guidelines Exemption 4 for Minor Alterations (Cal. Code of Regs., tit. 14, §15304) exempts "*minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes…" C*onsistent with the categorical exemption for Minor Alterations, this Order may require covered dairies to make improvements to their facilities that will result in minor alterations to land, water, and/or vegetation.

44. Food and Agricultural Code Section 33487 exempts state agencies from any requirement to prepare a CEQA environmental impact report for dairy farms under the following circumstances: (1) when the dairy will be constructed and operated in accordance with the minimum standards in Chapter 5 of the Food and Agricultural Code; (2) where the applicable local agencies have completed all necessary reviews and approvals including that required by CEQA; and (3) where a permit for construction was issued by a local agency on or after the effective date of Food and Agricultural Code Section 33487 and construction has begun.

GENERAL FINDINGS

45. This Order does not authorize violation of any federal, state, or local law or regulation.

46. **Endangered Species Act**. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

47. **Monitoring and Reporting**. 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Central Valley Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. The Monitoring and Reporting Program is provided in Attachment D.

48. 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.

49. The Findings of this Order, supplemental information and details in the attached Fact Sheet, and the administrative record of the Central Valley Water Board relevant to milk cow dairies, were considered in establishing the conditions of discharge. The Fact Sheet, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through I are also incorporated into this Order.

50. The Central Valley Water Board has notified interested agencies and persons of its intent to issue this Order for discharges of wastes from existing milk cow dairies, and has provided them with an opportunity for a public hearing and an opportunity to submit comments.

51. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the proposal to regulate discharges of wastes from existing milk cow dairies under this Order.

52. Any person affected by this action of the Central Valley Water Board may petition the State Water Board to review this action. The State Water Board must receive the petition within 30 days of the date on which the Central Valley Water Board adopted this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

53. This NPDES Permit is in compliance with Part 402 of the CWA and shall take effect 100 days after adoption by the Central Valley Water Board.

IT IS HEREBY ORDERED that, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, all Dischargers who submit a Notice of Intent (NOI) seeking coverage under this permit, who have submitted site-specific supplemental information required under this permit, and who then are issued a Site-Specific Order by the California Regional Water Quality Control Board, Central Valley Region, their agents, successors, and assigns, shall comply with the following:

A. PROHIBITIONS

1. The discharge of waste, other than as defined in Finding 31 above, or hazardous waste, as defined in California Water Code Section 13173 and Title 23 CCR Section 2521(a), respectively, is prohibited. Discharges of waste other than as defined in Finding 31 may be covered under other waste discharge requirements.

2. The discharge of waste from existing milk cow dairies to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations is prohibited.

3. The collection, treatment, storage, discharge or disposal of wastes at an existing milk cow dairy that results in (1) discharge of waste constituents in a manner which could cause degradation of surface water or groundwater except as allowed by this Order, (2) contamination or pollution of surface water or groundwater, or (3) a condition of nuisance (as defined by the California Water Code Section 13050) is prohibited.

4. 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 Central Valley Water Board has issued or waived waste discharge requirements (WDRs).

5. The disposal of dead animals in any liquid manure or process wastewater system is prohibited. The disposal of dead animals at a dairy 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. In an emergency, guidance is provided by the *CAL/EPA Emergency Animal Disease Regulatory Guidance for Disposal and Decontamination* (October 20, 2004).Dead animals must be properly disposed of within three (3) days unless otherwise provided for by the Executive Officer.

6. All confined animals shall be prohibited from entering or directly contacting any surface water (Title 27 CCR Section 22561, 40 CFR § 122.42 (e)).

7. 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.

8. The land application of manure or process wastewater to cropland for other than nutrient recycling is prohibited.

9. The discharge of wastewater to surface waters from cropland is prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this Prohibition.

10. The application of process wastewater to a land application area before, during, or after a storm event that would result in runoff of the applied water is prohibited.

11. The discharge of storm water to surface water from a land application area where manure or process wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan.

12. The application of manure or process wastewater to standing water 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.

15. The expansion of the existing milk cow dairy facility, such that it meets the definition of a “new source” is prohibited.

16. The discharge of tailwater to surface water from a land application area where irrigation has occurred less than 60 days after application of manure and/or process wastewater is prohibited unless the cropland is managed pursuant to a NMP that meets the requirements of the Monitoring and Reporting Program (Attachment D) and Attachment C of this Order, discharges are monitored in accordance with Table 3 of the Monitoring and Reporting Program (Attachment D), and turbidity of the discharge does not exceed the turbidity limitations as specified in Section E of this Order.

17. The discharge of chemicals and other contaminants handled on-site into any manure, process wastewater, or storm water storage or treatment system is prohibited unless the system is specifically designed to treat such chemicals or contaminants.

B. GENERAL SPECIFICATIONS

1. The existing milk cow dairy shall have facilities that are designed, constructed, operated, and maintained to retain all facility manure, litter, and process wastewater generated during the storage period (maximum period of time anticipated between land application of process wastewater), together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour

storm (see item II of Attachment B, which is attached to and made part of this Order).

2. In the Sacramento and San Joaquin River Basins, ponds and manured areas at existing milk cow dairies in operation on or before 27 November 1984 shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Existing milk cow dairies that were in operation on or before 27 November 1984 and that are protected against 100-year peak stream flows must continue to provide such protection. Existing milk cow dairies built or expanded after 27 November 1984 shall be protected against 100-year peak stream flows (Title 27 Section 22562(c)).

3. In the Tulare Lake Basin, existing milk cow dairies that existed as of 25 July 1975 shall be protected from inundation or washout from overflow from any stream channel during 20-year peak stream flows and existing milk cow dairies constructed after 25 July 1975 shall be protected from 100-year peak stream flows. Existing milk cow dairies expanded after 8 December 1984 shall be protected from 100-year peak stream flows.

4. Wastes and land application areas shall be managed to prevent contamination of crops grown for human consumption.

5. Dischargers shall provide an engineering evaluation of an existing pond and propose and implement approved remedial measures when groundwater monitoring demonstrates that the existing pond has adversely impacted groundwater quality.

6. New ponds installed in order to comply with the requirements of this Order (i.e., to increase the storage capacity to meet the existing facility conditions, not related to an expansion) or existing ponds reconstructed for the same purpose shall be designed and constructed to comply with the groundwater limitations in this Order.

7. Pond design must be reviewed and approved by the Executive Officer prior to construction. This Order provides a tiered approach to pond design requirements to provide an option that will significantly reduce the time required for approval by the Executive Officer as defined below:

   a. 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.

   b. Tier 2: Any non-Tier 1 pond design that the Discharger demonstrates through submittal of technical reports is protective of groundwater quality as required in General Specification B.8 below.

8. Prior to the enlargement of an existing settling, storage, or retention pond or the construction of any such new pond not associated with an expansion, the Discharger shall submit to the Executive Officer:

a. For Tier 1 and 2 pond design, a design 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. The design report shall include the following, as specified in Section II.B of Attachment B to this Order:

   i. Design calculations demonstrating that adequate containment will be achieved,

   ii. Details on the liner and leachate collection and removal system (if appropriate) materials,

   iii. A schedule for construction and certification of completion to comply with the Schedule of Tasks J.1 of this Order,

   iv. 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, and

   v. An operations and maintenance plan for the pond.

b. For Tier 2 pond design, the design report shall also include 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 groundwater quality, and include proposed groundwater monitoring to evaluate the impact of pond seepage on groundwater quality.

   Enlargement of any existing pond or construction of any new pond shall not begin until the Executive Officer notifies the Discharger in writing that the design report is acceptable.

9. 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 as specified in General Specification B.7 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.

10. The level of waste in the process wastewater retention ponds shall be kept a minimum of two (2) feet from the top of each aboveground embankment and a minimum of one (1) foot from the ground surface of each belowground 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.

11. Ponds 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.

12. All precipitation and surface drainage from outside of the existing milk cow dairy (i.e., “run on”) shall be diverted away from any manured areas unless such drainage is fully contained.

13. All ponds 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. The marker shall be visible from the top of the pond embankment.

14. All roofs, buildings, and non-manured areas located in the production area of the existing milk cow dairy shall be constructed or otherwise designed so that clean rainwater is diverted away from manured areas and waste containment facilities, unless such drainage is fully contained in the wastewater retention system.

15. Roof drainage from barns, milk houses, or shelters shall not drain into the corrals unless the corrals are properly graded and drained.

16. The milk parlor, animal confinement area (including corrals), 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 as of 72 hours after the last rainfall and the infiltration of water into the underlying soils.

17. Unlined ditches, swales, and/or earthen-berm channels may not be used for storage of process wastewater, manure, or tailwater and may only be used for conveyance

of process wastewater collected in the production area to the retention pond, conveyance of process wastewater from the retention pond to the land application area, irrigation return water management, or temporary control of accidental spills, or rainfall-induced overflows at existing milk cow dairies designed, constructed, operated, and maintained in compliance with General Specification B.1.

C. EFFLUENT LIMITATIONS AND STANDARDS FOR THE PRODUCTION AREA

1. Technology-based Effluent Limitations and Standards – There shall be no discharge of waste pollutants into surface waters from the production area except as provided below:
    a. Whenever precipitation causes an overflow of waste, pollutants in the overflow may be discharged into surface waters provided:
        1. the production area is properly designed, constructed, operated, and maintained as specified in General Specification B1, and
        2. the production area is operated in accordance with the additional measures and records specified in the General Specifications and in the Monitoring and Reporting Program (Attachment D).

2. Water Quality-based Effluent Limitations and Standards – The following conditions are established to protect water quality standards for discharges to water quality impaired waters:
    a. If the CAFO discharged or has an unanticipated discharge to an impaired water with an approved or established TMDL, the Executive Officer will inform the facility if any additional limits or controls are necessary for the discharge to be consistent with the assumptions of any available wasteload allocation in the TMDL, or if coverage under an individual permit is necessary. Any additional limits or controls shall be included in the NMP;

    b. If the CAFO discharged or has an unanticipated discharge to an impaired water without an approved or established TMDL, the Executive Officer will inform the facility if any additional limits or controls are necessary to meet water quality standards, or if coverage under an individual permit is necessary. Any additional limits or controls shall be included in the NMP.

    c. If at any time the facility becomes aware, or the Executive Officer determines, that a discharge to an impaired water has occurred ~~or is proposed to occur~~ and the requirements of 2a. and 2b. have not been addressed, the facility must take corrective action to fulfill the requirements of 2a. and 2b. Any changes to the NMP required to fulfill the requirements of 2a. and 2b. shall be done in accordance with Attachment C.

D. LAND APPLICATION SPECIFICATIONS

1. Land application of all waste from the facility to areas under the Discharger's control shall be conducted in accordance with a certified Nutrient Management Plan (NMP) as required in Required Reports and Notices H.1.c below, consistent with the Technical Standards for Nutrient Management as specified in Attachment C. Certification that the NMP has been completely implemented shall be provided prior to the adoption of the Site Specific Order. The Discharger shall propose modifications to the Nutrient Management Plan within 90 days if monitoring shows that discharge from the land application fails to comply with the Groundwater Limitations of this Order or surface water quality objectives or criteria. The modifications must be designed to bring Dischargers into compliance with this Order.

2. The Discharger shall have a written agreement with each third party that receives process wastewater from the Discharger for its own use. The written agreement shall be provided as part of the first Annual Report prepared pursuant to this order. If the written agreement is modified or cancelled, or if additional written agreements are made, the updated agreements or information shall be included in the first Annual Report submitted subsequent to the change(s). 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. The written agreement shall:

   a. Clearly identify:

      i. The Discharger and dairy facility from which the process wastewater originates,

      ii. The third party that will control the application of the process wastewater to cropland,

      iii. The Assessor's Parcel Number(s) and the acreage(s) of the cropland where the process wastewater will be applied, and

      iv. The types of crops to be fertilized with the process wastewater.

   b. Include an agreement by the third party to:

      i. Use the process 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 has come into contact with manure or is blended with wastewater.

   c. Include a certification statement, as specified in General Reporting Requirements C.7 of the Standard Provision and Reporting Requirements (Attachment E), which is signed by both the Discharger and third party.

3. The Discharger shall have a manifest for each transfer of manure or process wastewater to other persons. Prior to transferring manure or process wastewater to other persons, the Discharger must provide the recipient of the manure or process wastewater with the most current nutrient analysis for informational purposes. Manifests shall contain all the information shown on Attachment G, shall be copied and submitted as part of the annual report pursuant to MRP Section C, Annual Reporting – General Section, item 15, and shall be kept for five years at the dairy pursuant to MRP Section B.5.

4. Land application of wastes for nutrient recycling from existing milk cow dairies shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.

5. The application of animal waste and other materials containing nutrients to any cropland under control of the Discharger shall meet the following conditions:

    a. The application is in accordance with a certified Nutrient Management Plan developed and implemented in accordance with Required Reports and Notices H.1.c and Attachment C of this Order; and

    b. Records are prepared and maintained as specified in the Record-Keeping Requirements of the Monitoring and Reporting Program (Attachment D).

6. The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the certified Nutrient Management Plan.

7. Land application areas that receive dry manure shall be managed through implementation of erosion control measures to minimize erosion and must be consistent with a certified Nutrient Management Plan.

8. All process wastewater applied to land application areas must infiltrate completely within 72 hours after application.

9. Process wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see Attachment C) and the Discharger's Site Specific Order. In no case shall manure or process wastewater be applied to standing water.

10. Manure and process wastewater shall not be applied closer than 100 feet to any down gradient surface waters, open tile line intake structures, sinkholes, agricultural or domestic well heads, 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.

11. Areas shall be identified that, due to topography, activities, or other factors, have a high potential for significant soil erosion. Where these areas have the potential to contribute pollutants to waters of the United States, measures used to limit erosion and pollutant runoff shall be identified.

E. EFFLUENT LIMITATIONS AND STANDARDS FOR THE LAND APPLICATION AREA

1. Land Application Areas under the Control of the Discharger must be managed pursuant to a Nutrient Management Plan (NMP) that meets the requirements of the Monitoring and Reporting Program (Attachment D) and Attachment C of this Order.
2. Dischargers must calculate the maximum amounts of total manure (tons) and process wastewater (gallons or acre-inches) to be land applied to each land application area at least once during the annual reporting period before land applying, and calculate the nitrogen content of this waste. The calculations shall be based on the field-specific determination of soil levels of nitrogen (including a concurrent determination of nitrogen that will be plant available), the results of the most recent representative manure and process wastewater tests for nitrogen taken within 12 months of the date of land application, and the planned application rate for each specific crop as determined in the Nutrient Management Plan.
3. Discharges of manure or process wastewater from land application areas to surface water are prohibited.
4. Discharges of stormwater or tailwater from a land application area are permitted provided that:
   a. the cropland is managed pursuant to a NMP that meets the requirements of the Monitoring and Reporting Program (Attachment D) and Attachment C of this Order;
   b. discharges are monitored in accordance with Table 3 of the Monitoring and Reporting Program (Attachment D);
   c. turbidity of the discharge does not exceed the following limitations as specified in the Basin Plan:
      i. waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses, and
      ii. increases in turbidity shall not exceed the following limits:
         A. Where natural turbidity upstream of the discharge is less than 1 Nephelometric Turbidity Unit (NTU), controllable factors shall not cause downstream turbidity to exceed 2 NTUs.

B. Where natural turbidity upstream of the discharge is between 1 and 5 NTUs, controllable factors shall not cause downstream turbidity to exceed 1 NTU.

C. Where natural turbidity upstream of the discharge is between 5 and 50 NTUs, controllable factors shall not cause downstream turbidity to exceed 20 percent.

D. Where natural turbidity upstream of the discharge is between 50 and 100 NTUs, controllable factors shall not cause downstream turbidity to exceed 10 NTUs.

E. Where natural turbidity upstream of the discharge is greater than 100 NTUs, controllable factors shall not cause downstream turbidity to exceed 10 percent.

F. GROUNDWATER LIMITATIONS

1. Discharge of waste at facilities shall not cause the underlying groundwater to exceed water quality objectives or background quality, whichever is greater; to unreasonably affect beneficial uses; or to cause a condition of pollution or nuisance. Water Quality Objectives are specified in the Central Valley Water Board's Water Quality Control Plan for Sacramento and San Joaquin River, Fourth Edition, and the Water Quality Control Plan for the Tulare Lake Basin Plan, Second Edition.

G. PROVISIONS

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for General Waste Discharge Requirements and General National Pollutant Discharge Elimination System (NPDES) Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley, General Order No. R5-2010-0118* (Standard Provisions) (Attachment E), 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 (Attachment D), and future revisions thereto.

4. 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.

5. This Order does not apply to facilities where wastes such as, but not limited to, whey, cannery wastes, septage, municipal or industrial sludge, municipal or industrial biosolids, ash or similar types of waste are generated onsite or are

proposed to be brought onto the dairy or associated croplands for the purpose of nutrient recycling or disposal. The Discharger shall submit a complete Report of Waste Discharge and receive WDRs or a waste-specific waiver of WDRs from the Central Valley Water Board prior to receiving such waste.

6. If site conditions threaten to violate Prohibition A.3, the Discharger shall take immediate action to preclude the violation, documenting the condition and all corrective actions. Records of such actions shall be kept and maintained as required in the Monitoring and Reporting Program (Attachment D). Alterations of the Waste Management Plan (see Required Reports and Notices H.1.a) for the production area to avoid a recurrence shall be submitted as a modification to the Waste Management Plan.

7. The Discharger shall comply with all requirements of this Order and all terms, conditions, and limitations specified by the Executive Officer.

8. Any instance of noncompliance with this Order constitutes a violation of the California Water Code and its regulations, and of the federal Clean Water Act and regulations and guidelines adopted thereunder. Such noncompliance is grounds for enforcement action, and/or termination of the authorization to discharge.

9. 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 Central Valley Water 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 Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in terminating the applicability of this Order to a specific facility or Discharger.

10. Technical reports (Monitoring Well Installation and Sampling Plan, Monitoring Well Installation Completion Report, Groundwater Monitoring Report, Waste Management Plan Certification, and portions of the Waste Management Plan) required by this Order must be certified by an appropriately licensed professional as required in this Order and its Attachments (see Schedule of Tasks J.1 below). If the Executive Officer provides comments on any technical report, the Discharger will be required to address those comments.

11. The Discharger shall maintain a copy of this Order, the Site Specific Order, the NMP, and the WMP 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 contents of this Order.

H. APPLICATION FOR COVERAGE, NMP AND WMP REVIEW, AND DEVELOPMENT OF SITE-SPECIFIC ORDER TERMS

1. Application for coverage - Dischargers seeking or required to be covered by this Order must:

    a. Submit an Notice of Intent (NOI) to the Executive Officer.

    b. Submit a Nutrient Management Plan (NMP) that meets the requirements of Attachment C, unless there is no discharge of solid manure or process wastewater to cropland at the CAFO.

    c. Submit a Waste Management Plan (WMP) that meets the requirements of Attachment B, including any design information for construction or modification of wastewater lagoons necessary to ensure adequate storage. .
    d. Submit any other information deemed necessary by the Executive Officer.

2. The NOI shall include the following information, pursuant to 40 CFR 122.21(i) (1):

    a. The name, address, and telephone number of the Discharger. If there is both an owner and an operator, information shall be provided for both parties.

    b. The facility location and mailing addresses;

    c. Latitude and longitude of the production area (entrance to production area);

    d. A topographic map of the geographic area in which the facility is located showing the specific location of the production area;

    e. A completed Annual Dairy Facility Assessment (ADFA), including specific information about the number and type of animals, whether in open confinement or housed under roof; the type of containment and storage (anaerobic lagoon, roofed storage shed, storage ponds, above ground and below ground storage tanks, concrete pad, compacted soil pad or other) and total capacity for manure and process wastewater storage (tons/gallons); the total number of acres under control of the Discharger available for land application of manure and/or process wastewater; estimated amounts of manure and process wastewater generated per year (tons/gallons); and estimated amounts of manure and process wastewater transferred to other persons per year (tons/gallons); and

    f. Land application best management practices that will be implemented to control runoff and protect water quality in accordance with Attachment C.

3. <u>Signature Requirements</u>: The NOI must be signed by the owner and operator in accordance with Standard Provisions and Reporting Requirements C. 7 and 8.

4. <u>Where to submit</u>: All required submittals shall be submitted to the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water

Board) at the addresses listed in Standard Provisions and Reporting Requirements, C. 11.

5. Upon receipt, the Central Valley Water Board will review the NOI, NMP, and WMP to ensure that all order requirements are fulfilled. Additional information may be requested from the Discharger if needed to complete the NOI, NMP, or WMP or clarify, modify, or supplement previously submitted material. The WMP information will be reviewed to ensure that any wastewater lagoon design information is complete.

6. The NOI, NMP, and WMP, will be used by the Executive Officer to identify site specific terms and conditions proposed to the Central Valley Water Board for incorporation into the Order ("Site Specific Order"). The Site Specific Order for each facility will include, but not be limited to, the following elements, which shall meet the requirements set forth in Attachments B and C:

   a. Discharger information, including site specific order number, facility name, facility address, and owner and operator name; and

   b. Site Specific Order Terms, including, but not limited to:

      i. Proof of adequate storage - a table documenting that process wastewater storage is adequate, including the name of each storage pond, its total capacity, and the maximum period during which wastewater will be stored in that pond;

      ii. Mortality Management – documentation that mortalities will be managed to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system;

      iii. Clean Water Diversion – documentation that clean water is either diverted from contact with waste or is included in the calculations of storage capacity for wastewater;

      iv. Prevent Direct Contact of Animals and Surface Water – documentation that confined animals will be prevented from direct contact with surface water;

      v. Proper Chemical Disposal – documentation that chemicals and other contaminants handled on-site are not disposed of in any manure, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals or contaminants;

      vi. Site specific Conservation Practices – a table listing all practices implemented to control runoff of pollutants to waters of the United States and specifically, to minimize the runoff of N and P (including information on setbacks and buffers for each agricultural well on the facility);

vii. Protocols for appropriate testing of manure, wastewater, and soil (can reference the appropriate portion of the site specific NMP); and

viii. Land Application Information – a table listing each field, the crops that may be grown in each, the yield goal for each crop, the recommended application rate for N for each crop, and the maximum amount of N and P to be applied from all sources.

c. A statement from the Discharger certifying that the NMP has been completely implemented and that all the improvements identified in the WMP have been completed.

d. In addition, all Dischargers covered under this Order are expected to comply with the record-keeping, manure/process wastewater manifest, reporting, and NMP provisions of this Order.

7. When the Executive Officer determines that the NOI, NMP, and WMP are complete, the NOI, NMP, WMP, and draft Site Specific Order will be made available for a 30-day public review and comment period. The notice of the 30-day review will provide the opportunity for the public to request a public hearing on the NOI and draft NMP in accordance with 40 CFR 124.11 and 12.

8. The period of time for the public to comment and request a hearing on the proposed terms of the NMP and WMP to be incorporated into the permit (i.e., the Site Specific Order) shall be thirty (30) days.

9. The Executive Officer will respond to comments received during the comment period and, if necessary, require the Discharger to revise the NMP or WMP in order to be granted Order coverage.

10. The Central Valley Water Board, in a public meeting, will hear and consider all comments pertaining to the application and will vote to grant or deny coverage to the Discharger. When the Board grants coverage to the Discharger, the terms of the NMP, WMP, and Site Specific Order, shall be incorporated as terms and conditions of the Order for the Discharger.

11. Each facility covered by this Order must comply with the Site Specific Order established by the Central Valley Water Board.

I. PERMIT REOPENING, REVISION, TRANSFER, REVOCATION, TERMINATION, AND RE-ISSUANCE

1. If more stringent applicable water quality standards are adopted in the Basin Plans, the Central Valley Water 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.

3. This Order may be reopened to address any changes in the Federal Clean Water Act or in Federal regulations derived from that act that would affect animal feeding operations covered under this Order.

4. The Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may modify or revoke and reissue the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the California Water Code.

5. The Discharger shall provide to the Executive Officer, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating the Discharger's coverage under the Order or to determine compliance with the Order. The Discharger shall also provide to the Executive Officer upon request, copies of records required by the Order to be kept.

6. After notice and opportunity for a hearing, the Order may be terminated or modified for cause, including but not limited to:

   a. Violation of any term or condition contained in the Order;

   b. Obtaining the Order by misrepresentation, or failure to disclose fully all relevant facts;

   c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge; or

   d. A material change in the character, location, or volume of discharge.

7. The Order may be reopened if new state statutes or regulations are promulgated, and if more stringent applicable water quality standards are approved pursuant to Title 27 of the CCR, or as adopted into the Central Valley Water Board *Water Quality Control Plans* (Basin Plans) *for the Sacramento River and San Joaquin River Basins (4th Ed), and for the Tulare Lake Basin (2nd Ed.).*

8. The Central Valley Water Board may reopen the Order at any time provided that a cause for modification exists pursuant to 40 CFR § 124.5.

9. The Central Valley Water Board or the Executive Officer may revoke coverage under this Order at any time and require the Discharger to submit a Report of Waste Discharge and obtain individual waste discharge requirements or, if appropriate, resume coverage under the General Order Waste Discharge Requirements for Existing Milk Cow Dairies, Order No. R5-2007-0035.

10. The Discharger must maintain coverage under this Order or a subsequent revision to this Order until all manure, process wastewater, and animal waste impacted soil, including soil within the pond(s), 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 desiring to terminate coverage under this Order, the Discharger shall 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.

J. REQUIRED REPORTS AND NOTICES

1. **Waste Management Plan:** The Discharger shall submit, with its NOI, a Waste Management Plan for the production area of the dairy facility, prepared in accordance with Attachment B. The Waste Management Plan provides an evaluation of the existing milk cow dairy's design, construction, operation, and maintenance for flood protection and waste containment and documents that the facility complies with Prohibition A.13 and General Specifications B.1 through B.3, , and B.10 through B.16. Certification that the facility is in compliance shall be submitted prior to Board adoption of the Site Specific Order. If conditions at the facility change such that information in the Waste Management Plan is no longer correct, the Discharger shall propose a revised Waste Management Plan within 90 days of becoming aware of the changed conditions.

2. **Nutrient Management Plan:** Dischargers who apply manure, bedding, or process wastewater to land for nutrient recycling shall have management practices that control nutrient losses and describe these in a Nutrient Management Plan. The Nutrient Management Plan must have been prepared and certified as specified in Attachment C, is maintained at the dairy, and submitted to the Executive Officer as part of the application for coverage under this Order, and must ultimately provide for protection of both surface water and groundwater. The Discharger shall propose updates to the Nutrient Management Plan as specified in the Technical Standards for Nutrient Management in Attachment C 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. Substantial proposed changes to the Nutrient Management Plan, as described in Standard Provisions and Reporting Requirements 10 (f) – (i), will trigger resubmittal of the NMP, development of a new Site Specific Order, public review, and issuance of a revised Site Specific Order.

3. Reporting Provisions:

a. All Notices of Intent, applications, annual reports, or information submitted to the Central Valley Water Board shall be signed and certified in accordance with C. 7 and C.8 of the Standard Provisions.

b. The Discharger shall submit all reports as specified in the attached Monitoring and Reporting Program (Attachment D).

c. Any Discharger authorized to discharge waste under this Order shall furnish, within a reasonable time, any information the Central Valley Water Board may request, to determine whether cause exists for modifying, revoking, and reissuing, or terminating their authorization for coverage under this Order. The Discharger shall, upon request, also furnish to the Central Valley Water Board copies of records required to be kept by this Order.

d. 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 Central Valley Water Board.

K. RECORD-KEEPING REQUIREMENTS

1. The Discharger shall create, maintain for five years, and make available to the Central Valley Water Board upon request by the Executive Officer any reports or records required by this Order including those required under the Monitoring and Reporting Program (Attachment D).

L. SCHEDULE OF TASKS

1. Dischargers who receive coverage under this Order are required to implement the terms of the Waste Management Plan and Nutrient Management Plan as specified in the Site Specific Order and submit Annual Reports according to the schedule In Attachment D. All elements of the Waste Management Plan and the Nutrient Management Plan shall be signed and certified by the Discharger as required in Required Reports and Notices J.2.a above and the additional professional specified in Attachments B and C

2. If changes are made to the required submittals through Central Valley Water Board or Executive Officer review, those changes shall be implemented.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that 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 10 December 2010 (as modified on XX Month XXXX).

_____

PAMELA C. CREEDON, Executive Officer

Table 1. Schedule for Submittal of Documents

Due Date	Submittal Due	Contents of Submittal	Professional Certification Requirements
31 December 2010	Status on facility retrofitting completed or in progress	Status on facility retrofitting completion as proposed (1 July 2010) for the Waste Management Plan.	None
1 July 2011	Annual Report	Per Monitoring and Reporting Program No. R5-2010-0118 including facility modifications implemented to date.	None
1 July 2011	Certification of Facility Retrofitting Completion for Nutrient Management Plan	Certify completion of retrofitting proposed (1 July 2009) to improve nitrogen balance.	Certified Nutrient Management Specialist
	The Following Items in Attachment B (Waste Management Plan):		
	Item II.C	Certification of completion of modifications made to meet storage capacity requirements.	California Registered Professional
	Item III.D	Certification of completion of modifications made to meet flood protection requirements.	California Registered Professional
	Item IV.C	Certification of modifications made to meet construction criteria for corrals, pens, animal housing area, and manure and feed storage areas.	None
1 July 2012	Annual Report	Per Monitoring and Reporting Program No. R5-2010-0118	None
1 July 2012	Certification of Nutrient Management Plan implementation	Certification that the Nutrient Management Plan has been completely implemented	. None

ATTACHMENT A

California Regional Water Quality Control Board
Central Valley Region

NOTICE OF INTENT

To Comply With The

General Waste Discharge Requirements and General National Pollutant Discharge Elimination System (NPDES) Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations Within the Central Valley Region

FACILITY

A. NAME OF FACILITY OR BUSINESS OPERATING THE FACILITY:_____

ADDRESS OF FACILITY:_____
Number and Street City Zip Code

COUNTY ASSESSOR PARCEL NUMBER_____LATITUDE_____LONGIITUDE_____

CONTACT PERSON:_____ TELEPHONE NO._____

B. NAME OF LEGAL OWNER OF FACILITY:_____

ADDRESS OF LEGAL OWNER OF FACILITY:_____
Number and Street City Zip Code

CONTACT PERSON:_____ TELEPHONE NO._____

C. NAME OF CONTACT PERSON TO RECEIVE REGIONAL BOARD CORRESPONDENCE:_____

MAILING ADDRESS OF CONTACT PERSON:_____
Number and Street City Zip Code

TELEPHONE NO. OF CONTACT PERSON: _____

TYPE OF OPERATION

INDICATE NUMBER OF:

	NO. HOUSED UNDER ROOF	NO. IN OPEN CONFINEMENT
MATURE DAIRY COWS (as of the date of this NOI)	_____	_____
Maximum number of MATURE DAIRY COWS Allowed under the General Order, R5-2007-0035	_____	_____

WASTE MANAGEMENT

ATTACH ADDITIONAL SHEETS AS NECESSARY.

A. <u>LOCATION:</u>
WHAT IS THE LATITUDE AND LONGITUDE OF THE PRODUCTION AREA?

_____LATITUDE _____LONGITUDE

B. <u>WASTE GENERATION:</u>
WHAT IS THE APPROXIMATE ANNUAL VOLUME OR WEIGHT OF SOLID MANURE AND BEDDING PRODUCED?

_____CUBIC YARDS/YEAR OR _____TONS/YEAR

WHAT IS THE APPROXIMATE ANNUAL VOLUME OF WASTEWATER (I.E., MILK BARN WASH WATER, CORRAL FLUSH WATER, ETC.) PRODUCED?

_____GALLONS/YEAR

C. CORRAL SYSTEM: *CHECK THE TYPE OF CORRAL SYSTEM USED, IF APPLICABLE*:

FLUSH CORRAL_____ SCRAPED CORRAL_____ FLUSH FREESTALL_____ SCRAPED FREESTALL_____

NOT APPLICABLE_____

D. SOLID MANURE STORAGE AREA:
INDICATE THE TYPE OF SOLID MANURE AND BEDDING STORAGE AREA (I.E., ROOFED, CONCRETE PAD, IMPERVIOUS SOIL) AND STORAGE CAPACITY. _____ _____(CUBIC YARDS OR TONS)

E. RETENTION PONDS:
INDICATE THE TYPE (Stormwater, Wastewater, or Both; Settling; or Tailwater) AND DIMENSIONS OF ALL RETENTION PONDS:

	TYPE	ABOVEGROUND OR BELOWGROUND	LENGTH (FEET)	WIDTH (FEET)	DEPTH (FEET)	FREEBOARD MAINTAINED (FEET)	STORAGE CAPACITY PER CONTAINMENT TYPE
1							
2							
3							
4							

	TYPE OF STORAGE (I.E. STORAGE LAGOON, SETTLING BASIN, STORAGE TANK, CONCRETE PAD)	TOTAL NUMBER OF DAYS	TOTAL CAPACITY (GALLONS/TONS)
1			
2			
3			
4			

F. ANAEROBIC DIGESTERS:
DOES THE FACILITY TREAT WASTEWATER IN AN ANAEROBIC DIGESTER? _____YES _____NO

G. REUSE AREA:
INDICATE THE TOTAL CROP ACREAGE UNDER THE CONTROL OF APPLICANT THAT IS AVAILABLE FOR REUSE OF SOLID MANURE AND/OR WASTEWATER_____

INDICATE THE ACREAGES OF CROPLAND AND TYPE OF CROPS GROWN WHERE ONLY SOLID MANURE (AND/OR BEDDING) AND ONLY WASTEWATER ARE APPLIED FOR REUSE AND THE METHOD OF APPLICATION.

ONLY SOLID MANURE: APPLIED TO _____ACRES CROPLAND;
SUMMER CROPS_____ APPLICATION METHOD_____
WINTER CROPS _____ APPLICATION METHOD_____

ONLY WASTEWATER: APPLIED TO _____ACRES CROPLAND;
SUMMER CROPS_____ APPLICATION METHOD_____

WINTER CROPS_____ APPLICATION METHOD_____

INDICATE THE ACREAGES OF CROPLAND AND TYPE OF CROPS GROWN WHERE BOTH SOLID MANURE (AND/OR BEDDING) AND WASTEWATER ARE APPLIED FOR REUSE AND THE METHOD OF APPLICATION.

BOTH SOLID MANURE AND WASTEWATER: APPLIED TO _____ACRES CROPLAND;

SUMMER CROPS_____ APPLICATION METHOD_____

WINTER CROPS_____ APPLICATION METHOD_____

H. LAND APPLICATION BEST MANAGEMENT PRACTICES:
PLEASE CHECK ANY OF THE FOLLOWING BEST MANAGEMENT PRACTICES THAT ARE BEING IMPLEMENTED AT THE FACILITY TO CONTROL RUNOFF AND PROTECT WATER QUALITY:

☐ BUFFER ☐ SETBACKS ☐ CONSTRUCTED WETLANDS ☐ INFILTRATION FIELD ☐ GRASS FILTER ☐ TERRACE
☐ BERMS ☐ TAILWATER RETURN SYSTEMS

I. WASTE REMOVAL:
APPROXIMATELY HOW MUCH MANURE AND/OR BEDDING IS TRANSFERRED TO OTHER PERSONS ANNUALLY?

_____ CUBIC YARDS OR _____ TONS

ADDITIONAL FACILITY INFORMATION

A. CHEMICAL USE:
INDICATE ALL CHEMICALS USED AT THE FACILITY AND THE AMOUNTS USED ANNUALLY:

	TYPE	ANNUAL AMOUNT USED
SOAPS	_____	_____
DISINFECTANTS	_____	_____
PESTICIDES	_____	_____
ANTIBIOTICS	_____	_____
OTHER	_____	_____

B. DOES THE FACILITY DIVERT STORM WATER FROM THE PRODUCTION AREA TO SURFACE WATER?

_____YES _____NO

C. GROUNDWATER MONITORING:
HAS A MONITORING WELL INSTALLATION PLAN BEEN SUBMITTED TO THE REGIONAL BOARD? _____YES _____NO

ARE THERE ANY GROUNDWATER MONITORING WELLS AT THE FACILITY? _____YES _____NO

D. TOPOGRAPHIC SITE MAP:

PROVIDE A TOPOGRAPHIC MAP OF THE FACILITY INCLUDING: FACILITY PROPERTY BOUNDARIES; SURFACE WATER DRAINAGE COURSES; DRAINAGE DITCHES; LOCATIONS OF ALL MONITORING, DOMESTIC, AND IRRIGATION WELLS; WASTEWATER RETENTION PONDS; MILKING PARLOR; ANIMAL HOUSING; CORRALS; CROPLAND; MANURE AND FEED STORAGE AREAS; AND STORM WATER DISCHARGE LOCATIONS.

NUTRIENT MANAGEMENT PLAN

HAS A NUTRIENT MANAGEMENT PLAN BEEN DEVELOPED FOR YOUR FACILITY? _____YES _____NO

IF A NUTRIENT MANAGEMENT PLAN HAS BEEN DEVELOPED FOR YOUR FACILITY, PLEASE ANSWER THE FOLLOWING:

HOW MANY ACRES DOES YOUR NUTRIENT MANAGEMENT PLAN COVER? _____ACRES

IS THE NUTRIENT MANAGEMENT PLAN BEING IMPLEMENTED FOR THE FACILITY? _____YES _____NO

DID A PROFESSIONAL SOIL SCIENTIST, AGRONOMIST, CROP SCIENTIST, OR CROP ADVISOR CERTIFIED BY THE AMERICAN SOCIETY OF AGRONOMY OR A TECHNICAL SERVICE ADVISOR CERTIFIED IN NUTRIENT MANAGEMENT BY THE CALIFORNIA NATURAL RESOURCE CONSERVATION SERVICE DEVELOP OR APPROVE YOUR NUTRIENT MANAGEMENT PLAN? _____YES _____NO

HAS A COPY OF THE NUTRIENT MANAGEMENT PLAN BEEN SUBMITTED TO THE REGIONAL BOARD)?
_____YES _____NO

DATE OF THE LAST REVIEW OR REVISION OF THE NUTRIENT MANAGEMENT PLAN. _____

CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. IN ADDITION, I CERTIFY THAT THE PROVISIONS OF GENERAL NPDES PERMIT (PERMIT NO. CAG015001), INCLUDING THE DEVELOPMENT AND IMPLEMENTATION OF A NUTRIENT MANAGEMENT PLAN, WILL BE COMPLIED WITH.

SIGNATURE OF OWNER OF FACILITY	SIGNATURE OF OPERATOR OF FACILITY
PRINT OR TYPE NAME	PRINT OR TYPE NAME
TITLE AND DATE	TITLE AND DATE

ATTACHMENT B

Waste Management Plan for the Production Area
For
GENERAL WASTE DISCHARGE REQUIREMENTS
AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

A Waste Management Plan (WMP) for the production area is required for all existing milk cow dairies subject to General Waste Discharge Requirements and General NPDES Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley Region (Order) and shall address all of the items below. The portions of the WMP that are related to facility and design specifications (items II and III) must be prepared by, or under the responsible charge 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 purpose of the WMP is to ensure that the production area of the dairy facility is designed, constructed, operated and maintained so that dairy wastes generated at the dairy are managed in compliance with the Order so that adverse impacts to groundwater and surface water quality are prevented.

Note that the WMP must be updated in response to changing conditions, additional information received, and other factors and that the Discharger may not implement the updated WMP until it receives notification from the Executive Officer, as described below and in the Standard Provisions and Reporting Requirements. When a Discharger proposes changes to the WMP previously submitted to the Board, the Discharger must provide the Board with the most current version of the WMP and identify changes from the previous version. The Executive Officer will review the revised WMP to ensure that it meets the requirements of this section. The Executive Officer will notify the Discharger if it determines that the changes to the WMP do not necessitate revision to the Discharger's Site Specific Order. If the Executive Officer determines that the changes necessitate revision to the Site Specific Order, the Executive Officer must determine whether such changes are substantial. If the changes reflect reduced storage capacity for process wastewater, such that storage capacity is no longer adequate, the change will be termed "substantial". Substantial changes to the Site Specific Order will require submittal of a new WMP, development of a new Site Specific Order, public notice, and Board consideration of adoption of the revised Site Specific Order. A list of items that constitute substantial changes to the WMP or Nutrient Management Plan is given in the Standard Provisions and Reporting Requirements, Section C.11.

Contents of a Waste Management Plan

I. A description of the facility that includes:

A. The name of the facility and the county in which it is located;

B. The address, Assessor's Parcel Number, and Township, Range, Section(s), and Baseline Meridian of the property;

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. Present and maximum animal population as indicated below (this information is in the Report of Waste Discharge submitted in response to the Central Valley Water Board's 8 August 2005 request);

Type of Animals	**Present Number of Animals**	**Maximum Number of Animals in Past 12 months**	**Breed of Animals**
Milking Cows			
Dry Cows			
Heifers: 15 – 24 months			
Heifers: 7 to 14 months			
Heifers: 4 to 6 months			
Calves: up to 3 months			
Other types of commercial animals			

E. Total volume (gallons) of process wastewater (e.g., milk barn washwater, fresh (not recycled) corral flush water, etc.) generated daily and how this volume was determined; and

F. A Site Map (or Maps) of appropriate scale to show property boundaries and the following in sufficient detail:

1. The location of the features of the production area including:

a. Structures used for animal housing, milk parlor, 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; and

b. 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.

2. The location and features of all land application areas (land under the Discharger's control, 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) including:

   a. A field identification system (Assessor's Parcel Number; field by name or number; total acreage of each field; crops grown; indication if each field is owned, leased, or used pursuant to a formal agreement); indication what type of waste is applied (solid manure only, wastewater only, or both solid manure and wastewater); drainage flow direction in each field, nearby surface waters, and storm water discharge points; tailwater and storm water drainage controls; subsurface (tile) drainage systems (including discharge points and lateral extent); irrigation supply wells and groundwater monitoring wells; sampling locations for discharges of storm water and tailwater to surface water from the field; and

   b. Process wastewater conveyance structures, discharge points and discharge/mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.

3. The location of all cropland that is part of the dairy but is not used for dairy waste application including the Assessor's Parcel Number, total acreage, crops grown, and information on who owns or leases the field. The Waste Management Plan shall indicate if such cropland is covered under the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Order No. R5-2006-0053 for Coalition Group or Order No. R5-2006-0054 for Individual Discharger, or updates thereto);

4. The location of all off-property domestic wells within 600 feet of the production area or land application area(s) associated with the dairy and the location of all municipal supply wells within 1,500 feet of the production area or land application area(s) associated with the dairy; and

5. A map scale, vicinity map, north arrow, and the date the map was prepared. The map shall be drawn on a published base map (e.g., a topographic map or aerial photo) using an appropriate scale that shows sufficient details of all facilities.

II. An engineering report demonstrating that the existing facility has adequate containment capacity. The report shall include calculations showing if the existing containment structures are able to retain all facility process wastewater generated, together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm.

A. The determination of the necessary storage volume shall reflect:

1. The maximum period of time, as defined in the Nutrient Management Plan (item III.B of Attachment C), anticipated between land application events (storage period), which shall consider application of process wastewater or manure to the land application area as allowed by Order No. R5-2010-0118 using proper timing and rate of applications;

2. Manure, process wastewater, and other wastes accumulated during the storage period;

3. Normal precipitation, or normal precipitation times a factor of one and a half, less evaporation on the surface area during the entire storage period. If normal precipitation is used in the calculation of necessary storage volume, the Waste Management Plan shall include a Contingency Plan as specified in II.C below;

4. Normal runoff (runoff from normal precipitation), or runoff due to normal precipitation times a factor of one and a half, from the production area during the storage period. If normal runoff is used in the calculation of necessary storage volume, the Waste Management Plan shall include a Contingency Plan as specified in II.C below;

5. 25-year, 24-hour precipitation on the surface (at the required design storage volume level) of the facility;

6. 25-year, 24-hour runoff from the facility's drainage area;

7. Residual solids after liquids have been removed; and

8. Minimum freeboard requirements (one foot of freeboard for below ground retention ponds and two feet of freeboard for aboveground retention ponds).

B. The WMP submitted with the NOI must demonstrate that the existing facility's storage capacity is adequate. If the existing facility's storage capacity is inadequate, as part of the WMP the Discharger shall propose modifications or improvements. Any proposed modifications or improvements must be: prepared by, or under the responsible charge 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; and include:

1. Design calculations demonstrating that adequate containment will be achieved;

2. Details on the liner and leachate collection and removal system (if appropriate) materials;

3. A schedule for construction and certification of completion to comply with the Schedule of Tasks L.1 of the Order,

4. A construction quality assurance plan describing testing and observations need to document construction of the pond in accordance with the design and Sections 20323 and 20324 of Title 27; and

5. An operation and maintenance plan for the pond.

C. Contingency Plan: If the necessary storage volume calculated in II.A or II.B above is based on normal precipitation and/or runoff rather than precipitation or runoff from normal precipitation times a factor of one and a half (see II.A.3 and II.A.4 above), then the engineering report shall include a Contingency Plan that includes a plan on how the excess precipitation and/or runoff that is generated during higher than normal precipitation will be managed. If the Contingency Plan includes plans to discharge the excess runoff and/or precipitation to land without being in conformance with the NMP, then the Contingency Plan shall include a Monitoring Well Installation and Sampling Plan (MWISP) with a schedule for implementation that proposes monitoring wells to determine the impacts of such disposal on groundwater quality.

D. If a facility needs to maintain storage capacity that exceeds the minimum capacity requirements of section II. A to comply with the land application provisions of the NMP, the storage capacity shall become a term of the NMP that must be included in any Site Specific Order for that facility.

III. An engineering report showing if the facility has adequate flood protection. If the Discharger can provide to the Executive Officer an appropriate published flood zone map that shows the facility is outside the relevant flood zone, an engineering report showing adequate flood protection is not required for that facility. The engineering report shall include a map and cross-sections to scale, calculations, and specifications as necessary. The engineering report shall also describe the size, elevation, and location of all facilities present to protect the facility from inundation or washout as follows:

A. For facilities in the Sacramento River and San Joaquin River Basins showing if:

1. The ponds and manured areas at facilities in operation on or before November 27, 1984 are protected from inundation or washout by overflow from any stream channel during 20-year peak storm flow; or

2. Existing facilities in operation on or before November 27, 1984 that are protected against 100-year peak storm flows will continue such protection; or

3. Facilities, or portions thereof, which began operation after November 27, 1984, are protected against 100-year peak storm flows.

B. For facilities in the Tulare Lake Basin showing if the facility is protected from overflow from stream channels during 20-year peak stream flows for facilities that existed as of 25 July 1975 and protected from 100-year peak stream flows for facilities constructed after 25 July 1975. Facilities expanded after 8 December 1984 must be protected from 100-year peak stream flows.

C. If the facility's flood protection does not meet these minimum requirements, the WMP shall include proposed modifications or improvements with the corresponding design to achieve the necessary flood protection and a schedule for construction and certification of completion to comply with the Schedule of Tasks L.1 of Order No. R5-2010-0118.

IV. A report documenting that the animal confinement areas, animal housing, and manure and feed storage areas are designed and constructed properly.

A. The report shall document that the following design and construction criteria are met:

1. Corrals and/or pens are designed and constructed to collect and divert all process wastewater to the retention pond;

2. The animal housing area (i.e., barn, shed, milk parlor, etc.) is designed and constructed to divert all water that has contacted animal wastes to the retention pond; and

3. Manure and feed storage areas are designed and constructed to collect and divert runoff and leachate from these areas to the retention pond.

B. If the facility does not meet the above design and construction criteria prior to submitting the WMP with the NOI, the Discharger shall propose modifications or improvements to achieve the criteria . Modifications or improvements must have been completed by the time the Board adopts the Site Specific Order.

V. An operation and maintenance plan to ensure that:

A. All precipitation and surface drainage from outside manured areas, including that collected from roofed areas, is diverted away from manured areas, unless such drainage is fully contained and is included in the storage requirement calculations required in item II, above;

B. Ponds are managed to maintain the required freeboard and to prevent odors, breeding of mosquitoes, damage from burrowing animals, damage from equipment during removal of solids, embankment settlement, erosion, seepage, excess weeds, algae, and vegetation;

C. Holding ponds provide necessary storage volume prior to winter storms (by November 1st at the latest), maintain capacity considering buildup of solids, and comply with the minimum freeboard required in Order No. R5-2010-0118;

D. There is no discharge of waste or storm water to surface waters from the production area except as authorized by provision C.1 of this Order;

E. Procedures have been established for removal of solids from any lined pond to prevent damage to the pond liner;

F. Corrals and/or pens are maintained to collect and divert all process wastewater to the retention pond and to prevent ponding of water and to minimize infiltration of water into the underlying soils;

G. The animal housing area (e.g., barn, shed, milk parlor, etc.) is maintained to collect and divert all water that has contacted animal wastes to the retention pond and to minimize the infiltration of water into the underlying soils;

H. Manure and feed storage areas are maintained to ensure that runoff and leachate from these areas are collected and diverted to the retention pond

and to minimize infiltration of leachate from these areas to the underlying soils;

I. All dead animals are disposed of properly;

J. Chemicals and other contaminants handled at the facility are not disposed of in any manure or process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

K. All animals are prevented from entering any surface water within the confined area; and

L. Salt in animal rations is limited to the amount required to maintain animal health and optimum production.

VI. 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 wastewater into a water supply well, irrigation well, or surface water as identified on the Site Map required in I.F above.

VII. The certification required in Required Reports and Notices J. 3(a) of Order No. R5-2010-0118.

ATTACHMENT C

Contents of A Nutrient Management Plan
And
Technical Standards For Nutrient Management
For
GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

General Waste Discharge Requirements and General NPDES Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley Region (Order) requires owners and operators of existing milk cow dairies (Dischargers) who apply manure, bedding, or process wastewater to land for nutrient recycling to implement management practices that control nutrient losses and that are described in a Nutrient Management Plan (NMP). The purpose of the NMP is to budget and manage the nutrients applied to the land application area(s) considering all sources of nutrients, crop requirements, soil types, climate, and local conditions in order to prevent adverse impacts to surface water and groundwater quality. The NMP must take the site-specific conditions into consideration in identifying steps that will minimize nutrient movement through surface runoff or leaching past the root zone.

The NMP must contain, at a minimum, all of the elements listed below under Contents of a Nutrient Management Plan and must be in conformance with the applicable Technical Standards for Nutrient Management (Technical Standards), also listed below. The application rates required by the Technical Standards implement the Narrative Rate Approach required by 40 CFR § 122.42(e)(5)(ii). The Narrative Rate Approach expresses a narrative rate of application that results in the amount, in tons or gallons, of manure and process wastewater to be land applied. Information is required for each crop, field, and year covered by the NMP. Provisions in the NMP are incorporated into the Site Specific Order pursuant to section H 6 b of the Order.

Note that the NMP must be updated in response to changing conditions, monitoring results and other factors and that the Discharger may not implement the updated NMP until it receives notification from the Executive Officer, as described below and in the Standard Provisions and Reporting Requirements. When a Discharger proposes changes to the NMP previously submitted to the Board, the Discharger must provide the Board with the most current version of the NMP and identify changes from the previous version. The annual calculations of application rates for manure and process wastewater are not considered to be changes. The Executive Officer will review the revised NMP to ensure that it meets the requirements of this section and applicable effluent limitations and

standards. The Executive Officer will notify the Discharger if it determines that the changes to the NMP do not necessitate revision to the Discharger's Site Specific Order. If the Executive Officer determines that the changes necessitate revision to the Site Specific Order, the Executive Officer must determine whether such changes are substantial. Substantial changes to the Site Specific Order are listed in the Standard Provisions and Reporting Requirements, section C. 11. Substantial changes will require submittal of a new NMP, development of a new Site Specific Order, public notice, and Board consideration of adoption of the revised Site Specific Permit. A list of items that constitute substantial changes to the Site Specific Order is given in the Standard Provisions and Reporting Requirements, Section C.11.

A specialist who is certified in developing nutrient management plans shall develop the NMP. A certified specialist is a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy or a Technical Service Provider certified in nutrient management in California by the Natural Resources Conservation Service (NRCS). The Executive Officer may approve alternative proposed specialists. Only NMPs prepared and signed by these parties will be considered certified.

The NMP is linked to other sections of this Order. The Monitoring and Reporting Program specifies minimum amounts of monitoring that must be conducted at the dairy. As indicated below, this information must be used to make management decisions related to nutrient management. Likewise, the timing and amounts of wastewater applications to crops must be known to correctly calculate the amount of storage needed in holding ponds.

Wastes and land application areas shall be managed to prevent contamination of crops grown for human consumption. The term "crops grown for human consumption" refers only to crops that will not undergo subsequent processing which adequately removes potential microbial danger to consumers.

Contents of a Nutrient Management Plan

Dairy Facility Assessment

The NMP shall identify the name and address of the dairy, the dairy operator, and legal owner of the dairy property as reported in the Notice of Intent and shall contain all of the following elements to demonstrate that the Discharger can control nutrient losses that may impact surface water or groundwater quality and comply with the requirements of the Order and the Technical Standards for Nutrient Management (Technical Standards).

I. Land Application Area Information

A. Identify each land application area (under the Discharger's control, 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) on a single published base map (topographic map or aerial photo) at an appropriate scale which includes:

1. A field identification system (Assessor's Parcel Number; land application area by name or number; total acreage of each land application area; planned crop rotation for each field for the period of permit coverage; indication if each land application area is owned, rented, or leased by the Discharger; indication what type of waste is applied (solid manure only, wastewater only, or both solid manure and wastewater); drainage flow direction in each field, nearby surface waters, and storm water discharge points; tailwater and storm water drainage controls; subsurface (tile) drainage systems (including discharge points and lateral extent); irrigation supply wells and groundwater monitoring wells; sampling locations for discharges of storm water and tailwater to surface water from the field; and

2. Process wastewater conveyance structures, discharge points and discharge mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.

B. Provide the following information for land application areas identified in I.A above:

1. Field's common name (name used when keeping records of waste applications).

2. Assessor's Parcel Number.

3. Total acreage.

4. Crops grown and crop rotation.

5. Information on who owns and/or leases the field.

6. Proposed sampling locations for discharges of storm water and tailwater to surface water.

C. Provide copies of written agreements with third parties that receive process wastewater for their own use from the Discharger's dairy (Technical Standards V.A.1 and V.A.3 below).

D. Identify each field under the control of the Discharger and within five miles of the dairy where neither process wastewater nor manure is applied. Each field shall be identified on a single published base map at an appropriate scale by the following:

1. Assessor's Parcel Number.

2. Total acreage.

3. Information on who owns or leases the field.

Note: The Central Valley Water Board must issue a Site Specific Order for the waste before it is applied to the lands identified in Section D.

II. Sampling and Analysis (see Technical Standard I below)

Identify the sampling methods, sampling frequency, and analyses to be conducted for soil, manure, process wastewater, irrigation water, and plant tissue analysis (Technical Standard I below).

III. Nutrient Budget (see Technical Standard V below)

The Discharger shall develop a nutrient budget for each land application area. The nutrient budget shall establish planned rates of nutrient applications for each crop based on soil test results, manure and process wastewater analyses, irrigation water analyses, crop nutrient requirements and patterns, seasonal and climatic conditions, the use and timing of irrigation water, and the nutrient application restrictions listed in Technical Standards V.A through V.D below. The Nutrient Budget shall include the following:

A. The rate of application of manure and process wastewater for each crop in each land application area (also considering sources of nutrients other than manure or process wastewater) to meet each crop's needs without exceeding the application rates specified in Technical Standard V.B below. The basis for the application rates must be provided.

B. The timing of applications for each crop in each land application area and the basis for the timing (Technical Standard V.C below). The

maximum period of time anticipated between land application events (storage period) based on proper timing and compliance with Technical Standard V.C. below. This will be used in the Waste Management Plan (item II.A of Attachment B) to determine the storage capacity needs.

C. The method of manure and process wastewater application for each crop in each land application area (Technical Standard V.D below).

D. If phosphorus and/or potassium applications exceed the amount of these elements removed from the land application area in the harvested portion of the crop, the soil and crop tissue analyses shall be reviewed by an agronomist at least every five years. If this review determines that the buildup of phosphorus or potassium threatens to reduce the long-term productivity of the soil or the yield, quality or use of the crops grown, application rates will be adjusted downward to prevent or correct the problem.

IV. Setbacks, Buffers, and Other Alternatives to Protect Surface Water (see Technical Standard VII below)

A. Identify all potential surface waters or conduits to surface water that are within 100 feet of any land application area.

B. For each land application area that is within 100 feet of a surface water or a conduit to surface water, identify the setback, vegetated buffer, or other alternative practice that will be implemented to protect surface water (Technical Standard VII below).

V. Field Risk Assessment (see Technical Standard VIII below)

Evaluate the effectiveness of management practices used to control the discharge of waste constituents from land application areas by assessing the water quality monitoring results of discharges of manure, process wastewater, tailwater, subsurface (tile) drainage, or storm water from the land application areas.

VI. Record-Keeping (see Technical Standard IX below)

Identify the records that will be maintained for each land application area identified in I.A above.

VII. Nutrient Management Plan Review (see Technical Standard X below)

A. Identify the schedule for review and revisions to the NMP.

B. Identify the person who will conduct the NMP review and revisions.

VIII. Other Limitations

A. Process wastewater discharges from outside the production area, including washdown of equipment that has been in contact with manure, raw materials, products or byproducts that occurs outside of the production area; runoff of pollutants from raw materials, products or byproducts (such as manure, bedding, and feed) from the facility that have been spilled or otherwise deposited outside the production area that have the potential to contribute pollutants to waters of the United States shall be identified, along with control measures necessary to meet applicable water quality standards.

B. Discharges that do not meet the definition of waste as used in this Order, including: discharges associated with feed, fuel, chemical, or oil spills, equipment repair, and equipment cleaning where the equipment has not been in contact with manure, raw materials, products or byproducts; domestic wastewater discharges; and which have potential to contribute pollutants to waters of the United States or to groundwater shall be identified in the NMP together with measures necessary to meet applicable water quality standards.

Technical Standards for Nutrient Management

The Discharger shall comply with the following Technical Standards for Nutrient Management in the development and implementation of the Nutrient Management Plan (NMP).

I. Sampling and Analysis

Soil, manure, process wastewater, irrigation water, and plant tissue shall be monitored, sampled, and analyzed as required in the Monitoring and Reporting Program (Attachment D), and any future revisions thereto. The results of these analyses shall be used during the implementation of the NMP.

II. Crop Requirements

A. Realistic yield goals for each crop in each land application area shall be established. For new crops or varieties, industry yield recommendations may be used until documented yield information is available.

B. Each crop's nutrient requirements for nitrogen, phosphorus, and potassium shall be determined based on recommendations from the University of California, *Western Fertilizer Handbook* (9th Edition), or from historic crop nutrient removal.

III. Available Nutrients

A. All sources of nutrients (nitrogen, phosphorus, and potassium) available for each crop in each land application area shall be identified prior to land applications. Potential nutrient sources include, but are not limited to, manure, process wastewater, irrigation water, commercial fertilizers, soil, and previous crops.

B. Nutrient values of soil, manure, process wastewater, and irrigation water shall be determined based on laboratory analysis. "Book values" for manure and process wastewater may be used for planning of waste applications during the first two years during initial development of the NMP if necessary. Acceptable book values are those values recognized by American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California that accurately estimate the nutrient content of the material. The nutrient content of commercial fertilizers shall be derived from California Department of Food and Agriculture published values.

C. Nutrient credit from previous legume crops shall be determined by methods acceptable to the University of California Cooperative Extension, the NRCS, or a specialist certified in developing nutrient management plans.

IV. Overall Nutrient Balance

If the NMP shows that the nutrients generated by the dairy exceed the amount needed for crop production in the land application area, the Discharger must implement management practices (such as offsite removal of the excess nutrients, treatment, or storage) that will prevent impacts to surface water or groundwater quality due to excess nutrients.

V. Nutrient Budget

The NMP shall include a nutrient budget which includes planned rates of nutrient applications for each crop that do not exceed the crop's requirements for total nitrogen considering the stage of crop growth and that also considers all nutrient sources, climatic conditions, the irrigation schedule, and the application limitations in A through D below.

A. General Standards for Nutrient Applications

1. Prohibition A.7of the Order: "*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*."

2. Prohibition A.8 of the Order: "*The land application of manure or process wastewater to cropland for other than nutrient recycling is prohibited*."

3. Land Application Specification D.2 of the Order: "*The Discharger shall have a written agreement with each third party that receives process wastewater from the Discharger for its own use. The written agreement shall be provided as part of the first Annual Report prepared pursuant to this order. If the written agreement is modified or cancelled, or if additional written agreements are made, the updated agreements or information shall be included in the first Annual Report submitted subsequent to the change(s).. 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. The written agreement shall:*

a. *Clearly identify:*
   i. *The Discharger and dairy facility from which the process wastewater originates;*

   ii. *The third party that will control the application of process wastewater to cropland;*

   iii. *The Assessor's Parcel Number(s) and the acreage(s) of the cropland where the process wastewater will be applied; and*

   iv. *The types of crops to be fertilized with the process wastewater.*

b. *Include an agreement by the third party to:*
   i. *Use the process 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 has come into contact with manure or is blended with wastewater.*

c. *Include a certification statement, as specified in General Reporting Requirements C.7 of the Standard Provision and Reporting Requirements (Attachment E), which is signed by both the Discharger and third party*."

4. Land Application Specification D.5 the Order: "*The application of animal waste and other materials containing nutrients to any cropland under control of the Discharger shall meet the following conditions:*

   a. *The application is in accordance with a certified Nutrient Management Plan developed and implemented in accordance with Required Reports and Notices H.1.c and Attachment C of this Order; and*

   b. *Records are prepared and maintained as specified in the Record-Keeping Requirements of the Monitoring and Reporting Program (Attachment D).* "

5. Land Application Specification D.6 of the Order: "*The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the certified Nutrient Management Plan*."

6. Land Application Specification D.8 of the Order: "*All process wastewater applied to land application areas must infiltrate completely within 72 hours after application*."

7. Land Application Specification D.9 of the Order: "*Process wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see Attachment C) and the Discharger's Site Specific Order. In no case shall manure or process wastewater be applied to standing water."*

8. Provision G.5 of the Order: "*This Order does not apply to facilities where wastes such as, but not limited to, whey, cannery wastes, septage, municipal or industrial sludge, municipal or industrial biosolids, ash or similar types of waste are generated onsite or are proposed to be brought onto the dairy or associated cropland for the purpose of nutrient recycling or disposal. The Discharger shall submit a complete Report of Waste Discharge and receive WDRs or a waste-specific waiver of WDRs from the Central Valley Water Board prior to receiving such waste*."

9. Plans for nutrient management shall specify the form, source, amount, timing, and method of application of nutrients on each land application area to minimize nitrogen movement to surface and/or ground waters to the extent necessary to meet the provisions of the Order. If the land application area is in the watershed of a water body identified in a 303d list as impaired, or very likely impaired based on sampling evidence, by phosphorus, with dairies listed as a cause for the impairment, plans for nutrient management shall include provisions to minimize phosphorus movement to surface and/or groundwater.

10. Where crop material is not removed from the land application area, waste applications are not allowed. For example, if a pasture is not grazed or mowed (and cuttings removed from the land application area), waste shall not be applied to the pasture.

11. Manure and/or process wastewater will be applied to the land application area for use by the first crop covered by the NMP only to the extent that soil tests indicate a need for nitrogen application.

12. Supplementary commercial fertilizer(s) and/or soil amendments may be added when the application of nutrients contained in manure and/or process wastewater alone is not sufficient to meet the crop needs, as long as these applications do not exceed provisions of the Order.

13. Nutrient applications to a crop shall not be made prior to the harvest of the previous crop except where the reason for such applications is provided in the NMP.

14. Water applications shall not exceed the amount needed for efficient crop production.

15. Nutrients shall be applied in such a manner as not to degrade the soil's structure, chemical properties, or biological condition.

B. Nutrient Application Rates

1. General

a. Planned rates of nutrient application shall be determined based on soil test results, crop tissue test results, nutrient credits, manure and process wastewater analysis, crop requirements and growth stage, seasonal and climatic conditions, and use and timing of irrigation water. Actual applications of nitrogen to any crop shall be limited to the amounts specified below.

b. Nutrient application rates shall not approach or attempt to approach a site's maximum ability to contain one or more nutrients through soil adsorption. Excess applications or applications that cause soil imbalances shall be avoided. Excess manure nutrients generated by the Discharger shall be handled by export to a good steward of the manure, or the development of alternative uses.

2. Nitrogen

a. Total nitrogen applications to a land application area prior to and during the growing of a crop shall be based on pre-plant or pre-side dress soil analysis to establish residual nitrogen remaining in the field from the previous crop to establish early season nitrogen applications. Pre-plant or side dress nitrogen applications shall not exceed the estimated total crop use as established by the nutrient management plan.

Except as allowed below, application rates shall not result in total nitrogen applied to the land application areas exceeding 1.4 times the nitrogen that will be removed from the field in the harvested portion of the crop. At no time will application rates result in total nitrogen applied to the land application area exceeding 1.65 times the nitrogen that will be removed from the field in the harvested portion of the crop. Additional applications of nitrogen, up to the 1.65 figure, are allowable if the following conditions are met:

i. Plant tissue testing has been conducted and it indicates that additional nitrogen is required to obtain a crop yield typical for the soils and other local conditions;

ii. The amount of additional nitrogen applied is based on the plant tissue testing and is consistent with University of California Cooperative Extension written guidelines or written recommendations from a professional agronomist;

iii. The form, timing, and method of application facilitates timely nitrogen availability to the crop; and

iv. Records are maintained documenting the need for additional applications.

3. Phosphorus and Potassium

a. Phosphorus and potassium may be applied in excess of crop uptake rates. If, however, monitoring indicates that levels of these elements are causing adverse impacts, corrective action must be taken. Cessation of applications may be necessary until crop uptake and harvest has reduced the concentration in the soil.

C. Nutrient Application Timing

1. Process wastewater application is not the same as irrigation water application. Process wastewater application scheduling should be based on the nutrient needs of the crop, the daily water use of the crop, the water holding capacity of the soil, and the lower limit of soil moisture for each crop and soil.

2. Wastewater shall not be applied when soils are saturated. During the rainy season rainfall can exceed crop water demand. However, the application of wastewater is allowable if tests show that there is an agronomic need and current conditions indicate that threat of nitrate leaching is minimal. In no case shall manure or process wastewater be applied to standing water.

3. 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.

4. Nutrient applications for spring-seeded crops shall be timed to avoid surface runoff and leaching by winter rainfall.

5. Except for orchards and vineyards, nutrients shall not be applied during periods when a crop is dormant.

D. Nutrient Application Methods

1. The Discharger shall apply nutrient materials uniformly to application areas or as prescribed by precision agricultural techniques.

2. Land Application Specification D.7 of the Order: "*Land application areas that receive dry manure shall be managed through implementation of erosion control measures to minimize erosion and must be consistent with a certified Nutrient Management Plan.*"

VI. Wastewater Management on Land Application Areas

Control of water and process wastewater applications and runoff is a part of proper nutrient management since water transports nutrients, salts, and other constituents from cropland to groundwater and surface water. The Discharger shall comply with the following provisions of the Order, which place requirements on applications of manure and process wastewater to, and runoff from, cropland:

A. Prohibition A.2 of the Order: "*The discharge of waste from existing milk cow dairies to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations is prohibited*."

B. Prohibition A.3 of the Order: **"***The collection, treatment, storage, discharge or disposal of wastes at an existing milk cow dairy that results in (1) discharge of waste constituents in a manner which could cause degradation of surface water or groundwater except as allowed by this Order, (2) contamination or pollution of surface water or groundwater, or (3) a condition of nuisance (as defined by the California Water Code Section 13050) is prohibited.*"

C. Prohibition A.9 of the Order: "*The discharge of wastewater to surface waters from cropland is prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this Prohibition.*"

D. Prohibition A.10 of the Order: "*The application of process wastewater to a land application area before, during, or after a storm event that would result in runoff of the applied water is prohibited.*"

E. Prohibition A.11 of the Order: "*The discharge of storm water to surface water from a land application area where manure or process wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan*."

F. Land Application Specification D.4 of the Order: "*Land application of wastes for nutrient recycling from existing milk cow dairies shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.*"

G. Land Application Specification D.8 of the Order: **"***All process wastewater applied to land application areas must infiltrate completely within 72 hours after application*."

H. Land Application Specification D.9 of the Order: "*Process wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see Attachment C) and the Discharger's Site Specific Order. In no case shall manure or process wastewater be applied to standing water*."

VII. Setbacks and Vegetated Buffer

A. Land Application Specification D.10 of the Order: "*Manure and process wastewater shall not be applied closer than 100 feet to any down gradient surface waters, open tile line intake structures, sinkholes, agricultural or domestic well heads, 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*."

B. A setback is a specified distance from surface waters or potential conduits to surface waters where manure and process wastewater may not be land applied, but where crops may continue to be grown.

C. A vegetated buffer is a narrow, permanent strip of dense perennial vegetation where no crops are grown and which is established parallel to the contours of and perpendicular to the dominant slope of the land application area for the purposes of slowing water runoff, enhancing water infiltration, trapping pollutants bound to sediment, and minimizing the risk of any potential nutrients or pollutants from leaving the land application area and reaching surface waters.

D. The minimum widths of setbacks and vegetated buffers must be doubled around the wellhead of a drinking water supply well constructed in a sole-source aquifer.

E. Practices and management activities for vegetated buffers include the following:

1. Removal of vegetation in vegetated buffers will be in accordance with site production limitations, rate of plant growth, and the physiological needs of the plants.

2. Do not mow below the recommended height for the plant species.

3. Maintain adequate ground cover and plant density to maintain or improve filtering capacity of the vegetation.

4. Maintain adequate ground cover, litter, and canopy to maintain or improve infiltration and soil condition.

5. Periodic rest from mechanical harvesting may be needed to maintain or restore the desired plant community following episodic events such as drought.

6. When weeds are a significant problem, implement pest management to protect the desired plant communities.

7. Prevent channels from forming.

VIII. Field Risk Assessment

The results of the water quality monitoring of discharges of manure, process wastewater, storm water, and tailwater to surface water from each land application area, as required by the Monitoring and Reporting Program (Attachment D), shall be used by the Discharger to assess the movement of nitrogen and phosphorus from each land application area. The Discharger will follow guidelines provided by the Executive Officer in conducting these assessments.

IX. Record-Keeping

The Discharger shall maintain records for each land application area as required in the Record-Keeping Requirements of the Monitoring and Reporting Program (Attachment D).

X. Nutrient Management Plan Review

A. Provide the name and contact information (including address and phone number) of the person who created the NMP; the date that the NMP was drafted; the name, title, and contact information of the person who approved the final NMP; and the date of NMP implementation. Provide applicable document(s) to verify that the person who developed and/or modified the NMP met the qualifications of a certified specialist.

B. The Discharger shall propose an update to the NMP when discharges from any land application area exceed water quality objectives, a nutrient source has changed, site-specific information has become available to replace default values used in the overall nutrient balance or the nutrient budget, nitrogen application rates in any land application area exceed the rates specified in Technical Standard V.B or the Field Risk Assessment finds that management practices are not effective in minimizing discharges.

C. The Discharger shall propose an update to the NMP prior to any anticipated changes that would affect the overall nutrient balance or the nutrient budget such as, but not limited to, a crop rotation change, changes in the available cropland, or the changes in the volume of process wastewater generated.

D. The Discharger shall review the NMP at least once every five years and notify the Regional Board in the annual report of any proposed changes that would affect the NMP.

ATTACHMENT D

MONITORING AND REPORTING PROGRAM

GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code (CWC) Section 13267 and the Federal Clean Water Act and regulations and guidelines adopted thereunder. The Discharger shall not implement any changes to this MRP unless a revised MRP is issued by the Central Valley Water Board.

This MRP includes Monitoring, Record-Keeping, and Reporting requirements. Monitoring requirements include monitoring of discharges of manure and/or process wastewater, storm water, and tailwater from the production area and land application areas and groundwater monitoring in order to determine if the Discharger's dairy is in compliance with the discharge limitations of General Waste Discharge Requirements and General NPDES Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley Region (Order). Discharge monitoring should be infrequent for those dairies that are operating in compliance with the Order.

Monitoring requirements also include monitoring of nutrients applied to, and removed from, land application areas in order for the Discharger to implement a Nutrient Management Plan that will minimize leaching of nutrients and salts to groundwater and transport of these constituents to surface water.

In addition, monitoring requirements include periodic visual inspections of the dairy to ensure the dairy is being operated and maintained to ensure continued compliance with the Order.

This MRP requires the Discharger to keep and maintain records for five years of the monitoring activities for the production and land application areas and to prepare and submit reports containing the results of specified monitoring as indicated below.

All monitoring must begin immediately. Note that some types of events require that a report be submitted to the Central Valley Water Board within 24 hours (see section C).

Dischargers must follow sampling and analytical procedures as specified in this MRP or as have been approved by the Executive Officer and posted on the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/general_order_guidance/sampling_analysis/index.shtml. Dischargers must have analyses conducted by a

laboratory certified for such analyses by the California Department of Health Services except where the California Department of Health Services has not developed a certification program for the material to be analyzed. Approved procedures will be posted on the Board's web site and copies may be obtained by contacting staff. With the exception of sampling and analytical procedures for surface water discharges, a Discharger may submit alternative procedures for consideration, but must receive written approval from the Executive Officer before using them.

The Discharger shall conduct monitoring, record-keeping, and reporting as specified below.

A. MONITORING REQUIREMENTS

Visual Inspections

Effective immediately, the Discharger shall conduct and record the inspections specified in Table 1 below and maintain records of the results on-site for a period of five years. Any deficiencies that are identified in daily and weekly inspections must be corrected in a timely manner.

Table 1. INSPECTIONS
Production Area Weekly all year: Inspect all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater and manure storage and containment structures. Inspect all process wastewater ponds noting the level as indicated by the depth marker. Inspect all waste storage areas and note any conditions or changes that could result in discharges to surface water and/or from property under control of the Discharger Daily all year: Inspect all water lines, including drinking water and cooling water lines. During and after each significant storm event[1]: Visual inspections of storm water containment structures for discharge, freeboard, berm integrity, cracking, slumping, erosion, excess vegetation, animal burrows, and seepage. Monthly on the 1st day of each month: Photograph each pond showing the height of wastewater relative to the depth marker and the current freeboard on that date. All photos shall be dated and maintained as part of the discharger's record.
Land Application Areas Prior to each wastewater application: Inspect the land application area and note the condition of land application berms including

[1] A significant storm event is defined as a storm event that results in continuous runoff of storm water for a minimum of one hour, or intermittent runoff for a minimum of three hours in a 12-hour period.

rodent holes, piping, and bank erosion. Verify that any field valves are correctly set to preclude off-property or accidental discharges of wastewater.

Daily when process wastewater is being applied:
Inspect the land application area and note: the condition of land application berms including rodent holes, piping, and bank erosion; the presence (or lack) of field saturation, ponding, erosion, runoff (including tailwater discharges from the end of fields, pipes, or other conveyances), and nuisance conditions; and the conditions of any vegetated buffers or alternative conservation practices.

Weekly when in use:
Inspect equipment used for land application of manure or process wastewater for leaks.

Nutrient Monitoring

The Discharger shall monitor process wastewater, manure, and plant tissue produced at the facility, soil in each land application area, and irrigation water used on each land application area for the constituents and at the frequency as specified in Table 2 below. This information is for use in conducting nutrient management on the individual land application areas and at the facility on the whole. It must be used to refine and implement the Nutrient Management Plan. The Discharger is encouraged to collect and use additional data, as necessary, to refine nutrient management.

Table 2. NUTRIENT MONITORING
Process Wastewater Each application: Record the volume (gallons or acre-inches) and date of process wastewater application to each land application area. Quarterly during one application event: Field measurement of electrical conductivity. Laboratory analyses for nitrate-nitrogen (only when retention pond is aerated), ammonium-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids. . Once every two years: Laboratory analyses for general minerals (calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride).
Manure Once every two years (biennially): Laboratory analyses for general minerals (calcium, magnesium, sodium, sulfur, and chloride) and fixed solids (ash). Twice per year: Laboratory analyses for total nitrogen, total phosphorus, total potassium, and percent moisture. Each application to each land application area: Record the percent moisture and total weight (tons) applied.

Table 2. NUTRIENT MONITORING
Each offsite export of manure: Record the percent moisture and total weight (tons) exported. Laboratory analyses for percent moisture. Annually: Record the total dry weight (tons) of manure applied annually to each land application area and the total dry weight (tons) of manure exported offsite.
Plant Tissue At harvest: Record the percent moisture and total weight (tons) of harvested material removed from each land application area. Laboratory analyses for total nitrogen, total phosphorus, total potassium (expressed on a dry weight basis), fixed solids (ash), and percent moisture. The following test is only required if the Discharger wants to add fertilizer in excess of 1.4 times the nitrogen expected to be removed by the harvested portion of the crop (see Attachment C for details): Mid-season, if necessary to assess the need for additional nitrogen fertilizer during the growing season: Laboratory analyses for total nitrogen, expressed on a dry weight basis.
Soil Once every 5 years from each land application area (may be distributed over a 5-year period by sampling 20% of the land application areas annually): Laboratory analyses at depths below ground surface of: 0 to 1 foot: Electrical conductivity, nitrate-nitrogen, total phosphorus, and soluble phosphorus. 1 to 2 feet: Nitrate-nitrogen.
Irrigation Water[2] Each irrigation event for each land application area: Record volume (gallons or acre-inches)[3] and source (well or canal) of irrigation water applied and dates applied. One irrigation event during each irrigation season during actual irrigation events: For each irrigation water source (well and canal): Electrical conductivity, total dissolved solids and total nitrogen.[4] Data collected to satisfy the groundwater monitoring requirements (below) will satisfy this requirement.

Monitoring of Surface Runoff

The Discharger shall monitor discharges of manure and/or process wastewater, storm water, and tailwater from the production area and land application area for the constituents and at the frequency as specified in Table 3 below.

[2] The Discharger shall monitor irrigation water (from each water well source and canal) that is used on all land application areas.
[3] Initial volume measurements may be the total volume for all land application areas. Volume measurements for each irrigation source for each land application area shall be recorded no later than **1 July 2011**.
[4] In lieu of sampling the irrigation water, the Discharger may provide equivalent data from the local irrigation district.

Table 3. DISCHARGE MONITORING
Discharges (Including Off-Property Discharges) of Manure or Process Wastewater from the Production Area or Land Application Area Daily during each discharge: Record date, time, approximate volume (gallons) or weight (tons), duration, location, source, and ultimate destination of the discharge. Field measurements of the discharge for electrical conductivity, temperature, and pH. Laboratory analyses of the discharge for nitrate-nitrogen, total ammonia-nitrogen, unionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, potassium, total dissolved solids, BOD_5[5], total suspended solids, and total and fecal coliform.
Daily during each discharge to surface water: For surface water upstream[6] and downstream[7] of the discharge: Field measurements for electrical conductivity, dissolved oxygen, temperature, and pH. Laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, unionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, potassium, total dissolved solids, total suspended solids, and total and fecal coliform.
Storm Water Discharges to Surface Water from the Production Area where the Conditions for Allowable Discharge under Section C (Effluent Limitations and Standards for the Production Area) of this Order are not met. Daily during each discharge to surface water: Record date, time, approximate volume, duration, location, source, and ultimate destination of the discharge. For (1) the discharge and surface water (2) upstream and (3) downstream of the discharge: Field measurements of electrical conductivity, dissolved oxygen, temperature, pH, total ammonia-nitrogen, and unionized ammonia-nitrogen. Laboratory analyses for nitrate-nitrogen, turbidity, total phosphorus, and total and fecal coliform.
Storm Water Discharges to Surface Water from Each Land Application Area[8] First storm event of the wet season[9] and during the peak storm season (typically February)[10] each year from one third of the land application areas[11] with the land application areas sampled rotated each year[12]:

[5] Five-day Biochemical Oxygen Demand.
[6] Upstream samples shall be taken just far enough upstream so as not to be influenced by the discharge.
[7] Downstream samples shall be taken just far enough downstream where the discharge is blended with the receiving water but not influenced by dilution flows or other discharges.
[8] Sample locations must be chosen such that the samples are representative of the quality and quantity of storm water discharged. For turbidity, samples must be taken upstream and downstream of the discharge, as well as of the discharge itself.
[9] This sample shall be taken from the first storm event of the season that produces significant storm water discharge such as would occur during continuous storm water runoff for a minimum of one hour, or intermittent storm water runoff for a minimum of three hours in a 12-hour period.
[10] This sample shall be taken during a storm event that produces significant storm water discharge and that is preceded by at least three days of dry weather. The sample shall be taken during the first hour of the discharge.
[11] One land application area shall be sampled for Dischargers that have one to three land application areas, two land application areas shall be sampled for Dischargers that have four to six land application areas, etc.
[12] The Discharger may propose in the annual storm water report to reduce the constituents and/or sampling frequency of storm water discharges to surface water from any land application area based on the previous year's data (see Storm Water Reporting below).

Table 3. DISCHARGE MONITORING
Record date, time, approximate volume, duration, location, and ultimate destination of the discharge. Field measurements of the discharge for electrical conductivity, temperature, pH, total ammonia-nitrogen, and unionized ammonia-nitrogen. Laboratory analyses of the discharge for nitrate-nitrogen, total phosphorus, turbidity, and total and fecal coliform.
Tailwater Discharges to Surface Water from Land Application Areas[13] Each discharge from each land application area where irrigation has occurred less than 60 days after application of manure and/or process wastewater: Record date, time, approximate volume (gallons), duration, location, and ultimate destination of the discharge. Field measurements of discharge for electrical conductivity, temperature, pH, total ammonia-nitrogen, and unionized ammonia-nitrogen. First discharge of the year from any land application area where irrigation has occurred less than 60 days after application of manure and/or process wastewater: Laboratory analyses for nitrate-nitrogen, total phosphorus, and total and fecal coliform.

1. If conditions are not safe for sampling, the Discharger must provide documentation of why samples could not be collected and analyzed. For example, the Discharger may be unable to collect samples during dangerous weather conditions (such as local flooding, high winds, tornados, electrical storms, etc.). However, once the dangerous conditions have passed, the Discharger shall collect a sample of the discharge or, if the discharge has ceased, from the waste management unit from which the discharge occurred.

2. Discharge and surface water sample analyses shall be conducted by a laboratory certified for such analyses by the California Department of Health Services. These laboratory analyses shall be conducted in accordance with the Title 40 Code of Federal Regulations Part 136 (*Guidelines Establishing Test Procedures for the Analysis of Pollutants*) unless alternate procedures have been established pursuant to 40 CFR § 136.4 or 40 CFR § 136.5.

3. All discharges shall be reported as specified in the Reporting Requirements (Priority Reporting of Significant Events and Annual Reporting) below, as appropriate.

4. The rationale for all discharge sampling locations shall be included in the Annual Report (in Storm Water Report for storm water discharges from land application areas).

[13] Tailwater samples shall be collected at the point of discharge to surface water.

5. Parties interested in coordinating or combining surface water monitoring conducted by an individual dairy or group of dairies with monitoring conducted pursuant to the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Order No. R5-2006-0053 for Coalition Group or Order No. R5-2006-0054 for Individual Discharger, or updates thereto) may propose an alternative monitoring program for the Executive Officer's consideration. The alternative program shall not begin until the Discharger receives written approval from the Executive Officer.

Groundwater Monitoring

The Discharger shall sample each domestic and agricultural supply well and subsurface (tile) drainage system present in the production and/or land application areas to characterize existing groundwater quality. This monitoring shall be conducted at the frequency and for the parameters specified in Table 4 below. The frequency of monitoring the domestic and agricultural supply wells for ammonium-nitrogen and total dissolved solids may be reduced to every five years after two years of data are provided to the Executive Officer.

Table 4. GROUNDWATER MONITORING
Domestic and Agricultural Supply Wells Annually: Field measurements of electrical conductivity and ammonium-N[1]. Laboratory analyses of nitrate-nitrogen. Every five years (may be distributed over a 5-year period by sampling 20% of the wells annually): Laboratory analyses for general minerals (calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, chloride, and total dissolved solids).
Subsurface (Tile) Drainage System Annually: Field measurements of electrical conductivity and ammonium-N[1]. Laboratory analyses of nitrate-nitrogen, total phosphorus and total dissolved solids.

[1] If field measurement indicates the presence of ammonium-N, the Discharger shall collect a sample for laboratory analysis of ammonium-N.

1. Groundwater samples from domestic wells shall be collected from the tap nearest to the pressure tank (and before the pressure tank if possible) after water has been pumped from this tap for 10 to 20 minutes. If the sample cannot be collected prior to a pressure tank, the well must be purged at least twice the volume of the pressure tank. Groundwater samples from agricultural supply wells shall be collected after the pump has run for a minimum of 30 minutes or after at least three well volumes have been purged from the well. Samples from subsurface (tile) drains shall be collected at the discharge point into a canal or drain.

General Monitoring Requirements

1. Participation in a Representative Monitoring Program may provide some or all of the data required by individual groundwater monitoring,The Discharger shall comply with all the “Requirements Specifically for Monitoring Programs and Monitoring Reports” as specified in the Standard Provisions and Reporting Requirements.

2. Approved sampling procedures are listed on the Central Valley Water Board’s web site at http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/general_order_guidance/sampling_analysis/index.shtml. With the exception of sampling and analytical procedures for surface water discharges, when special procedures appear to be necessary at an individual dairy, the Discharger may request approval of alternative sampling procedures for nutrient management. The Executive Officer will review such requests and if adequate justification is provided, may approve the requested alternative sampling procedures.

3. The Discharger shall use clean sample containers and sample handling, storage, and preservation methods that are accepted or recommended by the selected analytical laboratory or, as appropriate, in accordance with approved United States Environmental Protection Agency analytical methods.

4. All samples collected shall be representative of the volume and nature of the material being sampled.

5. All sample containers shall be labeled and records maintained to show the time and date of collection as well as the person collecting the sample and the sample location.

6. All samples collected for laboratory analyses shall be preserved and submitted to the laboratory within the required holding time appropriate for the analytical method used and the constituents analyzed.

7. All samples submitted to a laboratory for analyses shall be identified in a properly completed and signed Chain of Custody form.

8. Field test instruments used for temperature, pH, electrical conductivity, ammonia-nitrogen, unionized ammomia-nitrogen, and dissolved oxygen may be used provided:

    a. The operator is trained in the proper use and maintenance of the instruments;

    b. The instruments are field calibrated prior to each monitoring event; and

c. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency.

B. RECORD-KEEPING REQUIREMENTS

Dischargers shall maintain on-site for a period of five years from the date they are created all information as follows (Owners must maintain their own copies of this information):

1. All information necessary to document implementation and management of the Nutrient Management Plan (NMP), including the information described in Items 2-6 below;

2. All records for the production area including:

   a. Records documenting the inspections required under the Monitoring Requirements above;

   b. Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements above. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction;

   c. Records of the date, time, and estimated volume of any overflow;

   d. Records of mortality management and practices;

   e. Records documenting the current design of ponds, including volume for solids accumulation, design treatment volume, total design volume, and approximate number of days of storage capacity.

   f. Steps and dates when action is taken to correct unauthorized releases as reported in accordance with Priority Reporting of Significant Events below; and

   g. Records of monitoring activities and laboratory analyses conducted as required in Standard Provisions and Reporting Requirements D.5.

3. All records for the land application area including:

   a. Expected and actual crop yields;

b. Identification of crop, acreage, and dates of planting and harvest for each field;

c. Dates, locations, and approximate weight and moisture content of manure applied to each field;

d. Dates, locations, and volume of process wastewater applied to each field;

e. Weather conditions at time of manure and process wastewater applications and for 24 hours prior to and following applications;

f. Records documenting the inspections conducted as required under the Monitoring Requirements above;

g. Dates, locations, and test methods for soil, manure, process wastewater, irrigation water, and plant tissue sampling;

h. Results from manure, process wastewater, irrigation water, soil, plant tissue, discharge (including tailwater), and storm water sampling;

i. Explanation for the basis for determining manure or process wastewater application rates, as provided in the Technical Standards for Nutrient Management established by the Order (Attachment C);

j. Calculations showing the total nitrogen, total phosphorus, and potassium to be applied to each field, including sources other than manure or process wastewater (Nutrient Budget);

k. Total amount of nitrogen, phosphorus, and potassium actually applied to each field, including documentation of calculations for the total amount applied (Nutrient Application Calculations);

l. The method(s) used to apply manure and/or process wastewater;

m. Dates of manure and/or process wastewater application equipment inspections;

n. Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements above. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction; and

o. Records of monitoring activities and laboratory analyses conducted as required in Standard Provisions and Reporting Requirements D.5.

4. A copy of the Discharger's site-specific Nutrient Management Plan;

5. All Manure/Process Wastewater Tracking Manifest forms (Attachment G) which includes information on the manure hauler, destination of the manure, dates transferred, amount transferred, and certification; and

6. All analyses of manure, process wastewater, irrigation water, soil, plant tissue, discharges (including tailwater discharges), surface water, storm water, subsurface (tile) drainage, and groundwater.

C. REPORTING REQUIREMENTS

Priority Reporting of Significant Events
(Prompt Action Required)

The Discharger shall report any noncompliance that endangers human health or the environment or any noncompliance with Prohibitions A.1, A.2, A.3, A.4, A.7, A.8, A.9, A.10, and A.11in the Order, or with the bypass and upset provisions of the Standard Provision and Reporting Requirements, **within 24 hours** of becoming aware of its occurrence. The incident shall be reported to the Central Valley Water Board Office, local environmental health department, and to the California Office of Emergency Services (OES). During non-business hours, the Discharger shall leave a message on the Central Valley Water Board's voice mail. The message shall include the time, date, place, and nature of the noncompliance, the name and number of the reporting person, and shall be recorded in writing by the Discharger. The OES is operational 24 hours a day. A written report shall be submitted to the Central Valley Water Board office **within five days** of the Discharger becoming aware of the incident (per 40 CFR 122.41(e)). The report shall contain a description of the noncompliance, its causes, duration, and the actual or anticipated time for achieving compliance. The report shall include complete details of the steps that the Discharger has taken or intends to take, in order to prevent recurrence. All intentional or accidental spills shall be reported as required by this provision. The written submission shall contain:

1. The approximate date, time, and location of the noncompliance including a description of the ultimate destination of any unauthorized discharge and the flow path of such discharge to a receiving water body;

2. A description of the noncompliance and its cause;

3. The flow rate, volume, and duration of any discharge involved in the noncompliance;

4. The amount of precipitation (in inches) the day of any discharge and for each of the seven days preceding the discharge;

5. A description (location; date and time collected; field measurements of pH, temperature, dissolved oxygen and electrical conductivity; sample identification; date submitted to laboratory; analyses requested) of noncompliance discharge samples and/or surface water samples taken to comply with the Monitoring Requirements above for *Discharges (Including Off-Property Discharges) of Manure or Process Wastewater From the Production Area or Land Application Area* and *Storm Water Discharges to Surface Water from the Production Area*;

6. The period of noncompliance, including dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue;

7. A time schedule and a plan to implement corrective actions necessary to prevent the recurrence of such noncompliance; and

8. The laboratory analyses of the noncompliance discharge sample and/or upstream and downstream surface water samples shall be submitted to the Central Valley Water Board office within 45 days of the discharge.

Annual Reporting

An annual monitoring report is due by **1 July of each year**. It will consist of a General Section, Groundwater Reporting Section and a Storm Water Reporting Section, as described below.

General Section

The General section of the annual report shall be completed on an annual report form provided by the Executive Officer (available on the Central Valley Water Board website at http://www.waterboards.ca.gov/centralvalley/available_documents/index.html#confined) and shall include all the information as specified below. This section of the annual report shall cover information on crops harvested during the previous calendar year, whether or not the crop was planted prior to this period.

1. Identification of the beginning and end dates of the annual reporting period;

2. Maximum and average number and type of animals, whether in open confinement or housed under roof;

3. Estimated amount of total manure (tons) and process wastewater (gallons or acre-inches) generated by the facility during the annual reporting period and a calculation of the total nitrogen, total phosphorus, total potassium and total salt content measured as fixed solids (ash) of the solid waste and total dissolved solids of the liquid waste;

4. The results of calculations of the maximum amounts of total manure (tons) and process wastewater (gallons or acre-inches) that were to be land applied to each land application area during the annual reporting period, the data used in the calculations, and a calculation of the nitrogen content of this waste. The calculations shall be based on the field-specific determination of soil levels of nitrogen (including a concurrent determination of nitrogen that will be plant available), the results of the most recent representative manure and process wastewater tests for nitrogen taken within 12 months of the date of land application, and the planned application rate for each specific crop as determined in the Nutrient Management Plan. The calculations should include any supplemental fertilizer planned to be applied to the crop;

5. Calculation of the actual amount of manure (tons) and process wastewater (gallons or acre-inches) applied to each land application area during the annual reporting period and a calculation of the total nitrogen, total phosphorus, total potassium and total salt content measured as fixed solids (ash) of the solid waste and total dissolved solids of the liquid waste. The calculations should include any supplemental fertilizer that was actually applied to each crop;

6. Tabulation of the actual crop(s) planted and actual yield(s) for each field, and a determination of the ratio between the total nitrogen applied to the crop and the amount of nitrogen removed in the harvested portion of the crops;

7. Total amount of manure (tons) and process wastewater (gallons or acre-inches) transferred to other persons by the facility during the annual reporting period and a calculation of the total nitrogen, total phosphorus, total potassium and total salt content measured as fixed solids (ash) of the solid waste and total dissolved solids of the liquid waste;

8. Total number of acres and the Assessor Parcel Numbers for all land application areas that were not used for application of manure or process wastewater during the reporting period;

9. Total number of acres and the Assessor Parcel Numbers of property that were used for land application of manure and process wastewater during the annual reporting period;

10. Summary of all manure and process wastewater discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan that occurred during the annual reporting period, including date, time, location, approximate volume, a map showing discharge and sample locations, rationale for sample locations, and method of measuring discharge flows;

11. Summary of all storm water discharges from the production area to surface water during the annual reporting period, including the date, time, approximate volume, duration, location, and a map showing the discharge and sample locations, rationale for sample locations, and method of measuring discharge flows;

12. Summary of all discharges from the land application area to surface water that have occurred during the annual reporting period, including the date, time, approximate volume, location, source of discharge (i.e., tailwater, process wastewater, or blended process wastewater), a map showing the discharge and sample locations, rationale for sample locations, and method of measuring discharge flows;

13. A statement indicating if the Nutrient Management Plan has been updated and whether the current version of the facility's Nutrient Management Plan was developed or approved by a certified nutrient management specialist as specified in Attachment C of the Order;

14. Copies of all manure/process wastewater tracking manifests for the reporting period;

15. A statement indicating if there were any changes to third party agreements to receive manure or process wastewater. If there were any changes, submit copies of all new or revised written agreements with each third party that receives solid manure or process wastewater from the Discharger for its own use;

16. Copies of laboratory analyses of all discharges (manure, process wastewater, or tailwater), surface water (upstream and downstream of a discharge), and storm water, including chain-of-custody forms and laboratory quality assurance/quality control results;

17. Tabulated analytical data for samples of manure, process wastewater, irrigation water, soil, and plant tissue. The data shall be tabulated to clearly show sample dates, constituents analyzed, constituent concentrations, and detection limits; and

18. Results of the Record-Keeping Requirements for the production and land application areas specified in Record-Keeping Requirements B.2.b, B.2.c, B.3.a, B.3.b, B.3.c, B.3.d, B.3.e, B.3.k, and B.3.n above.

Groundwater Reporting Section

Groundwater monitoring results shall be included with the annual reports.

1. Dischargers that monitor supply wells and subsurface (tile) drainage systems only shall submit information on the location of sample collection and all field and laboratory data, including all laboratory analyses (including chain-of custody forms and laboratory quality assurance/quality control results).

2. Dischargers that have monitoring well systems shall include all laboratory analyses (including chain-of-custody forms and laboratory quality assurance/quality control results) and tabular and graphical summaries of the monitoring data. Data shall be tabulated to clearly show the sample dates, constituents analyzed, constituent concentrations, detection limits, depth to groundwater, and groundwater elevations. Graphical summaries of groundwater gradients and flow directions shall also be included. Each groundwater monitoring report shall include a summary data table of all historical and current groundwater elevations and analytical results. The groundwater monitoring reports shall be certified by a California registered professional as specified in General Reporting Requirements C.9 of the Standard Provisions and Reporting Requirements of the Order.

Storm Water Reporting Section

Storm water monitoring results will be included in the annual report. The report shall include a map showing all sample locations for all land application areas, rationale for all sampling locations, a discussion of how storm water flow measurements were made, the results (including the laboratory analyses, chain of custody forms, and laboratory quality assurance/quality control results) of all samples of storm water, and any modifications made to the facility or sampling plan in response to pollutants detected in storm water. The annual report must also include documentation if no significant discharge of storm water occurred from the land application area(s) or if it was not possible to collect any of the required samples or perform visual observations due to adverse climatic conditions.

If the storm water monitoring for any land application area indicates pollutants have not been detected in storm water samples, the Discharger may propose to the Executive Officer to reduce the constituents and/or sampling frequency for that area.

General Reporting Requirements

1. The results of any monitoring conducted more frequently than required at the locations specified herein shall be reported to the Central Valley Water Board.

2. Laboratory analyses for manure, process wastewater, and soil shall be submitted to the Central Valley Water Board upon request by the Executive Officer.

3. Each report shall be signed by the Discharger or a duly authorized representative as specified in the General Reporting Requirements C.7 of the Standard Provisions and Reporting Requirements (SPRR), and shall contain the following statement:

   "*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*"

4. For facilities in Fresno, Kern, Kings, Madera, Mariposa, and Tulare counties, submit reports to:

   California Regional Water Quality Control Board
   Central Valley Region
   1685 E Street
   Fresno, CA 93706
   Attention: Confined Animal Regulatory Unit

   For facilities in Butte, Lassen, Modoc, Plumas, Tehama, and Shasta counties, submit reports to:

   California Regional Water Quality Control Board
   Central Valley Region
   415 Knollcrest Drive, Suite 100
   Redding, CA 96002
   Attention: Confined Animal Regulatory Unit

   For facilities in all other counties, submit reports to:

   California Regional Water Quality Control Board
   Central Valley Region
   11020 Sun Center Drive #200
   Rancho Cordova, CA 95670
   Attention: Confined Animal Regulatory Unit

MONITORING AND REPORTING PROGRAM
SUBATTACHMENT A TO ATTACHMENT D

Additional Groundwater Monitoring,
Monitoring Well Installation And Sampling Plan
And
Monitoring Well Installation Completion Report

GENERAL WASTE DISCHARGE REQUIREMENTS
AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

I. Additional Groundwater Monitoring

The provisions of this subattachment are set out pursuant to the Executive Officer's authority under California Water Code Section 13267 to order Dischargers to implement monitoring and reporting programs. Pursuant to Section 13267, the Executive Officer will order Dischargers regulated under Waste Discharge Requirements General Order for Existing Milk Cow Dairies, Order No. R5-2007-0035 (General Order) to install monitoring wells to comply with the Monitoring and Reporting Program based on an evaluation of the threat to water quality at each dairy. It is anticipated that this will occur in phases of approximately 100 to 200 dairies per year. Dischargers who are regulated under General Waste Discharge Requirements and General National Pollutant Discharge Elimination System (NPDES) Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley Region, Order No. R5-2010-0118, will be combined with Dischargers regulated under the General Order for purposes of evaluating the threat to water quality at the dairy.

The first group of dairies ordered to install groundwater monitoring wells will be those dairies where nitrate-nitrogen is detected at 10 mg/l or more in any one domestic well, agricultural well, or subsurface (tile) drainage system in the vicinity of the dairy. If necessary, the Executive Officer will further prioritize these groundwater monitoring requirements based on the factors in Table 5 below. The purpose of individual groundwater monitoring is to confirm that management practices being employed for the wastewater retention system, land application areas, and animal confinement areas, in light of the site conditions of a specific dairy, are protective of groundwater quality and comply with Groundwater Limitation D.1 of the General Order (Groundwater Limitation F.1 of Order No. R5-2010-0118).

As an alternative to installing monitoring wells on an individual basis, as set out in Section II below, Dischargers subject to Order No. R5-2010-0118 may participate in a Representative Monitoring Program that meets the requirements set forth in Section III below. Dischargers choosing to participate in a Representative Monitoring Program must notify the Central Valley Water Board.[1] Notification to the Central Valley Water Board must include identification of the Representative Monitoring Program for which the Discharger intends to join. Dischargers choosing NOT to participate in a Representative Monitoring Program or who fail to notify the Central Valley Water Board of their decision to participate in a Representative Monitoring Program, will continue to be subject to the Executive Officer's orders for Dischargers to install monitoring wells to comply with the Monitoring and Reporting Program. Further, Dischargers will continue to be subject to the Executive Officer's Orders for Dischargers to install monitoring wells to comply with the Monitoring and Reporting Program until the Representative Monitoring Program for which the Discharger has indicated its intent to participate has obtained approval of its Monitoring and Reporting Workplan as required in Section III below.

Dischargers subject to an order from the Executive Officer to install monitoring wells to comply with the Monitoring and Reporting Program, issued prior to approval of a Monitoring and Reporting Workplan for the Representative Monitoring Program, may request approval from the Executive Officer to participate in the Representative Monitoring Program in lieu of meeting requirements under the individual order. The Discharger's obligations under the individual order will continue until the Executive Officer approves the Discharger's request to participate in the Representative Monitoring Program.

A Representative Monitoring Program is not a Discharger. Dairy owners and operators are Dischargers and are responsible and liable for individual compliance and for determining if they are in compliance with the terms of the Order No. R5-2010-0118. As set forth in Section III below, an eligible Representative Monitoring Program will convey information related to a Discharger's participation in the Representative Monitoring Program, conduct representative monitoring pursuant to an approved monitoring plan, and prepare and submit any required plans and monitoring reports. However, member Dischargers will be responsible for failure on the part of the Representative Monitoring Program to comply with the MRP.

If a Discharger participating in a Representative Monitoring Program wishes to terminate participation in a Representative Monitoring Program, the Discharger shall submit a Notice of Termination to the Executive Officer and the administrator of his/her Representative Monitoring Program. Administrators of a Representative Monitoring Program shall also notify the Executive Officer of a participant's failure

[1] In lieu of individual discharger notifications to the Central Valley Water Board, a Representative Monitoring Program may provide to the Central Valley Water Board a list of participants that have signed-up and met the initial requirements for participation in that Representative Monitoring Program.

to participate in their Representative Monitoring Program. An eligible Representative Monitoring Program shall inform the Executive Officer of the participant's failure to participate within 45 days, which may result in the Executive Officer issuing a Notice of Termination to the Discharger stating that the Discharger is no longer able to participate in a Representative Monitoring Program as an alternative to individual groundwater monitoring. Termination from participation in a Representative Monitoring Program will occur on the date specified in the Notice of Termination, unless otherwise specified. Dischargers who voluntarily terminate their participation in the Representative Monitoring Program, receive a Notice of Termination from a Representative Monitoring Program, or receive a Notice of Termination from the Executive Officer, shall be subject to the Executive Officer's process for issuing individual orders for Dischargers to install monitoring wells to comply with the Monitoring and Reporting Program.

Pursuant to Section 13267, the Executive Officer may, at any time, order implementation of an individual monitoring and reporting program at a dairy at any time, even if the Discharger participates in a Representative Monitoring Program. Such order may occur, for instance, if violations of Order No. R5-2010-~~XXXX~~ 0118 are documented and/or the dairy is found to be in an area where site conditions and characteristics pose a high risk to groundwater quality. In the event the Executive Officer orders implementation of individual groundwater monitoring to a participant of a Representative Monitoring Program, such an order shall constitute a Notice of Termination to the participant and the Discharger shall no longer be eligible to participate in a Representative Monitoring Program to comply with the groundwater monitoring requirements contained herein.

II. Individual Requirements

1. When ordered by the Executive Officer, the Discharger shall install sufficient monitoring wells to:

    a. Characterize groundwater flow direction and gradient beneath the site;

    b. Characterize natural background (unaffected by the Discharger or others) groundwater quality upgradient of the facility; and

    c. Characterize groundwater quality downgradient of the corrals, downgradient of the retention ponds, and downgradient of the land application areas.

2. It may be necessary to install more than one upgradient monitoring well (i.e., for the production area and the land application area). The Executive Officer may order more extensive monitoring based on site-specific conditions.

TABLE 5. GROUNDWATER MONITORING FACTORS FOR RANKING PRIORITY[2]			
FACTOR	**SITE CONDITION**	**POINTS**	**SCORE**
Highest nitrate concentration (nitrate-nitrogen in mg/l) in any existing domestic well, agricultural supply well, or subsurface (tile) drainage system at the dairy or associated land application area.*	< 10	0	
	10 - 20	10	
	>20	20	
Location of production area or land application area relative to a Department of Pesticide Groundwater Protection Area[3] (GWPA).	Outside GWPA	0	
	In GWPA	20	
Distance (feet) of production area or land application area from an artificial recharge area[4] as identified in the California Department of Water Resources Bulletin 118 or by the Executive Officer.	> 1,500	0	
	601 to 1,500	10	
	0 to 600	20	
Nitrate concentration (nitrate-nitrogen in mg/l) in domestic well on property adjacent to the dairy production area or land application area (detected two or more times).	< 10 or unknown	0	
	10 or greater	20	
Distance (feet) from dairy production area or land application area and the nearest off-property domestic well.*	> 600	0	
	301 to 600	10	
	0 to 300	20	
Distance (feet) from dairy production area or land application area and the nearest off-property municipal well.*	> 1,500	0	
	601 to 1,500	10	
	0 to 600	20	
Number of crops grown per year per field.*	1	5	
	2	10	
	3	15	
Whole Farm Nitrogen Balance.[5]*	<1.65	0	
	1.65 to 3	10	
	>3	20	

Total Score: _____

*This information will be provided by the Discharger. All other information will be obtained by the Executive Officer.

2 Information on each factor may not be available for each facility. Total scores will be the ratio of the points accumulated to the total points possible for each facility. Dairies with higher total scores will be directed to install monitoring wells first.

3 The Department of Pesticide Regulation (DPR) defines a Groundwater Protection Area (GWPA) as an area of land that is vulnerable to the movement of pesticides to groundwater according to either leaching or runoff processes. These areas include areas where the depth to groundwater is 70 feet or less. The DPR GWPAs can be seen on DPRs website at http://www.cdpr.ca.gov/docs/gwp/gwpamaps.htm.

4 An artificial recharge area is defined as an area where the addition of water to an aquifer is by human activity, such as putting surface water into dug or constructed spreading basins or injecting water through wells.

5 The Whole Farm Nitrogen Balance is to be determined as the ratio of (total nitrogen in storage – total nitrogen exported + nitrogen imported + irrigation nitrogen + atmospheric nitrogen)/(total nitrogen removed by crops) as reported in the Preliminary Dairy Facility Assessment pursuant to General Order R5-2007-0035.

3. Prior to installation of monitoring wells, the Discharger shall submit to the Executive Officer a Monitoring Well Installation and Sampling Plan (MWISP) (see below) and schedule prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology. Installation of monitoring wells shall not begin until the Executive Officer notifies the Discharger in writing that the MWISP is acceptable.

4. All monitoring wells shall be constructed in a manner that maintains the integrity of the monitoring well borehole and prevents the well (including the annular space outside of the well casing) from acting as a conduit for pollutant/contaminant transport. Each monitoring well shall be appropriately designed and constructed to enable collection of representative samples of the first encountered groundwater.

5. The construction and destruction of monitoring wells and supply wells shall be in accordance with the standards under *Water Wells* and *Monitoring Wells* in the *California Well Standards Bulletin 74-90 (June 1991)* and *Bulletin 74-81 (December 1981),* adopted by the Department of Water Resources (DWR). Should any county or local agency adopt more stringent standards than that adopted by the DWR, then these local standards shall supersede the Well Standard of DWR, and the Discharger shall comply with the more stringent standards. More stringent practices shall be implemented if needed to prevent the well from acting as a conduit for the vertical migration of waste constituents.

6. The horizontal and vertical position of each monitoring well shall be determined by a registered land surveyor or other qualified professional. The horizontal position of each monitoring well shall be measured with one-foot lateral accuracy using the North American Datum 1983 (NAD83 datum). The vertical elevations of each monitoring well shall be referenced to the North American Vertical Datum 1988 (NAVD88 datum) to an absolute accuracy of at least 0.5 feet and a relative accuracy between monitoring wells of 0.01 feet.

7. Within 45 days after completion of any monitoring well, the Discharger shall submit to the Executive Officer a Monitoring Well Installation Completion Report (MWICR) (see below) prepared, by or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology.

8. The Discharger shall sample monitoring wells for the constituents and at the frequency as specified in Table 6 below. Groundwater monitoring shall include monitoring during periods of the expected highest and lowest water table levels.

Table 6. ADDITIONAL GROUNDWATER MONITORING
Monitoring Wells Quarterly[1]: Measurement of the depth to groundwater from a surveyed reference point to the nearest 0.01 foot in each monitoring well. Semi-annually Field measurements of electrical conductivity, temperature, and pH. Laboratory analyses for nitrate and ammonia. Within six months of well construction and every two years thereafter: Laboratory analyses for general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, and chloride).

1. After two years of quarterly depth to groundwater measurements, the discharger may request reduction of frequency of depth to groundwater measurements to semi-annually upon demonstration there are no seasonal impacts to groundwater levels.

9. Groundwater samples from monitoring wells shall be collected as specified in the approved Monitoring Well Installation and Sampling Plan.

10. The Discharger shall submit to the Executive officer an annual assessment of the groundwater monitoring data due 1 July of each year. The annual assessment may be attached to the annual report required in Section C of the Monitoring and Reporting Program. The annual assessment shall include a tabulated summary of all analytical data collected to date including analytical lab reports for data collected during the past year. The assessment shall include an evaluation of the groundwater monitoring program's adequacy to assess compliance with the Order, including whether the data provided are representative of conditions upgradient and downgradient of the production area and land application area. The assessment shall include an evaluation of the groundwater monitoring data collected to date with a description of the statistical or non-statistical methods used. The assessment must use methods approved by the Executive Officer. If the Discharger determines that the analytical methods required by this MRP are insufficient to identify whether site activities are impacting groundwater quality, the annual assessment must address Item II.11 below and employ the needed analyses during future monitoring events.

11. If the monitoring parameters required by this MRP are insufficient to identify whether site activities are impacting groundwater quality, the Discharger must employ all reasonable chemical analyses to differentiate the source of the particular constituent. This includes, but is not limited to, analyses for a wider array of constituents and chemical isotopes.

12. If the groundwater monitoring well system is insufficient to identify whether site activities are impacting groundwater quality, the Discharger must submit a

revised MWISP identifying locations and designs for additional wells that will allow collection of this information.

13. Within six years of initiating sampling activities, the Discharger shall submit to the Executive Officer a summary report presenting a detailed assessment of the monitoring data to evaluate whether site activities associated with operation of the wastewater retention system, corrals, or land application areas have impacted groundwater quality. This summary report can be required at an earlier date if evaluation by the Discharger or Central Valley Water Board Staff indicates that the assessment can be completed at an earlier date. This summary report shall also include detailed descriptions of management practices employed at the wastewater retention system, animal confinement areas, and land application areas along with the design standards of the wastewater retention system. The summary report must include an adequate technical justification for the conclusions incorporating available data and reasonable interpretations of geologic and engineering principles to identify management practices protective of groundwater quality. The summary report is subject to approval by the Executive Officer. If monitoring data indicate that Groundwater Limitation F.1 of Order No. R5-2010-0118 has been violated, this assessment shall include a description of changes in management practices and/or activities that will be undertaken to bring the facility into compliance. Annual reports required in Section C of the Monitoring and Reporting Program submitted after this summary report must include a discussion on implementation of changes in management practices and/or activities that are being taken and an evaluation of progress in complying with Groundwater Limitation F.1 of Order No. R5-2010-0118.

14. At any time during the term of this Order, the Central Valley Water Board may notify the Discharger to submit assessments of groundwater monitoring data (including the annual reports and the summary report) electronically. Data shall be submitted in a digital format acceptable to the Executive Officer.

III. Representative Monitoring Program Requirements

To establish a Representative Monitoring Program in lieu of individual groundwater monitoring, the Representative Monitoring Program must have Executive Officer approval of a submitted Monitoring and Reporting Workplan. The Monitoring and Reporting Workplan shall include sufficient information for the Executive Officer to evaluate the adequacy of the proposed groundwater monitoring program to serve as an alternative to the installation of individual groundwater monitoring wells at dairies. The Monitoring and Reporting Workplan must explain how data collected at facilities that are monitored will be used to assess impacts to groundwater at facilities that are not part of the Representative Monitoring Program's network of monitoring wells. This information is needed to demonstrate whether collected facility monitoring data will allow identification of practices that are protective of

water quality at all facilities represented by the Representative Monitoring Program, including those for which on-site data are not collected. The Monitoring and Reporting Workplan must additionally propose constituents the Representative Monitoring Program will monitor and the frequency of monitoring for each constituent identified. The Monitoring and Reporting Workplan must propose a list of constituents that is sufficient to identify whether activities at facilities being monitored are impacting groundwater quality. The list of constituents may necessarily be greater than the constituents required to be monitored at sites under individual orders (as listed in Table 6), as failure to determine whether groundwater has been impacted at a monitored facility will impair the ability to extrapolate findings to facilities where monitoring does not occur. At a minimum the baseline constituents shall include those required of individual groundwater monitoring systems.

1. Once the Monitoring and Reporting Workplan is approved, the Representative Monitoring Program shall begin the process of installing monitoring wells as prescribed in paragraphs 3-7 below.

2. Prior to installation of monitoring wells, the Representative Monitoring Program shall submit to the Executive Officer a Monitoring Well Installation and Sampling Plan (MWISP) (see below) and schedule prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology. Installation of monitoring wells shall not begin until the Executive Officer notifies the Representative Monitoring Program in writing that the MWISP is acceptable. The MWISP must be submitted within 60 days of Executive Officer approval of the Monitoring and Reporting Workplan.

3. All monitoring wells shall be constructed in a manner that maintains the integrity of the monitoring well borehole and prevents the well (including the annular space outside of the well casing) from acting as a conduit for pollutant/contaminant transport. Each monitoring well shall be appropriately designed and constructed to enable collection of representative samples of the first encountered groundwater.

4. The construction and destruction of monitoring wells and supply wells shall be in accordance with the standards under *Water Wells* and *Monitoring Wells* in the *California Well Standards Bulletin 74-90 (June 1991)* and *Bulletin 74-81 (December 1981),* adopted by the Department of Water Resources (DWR). Should any county or local agency adopt more stringent standards than that adopted by the DWR, then these local standards shall supersede the Well Standard of DWR, and the Representative Monitoring Program shall comply with the more stringent standards. More stringent practices shall be implemented if needed to

prevent the well from acting as a conduit for the vertical migration of waste constituents.

5. The horizontal and vertical position of each monitoring well shall be determined by a registered land surveyor or other qualified professional. The horizontal position of each monitoring well shall be measured with one-foot lateral accuracy using the North American Datum 1983 (NAD83 datum). The vertical elevations of each monitoring well shall be referenced to the North American Vertical Datum 1988 (NAVD88 datum) to an absolute accuracy of at least 0.5 feet and a relative accuracy between monitoring wells of 0.01 feet.

6. Within 45 days after completion of any monitoring well network, the Representative Monitoring Program shall submit to the Executive Officer a Monitoring Well Installation Completion Report (MWICR) (see below) prepared, by or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology. In cases where monitoring wells are completed in phases or completion of the network is delayed for any reason, monitoring well construction data are to be submitted within 180 days of well completion, even if this requires submittal of multiple reports.

7. Once the groundwater monitoring network is installed pursuant to an approved Monitoring and Reporting Workplan and paragraphs 3-6 above, the Representative Monitoring Program shall sample monitoring wells for the constituents and at the frequency as specified in the approved Monitoring and Reporting Workplan. Groundwater monitoring shall include monitoring during periods of the expected highest and lowest water table levels. In cases where the monitoring wells are completed in phases or completion of the monitoring well network is delayed for any reason, collection and analysis of groundwater samples from each well is to commence within 180 days of completion of that well.

8. Groundwater samples from monitoring wells shall be collected as specified in an approved MWISP.

9. The Representative Monitoring Program shall submit to the Executive Officer an Annual Representative Monitoring Report (ARMR). The ARMR shall be due by 1 April of each year and shall include all data (including analytical reports) collected during the previous calendar year. The ARMR shall also contain a tabulated summary of data collected to date by the Representative Monitoring Program. The ARMR shall describe the monitoring activities conducted by the Representative Monitoring Program, and identify the number and location of installed monitoring wells and other types of monitoring devices. Within each ARMR, the

Representative Monitoring Program shall evaluate the groundwater monitoring data to determine whether groundwater is being impacted by activities at facilities being monitored by the Representative Monitoring Program. The submittal shall include a description of the methods used in evaluating the groundwater monitoring data. Each ARMR shall include an evaluation of whether the representative monitoring program is on track to provide the data needed to complete the summary report (detailed in Item III.10 below). If the evaluation concludes that information needed to complete the summary report may not be available by the required deadline, the ARMR shall include measures that will be taken to bring the program back on track.

The ARMR shall include an evaluation of data collected to date and an assessment of whether monitored dairies are implementing management practices that are protective of groundwater quality. If the management practices being implemented at a dairy being monitored are found to not be protective of groundwater quality, the Executive Officer may issue an order to the owner/operator of the monitored dairy to identify and implement management practices that are protective of groundwater quality prior to submittal of the report described in Item III.10 below.

10. No later than six (6) years following submittal of the first ARMR, the Representative Monitoring Program shall submit a Summary Representative Monitoring Report (SRMR) identifying management practices that are protective of groundwater quality for the range of conditions found at facilities covered by the Representative Monitoring Program. The identification of management practices for the range of conditions must be of sufficient specificity to allow participants covered by the Representative Monitoring Program and the Central Valley Water Board to identify which practices at monitored facilities are appropriate for facilities with a corresponding range of site conditions and generally where such facilities may be located within the Central Valley (e.g., the summary report may need to include maps of the Central Valley that identify the types of management practices that should be implemented in certain areas based on specified site conditions). The summary report must include an adequate technical justification for the conclusions incorporating available data and reasonable interpretations of geologic and engineering principles to identify management practices protective of groundwater quality. The summary report is subject to approval by the Executive Officer.

11. Assessments of groundwater monitoring data (including the annual reports and the summary report) are to be submitted electronically. Data shall be submitted in an electronic format acceptable to the Executive Officer.

12. On July 1 following Executive Officer approval of the SRMR, each Discharger that is a participant covered by a Representative Monitoring Program shall include in their annual report required in Section C of the Monitoring and Reporting Program a description of management practices currently being implemented at their wastewater retention system(s), land application area(s), and animal confinement area(s). If these management practices are not confirmed to be protective of groundwater quality based on information contained in the SRMR , and therefore are not confirmed to be sufficient to ensure compliance of the facility with Groundwater Limitation F.1 of Order No. R5-2010-0118, the Discharger's annual report shall identify which alternative management practices the participant intends to implement at its dairy facility (based on the findings of the SRMR). Management practices deemed to be protective of groundwater quality are subject to approval by the Executive Officer. With each annual report submitted after the first report following Executive Officer approval of SRMR, each participant shall include within his or her annual report an update with respect to implementation of the additional or alternative management practices being employed by the participant to protect groundwater quality.

13. Within three months of joining a Representative Monitoring Program, each Discharger that is a participant covered by a Representative Monitoring Program shall submit to the Central Valley Water Board a letter stating that they are voluntarily joining the Representative Monitoring Program, they are aware of the conditions and requirements to be a member of the Program, they intend to fully comply with the monitoring and reporting program and intent of the Program, and they are fully aware failure to comply with the Program may result in their removal from the Program and that they may be subject to enforcement by the Central Valley Water Board. Failure to comply with the Representative Monitoring Program could also result in an order by the Executive Officer to implement individual groundwater monitoring and install monitoring wells to comply with Monitoring and Reporting Program Order No. R5-2007-0035.

IV. Monitoring Well Installation and Sampling Plan (Applicable to both Individual and Representative Monitoring Program Requirements)

At a minimum, the MWISP must contain all of the information listed below.

1. General Information:

    a. Topographic map showing any existing nearby (about 2,000 feet) domestic, irrigation, and municipal supply wells and monitoring wells known to the Discharger, utilities, surface water bodies,

drainage courses and their tributaries/destinations, and other major physical and man-made features, as appropriate.

b. Site plan showing proposed well locations, other existing wells, unused and/or abandoned wells, major physical site structures (such as corrals, freestall barns, milking barns, feed storage areas, etc.), waste handling facilities (including solid separation basins, retention ponds, manure storage areas), irrigated cropland and pasture, and on-site surface water features.

c. Rationale for the number of proposed monitoring wells, their locations and depths, and identification of anticipated depth to groundwater. In the case of a Representative Monitoring Program, this information must include an explanation of how the location, number, and depths of wells proposed will result in the collection of data that can be used to assess groundwater conditions at sites with a variety of conditions that have joined the Representative Monitoring Program but are not being monitored as part of the monitoring network.

d. Local permitting information (as required for drilling, well seals, boring/well abandonment).

e. Drilling details, including methods and types of equipment for drilling and logging activities. Equipment decontamination procedures (as appropriate) should be described.

f. Health and Safety Plan.

2. Proposed Drilling Details:

a. Drilling techniques.

b. Well logging method.

3. Proposed Monitoring Well Design - all proposed well construction information must be displayed on a construction diagram or schematic to accurately identify the following:

a. Well depth.

b. Borehole depth and diameter.

c. Well construction materials.

d. Casing material and diameter – include conductor casing, if appropriate.

e. Location and length of perforation interval, size of perforations, and rationale.

f. Location and thickness of filter pack, type and size of filter pack material, and rationale.

g. Location and thickness of bentonite seal.

h. Location, thickness, and type of annular seal.

i. Surface seal depth and material.

j. Type of well cap(s).

k. Type of well surface completion.

l. Well protection devices (such as below-grade water tight-vaults, locking steel monument, bollards, etc.).

4. Proposed Monitoring Well Development:

a. Schedule for development (not less than 48 hours or more than 10 days after well completion).

b. Method of development.

c. Method of determining when development is complete.

d. Parameters to be monitored during development.

e. Method for storage and disposal of development water.

5. Proposed Surveying:

a. How horizontal and vertical position of each monitoring well will be determined.

b. The accuracy of horizontal and vertical measurements to be obtained.

c. The California licensed professional (licensed land surveyor or civil engineer) to perform the survey.

6. Proposed Groundwater Monitoring:

    a. Schedule (at least 48 hours after well development).

    b. Depth to groundwater measuring equipment (e.g., electric sounder or chalked tape capable of ±0.01-foot measurements).

    c. Well purging method, equipment, and amount of purge water.

    d. Sample collection (e.g., bottles and preservation methods), handling procedures, and holding times.

    e. Quality assurance/quality control (QA/QC) procedures (as appropriate).

    f. Analytical procedures.

    g. Equipment decontamination procedures (as appropriate).

7. Proposed Schedule:

    a. Fieldwork.

    b. Laboratory analyses.

    c. Report submittal.

V. Monitoring Well Installation Completion Report

At a minimum, the MWICR shall summarize the field activities as described below.

1. General Information:

    a. Brief overview of field activities including well installation summary (such as number, depths), and description and resolution of difficulties encountered during field program.

    b. Topographic map showing any existing nearby domestic, irrigation, and municipal supply wells and monitoring wells, utilities, surface water bodies, drainage courses and their tributaries/destinations, and other major physical and man-made features.

    c. Site plan showing monitoring well locations, other existing wells, unused and/or abandoned wells, major physical site structures

(such as corrals, freestall barns, milking barns, feed storage areas, etc.), waste handling facilities (including solid separation basins, retention ponds, manure storage areas), land application area(s), and on-site surface water features.

d. Period of field activities and milestone events (e.g., distinguish between dates of well installation, development, and sampling).

2. Monitoring Well Construction:

a. Number and depths of monitoring wells installed.

b. Monitoring well identification (i.e., numbers).

c. Date(s) of drilling and well installation.

d. Description of monitoring well locations including field-implemented changes (from proposed locations) due to physical obstacles or safety hazards.

e. Description of drilling and construction, including equipment, methods, and difficulties encountered (such as hole collapse, lost circulation, need for fishing).

f. Name of drilling company, driller, and logger (site geologist to be identified).

g. As-builts for each monitoring well with the following details:

i. Well identification.

ii. Total borehole and well depth.

iii. Date of installation.

iv. Boring diameter.

v. Casing material and diameter (include conductor casing, if appropriate).

vi. Location and thickness of slotted casing, perforation size.

vii. Location, thickness, type, and size of filter pack.

viii. Location and thickness of bentonite seal.

ix. Location, thickness, and type of annular seal.

x. Depth of surface seal.

xi. Type of well cap.

xii. Type of surface completion.

xiii. Depth to water (note any rises in water level from initial measurement) and date of measurement.

xiv. Well protection device (such as below-grade water tight vaults, stovepipe, bollards, etc).

i. All depth to groundwater measurements during field program.

j. Field notes from drilling and installation activities (e.g., all subcontractor dailies, as appropriate).

k. Construction summary table of pertinent information such as date of installation, well depth, casing diameter, screen interval, bentonite seal interval, and well elevation.

3. Monitoring Well Development:

a. Date(s) and time of development.

b. Name of developer.

c. Method of development.

d. Methods used to identify completion of development.

e. Development log: volume of water purged and measurements of temperature, pH and electrical conductivity during and after development.

f. Disposition of development water.

g. Field notes (such a bailing to dryness, recovery time, number of development cycles).

4. Monitoring Well Survey:

a. Identify coordinate system or reference points used.

b. Description of measuring points (e.g. ground surface, top of casing, etc.).

c. Horizontal and vertical coordinates of well casing with cap removed.

d. Name, license number, and signature of California licensed professional who conducted survey.

e. Surveyor's field notes.

f. Tabulated survey data.

ATTACHMENT E

STANDARD PROVISIONS AND REPORTING REQUIREMENTS
FOR

GENERAL WASTE DISCHARGE REQUIREMENTS
AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING
OPERATIONS WITHIN THE CENTRAL VALLEY REGION

A. Introduction:

1. These Standard Provisions and Reporting Requirements (SPRR) are applicable to existing milk cow dairies that are regulated pursuant to the provisions of the Federal Clean Water Act as Concentrated Animal Feeding Operations (CAFO) and of Title 27 California Code of Regulations (CCR) Division 2, Subdivision 1, Chapter 7, Subchapter 2, Sections 22560 et seq.

2. Any violation of the Order constitutes a violation of the California Water Code and, therefore, may result in enforcement action.

3. If there is any conflicting or contradictory language between the Order, the Monitoring and Reporting Program (MRP) associated with the Order, or the SPRR, then language in the Order shall govern over the MRP and the SPRR, and language in the MRP shall govern over the SPRR.

B. Standard Provisions:

1. The Discharger must comply with all conditions of this Order. Any noncompliance with the Order constitutes a violation of the Act and is grounds for enforcement action; for Order termination, revocation, and reissuance; for denial of an Order renewal application; and/or for requiring a Discharger to apply for and obtain an individual NPDES Order.

2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR 122.41(a)(1).)

3. Duty to Reapply - If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR 122.41(b).)

4. Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR 122.41(c).)

5. Duty to Mitigate - The Discharger shall take all reasonable steps to minimize or prevent any discharge or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.
(40 CFR 122.41(d).) The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with the Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.

6. Proper Operation and Maintenance - The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR 122.41(e).)

7. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR 122.41(f).)

8. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR 122.41(g).)

9. Duty to Provide Information - The Discharger shall furnish to the Central Valley Water Board, State Water Board, or USEPA within a reasonable time, any information which the Central Valley Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Valley Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR 122.41(h); Wat. Code, § 13267.)

10. Inspection and Entry - The Discharger shall allow the Central Valley Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their

representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR 122.41(i); CWC section 13383):

a. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR 122.41(i)(1));

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR 122.41(i)(2));

c. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR 122.41(i)(3)); and

d. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location. (40 CFR 122.41(i)(4).)

11. Monitoring and Records:

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR 122.41(j)(1).)

b. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time. (40 CFR 122.41(j)(2).)

c. Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements (40 CFR 122.41(j)(3)(i));

(2) The individual(s) who performed the sampling or measurements (40 CFR 122.41(j)(3)(ii));

(3) The date(s) analyses were performed (40 CFR 122.41(j)(3)(iii));

(4) The individual(s) who performed the analyses (40 CFR 122.41(j)(3)(iv));

(5) The analytical techniques or methods used (40 CFR 122.41(j)(3)(v)); and

(6) The results of such analyses. (40 CFR 122.41(j)(3)(vi).)

d. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 unless other test procedures have been specified in this Order. (40 CFR 122.41(j)(4) and 122.44(i)(1)(iv).)

e. Enforcement - 40 CFR 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

12, Signatory and Certification Requirements - All applications, reports, or information submitted to the Central Valley Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – General Reporting Requirements (40 CFR 122.41(k).)

13. Planned Changes - The Discharger shall give notice to the Central Valley Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR 122.41(l)(1)):

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (40 CFR 122.41(l)(1)(i)); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR 122.41(l)(1)(ii).)

c. The alteration or addition results in a significant change in the Discharger's disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii).)

14. Anticipated Noncompliance - The Discharger shall give advance notice to the Central Valley Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR 122.41(l)(2).)

15. Transfers - This Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC. (40 CFR 122.41(l)(3) and 122.61.)

16. Monitoring Reports - Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment D) in this Order. (40 CFR 122.22(l)(4).)

    a. Monitoring results must be reported on forms provided or specified by the Central Valley Water Board or State Water Board for reporting results of monitoring of waste use or disposal practices. (40 CFR 122.41(l)(4)(i).)

    b. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the reporting form specified by the Central Valley Water Board. (40 CFR 122.41(l)(4)(ii).)

    c. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR 122.41(l)(4)(iii).)

17. Compliance Schedules - Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR 122.41(l)(5).)

18. Twenty-Four Hour Reporting:

    a. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR 122.41(l)(6)(i).) See Priority Reporting in the Monitoring and Reporting Program (Attachment D).

    b. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

        (1) Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(A).)

        (2) Any upset that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(B).)

c. The Central Valley Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR 122.41(l)(6)(iii).)

19. Other Noncompliance - The Discharger shall report all instances of noncompliance not reported under sections 16, 17, and 18 above at the time monitoring reports are submitted. The reports shall contain the information listed in section 18 above. (40 CFR 122.41(l)(7).)

20. Other Information - When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Valley Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR 122.41(l)(8)).

21. The requirements prescribed in the Order do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws.

22. The Discharger shall comply with all federal, state, county, and local laws and regulations pertaining to the discharge of wastes from the facility that are at least as stringent as the requirements of the Order.

23. All discharges from the facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or to other courses under their jurisdiction that are at least as stringent as the requirements of the Order.

24. The provisions of the Order are severable. If any provision of the Order is held invalid, the remainder of the Order shall not be affected.

25. The Discharger shall ensure compliance with existing and/or future promulgated standards that apply to the discharge.

26. Animal waste storage areas and containment structures shall be designed, constructed, and maintained to limit, to the greatest extent possible, infiltration, inundation, erosion, slope failure, washout, overtopping, by-pass, and overflow.

27. Setbacks or separation distances contained under Water Wells, Section 8, Part II, in the *California Well Standards, Supplemental Bulletin 74-90 (June 1991)*, and *Bulletin 94-81 (December 1981),* California Department of Water Resources (DWR), shall be maintained for the installation of all monitoring wells and groundwater supply wells at existing dairies. A setback of 100 feet is required between supply wells and animal enclosures in the production area. A minimum setback of 100 feet shall be required for the protection of existing wells or new wells installed in the cropland; in the alternative, the Discharger may substitute a 35-foot wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited, or may

demonstrate that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot setback. If a county or local agency adopts more stringent setback standards than that adopted by the DWR, then these local standards shall carry precedence over the Well Standards of DWR, and the Discharger shall comply with the more stringent standards.

28. Following any storm event that causes the freeboard of any wastewater holding pond to be less than one (1) foot for below-grade ponds, or two (2) feet for above-grade ponds, the Discharger shall take action as soon as possible to provide the appropriate freeboard in the wastewater holding pond.

29. For any electrically operated equipment at the facility, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the Discharger shall employ safeguards to prevent loss of control over wastes or violation of this Order. Such safeguards may include alternate power sources, standby generators, standby pumps, additional storage capacity, modified operating procedures, or other means.

30. Bypass

    a. Definitions –

        (1) “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.

        (2) “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

    b. Bypass not exceeding limitations - . The Discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the notice and prohibition provisions below.

    c. Notice –

        (1) Anticipated bypass - If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass - The Discharger shall submit notice of an unanticipated bypass as required in the Monitoring and Reporting Program (Priority Reporting of Significant Events).

d. Prohibition of bypass –

(1). Bypass is prohibited, and the Executive Officer may pursue enforcement action against a Discharger for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The Discharger submitted notices as required under the Monitoring and Reporting Program (Priority Reporting of Significant Events);

(2) The Executive Officer may approve an anticipated bypass, after considering its adverse effects, if the Executive Officer determines that it will meet the three conditions listed above in section d (1).((40 CFR 122.41(m)).

31. Upset

a. Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with Order conditions because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset – An upset constitutes an affirmative defense to an action brought for noncompliance with Order conditions if the requirements of paragraph 19 c of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset - A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through

properly signed, contemporaneous operating logs, or other relevant evidence that:

(1)An upset occurred and that the Discharger can identify the cause(s) of the upset;

(2)The permitted facility was at the time being properly operated;

(3) The Discharger submitted notice of the upset as required in the Monitoring and Reporting Program (Priority Reporting of Significant Events); and

(4) The Discharger took all reasonable steps to minimize or prevent any discharge in violation of this Order which had a reasonable likelihood of adversely affecting human health or the environment.

d. Burden of proof – In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR 122.41(n))

C. General Reporting Requirements:

1. The Discharger shall give at least 60 days advance notice to the Central Valley Water Board of any planned changes in the ownership or control of the facility.

2. 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 the Order by letter at least 60 days in advance of such change, a copy of which shall be immediately forwarded to the appropriate Central Valley Water Board office listed below in the General Reporting Requirements C.11.

3. To assume operation under the Order, any succeeding owner or operator must request, in writing, that the Executive Officer transfer coverage under the Order. The Central Valley Water Board will provide a form for this request that will allow the succeeding owner or operator to provide their full legal name, address and telephone number of the persons responsible for contact with the Central Valley Water Board and a responsibility statement and a signed statement in compliance with General Reporting Requirement C.7 below. The form will also include a statement for signature that the new owner or operator assumes full responsibility for compliance with the Order and that the new owner or operator will implement the Waste Management Plan and the NMP prepared by the preceding owner or operator. Transfer of the Order shall be approved or disapproved in writing by the Executive Officer. The succeeding owner or operator is not authorized to discharge under the Order and is subject to enforcement until written approval of the coverage transfer from the Executive Officer.

4. The Executive Officer may require the Discharger to submit technical reports pursuant to the Order and California Water Code Section 13267.

5. The Discharger shall identify any information that may be considered to be confidential under state law and not subject to disclosure under the Public Records Act. The Discharger shall identify the basis for confidentiality. If the Executive Officer cannot identify a reasonable basis for treating the information as confidential, the Executive Officer will notify the Discharger that the information will be placed in the public file unless the Central Valley Water Board receives, within 10 calendar days, a written request from the Discharger to keep the information confidential containing a satisfactory explanation supporting the information's confidentiality.

6. Except for data determined to be exempt from disclosure under the Public Records Act (California Government Code Sections 6275 to 6276), and data determined to be confidential under Section 13267(b)(2) of the California Water Code, all reports prepared in accordance with the Order and submitted to the Executive Officer shall be available for public inspection at the offices of the Central Valley Water Board. Data on waste discharges, water quality, meteorology, geology, and hydrogeology shall not be considered confidential.

7. All technical reports and monitoring program reports shall be accompanied by a cover letter with the certification specified in C.8 below and be signed by a person identified below:

    a. For a sole proprietorship: by the proprietor;

    b. For a partnership: by a general partner;

    c. For a corporation: by a principal executive officer of at least the level of senior vice-president in charge of a principal business function; or

    d. A duly authorized representative if:

        (1) The authorization is made in writing by a person described in Subsection a, b, or c of this provision;

        (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility, such as the position of manager. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and

        (3) The written authorization is submitted to the Central Valley Water Board.

8. Each person, as specified in C.7 above, signing a report required by the Order or other information requested by the Central Valley Water Board shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

9. In addition to Item C.7 above, all technical reports required in the Order that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by, or under the direction of, and signed by persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1 or federal officers and employees who are exempt from these Sections by California Business and Professions Code, Section 6739 or 7836. To demonstrate compliance with Title 16 CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

10. The Discharger shall file a new Report of Waste Discharge with the Central Valley Water Board at least 140 days before making any material change in the character, location, or volume of the discharge. A material change may result in termination of coverage under this Order and issuance of an individual NPDES Order. A material change includes, but is not limited to, the following:

    a. The addition of a new wastewater that results in a change in the character of the waste;

    b. Significantly changing the disposal or waste application method or location;

    c. Significantly changing the method of treatment;

    d. Increasing the discharge flow beyond that specified in the Order; or

    e. Expanding existing herd size beyond 15 percent.

11. The Discharger shall file proposed revisions to the Nutrient Management Plan and Waste Management Plan with the Central Valley Water Board at least 140 days before implementing any change in the NMP or WMP, including substantial changes. Upon notification from the Central Valley Water Board or Executive Officer, the Discharger may implement the revised NMP or WMP. A substantial change may result in termination of the existing Site Specific Order and issuance of a new Site Specific Order. A substantial change includes, but is not limited to, the following:

a. Addition of new land application areas not previously included in the CAFO's NMP except that if the added land application area is covered by the rterms of a NMP incorporated into an existing NPDES permit and the Discharger complies with such terms when applying manure and process wastewater to the added land;

b. Changes to the maximum amounts of nitrogen derived from all sources applied to each crop (pounds of N from manure and process wastewater);

c. Addition of any crop or other uses not included in the terms of the CAFO's NMP; and/or

d. Changes to site-specific components of the CAFO's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport to waters of the United States; or

e. Reducing the storage capacity for process wastewater such that storage capacity is no longer adequate.

12. If the Executive Officer determines that the proposed changes to the NMP and/or WMP do not necessitate revision to the Discharger's Site Specific Order, it will notify the Discharger that it may implement the revised NMP or WMP.

13. If the Executive Officer determines that the changes to the NMP and/or WMP, as described in sections c.10. and c. 11. above, will require changes to the Site Specific Order, but that those changes are not substantial or material, the Executive Officer will make the revised NMP and/or WMP publicly available and include it in the Order record, revise the terms of the Site Specific Order, and notify the Discharger and the public of the changes to the terms of the Site Specific Order.

14. If the Executive Officer determines that the required changes to the Site Specific Order are substantial, the Executive officer will notify the public, make the proposed changes to the Site Specific Order and the information submitted by the Discharger available for public review and comment, and respond to all significant comments received during the comment period, pursuant to the procedure outlined in Section H of the Order. The Executive Officer may require the Discharger to further revise the NMP and or WMP. The Central Valley Water Board, in a public meeting, will hear and consider all comments pertaining to the changes and will vote to grant or deny coverage to the Discharger. The Executive Officer will then notify the Discharger of the Board's final decision.

15. All reports shall be submitted to the following address:

    For facilities in Fresno, Kern, Kings, Madera, Mariposa, and Tulare counties, submit reports to:

California Regional Water Quality Control Board
Central Valley Region
1685 E Street
Fresno, CA 93706
Attention: Confined Animal Regulatory Unit

For facilities in Butte, Lassen, Modoc, Plumas, Tehama, and Shasta counties, submit reports to:

California Regional Water Quality Control Board
Central Valley Region
415 Knollcrest Drive, Suite 100
Redding, CA 96002
Attention: Confined Animal Regulatory Unit

For facilities in all other counties, submit reports to:

California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670
Attention: Confined Animal Regulatory Unit

D. Requirements Specifically for Monitoring Programs and Monitoring Reports:

1. The Discharger shall file self-monitoring reports and/or technical reports in accordance with the detailed specifications contained in the MRP attached to the Order.

2. The Discharger shall maintain a written monitoring program sufficient to assure compliance with the terms of the Order. Anyone performing monitoring on behalf of the Discharger shall be familiar with the written program.

3. The monitoring program shall include observation practices, sampling procedures, and analytical methods designed to ensure that monitoring results provide a reliable indication of water quality at all monitoring points.

4. All instruments and devices used by the Discharger for the monitoring program shall be properly maintained and shall be calibrated as recommended by the manufacturer and at least once annually to ensure their continued accuracy.

5. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by the Order, and records of all data used to complete the reports. Records shall be maintained for a minimum of five years from the date of sample, measurement, report, or application.

Records shall also be maintained after facility operations cease if wastes that pose a threat to water quality remain at the site. This five-year period may be extended during the course of any unresolved litigation regarding the discharge or when requested in writing by the Central Valley Water Board Executive Officer.

a. Records of on-site monitoring activities shall include the:

(1) Date that observations were recorded, measurements were made, or samples were collected;

(2) Name and signature of the individual(s) who made the observations, made and recorded the measurements, or conducted the sampling;

(3) Location of measurements or sample collection;

(4) Procedures used for measurements or sample collection;

(5) Unique identifying number assigned to each sample; and

(6) Method of sample preservation utilized.

b. Records of laboratory analyses shall include the:

(1) Results for the analyses performed on the samples that were submitted;

(2) Chain-of-custody forms used for sample transport and submission;

(3) Form that records the date that samples were received by the laboratory and specifies the analytical tests requested;

(4) Name, address, and phone number of the laboratory which performed the analysis;

(5) Analytical methods used;

(6) Date(s) analyses were performed;

(7) Identity of individual(s) who performed the analyses or the lab manager; and

(8) Results for the quality control/quality assurance (QA/QC) program for the analyses performed.

E. Enforcement

1. California Water Code Section 13385 provides that any person who violates an NPDES permit is subject to civil liability of up to $10,000 per day or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil liability of up to $10 per gallon, or $25 per gallon; or some combination thereof, depending on the violation, or upon the combination of violations. In addition, there are a number of other enforcement provisions that may apply to violation of the Order.

ATTACHMENT F

FACT SHEET

GENERAL WASTE DISCHARGE REQUIREMENTS
AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION
BOARD ORDER NO. R5-2010-0118
NPDES NO. CAG015001

A. INTRODUCTION

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. A permit writers guidance manual reflecting the 20 November 2008 US Environmental Protection Agency Final Rule for Concentrated Animal Feeding Operations (CAFOs) has not yet been released. Instead, this Order has been prepared using the federal CAFO regulations and the USEPA "NPDES General Permit for Dischargers from Concentrated Animal Feeding Operations (CAFOs) in New Mexico" (NMG010000) as a basis for developing permit requirements. The organization of this Order is, however, based on the General Order Waste Discharge Requirements (WDRs) for Existing Milk Cow Dairies, Order No. R5-2007-0035.

This Order was modified on XX Month XXXX in response to the decision of the United States Court of Appeals for the Fifth Circuit in *National Pork Producers Council, et al v. United States Environmental Protection Agency* (5th Cir. 2011) 635 F 3d 738. The Fifth Circuit Court decision vacated all provisions of the 20 November 2008 EPA Final Rule that require CAFOs that "propose to discharge" to apply for an NPDES permit.

This Order offers NPDES coverage to existing milk cow dairies regulated by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board). It implements the State laws and regulations relevant to confined animal facilities and the Federal Clean Water Act and regulations and guidelines adopted thereunder. This Fact Sheet is a part of the Order.

All dairies covered under this Order are required to:

- Comply with all provisions of the Order
- Have submitted a Waste Management Plan for the production area
- Have developed and be implementing a Nutrient Management Plan (NMP) for all land application areas

- Monitor wastewater, soil, crops, manure, surface water discharges, and storm water discharges
- Monitor surface water and groundwater
- Keep records for the production and land application areas
- Submit annual monitoring reports

Animal operations that are not milk cow dairies are not regulated by this Order. New animal operations that are not milk cow dairies will be regulated using individual Waste Discharge Requirements. Existing animal operations that are not milk cow dairies will eventually be regulated using General Order Waste Discharge Requirements. As necessary and appropriate, such operations can be placed under individual NPDES Orders, or General NPDES Orders can be developed for classes of facilities. Resource constraints limit the speed at which such Orders can be developed.

B. CENTRAL VALLEY WATER BOARD AUTHORITY TO ISSUE WASTE DISCHARGE REQUIREMENT ORDERS

The Central Valley Water Board authority to regulate waste discharges that could affect the quality of the waters of the state, which includes both surface water and groundwater, and the prevention of nuisance, is found in the Porter-Cologne Water Quality Control Act (California Water Code Division 7). Regulation is accomplished through issuance of WDRs or the waiver of such requirements. All confined animal facilities are subject to this regulatory authority.

Under the federal Clean Water Act, discharges of pollutants from point sources to waters of the United States are also subject to the NPDES permitting requirements. The Clean Water Act and the federal regulations implementing the Clean Water Act define certain confined animal facilities as point sources that are subject to NPDES permitting requirements.

Pursuant to California Water Code Division 7, Chapter 5.5, the Regional Board is authorized to implement the NPDES permitting system in California. The Regional Board issues NPDES permits pursuant to California Water Code Sections 13263 and 13377. These NPDES permits must be consistent with federal regulations and California Water Code Division 7, including Chapter 5.5, and implement State Water Resources Control Board (State Board) and Regional Board plans and policies. These NPDES permits also serve as WDRs under California Law

This Order is an NPDES General Permit that will apply to existing dairy facilities in the Central Valley Region that are defined as point sources under the federal regulations. The Central Valley Water Board may determine that some individual

facilities that are defined as point sources are not appropriately regulated under a general order and may require owners and operators of such facilities (Dischargers) to file a Report of Waste Discharge for an individual NPDES Permit.

C. DAIRY FACILITIES IN THE CENTRAL VALLEY REGION AFFECTED BY THIS ORDER

Title 40 Code of Federal Regulations (CFR) Section 122.23 (b)(1) defines animal feeding operations (AFOs) as operations where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and where vegetation is not sustained in the confinement area during the normal growing season Title 40 CFR Section 122.23 (b) establishes certain facilities as Concentrated Animal Feeding Operations (CAFO) if they meet certain size and discharge conditions. A dairy CAFO is any dairy AFO that is either large (700 mature dairy cows), or which is of medium size (200-699 mature dairy cows) and discharges pollutants to waters of the United States. Title 40 CFR Section 122.23 (b)(9), (c)(2) and (c)(3) define a small CAFO and lay out conditions under which a small (less than 200 mature dairy cows) AFO may be designated as a CAFO.

This Order applies to owners or operators (hereinafter Dischargers) of any existing dairy AFO that meets a definition of a large CAFO and discharges ~~or proposes to discharge~~ pollutants to waters of the United States on or after 17 October 2005. It also applies to Dischargers of any existing dairy AFO that meets the definition of a medium CAFO (in other words, that has discharged pollutants to waters of the United States on or after 17 October 2005~~), or any medium or small existing dairy AFO that proposes to discharge pollutants to waters of the United States.~~ . Finally, this Order applies to AFOs designated as small CAFOs. Under this Order, a small AFO may be designated as a CAFO by the Central Valley Water Board upon determining that the AFO is a significant contributor of pollutants to waters of the United States. The Definition of small CAFO (Attachment H) lays out the factors that the Board shall consider in making this designation.

Existing milk cow dairies of any size are currently regulated under General Order No. R5-2007-0035 unless their herd size has expanded more that 15% beyond the maximum number of mature dairy cows reported in a 2005 Report of Waste Discharge, which was due to the Central Valley Water Board on 17 October 2005. Existing milk cow dairies that have expanded more than 15% or new dairies which began milking after 17 October 2005 are regulated under Individual

Waste Discharge Requirements (WDRs). This Order applies only to Existing Milk Cow dairies that meet the CAFO definition above, and for those dairies, replaces coverage under General Order R5-2007-0035. It does not apply to dairies that meet the CAFO definition but which have expanded as described above, or to new facilities. Such dairies would be placed under Individual NPDES CAFO permits.

General Order R5-2007-0035 prohibits discharges from the production area and discharges of manure and/or wastewater from cropland. It requires monitoring of storm water discharges from cropland, even though such cropland is required to be managed under a Nutrient Management Plan (NMP) certified by a specialist who is certified in developing NMPs. The General Order requires monitoring of discharges of irrigation tailwater when manure or wastewater was applied less than 60 days prior to irrigation.

Because of the restrictions on discharges of pollutants to surface water in the General Order, existing dairies that are operating now and have operated in the past in compliance with the General Order and Title 27 will not be required to obtain coverage under this Order. ~~Few existing dairies are expected to propose to discharge pollutants to surface water, as that would be an intentional violation of the General Order.~~ The dairies that will be required to obtain coverage under this Order will be those dairies, of whatever size, that since 17 October 2005 have discharged pollutants to waters of the United States. ~~Also, if a dairy is designed, operated, and/or maintained such that discharge of pollutants to waters of the United States will occur, the dairy will be assumed to "propose to discharge pollutants to waters of the United States" within the meaning of the federal CAFO regulations and will be required to obtain coverage under this Order.~~

Periodically, staff identifies off-property discharges of manure or process wastewater from existing dairies. Sometimes the discharges are onto adjacent property not owned by the Discharger. Sometimes the discharges are into ditches that do not have any connection with surface water. All existing dairies that have had discharges to surface water since 17 October 2005 will be evaluated to determine if the discharges trigger a duty for the Discharger to apply for and receive coverage under this Order.

This Order also includes provisions to allow Dischargers of any existing large CAFO that does <u>not</u> discharge ~~or propose to discharge~~ pollutants to waters of the United States to request coverage under this Order. Similarly, Dischargers of any existing medium (200-699 mature dairy cows) or small (less than 200 mature dairy cows) dairy AFO may also request coverage under this Order. Those

dischargers will be bound by the requirements of this Order in the same manner as all other Dischargers.

Once a facility is covered under this Order, the provisions of the Order apply with respect to all animals in confinement at the operation and all waste generated by those animals or the production of those animals, regardless of the type of animal.

D. HOW DOES AN NPDES PERMIT DIFFER FROM WASTE DISCHARGE REQUIREMENTS?

An NPDES Permit which is based on provisions of the Federal Concentrated Animal Feeding Operations (CAFO) rule has several broad differences from General Waste Discharge Requirements (WDRs) such as the General Order for Existing Milk Cow Dairies.

1. NPDES permits rely on the Clean Water Act as authority for permit requirements; WDRs rely instead on California law, including, but not limited to the Porter Cologne Water Quality Control Act.
2. An NPDES permit sets allowable effluent limits for the discharge of pollutants to surface water, and allows discharges in excess of those limits under certain narrowly-defined conditions. The Gerneral Order for Existing Milk Cow Dairies generally does not allow discharges of pollutants to either groundwater or surface water.
3. A discharge in violation of NPDES permit conditions triggers the option of citizen lawsuits to enforce the permit conditions. No equivalent provision exists under the Porter Cologne Water Quality Control Act.
4. Information submitted to the Regional Water Board in response to the General Order requirements is public information, except in limited cases, and is available for public review. Under NPDES requirements, the Notice of Intent, Waste Management Plan, Nutrient Management Plan, and the Site Specific Order containing the permit conditions are all public documents and are posted for 30 day public review and comment prior to Board consideration of adoption.

E. DAIRY WASTES

For the purposes of this Order, dairy waste includes, but is not limited to, dry manure, and process wastewater resulting from water directly or indirectly used in the management of a dairy or resulting from any of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other animal feeding operation facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Waste also

includes any water or precipitation that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, or bedding.

Process wastewater is another term defined by this Order. For the purposes of this Order, “process wastewater” is any water directly or indirectly used in the operation of a milk cow dairy for any or all of the following: spillage or overflow from animal watering systems; washing or spray cooling of animals; or dust control. It also includes any water or precipitation and precipitation runoff which comes into contact with any ray materials, products, or byproducts including manure, feed, milk, or bedding.

Waste generated at dairies is stored dry in piles or in liquid form in waste retention ponds. The wastes are then applied to land or transported off-site for utilization on cropland. Wastes are applied to soils of varying character and drainage characteristics, varying proximity to surface drainages and waterways, different character of geology and depth to groundwater. The wastes provide nutrients to crops, but can create nuisance conditions if improperly managed or cause pollution of surface water and/or groundwater if site conditions are not taken into account in preparing the waste management strategy. This Order regulates the management of dairy wastes onsite and requires monitoring and continuous tracking of wastes being taken off-site for utilization.

Manure from dairies contains high concentrations of salts (total dissolved solids, including constituents such as sodium and chloride) derived primarily from the feed and water sources used in the dairy production activities. Some dairies also use water softening devices for milk barn cleaning and other activities and the concentrated brines or reject water is usually sent to the retention pond, thus increasing the salt concentrations further. Manure from dairies also contains elevated levels of nutrients (including nitrogen, ammonia, phosphorus, and potassium compounds) that can be used in crop production. A review of dairy manure by a University of California Committee of Consultants (UCCC) indicates that dairy cows in the Central Valley Region excrete approximately one (1) pound (lb) of nitrogen per head per day and approximately 2.1 lbs of inorganic salts (excluding nitrogen) per head per day. Thus, a 1,000-cow dairy generates approximately 365,000 lbs of nitrogen and 767,000 lbs of inorganic salts per year that must be managed to prevent impacts to water quality.

The application of manure or the discharge of process wastewater to a land application area results in the discharge of salts and nitrogen compounds. Oxidation of nitrogen compounds (i.e., ammonia and organic nitrogen compounds) to nitrites and nitrates has the potential to degrade the quality of surface water and groundwater in the Region, if not properly managed. This is particularly so for groundwater if the wastes are applied to the land application

area at rates that exceed crop needs. The UCCC review of dairy waste recommends, based on literature review, simulations, and field studies, that in cropland application of dairy manure, the total nitrogen load of the field should not exceed 1.4 times the potential maximum nitrogen uptake by plants, suggesting that successful cropping and minimal nitrate leaching is realistic to achieve at these application rates.

Surface water can also be degraded by both the presence of pollutants in the waste stream and by the very concentrated nature of cow manure and manure wastewater. Surface water can be degraded by the presence of ammonia in the waste, which can cause ammonia toxicity to aquatic life or suppress dissolved oxygen concentrations. In addition, nitrogen and phosphorus compounds in the waste can cause excessive algal growth in surface waters, resulting in lower oxygen levels and which in turn causes fish and other organisms to die. The presence of pathogens in the waste can create a public health threat through contact with affected waters. This Order includes effluent limitations for the production area and the land application areas that are consistent with the federal regulations and which are described below. This Order also includes both surface water and groundwater limitations.

F. HOW DOES THIS ORDER COMPARE TO THE GENERAL ORDER FOR EXISTING MILK COW DAIRIES, ORDER NO. R5-2007-0035?

The organization and content of this Order generally follows that of General Order No. R5-2007-0035 (General Order). The principal changes to the General Order are as follows:

1. Within the Order:

a) <u>At the beginning of the Findings</u>, a new section, “Order Area and Coverage”, replaces “Scope of Coverage” in the General Order and describes which Dischargers are covered under this Order. This section includes language that provides for a one-time exclusion from permitting requirements if certain conditions are met.
b) <u>In the Findings</u>, a new section, “Expiration and Continuation of this Order”, describes when the Order will expire and how it may be continued.
c) <u>In the Findings</u>, the section on the California Environmental Quality Act (CEQA) has been completely revised to reflect the applicability of CEQA to this Order.
d) <u>In the General Specifications</u>, all ponds are now required to have depth markers, not just the last pond in a series.
e) <u>A new section, “Effluent Limitations and Standards for the Production Area”</u>, has been added following “General Specifications”. The

language of the new section modifies the General Order prohibition of discharge from the production area, allowing a discharge if certain conditions are met.

f) In Land Application Specifications, requires that areas with a high potential for soil erosion be identified, together with measures to limit erosion and pollutant runoff.

g) A new section, "Effluent Limitations and Standards for the Land Application Area", has been added following "Land Application Specifications". The language of the new section restates several requirements from other parts of the Order relative to the land application area: the requirement for a Nutrient Management Plan and prohibition of discharge of manure or process wastewater. For discharges of storm water or tailwater, turbidity cannot exceed the turbidity limitations in the basin plan. This limitation will limit discharges of nutrients, particularly phosphorus, that adhere to soil particles. Also, the maximum amounts of manure and process wastewater to be applied to each land application area each year, and the nitrogen content of this waste, must be calculated.

h) A new section, "Application for Coverage, NMP and WMP Review, and Development of Site-specific Order Terms", has been added following "Provisions". This section describes the documents that must be submitted to apply for coverage under this Order, how those documents will be made available for public review, and the Order adoption process.

i) In Required Reports and Notices and Schedule of Tasks, reports required under the General Order for which deadlines have passed have been removed.

2. Within the Monitoring and Reporting Program (MRP) (Attachment D) and its Subattachment A:

a) Some changes to the MRP and to Attachment A of the General Order that are currently proposed but not yet approved by the Executive Officer are incorporated into both documents in this Order.

b) Deadlines for commencement of certain kinds of monitoring have been removed where the deadline has already passed.

c) In Table 1, weekly visual inspections of water diversion structures and water lines has been added. Inspections of waste storage areas are increased to weekly, and recording of the exact level of wastewater in lagoons has been added. Weekly inspection of equipment used to land apply manure or process wastewater has been added.

d) In Reporting Requirements, added noncompliance with bypass and upset provisions to the list of provisions that trigger the 24 hour reporting requirement and associated submissions.

e) In Annual Reporting, added requirement for calculation of the maximum amounts of nutrients planned to be applied to each field, and calculation (rather than estimation) of the amount of nutrients actually applied to each field. Tabulation of actual crops planted and actual yields has been added. The total amount of manure and wastewater transferred to others must be calculated, instead of estimated.
f) In Attachment A to the MRP, the only change that is not part of currently proposed revisions to the MRP/Attachment A for the General Order is language in paragraph 1 indicating that dairies regulated under this Order will be combined with and ranked jointly with dairies regulated under the General Order, for purposes of prioritizing sites for individual groundwater monitoring.

3. Within the Standard Provisions and Reporting Requirements (Attachment E):

a) In Standard Provisions, language has been added in the first three provisions referencing the Federal rule, the Clean Water Act, and federal penalties for violations of the Order.
b) In Standard Provisions, Provisions #9-13 in the SPRR attached to the General Order have been moved from the SPRR into the Order itself; the provisions have to do with modification and termination of Order coverage.
c) In Standard Provisions, the wording and order of the Provisions has been changed to better follow the language in 40 CFR 122.41(a)(1) and 40 CFR 122.41(b) – (l).
d) In Standard Provisions, bypass and upset language has been added, per 40 CFR 122.41(m) and (n).
e) In General Reporting Requirements, the consequences of a “material change” (termination of coverage and issuance of an individual NPDES order) are specified. A definition of “substantial change” and its consequences (possible revision and reissuance of the Site Specific Order) has been added. A description of what happens if changes are neither material nor substantial has been added.

4. Within the Waste Management Plan (Attachment B):

a) Language has been added to indicate how changes to the Waste Management Plan can affect Site Specific Orders issued under this Order.
b) Language has been added at the end of Section II indicating that additional storage capacity needed to comply with the land application provisions of the Nutrient Management Plan will be included in the Site Specific Order terms.

5. Within the Nutrient Management Plan (Attachment C):

a) Language has been added to indicate that the NMP only includes the Narrative Rate Approach for nutrient management, which is the approach used in the General Order.
b) Language has been added to indicate how changes to the NMP can affect Site Specific Orders issued under this Order.
c) Language has been added to the end of "Contents of a Nutrient Management Plan" describing how certain other waste streams not otherwise described in this Order must be managed.
d) In "Technical Standards for Nutrient Management"/V. Nutrient Budget/B. Nutrient Application Rates/ 2. Nitrogen", language has been added to make explicit the amount of volatilization and mineralization inherent in the allowable application rate. No attempt has been made to separate which portion of the 40% or 65% loss is attributable to volatilization vs. mineralization.
e) In "Nutrient Management Plan Review", language has been added requiring the certified specialist who developed and/or modified the NMP to submit documentation verifying their qualifications.

6. Within the Definitions (Attachment H):

Definitions for "concentrated animal feeding operation" and "animal feeding operation" are have been added. The definition of "existing milk cow dairy" has been added to the "existing facility" definition. Definitions for "fecal coliform", "new source", "wastewater", and "irrigation water" have been added. The definition of "irrigation return flow" has been expanded, and language has been added to the "irrigation return flow" definition to clarify the relationship between "tailwater" and "irrigation return flow".

7. Other changes from the General Order

a) New cover sheet
b) Revised Table of Contents
c) Removed Table 1because deadlines have passed and NMP implementation must be complete at the time an NOI is submitted.
d) New Attachment A (Notice of Intent) replacing the General Order Attachment A, the Existing Conditions Report.

G. HOW DOES THIS ORDER COMPARE TO THE FEDERAL CAFO RULE?

As noted above, a permit writers guidance manual reflecting the 20 November 2008 US Environmental Protection Agency Final Rule for Concentrated Animal

Feeding Operations (CAFOs) has not yet been released. Instead, this Order has been prepared using the federal CAFO regulations and the USEPA "NPDES General Permit for Dischargers from Concentrated Animal Feeding Operations (CAFOs) in New Mexico" (NMG010000) as a basis for developing the permit requirements. The organization of this Order is, however, based on the General Order Waste Discharge Requirements (WDRs) for Existing Milk Cow Dairies, Order No. R5-2007-0035 (General Order).

There are some differences between this Order and the New Mexico NPDES General Permit:

1. This Order only covers milk cow dairy facilities. Other types of CAFOs will be covered under permits to be written in the future.

2. This Order incorporates provisions and requirements designed to be protective of groundwater.

3. This Order retains the definition of an existing facility as defined in the General Order. Dairies that have expanded their herd of mature dairy cows more than 15% since 17 October 2005 are not considered existing facilities and must apply for an individual Order. Dairies that are considered "new sources" under Federal requirements are only eligible for this Order if they can demonstrate that they meet the definition of an existing facility. If they cannot meet the definition of an existing facility, they must apply for an individual Order.

4. This Order uses the date of 17 October 2005 as the starting date for which discharges of pollutants to waters of the United States trigger a duty to apply. This date was incorporated into this Order because the operational status and number of cows at dairies as of this date has been used by Region 5 to define which dairies are "existing facilities".

5. ~~This Order does not provide a process for Dischargers to file a voluntary certification that the dairy facility will not discharge. Dairy facilities in Region 5 are currently regulated under either the General Order or under individual Waste Discharge Requirements that are based on the General Order. Neither the General Order nor individual WDRs allows discharges from the production area, or discharges other than storm water and certain types of tailwater from the land application area. It is therefore unnecessary for an additional certification of no discharge to be submitted by dairies regulated under either of these orders. However, facilities that wish to submit such certifications are not precluded from doing so.~~

~~6.~~5. This Order does not require field specific calculations to evaluate dairy cropland for phosphorus loading. Instead, the Order controls the application of nitrogen to cropland and relies on erosion control measures to minimize phosphorus discharges. The Order also requires direct measurement of phosphorus in storm water and some tailwater discharges to determine if control measures are effective. For a more detailed discussion of why this Order's technical standards do not contain phosphorus-based limits on land application, see section H below, "Rationale for Not Basing Land Application Rates on Phosphorus"

~~7.~~6. For land application areas, this Order requires monitoring of some tailwater discharges and a representative portion of all storm water discharges. Federal regulations exempt return flows from irrigated agriculture from the NPDES permit program, pursuant to 40 CFR 122.3(f)., Such an exemption does not apply under California's Porter Cologne Water Quality Control Act. Accordingly, irrigation return flows are regulated by this Order.

~~8.~~7. This Order limits the application of nitrogen to 1.4 times crop uptake, or 1.65 with plant tissue testing. This limitation incorporates losses due to volatilization and mineralization, collectively totaling 40% (or 65%), but does not separate what portion of the losses are due to volatilization as opposed to mineralization. The limits on application are derived from information provided to the Central Valley Water Board from the University of California Committee of Consultants in the report "Managing Dairy Manure in the Central Valley of California", which is included in the administrative record.

~~9.~~8. This Order requires posting of the Waste Management Plan as well as the Notice of Intent, Nutrient Management Plan, and the Site Specific Order Terms. The Waste Management Plan and the Nutrient Management Plan described in this Order, taken together, contain the information required under the Federal Nutrient Management Plan.

~~10.~~9. The Site Specific Order Terms must be approved by the Central Valley Water Board for each dairy applying for coverage under this Order. Approval authority is not vested in the Executive Officer ("Regional Administrator" in the New Mexico permit).

~~11.~~10. This Order does not include a Notice of Termination form, because it was felt that a simple form would lead Dischargers to believe that nothing but the form was necessary to terminate coverage under this Order. Termination of coverage under this Order will require different steps depending on the reason for termination. For example, termination

of coverage under this Order because of permanent cessation of dairy operations is a process that begins with notification of the Central Valley Water Board but includes submittal of a closure plan, site inspection(s), and submittal of a post-closure report.

~~12.~~11. This Order uses two terms, "substantial" and "material", to describe changes that would trigger action by the Central Valley Water Board under this Order (See Standard Provisions and Reporting Requirements, Section C). A "substantial" change triggers revision and renoticing of Site Specific Order Terms; a "material" change triggers revocation of the Order and issuance of an individual Order.

H. RATIONALE FOR NOT BASING LAND APPLICATION RATES ON PHOSPHORUS

Use of animal manure as a primary source of nitrogen commonly results in applications of phosphorus at rates that exceed crop needs. Over time, phosphorus can build up in the soil. Title 40 CFR 123.36 requires this Order to contain technical standards for land application of nutrients that are consistent with 40 CFR 412.4(c)(2). In turn, 40 CFR 412.4(c)(2) requires the use of field-specific assessments to determine whether the manure and wastewater application for each field should be limited for nitrogen or for phosphorus. (See also 73 Fed. Reg. 70418, 70445). The Phosphorus Index , discussed in the US Department of Agriculture, Natural Resources Conservation Service (NRCS) conservation practice standard 90, is the assessment tool most commonly used by EPA for this determination. In fact, EPA, in promulgating its CAFO rule regulatory revision in 2008 specifically endorsed the Phosphorus Index for such assessments (*Ibid*). The Phosphorus Index does not measure the amount of phosphorus reaching surface water but is a tool designed to assess the relative risks of phosphorus loss from different fields.

The California Phosphorus Index, Revision 1, released by NRCS in April 2010, is the tool designed for California to evaluate risk of phosphorus loss from individual agricultural fields to water bodies of concern for phosphorus pollution. The Index requires the phosphorus risk assessment to be performed by following the Initial Risk Assessment flowchart. As stated in the Index, the purpose of the first box in the flowchart "is to apply a screening tool that will exclude fields with no risk to impact surfaces waters with phosphorus, or are in watersheds that have no phosphorus impacts on water quality." The first box of the flowchart states: "Is the land unit in the watershed of a water body declared to be impacted, or very likely impacted based on sampling evidence, by P from land application of organic or inorganic fertilizers for agricultural purposes?"

As stated below, the watersheds of the dairies in the Central Valley do not include surface water that has been identified as impacted from phosphorus. Accordingly, following the "No" arrow takes the user to a box which states "Further use of the P Index is not required on this land unit. Voluntary use of the Index may be considered for planning purposes to reduce the risk of p movement to unimpaired water bodies. Consider this field to be in the Low Risk category of the P Index for nutrient management planning." If a field is scored in the Low Risk category, manure application is to be based on nitrogen requirements of the crops. As recommended by the Index, this Order requires CAFOs to managing manure and process wastewater applications based on the nitrogen requirement of the crops grown on each field.

The watersheds of the dairies in the Central Valley do not include surface water that has been identified as impacted from phosphorus. In the Central Valley Region, phosphorus has not been identified as a serious surface water quality concern. The Central Valley Water Board's CWA section 303d List of Water Quality Limited Segments does not contain any listings for phosphorus. While some other regional water boards do list phosphorus as an issue in surface water, "dairies" are not listed as potential sources in these other regions. While phosphorus is listed as a potential contributor to low dissolved oxygen in the Russian River (North Coast Regional Water Board), the listing states that "nitrogen to phosphorus ratios indicate that nitrogen may be the macronutrient controlling plant growth…"

Water quality standards for surface water in the Central Valley Region are set forth in two water quality control plans (Basin Plans). These Basin Plans do not currently contain numerical criteria for phosphorus in surface water, nor are any such criteria in development. The only reference to phosphorus in the Basin Plans is in the Sacramento River & San Joaquin River Basin Plan, which includes a discussion of Clear Lake nutrients and waste load allocations for phosphorus loading to Clear Lake (IV-37.04). That waste load allocation does not identify dairies as a source of the impairment. In fact, dairies are not even a potential source of the impairment since there are no dairies in the Clear Lake area.

The Technical Standards of this Order control nitrogen application to and erosion from <u>all</u> land application areas that receive manure and process wastewater. As a further method to measure the effectiveness of erosion control procedures, the numeric turbidity limitations that are in the applicable Basin Plans have been restated in this Order. Since phosphorus bonds to soil particles, control of erosion is an indirect way to control off-property discharges of phosphorus.

Under this Order, discharges of storm water to surface water, whether a prohibited discharge from the production area or a permitted discharge from the land application area, must be sampled for total phosphorus and tested for turbidity. This provides a direct measurement of the effectiveness of erosion control measures. Under this Order, discharges of freshwater irrigation tailwater from land application areas, where manure or process wastewater has been applied less than 60 days prior to the freshwater irrigation, must be sampled, providing a direct measurement of total phosphorus. If these samples show that phosphorus is adversely impacting beneficial uses, the Central Valley Water Board will determine whether the Technical Standards contained in this Order remain in compliance with federal regulations, or whether they must be revised when this Order is reissued.

I. APPLICABLE REGULATIONS, PLANS, AND POLICIES

1. Legal Authorities

This Order is issued pursuant to section 40 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (CWS; commencing with section 13370). It shall serve as a NPDES permit for any existing dairy CAFO that discharges or proposes to discharge pollutants to waters of the United States on or after 17 October 2005. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260).

2. Title 27 California Code of Regulations (CCR)

Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1 of Title 27 of the California Code of Regulations (Title 27) prescribes minimum standards for discharges of animal waste at confined animal facilities to protect both surface water and groundwater. For surface water protection, Title 27 includes requirements for adequate design of containment facilities for both storm water and process wastewater and for adequate flood protection.

For groundwater protection, the minimum standards in Title 27 require existing milk cow dairies to: minimize percolation of wastewater to groundwater in disposal fields; apply manure and wastewater to disposal fields at reasonable agronomic rates; minimize infiltration of water into underlying soils in manured areas; and locate retention ponds in, or line retention ponds with, soils of at least 10% clay and no more than 10% gravel.

The Central Valley Water Board has received documentation of impacts to groundwater quality that indicates the Title 27 minimum standards may not be sufficient to adequately protect groundwater quality at all confined

animal facilities in the Region. Adverse impacts to groundwater due to discharges from existing milk cow dairies have been detected in areas where groundwater is as deep as 120 feet below ground surface and in areas underlain by fine-grained sediments.

This General Order requires Dischargers to monitor groundwater to ensure that groundwater protection is being achieved. Groundwater monitoring at existing dairies is necessary to: determine background groundwater quality; determine existing groundwater conditions near retention ponds, corrals, and land application areas; and determine the effect of the improved management practices required in the General Order on groundwater quality.

Additional information regarding the groundwater monitoring program required for all existing dairies can be found in the Information Sheet for Waste Discharge Requirements General Order for Existing Milk Cow Dairies, Order No. R5-2007-0035.

3. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of California Environmental Quality Act (CEQA), Public Resources Code sections 21100-21177, except requirements for “new sources” as defined in the Federal Water Pollution Control Act.

This permit incorporates requirements imposed under authority of the California Water Code in addition to those mandated by the Clean Water Act. The exemption under Water Code section 13389 applies to the whole of the permit and not only the provisions mandated by the Clean Water Act. (*See* State Water Board Order WQ 2001-15 (2001) (*In the Matter of the Petitions of the Building Ind. Assn. of San Diego County and Western States Petroleum Assn.*), affd. *Building Ind. Assn. of San Diego v. San Diego Baykeeper* (Dec. 7, 2004, D042385,Cal.App.4th), nonpub. (rejecting contention that section 13389 exemption applies to a permit only to the extent that the specific provisions of the permit are required by the federal Clean Water Act)).

Any facility that is a “new source,” as that term is defined in CWA section 306 and Code of Federal Regulations, title 40, sections 122.2 and 122.29, must demonstrate that it is an “existing facility” under CEQA Guidelines Exemption 1 for Existing Facilities (Cal. Code of Regs., tit. 14, §15301) before a Notice of Applicability for coverage under this Order can be issued for the project. New sources that do not qualify for the Existing Facilities categorical exemption will be required to submit an application

for an individual NPDES permit and action on that application will require compliance with CEQA.

CEQA Guidelines Exemption 1 for Existing Facilities (Cal. Code of Regs., tit. 14, §15301) applies to "*…the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination…*" Consistent with Waste Discharge Requirements General Order No. R5-2007-0035, under which the majority of dairy AFOs are currently regulated in the Central Valley, the environmental baseline for this action is considered the milk cow dairies as they and their surrounding physical environment existed on 17 October 2005.

The analysis of whether an action represents "*negligible or no expansion of use beyond that existing at the time of the lead agency's determination*" (Cal. Code of Regs., tit. 14, §15301) is made with reference to the environmental baseline applicable to the CEQA review. While the "*environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published or . . . at the time environmental analysis is commenced . . . will normally constitute the baseline physical conditions*" (Cal. Code of Regs., tit. 14, §15125(a)), the lead CEQA agency has discretion in setting an appropriate baseline for purposes of the environmental analysis (including the determination of whether a facility is an "existing facility" with reference to that baseline). (*See, e.g., Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1277-78.) Here, 17 October 2005, constitutes a reasonable point in time to evaluate the baseline because it represents the date on which the Board commenced its environmental analysis in support of the General Order No. R5-2007-0035, which is applicable to all existing dairy facilities including those that may now seek coverage under this Order. 17 October 2005 is the date on which the applications for coverage under the General Order were due and these applications provided the most comprehensive set of environmental data available on the dairy facilities for purposes of analysis of the environmental setting for this Order as well. Setting the baseline at 17 October 2005, rather than a later date, is an appropriate exercise of the Board's discretion additionally because moving the baseline forward could exempt from CEQA review the Board's action on a number of facilities that would otherwise have been subject to CEQA, thereby underestimating the environmental impacts associated with the Board's action on this Order. (*See Save Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99.)

4. Water Quality Control Plans

The Central Valley Water Board adopted a *Water Quality Control Plan for the Sacramento River and San Joaquin River*, Fourth Edition, revised September 2009 and *Water Quality Control Plan for the Tulare Lake Basin*, Second Edition, revised January 2004, (hereinafter Basin Plans) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plans implement State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The Basin Plans identify typical beneficial uses as follows: municipal and domestic supply, agricultural irrigation, stock watering, process supply, service supply, hydropower supply, water contact recreation, canoeing and rafting recreation, other non-contact water recreation, warm freshwater aquatic habitat, cold freshwater habitat, warm fish migration habitat, cold fish migration habitat, warm and cold spawning habitat, wildlife habitat, navigation, rare, threatened, or endangered species habitat, groundwater recharge, and freshwater replenishment.

Requirements of this Order implement the Basin Plans.

5. State and Federal Antidegradation Policies

As specified in Finding 39 of this Order, this Order is consistent with State Board Resolution 68-16 and with Code of Federal Regulations Title 40, section 131.12. State Water Board Resolution 68-16 (State Antidegradation Policy) requires that existing high quality of waters must be maintained until it is demonstrated that any change is consistent with the maximum benefit of the people of the state and that it will not unreasonably affect present and anticipated beneficial uses or, violate the Basin Plans and any other policies . Additionally, any activity that discharges waste to high quality waters 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 (b) the highest water quality consistent with the maximum benefit to the people of the state will be maintained. With respect to surface water, Resolution 68-16 must be implemented consistent with Title 40 Code of Federal Regulations Section 131.12 (Federal Antidegradation Policy). Resolution No. 68-16 incorporates the Federal Antidegradation Policy where the federal policy applies under federal law. The Central Valley Water Board's Basin Plan implements, and

incorporates by reference, both the State and Federal Antidegradation Policies.

The State and Federal Antidegradation Policies apply only to high quality waters. High quality waters are water bodies with levels of water quality constituents or characteristics that are better than the established water quality objectives.[1] Whether a water is a high quality water is established by constituent or parameter. Waters can be of high quality for some constituents or beneficial uses, but not for others. In the context of this Order, which may potentially regulate discharges to numerous water bodies, each with a number of constituents, there is not sufficient data to fully determine which waters, if any, are high quality waters. To the extent a discharge under this Order may be to high quality waters, this Order is nevertheless consistent with the Federal and State Antidegradation Policies as outlined below

i. This Order does not authorize any further degradation to groundwater as specified in the groundwater limitations. Any further degradation that may occur is therefore in violation of the Order and limited to the period of monitoring of water quality impacts and upgrading and implementation of required waste management measures. It should be noted that this Order addresses impacts from future discharges of waste, but does not address the cleanup of existing degraded surface and groundwater from past dairy operations. Any required cleanup actions are handled under separate authority under the Water Code.

ii. This Order additionally requires, as a floor, that discharges of waste from the dairy facilities not cause groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance. Further, with regard to surface water discharges, this Order prohibits the discharge of wastewater to surface water from the land application area, the discharge of storm water to surface water from the land application area unless the land application area has been managed consistent with a certified Nutrient Management Plan, and any discharge to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations. Surface water discharges of wastewater and stormwater are prohibited from the

[1] Under the federal standard, such waters are waters "where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water." 40 CFR 131.12.

production area unless the production area is designed, constructed, operated, and maintained to retain all facility process wastewater generated during the storage period together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm.

iii. To be consistent with the State and Federal Antidegradation Policies , Dischargers must employ best practicable treatment or control measures to minimize any degradation that may be permitted. This Order requires the implementation of BPTC as follows:

a) Best Practicable Treatment Or Control Measures For Retention Ponds

The most conservative pond design would include a double lined pond with a leachate collection and removal system between two geosynthetic liners. Such pond designs are currently being approved by the Central Valley Water Board to contain landfill leachate.

This Order requires that new retention ponds or reconstructed existing ponds be designed and constructed to comply with the groundwater limitations in the Order. The Order provides a two-tiered approach that will allow the Discharger two options to retention pond design. This approach will significantly reduce the time required for approval by the Executive Officer. Tier 1 includes a retention 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. This design will be considered to be consistent with the State Antidegradation Policy.

For existing ponds, this Order requires dischargers to provide an engineering evaluation and propose and implement remedial measures when groundwater monitoring demonstrates that the existing pond has adversely impacted groundwater quality. Groundwater monitoring in accordance with Subattachment A to the MRP (Attachment D) is required to determine if an existing pond complies with the Groundwater Limitations of the Order.

b) Best Practicable Treatment or Control Measures for Land Application Areas

Pursuant to Title 40 Code of Federal Regulations Section 122.23(e), precipitation- related discharges from land application areas are considered agricultural storm water discharges and are not subject to the United States Environmental Protection Agency (USEPA) regulations for concentrated animal feeding operations (CAFOs) if the "…manure, litter, or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, as specified in Section 122.42(e)(1)(vi)-(ix)…"

The USEPA has established best practicable control technology currently available for application of waste from large concentrated animal feeding operations to land application areas. The best practicable control technology includes best management practices required by Title 40 Code of Federal Regulations Section 122.42(e)(1)(vi)-(ix).

The technical standards for nutrient management as specified in Attachment C of this Order are consistent with the USEPA best practicable control technology and the best management practices required by Title 40 Code of Federal Regulations Section 122.42(e)(1)(vi)-(ix) and the large CAFO best practicable control technology. Therefore, precipitation-related discharges from land application areas at facilities operating in compliance with this Order are agricultural storm water discharges. And since they are consistent with USEPA best practicable control technology, the technical standards for nutrient management represent best practicable treatment or control for the purposes of the State Antidegradation Policy.

Normal commercial farming practices, including those involving dairy waste, contribute salts, nutrients, pesticides, trace elements, sediments and other by-products that can affect the quality of surface water and groundwater. Evaporation and crop transpiration remove water from soils, which can result in an accumulation of salts in the root zone of the soils at levels that retard or inhibit plant growth. Additional amounts of water often are applied to leach the salts below the root zones. The leached salts can reach groundwater or surface water. Even using the most efficient irrigation systems and appropriate fertilizer application rates and timing to correspond to crop needs, irrigation of cropland will have some measurable impact on existing high quality

groundwater as a result of the leaching required to protect the crops from salt buildup in the root zone.

In land applications areas where groundwater is shallow, some Dischargers have installed subsurface (tile) drainage systems to maintain the groundwater level below the crop's root zone. Drainage from these systems may be discharged directly to surface water bodies or to drainage ditches that discharge to surface water bodies. Some of these systems discharge to evaporation basins that are subject to waste discharge requirements. Discharges from these systems have elevated concentrations of salts, including nitrates and other nutrients. This Order requires Dischargers who have these systems to identify their location and discharge point and to monitor discharges from these systems.

Consistent with the State Antidegradation Policy, this Order requires that process wastewater that is applied to land application areas under the Discharger's control: (1) be managed according to a certified Nutrient Management Plan that is consistent with the technical standards specified in Attachment C, and (2) not cause groundwater to exceed the groundwater limitations of this Order.

iii. To the extent this Order results in degradation to high quality waters, it is consistent with the maximum benefit to the people of the state.

iv. Administrative Procedures Update 90-004 (Antidegradation Policy Implementation for NPDES Permitting) applies to this Order to the extent it regulates NPDES discharges to surface water. As stated previously, this Order prohibits all surface water discharges from the land application area, except discharges that are agricultural return flow or agricultural storm water discharges. Additionally, this Order prohibits discharges from the production area unless the production area is designed, constructed, operated, and maintained to retain all facility process wastewater generated during the storage period together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm. Under the standard provisions of NPDES permitting, this Order may permit discharges to surface water under upset or bypass conditions.

A complete antidegradation analysis is not required under APU 90-004 if "a regional board determines the reduction in water quality is

temporally limited and will not result in any long-term deleterious effects on water quality; e.g. will cease after a storm event is over." Given the narrow circumstances in which a discharge to surface waters is permitted (a 25-year 24-hour storm event, upset, or bypass), any reduction in water quality is expected to be temporally limited and not result in any long-term deleterious effects on water quality.

Further, a complete antidegradation analysis under APU 90-004 is appropriate where there is issuance of a permit for a new discharge. This Order does not provide coverage for discharges that are new sources not existing as of 17 October 2005. (*See* Finding 17 and a complete antidegradation analysis is accordingly not implicated)**.**

6. State Water Board Resolution 88-63

State Water Board Resolution 88-63 specifies that all surface waters and groundwaters of the state are considered to be suitable, or potentially suitable, for municipal or domestic water supply except where the groundwater meets one or more of the criteria specified in the Basin Plan, including:

a) The TDS exceeds 3,000 milligrams per liter (mg/L) (5,000 micromhos per centimeter (umhos/cm) electrical conductivity) and the aquifer cannot reasonably be expected by the Regional Board to supply a public water system;

b) There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or

c) The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

Both Basin Plans include criteria for granting exceptions to municipal and domestic supply designation based on Resolution 88-63. The Tulare Lake Basin Plan also includes criteria for granting exceptions to the designation of beneficial uses for agricultural supply and industrial supply. De-designation of a beneficial use requires an amendment to the Basin Plan. The Tulare Lake Basin Plan specifies exceptions to the designated beneficial uses for some groundwater within the Tulare Lake Basin.

Exceptions to Resolution 88-63 are not self-implementing, but must be established in an amendment to the Basin Plan.

7. **State Water Board Resolution 92-49**
State Water Board Resolution 92-49 contains policies and procedures for Regional Water Quality Control Boards (Regional Boards) to follow for the oversight and regulation of investigations and cleanup and abatement activities from all types of discharge or threat of discharge subject to Section 13304 of the California Water Code. It directs the Regional Boards to ensure that dischargers cleanup and abate the effect of discharges. This cleanup and abatement is to be done in a manner that promotes attainment of background water quality, or the highest water quality that is reasonable if background levels of water quality cannot be restored. Any cleanup less stringent than background water quality shall be consistent with maximum benefit to the people of the state and not unreasonably affect present and anticipated beneficial uses of such water.

The Central Valley Water Board may order cleanup and/or abatement actions pursuant to California Water Code Section 13304 and State Water Board Resolution 92-49 where groundwater monitoring indicates discharges from a dairy have impacted groundwater quality.

8. **Endangered Species Act**
This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

9. **Impaired Water Bodies on CWA 303(d) List**
Under Section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 30 November 2006 USEPA gave final approval to California's 2006 section 303(d) List of Water Quality Limited Segments. The Basin Plans reference this list of Water Quality Limited Segments (WQLSs), which are defined as "…*those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of*

appropriate limitations for point sources (40 CFR Part 130, et seq.)." The Basin Plans also state, "*Additional treatment beyond minimum federal standards will be imposed on dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment*." Impaired waters do not support beneficial uses. If proposing to discharge into impaired surface waters, the Discharger must provide wastewater analysis of the 303(d) listed constituents of concern as part of the application.

J. EFFLUENT LIMITATIONS

Effluent limitations serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters. Effluent limitations are typically established based on the technology available to control the pollutants (i.e., technology-based effluent limits) and limits that are protective of water quality standards of the receiving water (i.e., water quality-based effluent limits).

1. Technology-based effluent limitations

Technology-based effluent limits are intended to achieve a minimum level of treatment of pollutants for point source discharges. Technology-based effluent limitations that would apply to a CAFO are defined in 40 CFR Part 412.

a) <u>Production Area Effluent Limitations</u>

The *Effluent Limitation Guidelines* in Title 40 CFR Part 412 that apply to existing CAFOs regulated under this Order are contained in Subpart C (Dairy Cows and Cattle Other Than Veal Calves). This Order includes the technology-based effluent limitations of Title 40 CFR Part 412 for the production area that prohibit the "*…discharge of manure, litter, or process wastewater pollutants into waters of the U.S. from the production area….*" except when "*…precipitation causes an overflow of manure, litter, or process wastewater, pollutants in the overflow may be discharged into U.S. waters provided (i) The production area is designed, constructed, operated and maintained to contain all manure, litter, and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event; (ii) The production area is operated in accordance with the additional measures and records required by Section 412.37(a) and (b).*"

b) <u>Land Application Area Effluent Limitations</u>

Subpart C of Title 40 CFR Part 412 also includes effluent limitations for land application areas that require development and implementation of the best management practices (BMPs) specified in Section 412.4 and maintenance of records specified in Section 412.37. The BMPs specified in Section 412.4 include the development and implementation of a nutrient management plan (NMP) based on a field-specific assessment of the potential for nitrogen and phosphorus transport from the field and that addresses the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters. The NMP must include: a determination of application rates of manure and process wastewater that minimizes phosphorus and nitrogen transport from the field to surface waters in compliance with the technical standards for nutrient management; annual sampling of manure for nitrogen and phosphorus content and soil sampling once every five years for phosphorus content; periodic inspections of land application equipment for leaks; and setback requirements of at least 100 feet between applied manure or wastewater and any down gradient surface waters, open tile line intake structures, sinkholes, agricultural wellheads, or other conduits to surface waters unless an acceptable alternative practice or field-specific condition will provide equivalent or better pollutant discharge reductions.

This Order includes the technology-based effluent limitations of Title 40 CFR Part 412 for the land application area, except that, as described in Section H above, the field-specific assessment of the risk of phosphorus transport is not necessary at this time. This Order limits phosphorus indirectly through its erosion controls and requires direct monitoring of the quantity of phosphorus in storm water and some tailwater discharges.

2. Water Quality-Based Effluent Limitations

In cases where it is determined that technology-based effluent limits are not sufficient to ensure that water quality standards will be attained in the receiving water, the Clean Water Act and NPDES regulations require that more stringent, water quality-based effluent limits be established.

a) <u>Production Area Effluent Limitations</u>

It is not possible in this Order to determine if the technology-based effluent limitations for the production area will ensure that water quality standards will be attained in the receiving water at every CAFO. However, this Order includes an additional limitation that prohibits any allowed discharge from causing the receiving water to exceed water quality objectives as specified in the Basin Plan(s). This Order also includes additional required design standards, management practices, provisions, and monitoring requirements to further ensure that water quality standards will be attained in the receiving water. These additional limitations include requirements that:

- The confinement facility must be protected from inundation or washout by overflow from stream channels during specified storm events;
- All clean water and run-on is diverted away from manured areas, unless such drainage is fully contained;
- Salt in animal rations shall be limited to the amount required to maintain animal health and optimum production;
- Proper disposal or utilization of all manure and animal waste impacted soils, including soil from the retention pond(s) upon cessation of operations; and
- Groundwater monitoring will be conducted to demonstrate that facility design and operation is protecting groundwater.

b) <u>Land Application Area Effluent Limitations</u>

In the Preamble to the federal regulations, USEPA states "*EPA does not expect that water quality-based effluent limitations will be established for CAFO discharges resulting from the land application of manure, litter, or process wastewater*." However, this Order does include additional requirements for the land application areas beyond the effluent limitations required in the federal regulations to ensure that water quality is protected. These additional requirements include:

- Infiltration of applied wastewater completely within 72 hours after application;

- No wastewater application to land application areas during periods when the soil is at or above field capacity unless consistent with a certified NMP, and no application of manure or process wastewater to standing water;

- No discharge of runoff to surface water from the land application area due to application of wastewater;

- The discharge of storm water runoff 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 to prevent runoff consistent with an approved Nutrient Management Plan (NMP);

- No discharge from the land application area of storm water that has commingled with wastewater; and

- Groundwater monitoring will be conducted to ensure that the Nutrient Management Plan and BMPs used in the land application area are protecting groundwater.

K. RECEIVING WATER LIMITATIONS

The appropriate receiving water limitations for a particular dairy covered under this Order depend on the beneficial uses of the water as designated in the Basin Plan(s) and the water quality objectives necessary to protect all beneficial uses of the water. The numeric water quality objectives and numeric limits that are relevant and appropriate to implement narrative water quality objectives applicable to the primary waste constituents of concern in discharges of waste at dairy facilities that could affect groundwater and surface water are as follows: For groundwater, the most stringent limitations to implement narrative and numeric water quality objectives are for total coliform 2.2/100 milliliter (ml), for ammonia-nitrogen 1.5 mg/L, for boron 0.7 mg/L, for chloride 106 mg/L, for nitrate-nitrogen 5 mg/L, for EC 700 µmhos/cm, and for TDS 450 mg/L. For surface water, the most stringent limitations to implement narrative and numeric water quality objectives and criteria are for total coliform 2.2/100 ml, for chloride 106 mg/L, for nitrate-nitrogen 5 mg/L, for EC 700 umhos/cm, and for TDS 450 mg/L. For surface water, the appropriate limitation for ammonia is 0.02 mg/L un-ionized ammonia or a concentration of total ammonia determined by the pH and fish species, whichever is less. Less stringent limitations may apply to different areas but can only be determined through a site-specific assessment. Individual dischargers may propose the application of less stringent limitations for consideration in monitoring and reporting programs or through revision of this General Order. Dairy waste may include other waste constituents not mentioned here. This Order requires the discharge to comply with all water quality

objectives and federal water quality criteria for surface waters applicable to the discharge.

This Order prohibits: the direct or indirect discharge of waste and/or storm water from the production area to surface waters except under certain limited conditions; the discharge of waste from existing milk cow dairies to surface waters which causes or contributes to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations.

The groundwater limitations of this Order require that "Discharge of waste at facilities shall not cause the underlying groundwater to be further degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance." These limitations are consistent with the Basin Plan(s) and State Water Board Resolution 68-16.

L. LAND APPLICATION SPECIFICATIONS

This Order includes land application specifications that require Dischargers to implement a NMP that provides protection of both surface water and groundwater. The contents of the NMP and technical standards for nutrient management are specified in Attachment C to this General Order. The land application specifications also require Dischargers to have a written agreement with each third party that receives process wastewater from the Discharger for its own use. The written agreement will 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 process wastewater to land under the third party's control.

The written agreement must identify the Discharger, the third party, the Assessor's Parcel Number and acreage of the cropland where the process wastewater will be applied, and the types of crops to be fertilized with the process wastewater. The written agreement must also include an agreement by the third party to: (1) use the process wastewater at agronomic rates appropriate for the crop(s) grown, and (2) prevent the runoff to surface waters of wastewater, storm water or irrigation supply water that has come into contact with manure or is blended with wastewater.

The technical standards for nutrient management require Dischargers to monitor soil, manure, process wastewater, irrigation water, and plant tissue as specified in the Monitoring and Reporting Program. The results of this monitoring are to be used in the implementation of the NMP.

This Order also requires Dischargers to create and maintain specific records to document implementation and management of the minimum elements of the NMP, records for the land application area, a copy of the Discharger's NMP, and records on manure, bedding, and process wastewater transferred to other persons.

M. PROVISIONS

1. Standard Provisions

This Order includes Standard Provisions and Reporting Requirements.

2. Monitoring and Reporting Program Requirements

This Order includes a provision that requires compliance with the Monitoring and Reporting Program, and future revisions thereto, or with an individual monitoring and reporting program, as specified by the Central Valley Water Board or the Executive Officer. The Monitoring and Reporting Program requires:

- periodic inspections of the production area and land application areas
- monitoring of manure, process wastewater, crops, and soil
- recording of operation and maintenance activities
- groundwater monitoring
- storm water monitoring
- monitoring of surface water and discharges to surface water
- annual reporting
- annual reporting of groundwater monitoring
- annual storm water reporting
- noncompliance reporting
- discharge reporting

N. ENFORCEMENT

The State Water Board's Water Quality Enforcement Policy (Enforcement Policy) allows progressive enforcement action for violations of waste discharge requirements when appropriate and recommends more formal enforcement as a first response to more consequential violations. Progressive enforcement is an escalating series of actions that allows for the efficient and effective use of enforcement resources to: 1) assist cooperative dischargers in achieving compliance; 2) compel compliance for repeat violations and recalcitrant violators; and 3) provide a disincentive for noncompliance. Progressive enforcement actions may begin with informal enforcement actions such as a verbal, written, or electronic communication between the Central Valley Water Board and a Discharger. The purpose of an informal enforcement action is to quickly bring

the violation to the discharger's attention and to give the discharger an opportunity to return to compliance as soon as possible. The highest level of informal enforcement is a Notice of Violation.

The Enforcement Policy recommends formal enforcement actions for the highest priority violations, chronic violations, and/or threatened violations. Violations of this Order that will be considered as high priority violations include, but are not limited to:

- Any discharge of waste and/or storm water from the production area to surface waters.
- The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner.
- The discharge of wastewater to surface water from cropland.
- Failure to submit notification of a discharge to surface water in violation of this Order.
- Falsifying information or intentionally withholding information required by applicable laws, regulations or an enforcement order.
- Failure to submit a Design Report for any new or enlarged existing settling, storage, or retention pond prior to construction and/or Post Construction Report for such construction.
- Failure to pay annual fee, penalties, or liabilities.
- Failure to monitor as required.
- Failure to submit required reports on time.

O. PUBLIC PARTICIPATION

The Central Valley Water Board is considering the issuance of WDRs that will serve as a general NPDES permit for any existing dairy animal feeding operation that discharges or proposes to discharge pollutants to waters of the United States on or after 17 October 2005. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDRs. The Central Valley Water Board encourages public participation in the WDR adoption process.

1. Notification of Interested Parties

The Central Valley Water Board has notified interested agencies, parties, and persons of its intent to prescribe this Order for existing milk cow dairy CAFOs and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided to interested parties through specific mailings, distribution through the Central Valley Water Board Lyris Email System and through publication in major newspapers for the following communities: Fresno, Sacramento, ~~Modesto, Stockton,~~ and Redding

2. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Central Valley Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Central Valley Water Board, written comments must be received at the Central Valley Water Board offices by 5:00 p.m. on ~~5 November 2010~~20 October 2011.

3. Public Hearing

The Central Valley Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and the following location:

Date: ~~8, 9, 10 December 2010~~30 November and 1 and 2 December, 2011
Time: 9:00 a.m.
Location: Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite #200
Rancho Cordova, CA 95670

Interested persons are invited to attend. At the public hearing, the Central Valley Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is http://www.waterboards.ca.gov/centralvalley/ where you can access the current agenda for changes in dates and locations.

4. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Board to review the decision of the Central Valley Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Central Valley Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

5. Information and Copying

The tentative WDRs, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Valley Water Board by calling (916) 464-3291.

6. Register of Interested Parties

Any person interested in being placed on the mailing list for information regarding the general WDRs and NPDES permit should contact the Central Valley Water Board, reference the general WDRs and NPDES permit, and provide a name, address, and phone number.

7. Additional Information

Requests for additional information or questions regarding this Order should be directed to Charlene Herbst at (916) 464-4724.

ATTACHMENT G

Manure/Process Wastewater Tracking Manifest
For
GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

Instructions:

1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
2) If there are multiple destinations, **complete a separate form for each destination**.
3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

Operator Information:

Name of Operator: _____

Name of Dairy Facility: _____

Facility Address: _____
Number and Street City Zip Code

Contact Person Name and Phone Number:_____
Name Phone Number

Manure/Process Wastewater Hauler Information:

Name of Hauling Company/Person:_____

Address of Hauling Company /Person:_____
Number and Street City Zip Code

Contact Person:_____
Name Phone Number

Destination Information:

Composting Facility / Broker / Farmer / Other (identify) _____ (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

_____
Name Number and Street City Zip Code Phone Number

Manure/Process Wastewater Destination Address or Assessor's Parcel Number:

_____
Number and Street City Zip Code Assessor's Parcel Number

Dates Hauled: _____

Amount Hauled:

Enter the amount of manure hauled in tons, the manure moisture content ,
and the method used to calculate the amount:

Manure: _____Tons

Manure Moisture Content: _____

Method used to determine amount of manure: _____

_____

Enter the amount of process wastewater hauled in gallons and the method used to determine the amount.

Process Wastewater: _____ Gallons

Method used to determine volume of process wastewater: _____

_____

Written Agreement:
Does the Operator have a written agreement (in compliance with Land Application Specification D.2 of Order No. R5-2010-~~XXXX~~0118) with any party that receives process wastewater from the Operator for its own use? (please check one)

____ Yes _____ No

If the answer is no, the Operator agrees to have such a written agreement with any such party for any process wastewater transferred to such party.
_____ (Operator shall provide initials here to acknowledge this requirement).

Certification:
I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: _____ Date: _____

ATTACHMENT H

Definitions
For
GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

1. "Agronomic rates" is defined as the land application of irrigation water and nutrients (which may include animal manure, bedding, or process wastewater) at rates of application in accordance with a plan for nutrient management that will enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth.

2. "Anaerobic digester" is defined as a basin, pond, or tank designed, constructed, maintained, and operated for the anaerobic treatment of liquid or solid animal waste and which promotes the decomposition of manure or "digestion" of the organics in manure to simple organics and gaseous biogas products.

3. "Animal Feeding Operation" or AFO is defined as a lot or facility where the following conditions are met: (i) animals have been, are, or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in any 12-month period, and (ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

4. "Aquifer" is defined as ground water that occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs.

5. "Artificial recharge area" is defined as an area where the addition of water to an aquifer is by human activity, such as putting surface water into dug or constructed spreading basins or injecting water through wells.

6. "Central Valley Water Board" is defined as the California Regional Water Quality Control Board, Central Valley Region.

7. "Certified Nutrient Management Plan" is defined as a nutrient management plan that is prepared and signed by a specialist who is certified in developing nutrient management plans. A certified specialist is: a Professional Soil Scientist, Professional Agronomist, Professional Crop Scientist, or Crop Advisor certified by the American Society of Agronomy; a Technical Service Provider certified in nutrient management in California by the Natural Resources Conservation Service; or other specialist approved by the Executive Officer.

8. "Concentrated Animal Feeding Operation" (CAFO) means a dairy AFO that is defined as a Large CAFO or as a Medium CAFO by the terms of this paragraph, or that is designated as a CAFO in accordance with this section. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes. A dairy AFO is defined as a Large CAFO if it stables or confines as many as or more than 700 mature dairy cows, whether milked or dry. A dairy AFO is defined as a Medium CAFO if the number of mature dairy cows falls within the range of 200 to 699 mature dairy cows, whether milked or dry, and either one of the following conditions are met:

   (A) Pollutants are discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device; or

   (B) Pollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

   A Small CAFO is an AFO that is designated as a CAFO and is not a Medium CAFO. The Regional Board may designate a small AFO as a CAFO upon determining that it is a significant contributor of pollutants to waters of the United States. In making this designation, the Regional Board shall consider the following factors:

   (A) The size of the AFO and the amount of wastes reaching waters of the United States;

   (B) The location of the AFO relative to waters of the United States;

   (C) The means of conveyance of animal wastes and process waste waters into waters of the United States;

   (D) The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes (manure and process waste waters) into waters of the United States; and

   (E) Other relevant factors.

   No AFO shall be designated as a CAFO unless the staff of the Regional Board has conducted an on-site inspection of the operation and determined that the operation should and could be regulated under the permit program. In addition, no AFO may be designated as a CAFO unless:

(A) Pollutants are discharged into waters of the United States through a manmade ditch, flushing system, or other similar manmade device; or

(B) Pollutants are discharged directly into waters of the United States which originate outside of the facility and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

9. “Confined area” is defined as the area where cows are confined within the production area.

10. “Cropland” is defined as the land application area where dry or solid manure and/or process wastewater is recycled for the purpose of beneficially using the nutrient value of the manure and/or process wastewater for crop production.

11. “Degradation” is defined as any measurable adverse change in water quality.

12. “Discharge” is defined as the discharge or release of waste to land, surface water, or ground water.

13. “Discharger” is defined as the property owner and the operator of an existing milk cow dairy subject to Waste Discharge Requirements General Order No. R5-2007-0035.

14. “Existing milk cow dairy” or “existing facility” is defined, consistent with Title 14 CCR Section 15301, as a milk cow dairy that is fully constructed and operating as of 17 October 2005, for which a complete Report of Waste Discharge was submitted in response to the 2005 Report of Waste Discharge Request Letter, and which has subsequently undergone no expansion in the size or scope of its herd, facilities, or operation.

15. “Existing herd size” is defined as the maximum number of mature dairy cows reported in the herd on 17 October 2005 plus or minus 15 percent of that reported number to account for the normal variation in herd sizes.

16. “Expansion” is defined as, but not limited to, any increase in the existing herd size (i.e., by more than 15 percent of the maximum number of mature dairy cows in the herd on 17 October 2005) or an increase in the storage capacity of the retention ponds or acquisition of more acreage for reuse of nutrients from manure or process wastewater in order to accommodate an expansion of the existing herd size. “Expansion” does not include installation or modification of facilities or equipment to achieve compliance with the requirements of Waste Discharge Requirements General Order No. R5-2007-0035 so long as the modification or installation is sized to accommodate only the existing herd size.

17. "Facility" is defined as the property identified as such in Waste Discharge Requirements General Order No. R5-2007-0035.

18. "Fecal coliform" means the bacterial count (Parameter 1) at 40 CFR 136.3 in Table 1A which also cites the approved methods of analysis.

19. "Field moisture capacity" is defined as "the upper limit of storable water in the soil once free drainage has occurred after irrigation or precipitation."

20. "Freeboard" is defined as the elevation difference between the process wastewater (liquid) level in a pond and the lowest point of the pond embankment before it can overflow.

21. "Incorporation into soil" is defined as the complete infiltration of process wastewater into the soil, the disking or rotary tiller mixing of manure into the soil, shank injection of slurries into soil, or other equally effective methods

22. "Irrigation return flow" has the same meaning as "return flow from irrigated agriculture" in Section 502 (14) of the federal Clean Water Act, and for purposes of this Order is defined as surface and subsurface water that leaves a field following application of irrigation water, where the irrigation water is not a wastewater as defined in accordance with Prohibition 9 of this Order <u>and</u> where such irrigation water has been applied in accordance with a site specific nutrient management plan. "Tailwater" may be considered an irrigation return flow if it meets the conditions in this paragraph. .

23. "Irrigation water" is defined as water that is applied to fields to grow crops.

24. "Land application area" is defined as land under control of the milk cow dairy owner or operator, 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.

25. "Manure" is defined as the fecal and urinary excretion of livestock and other commingled materials. Manure may include bedding, compost, and waste feed.

26. "Manured solids" is defined as manure that has a sufficient solids content such that it will stack with little or no seepage.

27. "Mature dairy cow" is defined as a dairy cow that has produced milk at any time during her life.

28. "New source" is defined in the federal regulations as "*any building, structure, facility, or installation from which there is or may be a 'discharge of pollutants,' the construction of which commenced: (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or (b) After proposal of standards of performance in accordance with section 306 of CWA*

which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal." (40 C.F.R. § 122.2) Further, a facility is a "new source" if (1) the facility is constructed at a site where no other facility is located, (2) the facility totally replaces the process or production equipment that causes the discharge of pollutants at the existing facility, or (3) the facility process is substantially independent of an existing facility at the same site. (40 C.F.R. §122.29 (b)).

29. "Normal precipitation" is defined as the long-term average precipitation based on monthly averages over the time that data has been collected at a particular weather station. Normal precipitation is usually taken from data averaged over a 30-year period (e.g. 1971 to 2000) if such data is available.

30. "Nuisance" is defined in the Porter-Cologne Water Quality Control Act as "…*anything which meets all of the following requirements:*
    (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
    (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
    (3) Occur during, or as a result of, the treatment or disposal of wastes."

31. "Nutrient" is defined as any element taken in by a plant which is essential to its growth and which is used by the plant in elaboration of its food and tissue.

32. "Nutrient recycling" is defined as the application of nutrients at agronomic rates for crop production.

33. "Off-property discharge" is defined as the discharge or release of waste beyond the boundaries of the property of the dairy's production area or the land application area or to water bodies that run through the production area or land application area.

34. "Open tile line intake structure" is defined as an air vent for a subsurface (tile) drain system.

35. "Order" is defined as the Waste Discharge Requirements General Order.

36. "Overflow" is defined as the intentional or unintentional diversion of flow from the collection, treatment, land application, and conveyance systems, including pumping facilities.

37. "Pollutant" is defined in Title 40 Code of Federal Regulations Section 122.2 as "…*dredged spoil, solid waste, incinerator residue, filter backwash, sewage,*

garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C.
2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water."

38. "Pollution" is defined in Section 13050(l)(1) of the Porter-Cologne Water Quality Control Act as *"…an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses."*

39. "Pond" is defined as retention ponds, storage ponds, settling ponds, or any structures used for the treatment, storage, disposal, and recycling of process wastewater. Ponds are differentiated from sumps, which are structures in a conveyance system used for the installation and operation of a pump.

40. "Process wastewater" is defined as water directly or indirectly used in the operation of a milk cow dairy for any or all of the following: spillage or overflow from animal watering systems; 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 manure, feed, milk, or bedding.

41. "Production area" is defined as that part of a milk cow dairy that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas.

~~42. "Propose to Discharge" is defined as a dairy facility being designed, constructed, operated, or maintained such that a discharge to waters of the United States will occur.~~

~~43.~~42. "Regional Board" is defined as one of the nine California Regional Water Quality Control Boards.

~~44.~~43. "Salt" is defined as the products, other than water, of the reaction of an acid with a base. Salts commonly break up into cations (sodium, calcium, etc.) and anions (chloride, sulfate, etc.) when dissolved in water. Total dissolved solids is generally measured as an indication of the amount of salts in a water or wastewater.

~~45.~~44. "Salt in animal rations" is defined as the sodium chloride and any added minerals (such as calcium, phosphorus, potassium, sulfur, iron, selenium, copper, zinc, or manganese) in the animal ration.

~~46.~~45. "Significant quantity" is defined as the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.

~~47.~~46. "Sole-source aquifer" is defined as an aquifer that supplies 50 percent or more of the drinking water of an area.

~~48.~~47. "State" is defined as the State of California.

~~49.~~48. "State Water Board" is defined as the State Water Resources Control Board.

~~50.~~49. "Significant storm event" is defined as a precipitation event that results in continuous runoff of storm water for a minimum of one hour, or intermittent discharge of runoff for a minimum of three hours in a 12-hour period.

~~51.~~50. "Storm water" is defined as storm water runoff, snowmelt runoff, and surface runoff and drainage.

~~52.~~51. "Subsurface (tile) drainage" is defined as water generated by installing and operating drainage systems to lower the water table below irrigated lands. Subsurface drainage systems, deep open drainage ditches, or drainage wells can generate this drainage.

~~53.~~52. "Surface water" is defined as water that includes essentially all surface waters such as waters of the United States and their tributaries, interstate waters and their tributaries, intrastate waters, all wetlands and all impoundments of these waters. Surface waters include irrigation and flood control channels.

~~54.~~53. "Tailwater" is defined as the runoff of irrigation water from an irrigated field.

~~55.~~54. "25-year, 24-hour rainfall event" is defined as a precipitation event with a probable recurrence interval of once in twenty five years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or State rainfall probability information developed from this source.

~~56.~~55. "Waste" is defined as set forth in Water Code Section 13050(d), and includes manure, leachate, process wastewater and any water, precipitation or rainfall runoff that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, or bedding.

~~57.~~56. "Wastewater" is the same as "process wastewater".

~~58.~~57. "Waters of the state" is defined in Section 13050 of the California Water Code as "*…any surface water or groundwater, including saline waters, within the boundaries of the state*."

~~59.~~58. "Waters of the United States" is defined in 40 CFR § 122.2 as (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial sea; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. [See Note 1 of this section.] Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act jurisdiction remains with EPA.

~~60.~~59. "Wet season" is defined as the period of time between 1 October and 30 April of each year.

ATTACHMENT I

Acronyms and Abbreviations
For
GENERAL WASTE DISCHARGE REQUIREMENTS AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

ASABE	American Society of Agricultural and Biological Engineers
Basin Plans	Water Quality Control Plans
BMPs	best management practices
BOD_5	five-day biochemical oxygen demand
BPT	best practicable control technology currently available
BPTC	best practicable treatment or control
CCR	California Code of Regulations
CDQAP	California Dairy Quality Assurance Program
Central Valley Water Board	California Regional Water Quality Control Board, Central Valley Region
cm/sec	centimeters per second
CPS	Conservation Practice Standard
DWQ	Division of Water Quality
DWR	Department of Water Resources
EC	electrical conductivity
ESP	Environmental Stewardship Program
ETo	Evapotranspiration from a standardized grass surface
GWPA	Groundwater Protection Area
MCL	maximum contaminant level
mg N/L	milligrams nitrogen per liter
mg/L	milligrams per liter
ml	milliliter
MPN	most probable number
MRP	Monitoring and Reporting Program
MWICR	monitoring well installation completion report
MWISP	monitoring well installation and sampling plan
NAD83	North American Datum 1983
NAVD88	North American Vertical Datum 1988
NMP	nutrient management plan
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTU	nephelometric turbidity unit
pH	Logarithm of the reciprocal of hydrogen ion concentration in gram atoms per liter
QA/QC	quality assurance/quality control
REC-1	water contact recreation

Region	Central Valley Region
Regional Board	California Regional Water Quality Control Board
ROWD	Report of Waste Discharge
SPRR	Standard Provisions and Reporting Requirements
State Water Board	State Water Resources Control Board
State Water Board Resolution 68-16	State Water Resources Control Board Resolution 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*)
State Water Board Resolution 88-63	State Water Resources Control Board Resolution 88-63 (*Sources of Drinking Water Policy*)
State Water Board Resolution 92-49	State Water Resources Control Board Resolution 92-49 (*Policies and Procedures for Investigation and Cleanup or Abatement of Discharges Under Water Code Section 13304* or *Cleanup and Abatement Policy*)
TDS	total dissolved solids
Title 3	Title 3 of the California Code of Regulations, Division 2, Chapter 1, Article 22
Title 27	Title 27 of the California Code of Regulations, Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1
UCCE	University of California Committee of Experts
U.N.	United Nations
μmhos/cm	micromhos per centimeter (same as μS/cm)
μS/cm	microsiemens per centimeter (same as μmhos/cm)
USEPA	United States Environmental Protection Agency
WDRs	waste discharge requirements
WMP	waste management plan

California Regional Water Quality Control Board
Central Valley Region
Katherine Hart, Chair

11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
http://www.waterboards.ca.gov/centralvalley

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

20 September 2011

NOTICE

TENTATIVE MODIFICATIONS TO
GENERAL WASTE DISCHARGE REQUIREMENTS (WDRS) AND
GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
for
EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN
THE CENTRAL VALLEY REGION

TO ALL INTERESTED PERSONS AND AGENCIES:

Tentative modifications to General Waste Discharge Requirements (WDRs) and General National Pollutant Discharge Elimination System (NPDES) Permit for Existing Milk Cow Dairy Concentrated Animal Feeding Operations within the Central Valley Region (Board Order R5-2010-0118, NPDES No. CAG015001), originally adopted on 10 December 2010, are available for public comment as explained in the enclosed Notice of Public Hearing. The Tentative Modifications and additional information are available electronically on the Central Valley Regional Water Quality Control Board's (Central Valley Water Boards) web site at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/

The Central Valley Water Board has not reviewed or made any decision concerning the Tentative Modifications, which may be revised following the comment period. Revised documents along with comments and the staff responses will be posted on the above web site and placed in the meeting agenda. Instructions for submitting written comments, instructions for participating at the scheduled public hearing, and other relevant information are provided in the Notice of Public Hearing.

Any comments or recommendations you may have concerning the Tentative Modifications should be submitted to this office in writing by 5:00 pm on 20 October 2011 in order that consideration may be given them prior to the meeting of the Central Valley Water Board.

If you have any questions regarding the Tentative Modifications, or if you wish to request paper copies, please contact Charlene Herbst at (916) 464-4724.

ORIGINAL SIGNED BY
Charlene Herbst
Senior Engineering Geologist
Confined Animal Facility Regulatory Unit
Enclosure: Notice of Public Hearing

PUBLIC HEARING

Concerning

TENTATIVE MODIFICATIONS TO GENERAL WASTE DISCHARGE REQUIREMENTS (WDRS) AND GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT for EXISTING MILK COW DAIRY CONCENTRATED ANIMAL FEEDING OPERATIONS WITHIN THE CENTRAL VALLEY REGION

The Order offers NPDES coverage to existing milk cow dairies regulated by the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board). It implements the State laws and regulations relevant to confined animal facilities and the Federal Clean Water Act and regulations and guidelines adopted thereunder. The proposed modifications have been made in response to the decision of the United States Court of Appeals for the Fifth Circuit in *National Pork Producers Council, et al v. United States Environmental Protection Agency* (5th Cir. 2011) 635 F 3d 738. The Fifth Circuit Court decision vacated all provisions of the 20 November 2008 EPA Final Rule that require Concentrated Animal Feeding Operations (CAFOs) that "propose to discharge" to apply for an NPDES permit.

A public hearing concerning this matter will be held during the Central Valley Water Board meeting scheduled for:

DATE: 30 November and 1 and 2 December 2011
TIME: To be specified in final meeting agenda (see below)

PLACE: Regional Water Quality Control Board, Central Valley Region
11020 Sun Center Dr #200
Rancho Cordova, CA 95670-6114

The Tentative Order was issued on 20 September 2011. Persons wishing to comment on this item must submit testimony, evidence, if any, and/or comments in writing to the Central Valley Water Board no later than 5:00 p.m. on **20 October 2011**. Written materials submitted after 5:00 p.m. on the above date will not be accepted and will not be incorporated into the administrative record absent a ruling by the Central Valley Water Board Chair.

All interested persons may speak at the Central Valley Water Board meeting, and are expected to orally summarize their written submittals. Oral testimony will be limited in time by the Central Valley Water Board Chair. Interested persons may be asked to respond to clarifying questions from Central Valley Water Board members, counsel staff or others, at the discretion of the Central Valley Water Board.

Anyone having questions on the Tentative Order should contact Charlene Herbst at (916) 464-4724. Interested parties may download the Tentative Order and related documents from the Central Valley Water Board's Internet website at http://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/. Copies of these documents can also be obtained by contacting or visiting the office of the Central Valley Water

Board at 11020 Sun Center Drive, Suite #200, Rancho Cordova, California, 95670, weekdays between 8:00 a.m. and 5:00 p.m. by appointment.

The final meeting agenda will be available at http://www.waterboards.ca.gov/centralvalley/board_info/meetings/ at least 10 days before the meeting. The agenda will provide the specific date the Board Meeting will be held for this item, indicate the anticipated order of all agenda items, and may include staff revisions to the proposed order(s).

The procedures governing Central Valley Water Board meetings may be found at Title 23, California Code of Regulations, Section 647 et seq. and are available upon request. Hearings before the Central Valley Water Board are not conducted pursuant to Government Code section 11500 et seq. The procedures may be obtained by accessing http://www.waterboards.ca.gov/laws_regulations/. Information on meeting and hearing procedures is also available on the Central Valley Water Board's website at http://www.waterboards.ca.gov/centralvalley/board_info/meetings/mtgprocd.shtml or by contacting any one of the Central Valley Water Board's offices. Questions regarding such procedures should be directed to Ms. Kiran Lanfranchi-Rizzardi at (916) 464-4839.

The hearing facilities will be accessible to persons with disabilities. Individuals requiring special accommodations are requested to contact Ms. Kiran Lanfranchi-Rizzardi at (916) 464-4839 at least five working days prior to the meeting. TTY users may contact the California Relay Service at 1-800-735-2929 or voice line at 1-800-735-2922.

Please bring the above information to the attention of anyone you know who may be interested in this matter.

ORIGINAL SIGNED BY

20 September 2011 ROBERT D. BUSBY, Supervising Engineering Geologist