

**STATE WATER RESOURCES CONTROL BOARD
EX PARTE COMMUNICATIONS REGARDING PENDING GENERAL ORDERS
DISCLOSURE FORM**

Note: This form is intended to assist the public in providing the disclosure required by law. It is designed to document meetings and phone calls. Written communications may be disclosed by providing a complete copy of the written document, with attachments. Unless the board member(s) provided you with a different contact person, please send your materials to: commentletters@waterboards.ca.gov

Use of this form is not mandatory.

1. Pending General Order that the communication concerned:

Eastern San Joaquin Agricultural General WDR's Petitions

2. Name, title and contact information of person completing this form:

Note: Contact information is not mandatory, but will allow the Water Board to assist you if additional information is required. If your contact information includes your personal residence address, personal telephone number or personal email address, please use a separate sheet of paper if you do not want that information posted on our website. However, this information may be provided to members of the public under the Public Records Act.

Casey Creamer, Coordinator
Kings River Water Quality Coalition, (559) 237-5567 ext. 105

3. Date of meeting, phone call or other communication: January 25, 2017

Time: 2:30 pm

Location: Cal EPA, 1001 I Street, Sacramento, CA

4. Type of communication (written, oral or both): Both

5. Names of all participants in the communication, including all board members who participated:

Dorene D'Adamo, Darrin Polhemus, Ashley Zellmer, Mark McKean, Casey Creamer, William Thomas, and Emel Wadhvani (via telephone)

6. Name of person(s) who initiated the communication:

Casey Creamer

7. Describe the communication and the content of the communication. *Include a brief list or summary of topics discussed at the meeting, any legal or policy positions advocated at the meeting, any factual matters discussed, and any other disclosure you believe relevant. The Office of Chief Counsel recommends that any persons requesting an ex parte meeting prepare an agenda to make it easier to document the discussion properly. Attach additional pages, if necessary.*

Overview of the proactive Southern San Joaquin Valley MPEP program and USDA-NRCS Grant. Discussed Farm Evaluation template, Vulnerability determinations, NMP and Summary Report logistics, data aggregation, well monitoring and CV-SALTS.

8. **Attach a copy of handouts, PowerPoint presentations and other materials any person used or distributed at the meeting. If you have electronic copies, please email them to facilitate web posting.**



NEWS RELEASE

September 20, 2016

Contact: Cristel Tufenkjian (559) 237-5567, ext. 118; (559) 906-2952
Kings River Water Quality Coalition Outreach Coordinator

Two Million Dollar Grant Awarded to Innovative Water Quality Program

A group of Water Quality Coalitions was awarded a \$2,000,000 grant to implement an innovative program to quantifying and minimizing current nitrate leaching from farming operations in the Southern San Joaquin Valley. The grant award was made through USDA's Conservation Innovation Grant program, which fosters innovation in conservation to improve things like on-farm energy and fertilizer use as well as market-based strategies to improve water quality or mitigate climate change.

The awarded program will be implemented in over 1.8 million acres of irrigated agriculture in the Tulare Lake Basin across seven agricultural Water Quality Coalitions. The goal of the grant program is to increase the implementation of conservation practices to protect water quality. The Project has five main objectives: 1) to identify protective practices for Central Valley agriculture; 2) to adapt the USDA's Soil and Water Assessment Tool (SWAT) for Central Valley agriculture; 3) to increase adoption of protective practice through intensive producer/advisor outreach; 4) to assess adoption of protective practices; and 5) to quantify the reductions in nitrate leaching at the landscape-level using SWAT. The project is producer led and encompasses a broad range of technical partnerships and collaborators. Strategic partners include University of California Cooperative Extension, California State University, California Department of Food and Agriculture and support for the project was garnered from the Central Valley Regional Water Quality Control Board and numerous agricultural organizations.

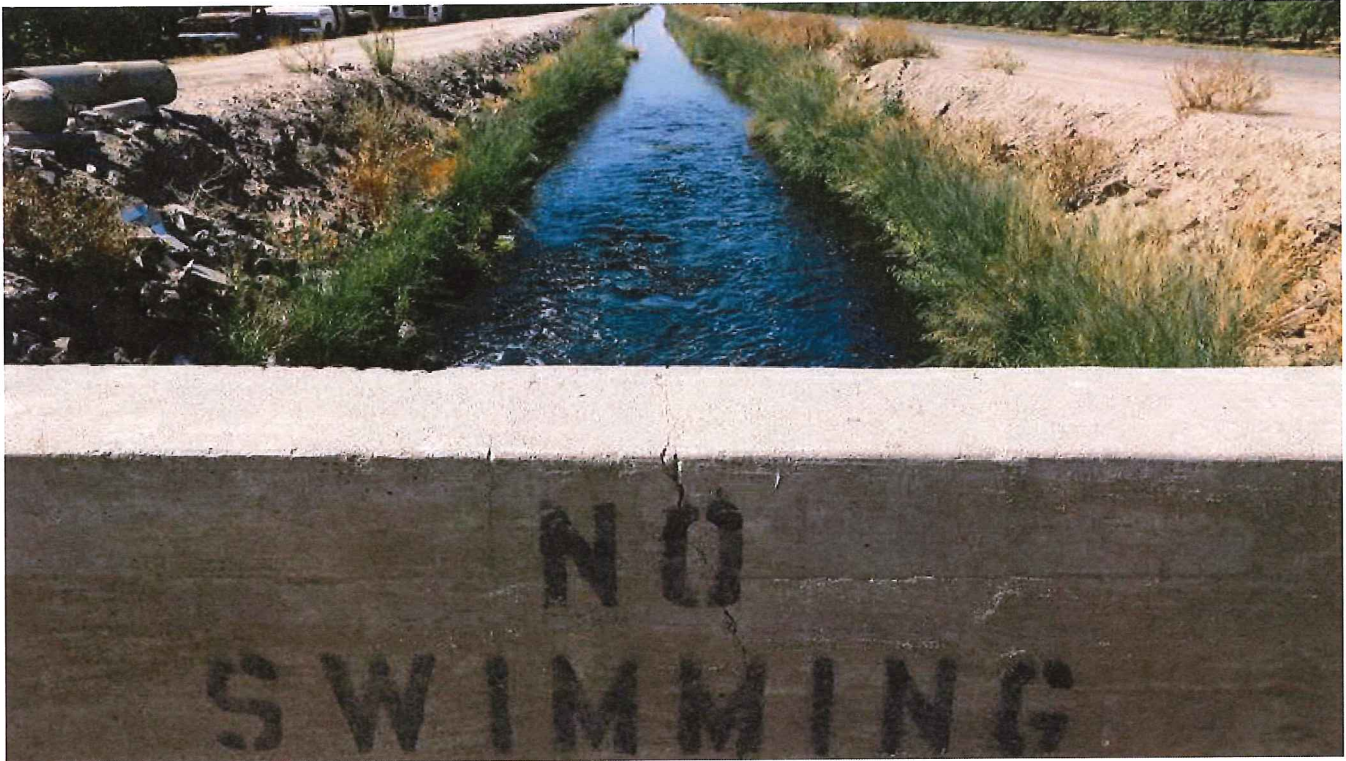
"This project provides support to growers in their efforts to continue to improve their operational efficiency while addressing groundwater quality objectives recently established for irrigated agriculture," stated Casey Creamer, Coordinator of the Kings River Water Quality Coalition which is administering the grant program in partnership with the six other water quality coalitions. "Over the years, great strides have been made by growers to increase fertilizer use efficiency through extensive research and producer exchange. This project will tap into that existing knowledge structure in order to expand implementation of protective practices that are adapted to individual site conditions and demonstrate the protection of groundwater quality. Protection of groundwater resources is now a necessary component of all irrigated operations and this grant will greatly assist producers with identifying and implementing good stewardship of those resources."

The Coalitions partnering in the grant include the Buena Vista Coalition, Cawelo Water District Coalition, Kaweah Basin Water Quality Association, Kern River Watershed Coalition Authority, Kings River Water Quality Coalition, Tule Basin Water Quality Coalition, and Westside Water Quality Coalition.

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The Conservation Innovation Grant program is a highly competitive conservation grant program that helps put the very best conservation tools to work on privately held farms and forests, for maximum environmental impact.

California to get more than \$5 million from USDA for agricultural innovation



The USDA pledged \$2 million Thursday toward helping growers in the Central Valley to lower the amount of nitrogen, from fertilizers, leaching into water. Here, an irrigation canal passes through fields near Fresno. (Mark Boster / Los Angeles Times)

By **Geoffrey Mohan**

SEPTEMBER 8, 2016, 12:20 PM

FROM OUR PARTNERS: Can employers solve the student-loan crisis?

The U.S. Department of Agriculture will steer more than \$5 million to California agriculture and conservation projects as part of a \$26.6-million national campaign to bring innovation to the sector.

The funds are to be matched by the recipients, largely public agencies, educational institutions and private conservation and agricultural groups, bringing the total investment to about \$59 million, Agriculture Secretary Tom Vilsack announced Thursday.

Nearly a quarter of the funds will go to historically underserved communities such as veterans and new farmers, Vilsack said.

“I’m particularly interested in this year’s awards because they’re focusing on conservation financing, water quality, and helping beginning and socially disadvantaged producers,” Vilsack said.

Six projects will be funded in California — three involving the financing of conservation on private land, including farms and forests, and three aimed at improving water quality in major agricultural production areas of the Central and Salinas valleys, according to USDA.

The largest single grant, \$2 million, will combat nitrates leaching from fertilized agricultural soil into underground aquifers in the Tulare Lake Basin of California’s Central Valley, one of the most productive agricultural areas in the state. The program would encourage more widespread use of the agency’s soil and water assessment tools to conserve water and use less fertilizer, which could help bring nitrate readings in drinking water down to safer levels.

Another \$1.3 million will go toward similar efforts to improve water quality and conservation by encouraging cooperative approaches among small growers in Monterey County, the heart of the state’s lettuce and berry industry.

“These projects will do two things,” Vilsack said. “It will result in more resources being invested in conservation, and two: it will as a result better inform producers about how to use limited resources more efficiently to get the same or better results.”

Other California grants include \$833,250 to test the use of manure effluent from dairies for underground drip irrigation, and \$498,000 to preserve about 2,000 acres of high-quality habitat for endangered species in the Central Valley.

California also would get a large share of more than \$900,000 for forest and soil conservation programs among states in the West.

The new funding will add to the ongoing Conservation and Innovation Grants program, which has pumped \$173 million into 414 projects since 2009, according to USDA. This year, the program includes 13 new awards aimed at attracting private investment in conservation nationwide.

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UPDATES:

12:20 a.m.: This article was updated to clarify the scale of the monetary commitment from the U.S. Department of Agriculture.

This article was originally published at 10:25 a.m. **FROM OUR PARTNERS:** [Can employers solve the student-loan crisis?](#)

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NITROGEN MANAGEMENT PLAN (NMP) WORKSHEET

For compliance with the General Orders
for the Irrigated Lands Regulatory Program

**NMP Worksheets are for on-farm planning purposes.
The NMP Summary Report is submitted to the Coalition.**

Keep the completed worksheets and summary report at your farming operation headquarters. The Central Valley Regional Water Quality Control Board will ask for the worksheets and associated summary report during an inspection.

NITROGEN MANAGEMENT PLAN WORKSHEET

INSTRUCTIONS

23 December 2014

Complete a Nitrogen Management Plan (NMP) Worksheet for every crop management unit in your membership. A management unit is any field or group of fields with like crops and nitrogen fertilization practices. A NMP Worksheet must be kept on farm for all fields/parcels and available upon request for inspections by the Central Valley Regional Water Quality Control Board. Summary information from this NMP (yet to be determined) must be submitted to the coalition on request.

Each section heading below (all CAPS) corresponds to the section heading on the NMP Worksheet. Each numbered instruction below corresponds to the number on the NMP Worksheet.

CROP NITROGEN MANAGEMENT PLANNING

1. Enter the calendar year for which this report is based upon. Information in NMP Worksheets should be based upon the calendar year a crop is harvested (i.e. winter cereal grains and some citrus should report information based on the year they are harvested even if fertilization is in the previous year). Newly planted trees or vines should report amount of nitrogen applied even if no crop is harvested.
2. Enter the membership identification number (Member ID#) issued by your water quality coalition.
3. Enter the name of the person completing the form. This needs to be the owner or manager of the farm or the individual certifying the plan (if certification is necessary).
4. Enter the Assessor's Parcel Number (APN) and (5.) Field Identification (ID) for each unique management unit; the field ID can be an alpha/numeric, your internal field identifier, or the site number used on your pesticide use permit. 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.
6. Enter the Crop name (almonds, walnuts, table grapes, wine grapes, raisin grapes, watermelons, canning tomatoes, fresh market tomatoes, etc.).
7. Enter the standard Production Unit. This is the standard unit that is the basis for your nitrogen management planning (tons, pounds, cartons, bales, etc.). For irrigated pasture, use University of California recommended nitrogen rates needed for desired growth.
8. Enter your Projected Yield per acre for the management unit for the upcoming season. Realistic yield expectations will help guide N management decisions.
9. Enter the amount of Nitrogen Recommended (estimated amount needed) to be available to meet your expected yield. Use crop recommendations from CDFA, UCCE, NRCS, commodity organizations or site specific knowledge based on previous experience to appropriately estimate the amount of Nitrogen (N) needed. This should be the same number used in #25, Total N Applied and Available.
10. Enter total Irrigated Acres for the management unit covered by each worksheet.

NITROGEN MANAGEMENT PLAN WORKSHEET

INSTRUCTIONS

POST PRODUCTION ACTUALS

11. Actual Yield is the total amount of crop harvested in units per acre. This total should be an average of the production from a management unit covered by this Nitrogen Management Plan. Compare the Actual Yield to the total amount of N that was available for the crop. Assess if your N applications were appropriate for the yield achieved. Use available resources or site experience to determine the appropriate amount compared to the yield.
12. Total N Applied is the amount of nitrogen applied in pounds per acre.
13. A Technical Work Group is in place to develop tools to better estimate nitrogen removal by a crop. This information will be used to estimate the amount of N being removed each year to assist tracking of nitrogen after application to a crop. Your Coalition will provide you with the most up to date information on how to estimate N removed.
14. Add any notes to the worksheet such as information about circumstances faced during the crop season that impact your recommended nitrogen applications (#9) such as a larger or smaller crop than projected. Application amounts and timing can be adjusted based upon changing conditions (weather, pest damage, expected yield, etc.).

N APPLICATIONS/CREDITS

15. Numbers in the Recommended/Planned N column are based on amounts determined by individuals described in #30-33. In this column, allocate how much N you plan to have available from each of your various sources, and total each section. Use your Recommended/Planned N totals for each source of N and schedule your applications for the crop year. You can use additional tools/spreadsheets to plan timing for each application. Proper scheduling of N applications is an essential component of a Nitrogen Management Plan.
16. Numbers in this column are from the actual amounts of nitrogen available and should be entered after the crop is harvested. Actual application amounts and timing may vary from the plan based upon unanticipated actual conditions (weather, pest damage, expected yield, etc.).
17. Nitrogen Fertilizers are any manufactured nitrogen-containing products applied to a field. If no nitrogen is applied, put "0".
18. Enter dry or liquid nitrogen-containing product applied to the field, if any, in pounds per acre.
19. Enter nitrogen containing product applied to the crop canopy or above ground plant parts, if any, in pounds per acre.
20. Organic Material N is any product applied to a crop that is not manufactured.
21. Estimate in pounds per acre the amount of available nitrogen in animal manure or compost that is applied to a field.
22. Total Available N Applied is the sum total of lines #16, #17 and #19.

NITROGEN MANAGEMENT PLAN WORKSHEET

INSTRUCTIONS

23. Nitrogen Credits include the estimated amount of nitrogen that will become available for crop uptake during the growing season.

24. Available N carryover in the soil is typically estimated by analyzing a soil sample and/or by tracking prior applications. This estimate should be reported in pounds per acre available to the crop during the growing season.

25. Nitrogen in Irrigation Water is estimated by analyzing an irrigation water sample to determine the nitrogen content. This estimate should be reported in pounds per acre available throughout the crop season based on the amount of irrigation water applied to the crop.

26. Total N Credits is the sum of #22 and #23.

27. Total N Applied and Available is the sum of #20 and #24. This total should be the same number as #12.

PLAN CERTIFICATION

28. Place for the signature of person certifying this plan, if required (see definitions below).

29. Certification Method. Place an "X" in the box below for the method used.

30. If a field is in a low vulnerability as designated by a Groundwater Quality Assessment Report, no certification of this NMP is necessary.

31-33. Parcels/Fields that are in designated High Vulnerability Areas will need to be certified by a Nitrogen Management Specialist. Certification is needed on the Recommended/Planned N plan (column #26) and not for the Actual N (#27). 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. Self-Certification is also an acceptable method provided the certifying member has attended an approved training course.

DEFINITIONS

Crop Year (Harvested) - The crop year is typically January 1 to December 31. The exception is some winter cereal grains and some types of citrus; their crop year is based on when the crop is harvested. The date of the completion of harvest for the management unit will determine the timing for submission of a Summary Report to the water quality coalition (if required). For example, crops harvested in 2016 will need to be reported to the Coalition in 2017.

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 nitrogen planning decisions are similar.

High Vulnerability Areas - High Vulnerability Areas are identified in each coalition's Groundwater Quality Assessment Report and includes areas where known groundwater quality impacts exist for which irrigated agricultural operations are a potential contributor or where conditions make groundwater more vulnerable to impacts from irrigated agricultural activities.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	5. Field(s) ID:
2. Member ID#	1234	11-567-01, 11-567-02	a, b
3. Name:	Joe Member		

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	cotton	15. Nitrogen Fertilizers	
7. Production Unit:	500 lb bale	16. Dry & Liquid N (lbs/ac)	135
8. Projected Yield (Units/Acre):	3.00	17. Foliar N fertilizers (lbs/ac)	5
9. N Recommended (lbs/ac):	150	18. Organic Material N	
10. Acres:	160	19. Available N in Manure/Compost (lbs/ac estimate)	0
Post Production Actuals		20. Total Available N Applied (lbs per acre)	0
11. Actual Yield (Units/Acre):	3.20	21. Nitrogen Credits (est)	140
12. Total N Applied (lbs/ac):	156	22. Available N carryover in soil (annualized, lbs/ac)	148
13. ** N Removed (lbs N/ac):		23. N in Irrigation water (annualized, lbs/ac)	5
A/Y Ratio (lbs N/unit/ac):	47.19	24. Total N Credits (lbs per acre)	5
14. Notes:		25. Total N Applied & Available	3
			10
			8
			150
			156

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	X
Joe Member	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	X
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested): 2016

2. Member ID# 1234

3. Name:

Joe Member

4. APN(s):

12-456-03

5. Field(s) ID:

c

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop: cotton	15. Nitrogen Fertilizers		
7. Production Unit: 500 lb bale	16. Dry & Liquid N (lbs/ac)	100	100
8. Projected Yield (Units/Acre): 3.00	17. Foliar N fertilizers (lbs/ac)	5	10
9. N Recommended (lbs/ac): 120	18. Organic Material N		
10. Acres: 80	19. Available N in Manure/Compost (lbs/ac estimate)	0	0
Post Production Actuals			
11. Actual Yield (Units/Acre): 3.20	20. Total Available N Applied (lbs per acre)	105	110
12. Total N Applied (lbs/ac): 125	21. Nitrogen Credits (est)		
13. ** N Removed (lbs N/ac):	22. Available N carryover in soil (annualized, lbs/ac)	10	10
A/Y Ratio (lbs N/unit/ac): 35.94	23. N in Irrigation water (annualized, lbs/ac)	5	5
14. Notes:	24. Total N Credits (lbs per acre)	15	15
	25. Total N Applied & Available	120	125

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	
Joe Member	30. Low Vulnerability Area, No Certification Needed	X
	31. Self-Certified, approved training program attended	
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-04	5. Field(s) ID:	d
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	cotton	15. Nitrogen Fertilizers	
7. Production Unit:	500 lb bale	16. Dry & Liquid N (lbs/ac)	180
8. Projected Yield (Units/Acre):	3.50	17. Foliar N fertilizers (lbs/ac)	15
9. N Recommended (lbs/ac):	220	18. Organic Material N	
10. Acres:	80	19. Available N in Manure/Compost (lbs/ac estimate)	0
Post Production Actuals		20. Total Available N Applied (lbs per acre)	195
11. Actual Yield (Units/Acre):	3.20	21. Nitrogen Credits (est)	
12. Total N Applied (lbs/ac):	220	22. Available N carryover in soil (annualized, lbs/ac)	10
13. ** N Removed (lbs N/ac):		23. N in Irrigation water (annualized, lbs/ac)	15
A/Y Ratio (lbs N/unit/ac):	65.63	24. Total N Credits (lbs per acre)	25
14. Notes:		25. Total N Applied & Available	220
			220

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	X
Joe Member	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	X
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-05	5. Field(s) ID:	e
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	citrus	15. Nitrogen Fertilizers	
7. Production Unit:	40 lb carton	16. Dry & Liquid N (lbs/ac)	80
8. Projected Yield (Units/Acre):	600.00	17. Foliar N fertilizers (lbs/ac)	20
9. N Recommended (lbs/ac):	115	18. Organic Material N	
10. Acres:	40	19. Available N in Manure/Compost (lbs/ac estimate)	0
Post Production Actuals			
11. Actual Yield (Units/Acre):	625.00	20. Total Available N Applied (lbs per acre)	100
12. Total N Applied (lbs/ac):	95	21. Nitrogen Credits (est)	
13. ** N Removed (lbs N/ac):		22. Available N carryover in soil (annualized, lbs/ac)	5
A/Y Ratio (lbs N/unit/ac):	0.14	23. N in Irrigation water (annualized, lbs/ac)	10
14. Notes:		24. Total N Credits (lbs per acre)	15
		25. Total N Applied & Available	115
			95
PLAN CERTIFICATION			
28. CERTIFIED BY:	29. CERTIFICATION METHOD		X
Joe Member	30. Low Vulnerability Area, No Certification Needed		
	31. Self-Certified, approved training program attended		
DATE:	32. Self-Certified, UC or NRCS site recommendation		
	33. Nitrogen Management Plan Specialist		X

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-06	5. Field(s) ID:	f
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	citrus	15. Nitrogen Fertilizers	
7. Production Unit:	40 lb carton	16. Dry & Liquid N (lbs/ac)	55
8. Projected Yield (Units/Acre):	750.00	17. Foliar N fertilizers (lbs/ac)	15
9. N Recommended (lbs/ac):	125	18. Organic Material N	
10. Acres:	40	19. Available N in Manure/Compost (lbs/ac estimate)	0
Post Production Actuals		20. Total Available N Applied (lbs per acre)	70
11. Actual Yield (Units/Acre):	700.00	21. Nitrogen Credits (est)	
12. Total N Applied (lbs/ac):	120	22. Available N carryover in soil (annualized, lbs/ac)	10
13. ** N Removed (lbs N/ac):		23. N in Irrigation water (annualized, lbs/ac)	40
A/Y Ratio (lbs N/unit/ac):	0.16	24. Total N Credits (lbs per acre)	50
14. Notes:		25. Total N Applied & Available	120

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	
Joe Member	30. Low Vulnerability Area, No Certification Needed	X
	31. Self-Certified, approved training program attended	
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	X

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-7	5. Field(s) ID:	g
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	citrus	15. Nitrogen Fertilizers	
7. Production Unit:	40 lb carton	16. Dry & Liquid N (lbs/ac)	125
8. Projected Yield (Units/Acre):	1350.00	17. Foliar N fertilizers (lbs/ac)	35
9. N Recommended (lbs/ac):	178	18. Organic Material N	
10. Acres:	40	19. Available N in Manure/Compost (lbs/ac estimate)	0
Post Production Actuals			0
11. Actual Yield (Units/Acre):	1400.00	20. Total Available N Applied (lbs per acre)	160
12. Total N Applied (lbs/ac):	183	21. Nitrogen Credits (est)	
13. ** N Removed (lbs N/ac):		22. Available N carryover in soil (annualized, lbs/ac)	8
A/Y Ratio (lbs N/unit/ac):	0.13	23. N in Irrigation water (annualized, lbs/ac)	40
14. Notes:		24. Total N Credits (lbs per acre)	18
		25. Total N Applied & Available	178
			183
PLAN CERTIFICATION			
28. CERTIFIED BY:	29. CERTIFICATION METHOD		X
Joe Member	30. Low Vulnerability Area, No Certification Needed		
	31. Self-Certified, approved training program attended		
DATE:	32. Self-Certified, UC or NRCS site recommendation		
3/1/2016	33. Nitrogen Management Plan Specialist		X

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-08	5. Field(s) ID:	6b
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop: tomatoes	15. Nitrogen Fertilizers		
7. Production Unit: ton	16. Dry & Liquid N (lbs/ac)	400	350
8. Projected Yield (Units/Acre): 90.00	17. Foliar N fertilizers (lbs/ac)	0	0
9. N Recommended (lbs/ac): 450	18. Organic Material N		
10. Acres: 200	19. Available N in Manure/Compost (lbs/ac estimate)	20	20
Post Production Actuals			
11. Actual Yield (Units/Acre): 85.00	20. Total Available N Applied (lbs per acre)	420	370
12. Total N Applied (lbs/ac): 400	21. Nitrogen Credits (est)		
13. ** N Removed (lbs N/ac):	22. Available N carryover in soil (annualized, lbs/ac)	25	25
A/Y Ratio (lbs N/unit/ac): 4.41	23. N in Irrigation water (annualized, lbs/ac)	5	5
14. Notes:	24. Total N Credits (lbs per acre)	30	30
	25. Total N Applied & Available	450	400

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	
Joe Member	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	X
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-09	5. Field(s) ID:	7b
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop: tomatoes	15. Nitrogen Fertilizers		
7. Production Unit: ton	16. Dry & Liquid N (lbs/ac)	400	450
8. Projected Yield (Units/Acre): 90.00	17. Foliar N fertilizers (lbs/ac)	0	0
9. N Recommended (lbs/ac): 450	18. Organic Material N		
10. Acres: 200	19. Available N in Manure/Compost (lbs/ac estimate)	20	20
Post Production Actuals			
11. Actual Yield (Units/Acre): 97.00	20. Total Available N Applied (lbs per acre)	420	470
12. Total N Applied (lbs/ac): 500	21. Nitrogen Credits (est)		
13. ** N Removed (lbs N/ac):	22. Available N carryover in soil (annualized, lbs/ac)	25	25
A/Y Ratio (lbs N/unit/ac): 4.90	23. N in Irrigation water (annualized, lbs/ac)	5	5
14. Notes: Nitrogen increased mid season to account for higher yield projection.	24. Total N Credits (lbs per acre)	30	30
	25. Total N Applied & Available	450	500
	PLAN CERTIFICATION		
28. CERTIFIED BY:	29. CERTIFICATION METHOD	X	
Joe Member	30. Low Vulnerability Area, No Certification Needed		
	31. Self-Certified, approved training program attended		
DATE:	32. Self-Certified, UC or NRCS site recommendation		
3/1/2016	33. Nitrogen Management Plan Specialist	X	

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):	12-456-10	5. Field(s) ID:	14
2. Member ID#	1234				
3. Name:	Joe Member				

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop:	almonds	15. Nitrogen Fertilizers	
7. Production Unit:	1000 lbs kernals	16. Dry & Liquid N (lbs/ac)	350
8. Projected Yield (Units/Acre):	5.80	17. Foliar N fertilizers (lbs/ac)	30
9. N Recommended (lbs/ac):	400	18. Organic Material N	
10. Acres:	60	19. Available N in Manure/Compost (lbs/ac estimate)	2
Post Production Actuals			
11. Actual Yield (Units/Acre):	5.80	20. Total Available N Applied (lbs per acre)	382
12. Total N Applied (lbs/ac):	400	21. Nitrogen Credits (est)	
13. ** N Removed (lbs N/ac):		22. Available N carryover in soil (annualized, lbs/ac)	5
A/Y Ratio (lbs N/unit/ac):	68.10	23. N in Irrigation water (annualized, lbs/ac)	13
14. Notes:		24. Total N Credits (lbs per acre)	18
		25. Total N Applied & Available	400

PLAN CERTIFICATION

28. CERTIFIED BY:	29. CERTIFICATION METHOD	X
Joe Member	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	X

** Your Coalition will provide the method to be used to estimate N Removed.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year, (Harvested):	2016	4. APN(s):		5. Field(s) ID:
		12-456-15		16
2. Member ID#	1234			
3. Name:	Joe Member			

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended/ Planned N	27. Actual N
6. Crop: almonds	15. Nitrogen Fertilizers		
7. Production Unit: 1000 lbs kernals	16. Dry & Liquid N (lbs/ac)	350	350
8. Projected Yield (Units/Acre): 5.80	17. Foliar N fertilizers (lbs/ac)	30	30
9. N Recommended (lbs/ac): 400	18. Organic Material N		
10. Acres: 60	19. Available N in Manure/Compost (lbs/ac estimate)	2	2
Post Production Actuals			
11. Actual Yield (Units/Acre): 5.25	20. Total Available N Applied (lbs per acre)	382	382
12. Total N Applied (lbs/ac): 400	21. Nitrogen Credits (est)		
13. ** N Removed (lbs N/ac):	22. Available N carryover in soil (annualized, lbs/ac)	5	5
A/Y Ratio (lbs N/unit/ac): 75.24	23. N in Irrigation water (annualized, lbs/ac)	13	13
14. Notes:	24. Total N Credits (lbs per acre)	18	18
	25. Total N Applied & Available	400	400

PLAN CERTIFICATION		
28. CERTIFIED BY:	29. CERTIFICATION METHOD	X
Joe Member	30. Low Vulnerability Area, No Certification Needed	
	31. Self-Certified, approved training program attended	
DATE:	32. Self-Certified, UC or NRCS site recommendation	
3/1/2016	33. Nitrogen Management Plan Specialist	X

** Your Coalition will provide the method to be used to estimate N Removed.

AVAILABLE RESOURCES

(List will be updated as new resources are developed)

CROP	CDFA FERTILIZATION GUIDELINES	ADDITIONAL RESOURCES
	http://apps.cdfa.ca.gov/frep/docs/Guidelines.html	
ALFALFA	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Alfalfa.html	
ALMONDS	http://apps.cdfa.ca.gov/frep/docs/Almonds.html	http://www.almonds.com/growers/nutrients
APPLES		
APRICOTS		
ASPARAGUS		
AVOCADO	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Avocado.html	
BARLEY	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Barley.html	
BEANS, DRY	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Beans.html	
BELL PEPPERS		
BROCCOLI	http://apps.cdfa.ca.gov/frep/docs/Broccoli.html	
CAULIFLOWER	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Cauliflower.html	
CHERRIES		
CITRUS	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Citrus.html	
CORN	http://apps.cdfa.ca.gov/frep/docs/Corn.html	
COTTON	http://apps.cdfa.ca.gov/frep/docs/Cotton.html	
EGGPLANT		
GARLIC		
GRAPES	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Grapevines.html	
HAY		
KIWIFRUIT		
LETTUCE	http://apps.cdfa.ca.gov/frep/docs/Lettuce.html	
MELONS		
NECTARINES	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Peach_Nectarine.html	
ONIONS	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Onion.html	
ORIENTAL VEGETABLES		
PEACHES	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Peach_Nectarine.html	
PEARS		
PERSIMMONS		
PISTACHIOS	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Pistachio.html	
PLUMS/PRUNES	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Prune_Plum.html	
PLUOT		
POTATO	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Potato.html	
TOMATO	http://apps.cdfa.ca.gov/frep/docs/Tomato.html	
SQUASH		
TOMATOES	http://apps.cdfa.ca.gov/frep/docs/Tomato.html	
WALNUTS	https://apps1.cdfa.ca.gov/FertilizerResearch/docs/Walnut.html	
WHEAT	http://apps.cdfa.ca.gov/frep/docs/Wheat.html	
ORNAMENTALS		
RICE	http://apps.cdfa.ca.gov/frep/docs/Rice.html	
STRAWBERRY	http://apps.cdfa.ca.gov/frep/docs/Strawberry.html	

COMMON NITROGEN CONVERSIONS

Table 1: Conversion Factors in Soil (NMP #22)

When You Know	Multiply by	To Find
ppm NO ₃ -N	2	lbs N/acre in 6 inch soil samples
ppm NO ₃ -N	4	lbs N/acre in 12 inch soil samples
ppm NO ₃	0.452	lbs N/acre in 6 inch soil samples
ppm NO ₃	0.904	lbs N/acre in 12 inch soil samples

ppm = parts per million

Table 2: Percent Nitrogen Forms in Standard Nitrogen Solutions (NMP #15)

	Nitrate	Ammonia	Urea	lbs N/gal
CAN-17	11.6	5.4		2.15
AN-20	10	10		2.1
UREA-20			20	1.87
UAN-28	7	7	14	2.98
UAN-32	7.8	7.8	16.4	3.54

Table 3: Conversion Factors for Nitrate in Water (NMP #23)

When You Know	Multiply by	To Find
ppm NO ₃	0.226	ppm NO ₃ -N
ppm NO ₃ -N	4.43	ppm NO ₃

Table 4: Conversion Table for Nitrate in Irrigation Water (NMP #23)

Nitrate (NO ₃ -N) ppm	Nitrate (NO ₃ -N) ppm	lb N/acre-foot
N (NO ₃ -N)	NO ₃ = N x 4.43	lbs N/ac-ft = N x 2.71
10	44.3	27.1
20	88.6	54.2
30	132.9	81.3
40	177.2	108.4
50	221.5	135.5
60	265.8	162.6
70	310.1	189.7
80	354.4	216.8
90	398.7	243.9
100	443	271
120	531.6	325.2
140	620.2	379.4
160	708.8	433.6
180	797.4	487.8
200	886	542

This set of tables is designed to provide growers with a tool to successfully complete the Nitrogen Management Plan (#'s 15, 22, and 23).

**NITROGEN MANAGEMENT PLAN
(NMP)**

SUMMARY REPORT

For compliance with the General Orders
for the Irrigated Lands Regulatory Program

**The NMP Summary Report is submitted to the Coalition
only in High Vulnerable Areas.**

NITROGEN MANAGEMENT PLAN (NMP) SUMMARY REPORT INSTRUCTIONS

1. Fill in the Crop Year from box #1, your Member ID from box #2 and your name from box #3 of the NMP template. *(This information is for Coalition tracking purposes ONLY.)*
2. Enter the date that you fill out your NMP Summary Report in the space for Submittal Date.
3. Fill in the Site Location Information for the group of parcels in the NMP template. This can be the actual Assessor Parcel Number or another identifier used by your Coalition to link your parcels to your NMP Summary Report.
NOTE: Include information from each certified Nitrogen Management Plan you completed on a separate line of the NMP Summary Report. Each NMP is based on similar crop and management practices.
4. Enter Crop from box #6 in the NMP Template in the Summary Report.
5. Enter total irrigated acres for each parcel from box #10 in the NMP Template in the Summary Report.
6. Enter Total Available N Applied from row #20, column #27 plus N in Irrigation Water from row #23, column #27 in the NMP Template in the Summary Report.
7. For A/Y (applied over yield) divide the Total Available N Applied by the Actual Yield ([box #20 + box #23] / box #11). Actual Yield is the gross weight of crop that is removed from a field. There may be cases where there is no yield during the reporting period because the crop has not been harvested yet or the crop is in a nonbearing year. **If there is No Yield, use the code NY. If the crop is Non Bearing, use the code NB.**
8. Fill in the production unit for the yield and N applied from the list provided by your Coalition. See list for yield production units for each individual crop.

NITROGEN MANAGEMENT PLAN WORKSHEET

1. Crop Year (Harvested):	4. APN(s):	5. Field(s) ID
2. Member ID#		
3. Name:		

CROP NITROGEN MANAGEMENT PLANNING	N APPLICATIONS/CREDITS	26. Recommended Planned N	27. Actual N
6. Crop	15. Nitrogen Fertilizers		
7. Production Units	16. Dry/Liquid (lbs/ac)		
8. Projected Yield (units/Acre)	17. Foliar N (lbs/ac)		
9. N Recommended (lbs/ac)	18. Organic Material N		
10. Acres	19. Available N in Manure/Compost (lbs/ac estimate)		
Post Production Activities			
11. Actual Yield (units/Acre)	20. Total Available N Applied (lbs per acre)		
12. Total N Applied (lbs/ac)	21. Nitrogen Credits (est)		
13. ** N Removed (lbs/acre)	22. Available N carryover in soil; (annualized) (lbs/acre)		
14. Notes:	23. N in Irrigation water (annualized, lbs/ac)		
	24. Total N Credits (lbs per acre)		
	25. Total N Applied & Available		
PLAN CERTIFICATION			
28. CERTIFIED BY:	29. CERTIFICATION METHOD		X
	30. Low Vulnerability Area, No Certification Needed		
	31. Self-Certified, approved training program attended		
DATE:	32. Self-Certified, UC or NRCSS site recommendation		
	33. Nitrogen Management Plan Specialist		

Site Location Information

Nitrogen Removed to be provided by your Coalition.

** Your Coalition will provide the method to be used to estimate N Removed
 Provided by the Central Valley Water Board 23 December 2014.

Nitrogen Management Plan Summary Report

Crop Harvested Year (1): 2016

Submittal Date: _____

Member ID (2): 1234

Member Name (3): Joe Member

	Site Location Information ¹	Crop (6)	Total Acres (10)	Total Available N Applied (20+23)	A/Y Total Available N (20+23)/Actual Yield (11) ²	Production Unit (7)
	APN (4); Field ID (5)					
1	11-567-01, 11-567-02 a, b	cotton	160	151.00	47.19	500 lb bale
2	12-456-03 c	cotton	80	115.00	35.94	500 lb bale
3	12-456-04 d	cotton	80	210.00	65.63	500 lb bale
4	12-456-05 e	citrus	40	90.00	0.14	40 lb carton
5	12-456-06 f	citrus	40	110.00	0.16	40 lb carton
6	12-456-7 g	citrus	40	175.00	0.13	40 lb carton
7	12-456-08 6b	tomatoes	200	375	4.41	ton
8	12-456-09 7b	tomatoes	200	475	4.90	ton
9	12-456-10 14	almonds	60	395	68.10	1000 lbs kernals
10	12-456-15 16	almonds	60	395	75.24	1000 lbs kernals

¹Site Location Information refers to information to be used to link a parcel enrolled in a coalition to the reported information; this may be the Assessor Parcel Number (APN).

²For No Yield, fill in NY. For Non Bearing, fill in NB.

Nitrogen Management Plan Summary Report

Submit to Coalition Annually by March 1st

Email (preferred)

info@kingsriverwqc.org

Fax: (559) 237-5560

Mailing Address

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