California Regional Water Quality Control Board
Central Valley Region
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Arnold Schwarzenegger
Governor

15 September 2008

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EAST SAN JOAQUIN WATER QUALITY COALITION
MONITORING AND REPORTING PROGRAM PLAN CONDITIONAL APPROVAL

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) received the East San Joaquin Water Quality Coalition (Coalition) Monitoring and Reporting Program Plan (MRP Plan) and Quality Assurance Project Plan (QAPP) submitted on 25 August 2008. The Coalition prepared the MRP Plan to meet the requirements of Monitoring and Reporting Program Order No. R5-2008-0005 for Coalition Groups under the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands Amended Order No. R5-2006-0053 (MRP Order).

The Regional Water Board has evaluated the submittal for compliance with the requirements detailed in the MRP Order. Minor errors were noted and communicated to the Coalition on 4 September 2008. Revisions were promptly submitted on 8 September 2008, and have since been incorporated into the Coalition's MRP Plan.

The Coalition's MRP Plan describes the strategy for Assessment and Core monitoring, and also identifies Special Project monitoring sites. The MRP Plan was carefully developed and is well-written and organized. It also takes advantage of the flexibility allowed by the MRP Order with respect to monitoring frequency and parameters in order to maximize resources for management practice implementation. The Coalition should be commended for working efficiently and collaborating with Regional Water Board to produce an exemplary MRP Plan.

I am conditionally approving the Coalition's MRP Plan and QAPP pending submittal of an acceptable Management Plan(s) by 30 September 2008, as described in my 17 July 2008 letter to you. The Management Plan(s) will fully describe the Special Project monitoring to be conducted. Monitoring described for Special Project sites will be reviewed annually and may be revised in Management Plan(s) over time.

We have enclosed a table which identifies the Interim Water Quality Trigger Limits to use when comparing monitoring results to levels that require Exceedance Reports and Management Plan development. If the Coalition believes a trigger limit for a given

parameter and water body is not appropriate, the Coalition should submit a proposed alternative trigger limit with the supporting documentation.

Please note that this conditional approval does not negate the requirement to submit a Semi-Annual Monitoring Report for irrigation season 2008, according to the requirements listed in Coalition Group MRP Order R5-2005-0833.

If you have any questions or comments, please contact Dania Huggins at dhuggins@waterboards.ca.gov or (916) 464-4843.

Pamela C Creedon

PAMELA C. CREEDON
Executive Officer

Enclosure: Interim Water Quality Trigger Limits Table

INTERIM

Water Quality Trigger Limits Table

(Revised on 16 September 2008)

All Water Quality Objectives and Limits listed in this table are based on the protection of the following beneficial uses: Agricultural Supply; Freshwater Habitat; Municipal and Domestic Supply; Spawning, Reproduction, and/or Early Development of Freshwater Aquatic Life; Water Contact Recreation; and Wildlife Habitat. Clarification of specific objectives and beneficial uses for each monitoring site will be confirmed over time utilizing an iterative process that has been identified through the TIC. These limits will apply in the interim.

Constituent	Water Quality Trigger Limit (WQTL)	Standard Type	Beneficial Use (BU) with most protective limit	Reference for the Trigger Limit	Category (see footnotes)
pH	6.5 - 8.5 units	Numeric		Sacramento/San Joaquin Rivers Basin Plan (page III.6.00)	1
Electrical Conductivity (maximum)	700 umhos/cm	Narrative	Agricultural Supply	Water Quality for Agriculture (Ayers & Westcot)	3
Dissolved Oxygen (minimum)	7 mg/L	Numeric	Cold Freshwater Habitat, Spawning	Sacramento/San Joaquin Rivers Basin Plan. Water Quality Control Plan for the Tulare Lake Basin.	1
	5 mg/L		Warm Freshwater Habitat	Basin Plan Objective, page III-5.00: for waters designated WARM (aquatic life). Tulare Lake Basin Plan	
Turbidity	variable	Numeric	Municipal and Domestic Supply	Basin Plan Objective - increase varies based on natural turbidity	1
Total Dissolved Solids	450 mg/L	Narrative	Agricultural Supply	Water Quality for Agriculture (Ayers & Westcot)	3
Total Suspended Solids	NA				
Temperature	variable	Numeric		Basin Plan Objective (see objectives for COLD, WARM, and Enclosed Bays and Estuaries)	1
E coli	235 MPN/100 ml	Narrative	Water Contact Recreation	EPA ambient water quality criteria, single-sample maximum	3
Fecal coliform	200 MPN/100 ml 400 MPN/100 ml	Numeric	Water Contact Recreation	Sacramento/San Joaquin Rivers Basin Plan (page III.3.00) Geometric mean of not less than five samples for any 30- day period, nor shall more than 10% of the total number of samples taken during a 30 - day period.	1
TOC	NA				
Pesticides - Carbamates					
Aldicarb	3 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: USEPA Primary MCL (MUN, human health)	1
Carbaryl	2.53 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average	3
Carbofuran	ND	Numeric		Sacramento/San Joaquin Basin Plan - Basin Plan Prohibition	2
Methiocarb	0.5 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: Handbook of Acute Toxicity of Chemicals to Fish and Aquatic Invertebrates	3
Methomyl	0.52 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average (California Department of Fish and Game) (aquatic life)	3
Oxamyl	50 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: Drinking Water Standards - Maximum Contaminant Levels (MCLs). California Dept of Health Services. Primary MCL	3
Pesticides - Organochlorines					
DDD(p,p')	0.00083 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR, Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
DDE(p,p')	0.00059 ug/L				
DDT(p,p')	0.00059 ug/L				
Dicofol	NA				
Dieldrin	0.00014 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.056	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) / Continuous Concentration 4-day average (total)	1
Endrin	0.036 ug/L	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Continuous Concentration 4-Day Average	1
	0.76 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
Methoxychlor	0.03 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA National Ambient Water Quality Criteria - Freshwater Aquatic Life Protection - instantaneous maximum	3
	30 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Pesticides - Organophosphates					
Azinphos methyl	0.01 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA National Ambient Water Quality Criteria - instantaneous maximum	3
Chlorpyrifos	0.015 ug/L	Numeric	Freshwater Habitat	Sacramento/San Joaquin Rivers Basin Plan: page III-6.01; San Joaquin River & Delta, Sacramento & Feather Rivers; more stringent 4-day average.	1
Diazinon	0.1 ug/L	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan: San Joaquin River & Delta numeric standard, Sacramento & Feather Rivers numeric standard	1
Dichlorvos	0.085 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: Drinking Water Health Advisories or Suggested No-Adverse-Response Levels for non-cancer health effects. One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water. Cal/EPA Cancer Potency Factor as a drinking water level	3
Dimethoate	1.0 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: Notification Level – DHS (MUN, human health). California Notification Levels. (Department of Health Services)	3
Demeton-s	NA				
Disulfoton	0.05 ug/L	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA National Ambient Water Quality Criteria - Freshwater Aquatic Life Protection - instantaneous maximum	3
Malathion	ND	Numeric		Sacramento/San Joaquin Basin Plan - Basin Plan Prohibition	2
Methamidophos	0.35 ug/L	Narrative	Municipal and Domestic Supply	Basin Plan Toxicity Objective, Drinking Water Health Advisories or Suggested No-Adverse-Response Levels for non-cancer health effects. USEPA IRIS Reference Dose (RfD) as a drinking water level.	3
Methidathion	0.7	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA IRIS Reference Dose (MUN, human health)	3
Parathion, Methyl	ND	Numeric		Sacramento/San Joaquin Basin Plan - Basin Plan Prohibition	2

INTERIM
Water Quality Trigger Limits Table
(Revised on 16 September 2008)

Constituent	Water Quality Trigger Limit (WQTL)	Standard Type	Beneficial Use (BU) with most protective limit	Reference for the Trigger Limit	Category (see footnotes)
Phorate	0.7 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: Drinking Water Health Advisories or Suggested No-Adverse-Response Levels for non-cancer health effects. USEPA IRIS Reference Dose (RfD) as a drinking water level.	3
Phosmet	140 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: Drinking Water Health Advisories or Suggested No-Adverse-Response Levels for non-cancer health effects. USEPA IRIS Reference Dose (RfD) as a drinking water level.	3
Group A Pesticides					
Aldrin	0.00013 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	3 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Instantaneous maximum	
Chlordane	0.00057 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.0043 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Continuous Concentration 4-day average (total)	
Heptachlor	0.00021ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.0038 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Continuous Concentration 4-day average (total)	
Heptachlor Epoxide	0.0001 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.0038 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Continuous Concentration 4-day average (total)	
Total Hexachlorocyclohexane (including lindane)	0.0039 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.95 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Maximum Concentration (1-hour Average)	
Endosulfan	110 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.056 ug/L		Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: NTR (USEPA) - Continuous Concentration 4-day average (total)	
Toxaphene	0.00073 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA), Human Health Protection, 30-Day Average - Sources of Drinking Water (water & fish consumption)	1
	0.0002 ug/L		Cold Freshwater Habitat, Spawning	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR (USEPA) - Continuous Concentration 4-day average (total)	
Pesticides - Herbicides					
Atrazine	1.0 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL	1
Cyanazine	1.0 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA Health Advisory (human health)	3
Diuron	2 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water. USEPA Health Advisory. Likely to be carcinogenic to humans (U.S. Environmental Protection Agency, 2005 Guidelines for Carcinogen Risk Assessment)	3
Glyphosate	700 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Linuron	1.4 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA IRIS Reference Dose as a drinking water level	3
Molinate	ND	Numeric		Sacramento/San Joaquin Basin Plan - Basin Plan Discharge Prohibition	2
Paraquat dichloride	3.2 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA IRIS Reference Dose as a drinking water level	3
Simazine	4.0 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Thiobencarb	ND	Numeric		Sacramento/San Joaquin Basin Plan - Basin Plan Discharge Prohibition	2
Trifluralin	5 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA IRIS Cancer Risk Level. One-in-a-Million Incremental Cancer Risk Estimates for Drinking Water	3

INTERIM
Water Quality Trigger Limits Table
(Revised on 16 September 2008)

Constituent	Water Quality Trigger Limit (WQTL)	Standard Type	Beneficial Use (BU) with most protective limit	Reference for the Trigger Limit	Category (see footnotes)
Metals (C)					
Arsenic	10 ug/L	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: USEPA Primary MCL (MUN, human health)	1
Boron	700 ug/L	Narrative	Agricultural Supply	Water Quality for Agriculture (Ayers & Westcot)	3
Cadmium	for aquatic life; variable (see cadmium worksheet).	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - Varies with water hardness	1
	5 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Copper	for aquatic life; variable (see copper worksheet).	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: CTR Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - Varies with water hardness/	1
	1,300 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Lead	for aquatic life; variable (see lead worksheet).	Numeric	Freshwater Habitat	CTR Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - varies with water hardness	1
	15 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Molybdenum	15 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan - San Joaquin River, Mouth of the Merced River to Vernalis	1
	50 ug/L			Sacramento/San Joaquin Basin Plan - Salt Slough, Mud Slough (north), San Joaquin River from Sack Dam to the mouth of Merced River	1
	10 ug/L	Narrative	Agricultural Supply	Water Quality for Agriculture (Ayers & Westcot)	
	35 ug/L		Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA IRIS Reference Dose as a drinking water level.	3
Nickel	For aquatic life variable (see Nickel worksheet).	Numeric	Freshwater Habitat	CTR Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - varies with water hardness	1
	100 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
Selenium	50 ug/L	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL (MUN, human health)	1
	5 ug/L (4-day average)	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: NTR Freshwater Aquatic Life Protection - Continuous Concentration - 4-Day Average	1
Zinc	For aquatic life variable (see Zinc worksheet).	Numeric	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: Freshwater Aquatic Life Protection - Continuous Concentration, 4-Day Average - varies with water hardness/	1
Nutrients					
Nitrate as NO3 Nitrate as N	45,000 ug/L as NO3 10,000 ug/L as N	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL	1
Nitrite as Nitrogen	1,000 ug/L as N	Numeric	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Chemical Constituents Objective: California Primary MCL	1
Ammonia	For aquatic life variable (see ammonia worksheet).	Narrative	Freshwater Habitat	Sacramento/San Joaquin Basin Plan Toxicity Objective: USEPA Freshwater Aquatic Life Criteria, Continuous Concentration	3
	1.5 mg/L (regardless of pH and Temperature values)	Narrative	Municipal and Domestic Supply	Sacramento/San Joaquin Basin Plan Toxicity Objective: Taste and Odor Threshold (Ammore and Hautala)	3
Hardness	NA				
Phosphorus, total	NA				
Orthophosphate, soluble	NA				
TKN	NA				

Notes:

Category 1: Constituents that have numeric water quality objectives in the Sac-SJR Basin Plan or other WQO listed by reference such as MCLs (Page III-3.0)*, CTRs (Page III-10.1)*, and chlorinated hydrocarbon pesticides (Page III-6.0, third bullet)*. Other numeric objectives may only apply to specific water bodies sections, or during specified time periods (see Basin Plan for more details).

Category 2: Pesticides with discharge prohibitions. Prohibitions apply to any discharges not subject to board-approved management practices (Page IV-25.0)*. Apply Performance Goal numbers to Rice Coalition areas. Any other detections are considered to be a violation of the Prohibition and should be discussed.

Category 3: Constituent does not have numeric WQO, and does not have a primary MCL. WQ Trigger Limit exceedance is based on implementation of narrative objective. All detections should be tracked. None are default exceedances. Coalitions may propose alternative triggers for specific water bodies. The coalition must provide the documentation that supports their proposed alternative trigger.

NA Not Available. Until completion of evaluation studies and MRP Plan submittals with site specific information on beneficial uses.

ND Non Detect

*) Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Revised on October 2007

Narrative WQTLs are based on Water Quality Goals Database. Updated by Jon Marshack on 16 July 2008

Group A Pesticides. MRP Order R5 2008-0005 Additionally, monitoring site selection must consider water bodies already on the Clean Water Act section 303(d) list (when the listing is due to an agriculture-related contaminant)

Monitoring and Reporting Program Plan Review Checklist

Report Name: Monitoring and Reporting Program Plan ESJWQC					Reviewer Name: Dania Huggins	
Submittal Date: 25 August 2008					Review Date: 9/3/08 - 9/8/08	
		Review Criteria				
Item No.	MRP Plan Component Description	Acceptable A	Unacceptable U	Incomplete I	Page No. (Section No.)	Comments
1	Monitoring Strategy, including Assessment Monitoring, Core Monitoring and Special Project Monitoring as described in Section B.	A			54-55, 60-62 (Tables 10-13)	Table 13 does include the monitoring sites listed on the monitoring schedule in Table 10 for 2008-2011. Table 13 includes E. coli, nutrients, and field parameters in core and assessment monitoring.
2	Description of the Coalition Group's area including geography, topography, hydrology, land use including crop type(s) and other characteristics relevant to the monitoring.	A			7-30	
3	Monitoring sites with GIS coordinates (Albers Projection, NAD83, and units in meters) and rationale for selection of each site. Rationale should be based on 'representativeness' of the location for dischargers from irrigated agriculture within the Coalition Group's boundaries.	A			39-40 (Table 5)	
4	Identification of known and potential water quality impairments and water quality limited water bodies.	A			56-58 (Table 11)	Lists 303(d) and TMDL water bodies and historical monitoring water bodies.
5	Identification of the designated beneficial uses in the water bodies.	A			88-90	Reported in Table 20 with impairment assessment in Table 11.
6	Detailed map(s) of the Coalition Group's area showing irrigated lands, identifying crop type(s), monitoring sites, main water bodies, tributaries, canals, channels, and drainages. Maps or discussion shall provide details that show which fields are represented by each monitoring site within the Coalition Group's boundaries.	A			1-43 (Attachment III)	
7	Relevant knowledge about the transport, fate, and effects of key pollutants, including best- and worst-case scenarios.	A			79-86 (Tables 17-19)	
8	Relevant knowledge about the action of cumulative and indirect effects, and other factors that impact water quality.	A			82	Satisfactory and more will be provided in the Mgt Plan.
9	Up-to-date pesticide use reports with a narrative discussion and summary tables of the information contained therein, including type of chemical (fungicide, herbicide, insecticide, and adjuvants), quantity applied, timing of applications, crops to which they were applied, and the geographic locations within the Coalition Group's boundaries in which each type was used.	A			1-72 (Attachment II)	
10	Description of water management practices within the Coalition Group's boundaries and crop types in which they are used. Water management practices include, but are not limited to, water application for the purpose of hydrating crops, pre-planting irrigation, water application for the purpose of frost prevention, and water application to address salinity.	A			93-94	Managment Plan will describe what crops these managment practices are associated with. Text reports what fate and transport the management practice is targeting.
11	Discussion of specific management practices in use and available programs to reduce or eliminate water quality impacts from irrigated agricultural discharges and locations where these occur. These practices might include tail water return systems, irrigation efficiency improvements, U.C. Cooperative Extension and NRCS grower outreach, etc.	A			96	More details will be provided in the Management Plan. MRP Plan provides brief discussion on Management Practice survey results.
12	Monitoring periods, including description and frequencies of monitoring events and justification for deviations from the MRP Order requirements.	A			52-55 (Tables 8-10)	
13	Information (either qualitative or quantitative, depending on the needs of the monitoring design process) about sources of bias and variability that could affect the validity of a monitoring design and/or the reliability of the monitoring data.	A			64-67	
14	Definition of desired levels of spatial and temporal resolution.	A			66 (MRPP), 33 (QAPP Element 10)	Addressed in Sampling Process and Design

Monitoring and Reporting Program Plan Review Checklist

Item No.	MRP Plan Component Description	Acceptable A	Unacceptable U	Incomplete I	Page No. (Section No.)	Comments
15	Definition of acceptable levels of uncertainty about the requirements in the above list.	A			64-67, 32 (MRPP), (QAPP)	
16	Description of data analysis methods to be used to evaluate data from each monitoring program component.	A			68-72 (Tables 14-15)	
17	Parameters to be monitored including minimum and site specific requirements.	A			60-62	Pathogens not monitored for as per Table 13. Coalition plans to amend Table 13.
18	A Coalition Group Quality Assurance Project Plan (QAPP) consistent with the requirements described in Attachment C of the MRP Order.	A			68-72 (Tables 14 and 15)	The RLs are the same as required in MRP.
19	Documentation of monitoring protocols including sample collection methods and Laboratory Quality Assurance manual.	A			62-392 (QAPP - ALL Appendices)	
20	Coalition Group contact information.	A			97	
21	Signed Transmittal Letter.	A			Cover Letter	
	MRP Program Questions					
1	QUESTION No.1: Are conditions in waters of the State that receive discharges of wastes from irrigated lands within Coalition Group boundaries, as a result of activities within those boundaries, protective of beneficial uses?	A			87-90 (Table 20)	Table 20 reports if Beneficial Uses are impaired.
2	QUESTION No.2: What is the magnitude and extent of water quality problems in waters of the State that receive agricultural drainage or are affected by other irrigated agriculture activities within Coalition Group boundaries, as determined using monitoring information?	A			79-86	Addressed in Water quality status and monitoring background section.
3	QUESTION No.3: What are the contributing source(s) from irrigated agriculture to the water quality problems in waters of the State that receive agricultural drainage or are affected by other irrigated agriculture activities within Coalition Group boundaries?	A			92	
4	QUESTION No.4: What are the management practices that are being implemented to reduce the impacts of irrigated agriculture on waters of the State within the Coalition Group boundaries and where are they being applied?	A			93-96	More information will be provided in the Management Plan
5	QUESTION No.5: Are water quality conditions in waters of the State within Coalition Group boundaries getting better or worse through implementation of management practices?	A			94	More information will be provided in the Management Plan
	Each Coalition Group MRP Plan must demonstrate how this will be accomplished by including the following information:					
1	Evaluation of the Coalition Group's ability to answer each of the five Program questions with the information presently available, with the understanding that the ability to answer may vary from waterbody to waterbody.	A			3 (Introduction)	
2	Identification of critical gaps in knowledge (e.g., inability to document impacts, lack of knowledge about potential sources, absence of trend monitoring components) relevant to the Coalition Group's circumstances.	A			3 (Introduction)	
3	Description of how the MRP Order will be used as a framework for filling in the data gaps and for developing monitoring components suited to each Coalition Group's circumstances, documenting how the five key questions will be answered.	A			3 (Introduction)	

Quality Assurance Project Plan Checklist

Report Name: Quality Assurance Project Plan		Reviewer Name: Dania Huggins					
Submittal Date: 25 August 2008		Review Date: 9/3/08 - 9/8/08					
		Review Criteria					
Element	QAPP Element Name	Acceptable A	Unacceptable U	Incomplete I		Page No (Section)	Comments
	Project Management						
1	Title and Approval Sheet	A				2	
2	Table of Contents	A				3	
3	Distribution List	A				8	
4	Project Organization	A				9	
5	Problem Definition/Background	A				13	
6	Project Description	A				14	
7	Quality Objectives and Criteria	A				21-25 (Tables 5-7)	Meets IRLP QC Requirements.
8	Special Training Needs/Certification	A				26	
9	Documents and Records	A				27-28 (Table 9)	
	Data Generation and Acquisition						
10	Sampling Process Design	A				29-32 (Tables 10-11)	
11	Sample Collection Methods	A				33-34	
12	Sample Handling and Custody	A				35-38	
13	Analytical Methods and Field Measurements	A				39-43	The RLs are the same as required in MRP.
14	Quality Control	A				44-52	
15	Instrument/Equipment Testing, Inspection and Maintenance	A				52-54	
16	Instrument/Equipment Calibration and Frequency	A				54-55	
17	Inspection/Acceptance of Supplies and Consumables	A				56	
18	Non-Direct Measurements	A				57	
19	Data Management	A				57	
	Assessment and Oversight						
20	Assessments and Response Actions	A				58	
21	Reports to Management	A				58	
	Data Validation and Usability						
22	Data Review, Verification and Validation	A				59	
23	Verification and Validation Methods	A				59-60	
24	Reconciliation with User Requirements	A				61	
	REFERENCES	A				62-392 (QAPP - ALL Appendices)	
	QAPPs FROM CONTRACTED LABORATORIES	A				62-392 (QAPP - ALL Appendices)	