

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

ORDER R5-2007-0035-R

**REISSUED WASTE DISCHARGE REQUIREMENTS GENERAL ORDER
FOR
EXISTING MILK COW DAIRIES**

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

SCOPE OF COVERAGE OF THIS ORDER

1. This Order serves as general waste discharge requirements for discharges of waste from existing milk cow dairies (defined in Finding 7) of all sizes. This Order rescinds and replaces General Order R5-2007-0035 (the "2007 General Order"), which the Board originally issued on 17 October 2007.
2. This Order applies to owners and operators of existing milk cow dairies (hereinafter referred to as "Dischargers") that:
 - (1) submitted a complete Report of Waste Discharge (ROWD) in response to the Central Valley Water Board's 8 August 2005 request for such a report (the "2005 ROWD Request Letter"), and
 - (2) have not been expanded ("expansion" is defined in Attachment E) since 17 October 2005.

After the Board issued the 2007 General Order, the Board notified the Dischargers that they were required to comply with the terms and conditions of that Order. After the Board issues this Order, the Board will notify the Dischargers that were previously regulated by the 2007 General Order that they will now be required to comply with the terms and conditions of this Order. Dischargers that do not qualify for coverage under this Order will be covered under separate general or individual waste discharge requirements or under a conditional waiver issued pursuant to Water Code section 13269.

REASON FOR THE CENTRAL VALLEY WATER BOARD ISSUING THIS ORDER

3. The Central Valley Water Board possesses the authority to regulate waste discharges that could affect the quality of the waters of the state, which includes both surface water and groundwater. This authority is derived from the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code).
4. Water Code section 13260 requires that any person discharging waste, or proposing to discharge waste, within the Central Valley Region, that could affect

the quality of the waters of the state (which includes both surface waters and groundwaters) to file a report of that discharge with the Central Valley Water Board.

5. The Central Valley Water Board generally regulates waste discharges by prescribing waste discharge requirements, which must implement the relevant water quality control plan. The Central Valley Water Board may prescribe general waste discharge requirements for a category of discharges if all the following criteria apply:
 - a. The discharges are produced by the same or similar operations.
 - b. The discharges involve the same or similar types of waste.
 - c. The discharges require the same or similar treatment standards.
 - d. The discharges are more appropriately regulated under general requirements than individual requirements.
6. In regulating waste discharges, the Central Valley Water Board implements State laws and regulations. California regulations governing discharges from confined animal facilities are contained in the Title 27 of the California Code of Regulations ("Title 27"), at sections 22560 et seq.
7. For the purposes of this Order, "existing milk cow dairies" means all dairies that were operating as of 17 October 2005, filed a complete ROWD in response to the 2005 ROWD Request Letter, and have not expanded ("expansion" is defined in Attachment E) since 17 October 17 2005.
8. Herd sizes at existing dairy operations vary as operators strive to maintain a consistent milk production. Maintaining consistent milk production requires a dairy operator to manage the herd by continually producing calves, some of which eventually replace the dairy's producing herd over time, while excess stock are marketed for beef production or herd replacement elsewhere.
9. Professionals at the University of California Davis estimate the normal variation in California dairy herd sizes ranges from about 10 to 15 percent.
10. For the purposes of this Order, existing herd size is defined as the maximum number of mature dairy cows reported in the ROWD filed in response to the 2005 ROWD Request Letter, plus or minus 15 percent of that reported number to account for the normal variation in herd sizes.

11. For the purposes of this Order, an increase in the number of mature dairy cows of more than 15 percent beyond the maximum number reported in the ROWD filed in response to the 2005 ROWD Request Letter is considered an expansion.
12. There are approximately 1,300 milk cow dairies within the Central Valley Region (Region) that will be required to operate under the requirements of this Order. Each facility represents a significant source of waste discharge with a potential to affect the quality of the waters of the State.
13. For the purposes of this Order, “waste” includes, but is not limited to, manure, 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.
14. This Order implements the requirements of State Water Resources Control Board Resolution 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*, referred to hereafter as the *State Anti-Degradation Policy*), the sections of Title 27 related to confined animal facilities, the Central Valley Water Board’s Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed.) and the 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 Information Sheet, which is attached to and made part of this Order.
15. This reissued Order as originally issued was intended to enhance requirements on existing milk cow dairies, and recognized that this would mean that many Dischargers would need to make improvements at their facilities to meet these requirements. Because this is a reissued Order, it is recognized that some of the necessary improvements have already occurred. Improvements may include recycling flush water, grading, establishing setbacks, installing flow meters, exporting manure, leasing or purchasing land, etc. The Discharger may be able to make some of these improvements relatively quickly while some improvements may require more time to implement. It is reasonable to allow Dischargers time to phase in elements of the required Waste Management Plan and Nutrient Management Plan in order to adequately design and construct major infrastructure changes needed to comply with all the requirements of this Order. This Order requires Dischargers to make any necessary interim facility modifications first in order to prevent discharges to surface water, improve storage capacity, and improve the facility’s nitrogen balance before completing any necessary infrastructure changes.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

16. The Central Valley Water Board is the lead agency with respect to the issuance of this Order under applicable provisions of the California Environmental Quality Act (CEQA)(Pub. Resources Code, § 21000 et seq.).
17. In accordance with CEQA, the Central Valley Water Board adopted a Negative Declaration in 1982 concurrently with the adoption of Central Valley Water Board Resolution 82-036 (Waiving Waste Discharge Requirements for Specific Types of Discharge), which waived waste discharge requirements for confined animal facilities where the Discharger complies with Central Valley Water Board guidelines. That waiver program expired on 1 January 2003.
18. Food and Agricultural Code section 33487 states that, “No environmental impact report may be required by any state agency for any activity of a dairy farm, including adoption of waste discharge requirements under Division 7 of the Water Code” 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.
19. The benchmark for evaluating whether this Order will have impacts on the environment is the “environmental baseline.” The environmental baseline normally consists of “a description of the physical environmental conditions in the vicinity of the project at the time...environmental analysis is commenced.” (Cal. Code Regs., tit. 14, § 15125(a).) The receipt of a permit application is one event that can be used to mark the beginning of the environmental review process and therefore an appropriate date for the environmental baseline. (*Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1278.) The Board solicited permit applications (ROWDs) from existing dairies on 8 August 2005. These reports were due on 17 October 2005.

The information contained in the ROWDs submitted to the Board in 2005 presented Board staff with a description of the dairies as they existed at that date. The environmental baseline for the 2007 General Order therefore consisted of the milk cow dairies (defined by their size and scope of herd, facilities, and operation) as they and their surrounding physical environment existed on 17 October 2005. Dairy herd size fluctuation is accounted for in that the environmental baseline incorporates the normal 15 percent variation in the number of mature dairy cows contained in a given herd.

20. This Order, which supplements regulatory requirements already imposed on the existing dairy discharges under the 2007 General Order and which is designed to enhance the protection of groundwater resources, is exempt from the provisions of CEQA in accordance with the following categorical exemptions:
- a. California Code of Regulations, title 14, section 15301, which exempts the “operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features” from environmental review. Eligibility under the Dairy General Order is limited to milk cow dairies that were existing facilities as of 17 October 2005, and the Order does not authorize the expansion of these facilities. The restoration of, or improvements to, dairy waste management systems to ensure proper function in compliance with this Order will involve minor alterations of existing private facilities.
 - b. California Code of Regulations, title 14, section 15302, which exempts the “...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...” The Dairy General Order will likely require covered dairies to replace or reconstruct portions of their waste management systems to ensure compliance with the Order’s requirements.
 - c. California Code of Regulations, title 14, section 15302 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...” The Dairy General Order will require covered dairies to make improvements to their waste management systems that will result in only minor alterations to land, water, and/or vegetation.

DAIRY IMPACTS ON WATER QUALITY

23. Groundwater monitoring shows that many dairies in the Region have impacted groundwater quality. A University of California study of five dairies in a high-risk groundwater area in the Region during the 1990s found elevated salts and nitrates beneath the production area, wastewater retention ponds and land application areas. Data included in the first annual monitoring report of the Central Valley Dairy Representative Monitoring Program (CVDRMP) reported that groundwater beneath some dairies that have begun implementation of practices required by the 2007 General Order continue to have elevated levels of salts and nitrates beneath the production area, wastewater retention ponds and land application areas. Representative monitoring programs (RMP) began monitoring groundwater in 2012, and some provisions of the 2007 General Order were only fully implemented by 2012, therefore, monitoring results may not be fully reflective of the effectiveness of current practices. Prior to the issuance of the 2007 General

Order, 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 impacts under many of the dairies, including where groundwater is as deep as 120 feet and in areas underlain by fine-grained sediments.

24. Groundwater monitoring is the most direct way to determine if management practices at a dairy are protective of groundwater, Revised Monitoring and Reporting Program R5-2007-0035-R (MRP), 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.
25. Under the MRP, Dischargers have the option of either implementing individual groundwater monitoring or participating in a Representative Monitoring Program (RMP) to identify whether or not their specific management practices are resulting in adverse impacts to groundwater (i.e., whether the discharge is in compliance with the groundwater limitations of this Order). Extensive long-term monitoring is needed to document which dairy waste management practices are protective of groundwater, and what effect these management practices will have on groundwater under a variety of different site conditions.
 - a. Dischargers implementing individual monitoring must submit the following reports to the Board's Executive Officer:

Annual Reports: Dischargers who have elected to perform individual groundwater monitoring must submit annual groundwater monitoring reports to the Executive Officer. These annual reports provide a summary of the analytical data collected to date and 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 wastewater management area, production area, and land application area of the dairy facility.

Summary Report: In addition to submittal of annual reports, the MRP also requires that Dischargers conducting individual groundwater monitoring submit a summary report six (6) years after initiating sampling. The summary report must provide a detailed assessment of the monitoring data, and must include an evaluation of whether site activities associated with operation of the wastewater retention ponds, production area, or land application areas have impacted groundwater quality. The 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 the Order.
 - b. Dischargers participating in an RMP must collectively submit the following reports to the Board's Executive Officer:

Annual Representative Monitoring Reports: The RMP must submit Annual Representative Monitoring Reports (ARMR), which must describe the monitoring activities (including a tabulated summary of groundwater analytical data) conducted by the RMP, and which must identify the number and location of installed monitoring wells and other types of monitoring devices. Within each ARMAR, the RMP must evaluate the groundwater monitoring data to determine whether groundwater is being impacted by activities at facilities being monitored by the RMP. The submittal must include a description of the methods used in evaluating the groundwater monitoring data.

Summary Representative Monitoring Report: Six (6) years following submittal of the first ARMAR, the RMP must submit a Summary Representative Monitoring Report (SRMR) to the Board's Executive Officer. The SRMR is to identify management practices that are protective of groundwater quality for the range of conditions found at participating facilities. Based on information supplied in the SRMR, if management practices are found not to be protective of groundwater quality, the SRMR must propose solutions and upgrades that will result in compliance.

Individual Annual Monitoring Reports: Dischargers who have participated in the RMP must submit Annual Monitoring Reports following the Executive Officer's approval of the SRMR, which must document what they are doing to upgrade management practices that have been found not to be protective of groundwater. These reports are due every July 1 following Executive Officer approval of the SRMR. The first annual report must identify alternative management practices the Discharger intends to implement at its dairy facility along with a schedule for implementation. With each subsequent Annual Monitoring Report, the Discharger must provide an update on their implementation of additional or alternative management practices.

26. The Central Valley Water Board has documented many 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; 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 discharges do occur, this Order requires the Discharger to monitor these discharges.
27. The milk cow dairies at which this Order is directed were in existence prior to October 2005 and many were constructed several decades ago. The waste management systems at these existing dairies are commonly not capable of preventing all adverse impacts to waters of the state either because of their

outdated design or need for maintenance or both. Historic operation of these dairies has often resulted in adverse effects on the water quality. 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. This Order includes time schedules for compliance for dairy operators to implement improvements if groundwater data indicate that certain types of facilities/practices are not protective of groundwater quality.

STATE ANTI-DEGRADATION POLICY (RESOLUTION 68-16)

28. The State Anti-Degradation Policy prohibits the Central Valley Water Board from authorizing the degradation of high-quality groundwater unless it has been shown that:
 - a. The degradation is consistent with the maximum benefit to the people of the state.
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses.
 - c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives, and
 - d. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.
29. This Order places restrictions on the discharge of wastes from dairy facilities that are intended to prevent pollution and nuisance conditions from occurring or persisting. Though the Board recognizes that degradation of high-quality groundwater will still occur pursuant to this Order, the implementation of nutrient management plans, waste management plans, enhanced management practices within the production area, and improved containment features for new and expanding dairy wastewater retention ponds will limit the amount of degradation that will occur under this Order. Degradation will be limited so that discharges from dairy facilities will not cause long-term impacts to beneficial uses. Where immediate compliance with water quality objectives cannot be achieved, this Order includes a time schedule for compliance for the implementation or modification of waste management practices.
30. Consistent with the *State Anti-Degradation Policy*, this Order establishes requirements and standards that will result in the implementation of BPTC measures to limit the degradation caused by dairy discharges. The following is a general description of what the Board considers to be BPTC for specified areas of a dairy operation:

- a. Production Areas (including milk barns, wash/sprinkler pens, feed and non-liquid manure storage areas, and corrals): surface water discharges from the production area are prohibited, and the production areas shall be managed to limit the extent to which wastewater can infiltrate into the underlying materials.
 - b. Land Application Areas: Dischargers must prepare and implement Nutrient Management Plans (NMPs). Discharges from the land application areas must not cause or contribute to an exceedance of any applicable water quality objective or federal water quality criteria.
 - c. Existing Wastewater Retention Ponds: Existing wastewater retention ponds must be in compliance with design standards specified in Title 27. However, these design standards have not been found to be protective of groundwater under all conditions, and the immediate replacement of these wastewater retention ponds is not a practicable option for many dairies. Therefore, though compliance with Title 27 design standards was once considered to be BPTC, the Board now considers BPTC for existing ponds to be an iterative process whereby the ponds are evaluated (either under an individual monitoring program or under the RMP) to determine whether or not they are protective of the underlying groundwater, and upgraded or replaced on a time schedule that is as short as practicable if they are found not to be protective. This Order contains a time schedule to bring any deficient management practices (including wastewater retention ponds) into compliance.
 - d. New and Expanded Wastewater Retention Ponds: This Order establishes requirements for new and expanded wastewater retention ponds that are more stringent than the requirements in Title 27 in order to provide groundwater protection. New and expanded wastewater retention ponds must meet a strict performance standard that only allows for a very conservative pond design unless there has been a demonstration that an alternative design meets the e strict performance standard.
31. This Order also contains closure requirements that specify that 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.
 32. This Order will assure that pollution or nuisance will not occur outside of the time schedule for improvements set by this Order. This Order addresses impacts from future discharges of waste, but does not address the cleanup of surface and groundwater that has been polluted due to historic dairy operations. Any required cleanup would be handled under separate authority under the Water Code.
 33. The Central Valley Water Board recognizes that there is often site-specific, crop-specific, and regional variability which affects the selection of appropriate management measures, as well as the design constraints and pollution control

effectiveness of various practices. In compliance with Water Code section 13360, dairy owners/operators have the flexibility to choose management practices that best achieve a management measure's performance expectations given their own unique circumstances. It is expected that this will be an iterative process whereby the effectiveness of any set of practices in minimizing degradation will be periodically reevaluated as necessary for and/or as more recent and detailed water quality data become available.

34. To assess compliance with the *State Anti-Degradation Policy*, this Order requires Dischargers to monitor discharges to surface waters and groundwater. The requirements to monitor first encountered groundwater (the point in the aquifer where typically detection of changes to groundwater quality, caused by the facility, would be first detected) are met when the Dischargers perform individual groundwater monitoring or participate in an RMP. The purpose of monitoring is to confirm that the discharges are effectively controlled by management practices and to evaluate compliance with this Order.
35. When the Board prescribes waste discharge requirements that will result in the degradation of high-quality waters, the *State Anti-Degradation Policy* requires that the Board first make a determination that the authorized degradation is consistent with the maximum benefit to the people of the State. Consistent with the evaluation contained in the Information Sheet and considering the economic significance of the Central Valley dairy industry and the important role Central Valley dairies play in providing adequate milk supplies to the nation, the Central Valley Water Board finds that maintaining the Central Valley dairy industry is consistent with the maximum benefit to the people of the state. To maintain the industry and to prevent the loss of jobs and the impacts to the local economy that might otherwise occur, some degradation to high quality waters must be allowed. However, this degradation will be limited by this Order so that there will not be long-term impacts to beneficial uses, thereby allowing the full utilization of the aquifer.

ENVIRONMENTAL STEWARDSHIP PROGRAMS

36. 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. 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.

37. 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.

GENERAL FINDINGS

38. This Order does not authorize violation of any federal, state, or local law or regulation.
39. As stated in 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.
40. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
41. This Order is not a National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Clean Water Act. Coverage under this Order does not exempt a facility from the Clean Water Act. Any facility required to obtain such a permit must notify the Central Valley Water Board.
42. The Findings of this Order, supplemental information and details in the attached Information Sheet, and the administrative record of the Central Valley Water Board relevant to milk cow dairies, were considered in establishing the conditions of discharge.
43. In 2006, the Central Valley Water Board, the State Water Board, and Regional stakeholders began a joint effort to address salinity and nitrate problems in the region and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. The CV-SALTS effort might effect changes to the Basin Plans that would necessitate the re-opening of this Order.
44. The Central Valley Water Board recognizes that the 2007 General Order imposed new and more stringent requirements on existing milk cow dairies. This Order is intended to enhance the requirements imposed under the 2007 General Order.

However, some revisions to this Order may be necessary in the future to address issues that are not presently foreseen. The Executive Officer will provide annual updates to the Central Valley Water Board on the overall compliance with the Order and make recommendations for revisions to the Order if necessary.

45. 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.
46. 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.

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13260, 13263, and 13267 and in order to meet the provisions contained in Division 7 of the California Water Code and regulations and policies adopted thereunder; all Dischargers specified by the Central Valley Water Board and all Dischargers that were formerly regulated under the original version of Order R5-2007-0035 adopted in May 2007, their agents, successors, and assigns shall comply with the following:

A. PROHIBITIONS

1. The discharge of hazardous wastes, as that term is defined in California Code of Regulations, title 22, section 66261.1 *et seq.*, is prohibited.
2. Except when authorized by a National Pollutant Discharge Elimination System (NPDES) permit, the direct or indirect discharge of waste and/or storm water from the production area to surface waters is prohibited¹.
3. 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.
4. The collection, treatment, storage, discharge or disposal of wastes at an existing milk cow dairy shall not result in the creation of a condition of pollution or nuisance².

¹ Discharges of pollutants from the production area to waters of the United States may not lawfully occur except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permit coverage is not provided by this Order, but must be obtained separately.

² Except in circumstances where a Discharger is making improvements to waste management practices that have been found not to be protective of the underlying groundwater under a time schedule that is as short as practicable..

5. The disposal of waste not generated by on-site animal production activities is prohibited except where a ROWD for the disposal has been submitted to the Executive Officer and the Central Valley Water Board has issued or waived WDRs for that discharge.
6. The disposal of dead animals in any liquid manure or wastewater retention ponds 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 animals³.
7. All animals shall be prohibited from entering any surface water within the animal confinement area. (Title 27, § 22561.)
8. 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.
9. The land application of manure or process wastewater to cropland for other than nutrient recycling is prohibited.
10. 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.
11. 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.
12. 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.
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.

³ In an emergency, guidance is provided by the Conditional Waiver of Waste Discharge Requirements for Disaster-Related Wastes during a State of Emergency within the Central Valley Order 2013-0026.

15. Under this General Order, the expansion of the existing milk cow dairy beyond the level as defined under the term "Expansion" is prohibited⁴.

B. GENERAL SPECIFICATIONS

1. The existing milk cow dairy shall have facilities that are designed, constructed, operated, and maintained to retain all facility 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, wastewater retention 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 that were built or expanded after 27 November 1984 shall be protected against 100-year peak stream flows. (Title 27, §22562(c).)
3. In the Tulare Lake Basin, existing milk cow dairies in operation on or before 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 that were expanded after 8 December 1984 shall be protected from 100-year peak stream flows.
4. Dischargers who are subject to this Order shall implement water quality management practices, as necessary, to protect water quality and to achieve compliance with applicable water quality objectives on a schedule that is as short as practicable as described in the Time Schedule for Compliance (section M of this Order). The proposed time schedule must be supported with appropriate technical or economic justification as to why the proposed schedule is as short as practicable.
5. If groundwater monitoring demonstrates that discharge(s) from a dairy have caused an exceedance of the groundwater limitations set forth in this Order, the Executive Officer may issue an order to the owner/operator of the

⁴ Dischargers must submit a ROWD, document compliance with CEQA, and obtain coverage under individual waste discharge requirements before any material facility expansion. "Expansion" is defined in Attachment E.

monitored dairy to identify and implement management practices that are protective of groundwater quality on a schedule that is as short as practicable.

6. 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. (Title 27, § 22562(b).)
7. 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.

C. POND SPECIFICATIONS

1. The level of waste in the process wastewater retention ponds (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 registered in California, 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.
2. 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.
3. Ponds designated to contain the 25-year, 24-hour storm event runoff must have a depth marker that clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation from a 25-year, 24-hour storm event.

4. Existing Ponds⁵

- a. Dischargers conducting groundwater monitoring pursuant to an Individual Monitoring Program shall maintain and operate existing ponds in such a manner so as to constitute best practical treatment or control (BPTC) or best efforts for existing ponds, which is further discussed in the Information Sheet at page 10 (Best Practicable Treatment or Control Measures for Existing Dairy Ponds). Such operations shall be maintained throughout the development of the Summary Report that is required by Revised Monitoring and Reporting Program R5-2007-0035-R, Attachment A, Section II.12. The Summary Report is due within six years of initiating individual groundwater sampling activities or at an earlier date if required by the Executive Officer.

If the monitoring data in the Summary Report indicate that Groundwater Limitation F.1 of this Order is violated, Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.

- b. Dischargers enrolled under the Representative Monitoring Program (RMP) shall maintain and operate existing ponds in such a manner so as to constitute best practical treatment or control or best efforts as (defined/discussed) in the Information Sheet throughout the development of the Summary Representative Monitoring Report (SRMR), which is due to the Central Valley Water Board on 1 April 2019.
- c. Dischargers enrolled under the RMP shall implement the recommended management practices that are applicable to Existing Ponds in accordance with the SRMR and its schedule as approved by the Central Valley Water Board Executive Officer.

If the SRMR indicates that the Dischargers Existing Ponds may have discharges that violate Groundwater Limitation F.1, of this Order or that such discharges from Existing Ponds may cause degradation to high quality waters, Dischargers are required to implement the approved SRMR's identified management practices/activities for Existing Ponds that will bring the facility into compliance with Groundwater Limitation F.1. Such practices are considered to constitute best practical

⁵ Existing Ponds are defined to mean those ponds in operation as of 3 May 2007 when the Board issued the 2007 General Order and are not new ponds that are designed to meet the Tier 1 or Tier 2 requirements set forth in Provision C.5 of this Order.

treatment or control or best efforts and are designed to achieve compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.

5. New and Reconstructed Ponds

- a. 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.
- b. New and reconstructed pond designs 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:
 - i. Tier 1: A pond designed to consist of a double liner constructed with 60- mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of title 27) between the two liners will be considered to be consistent with Resolution 68-16. Review for ponds designed to this standard will be conducted in less than 30 days of receipt of a complete design plan package submitted to the Board.
 - ii. Tier 2: A pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 (as described in the Information Sheet) or equivalent and which the Discharger must demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality as required in Pond Specification 5. C. below.
- c. Prior to the enlargement of an existing pond (settling, storage, or retention) or the construction of any such new pond not associated with an expansion, the Discharger shall submit to the Executive Officer:
 - i. For Tier 1 and 2 pond designs, 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:

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 J.1 of this Order,
 4. 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
 5. An operations and maintenance plan for the pond.
- ii. 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.

- d. Prior to the placement of waste in any enlarged existing 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 Pond Specification C.5.b 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.

D. PRODUCTION AREA SPECIFICATIONS

The Production area includes, but is not limited to, barns, milk houses, corrals, milk parlors, manure and feed storage areas, process water conveyances and any other area of the dairy facility that is not the land application area or the ponds.

1. All dirt or unpaved corrals shall be graded to promote drainage. Cow washing areas shall be paved (concrete or equivalent) and sloped to a drain. Water troughs, permanent feed racks, and mangers shall have paved access, and water troughs shall have a drain to carry water away from the corrals. (Cal Code Regs., title 3, § 646.1.)
2. All milk rooms and milk barns shall be floored with concrete or other low permeability suitable material and be properly drained. (Cal Code Regs., title 3, §§ 648(c) & 649(a).) All drainage that comes in contact with waste (as defined in Finding 13) shall be directed to the wastewater retention ponds.
3. All drainage that has contacted feed is a waste in accordance with Finding 13 and shall be directed to the wastewater retention ponds.
4. 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 ponds. (Title 27, § 22562(b).)
5. Roof drainage from barns, milk houses, or shelters shall not drain into the corrals unless the corrals are properly graded and drained. (Cal Code Regs., title 3, § 661.)
6. The 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 ponds and to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into the underlying soils.
7. For Dischargers conducting individual groundwater monitoring, if the monitoring data in the Summary Report indicate that the Dischargers Production Area may have discharges that violate Groundwater Limitation F.1 of this Order or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.
8. Dischargers enrolled under the RMP shall implement the recommended

management practices that are applicable to Production Areas in accordance with the SRMR and its approved time schedule.

If the SRMR indicates that the Dischargers Production Area may have discharges that violate Groundwater Limitation F.1 of this Order or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement the approved SRMR's identified management practices/activities for Production Areas that will bring the facility into compliance with Groundwater Limitation F.1. Such practices are considered to constitute best practical treatment or control or best efforts and are designed to achieve compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.

E. LAND APPLICATION SPECIFICATIONS

1. 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.
2. 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 (required in Required Reports and Notices J.1.c below) consistent with the technical standards for nutrient management as specified in Attachment C. The Nutrient Management Plan shall be modified 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.
3. No later than 31 December 2007, the Discharger shall have a written agreement with each third party that receives process wastewater from the Discharger for its own use. Each written agreement shall be included in the Discharger's Existing Conditions Report, Nutrient Management Plan, and Annual Report. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements that are adopted by the Central Valley Water Board. 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 (which is attached to and made part of this Order), which is signed by both the Discharger and third party.
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 J.1.c and Attachment C of this Order; and
 - b. Records are prepared and maintained as specified in the Record-Keeping Requirements of Revised Monitoring and Reporting Program R5-2007-0035-R.
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).
10. If the monitoring data in the Summary Report indicate that the Dischargers Land Application Area may have discharges that violate Groundwater Limitation F.1 of this Order, or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.
11. Dischargers enrolled under the RMP shall implement the recommended management practices that are applicable to Land Application Areas in accordance with the SRMR and its approved time schedule.

If the SRMR indicates that the Dischargers Land Application Areas may have discharges that violate Groundwater Limitation F.1 of this Order or that such discharges from Land Application Areas may cause degradation to high quality waters, Dischargers are required to implement the approved SRMR's identified management practices/activities for Land Application Areas that will bring the facility into compliance with Groundwater Limitation F.1. Such practices are considered to constitute best practical treatment or control or best efforts and are designed to achieve compliance with Groundwater Limitation F.1 on a time schedule that is as short as practicable.

F. GROUNDWATER LIMITATIONS⁶

1. Discharge of waste at existing milk cow dairies shall not cause the underlying groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.⁷ The

⁶ These limitations are effective immediately except where Dischargers are in compliance with Provision M of this Order and the requirements of Sections II or III of the Revised Monitoring and Reporting Program R5-2007-0035-R, Attachment A, and such Dischargers are implementing management practices/activities on a time schedule that is as short as practicable. For Dischargers participating in the RMP, the implementation of management practices/activities must be implemented on a time schedule that is as short as practicable and that is consistent with any time schedule or schedule that is included in the SRMR that is approved by the Executive Officer.

⁷ Except in circumstances where a Discharger is making improvements to waste management practices that have been found not to be protective of the underlying groundwater under a time schedule that is as short as practicable.

appropriate water quality objectives are summarized in the Information Sheet, which is attached to and part of this Order, and can be found in the Central Valley Water Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed.) and the Water Quality Control Plan for the Tulare Lake Basin (2nd Ed.).

G. PROVISIONS

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements General Order R5-2007-0035 for Existing Milk Cow Dairies* (Standard Provisions) dated 3 May 2007, which is attached to and made part of this Order.
2. The Discharger shall comply with all applicable provisions of the California Water Code, Title 27, and the applicable Water Quality Control Plans.
3. The Discharger shall comply with the attached Revised Monitoring and Reporting Program R5-2007-0035-R which is part of this Order, and future revisions thereto or with an individual monitoring and reporting program, as specified by the Central Valley Water Board or the Executive Officer.
4. The Discharger shall submit a complete ROWD in accordance with the 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. If the Preliminary Dairy Facility Assessment⁸ indicates that facility improvements are necessary (see Required Reports and Notices J.1.d), the Discharger shall make continual facility improvements while completing implementation of the Waste Management Plan and/or Nutrient Management Plan.
6. 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 ROWD and receive WDRs or a waste-specific waiver of WDRs from the Central Valley Water Board prior to receiving such waste.
7. If site conditions threaten to violate Prohibition A.2 or Prohibition A.4, the Discharger shall take immediate action to preclude the violation, documenting

⁸ The Preliminary Dairy Facility Assessment is required as part of the Existing Conditions Report (Attachment A).

- the condition and all corrective actions. Records of such actions shall be kept and maintained as required in Revised Monitoring and Reporting Program R5-2007-0035-R. Alterations of the Waste Management Plan (see Required Reports and Notices J.1.a) for the production area to avoid a recurrence shall be submitted as a modification to the Waste Management Plan.
8. If a discharge of waste creates, or threatens to create, significant objectionable odors or nuisance odor and vector conditions, enforcement and/or revocation of coverage under this Order may result.
 9. The Discharger shall comply with all requirements of this Order and all terms, conditions, and limitations specified by the Executive Officer.
 10. Any instance of noncompliance with this Order constitutes a violation of the Water Code and its regulations. Such noncompliance is grounds for enforcement action, and/or termination of the authorization to discharge.
 11. 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.
 12. This Order shall become effective upon adoption by the Central Valley Water Board.
 13. 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.

14. 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 L.1 below). If the Executive Officer provides comments on any technical report, the Discharger will be required to address those comments.
15. The Discharger shall maintain a copy of this Order at the site so as to be available at all times to site-operating personnel. The Discharger, landowner and his/her designee shall be familiar with the content of this Order.

H. EFFECTIVE DATE OF COVERAGE UNDER THIS ORDER

1. Coverage under this Order is effective upon notification by the Executive Officer that this Order applies to the Discharger.

I. PERMIT REOPENING, REVISION, REVOCATION, 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. This includes regulatory changes that may be brought about by the CV-SALTS planning efforts.
3. 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 ROWD and obtain individual waste discharge requirements.

J. REQUIRED REPORTS AND NOTICES

1. Dischargers must submit the following in accordance with the Schedule of Tasks L.1:
 - a. **Existing Conditions Report:** The Discharger shall submit an Existing Conditions Report for the dairy facility, prepared in accordance with Attachment A. The Existing Conditions Report shall provide additional information on existing conditions at the dairy that was not provided in the ROWD submitted in response to the 2005 ROWD Request Letter. The Existing Conditions Report requires the Discharger to complete a Preliminary Dairy Facility Assessment. The Preliminary Dairy Facility

Assessment is available on the Central Valley Water Board's web site at http://www.waterboards.ca.gov/centralvalley/available_documents/index.html#confined and must be completed electronically. The Discharger shall include a copy of the results of the Preliminary Dairy Facility Assessment in the Existing Conditions Report.

- b. **Waste Management Plan:** The Discharger shall submit a Waste Management Plan for the production area of the dairy facility, prepared in accordance with Attachment B. The Waste Management Plan shall provide an evaluation of the existing milk cow dairy's design, construction, operation, and maintenance for flood protection and waste containment and whether the facility complies with Prohibition A.14, General Specifications B.1-B.3, Pond Specifications C.1 through C.3, and Production Area Specifications D.1, D.4, and D.5. If the design, construction, operation, and/or maintenance of the dairy facility do not comply with these specifications and prohibition, the Waste Management Plan must propose modifications and a schedule for modifications that will bring the dairy facility into compliance. Certification that the modifications have been implemented shall be submitted in accordance with the Schedule of Tasks L.1.
- c. **Nutrient Management Plan:** A Discharger who applies manure, bedding, or process wastewater to land for nutrient recycling must develop and implement management practices that control nutrient losses and describe these in a Nutrient Management Plan. The Nutrient Management Plan must be certified as specified in Attachment C, maintained at the dairy, submitted to the Executive Officer upon request and must ultimately provide for protection of both surface water and groundwater. Certification that the Nutrient Management Plan has been completed shall be in accordance with the Schedule of Tasks L.1, shall incorporate the elements specified in Attachment C based on a field-specific assessment of the potential for pollutant transport to surface water and groundwater, and shall be submitted to the Executive Officer. The Nutrient Management Plan shall be updated 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.
- d. **Proposed Interim Facility Modifications:** A Discharger whose Preliminary Dairy Facility Assessment (see Required Reports and Notices J.1.a above) shows that the Whole Farm Nitrogen Balance⁹ is greater than

⁹ 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 in the Existing Conditions Report (Attachment A).

1.65 and/or that the existing retention pond(s) total storage capacity is less than the total storage capacity required shall submit Proposed Interim Facility Modifications as Necessary to Balance Nitrogen and/or Proposed Interim Facility Modifications as Necessary to Improve Storage Capacity, respectively. Such Dischargers shall also submit Documentation of Interim Facility Modifications Completion as Necessary for Storage Capacity and to Balance N.

- e. **Salinity Report:** The Discharger shall submit a report that identifies sources of salt in waste generated at the dairy, evaluates measures that can be taken to minimize salt in the dairy waste, and certifies that they will implement the approved measures identified to minimize salt in the dairy waste. If a third party (for example, the California Dairy Quality Assurance Program) produces an industry-wide report that is acceptable to the Executive Officer, the Discharger may refer to that report rather than generating his own report, but must certify that the appropriate measures will be implemented to reduce salt in his dairy waste.
2. Reporting Provisions:
- a. All ROWDs, 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 Revised Monitoring and Reporting Program R5-2007-0035-R.
 - 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 Revised Monitoring and Reporting Program R5-2007-0035-R.

L. SCHEDULE OF TASKS

1. Dischargers are required to develop and implement a Waste Management Plan and Nutrient Management Plan, submit an Existing Conditions Report, a Salinity Report, a Proposed Interim Facility Modifications, a Preliminary Infrastructure Needs Checklist, and Annual Reports according to the schedule shown in Table 1. All elements of the Waste Management Plan shall be submitted to the Executive Officer by the deadlines specified in Table 1 and signed and certified by the Discharger as required in Required Reports and Notices J.2.a above and the additional professional specified in Table 1.

Dischargers must submit a statement of completion to the Executive Officer for each of the elements of the Nutrient Management Plan by the deadlines specified in Table 1. All statements must be signed and certified by the Discharger as required in Required Reports and Notices J.2.a above and the additional professional specified in Table 1.

2. If changes are made to the required submittals through Central Valley Water Board or Executive Officer review, those changes shall be implemented.
3. Any Discharger may be requested to complete the Nutrient Management Plan and/or Waste Management Plan prior to the due date identified in Table 1 if the Executive Officer has determined the facility presents a significant risk to groundwater or surface water.

M. Time Schedule for Compliance

Dischargers conducting an Individual Monitoring Program shall submit a summary report within six (6) years of initiating sampling activities. The summary report must include identification of management practices that need to be implemented to achieve compliance with applicable water quality objectives, including the groundwater limitations of the Order. Required Annual Reports presented after the submittal of the 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 the Groundwater Limitations F.1. of the Order. Implementation of the identified management practices must be as soon as practicable, supported with appropriate technical or economic justification and in no case may time schedules extend beyond 10 years from the date that the summary report is approved by the Executive Officer.

For Dischargers participating in a representative monitoring program that is required to submit a Summary Representative Monitoring Report (SRMR) (See Revised Monitoring and Reporting Program R5-2007-0035-R, Provision III.10), the following time schedule shall apply to allow Dischargers sufficient time to

implement identified management practices to achieve compliance with Groundwater Limitations described in Section F.1. of this Order. The Central Valley Water Board may modify these schedules based on evidence that meeting the compliance date is technically or economically infeasible, or when evidence shows that compliance by an earlier date is feasible. Any applicable time schedules for compliance established in the Basin Plans supersede the schedules given below (e.g., time schedules for compliance with salinity standards that may be established in future Basin Plan amendments through the CV-SALTS process).

- a. The SRMR must be submitted no later than six (6) years following submittal of the first Annual Representative Monitoring Report (ARMR) (e.g., the CVDRMP submitted its first ARMR on April 1, 2013, thus the CVDRMP's SRMR must be submitted by April 1, 2019).
- b. The SRMR must identify management practices that are protective of groundwater quality for the range of conditions found at facilities participating in the representative monitoring program, and must identify in the SRMR time schedules that are as short as practicable for implementation of the identified management practices. Within 18 months of submittal of the SRMR and no later than July 1, 2020, all member dairies of the RMP for which the SRMR was submitted must submit a letter of intent to comply with applicable management practices identified in the SRMR. Time schedules in the SRMR for implementation of the identified management practices must be as soon as practicable, supported with appropriate technical or economic justification and in no case may time schedules beyond 10 years from the date that the SRMR is approved by the Executive Officer.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

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 XX October 2013.

PAMELA C. CREEDON, Executive Officer