

LATE REVISIONS
3 May 2007

Item 10
Waste Discharge Requirements General Order
For
Existing Milk Cow Dairies

Proposed additions are indicated in **bold** text. Deletions are marked in ~~strikeout~~. Where revisions result in renumbering of portions of the Order, cross-references will be updated, as necessary, following adoption.

Entire Order: Change “wastewater” to “process wastewater”.

WASTE DISCHARGE REQUIREMENTS

FINDINGS

2. This Order applies to owners and operators of existing milk cow dairies (hereinafter Dischargers) that: **(1)** submitted a complete Report of Waste Discharge in response to the Central Valley Water Board’s 8 August 2005 request for such a report (2005 Report of Waste Discharge Request Letter) **and (2) have not been expanded since October 17, 2005**. Following formal written notification by the Central Valley Water Board, these Dischargers are 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 a waiver of waste discharge requirements.

7. For the purposes of this Order, an “existing milk cow **dairies**” **means** dairy ~~includes~~ all dairies that were operating as of 17 October 2005, ~~and~~ filed a **complete** Report of Waste Discharge in response to the 2005 Report of Waste Discharge Request Letter, **and have not expanded (“expansion” is defined in Attachment E) since October 17, 2005**.

Add the following new finding after current finding No. 14 and renumber subsequent findings.

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 impose significantly 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 impose stringent new requirement, 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 information 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 and prohibits discharges from land application areas unless, among other requirements, 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.

Add the following new finding after the current finding No. 17 and renumber subsequent findings.

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.” (Title 14, California Code of Regulations, Section 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 applications for coverage under these General WDRs were solicited by Regional Board staff on August 8, 2005. The applications themselves (Reports of Waste Discharge) were due on October 17, 2005. The information contained in the applications, particularly herd size, presented staff with a description of the

dairies, as they existed on the same date. The environmental baseline for the General WDRs, therefore, consists 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 October 17, 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.

GENERAL SPECIFICATIONS

4. 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.**

13. ~~All retention ponds~~ **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.

LAND APPLICATION SPECIFICATIONS

2. No later than 31 December 2007, the Discharger shall have a written agreement with each third party that receives ~~solid manure or 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 ~~and that are specific to the application of the Discharger’s solid manure and/or process wastewater to land under the third party’s control~~. The written agreement shall:

- a. Clearly identify:
 - i. The Discharger and dairy facility from which the ~~solid manure and/or process wastewater~~ originates,
 - ii. The third party that will control the application of the ~~solid manure and/or process wastewater~~ to cropland,
 - iii. The Assessor’s Parcel Number(s) and the acreage(s) of the cropland where the ~~solid manure and/or process wastewater~~ will be applied, and
 - iv. The types of crops to be fertilized with the ~~solid manure and/or process wastewater~~.
- b. Include an agreement by the third party to:

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- i. Use the solid manure and/or process wastewater at agronomic rates appropriate for the crops to be grown,
- ii. Incorporate the solid manure and/or process wastewater into the soil before irrigation, unless a tailwater return system is being used, and
- iiii. Prevent tailwater runoff from the fields that receive the solid manure and/or process wastewater **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.**

3. All cropland that is part of the dairy but not used for dairy waste application will be covered under this Order.

PROVISIONS

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 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.

**TABLE 1
Schedule**

Due Date	Submittal Due	Contents of Submittal	Professional Certification Requirements
31 October December 2008	Statement of Completion of Item V of Attachment C (Nutrient Management Plan)*	Field Risk Assessment – Evaluate the effectiveness of management practices to control waste discharges from land application areas.	Certified Nutrient Management Specialist None
	Preliminary Infrastructure Needs Checklist	Identification of infrastructure changes needed to properly manage wastes (e.g., piping, pumps, meters, etc.).	Certified Nutrient Management Specialist None
1 July 2008	Item II	Sampling and Analysis Proposal. Plan	Certified Nutrient Management Specialist

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1 July 2009	Nutrient Management Plan Retrofitting Plan with Schedule	Retrofitting needed to improve nitrogen balance (may include piping, meters, pumps, etc.).	Certified Nutrient Management Specialist None

MONITORING AND REPORTING PROGRAM

MONITORING REQUIREMENTS

Table 2. NUTRIENT MONITORING – Page MRP-3

Process Wastewater

Once within 12 months and Annually for two years after groundwater monitoring wells are required.

Laboratory analyses for general minerals (calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride).

Manure

Once within 12 months

Laboratory analyses for general minerals (calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, and chloride).

Twice per year:

Laboratory analyses for ~~ammonium-nitrogen, total kjeldahl~~ **total** nitrogen, total phosphorus, potassium, and density (if volume manure applied is reported) or percent moisture (if weight manure applied is reported).

Annual Reporting -General Section – Page MRP-12

.....This section of the annual report shall cover information on crops harvested during the previous ~~12 months~~ **calendar year**, whether or not the crop was planted prior to this period.

**MONITORING AND REPORTING PROGRAM
ATTACHMENT A**

A. Additional Groundwater Monitoring – Page MRP-17

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The Executive Officer has authority pursuant to California Water Code Section 13267 to order Dischargers to implement monitoring and reporting programs. Pursuant to Section 13267, the Executive Officer will order Dischargers to install monitoring wells to comply with Monitoring and Reporting Program Order No. _____ ~~in phases of 100 to 200 dairies per year~~ 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.** 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. Pursuant to Section 13267, the Executive Officer may order implementation of a monitoring and reporting program at a dairy at any time. Such order may occur, for instance, if violations of the General Order 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.

10. The Discharger shall submit to the Executive officer an evaluation of the groundwater monitoring data within six months of obtaining sufficient data to evaluate trends in the data (usually about 8 independent samples). The submittal shall include a description of the statistical or non-statistical methods ~~proposed for used~~ in evaluating the groundwater monitoring data. **The evaluation must use** ~~The proposed methods must be~~ approved by the Executive Officer.

Monitoring Well Installation and Sampling Plan – Page MRP-20

1. General Information

Topographic map showing any existing nearby (about 2000 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.

ATTACHMENT C
Contents of a Nutrient Management Plan And
Technical Standards for Nutrient Management
For Existing Milk Cow Dairies

Revise introductory section as follows:

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.

Land Application Area Information – Page C-3

B.4. Crops grown **and crop rotation.**

Nutrient Management Plan Review. – Page C-16

Add a new item A and re-letter subsequent items.

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.

ATTACHMENT D
Manifest/Process Wastewater Tracking Manifest

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No. ____) with any party that receives ~~manure and/or~~ 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 ~~manure and/or~~ process wastewater transferred after 31 December 2007 to such party.

ATTACHMENT E
Definitions For
Existing Milk Cow Dairies

“Existing facility” is defined, consistent with Title 14 CCR Section 15301, as a milk cow dairy subject to Waste Discharge Requirements General Order No. ____ that is fully constructed and operating as of 17 October 2005 and which has subsequently undergone no expansion in the size or scope of its herd, facilities, or operation ~~as identified in the Report of Waste Discharge submitted in response to a requirement dated 8 August 2005 from the Central Valley Water Board.~~

“Existing herd size” is defined as the maximum number of mature dairy cows reported in the **herd on 17 October 2005** Report of Waste Discharge submitted in response to the 8 August 2005 requirement of the Central Valley Water Board to submit such Report, plus or minus 15 percent of that reported number to account for the normal variation in herd sizes.

“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** reported in the Report of Waste Discharge submitted in response to the 8 August 2005 letter from the Executive Officer) 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. ____ so long as the modification or installation is sized to accommodate only the existing herd size.

Information Sheet

Page IS-4, second paragraph, last sentence

...~~Cropland that is part of an existing dairy but that is not used for dairy waste application shall be covered under this General Order.~~

Page IS-8, second paragraph, last sentence

...~~The Executive Officer will issue monitoring and reporting program orders in phases requiring 100 to 200 dairies per year to install monitoring wells based on an evaluation of the threat to water quality at each site.~~ **It is anticipated that this will occur in phases of approximately 100-200 dairies per year.**

LAND APPLICATION SPECIFICATIONS – Page IS-23

This General Order includes land application specifications that require Dischargers to develop and 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 ~~solid manure or 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 ~~solid manure and/or process wastewater~~ to land under the third party’s control.

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The written agreement must identify the Discharger, the third party, the Assessor's Parcel Number and acreage of the cropland where the ~~solid manure and/or~~ process wastewater will be applied, and the types of crops to be fertilized with the ~~solid manure and/or~~ process wastewater. The written agreement must also include an agreement by the third party to: (1) use the solid ~~manure and/or~~ process wastewater at agronomic rates appropriate for the crop(s) grown, ~~(2) incorporate the solid manure and/or process wastewater into the soil before irrigation, unless a tailwater system is being used,~~ and ~~(3) prevent tailwater runoff from the fields that receive the solid manure and/or process wastewater~~ **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.**

ENFORCEMENT – Page IS-26

Violations of the General Order that will be considered high priority violations include, but are not limited to:

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9. Failure to submit required reports on time.