



December 5, 2011

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University of California Cooperative Extension Advisors and Specialist Meyer have provided input into the development of the Conditional Waiver of Waste Discharge Requirements, Waste Discharge Requirements and the National Pollution Discharge Elimination System Permit during the last two years. We have appreciated the opportunity to participate in public workshops, attend Board meetings, and provide technical information during this process. The following comments are based on our best professional judgment as well as the experience Specialist Meyer has gained through the adoption of the General Order (May, 2007) for Existing Milk Cow Dairies in the Central Valley.

Implementation of these Orders will require intensive educational/outreach efforts. The University of California Cooperative Extension is a partner in the California Dairy Quality Assurance Program. We will work closely with our partners and staff from Region Board 1 to develop and disseminate timely, correct information so producers and their consultants are able to comply with new regulatory requirements.

The timeline suggested in the draft Conditional Waiver is believed to be too aggressive. Our recommendation for submission of the Water Quality Plan is to separate out Section I from Sections II (Water Quality Requirements) and Section III (Best Management Practices). The mapping requirements in Section I along with the calculations in A. 13-16 will likely take considerable time and information collection. Allow a phased in submission where Section I is possibly submitted by July 30 and Sections II and III are submitted in lieu of the first year's annual report or with a modified first year annual report. Much of the information in the Water Quality Plan and the Annual Report are repetitive. Additional comments are below to streamline the Annual Report. Additional justification for submission of the remainder of the Water Quality Plan in lieu of the first Annual Report is that implementation of Monitoring and Reporting Requirements will not likely begin prior to the submission of the Notice of Intent (April) thereby missing the opportunity to sample and report surface water measurements.

The following detailed comments are provided for the Conditional Waiver and the other two dairy General Orders where appropriate.

Conditional Waiver of Waste Discharge Requirements

Page 5. 28 last sentence: Suggest approval of the group monitoring plan be done by EO instead of the Board.

Page 6. 29: Clarify that if group monitoring is done and a group report is submitted this report fulfills the requirements for individuals so they would not need duplicate information in their Annual Report.

Define the reporting period.

Page 8. 2. line 3: site restriction(s)

Page 10. 14. line1: request(s); Modify NOT for Timber Harvest to fit dairy and have available online and at classes when the NOI is completed.

Page 11. Prohibition 26. Suggest separating these two sentences into two separate prohibitions. The first deals with surface water. The second prohibition addresses groundwater protection. The separation will also make it clearer that backflow prevention is important

Page 12. Item 33. Is it possible to have the NOI due 30 April 2011? It will be easier for people to track due dates if they are at the end of a month.

Page 13. 42: Suggest having a transfer of owner/operator form so only one document needs to be complete to get Regional Board records updated. Region Board 5 does have a form from which to pull essential information.
http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/complying_with_general_order/dairy_forms/owner_operator_transfer.pdf

Page 14 line 46. Suggest rewording part of the second sentence from “including such soil within the retention ponds, is to be disposed of appropriately” to “managed appropriately”. Disposal of soil may not be necessary.

Notice of Intent

This form is a bit restrictive if there are multiple owners or operators. Page 5 of Form 200 (see link) will more succinctly replace Section I, Section II A, and Section III of the current Notice of Intent.

http://www.waterboards.ca.gov/santaana/publications_forms/docs/form200.pdf It will be important to identify in a footnote to attach additional sheets if needed.

Section II B and C.

Remove ‘mature’

Replace cows with cattle in “Current# of other dairy *cattle*” and “Maximum# other dairy cattle current facility can handle”

Section IV (should this be watershed?)

Insert two options in section for dairy to check

If yes, ____ the dairy will participate in group surface water monitoring

Or, ____ the dairy will conduct individual surface water monitoring.

Section V. B.

Box 2 replace “are” with “will be”

Box 3 simplify sentence to read “All non-manure wastes will be contained and managed in accordance with the Waiver”

Insert a box so facilities certified in CDQAP have a box to check.

Section V B. Reword sentence to “The monitoring and reporting program will be implemented”

Monitoring and Reporting Program

Page 1. I. Monitoring. Delete sentence two in first paragraph as the sampling results will not be used to assess movement of nutrients, sediment, bacteria, and salts from the dairy.

A. Visual Inspections. Insert a sentence after the second sentence to indicate visual inspections shall be conducted as long as conditions are safe for such inspections. There is language in NPDES inspection/reporting requirements to this effect.

Page 2. Top partial paragraph. Insert the words “resulting in a discharge” between “All adverse conditions” and “found during these inspections”

Page 2. 1. Production Area:

The word “daily” is repeated in the first line – delete one of them.

Page 2. 2. Holding Pond Freeboard:

Suggest rewording first sentence. The Discharger(s) shall measure the freeboard weekly in each holding pond or liquid containment structure. [Note: there are many ways to measure depth and mandating a depth marker is not necessary].

What’s the objective of identifying the freeboard value in this item? Modify last sentence to reflect that the amount of space needed to hold and contain rain water from a 25 year, 24 hour storm event will vary from facility to facility and that to maintain structural integrity an additional two feet of freeboard are needed in partially or completely above ground and one foot is needed for structures completely in ground.

The challenge herein is that the word freeboard is in essence being used to mean two different things. You use it to describe the vertical distance between the surface of the water and the lowest elevation of the surrounding berm. You also use it to describe the vertical distance in which water should NEVER be present.

Page 2. 4. Clarify that animal confinement areas are within the production area (not the pasture)

Page 3. Line 2 replace “waste ponds” with “manure containment structures”. Search document for use of term waste ponds and replace where appropriate with holding pond and/or manure containment structures.

B. 1. Surface water sampling. Clarify if these surface watercourses are in or adjacent to the production area or the entire facility.

Paragraph 2 – “reported in” the Annual Report - add “or submitted with”.

Paragraph 3 It is unclear why temperature and pH are being required for all surface water samples. If surface water is impaired by runoff from a dairy then EC and/or ammonia will be elevated. EC is a simple test that can be run on-farm. The ammonia testing can be done with a test strip to identify low concentrations (up to 6 ppm). Collection of additional data on pH and temperature are useful solely to determine if there is potential toxic concentrations of unionized ammonia present (pH and temperature used to look up concentration based on total ammonia concentration). At the time a discharge is occurring, or during a normal (non-discharging storm event) time will be better spent engaged in management and not in conducting temperature and pH analyses of samples as these analyses must be done immediately (they have no official hold time). It may be more reasonable to restrict the pH and temperature samples to those obtained through group monitoring and not require it of operators conducting individual farm samples. Stipulate the justification for 3 EC readings taken 3 minutes apart.

Clarify that the field test kit can be colorimetric (identify on Page 5, item g).

Page 4. 2. Groundwater well sampling. The table provided by the Regional Board staff indicates depth of well is needed for all three General Orders. Removing the wellhead to obtain depth measurement may cause significant damage resulting in added expense.

Recommend reducing the number of groundwater samples from 4 to 2 in the first two years. Allow operators to determine when to sample to minimize potential running/wasting of water just to obtain a sample for compliance purposes. It would be nice to accept a negative result from the milk inspector when sampling occurs within the needed time frame in lieu of a fecal coliform analysis.

Page 4. 3. Rename section as Sampling Protocol. Regional Board may choose to include sampling protocols created by CDQAP or at least include approved by the Regional Water Board to allow for sample protocol development. Please include laboratory analyses methods identified in California Analytical Methods Manual For Dairy General Order Compliance – Nutrient Management Plan Constituents http://anlab.ucdavis.edu/docs/uc_analytical_methods.pdf.

Page 5. F. replace noncompliance with exceedence. Will staff make available Basin Plan water quality objectives or other public health standards so a discharge is able to determine if an exceedence occurs?

Page 6. Section 5. last line “data is valid” should be “data are valid” Data are plural. Datum is singular.

II. Reporting. A. Documentation and Annual Report

Clarify if only new pollution prevention measures need to be documented with photos or if previous and new measures should be documented. Provide brief explanation to identify objective of pond photos---to verify sufficient storage capacity is present prior to the rainy season. Potentially reword to say “Photos of other newly implemented pollution prevention measures may also...”

Identify the reporting period (November 1 to October 31)

Add a #4. – Explain that the annual report form is provided as Appendix 3

The objective of part of the annual report is to provide updates on new management practices (photos or narrative) as well as documentation of good management practices (pond).

Page 8. III. B. Water Quality Plan (WQP):

Our recommendation on timeline for submission of the Water Quality Plan is to separate out Section I from Sections II (Water Quality Requirements) and Section III (Best Management Practices). The mapping requirements in Section I along with the calculations in A. 13-16 will likely take considerable time and information collection. Allow a phased in submission where Section I is possibly submitted by July 30 and Section II and III are submitted in lieu of the first year’s annual report or with a modified first year annual report.

Appendix 1. Water Quality Plan Where possible omit the actual lengthy verbiage from Porter Cologne. Use brief summaries to explain requirements.

Due Date: see recommendation on Page 8 of MRP III.B. regarding timeline for WQP development and submission.

1.A. 6: may want to include a question 7a has the facility downsized since 2006? Yes No. Questions 8 and 9 address CEQA should a facility owner want to increase number of animals from current population to utilized entire facility.

1.A. 9: Change “cows” to “cattle”

Page 3 A. 14. Units should be gallons, 1,000 of gallons or acre-inches

Page 3. B. Map 4. reword sentence to read “Manure ponds with perimeter outline of drainage area into pond.

15 suggest only inserting on map permanent fencing (not electric wires)

18: Remove septic systems as this waste stream is not covered under the GO

20: Duplicate of 2--remove.

Page 3. II. Water Quality Requirement---The CAF regulations are already provided in the Order. They do not need to be spelled out in each task.

Page 4. insert "in the production area" at the end of the second sentence.

B. use of retention ponds at top of table is inconsistent with terminology of holding pond or manure storage structure used elsewhere in the GO. Suggest also searching the document for retention ponds and modify terminology where appropriate.

Page 4. II. C. Manured Area Run-On/Exclusion

Replace paragraph with "State requirements mandate that all precipitation and surface drainage outside of the manure area(s), be diverted away from manured area unless it is fully retained.

Replace last sentence with "Please describe how your facility is designed and operated to divert run-on or run-off from manured areas or how it is managed to fully contain drainage.

Remove the (a)

Page 5. D. Design Storm (for Flood Protection)

Suggest inserting a paragraph between the first and second paragraph on page 5 to identify previous water events believed to be similar to a 20 year peak stream flow. "During the winter of ____, our Region received what is believed to be an equivalent amount of rainfall. Were the confinement and manure storage areas at your facility still functional? Yes No "

Relocate section under B. currently in E. Contingency Plan, page 6:

Appendix 3

Annual Report, C.: Material to be contained

Suggest changing term "Medical waste" to "Veterinary waste"

Page 7 H. Substitute "Discharges of process water" with "Land application of process water". Most individuals are unfamiliar with the term discharges and will not understand the dual use of the word for both legal and illegal activities.

Page 8 2. Insert words "of nutrients" between "minimize percolation" and "to groundwater".

Best Management Practices Section should be "III" not "II". It is unclear if the intent of this section is to summarize additional BMP not identified in answers to previous questions or if this sections is to be repetitive and requires relisting previously identified management practices. Suggest rewording last sentence in instructions "Please provide the following information for BMP not identified previously in this document which are used at your dairy."

Page 9. G. Provide a link to the California Aboveground Petroleum Storage Act so individuals have a place to look if they seek additional information.

Appendix 2: A. Second paragraph insert the word “Cooperative” (UC) Cooperative Extension Service. Request that the requirement for a specialist be restricted to the Nutrient Budget component and not the entire Nutrient Management Plan. The map section is already a requirement in the Water Quality Plan. It will be done prior to development of an NMP and does not require the expertise of a specialist.

Page 2. Paragraph 2. Substitute “Nutrient Budget” for “NMP” in first line. The Nutrient Budget shall be revised.... It is the budget where calculations are completed not the remainder of the plan.

- B. The second sentence implies there is a required timeline for development of the Nutrient Management Plan. Review sentence and identify if it is necessary. Otherwise, delete; (...interim first two years...).

Page 3 C. 4. and Page 4. C. 5. Address maps developed previously in the Water Quality Plan. It would be appropriate to identify these are potentially similar maps to minimize confusion that a completely separate set of maps is required.

Page 4. C. 8. Replace “,” with “.” After the words “preservation procedures” in the third line. Will the Regional Board maintain a list of laboratories. Is it important to identify the methods used by the laboratories?

Page 6. Nitrogen, Phosphorus, Potassium. The discussion of Nitrogen and Phosphorus and Potassium analysis (soil and water sampling) are far more detailed than a pasture based system will allow for actual quantification. In pasture systems, the quantity of forage harvested is not weighed as animals conduct the harvesting. Mouthfuls of feed are removed not bales. Hence, all calculations for pasture systems are estimates. Nitrogen application rates should be based on anticipated yields (quantity and nutrient content) as well as the availability of N. UC Specialists and Advisors met over a multi-year period in development of recommendations related to manure nutrient use. After numerous intensive discussions we agreed that measurements of soil nitrogen values were potentially useful in some situations, but had limited value across all farming systems (crops, rainfall, irrigation patterns). Nitrogen availability and management are important and as such play key roles in any nutrient budget.

Suggested replacement language:

“Nitrogen application rates shall not result in total nitrogen applied to the land application areas exceeding the N application rate in each location as recommended by University of California Cooperative Extension (UCCE), USDA Natural Resources Conservation Service, other local information, or 1.4 times anticipated N removal in forage. If application of total nitrogen to a land application area exceeds the budgeted application rate for the specific land application area, the Discharger shall either revise the Nutrient Budget to prevent such exceedence in the future or demonstrate and record that the application rates have not contaminated surface or ground water.

Applications of nitrogen exceeding the initial recommendations are allowable if the following conditions are met:

1. Soil Plant Available Nitrogen (PAN) testing or plant tissue testing has been conducted and indicates that additional nitrogen is required to obtain crop yield estimates typical for the soils and other local conditions;
2. The amount of additional nitrogen applied is based on the soil or tissue testing results and is consistent with UCCE or NRCS guidelines or written recommendations from a Nutrient Management Specialist or Certified Crop Adviser.
3. The form, timing, and method of application facilitates timely nitrogen availability to the crop; and
4. Records are maintained documenting the need for additional applications.”

Phosphorus and Potassium. Suggest removing first three sentences as they are unnecessary. Begin section with “Application of these nutrients....

Page 7. First paragraph. Remove sentence “Discharger shall apply nutrient materials uniformly to land or as prescribed by precision agricultural techniques described in the NMP.”

Page 7. 1. Paragraph 2. Anticipate questions related to documentation needed for an 'alternative conservation practice or field-specific condition is demonstrated to provide pollutant reductions equivalent to or better than achieved by the 100-foot setback.

Page 8. 2. Note: The Department of Food and Agriculture has a 50' setback from animal confinement areas and wellheads.

F. Paragraph 2. Soil sampling should be analyzed for available phosphorus. Remove "detailed in the MRP."

Page 9. G. Delete the sentence "The analytical results for those samples shall be used by the Discharger to assess the movement of nitrogen and phosphorus from each land application area.

Appendix 3

Annual Report Page 1. Consider modification of or addition to question 1 and 2. If a WMP or NMP were prepared previously then the appropriate questions relate to potential changes in these plans.

A.Are there surface waters within the confinement area? Yes No .
If no, skip to B.

Page 2. C. Dead animals don't fit well into a question about retaining process water and run-off/run-on.

Replace "Medical" with "Veterinary". Hazardous wastes cannot be disposed of in manure. It should not be listed.

D) Much of this was provided in the Water Quality Plan. Potential opportunity to remove most/all of section.

F) Identify each of the required surface and ground water quality sampling so there are no misunderstanding regarding submission requirements.

G) Much of this section is redundant with what was provided in the Water Quality Plan. Potential opportunity to remove most/all of section.

Annual Report, page 5: Remove first two questions as there is no requirement in the General Order to conduct permeability testing. The annual report should provide necessary information to document compliance with requirements of the Monitoring and Reporting program.

Attachment B

Replace "Catagorial" with "Conditional" in title of document.

Attachment C

Page 2, line 7 under Design Volume: Needs a semicolon after "volume of solids"

Page 10. Wetland: Add "For purposes of this Order, vernal pools are not considered wetlands."