

Outline for Waste Management Plan (WMP)

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The Monitoring and Reporting Program for General Waste Discharge Requirements Order No. R1-2012-0002 (Order) requires the preparation and implementation of a Waste Management Plan (WMP) for the dairy production area including, but not limited to, the milk parlor, corrals, barns, feed storage area, compost, manure ponds, and dry manure storage areas. The purpose of the WMP is to ensure that the dairy is designed, constructed, operated and maintained so that wastes, nutrients, and contaminants generated by the facility are managed to prevent adverse impacts to surface water and groundwater quality in compliance with the Order. The Regional Water Board may give approved TMDL offset dairy projects an alternative schedule for enrollment and submittal of MRP reports, including the WMP.

WMP Requirements

WMP must:

- Be completed within 1 year of adoption
- Be kept on the dairy site and made available for review by Regional Water Board staff during inspections
- Have portions related to manure pond specifications and well protection be prepared by a specialist (see WMP Outline)
- Include submittal of a letter to the Regional Water Board within 1 year of adoption by a specialist certifying that the dairy retention ponds meet Title 27 requirements (see GWDR, Attachment B)
- Discuss the manner by which wellheads are protected to prevent movement of contaminants to groundwater
- Contain documentation from a trained professional that there are no cross-connections that would allow the backflow of waste into a well
- Discuss erosion control measures implemented at the dairy to protect surface water
- Discuss implementation of salt minimization strategies
- Contain an emergency spill prevention plan (SPP) detailing measures to be taken in the case of a discharge or threatened discharge of manure, chemicals, sediment, nutrients, or pathogens to surface water or groundwater (including personnel training, first response actions, and emergency contacts)

Dischargers shall report on WMP implementation in the Annual Report (Appendix 3) due for submittal by November 30 each year beginning in 2013

Contents of WMP

Description of dairy must include:

- Facility Name and Address
- Assessor's Parcel Number, and Township, Range, Section(s), and Baseline Meridian of the property where the dairy is located
- The name(s), address(es), and telephone number(s) of the property owner(s), facility operator(s), and the contact person for the facility
- Maximum animal population categories as listed in the Notice of Intent (Attachment A)

- A statement from the responsible professional that the WMP was developed in accordance with the requirements of the GWDR, that it includes all necessary documentation (including calculations), and certifies that all contents of the WMP (and NMP) were done consistent with requirements of the Order and Title 27 (Attachment B)
- Optionally, a copy of the appropriate published flood zone map showing that the production area is outside the relevant flood zones may be included

The determination of the necessary pond storage volume shall reflect:

- The maximum period of time (storage period) anticipated between land application events based on the NMP
- The volume of manure and process water accumulated during the storage period
- Normal precipitation (or normal precipitation times a factor of 1.5) less evaporation on the surface area during the storage period
- Runoff from production and manure storage areas resulting from normal precipitation (or normal precipitation times a factor of 1.5) during the storage period
- 25-year, 24-hour precipitation on the facility's retention pond surface(s)
- 25-year, 24-hour runoff from the area of the facility draining to the retention pond
- 20-year flows (or greater than 20-year flows if currently protected) for existing facilities that were in operation on or before November 27, 1984
- 100-year flows for facilities, or portions thereof, which began operating after November 27, 1984
- Residual solids after liquids have been removed
- 2 feet of freeboard shall be maintained in partially or completely above ground ponds
- 1 foot of freeboard shall be maintained in pond structures that are completely in ground

Contingency Plan: If the necessary storage volume calculated 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 (1.5), then the WMP shall include a Contingency Plan that describes how the excess precipitation and runoff that is generated during higher-than-normal precipitation will be managed.

Operation and Maintenance Plan for the retention pond(s) shall ensure that:

- Corrals and/or pens are designed and maintained to direct all process water and stormwater to the manure pond(s)
- The production facilities (e.g., barn, shed, milk parlor, etc.) are designed and maintained to direct all process water and stormwater that has contacted manure, feedstocks, or soil amendments to the manure pond(s)
- There is no discharge of manure or stormwater to surface waters from the production area or the land application area(s) except as allowed by this GWDR
- All ponds must be managed to prevent nuisances damage from burrowing animals, damage from equipment during removal of solids, embankment settlement, erosion, seepage, excess weeds, algae, and other vegetation
- Manure ponds must provide necessary storage volume prior to winter storms, maintain capacity considering buildup of solids, and comply with the minimum freeboard
- The removal of solids from any lined pond must prevent damage to the pond liner
- Manure pond inspections and clean-out shall be conducted by November 1 of each year to ensure design storage capacity

Storage areas and animal confinement areas shall include the following features:

- Manure pond liners must have minimum of 10% clay and not more than 10% gravel, or have a liner constructed of artificial materials of equivalent or greater impermeability
- New manure ponds constructed after the adoption date of the GWDR Order must comply with NRCS Waste Storage Facility Code 313 including a maximum specific discharge (unit seepage rate) of 1×10^{-6} cm/sec
- Waste storage facilities should be located outside of floodplains
- Animal confinement areas shall be designed, constructed, and operated to minimize infiltration of manure into the underlying soils and to collect and divert all process water to the manure pond(s)
- Storage areas shall be designed and constructed to minimize infiltration of leachate and to divert runoff away from these areas unless all runoff from these areas is discharged to the retention pond(s)
- Livestock crossings of watercourses must be designed to protect water quality and must be described in the WMP
- All stormwater from outside manured areas, including that from roofed areas, must be diverted away from manured areas unless such drainage is fully contained and is included in the calculation of storage volume requirements
- Covers are used where practical during precipitation to reduce leaching and runoff
- Meet all federal, state, and local laws and regulations

Prohibitions:

- No application of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner
- No disposal of dead animals in any liquid manure or process water system
- Chemicals must be used according to manufacturer's directions and in accordance with federal, state, county, and local regulations (use of disinfectants or other chemicals per label directions is allowed)
- Chemicals must not be disposed of in any manure or process water, or stormwater storage or treatment system
- Animals in confinement are prohibited from entering any surface water that flows within the confined area