



# California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Linda S. Adams  
Acting Secretary for  
Environmental Protection

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Edmund G. Brown Jr.  
Governor

17 May 2011

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## EAST SAN JOAQUIN WATER QUALITY COALITION ANNUAL MANAGEMENT PLAN UPDATE REPORT REVIEW

Thank you for the submittal of the East San Joaquin Water Quality Coalition (Coalition) Annual Management Plan Update Report (Annual MPUR), which was received on 1 April 2011. Staff has completed a review (enclosed with this letter) of the Annual MPUR 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) requirements.

With the exception of the items described below, the Coalition provided the necessary information for all components of the Annual MPUR. Based on the performance goals and measures, the Coalition has completed management plan implementation and evaluation for the first set of high priority site subwatersheds. The same level of completion is expected to be reached in April 2012 for the second set of high priority site subwatersheds.

Staff identified three items, for which the Coalition is required to follow up. These items are described in the enclosed memorandum.

1. The Coalition will send a notification to growers in the Deadman Creek @ Gurr Rd site subwatershed by the end of May 2011 regarding exceedances that occurred in 2010 and how to avoid water quality problems during 2011 and future irrigation seasons.
2. The Coalition will evaluate their site-subwatersheds schedule at the end of the 2011 irrigation season to determine if any potential changes need to be made to the 2012 4<sup>th</sup> set of high priority site subwatersheds. Any potential changes to the schedule will be discussed with Staff during the quarterly management plan meetings and must be approved by the Executive Officer prior to implementation.
3. The Coalition will need to submit an amendment with a summary of the results for Performance Measure 3.1 **by 27 June 2011** (Item 1 in page 2)

The items described above were also discussed with the Coalition at the 3 May 2011 quarterly meeting and by phone on 11 May 2011. If you have any questions or comments

**California Environmental Protection Agency**

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regarding the review, or need any further information, please contact Susan Fregien at 916-464-4813.

*Original Signed By*

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

*Original Signed By*

Joe Karkoski, Chief  
Irrigated Lands Regulatory Program

Enclosure: Staff Review of ESJWQC 1 April 2011 Annual MPUR



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**TO:** Susan Fregien  
Senior Environmental Scientist  
Irrigated Lands Regulatory Program

**FROM:** Dania Huggins  
Water resources Control Engineer  
Irrigated Lands Regulatory Program

**DATE** 17 May 2011

**SIGNATURE:** Original Signed By  
Dania Huggins

## REVIEW OF 1 APRIL 2011 ANNUAL MANAGEMENT PLAN UPDATE REPORT – EAST SAN JOAQUIN WATER QUALITY COALITION

On 1 April 2011, the East San Joaquin Water Quality Coalition (Coalition) submitted the Annual Management Plan Update Report (Annual MPUR) to the Central Valley Regional Water Quality Control Board Staff (Staff). The Annual MPUR is required per the Monitoring and Reporting Program Order No. R5-2008-0005 (MRP Order) and the Management Plan approved by the Central Valley Water Board Executive Officer on 25 November 2008. The Annual MPUR includes an update on Management Plan Monitoring results, new site/constituent combinations that require a Management Plan, and Management Plan implementation.

Staff comments are pursuant to the MRP Order and the Sacramento and San Joaquin River Basin Plan for specific parameters that have Total Maximum Daily Load (Basin Plan -TMDL) requirements. The section titles of this review are the same as the titles used in the Annual MPUR Checklist (Appendices I - V). Staff derived the Annual MPUR Checklist directly from the MRP Order and the Basin Plan -TMDL requirements. Staff used the Annual MPUR Checklist to verify that the content presented in the Annual MPUR met the minimum prescribed report requirements.

Staff's review is divided into two categories: (A) MRP Order requirements and (B) Basin Plan - TMDL requirements. The MRP Order and Basin Plan - TMDL items are subsequently listed in the order that they are described in the Annual MPUR Checklist (Appendices I - V). In this memorandum Staff provides a discussion of items that warranted further explanation.

### A. MRP ORDER REQUIREMENTS

The components in this section are subdivided into MRP Order requirements (Appendix I), which are described in Section III.D, page 24 of the MRP Order, and ESJWQC Management Plan requirements (Appendix II). The ESJWQC Management Plan requirements are part of the high priority strategy that the Coalition selected to implement their Management Plan.

### **MRP Order (Appendix I)**

The Coalition provided the necessary information for components 1 through 9 for management plan requirements as described in the MRP Order.

### **ESJWQC Management Plan – Priority Site-Subwatersheds (Appendix II)**

#### 1. Achievement of the performance goals and measures

The completion date of Performance Measure (PM) 4.1<sup>1</sup> for the first set of three high priority site-subwatersheds was 1 April 2011. The Coalition explained in the report and during the 3 May 2011 quarterly management plan meeting that management plan implementation and evaluation at the first set of high priority site subwatersheds are complete. However, some of the recommended management practices were implemented in 2010. Additionally, there was one exceedance found at Dry Creek at Wellsford Rd site subwatersheds during 2010. The Coalition follow up actions to this exceedance included: (1) analysis of land and pesticide use information, and (2) perform additional individual contacts with growers that could have potentially caused the exceedance. Based on information gathered from items (1) and (2), the Coalition was able to identify one new member within this area that had not been contacted before (with the initial surveys) and that was very likely to be the cause of the 2010 exceedance. An individual survey was completed by this grower in November 2010 and the Coalition will follow up to determine if the grower implemented some of the recommended management practices.

Therefore, the Coalition will be monitoring for management plan constituents at the first set of high priority site-subwatersheds for an additional year to obtain more water quality data at these sites. In addition, they received Proposition 84 grant funding allowing implementation of structural management practices. Thus, a more complete evaluation of management practices effectiveness will be submitted in the 1 April 2012 Annual MPUR.

The date for completion of PM 3.1<sup>2</sup> for the second set of four high priority site-subwatersheds is 28 February 2011 and 28 February 2012. The Coalition only included information regarding the recommended management practices but the information about what was implemented by growers was not included. The attendance rate for the scheduled February 2011 follow up meetings was minimal; thus, the meetings had to be canceled and re-scheduled for April 26 through 28. About 50% of the growers attended the follow up meetings scheduled for April 2011. Consequently, the Coalition will need to submit an amendment with a summary of the interim results for PM 3.1 **by 27 June 2011**. The final and complete summary of results for PM 3.1 will be available in the 1 April 2012 Annual MPUR.

#### 3. Evaluation of management practice effectiveness – Schedule and status

The evaluation of management practice effectiveness for the first set of three high priority site-subwatersheds is complete. A description of the type of management practices implemented and the percent of acreage represented is provided on pages 69 through 80 of the Annual MPUR.

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<sup>1</sup> Assess water quality results from Coalition monitoring locations within the priority site-subwatersheds.

<sup>2</sup> Performance Measure 3.1 –Document new management practices implemented by identified growers.

Management plan implementation began in 2009 and 2010 for the first and second sets of high priority site-subwatersheds, respectively. Staff has created a summary table with the number and percent of chlorpyrifos exceedances and pounds of chlorpyrifos applied for all seven site-subwatersheds (Tables 1 and 2).

**Table 1:** Number of chlorpyrifos exceedances > WQTL vs number of tests and pounds of chlorpyrifos applied in the 1<sup>st</sup> set of High Priority site-subwatersheds.

Year	Dry Creek at Wellsford Rd			Duck Slough at Hwy 99			Prairie Flower Drain at Crows Landing Rd		
	# Excee/ # Tests	% Excee	Lbs	# Excee/ # Tests	% Excee	Lbs	# Excee/ # Tests	% Excee	Lbs
2006	2/7	29	8,017	1/7	14	1,936	0/7	0	362
2007	2/10	20	6,901	1/9	11	663	1/10	10	740
2008	1/8	13	4,326	1/8	13	1,501	1/8	13	239
2009	1/2	50	4,880	0/3	0	979	0/1	0	NR
2010	1/3	33	3,949	0/3	0	296	0/2	0	80

NR = No reported use

**Table 2:** Number of chlorpyrifos exceedances > WQTL vs number of tests and pounds of chlorpyrifos applied in the 2<sup>nd</sup> set of High Priority site-subwatersheds.

Year	Bear Creek at Kibby Rd			Cottonwood Creek at Rd 20			Duck Slough at Gurr Rd			Highline Canal at Hwy 99		
	# Excee/ # Tests	% Excee	Lbs	# Excee/ # Tests	% Excee	Lbs	# Excee/ # Tests	% Excee	Lbs	# Excee/ # Tests	% Excee	Lbs
2006	1/7	14	1,651	0/7	0	7,978	0/7	0	2,483	1/7	14	15,253
2007	1/8	13	1,164	0/5	0	902	0/9	0	1,217	1/7	14	17,020
2008	0/10	0	1,817	2/7	29	2,158	0/9	0	2,449	2/9	22	2,341
2009	0/0	NA	328	0/0	NA	567	0/5	0	1,820	1/1	100	1,011
2010	0/2	0	673	1/1	100	1,563	0/2	0	1,801	0/3	0	889

#### 4. Revision of Management Plan strategies

All revisions to the Management Plan, originally approved on 25 November 2008, were approved by the Executive Officer prior to implementation. Because several management Plan amendments have occurred since the Management Plan was approved, Staff recommends that the Coalition add a summary of all Management Plan amendments in the 2012 Annual MPUR and subsequent Annual MPUR. This was also recommended in 2010 Annual MPUR review memorandum.

#### 6. Tracking and implementation of management practices - Schedule and status

From March through August 2010, three chlorpyrifos exceedances occurred at Deadman Creek @ Gurr Rd. In the Coalition's Management Plan it is described that for exceedances of priority A/B constituents (e.g. chlorpyrifos) the Coalition will conduct site-subwatershed grower meetings and also initiate specific grower group contacts (Management Plan, page 42). A summary of the Coalition's outreach/education meetings is given in Table 14; however, this summary did not include an outreach/education meeting for the Deadman Creek @ Gurr Rd site-subwatershed to address the exceedances. The Coalition explained

during the 3 May 2011 quarterly Management Plan meeting that growers at Deadman Creek @ Gurr Rd have received two mail notifications regarding the use of chlorpyrifos. The first notification included Staff's 23 August 2010 letter regarding chlorpyrifos and diazinon TMDL requirements in the lower San Joaquin River. In the second notification, the Coalition sent a flyer, to all growers, about how to "avoid chlorpyrifos water quality issues." The Coalition will send a third notification to growers in the Deadman Creek @ Gurr Rd area by the end of May 2011 to address 2010 exceedances and how to avoid water quality problems during future irrigation seasons.

Deadman Creek @ Gurr Rd is going to be addressed as a high priority area in 2012. Since the efforts for the 2011 high priority sites have already started, it would be difficult to include this site in 2011, given the limitations in time and resources. Thus, when multiple exceedances have occurred at one specific site, the Coalition will need to review the prioritization schedule as soon as the monitoring results are available. This item was discussed with the Coalition during the 3 May 2011 quarterly management plan meeting. The Coalition agreed to evaluate their site-subwatersheds schedule at the end of the irrigation season and any potential changes to the schedule are going to be discussed with Staff during the quarterly management plan meetings.

The schedule for addressing each site subwatershed with a detailed focused management plan approach (2011 Annual MPUR, Table 6) will be re-evaluated and revised annually if changes are needed.

## **B. BASIN PLAN - TMDL REQUIREMENTS**

The following discussion of the Sacramento and San Joaquin River Basin Plan TMDL requirements has been divided according to the appropriate TMDLs that the Coalition is required to implement, including chlorpyrifos and diazinon, dissolved oxygen, and salt and boron.

### **Chlorpyrifos and Diazinon TMDL (Appendix III)**

On 1 November 2010, the ESJWQC and the Westside San Joaquin River Watershed Coalition submitted a joint Annual San Joaquin River Chlorpyrifos and Diazinon Total Maximum Daily Load (TMDL) Report (Annual SJR C-D TMDL Report) for the period of January through September 2010. The Annual SJR C-D TMDL Report included the quarterly monitoring results and analysis at the six San Joaquin River Basin Plan compliance points (SJR Basin Plan sites) from March 2010 to September 2010 (irrigation season). The ESJWQC did not have all the tributary monitoring results available at the time that the Annual SJR C-D TMDL Report was submitted. Therefore, the ESJWQC provided the remaining information in the 1 April 2011 Annual MPUR. Coalitions are expected to provide an integrated evaluation of the tributary and SJR water quality information. Additionally, a complete analysis of compliance with WQOs and load allocations will be provided in the next Annual SJR C-D TMDL Report.

Staff will provide a response to all components of the San Joaquin River Chlorpyrifos and Diazinon TMDL described in the 2011 Annual MPUR and in the 2010 Annual SJR C-D

TMDL Report in the same letter. Staff is in the process of evaluating the Coalition's input and determining the appropriate monitoring and reporting requirements to adequately address all components of the San Joaquin River Chlorpyrifos and Diazinon TMDL.

**Dissolved Oxygen TMDL and Salt and Boron TMDL (Appendices IV and V)**

All the necessary reporting requirements for the Dissolved Oxygen TMDL and the Salt and Boron TMDL were provided by the Coalition.

Enclosure:

- Appendix I: Annual MPUR Checklist - MRP Order
- Appendix II: Annual MPUR Checklist – ESJWQC Management Plan
- Appendix III: Annual MPUR Checklist – Chlorpyrifos and Diazinon TMDL
- Appendix IV: Annual MPUR Checklist – Dissolved Oxygen TMDL
- Appendix V: Annual MPUR Checklist – Salt and Boron TMDL

**APPENDIX I  
Annual MPUR Checklist - MRP Order**

Report Name: ESJWQC Annual Management Plan Update Report		Reviewer Name: Dania Huggins				
Submittal Date: 1 April 2011		Review Date: 04/19/11- 05/09/11				
Item No.	Management Plan Component Description <sup>(1)</sup>	Review			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
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			20 - 21 (Prioritization of Exceedances) 16-33, 48-59, 76-82, 94-102, 117-140, 154-168, 181-197 (Source Identification and Outreach, Appendix I)	The overall strategy is also described in more details in the "Constituents Specific Traits" section of the MgtmPlan document (pages 24-38).  Similar strategy was used to identify the agricultural sources of the chlorpyrifos exceedance at the TMDL compliance site Las Palmas Avenue (2011, Annual MPUR page 120).
2	Identification of management practices to be implemented to address the exceedances.	X			49-80	Implementation of the recommended management practices for the 1st of HP site subwatersheds is described in the Annual MPUR. Follow up mtgs for 2nd Set of HP areas in 2011 occurred on April 26th and 28th for Bear Creek at Kibby Rd, Cottonwood Creek at Rd 20, Duck Slough at Gurr Rd, and Highline Canal at Hwy 99. The Coalition anticipates completing follow up surveys with growers in all four 3rd high priority site subwatersheds by July 30, 2011 (record current mgmt practices in Access).  The information provided in Table 26 (page 88) for Highline Canal @ Hwy 99 in terms of current management practices on place is different than the information provided in page 100. The percentages need to be revised and adjusted to be consistent.
3	Management practice implementation schedule. Implementation may occur through another Water Board regulatory program designed to address the specific exceedances.	X			31 (Table 9) 64 (Implemented Management Practices - 2009/2010)	Mgmt Plan implementation schedules have been provided for all high priority subwatersheds.
4	Management practice performance goals with a schedule.	X			29-31 and 36-37 (Performance Goals and Schedules)	Information on implementation schedules was provided in the Performance Goals and Schedules section for the first and second set of high priority site-subwatersheds.
5	Waste-specific monitoring schedule.	X			8 - 9 (2011 Mgtm Plan Monitoring Schedule, Table 2)	Schedule for the upstream monitoring sites is provided in Appendix I for the specific site-subwatersheds.
6	A process and schedule for evaluating management practice effectiveness.	X			29-31 and 36-37 (Performance Goals and Schedules)	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			31, 40 (Tables 8 and 12)	

**APPENDIX I  
Annual MPUR Checklist - MRP Order**

Item No.	Management Plan Component Description <sup>(1)</sup>	Acceptable	Unacceptable	Incomplete	Page No. (Section No.)	Comments
		A	U	I		
8	An identified routine schedule of reporting to the Regional Water Board.	X			1 (Executive Summary) 34 (Performance Goal 5) 116 (Chlorpyrifos and Diazinon TMDL)	The Coalition will be submitting Annual MPUR (1 April of every year) and is meeting quarterly with Regional Board staff to review status on high priority site-subwatersheds.  The ESJWQC and the Westside Coalitions submitted a joint Annual Chlorpyrifos and Diazinon TMDL Report on 31 October 2010. On 29 April 2011 they submitted a draft proposal for changes to the TMDL Report. One of the changes is a submittal date of 1 May (instead of October 31st). Staff is reviewing this proposal.
9	Signed Transmittal Letter.	X				
	<b>MRP Program Questions</b>					The Coalition provided answers and information to all the MRP Order questions in the 1 March 2011 AMR.
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			146-148 (2011 AMR)  111-114 (2011 Annual MPUR)	<b>Addressed in the ESJWQC 1 March 2011 AMR</b> In Table 46 of the AMR the Coalition provides a description of the Monitoring Sites and if Beneficial Uses are impaired.  <b>Addressed in the ESJWQC 1 April 2011 Annual MPUR</b>
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			149-155	<b>Addressed in the ESJWQC 1 March 2011 AMR</b> In this section and Table 47 of the AMR the Coalition addressed water quality status. Exceedances occurred in every zone during 2010. Additionally, in appendix II of the AMR the Coalition includes all tabulated results from January 2010 through December 2010.
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			152	<b>Addressed in the ESJWQC 1 March 2011 AMR</b>
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			153-154 ( 2011 AMR) 49-103 (2011 Annual MPUR)	<b>Addressed in the ESJWQC 1 March 2011 AMR</b> <b>Addressed in the ESJWQC 1 April 2011 Annual MPUR</b> The Coalition provided a summary indicating what growers implementing the recommended mgmt practices based on the 2009 individual surveys.
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			154-155 (1 March 2011 AMR)  111-114 (2011 Annual MPUR)	<b>Addressed in the ESJWQC 1 March 2011 AMR</b>  <b>Addressed in the ESJWQC 1 April 2011 Annual MPUR</b> Even though the Coalition is focusing on 3 to 4 site-subwatersheds a time, it is expected that with the current outreach strategy (e.g. county and subwatershed grower meetings) growers will take the initiative to implement the appropriate additional management practices before their site-subwatershed becomes a priority. A significant water quality improvement for chlorpyrifos was observed in 2009 when compared to 2008 results. Similar results were maintained in 2010, with exception of Zones 2 and 5, for which there was an increase in the number of chlorpyrifos exceedances. Exceedances in Zones 2 and 5 are being addressed through high priority strategy in those areas in 2010 and 2011, respectively.

**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)

**APPENDIX II**  
**Annual MPUR Checklist - ESJWQC Management Plan**

Report Name: ESJWQC Management Plan - Priority Site-subwatershed		Reviewer Name: Dania Huggins				
Submittal Date: 1 April 2011		Review Date: 04/19/11- 05/09/11				
Item No.	Annual MPUR Guidance Document Component Description <sup>(1)</sup>	Review			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
1	Provide sufficient information regarding achievement of the performance goals and measures	X			31-38 (Performance Goals and Schedules)	Information was provided in this section for the first and second set of high priority site-subwatersheds. There are some differences in the completion dates for the PM 4.1. of the first of high priority site-subwatersheds. See staff comments in the memo.
2	Provide performance goals and measures for the next set of high priority site subwatersheds or constituents	X			40-42 (Performance Goals and Schedules)	The Coalition submitted the Performance Goals and Measures for the third set of high priority site subwatersheds on 10/12/10. The draft was revised and approved by the EO among with other modifications on 17 November 2010. During the 5/3/11 quarterly meeting the Coalition provided a status of the individual growers contacted and surveys completed which corresponds to 33 % completion.
3	Provide a schedule and status of when evaluations will occur to determine the effectiveness of the management practice implementation.	X			31, 34 and 34, 38 (Performance Goals and Schedules)	Information was provided in this section for the first and second set of high priority site-subwatersheds. The Coalition will continue to do assessment and collect water quality data at the management plan monitoring sites thorough 2011. Thus, a more complete evaluation of the effectiveness will be provided in the April 2012 Annual MPUR.
4	Provide sufficient information when Management Plan strategies need to be revised. Any updates must receive Executive Officer approval.	X			24-25 (Management Plan Process) 24 (Management Plan Development Timelines)	There has been one change to the ESJWQC Mgmt Plan since the 2010 Annual MPUR staff response letter. This change was requested on 10/12/10 and included a modification to the Management Plan schedules prioritization. The request consists of an exchange of a site named "Ash Slough at Ave 21" for a site named "Lateral 2 ½ near Keyes Rd." The request was approved by EO on 11/17/10.  Staff has been meeting quarterly with the Coalition representatives since 2009 to discuss not only status of the management plan activities, but any potential changes and re-prioritization of the current high priority site subwatersheds.
5	Provide a status of Management Plan Tracking and Implementation Schedules	X			30-41	Information on implementation schedules was provided in the Performance Goals and Schedules section for the first, second, and third set of high priority site-subwatersheds.
6	Provide a status of management practices implementation schedules and the process for tracking them.	X			30-41, 69-70	Information on implementation schedules was provided in the Performance Goals and Schedules section for the first, second, and third set of high priority site-subwatersheds.
7	Provide an update on how TMDL requirements are being met. Management Plans were approved in part based upon complying with the Sacramento-San Joaquin Basin Plan components.	X			115-134	See Staff comments in the TMDL specific checklists for (1) chlorpyrifos and diazinon, (2) salt and boron, and (3) dissolved oxygen.
8	Sampling sites that are compliance monitoring sites for TMDLs <sup>(2)</sup>	X			115-131	The Westside Water Quality Coalition and the ESJWQC are splitting the six San Joaquin River compliance monitoring points. ESJWQC would sample (1) San Joaquin River @ Vernalis (Airport Way), (2) San Joaquin River @ Maze Rd, and (3) San Joaquin River @ Hills Ferry. Monitoring will occur quarterly. The Westside Water Quality Coalition monitored (4) San Joaquin River @ Las Palmas Ave (Patterson), (5) San Joaquin River @ Hwy 65 (Lander Ave), and (6) San Joaquin River @ Sack Dam. The Coalitions submitted the first Annual Chlorpyrifos and Diazinon TMDL Report on 1 November 2010.

**Footnotes**

- (1) "Guidance for Management Plan Update Report Items" submitted by Staff to ESJWQC on 10/23/2009 as per request of the ESJWQC to provide clarification on the minimum set of items that the Coalition needs to include in the Annual Management Plan Update Report (Annual MPUR) to comply with the requirements in Board Order No. R5-2008-0005.
- (2) Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (item 7, section IV-36.03)

**APPENDIX III  
Annual MPUR Checklist - Chlorpyrifos and Diazinon TMDL**

<b>Report Name:</b> ESJWQC Annual Management Plan Update Report			<b>Reviewer Name:</b> Dania Huggins			
<b>Submittal Date:</b> 1 April 2011			<b>Review Date:</b> 04/19/11- 05/09/11			
Item No.	Basin Plan Component Description <sup>(1)</sup>	Review Criteria			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
1	Determine compliance with established water quality objectives and the loading capacity applicable to diazinon and chlorpyrifos in the San Joaquin River.	X			116-122, Tables 31-33	WQO and load allocations were not met on 07/22/10 with samples collected at SJR Las Palmas Ave. A complete analysis of the tributaries to SJR Las Palmas Ave. was provided.
2	Determine compliance with established load allocations for diazinon and chlorpyrifos.	X			122-126, Tables 35-37	
3	Determine the degree of implementation of management practices to reduce off-site movement of diazinon and chlorpyrifos.	X			69-80 126-127	Implementation and evaluation of new management practices is described for the 1st set of high priority site-subwatersheds in terms of percent of acreage represented by newly implemented (2009/2010) management practices (MPs) for the three site-subwatersheds (Figures 15, 16, 17, and 18 on pages 73, 77, and 80, respectively).
4	Determine the effectiveness of management practices and strategies to reduce off-site migration of diazinon and chlorpyrifos.	X			104-110 126-127	Evaluation of new management practices is described for the 1st set of high priority site-subwatersheds in terms of percent of acreage represented by newly implemented (2009/2010) management practices for the three site-subwatersheds (pages 104 through 110).
5	Determine whether alternatives to diazinon and chlorpyrifos are causing surface water quality impacts.	X			127-129	
6	Determine whether the discharge causes or contributes to a toxicity impairment due to additive or synergistic effects of multiple pollutants.	X			129-130	
7	Demonstrate that management practices are achieving the lowest pesticide levels technically and economically achievable.	X			130-131	

**Footnotes**

- (1) Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (Diazinon and Chlorpyrifos Runoff in the San Joaquin River Basin, page V-4.00)

**APPENDIX IV  
Annual MPUR Checklist - Dissolved Oxygen TMDL**

<b>Report Name:</b> ESJWQC Annual Management Plan Update Report		<b>Reviewer Name:</b> Dania Huggins				
<b>Submittal Date:</b> 1 April 2011		<b>Review Date:</b> 04/19/11- 05/09/11				
Item No.	I. Basin Plan Component Description <sup>(1)</sup>	Review Criteria			Page No. (Section No.)	Comments
		Acceptable A	Unacceptable U	Incomplete I		
<b>Dissolved Oxygen TMDL Related Sections</b>						
1	Determine compliance with established water quality objectives and the loading capacity applicable to dissolved oxygen in the San Joaquin River.	X			2 (Introduction, Management Plan)	To demonstrate compliance with the TMDL limits, several agriculturally-influenced tributaries to the San Joaquin River are routinely monitored, as described in the East San Joaquin Water Quality Coalition's MRPP. The Coalition is addressing Dissolved Oxygen exceedances through the Management Prioritization process described in the Management Plan Process Section (page 21-28) of the current management Plan document.
<b>II. ILRP MRP Component Description <sup>(2)</sup></b>						
2	Process to comply with Dissolved Oxygen TMDL - Status	X			133-134 (1 April Annual MPUR)	The Coalition is addressing Dissolved Oxygen exceedances through the Management Prioritization process described in the Management Plan Process Section (page 21-28, Management Plan) of the current management Plan document. In addition, the Coalition is participating in the DO TMDL Technical Working Group meetings (Table 41, page 134).

**Footnotes**

- (1) Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins. Amendment for the Control Program for Factors Contributing to the DO Impairment in the Stockton Deep Water Ship Channel was adopted in 27 January 2005, and is in effect since 23 August 2006 by Resolution No. R5-2005-0005 into the Lower San Joaquin River. Final Staff Report October 2005
- (2) 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. Sections I.B and I.C (Pages 6 and 7)

**APPENDIX V  
Annual MPUR Checklist - Salt and Boron TMDL**

<b>Report Name:</b> ESJWQC Annual Management Plan Update Report			<b>Reviewer Name:</b> Dania Huggins			
<b>Submittal Date:</b> 1 April 2011			<b>Review Date:</b> 04/19/11- 05/19/11			
		<b>Review Criteria</b>				
<b>Item No.</b>	<b>I. Basin Plan Component Description (1)</b>	Acceptable	Unacceptable	Incomplete	<b>Page No. (Section No.)</b>	<b>Comments</b>
		<b>A</b>	<b>U</b>	<b>I</b>		
	<b>Salt/Boron TMDL Related Sections</b>					
1	Salt/boron at Vernalis: 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 32.00 - IV 32.08).	X			131-133	The 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. ILRP MRP Component Description (2)</b>					
2	Process to comply with the Salt and Boron TMDL - Status	X			131-133	The Coalition is (1) participating in ongoing Regional Water Board programs for the management of salt and boron, and (2) implementing actions required by the Regional Water Board. Additionally, the Coalition provided a summary of their participation in the: (1) CV Salts and (2) Real Time Management Program (RTMP) meetings (Table 39, page 132).

**Footnotes**

- (1) Fourth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins. Control Program for Salt and Boron Dischargers into the Lower San Joaquin River (Basin Plan IV 32.00) and is in effect since 23 August 2006 by Resolution No. R5-2005-0005 into the Lower San Joaquin River. Final Staff Report October 2005
- (2) 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. Sections I.B and I.C (Pages 6 and 7)