

## Response to Comments

### **Regulatory Program for Waste Discharges from Dairies and Concentrated Animal Feeding Operations in the North Coast Region: Order No. R1-2012-0001, General NPDES No. CAG011001; General Waste Discharge Requirements Order No. R1-2012-0002, Conditional Waiver of Waste Discharge Requirements Order No. R1-2012-0003**

Seven comment letters were received during the public comment period regarding the draft Orders of the proposed Dairy Regulatory Program, as follows:

- A. University of California School of Agriculture and Natural Resources at Davis, December 5, 2011 letter from: Deanne Meyer, Ph.D., Livestock Waste Management Specialist, UC Davis; David Lewis, Natural Resources Advisor, County Director; Stephanie Larson-Praplap, Ph.D., Livestock and Range Management Advisor, County Director; John Harper, Livestock and Natural Resources Advisor, County Director; and Yana Yalachovic, Forestry Advisor and County Director Humboldt-Del Norte Counties
- B. Western United Dairymen, December 5, 2011 letter signed by Paul E. Martin, Director of Environmental Services
- C. SHN Engineers & Geologists, Inc., December 5, 2011 email from Cindy Wilcox, Geologist/Certified Professional Soil Scientist
- D. Humboldt Worm and Tea, December 5, 2011 email from Andrew Jolin, President
- E. Humboldt County Farm Bureau, December 1, 2011 letter signed by John Vevoda, President
- F. Sotoyome Resource Conservation District, December 5, 2011 letter signed by Kara Heckert, Executive Director
- G. USDA-Natural Resources Conservation Service, Del Norte Local Partnership Office, December 6, 2011 email from Andrea Souther

This document provides Regional Water Board staff responses to these comments, some of which have been summarized or paraphrased for clarity. The responses indicate whether or not changes were made to the draft Orders in response to the comment. Note that the comments and responses are organized by the letter order itemized above.

#### **A. UC DAVIS SCHOOL OF AGRICULTURE AND NATURAL RESOURCES**

**Comment 1:** 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.

Response: There are multiple components to this comment, each of which are included in subsequent comments and responses. The comments generally refer to the Waiver, but apply also to the GWDR in some cases; therefore, staff's responses indicate the applicable sections in the GWDR that have been revised, where applicable.

### **Conditional Waiver of Waste Discharge Requirements**

**Comment 2:** Page 5. [Finding] 28 last sentence: Suggest approval of the group monitoring plan be done by EO instead of the Board.

Response: Agreed. See revised finding 28.

**Comment 3:** 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.

Response: Agreed. See revised finding 29.

**Comment 4:** Define the reporting period.

Response: See revised finding 29.

**Comment 5:** Page 8. [Condition] 2. line 3: site restriction(s)

Response: Agreed; condition 2 has been revised.

**Comment 6:** Page 10. 14. Line 1: request(s);

Response: Agreed; condition 14 has been revised.

**Comment 7:** Modify NOT for Timber Harvest to fit dairy and have available online and at classes when the NOI is completed.

Response: Agreed, Notice of Termination (NOT) form will be posted on the Regional Water Board's dairy program web page and provided at California Dairy Quality Assurance Program classes.

**Comment 8:** 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.

Response: Agreed. See revised Prohibitions 26 and 27.

**Comment 9:** 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.

Response: Agreed; the NOI due date has been changed to April 30, 2012.

**Comment 10:** 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](http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/complying_with_general_order/dairy_forms/owner_operator_transfer.pdf)

Response: Staff will post a Notice of Termination on the Regional Water Board's dairy program web page. Any new dairy owners will need to submit a NOI, associated plans, and Annual Reports as discussed in the Waiver and GWDR. No changes to the Orders were made in response to this comment.

**Comment 11:** 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.

Response: Agreed; condition 46 has been revised.

## Notice of Intent

**Comment 12:** 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](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.

Response: Agreed; the NOI form has been revised.

**Comment 13:** 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"

Response: This section of the NOI has been revised.

**Comment 14:** 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.

Response: The recommended text has been added to the revised NOI.

**Comment 15:** Section V. B. Box 2 replaces “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.

Response: Agreed, the text has been revised as recommended.

**Comment 16:** Section V B. Reword sentence to “The monitoring and reporting program will be implemented”

Response: Agreed. See revised NOI.

### **Monitoring and Reporting Program (MRP)**

**Comment 17:** 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.

Response: The second sentence in the first paragraph has been modified and the text regarding visual inspections has been changed consistent with the comment.

**Comment 18:** 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.

Response: The text regarding freeboard has been revised in the MRP.

**Comment 19:** Page 2. 4. Clarify that animal confinement areas are within the production area (not the pasture)

Response: The text has been revised as recommended.

**Comment 20:** 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.

Response: The text has been revised.

**Comment 21:** B. 1. Surface water sampling. Clarify if these surface watercourses are in or adjacent to the production area or the entire facility.

Response: Agreed. MRP Section B.1 has been changed to clarify sampling point locations.

**Comment 22:** Paragraph 2 – “reported in” the Annual Report - add “or submitted with”.

Response: The text has been revised as recommended.

**Comment 23:** 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.

Response: The sampling program, including EC, ammonia, temperature, and pH measurements, is designed to measure toxicity in the case of a spill. Assessment of these parameters is required for both individual dairy facilities and group monitoring efforts. The collection of EC readings 3 minutes apart is necessary due to site variability. No changes were made in response to this comment.

**Comment 24:** Clarify that the field test kit can be colorimetric (identify on Page 5, item g).

Response: A colorimetric field test kit may be used to test for ammonia. This information has been added to the MRP.

**Comment 25:** 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.

Response: Agreed. The table distributed at previous meetings are not part of the draft Orders. Well depth was previously considered but is not in the current version of the Order.

**Comment 26:** 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.

Response: Samples must be taken both in spring and fall to show differences in parameter (Nitrate and fecal coliform) results based on fluctuating groundwater levels. Taking the samples 2 years in a row may not show a trend but may confirm the results. No changes were made in response to this comment.

**Comment 27:** 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.

Response: Agreed. The draft Order allows for alternative results, and additional language has been added to clarify that a negative result from the milk inspector can be submitted in lieu of additional fecal coliform analysis.

**Comment 28:** 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](http://anlab.ucdavis.edu/docs/uc_analytical_methods.pdf).

Response: Agreed. See additional text at 3. Sampling Protocol paragraph “h”.

**Comment 29:** Page 5. F. replaces noncompliance with exceedence.

Response: Agreed. See revised MRP, Section I.B.3.f.

**Comment 30:** Will staff make available Basin Plan water quality objectives or other public health standards so a discharger is able to determine if an exceedence occurs?

Response: The Basin Plan water quality objectives are sometimes modified; therefore the narrative and numeric objectives relevant to these Orders are not specified in the MRP. The water quality objectives are currently in Section 3 of the Basin Plan, which is posted on the Regional Water Board’s web page at: [http://www.waterboards.ca.gov/northcoast/water\\_issues/programs/basin\\_plan/basin\\_plan.shtml](http://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/basin_plan.shtml)

This link has been added to the MRP.

**Comment 31:** Page 6. Section 5. last line “data is valid” should be “data are valid” Data are plural. Datum is singular.

Response: Agreed. See revised text in Section 5.

**Comment 32:** 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...”

Response: Agreed. Photos are to be submitted for ponds only to document capacity and integrity, and to document new pollution prevention measures that have been instituted that year. See revised MRP and revised Annual Report.

**Comment 33:** Identify the reporting period (November 1 to October 31)

Response: Agreed. See revised MRP and Annual Report.

**Comment 34:** Add a # 4. – Explain that the annual report form is provided as Appendix 3.

Response: The Annual Report is cited as Appendix 3 of the MRP.

**Comment 35:** 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).

Response: The objectives of the Annual Report have been stated, incorporating this comment.

**Comment 36:** 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.

Response: See revised MRP section III. Summary of Required Reports and Notices. The due date for the WQP has been revised to November 30, 2012. Because of consistency with the reporting requirements of the WQP and the Annual Report, the first Annual Report will be due November 30, 2013. Sampling must begin in fall 2012.

## **Appendix 1. Water Quality Plan (WQP)**

**Comment 37:** Where possible omit the actual lengthy verbiage from Porter Cologne. Use brief summaries to explain requirements.

Response: The legal language needs to remain in the document for completeness and enforceability. No changes were made in response to this comment.

**Comment 38:** Due Date: see recommendation on Page 8 of MRP III.B. regarding timeline for WQP development and submission.

Response: See revised due dates in MRP Section III.B., and the Water Quality Plan page 1, as well as response to Comment 36.

**Comment 39:** 1.A. 6: may want to include a question 7a has the facility downsized since 2006? Yes No.

Response: Comment noted; no changes were made in response to this comment.

**Comment 40:** Questions 8 and 9 address CEQA should a facility owner want to increase number of animals from current population to utilized entire facility.

Response: See modified Waiver findings 1, 31, and 33.

**Comment 41:** 1.A. 9: Change “cows” to “cattle.”

Response: Agreed. See revised WQP 1.A.9.

**Comment 42:** Page 3 A. 14. Units should be gallons, 1,000 of gallons or acre-inches.

Response: Agreed. See revised WQP A.14.

**Comment 43:** Page 3. B. Map 4. reword sentence to read “Manure ponds with perimeter outline of drainage area into pond.

Response: Agreed. See revised WQP B. Map 4.

**Comment 44:** 15 suggest only inserting on map permanent fencing (not electric wires).

Response: Agreed. See revised WQP I.B.15. adding “permanent” fences.

**Comment 45:** 18: Remove septic systems as this waste stream is not covered under the GO [General Order]

Response: The purpose of mapping the septic system is to consider its location when reviewing and comparing groundwater well sampling results with other wells on the property. No changes were made in response to this comment.

**Comment 46:** 20: Duplicate of 2--remove.

Response: Agreed. See revised WQP I.B.

**Comment 47:** 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.

Response: The legal language will remain in the WQP for completeness and enforceability. No changes were made in response to this comment.

**Comment 48:** Page 4. insert “in the production area” at the end of the second sentence.

Response: Surface and ground water quality must be protected throughout the facility, including pastures and in the production areas. However, section II.A addresses Title 27 production area compliance, so the text was modified, as suggested. Section III. B. addresses stream protection measures at crossings throughout the facility.

**Comment 49:** 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 [General Order]. Suggest also searching the document for retention ponds and modify terminology where appropriate.

Response: Text in the Orders has been revised to include consistent terminology to describe ponds that hold liquid and solid manure.

**Comment 50:** 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.

Response: The legal language needs to remain in the document for completeness and enforceability, though references in the quotation have been updated. The text in section II. C. was modified to incorporate the suggested language.

**Comment 51:** Remove the (a)

Response: Agreed. See revised WQP (a).

**Comment 52:** 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 “

Response: Although there may have been a 20 year peak stream flow event in late December 1996 through early January 1997 in many areas of our region, flood information is specific for each area. The dischargers must rely directly on published

Federal and State information such as through FEMA, NOAA, USGS, and State of California DWR. No changes were made in response to this comment.

**Comment 53:** Relocate section under B. currently in E. Contingency Plan, page 6.

Response: Agreed. See WQP section revisions B and E.

### **Appendix 3. Annual Report**

**Comment 54:** C. Material to be contained. Suggest changing term “Medical waste” to “Veterinary waste”

Response: Agreed. See Annual Report Section C.

### **Appendix 1. WQP (in order of public comment)**

**Comment 55:** 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.

Response: Agreed. See revised WQP, H.

**Comment 56:** Page 8 2. Insert words “of nutrients” between “minimize percolation” and “to groundwater”.

Response: See revised WQP, H.2.

**Comment 57:** 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.”

Response: WQP, III. Best Management Practices text was modified as suggested.

**Comment 58:** 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.

Response: See revised WQP, G., with added link:  
<http://www.calepa.ca.gov/cupa/aboveground/>

## Appendix 2: Nutrient Management Plan

**Comment 59:** 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.

Response: The requirements associated with assistance from a specialist has been modified in NMP page 1 paragraph 2.

**Comment 60:** 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.

Response: The text in page 2 paragraph 2 has been revised to acknowledge that the nutrient budget component of the NMP shall be revised.

**Comment 61:** Page 2. Paragraph 2. 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...).

Response: The text in NMP page 2. B has been revised.

**Comment 62:** 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.

Response: Agreed. See revised NMP pages 3 and 4, Sections C.4. and C.5.

**Comment 63:** 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?

Response: Regional Water Board staff can consult with Discharges about certified analytical laboratories. Section C. 8 has been revised with guidance regarding analytical methods.

**Comment 64:** 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.

Response: Regional Water Board staff agrees with these comments; section D. 4 of the NMP has been revised accordingly.

**Comment 65:** Phosphorus and Potassium. Suggest removing first three sentences as they are unnecessary. Begin section with “Application of these nutrients....”

Response: Regional Water Board staff agrees and these sentences have been deleted.

**Comment 66:** 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.”

Response: The referenced sentence has been deleted, and a new sentence has been added. See revised section E.

**Comment 67:** 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.

Response: Regional Water Board staff agrees that a variety of alternatives may be effective and these alternatives must be described in the NMP in a manner sufficient to assess their effectiveness.

**Comment 68:** Page 8. 2. Note: The Department of Food and Agriculture has a 50' setback from animal confinement areas and wellheads.

Response: Comment noted.

**Comment 69:** F. Paragraph 2. Soil sampling should be analyzed for available phosphorus. Remove "detailed in the MRP."

Response: The text in paragraph 2 of section F has been revised as suggested.

**Comment 70:** 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."

Response: This sentence has been modified to "The analytical results for those samples shall be used by the Discharger to assess water quality conditions and to inform management practices"

### Appendix 3. Annual Report

**Comment 71:** 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.

Response: Questions 1 and 2 have been modified to account for changes to WQP and NMP.

**Comment 72:** Page 2. C. Dead animals don't fit well into a question about retaining process water and run-off/run-on.

Response: Agreed, question related to dead animals has been deleted from section C.

**Comment 73:** Replace "Medical" with "Veterinary". Hazardous wastes cannot be disposed of in manure. It should not be listed.

Response: Agreed; changed to "veterinary waste".

**Comment 74:** D) Much of this was provided in the Water Quality Plan. Potential opportunity to remove most/all of section.

Response: It is necessary in the Annual Report that the facility confirms that they have met the water quality protection requirements over the past year. No changes were made in response to this comment.

**Comment 75:** F) Identify each of the required surface and ground water quality sampling so there are no misunderstanding regarding submission requirements.

Response: Agreed; section F has been revised to incorporate the surface and ground water quality sampling requirements.

**Comment 76:** G) Much of this section is redundant with what was provided in the Water Quality Plan. Potential opportunity to remove most/all of section.

Response: The Annual Report includes the information needed to assess compliance with the Waiver and/or GWDR. An introductory sentence was added to clarify that section G addresses management measures not previously described in the Annual Report. Some questions within section G were deleted to avoid redundancy.

**Comment 77:** 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.

Response: Agreed. See revised Annual Report, Section G.

### **Attachment B, Title 27**

**Comment 78:** Replace “Categorical” with “Conditional” in title of document.

Response: Agreed. See revised Title of Attachment B.

### **Attachment C, Definitions**

**Comment 79:** Page 2, line 7 under Design Volume: Needs a semicolon after “volume of solids”

Response: Agreed. See revised Definitions.

**Comment 80:** Page 10. Wetland: Add “For purposes of this Order, vernal pools are not considered wetlands.”

Response: Vernal pools are considered to be waters of the State and are therefore considered seasonal wetlands. Staff used the U.S. EPA definition of wetlands, which is found at: <http://water.epa.gov/type/wetlands/index.cfm>

## **B. WESTERN UNITED DAIRYMEN**

**Comment 1:** Appendix 2, D. Nutrient Budget Calculations, Page 6, Nitrogen: From the experience we have gained working with the Central Valley Regional Water Quality Control Board's dairy program we have found that it the task to be extremely complex and the results to be essentially inaccurate when there is an attempt to match nitrogen application to a specific ratio of plant uptake in a pasture situation. In a grazing system, as used by nearly all of the North Coast dairies, the pasture crop is harvested by the animals and therefore forage production is not available for measurement. In order to have a realistic nitrogen budgeting procedure the paragraph on Nitrogen needs to be more flexible. We have worked with UCCE and NRCS to craft some suggested language for you that we believe will resolve this issue, and suggest the following paragraph replace that on page 6.

Nitrogen: Nitrogen application rates shall not result in total nitrogen applied to the land application areas exceeding the N application rate in each geographic 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 it indicates that additional nitrogen is required to obtain a crop yield typical for the soils and other local conditions;
2. The amount of additional nitrogen applied is based on the soil or tissue testing and is consistent with UCCE or NRCS written guidelines or a written recommendations from an NMP specialist or certified crop advisor ;
3. The form, timing, and method of application facilitates timely nitrogen availability to the crop; and
4. Records are maintained documenting the need for the additional applications.

Response: Regional Water Board staff agrees with these comments; section D. 4 of the NMP has been revised accordingly.

**Comment 2:** Timeline: The timeline proposed in the draft Order is more aggressive than we believe is reasonably possible to accomplish. A great deal of workshop planning and preparation must take place in order to provide sound education and outreach. We also need to fit the workshops around typically critical busy times on the farms. We have discussed the chronology of implementation subsequent to the submission of the NOI, and we believe that the mapping requirements are critical to complete first, as the information gathered during the mapping process will be necessary for development of the Water Quality Plan and the Nutrient Management Plan. To assist us in preparing and implementing a quality education and outreach

program, we would like the board to consider a staged process with dates certain for each piece of the Order. We propose the following schedule:

- January 19, 2012 Adoption by Regional Board
- April 30, 2012 NOI submitted to Regional Board
- July 31, 2012 Maps completed, retained on-site for modification, but available to board staff
- November 30, 2012 Water Quality Plan and final maps completed and included in submission of the first Annual Report.

Additionally, we anticipate that certain improvements will be implemented following the assessments performed by Tetra Tech and post-adoption inspections by regional board staff members. This timeline will allow those improvements to be included in the Water Quality Plan and Annual Report, making both more current and relevant.

Response: The dates of the required submittals have been revised as suggested; however, all components of the WQP are due by November 30, 2012, including the maps.

### **C. SHN ENGINEERS & GEOLOGISTS, INC.**

**Comment 1:** Regarding the Conditional Waiver of WDR Order No. 2012-0003 Appendix 1 (Water Quality Requirements) Sections B & D: There is no published data for 20 and 25-year storm data and peak stream flow for this area. There should be available data through the Regional Water Board or another agency for dairy operators to comply with this data requirement

Response: Although there may have been a 20 year peak stream flow event in late December 1996 through early January 1997 in many areas of our region, flood information is specific for each area. The dischargers must rely directly on published Federal and State information for their area such as through FEMA, NOAA, USGS, and State of California DWR.

**Comment 2:** Regarding the Conditional Waiver of WDR Order No. 2012-0003 Monitoring and Reporting Program Section II A 1: Please define the purpose of cleaning the ponds. Hiring an excavator to clean out the last remaining sludge every year is much more costly than only pumping out the liquids to a certain percentage of holding capacity. If the purpose is only to regain storage area every year, then cleaning out the remaining sludge should be required at a longer duration, especially since some dairy producers use a separator to keep the majority of solids off the bottom. Perhaps cleaning out the bottom sludge should only be mandated when a certain percentage of the pond's holding capacity is diminished, and only the draining of the liquids an annual event.

Response: The text in section II. A. 1 has been revised.

**Comment 3:** Regarding the Conditional Waiver of WDR Order No. 2012-0003 Appendix 2 Nutrient Management Plan (NMP) Section A: It states that the NMP must be

developed by the Dischargers with the assistance of certain specialists such as a Soil Scientist, Agronomist, and Crop Specialist. Would you define the qualifications for these titles? There should be a degree associated with these titles, or should state to be a Certified Professional Soils Scientist, Certified Professional Agronomist, or Certified Professional Crop Specialist. This section also mentions that a Technical Service Provider be employed at the Natural Resources Conservation Service (NRCS). Since the NRCS is training professionals from the private sector to be a TSP, I petition that this be restated to allow NRCS trained and certified TSPs be eligible to assist in the NMP in all sections of the Orders No. 2012-0001, 2012-0002, and 2012-0003.

Response: The requirements associated with assistance from a specialist have been modified in NMP page 1 paragraph 2.

#### **D. HUMBOLDT COUNTY FARM BUREAU**

##### **General comments**

**Comment 1:** Our first observation deals with the rather unique operational methods of North Coast Dairy facilities, which are based on substantially less intense operations than other portions of the state. Your proposals should be developed with considerations of the North Coast management styles, herd configuration, and herd size as primary factors

We also believe that your goals can be met with a program that includes reporting requirements that can be completed by the operators themselves rather than a regimen that forces each operator to hire a professional consultant to attain compliance. The operators are clearly the most knowledgeable parties regarding their operations, and we urge your staff to develop a program that allows first party reporting without the need for expensive consultants.

While we respect your relatively singular focus on water quality improvement, and share many of your goals, the on-the-ground reality is that many of these operations are only marginally profitable given the current economic environment. Any aspects of your program development that minimize the effects of the reporting requirements would assist our members in becoming true partners in this endeavor.

Finally, our members have worked for almost a century in a cooperative manner and spirit to ensure the continued safe and effective style of operations that can pass from generation to generation without harm to the surrounding communities, and we urge you to consider any aspect of possible group reporting that will minimize the practical and monetary effects of these new requirements.

Response: Staff developed the North Coast dairy and CAFO regulatory program with important input from the dairy industry and individual operators, and will continue in a partnership with the industry as we administer the program. We fully recognize that, particularly in comparison with dairy operations in other dairy regions, the North Coast dairies are almost exclusively family-run operations and support much lower average head of dairy cattle. Staff agrees that monitoring and

reporting requirements can be completed by the dairy operators, and do not necessarily require the services of consultants (with the exception of the requirement for assistance from specialists in the development of certain components of the Nutrient Management Plan and Waste Management Plan). Every effort has been made to keep the costs associated with the permits to be reasonable and fair. However, fees are set by the State Board so we have little say in potential future fee increases.

### **Specific comments**

Conditional Waiver of Waste Discharge Requirements, Order # R1-2-12-0003 for Existing Cow Dairies in the North Coast Region

**Comment 2:** Page 2 item #12: “This order applies to dairies that pose a low or insignificant risk to surface water or to ground water.” Who will determine if a dairy poses a low or insignificant risk and how is the determination made? When will this determination be made and how will future changes be addressed?

Response: The determination of risk is made by the facility operator, as they self-certify which permit they believe they should apply for. Inspections made by Regional Water Board staff may reveal that the dairy more properly belongs under a different regulatory mechanism (e.g. GWDR), based on such risk factors as proximity to surface water, depth to groundwater, history of monitoring data that indicates an impact, poor housekeeping practices, improper management practices, including undersized ponds and land application rates, and the like.

**Comment 3:** Page 7 Last Paragraph;

“Expansion is defined as not more than 15% of the maximum number of mature dairy cows declared in the NOI” There should be a simple process for operators who increase their animal capacity either by innovative management practices or acquisition of additional property (purchased or leased) where they can amend their plan to accommodate operational growth in the future.

Response: The text referencing “negligible expansion” has been modified. As redrafted, the Orders cover existing dairy facilities in the North Coast Region that involve no expansion of their physical facilities from the date of the adoption of the Orders. Physical facilities include the roofed structures, such as stall barns, that limit the size of the dairy cow herd. See Definitions (Waiver Attachment C), as well as modified CEQA finds 31, 32, 33 and 34.

**Comment 4:** Page 6 item #29

Additional regulations and reporting will be a burden to each individual landowner. In Humboldt County we have a history of working together to develop programs for the dairies as a group to relieve some of the paperwork of the individuals. Would it be possible to form a “Producer Group” to be responsible for some of this redundant information and reporting the water testing? We believe that it would be important for

the Water Board to designate staff personnel to develop a program to assist the group of landowners and make this task much easier.

Response: The Waiver Order and the General WDRs allows, and encourages, groups of dairy operators to cooperate on a group monitoring effort. Staff is ready to assist the formation and operation of such groups.

**Comment 5:** Page 12, item #33

"If the dairy operation meets the conditions of this Order, then the Discharger may apply for coverage by submitting a completed Notice of Intent (NOI)" If the discharger does not meet the conditions that they apply for, how and who will determine this? If the discharger applies for the Waiver and found ineligible, are their penalties?

Response: As stated in the response to comment 5 above, Regional Water Board staff may determine, typically following an inspection, that a dairy facility that has self-certified and applied for coverage under the Conditional Waiver does not meet the conditions of the Waiver and poses a risk to water quality. Under these circumstances, the Regional Water Board will require the Discharger to apply for coverage under another permit. If the Discharger works with Regional Water Board staff in these circumstances, we do not anticipate administering penalties; however, the NPDES and GWDR permits are more expensive and have more monitoring and reporting requirements.

**Comment 6:** Page 12, item #34

"No fees are currently required to apply for this Order."

This states No Fees, however the GWDR Fee Schedule on page 9 footnote 2 says "facilities that pose no potential to discharge, as determined by Regional Board shall pay a \$357.00." Will this charge be waived?

Response: No fees are currently proposed for the Waiver.

**Comment 7:** Page 12, item 35. The list of compliance and terms do not address external pressures and unexpected problems for dairy operators. Will there be some flexibility of time for producers to complete their improvement projects to comply with the Waiver?

Response: The Waiver is for dairies with low risk to water quality. This includes meeting Title 27 requirements. Dairies with a high risk of discharge are required to enroll under the GWDR until the risk of discharge is lowered and the dairy meets the requirements and conditions in the Waiver.

General Waste Discharge Requirement Monitoring and Reporting Program Order No R1-2012-0002 for Existing Cow Dairies Region Wide

**Comment 8:** Page 3 – Item 1 Surface Water Sampling. "Sampling shall take place during or directly following each of three major storms events and one inch or more per 24 hours, during the rainy season, beginning in the winter of 2012/2013. Sampling events shall be at least one month apart."

In Humboldt County, our dairy pastures are shared with the Aleutian Goose population in January, February, March and April of each year. The U S Fish and Wildlife service in Eureka reports that the Aleutian Goose population has grown from 30,000 birds in 2001 to over 111,000 birds in 2011. The growing number of large mature geese staging for three months in Humboldt County will affect the water quality samples taken by landowners during that time. How has this information been addressed in Surface Water Sampling?

Response: The water quality conditions of a sample of water at a given location are a reflection of multiple factors, including ambient conditions, natural and potentially human-influenced sources, etc. Therefore, samples collected at a dairy facility may contain contaminants that are not from the dairy. Regional Water Board staff will review sampling results. If discharge from the dairy is suspected, then a staff inspection may be performed to investigate potential discharge sources.

**Comment 9:** Appendix 2, Nutrient Management Plan (NMP). Page 2 item B; This section states “the interim first two years prior to full NMP implementation” but the MRP refers to NMP “must be prepared and implemented at the time of Waiver Enrollment” Which is correct?

Response: The required timeframe for dairy facilities covered under the GWDR to complete the Nutrient Management Plan has been modified from within two years to within one year of Order adoption. Development and implementation of a Nutrient Management Plan is encouraged and recommended, but not required, for dairy facilities covered under the Waiver. However, large CAFOs that qualify for Waiver coverage must implement a Nutrient Management Plan upon enrollment (see Waiver condition 5).

### **Attachment C. Definitions**

**Comment 10:** Mature Dairy Cow: This term is not consistent with any industry standards. The term “Mature” usually means a very old cow or what is referred to as a Cull Cow. You may want to select a different name for an animal which has produced at least one calf or has lactated. It would be better to call the Cows which have produced at least one calf a COW – and the other animals will be called Calves or Heifers. It would be very rare to find a group of older cows who have not caved. The Dairy Business depends on animals that have calves in order to produce milk for their income.

Response: See revised Definition of mature dairy cow.

**Comment 11:** Wetlands: A definition of “Wetlands” for this purpose is very critical to this waiver. The definition of “generally include swamps, marshes, bogs and similar areas” will be unacceptable to our landowners. Humboldt County receives between 40” of rainfall in the driest areas and in excess of 100” of rainfall in the zones of heavy participation according to the Humboldt County Web Site on Demographics. In Humboldt County during the rainy season every field can be called a bog or marsh.

This is our normal conditions and expecting something different will further frustrate producers who are trying to improve their water quality conditions and attempting to meet acceptable standards. This will lead to additional reports and endless reviews for something that is natural in Humboldt County.

Response: The U.S. EPA definition of wetlands was used as found at:

<http://water.epa.gov/type/wetlands/index.cfm>

It is recognized that dairy pastureland is frequently flooded in the North Coast Region. The Dairy Program permits were written carefully to protect water quality, while allowing existing dairies to operate. Best management practices are required, per the conditions of the Orders, to avoid waste discharges to surface waters and groundwaters.

**Comment 12: Water Testing:** Has any attempt been made to determine the cost of performing water testing for the individual dairies? Will there be incentives for landowners to work as a group for water testing?

Response: The Waiver GWDR Orders allow, and encourage, groups of dairy operators to cooperate on a group monitoring effort. Staff is ready to assist the formation and operation of such groups.

## **E. HUMBOLDT WORM AND TEA**

**Comment 1:** I understand today is the last day of the public comment period for the Conditional Waiver of Waste Discharge Requirements Order No. R1-2012-0003. One efficient way of keeping cow dairy effluence out of streams, and to not over apply nutrients to soils is to compost and vermicompost the manure. I have been working with dairies in Humboldt County for 16 years to make worm castings from their manure through vermicomposting. This low impact method binds nitrogen in the worm castings, which can then be used as a slow release soil supplement. We have already demonstrated pathogen reduction in dairy manure through vermicomposting with the UC Cooperative Extension, and hope to do another pilot with the UC Cooperative Extension early next year that demonstrates our ability to bind nitrogen in worm castings, and hope this demonstration proves that vermicomposting is a good option for dairies to meet your new nutrient management rules.

Response: Comment noted.

## **F. SOTOYOME RESOURCE CONSERVATION DISTRICT**

**Comment 1:** Orders No. RI-2012-0002 and -0003, Attachment C Definitions Nutrient Management Plan definition is inconsistent with Appendix 2, Nutrient Management Plan. Definition indicates that "NMPs must be prepared and signed by a specialist who is certified in developing nutrient management plans," while Appendix 2 states that NMPs must be developed with assistance of specialists, but does not

indicate that specialists are required to be certified. Due to the limited availability of professionals that are certified in nutrient management planning, and the abundance and diversity of local knowledge and professional resources, we suggest that the language in the definition is altered to be consistent with the language in Appendix 2.

Response: Agreed. See revised NMP and Definitions.

**Comment 2:** Orders No. RI-2012-0002 and -0003, Monitoring and Reporting Program Item IB1 - Language requires dairies that are not directly adjacent to waterways to take grab samples upstream and downstream of the areas closest to the property. This requirement may not be feasible for all producers, as access to the waterway in these locations may require passage through private property to which the producer may not have legal access.

Response: The text regarding sample locations has been revised in the MRP section I.B.1. Samples are only required from locations within the dairy property.

**Comment 3:** Item IB3(f) - "If sample results exceed Basin Plan water quality objectives or public health standards, the Discharger shall note the noncompliance in the Annual Report." Water samples that exceed water quality objectives of standards may not be indicative of permit noncompliance, but rather may be the result of contamination from other sources. Suggested change to language: "If sample results exceed Basin Plan water quality objectives or public health standards, the Discharger shall note the noncompliance exceedence in the Annual Report."

Response: The text of MRP I.B.3.f. has been revised.

## **G. USDA-NATURAL RESOURCES CONSERVATION SERVICE, DEL NORTE**

**Comment 1:** Regarding the Nutrient Management Plan Section "Land Application Practices": The application limits described in the first paragraph of this section cannot realistically be reached in Del Norte County. If implemented literally applications would be limited by soil moisture to June, July, August and September in some years. To meet such criteria a nutrient management plan and the associated storage requirements would over burden a dairy with storage volume requirements and reduce the fertilizer value of their manure. Their systems require application timing flexibility to make the efficient use of the nutrients. Existing water quality on the Smith River may be maintained with a less restrictive format.

Suggested Language: Use the reasonable soil application rate statement from page 6 of the Waiver Water Quality Plan OR use "The plan shall establish protocols to apply manure, litter and process water in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process water"

Response: The first paragraph of NMP section E. Land Application Practices has been modified to read: "Application of manure and process water to croplands shall

be at rates which are reasonable for the crop, soil, climate, special local situations, management systems, and type of manure.”

**Comment 2:** You may want to include the Basin Plan objectives as an attachment?

Response: See response to UCCE Comment 30 above.

### **CHANGES MADE BY REGIONAL WATER BOARD STAFF**

During the public comment period for these Orders, Regional Water Board staff identified changes that must be made to the Orders and supporting documents in order to add clarity, correct typographical errors, and to make language in the Orders, Monitoring and Reporting Program and Attachments consistent.