



# Surface Water Quality Management Plan Amendment

East San Joaquin Water Quality Coalition

Central Valley Regional Water Board

November 8, 2018



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## LIST OF ACRONYMS

AMR	Annual Monitoring Report
ESJWQC	East San Joaquin Water Quality Coalition
GQMP	Groundwater Quality Management Plan
MPIR	Management Practice Implementation Report
MPU	Monitoring Plan Update Report
SQMP	Surface Water Quality Management Plan

## LIST OF TERMS

Coalition – East San Joaquin Water Quality Coalition  
Coalition/ESJWQC region – The region within the Central Valley that is monitored by the East San Joaquin Water Quality Coalition

## OVERVIEW

The East San Joaquin Water Quality Coalition is submitting amendments to the Surface Water Quality Management Plan (SQMP) to incorporate new requirements within the revised Waste Discharge Requirements General Order (R5-2012-0116-R4). The SQMP amendment addresses how the Management Practice Implementation Report (MPIR) will be incorporated in the Coalition's current Management Plan Strategy and includes an MPIR survey template.

## MANAGEMENT PRACTICE IMPLEMENTATION REPORTING IN SURFACE WATER QUALITY MANAGEMENT PLANS

On page 32 of the revised Order, it is stated that "Commencing on 1 March 2019, Members in areas subject to a SQMP or GQMP shall complete a MPIR and submit a copy of the completed MPIR to the third-party group according to a schedule to be specified by the Third Party for each SQMP or GQMP and approved by the Executive Officer."

This Amendment serves to provide the schedule at which MPIRs will be completed, the types of questions that will be included on the survey, and when the Coalition will submit a revised MPIR for approval if the report needs to be tailored for a specific management plan.

### Incorporation of MPIR

The Coalition's current strategy for addressing surface water management plans includes conducting Focused Outreach in a site subwatershed with water quality impairments. The Focused Outreach process consists of sourcing of exceedances, individual meetings with targeted growers for outreach and education, tracking management practice implementation, and monitoring. Tracking management practice implementation involves 1) recording management practices used prior to outreach, 2) Coalition representatives reviewing and possibly recommending additional practices, and 3) documenting new practices implemented as a result of outreach. The year following the initial visit, the Coalition sends a follow-up survey to all targeted growers to determine if additional management practices were implemented as a result of outreach. Additionally, if practices were recommended by Coalition representatives, members are asked if the practices were implemented (Appendix I). If recommended practices were not implemented, the members are asked to indicate why.

The Coalition will continue to use the current process for addressing surface water management plans with the exception that the Coalition will have targeted members complete an MPIR survey that they will receive in their MPIR packet. The MPIR survey will replace the current Focused Outreach survey.

The format of the Coalition's current Focused Outreach Survey is successful at documenting management practices targeted growers have in place, and identifying additional management practices to address water quality impairments. When members are prompted to complete the survey while meeting with Coalition staff, the questions are applicable to the constituents of concern that result in impaired water quality and likely originate from irrigated cropland. The survey includes questions about irrigation practices, storm drainage management, erosion and

sediment control, pest management, dormant spray management, and product use. The questions are more in depth than those included on the Farm Evaluations so the growers are able to provide Coalition representatives with a deeper understanding of farm management.

For surface water management plans, the ESJWQC will use the existing Focused Outreach packet that will be referred to as the MPIR packet and include an MPIR survey for growers to fill out with representatives at individual meetings. The Coalition's annual Monitoring Plan Update (MPU) will identify the site subwatersheds selected for Focused Outreach and will contain an attachment of the updated MPIR survey for review by the Regional Water Board if modifications are necessary to address the specific exceedances in the next Focused Outreach cycle. If no modifications are necessary the Coalition will not include the MPIR survey with the submittal of the MPU. The MPIR packet included in Appendix I will be utilized for all pesticide and toxicity surface water management plans that rotate into focused outreach.

## MPIR Reporting

On August 1 each year, the Coalition identifies one to three site subwatersheds where focused outreach is necessary. Site subwatersheds are selected based on recent exceedances, the 10-year compliance deadlines, and the Coalition's ability to confidently identify sources and recommend management practices. Members targeted for Focused Outreach are required to complete their MPIR survey with a Coalition representative. The following year, follow up surveys are sent to document if additional practices were implemented based on information received during outreach.

All practices reported on the MPIR and follow up survey that address the surface water management plan(s) will be summarized and submitted in the July 1 Management Practice Implementation and Nitrogen Application report. The data will be analyzed using the same approach as in previous Annual Reports.

## 2019 Focused Outreach

The Cottonwood Creek @ Rd 20 site subwatershed was selected for 2019 Focused Outreach due to exceedances of chlorpyrifos, copper, and malathion during the 2018 WY. Cottonwood Creek @ Rd 20 is the Core site in Zone 6 and monitoring was initiated at the site in 2005. The Coalition last conducted Focused Outreach in the site subwatershed from 2010 through 2012. As a result, the lead, diazinon, and diuron management plans were approved for completion based on improved water quality; current management plans include chlorpyrifos and copper.

Members targeted for Focused Outreach will be notified to schedule their individual meeting with Coalition representatives to review their MPIR packet and complete the MPIR survey. The packet will provide all of the necessary information to inform members of recent water quality impairments. The MPIR survey will track the practices that members are currently implementing and any additional practices Coalition representatives recommend members implement to address surface water management plans.

The MPIR packet included in Appendix I contains:

1. Member parcel information
2. Reasoning for targeting the member,

3. Table of exceedances from past three years,
4. Map of member parcels in relation to sampling location,
5. MPIR Survey, and
6. Follow-Up Survey.

The MPIR survey will remain the same from year to year with the exception of question four under the Pest Management Questions which will be specific to the current site management plans and/or recent exceedances within the site subwatershed. A list of constituents of concern per site subwatershed will be provided in the MPU for the sites that have been selected for Focused Outreach.

[Subwatershed]

[Year]

# Management Practice Implementation Report

ESJWQC Member ID# [Prepopulated]

Date: \_\_\_\_\_

Attendees: \_\_\_\_\_  
\_\_\_\_\_

**Packet Contents**

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**NOTIFICATION:**

The management practices discussed during initial meetings will be recorded and participating members will be questioned in one year to determine which, if any, new practices were implemented. This information will be used to evaluate water quality monitoring results to assess any trends/associations between water quality and improved management practices.

**Table 1. Parcel Information.** [prepopulated with enrolled parcel information]

APN(s)	Commodity	Enrolled Irrigated Acres
	<b>Total Acres</b>	

**Table 2: Decision for Targeting Member.** [prepopulated with yes/no for the questions below to indicate why the member is receiving the MPIR]

Questions Used to Determine Contact List	Yes	No
Member parcel(s) located in a watershed that will not meet 10-year compliance deadline for a management plan constituent?		
Member parcel(s) have the potential to drain to the waterbody?*		
Member parcel(s) irrigated agriculture and not “pastureland only.”		
Member’s 2017 Farm Evaluation outstanding?		
Member parcel(s) are directly associated via Ag Permits with recent exceedances (Indicated in Table 3).		

\*The Coalition defines the potential to drain as being located within 200 yards from a body of water.

**Table 3. [Site Subwatershed] Management Plan constituent exceedances.**

October 2015 - July 2018.

Sample Date	Chlorpyrifos, >0.015 µg/L	Malathion, ND	Copper, dissolved (hardness based WQTL)
11/7/2017			1.7 (1.67)
6/12/2018	0.025	0.03	
7/10/2018			4.8 (4.6)
<b>2016-2018 Total Exceedances</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>2004-2018 Total Exceedances</b>	<b>4</b>	<b>1</b>	<b>26</b>

**Figure 1. Member parcels selected for focused outreach in relation to monitoring location** [map included showing the member parcels receiving an MPIR relative to the monitoring location; member parcels are identified in a legend associated with the map].

**Figure 2. Map of member parcels.** [map of only the member parcels zoomed into identify the APN, TRS, and nearby roads]  
The 9-digit numbers are APNs and 7-digit numbers are the TRSs associated with the parcel(s).

## Management Practice Implementation Report

### Irrigation Questions

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#### 1. Irrigation System:

- Surface
- Sprinkler
- Microirrigation
- Drip
- None
- Other:

#### 2. Do you have irrigation drainage?

- Yes
- No

Notes:

#### 3. Irrigation management practices:

N/A	Already Implemented	Recommended	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser leveled fields
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use drainage basins (sediment ponds) to capture and retain runoff
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recirculation – tail water return system
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Use of polyacrylamide (PAM) to increase water infiltration and reduce furrow erosion

#### 4. Which do you base your irrigation schedule on:

- Irrigation district deliveries
- Actual moisture levels in soil/crop needs

### Storm Drainage Questions

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#### 1. When do you have storm water drainage from your field (select one option)?

- Only in heavy storms (*For Example: > 3 inches of precipitation over 24 hours*)
- After soil is saturated in late winter
- On most rain events (*For Example: > 0.25 inches of precipitation over 24 hours*)
- No storm drainage

#### 2. How are you able to manage storm drainage, if you have any?

N/A	Already Implemented	Recommended	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Settling pond
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recirculation – tail water return system
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pump/Drain into waterway - able to control timing of release
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pump/Drain into waterway - NOT able to control timing of release
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Berms between fields/waterway are able to control water

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## Erosion and Sediment Question

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### 1. Sediment management practices:

- | N/A                      | Already Implemented      | Recommended              |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vegetation is planted or allowed to grow in and along ditches             |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Maintain vegetated filter strips around field perimeter at least 10' wide |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Constructed wetlands  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Grass row centers (orchards, vineyards)                                   |

## Pest Management Questions

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### 1. Spray management practices :

- | N/A                      | Already Implemented      | Recommended              |  |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Adjust spray nozzles to match crop canopy profile                                  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Outside nozzles shut off when spraying outer rows next to sensitive sites          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use of nozzles that provide the largest effective droplet size to minimize drift   |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Spray areas close to waterbodies when the wind is blowing away from the waterbody  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use of electronically controlled spray nozzles                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Use air blast applications when wind is between 3-10 mph upwind of sensitive sites |

### 2. How often is spray equipment calibrated?

- Prior to each application
- Once per month
- Once per year
- Never

### 3. Do you follow pesticide label restrictions especially related to timing of application and timing of irrigation?

- Yes
- No
- Not Applicable because:

### 4. Do you plan to use any of the following? If so, which crops are chemicals applied to?

The active ingredients listed below are chemicals that have been or are currently under a management plan for this site subwatershed. Chemicals in **red** text are currently in a management plan within the subwatershed. **[Updated based on site and management plans]**

Dormant Season	Irrigation Season	Plan to use in future?		Crops Applied To:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>[Chlorpyrifos]</b>	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>[Copper]</b>	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[Diazinon]	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	[Diuron]	_____
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>[Malathion]</b>	_____

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## Dormant Spray Management Questions

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1. How many acres are sprayed with dormant insecticides? \_\_\_\_\_

2. Prior to applying winter dormant sprays, what is the condition of your orchard floor?

- Vegetative cover
- Vegetative cover with sprayed berms
- No vegetation and not disked
- Some vegetation
- Disked

3. Do you apply when soil moisture is at field capacity?

- Yes
- No
- Not Applicable because:

4. Dormant spray management practices:

N/A	Already Implemented	Recommended	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check weather conditions prior to spraying (precipitation status)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maintain setbacks

5. Have you been informed of DPR's Dormant Spray Regulations?

- Yes
- No

## Information Request

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I would like information about:

- Best Management Practices (BMPs) to protect water quality
- Potential funding to install BMPs
- Other \_\_\_\_\_

Notes

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## REQUIRED Follow-Up Survey to On-Farm Visit

This survey is in follow-up to the meeting on [Date] for the following property near [Site Subwatershed]. Based on the information received during your meeting with [Coalition Representative Name], the Coalition would like to know if you implemented additional management practices to address recent exceedances in the site subwatershed.

Survey responses for which you selected N/A on the initial Management Practice Implementation Report are shown below by category. Check the box for anything you have changed since meeting with Coalition representatives. Fill out the bottom of the page if you were recommended additional practices.

Attendee(s):

[Member/Member Representative Name], [Coalition Representative Name]

Parcel Number                      Acreage  
[XXX-XX-XXX]                      [XX]

### Section 1: Irrigation Water Management

*Irrigation Management Practices:*

	Original Response	Change
Laser leveled fields	<b>Recommended</b>	<input type="checkbox"/>
Use drainage basins (sediment ponds) to capture and retain runoff	N/A	<input type="checkbox"/>
Recirculation - Tailwater return system	N/A	<input type="checkbox"/>
Use of Polyacrylamide (PAM) to increase water infiltration and reduce furrow erosion	N/A	<input type="checkbox"/>

### Section 2: Storm Drainage

*How are you able to manage storm drainage?*

	Original Response	Change
Settling Pond	N/A	<input type="checkbox"/>
Recirculation – Tailwater return system	N/A	<input type="checkbox"/>
Pump/Drain into waterway & able to control timing	N/A	<input type="checkbox"/>
Berms between field and waterway (install and/or improve)	N/A	<input type="checkbox"/>

### Section 3: Erosion & Sediment Management

*Sediment Management Practices:*

	Original Response	Change
Maintain vegetated filter strips around field perimeter at least 10' wide	<b>Recommended</b>	<input type="checkbox"/>
Constructed wetlands	N/A	<input type="checkbox"/>

### Section 4: Pest Management

*Spray Management Practices:*

	Original Response	Change
Adjust spray nozzles to match crop canopy profile	N/A	<input type="checkbox"/>
Use of nozzles that provide the largest effective droplet size to minimize drift	<b>Recommended</b>	<input type="checkbox"/>
Use electronic controlled sprayer nozzles	N/A	<input type="checkbox"/>

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Did you implement the recommended practices? (If Any) \_\_\_\_\_

If not, why not? \_\_\_\_\_

If planning, when? \_\_\_\_\_