Buena Vista Coalition
California Farm Bureau Federation
East San Joaquin Water Quality Coalition
Kaweah Basin Water Quality Association
Kern River Watershed Coalition Authority
Kings River Water Quality Coalition
Sacramento Valley Water Quality Coalition
San Joaquin County/Delta Water Quality Coalition
Westside San Joaquin River Water Quality Coalition

November 6, 2014

Pamela Creedon, Executive Officer
Joe Karkoski, ILRP Program Manager
Central Valley Regional Water Quality Control Board
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Rancho Cordova, CA 95670-6114
c/o Keri.Yee@waterboards.ca.gov

SUBJECT: Comments on the Nitrogen Management Plan Template and submittal of a Revised Nitrogen Management Plan Template

Dear Ms. Creedon/Mr. Karkoski:

The above listed entities appreciate the opportunity to respond to the Notice of Public Comment Period for the Nitrogen Management Plan Template, issued on October 6, 2014. In response to your request for public comments on the Nitrogen Management Plan Template, we have combined our efforts to develop comments, and with these comments, propose an alternative to the Draft Nitrogen Management Plan (NMP) Template submitted by the East San Joaquin Water Quality Coalition (ESJWQC) and other agricultural stakeholders in April 2013 (hereafter referred to as the "Revised NMP Template"). Our Revised NMP Template is being put forward due to new information obtained and gained over the last year, since we originally submitted a template for consideration in April 2013. In light of our collective experiences in implementing this substantially new program for irrigated agriculture, we believe that the Revised NMP Template provided here requires growers to consider the most essential information for nitrogen management planning but does not overly burden growers with a cumbersome plan that is difficult to implement.

As a preliminary matter, the Revised NMP Template recognizes and accounts for the tremendous administrative undertaking it will be to distribute the template in the first instance, and then educate growers on how to efficiently and effectively utilize and complete the NMP template. Specifically, as compared to the previously submitted template, the Revised NMP Template provided here removes the need to provide information that is necessary to develop a ratio (i.e., amount of nitrogen supplied over the amount of nitrogen the crop needs). Our primary reason for removing this information is with

regard to the difficulty in determining nitrogen ratios for the diverse crops grown within the Central Valley. As we indicated previously, we have all gained a tremendous amount of knowledge over the last year, and have come to realize that it is not appropriate or possible to ask growers to provide this information at this time. Please be assured, the agricultural coalitions and other stakeholders associated with this letter are committed to designing an efficient approach for meeting the requirements in the various Irrigated Lands Regulatory Program Waste Discharge Requirement General Orders (General Orders). However, we recognize that to accomplish our mutual goals, the first step is to work with growers to develop an effective process for them to individually record and manage fertilizer application amounts. Additional scientific studies and outreach will need to occur before calculation of nitrogen ratios in individual nitrogen management plans is feasible. The removal of nitrogen ratio information from the NMP template as proposed here is consistent with the Agricultural Expert Panel's report as well as the California Department of Food and Agriculture Nitrogen Tracking and Reporting Task Force, both of which recognized the need to obtain different levels of information over a period of time.

With respect to the nitrogen ratio, and reporting requirements associated with the ratio for the agricultural coalitions, we expect to have further conversations with Regional Water Board staff on this issue over the coming year. However, as specifically stated in the October 6, 2014 notice, Regional Water Board staff are not soliciting comments on Nitrogen Summary Report requirements at this time. Accordingly, we collectively defer comments on the Nitrogen Summary Report until such time that it is appropriate.

Included with this communication is a description of the Revised NMP Template, the Revised NMP Template in Appendix I, and an example of a Nitrogen Application Schedule in Appendix II. Please note that the Example Nitrogen Application Schedule is *not* part of the Revised NMP Template, and we do not recommend that it become part of the template. It is being provided to you for informational purposes only, and is intended to be a guidance tool that can be provided to growers who may not currently schedule nitrogen applications. Further, it is not appropriate for the Nitrogen Application Schedule to become part of the template because it is not applicable to all crops.

- Appendix I: Revised NMP Template to be used for tracking and reporting nitrogen applications including instructions for completing the template;
- Appendix II: Example Nitrogen Application Schedule.

Description of Revised Nitrogen Management Plan Template

The Revised NMP Template includes many of the same fields as the April 2013 NMP Template with the exception of estimating a nitrogen ratio (reasons for doing so are provided above). While the form of the Revised NMP Template is relatively simple, the information supplied in the various fields leads growers to properly plan for nitrogen fertilizer applications. Essentially, growers subject to NMP requirements would be required to fill out the Revised NMP Template form to determine the planned amount of total nitrogen to be applied during the crop harvest year (including consideration of credits). We anticipate that the agricultural coalitions will provide growers the option of completing an excel worksheet, which will use formulas to calculate some of the values, or a filling in the information on a paper hard copy version to track the information. In using the Revised NMP Template, the grower would record the amount of nitrogen planned for application (as recommended by a person with appropriate certification in high vulnerability areas) versus the amount that is then actually applied for the crop year. It is important to recognize that the information recorded in the planned column of the Revised NMP Template is a recommendation. Due to many different factors (e.g., changes in weather, water supply, expected crop yield, etc.) that can occur after a recommendation is made, the actual amount applied may differ.

As part of completing the Revised NMP Template, growers in high vulnerability areas are expected work with a Certified Crop Advisor or similar certified nutrient expert (unless the grower him/herself is certified) to determine the appropriate timing of nitrogen applications in addition to considering soil and plant tissue testing, application rates, form of nitrogen fertilizer, and N concentrations in irrigation water. With respect to timing of application, and as indicated above, included for illustrative purposes only is an example of how a grower may choose to record the timing of their nitrogen applications. (See Appendix II.) Moreover, the Revised NMP Template is just that - a template. It is intended as guidance to assist growers in developing the nitrogen fertilizer portion of an overall crop nutrient plan. Per the requirements of the various agricultural orders for discharges from irrigated lands, the Revised NMP Template would be prepared annually by members, be updated as necessary and would be retained on the farm.

The following is a description of the data fields and sources of information for each. Each number corresponds to the number and field of the Revised NMP Template in Appendix I.

1. Crop Year, Harvested
    - Year a crop is harvested. For annual crops, the period of time from planting to harvest would be included into the plan. For perennial crops, the crop year can be considered dormancy through post-harvest (or other equivalent period). This is the period when the nitrogen applications are counted.

2. Member ID
    - Unique Coalition membership number.

3. Name
   - Name of the member or the name of the person employed by the member responsible for the nutrient management planning.

4. APN(s) and Field(s) ID
   - Assessor Parcel Number (APN) for reporting unit of worksheet and summary.
   - Field(s) numbers in the reporting unit covered by the worksheet. If fields can be designated by the grower and assigned to their respective parcels, future reporting may only need to be done by field.

5. Crop
   - Name of crop associated with the APN(s) and Field ID(s) for which the NMP is being filled out for.

6. Production Units
   - Many crops use different metrics for yields besides pounds (lbs). Identification of the production unit by the grower will avoid unnecessary conversions to a standardized lbs basis. Coalitions and the Regional Board could do further calculations based upon the identified production units, if necessary for further analysis.

7. Expected Yield
   - Identified by the grower based upon production history of the field(s) and forecast of available inputs and site conditions.

8. N Needed
   - An estimate by either the grower or consultant of the pounds per acre needed for the expected yield based upon production history and site conditions.

9. Acres
   - Total acres that the worksheet data applies to.

10. Planned N
   - The amount of nitrogen the grower plans to apply to the crop or would otherwise be available to the crop from the different potential sources.

11. Certification By
   - Location of signature, date, and the certification method used (self-certified by either trained grower; NRCS/UC site recommendation; nitrogen management plan specialist; or no certification necessary).

12. Actual N
   - The total amount of nitrogen applied, or otherwise available from using the various sources.

13. Actual Yield
   - Units/acre.

14. Notes

- Space for members or member consultant to add any notes to help them account for the conditions of the crop that may affect yield or nitrogen applications.

15. Organic Material N (manure, compost)

- Estimated available nitrogen contained in manure or compost applications, measured in pounds per acre.

16. Total N Applied

- Sum of nitrogen applied per acre in the reporting area.

We appreciate your consideration of the Revised NMP Template and look forward to working with Regional Water Board staff to resolve any issues of concern you may have with our proposed Revised NMP Template.

Sincerely,

Parry Klassen
Executive Director, East San Joaquin Water Quality Coalition

APPENDIX I: REVISED NMP TEMPLATE

Revised Nitrogen Management Plan Template

1. Crop Year, (Harvested):		4. APN(s):	Field(s) ID	
2. Member ID#				
3. Name:				

CROP NITROGEN MANAGEMENT PLANNING		N APPLICATIONS/CREDITS	10. Planned N	12. Actual N
5. Crop		**Nitrogen Fertilizers**		
6. Production Units		Dry & Liquid N (non foliar)		
7. Expected Yield (Units/Acre)		Foliar N fertilizers		
8. N Needed (lbs/acre)		Other N fertilizers		
9. Acres		15. Organic Material N		
Post Production Actuals		Available N in Manure (est)		
13. Actual Yield (Units/Acre)		Available N in Compost (est)		
Total N (lbs/acre)		**16. Total N Applied** (per acre)		
		Soil Nitrogen Credits (est)		
14. Notes:		Available N carryover in soil		
		N in irrigation water (annualized)		
		Total N Credits (lbs per acre)		
		Total N Available (Applications + Credits)		

11. CERTIFIED BY:	CERTIFICATION METHOD	X
	Self-Certified, approved training program attended	
	Self-Certified, UC or NRCS site recommendation	
DATE:	* Nitrogen Management Plan Specialist	
	Low Vulnerability Area, No Certification Needed	
	* As defined in the Instructions	

NITROGEN MANAGEMENT PLAN TEMPLATE INSTRUCTIONS

Complete a NMP TEMPLATE for every crop management unit in your membership. All fields/parcels will need to have a completed NMP Template kept on farm.

1. Enter the calendar year for which this report is based upon. NMP Templates are based upon crops harvested within each calendar year.

2. Enter your membership identification number for your coalition group.

3. Enter the name of the person filling out the form. This needs to be owner or manager of the farm or the individual certifying the plan.

4. Enter Assessor's Parcel Number (APN) and field identification (ID) for each unique management unit; the field ID can be alpha/numeric or your internal identifier. If the same crop and same nitrogen application is used on more than one field, enter all APN's and/or field numbers where the information applies.

5. Enter crop (almonds, walnuts, table grapes, wine grapes, raisin grapes, watermelons, canning tomatoes, fresh market tomatoes, etc.).

6. Enter the standard production unit. Either as identified in the instructions or the standard units that you base your nitrogen management planning on (e.g., tons, lbs, bales, etc.).

7. Enter your expected yield per acre for the management unit. Realistic yield expectations will help guide N management decisions.

8. Enter the amount of Nitrogen needed to be applied or that is otherwise available to meet your expected yield. Utilize standardized recommendations from CDFA, UCCE, NRCS, commodity organizations, or site specific knowledge to appropriately estimate the amount of N needed.

9. Enter total acres for the management unit in each worksheet.

10. Under the Planned N column, allocate how much N you plan to apply from each of your available sources and total each section. Double check your N Available with your N Needed (8.) to make sure they are appropriate. Use your planned totals for each source of N and schedule your applications for the crop year. You can use the example provided or an equivalent method that shows the planned timing for each application. Proper scheduling of N applications is an essential component of a Nitrogen Management Plan.

11. Parcels/Fields that are in designated High Vulnerable Areas will need to be certified by one of the available methods. Certification occurs on the initial plan and not for the Actuals.

NITROGEN MANAGEMENT PLAN WORKSHEET INSTRUCTIONS (continued)

12. Under the Actual N column, allocate how much N you applied, or otherwise available from each of your sources and total each section. Use your planned N schedule to guide you throughout the crop season. Application amounts and timing should be adjusted based upon changing conditions (weather, expected yield, disease, etc.).

13. Update your Post Production Actuals with the Actual Yield for the crop management unit. Compare the Actual Yield to the Total amount of N that was available for the crop. Make a self-evaluation whether your N applications were appropriate for the yield achieved. Utilize the available resources or site experience to determine the appropriate amount compared to the yield.

14. Add any notes to the worksheet such as important reminders or circumstances faced during the crop season.

15. Estimate available nitrogen contained in manure or compost applications, measured in pounds per acre.

16. Sum the available nitrogen applied per acre in the reporting area.

Complete additional worksheets until all crops and management units are completed.

DEFINITIONS

Crop Year (Harvested) - The crop year is on a January 1st to December 31st Calendar year. The date of the completion of harvest for the management unit will determine the timing for the Summary Report. Crops harvested in 2015, will need to be reported to the Coalition by March 1, 2016.

Crop Management Unit - Each Crop Management Unit is determined by the member. Fields can be grouped together for planning and reporting purposes as long as the crop, field practices, and nutrient planning decisions are similar.

Nitrogen Management Specialists - include Professional Soil Scientists, Professional Agronomists, Crop Advisors certified by the American Society of Agronomy (and CDFA/California CCA), or Technical Service Providers certified in nutrient management in California by the National Resource Conservation Service (NRCS); or other specialist approved by the Executive Officer.

APPENDIX II: EXAMPLE NITROGEN APPLICATION SCHEDULE

Nitrogen Application Schedule (Example)

The example application schedule includes nitrogen applications and credits (in pounds) reported on a quarterly basis which could be used as guidance to growers who may not be currently scheduling nitrogen applications. This is not a suggested addition to the template because standardization of the form creates unnecessary additional reporting documents and is not workable for all crops.

Planned N Applications/Credits (lbs)	Winter	Spring	Summer	Fall	Totals
Dry & Liquid N (non foliar)					
Foliar N fertilizers					
Other N fertilizers					
Manure *					
Compost *					
N carryover in soil *					
N in irrigation water (annualized) *					
Totals					

Actual N Applications/Credits (lbs)	Winter	Spring	Summer	Fall	Totals
Dry & Liquid N (non foliar)					
Foliar N fertilizers					
Other N fertilizers					
Manure *					
Compost *					
N carryover in soil *					
N in irrigation water (annualized) *					
Totals					

* Estimated