



**California Regional Water Quality Control Board
Central Valley Region**

Katherine Hart, Chair

Linda S. Adams
Secretary for
Environmental
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

24 August 2010

Mr. Michael Wackman
San Joaquin County & Delta Water Quality
Coalition
3422 West Hammer Lane, Suite A
Stockton, CA 95219

Mr. Mike Johnson, Program Manager
East San Joaquin Water Quality Coalition
632 Cantrill Rd
Davis, CA 95691

**SAN JOAQUIN COUNTY AND DELTA WATER QUALITY COALITION ANNUAL
MANAGEMENT PLAN UPDATE REPORT REVIEW**

Thank you for the submittal of the San Joaquin County and Delta Water Quality Coalition (Coalition) Annual Management Plan Update Report (MPUR) and the addendum, which were received on 1 April and 1 June 2010, respectively. Staff has completed a review memorandum of the MPUR and addendum for compliance with Monitoring and Reporting Program Order No. R5-2008-0005 (MRP Order) and the Sacramento and San Joaquin River Basin Plan for specific Total Maximum Daily Load (Basin Plan -TMDL).


The Coalition provided the necessary information for all components of the MPUR and Basin Plan –TMDL requirements, with only minor omissions. Staff also identified several areas in which the Coalition has improved the Annual MPUR reporting, such as:

- Summary and analysis of implemented management practices
- Description of how performance goals and measures are being met
- Summary of compliance with the Basin Plan TMDL requirements

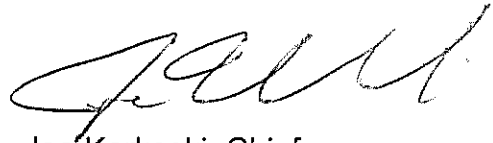
Staff identified items B.II.4 and B.III.3 that will need to be corrected and further explained in the next MPUR that is due 1 April 2011. Item A.I.7 will need to be provided to staff by 15 September 2010. These items are described in the following sections of the Staff enclosed memorandum:

- A.I.7 Identification of who will implement the management plan activities
- B.II.4 List the sampling sites used to implement Salt/Boron TMDL
- B.III.3 Document the dissolved oxygen TMDL area that is partly outside of Coalition's boundary

If you have any questions or comments regarding the review, or need any further information, please contact Chris Jimmerson at (916) 464-4859.



Susan Fregien, Senior Environmental Scientist
Monitoring and Implementation Unit
Irrigated Lands Regulatory Program



Joe Karkoski, Chief
Irrigated Lands Regulatory Program

Enclosure: Staff Review of SJCDWQC 1 April 2010 Annual MPUR
Review Checklist

T:\Irrigated Lands Assessment Planning\Units\Monitoring Implementation\Coalition Groups\San_Joaquin_County_
Delta_WQC\Management Plans\2010-0401 Mgt Plan Update\MPUR Review\100420MgtPlanUPdteCvrLtr.doc



California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Linda S. Adams
Secretary for
Environmental
Protection

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

Arnold
Schwarzenegger
Governor

TO: Susan Fregien
Senior Environmental Scientist
Irrigated Lands Regulatory
Program

FROM: Chris Jimmerson
Environmental Scientist
Irrigated Lands Regulatory
Program

DATE: 12 August 2010

SIGNATURE: 

1 APRIL 2010 MANAGEMENT PLAN UPATE REPORT - SAN JOAQUIN COUNTY AND DELTA WATER QUALITY COALITION

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) received the San Joaquin County and Delta Water Quality Coalition (Coalition) Management Plan Update Report (MPUR) on 1 April 2010 for compliance with Monitoring and Reporting Program Order No. R5-2008-0005 (MRP Order). The MPUR is required per the MRP Order and the Management Plan approved by the Central Valley Water Board Executive Officer on 23 January 2009. The Central Valley Water Board staff has reviewed the MPUR to evaluate it for sufficient information regarding the achievement of the performance goals and required reporting components. This memorandum summarizes the review findings.

The review section item numbers are the same as those used in the MPUR Checklist (see attached). Staff derived the MPUR Checklist directly from the MRP Order, the Basin Plan - TMDL requirements, and the 22 October 2009 MPUR Guidance Document. Staff used the checklist to verify that the content presented in the MPUR met the minimum prescribed report requirements. The Checklist supplements this memorandum by providing additional comments.

At the February MPUR quarterly meeting, the Coalition indicated it would not meet the April 2010 deadlines for Performance Goals 3.1, 3.2, 3.3 and 4.1 found in the 2008-2010 High Priority sites. Consequently, the Coalition filed an addendum on 1 June 2010 that included the survey information missing in the MPUR. The addendum included summary information for management practice evaluations and which management practices were implemented in the three High Priority subwatersheds as a result of Coalition outreach. Although the Coalition did send out surveys to collect management practice information as per the Performance Goal schedule, according to the Coalition, the missed deadline was due to the growers not returning the surveys back to the Coalition before the MPUR was due. The Coalition attempted to contact those who did not return the surveys, but some of those growers did not respond. Further discussion of the addendum is provided below.

A. MRP ORDER

A.1.2 Identification of management practices to be implemented to address the exceedances
 Pages 2, 3, 23 and 24 discuss the performance goals for the 2008-2010 and 2010-2012 High Priority Sites. The Coalition submitted a 1 June addendum that documented completion of the 2008 – 2010 performance measures 3.1, 3.2, 3.3 and 4.1. The addendum assessed implementation of management practices from 2008 through 2010 as well as evaluating the effectiveness of management practices. The addendum included statistical information acquired from the surveys submitted to the growers, such as management practices to be implemented and management practices implemented. According to the Performance Goal schedule, a further evaluation of management practice effectiveness is scheduled to be conducted in April 2011.

A.1.3 Management practice implementation schedule

Table 13 of the MPUR tabulates the management practices that are scheduled to be implemented, and the June addendum reports management practices implemented. Based on the information given in the addendum, staff summarized the information in the table below. The survey results indicate that the majority of growers reduced the amount of pesticide applied to crops. The pesticide use reports gathered by the Coalition supported the survey results.

Table of Percentage of Growers that Implemented Management Practices in 2009

Management Practice Implemented	Duck Creek	Lone Tree Creek at Jack Tone	Unnamed Drain to Lone Tree Creek
Sprinkler or micro irrigation	13%	12%	24%
Reduce runoff	19%	39%	30%
Reduce pesticide use	39%	36%	33%
Use filter strips	29%	13%	13%

According to the Management Plan schedule, implementation of additional management practices will continue through 2010.

A.1.4 Management practice performance goals with a schedule

Table 8 and Table 11 provided a schedule for management practice performance goals for the 2008-2010 and 2010-2012 High Priority site-subwatersheds. The Coalition will need to ensure it provides the management practice information by the deadlines to be in compliance with the Management Plan.

Pages 22, 23, 27, and 29 indicate that the Coalition's 3 August 2009 extension request was approved on 4 January 2010. The approval date should be 29 December 2009. The referenced date will need to be corrected in future reports.

Table 11, page 32, provides completion dates for Performance Goal 2.1. The completion dates are not in accordance with the 29 December 2009 approval letter. The completion dates should read 30 April 2010 for Grant Line Canal at Calpack, and 30 June 2010 for Grant Line Canal near Clifton Court. After discussion at the 4 May Quarterly meeting, the Coalition corrected the dates in the 4 June amendment.

A.I.5 Waste-specific monitoring schedule

Table 7 of the MPUR provides a schedule for Management Plan monitoring. The Coalition reported that as a result of the 2009 monitoring, several new site/constituent Management Plans are required, as tabulated below. The Coalition has attended the 17 June 2010 Central Valley Organochlorine Pesticide Basin Plan Amendment and TMDL Stakeholder meeting, and continued participation is encouraged with subsequent meetings.

Site	Parameter
Walthall Slough @ Woodward Ave	DO, EC, TDS, <i>E.coli</i>
South Webb Tract Drain	EC, TDS
Mokelumne River @ Bruella Rd	<i>E.coli</i> , DDT

A.I.7 Identification of the participants that will implement the Management Plan

The Coalition has provided this information for the first set of High Priority Goals in the Management Plan. However, performance goals and measures for the second set (Table 11) need to indicate who is performing each one of these performance goals and measures (see Table D, page XIII, 30 September 2008 Management Plan Addendum as an example). Identification of the persons or groups that will implement the Management Plan is a required reporting component, and will need to be submitted to staff under separate cover and included in the April 2011 MPUR.

A.III. MRP Program Questions

A.III.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?

The Coalition provided a June addendum to the MPUR that included management practices implemented and where they are currently being applied (See A.I.3). According to the performance goal schedule, this information was originally due in the MPUR. The Coalition was unable to meet the original deadline because the growers did not return their surveys in a timely manner. The Coalition should provide an incentive for the growers to return the surveys before the Coalition's deadlines come due. If the Coalition wishes, the Central Valley Water Board can assist with informing those growers of the potential consequences of failing to respond.

B.I. TMDL Chlorpyrifos/Diazinon

B.I.3 Determine the degree of implementation of management practices to reduce off-site movement of diazinon and chlorpyrifos

The Coalition recommended management practices to the growers it contacted in 2009 for the 2008-2010 high priority site-subwatersheds and provided an implementation schedule. Recommended management practices are grouped into two main categories: pesticide application and runoff management practices. Surveys were used to target growers with direct drainage. Growers' parcels were then queried for past pesticide use and contacted by the Coalition to attend grower meetings regarding management practices. The results indicate that the most common way growers reduced movement of chlorpyrifos and diazinon was to reduce the use of the pesticide.

Continued Management Plan monitoring is being conducted during the 2009 and 2010 season. Further evaluation of water quality and potential improvements, as a result of the recently implemented management practices, will be provided in the 2011 Annual MPUR.

B.I.6 Determine whether the discharge causes or contributes to toxicity impairment due to additive or synergistic effects of multiple pollutants.

The 2009 toxicity results are tallied in the following table. Both *Ceriodaphnia* exceedances in Zone 2 occurred at the same time as the exceedances for chlorpyrifos. The *Selenastrum* exceedance cause could not be determined because there was no toxicity found during the toxicity identification evaluation, and detections of possible causes such as copper and herbicide applications were far below the exceedance criteria. Consequently, additive or synergistic effects of the toxic results in Zones 4 and 5 were inconclusive.

Zone	Site name	Sample Date	Ceriodaphnia	Pimephales	Hyalella	Selenastrum
Zone 2	Duck Creek @ Hwy 4	7/14/2009	x			
	Unnamed Drain to Lone Tree Creek @ Jack Tone Rd	9/15/2009	x			
Zone 4	South Webb Tract Drain	7/14/2009	x			
Zone 5	Walthall Slough @ Woodward Ave	3/10/2009				x

x= exceedance

B.II. TMDL Salt/Boron

B.II.1 Salt/boron at Vernalis:

Compliance is being achieved through participation of CV-SALTS and communicating to growers that are found within small portions of Stanislaus River and Northwest Side subareas. A large portion of the compliance area lies outside of the Coalition boundary. The Coalition, Regional Board and State Water Board are addressing the Basin Plan Salt and Boron requirements through the (1) Basin Plan Amendment for the San Joaquin River at Vernalis Salinity and Boron TMDL (pending item) and (2) Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS).

B.II.4 List the sampling site(s) used to implement the TMDL

Although staff is able to determine the sampling sites used to implement the TMDL, the sites should be listed in the TMDL section per the TMDL Guidance document dated 10/22/09.

B.III. TMDL Dissolved Oxygen

B.III.1 Determine compliance with established water quality objectives and the loading capacity applicable to dissolved oxygen in the Stockton Deep Water Ship Channel

To demonstrate compliance with the TMDL limits, several agriculturally-influenced tributaries to the San Joaquin River are routinely monitored, as described in Coalition's MRPP. The Coalition is addressing Dissolved Oxygen exceedances through the Management Prioritization process described in the Management Plan. The coalition is also participating in the DO TMDL Technical Working Group meetings to be compliant by December 2011.

B.III.3

As per the TMDL Guidance document dated 10/22/09, this section should discuss that most of the upstream Dissolved Oxygen TMDL (deep water ship channel) source area lies in Stanislaus County which is outside of the Coalition's boundary and not within the Coalition's area of influence.

SJCDWQC Management Plan Update Report
Review Checklist

Report Name: SJCDWQC Management Plan Update Report		Reviewer Name: Chris Jimmerson				
Submittal Date: 1 April 2010		Review Date: 4/28/10 -				
Item No.	Management Plan Component Description ⁽¹⁾	Review			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
A. MRP Order						
1	Identification of irrigated agriculture source – general practice or specific location – that may be the cause of the water quality problem, or a study design to determine the source.	X			Apdx 1 (Source ID and Outreach), 17	Coalition used PUR, water quality data to determine source of exceedances.
2	Identification of management practices to be implemented to address the exceedances.	X			2,3,23,24,38 (Tbl 13), Apdx II	Coalition provided a June addendum submittal with Perf. Goal 3 and 4 information to fulfill first set of HP sites. Original deadline was due April 1. Apdx II provides a draft management practice workbook for wine grapes.
3	Management practice Implementation schedule. Implementation may occur through another Water Board regulatory program designed to address the specific exceedances.	X			38 (Tbl 13), 39	The June Addendum reported the implementation data that was missing from the MPUR Tbl 13.
4	Management practice performance goals with a schedule.	X			23-31, 32-35	Information on implementation schedules was provided in the Perf. Goal and Sched. Section for both sets of High Priority site-subwatersheds. Header in table indicates HP Perf. Goal approved on 1/4/10 - should be 12/29/09. This was corrected in June 4 amendment.
5	Waste-specific monitoring schedule.	X			20-21	Table 7 provides monitoring schedule for Mgt Plan monitoring.
6	A process and schedule for evaluating management practice effectiveness.	X			23-31, 32-35 (Perf Goals Sched's)	Information on implementation and evaluation schedules was provided in the Performance Goals and Schedules section for the first and second set of high priority site-subwatersheds.
7	Identification of the participants and Coalition Group(s) that will implement the Management Plan.	X			36-37 (Tbl 12)	The HP Perf Goals and measures need to indicate who is performing each of these activities. However, this info is found in the 9/30/08 Mgt Plan addendum.
8	An identified routine schedule of reporting to the Regional Water Board.	X			5	Coalition submits annual MPUR 1 April, and holds quarterly meetings.
9	Signed Transmittal Letter.	X				
II. Prioritization Strategy						
1	Prioritization of the water quality problems was developed	X			15-17	Flow charts and text describe how each Mgt Plan analyte is to be prioritized.
2	The prioritization may include considerations such as extent, magnitude and duration, or be based on a design that assumes that resolution of one type of contaminant (such as sedimentation) may help resolve other types of measured exceedances (such as pesticides, toxicity, DO and pH)	X			15-17, 19	2010 Mgt Plan monitoring schedule provided for the High Priority sites.
3	Management Plan reporting schedule	X				Coalition submits annual MPUR, quarterly reports. Performance Goals include schedule of when performance measures and outputs are to be completed.
4	Steps to identify appropriate management practices. Such steps involve conducting management practices workshops and/or developing a management practices worksheet questionnaire to determine the management practices being used in the identified areas.	X				Mgt Practice surveys are presented at outreach meetings.
III. 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?	X				Addressed in the 3/1/10 AMR on page 139, Table 42. Provides description of monitoring sites, beneficial use, and if BU 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	X				Addressed in the 3/1/10 AMR page 141-142. This describes the water quality status through exceedances for each Zone during 2009. Additionally the tabulated results are reported in Appendix II of AMR.

SJCDWQC Management Plan Update Report
Review Checklist

Item No.	Management Plan Component Description ⁽¹⁾	Review			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
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 boundary	X				Addressed in the 3/1/10 AMR, page 143.
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?	X			38, 39	The MPUR provides information of what the Mgt Practice could be implemented (pg 38) and schedule of potential implementation date, but did not include what has been implemented. This information was provided in the June Addendum.
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?	X				Discussed in the 3/1/10 AMR, page 144. Coalition continues to gather Mgt Practice information and will provide a complete analysis in accordance with the performance goal schedule, but it is too early in the Mgt Plan to make an assessment. Coalition currently speculates water quality is improving.
	IV. ILRP MRP Component Description ⁽¹⁾					
1	Sampling sites that are compliance monitoring sites for TMDLs	X				The sampling sites are based within the legal Delta boundaries.
2	Implementing an applicable TMDL	X			41-56	TMDLs implemented:chlorpyrifos, diazinon, sal/boron, Dissolved oxygen.

Footnotes

- (1) 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. Section II.D (Pages 24 and 25)

**SJCDWQC Management Plan Review
Chlorpyrifos/Diazinon TMDL Checklist**

Report Name: SJCDWQC Management Plan Update Report		Reviewer Name: Chris Jimmerson				
Submittal Date: 1 April 2010		Review Date: 4/28/10 -				
Item No.	Basin Plan Component Description ⁽¹⁾	Review Criteria			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
	B.I. TMDL Chlorpyrifos/Diazinon					
1	Determine compliance with established water quality objectives and the loading capacity concentration applicable to diazinon and chlorpyrifos in the San Joaquin Delta.	X			43-50	Provided Table 15 reporting compliance with WQO and loading capacity.
2	Determine compliance with established load allocations for diazinon and chlorpyrifos in San Joaquin Delta.	X			43-50	Provided Table 15 reporting compliance with WQO and loading capacity.
3	Determine the degree of implementation of management practices to reduce off-site movement of diazinon and chlorpyrifos.	X			addendum	Assessment of implemented management practices submitted in June addendum.
4	Determine the effectiveness of management practices and strategies to reduce off-site migration of diazinon and chlorpyrifos.	X			addendum	Assessment of implemented management practices submitted in June addendum.
5	Determine whether alternatives to diazinon and chlorpyrifos are causing surface water quality impacts.	X			52	Alternatives are mostly pyrethroids. To date no toxic sediment samples have met thresholds to analyze for pyrethroids. The Coalition is informing growers that alternatives may cause other water quality problems.
6	Determine whether the discharge causes or contributes to a toxicity impairment due to additive or synergistic effects of multiple pollutants.	X			53	Both Ceriodaphnia exceedances occurred at the same time as the exceedances for chlorpyrifos. The Selenastrum exceedance cause could not be determined.
7	Demonstrate that management practices are achieving the lowest pesticide levels technically and economically achievable.	X			53	

Footnotes

- (1) Amendments to Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Diazinon and Chlorpyrifos Runoff Into the Lower San Joaquin River. Final Staff Report October 2005

SJCDWQC Management Plan Review
Salt/Boron TMDL Checklist

Report Name: SJCDWQC Management Plan Update Report		Reviewer Name: Chris Jimmerson				
Submittal Date: 1 April 2010		Review Date: 4/28/10 -				
Item No.	Basin Plan Component Description	Review Criteria			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
	B.II. TMDL Salt/Boron					
	Salt/Boron TMDL Related Sections					
1	Salt/boron at Vernalls: Nonpoint source dischargers operating under waiver of waste discharge requirements must participate in a Regional Water Board approved real-time management program (basin plan IV 32.04).	X			54	Compliance is being achieved through participation of CV-SALTS and communicating to growers that are found within small portions of Stanislaus River and Northwest Side subareas.
	ILRP Guidance for Mgt Plan Update Report ⁽¹⁾					
2	⁽¹⁾ Lists or describes the affected TMDL sub areas.	X			54-55	
3	⁽¹⁾ Addresses stated Mgt Plan efforts to meet the TMDL.	X			54-55	
4	⁽¹⁾ List the sampling site(s) used to implement the TMDL.			X	54-55	This section should list the sites used to achieve the salt/boron TMDL as per the TMDL Guidance document dated 10/22/09. Staff is able to determine the sites by reviewing other sections of the MPUR.

Footnotes

(1) ILRP Guidance for Management Plan Update Report Items. Submitted to Coalition on 22 October 2009.

Report Name: SJCDWQC Management Plan Update Report		Reviewer Name: Chris Jimmerson				
Submittal Date: 1 April 2010		Review Date: 4/28/10 -				
Item No.	Basin Plan Component Description	Review Criteria			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
	B.III. TMDL Dissolved Oxygen					
	Dissolved Oxygen TMDL Related Sections					
1	Determine compliance with established water quality objectives and the loading capacity applicable to dissolved oxygen in the Stockton Deep Water Ship Channel.	X			55	Ag influenced tribs to SJ river are routinely monitored as described in the MRPP and Mgt Plan. DO is prioritized.
	(1) ILRP MRP Component Description					
2	⁽¹⁾ Lists or describes the affected TMDL sub areas.	X			55	MPUR lists the subareas affected.
3	⁽¹⁾ Discusses how the Coalitions's boundary influences the efforts to implement the DO TMDL.			X	55	As per the TMDL Guidance document dated 10/22/09, this should include how boundary outside of Coalitions membership influences efforts.
4	⁽¹⁾ Addresses stated Mgt Plan efforts to meet the TMDL.	X			55	

(1) ILRP Guidance for Management Plan Update Report Items. Submitted to Coalition on 22 October 2009.