

---

## Central Valley Regional Water Quality Control Board

5 January 2015

Mr. Mike Wackman  
San Joaquin County and Delta Water Quality Coalition  
3422 W. Hammer Lane, Suite A  
Stockton, CA 95219

### **APPROVAL OF THE 2015 WATER YEAR MONITORING PLAN UPDATE – SAN JOAQUIN COUNTY AND DELTA WATER QUALITY COALITION**

Thank you for the timely submittal of the Monitoring Plan Update for the 2015 water year within the San Joaquin County and Delta Water Quality Coalition (Coalition) Area. Staff reviewed the proposed monitoring plan for compliance with the Monitoring and Reporting Program (MRP) R5-2014-0029.

Staff determined that the Coalition's proposed schedule includes monitoring of constituents during application periods, or the time when constituents of concern affected water quality in the past, and that the proposed monitoring plan complies with the MRP requirements. Pesticides will continue to be monitored as described in the Coalition's 2008 approved Monitoring and Reporting Program Plan until the process for identifying pesticides that require monitoring (MRP, Section III.C.3) has been completed. The Coalition must ensure that at least two storm runoff events are monitored. As such, monitoring proposed for the 2015 water year will provide sufficient data to describe irrigated agriculture's impacts on surface water quality.

Based on the information in the submitted documents and the attached staff memorandum, I approve the Coalition's revised Monitoring Plan for the 2015 water year. Items identified in the *Staff Recommendations* portion of the attached memo should be addressed in future Monitoring Plan Update (MPU) reports. The next MPU report is due by 1 August 2015.

Per your 31 October request letter to relocate monitoring site West Orwood Tract Drain to East Orwood Tract Drain, I agree that relocation to the island's outlet will better represent agriculture. West Orwood Tract drain is located at the island's inlet. East Orwood Tract Drain is at the island's outlet. The site change will need to be reflected in a MPU Amendments summary table. Please submit the table to staff by **30 January 2014**.

If you have questions regarding this letter, please contact Chris Jimmerson at (916) 464-4859 or by email at [Chris.Jimmerson@waterboards.ca.gov](mailto:Chris.Jimmerson@waterboards.ca.gov).

*Original signed by: Adam Laputz*

Pamela C. Creedon  
Executive Officer

Enclosure: Staff Review of Monitoring Plan Update

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

---

11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | [www.waterboards.ca.gov/centralvalley](http://www.waterboards.ca.gov/centralvalley)

---

## Central Valley Regional Water Quality Control Board

**TO:** Susan Fregien  
Senior Environmental Scientist  
Monitoring and Implementation Unit  
Irrigated Lands Regulatory Program

**FROM:** Chris Jimmerson  
Environmental Scientist  
Monitoring and Implementation Unit  
Irrigated Lands Regulatory Program

**DATE:** 15 October 2014

**SUBJECT:** MONITORING PLAN UPDATE FOR 2015 WATER YEAR – SAN JOAQUIN COUNTY AND DELTA WATER QUALITY COALITION

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) received a Monitoring Plan Update from the San Joaquin County and Delta Water Quality Coalition (Coalition) on 1 August 2014, as required by the Monitoring and Reporting Program (MRP) R5-2014-0029. Staff and the Coalition held a meeting on 26 September to discuss and clarify language presented in the monitoring plan. On 7 October, the Coalition submitted a revised Monitoring Plan Update with additional information and evaluations. The Monitoring Plan Update report provides the proposed surface water monitoring schedule for the period 1 October 2014 through 30 September 2015 (2015 water year).

Staff reviewed the 2015 water year MPU to determine compliance with requirements pursuant to the Monitoring and Reporting Program. Overall, the Coalition approached the very complex assessment of monitoring sites and parameters in a systematic and logical way. An overview of the main elements of the proposed monitoring plan is presented below, followed by staff recommendations.

### **Storm Runoff Monitoring**

Per section III.C.1 in the MRP, sampling events must be scheduled to capture at least two storm runoff events per year and storm runoff monitoring criteria shall be identified. The Coalition defines a storm event with at least 0.5 inch of rain recorded in the Coalition region within a 24 hour period. The criteria are based on the 2008 approved Monitoring and Reporting Program Plan.

### **Monitoring Sites, Parameters, Schedule, and Frequency**

The monitoring design for the 2015 water year includes Core sites and Representative sites. There are six Core sites. Since Zone 6 has very little agriculture and the Order did not identify a Core site, the Core site for this zone will be at Roberts Island at Whisky Slough Pump, which was determined to be representative of discharges for Zone 6.

The Coalition is required to identify a specific set of monitoring parameters for each Core and Represented site, and include a discussion of the rationale to support the proposed parameters and schedule. Monitoring schedule and frequency for the 2015 water year relies mostly on previous monitoring results and pesticide use trends or reports to capture runoff data during times when the pollutant is most likely to be present. The following text discusses the monitoring parameters and schedule.

### **1. Core Site Monitoring**

Core site monitoring will be conducted in six of the seven zones. The MPU's Appendix 1 lists the analytes that will be monitored in the 2015 water year; the monitoring will include field measurements, nutrients, field and general physical parameters, metals, pesticides, and water column and sediment toxicity, meeting the requirements in the MRP. With the exception of metals, paraquat, glyphosate and sediment toxicity (see below), all constituents will be monitored once per month at all core sites. This is reasonable and meets the Order's requirements.

Under the MRP, monitoring for the total fraction of cadmium, copper, lead, nickel, and zinc has been replaced by monitoring of the dissolved fraction, which is considered to be bioavailable. To identify which metals need monitoring and during what period, the Coalition followed an evaluation process shown in Figure 2 of the MPU, which takes into account previous monitoring results, pesticide use information, geologic conditions, and Basin Plan requirements. Paraquat, glyphosate and sediment toxicity will be monitored twice per year during a storm and an irrigation event to coincide with high TSS/runoff events.

A process for selecting pesticides to be monitored and determining where monitoring is required is currently being developed with input from scientists and in coordination with the Department of Pesticide Regulation. Until the process for pesticide selection is developed, the Coalition proposes to monitor pesticides based on the 2008 Monitoring and Reporting Program pesticide list.

### **2. Represented Site Monitoring**

Per the MRP, the Coalition identified "to be determined" sites in Table 1 of the Order and listed them in the MPU's Table 1. Since the new sites have no prior monitoring history, the Coalition will evaluate the new Represented sites based on management plan monitoring constituents at the Core sites and applications of chemicals at the new site. The Coalition also proposes to evaluate the potential for similar risks at Represented sites associated with any exceedances found during monitoring at the Core site. The MPU provides a description and a flow chart (Figure 3) describing the process.

As the 2015 water year is the first year under the new monitoring design, the proposed monitoring at Represented sites with prior monitoring history is based on the management plans already in place at each site and on the evaluation of constituents under an existing management plan at the respective core site. The Coalition will evaluate the potential for threats to water quality associated with the identified Core site parameters at each of the Represented sites in that zone, and if needed, conduct monitoring. The Coalition also evaluates toxicity identification evaluations (TIEs) and pesticide use that could have caused toxicity. If the Coalition cannot identify the cause, then the Coalition reviews pesticide use reports to identify application periods for the groups of chemicals that generally associate with the observed toxicity, providing a way to focus the monitoring timing.

### 3. Management Plan Monitoring

The Coalition will continue with the strategy approved in the 2008 Management Plan. Efforts will continue to include general outreach and compilation of the Farm Evaluation surveys. The low priority analytes, which are those that are difficult to source or are not applied by agriculture, will be addressed through the May 2015 Surface Water Quality Management Plan.

### 4. TMDL Monitoring

To ensure compliance with the Diazinon and Chlorpyrifos Total Maximum Daily Load (TMDL) requirements, the Coalition will monitor four sites that represent the Delta Waterways (Table 1).

Table 1. TMDL diazinon and chlorpyrifos waterbody areas with the represented location name.

TMDL Waterbody Areas	Location Name
San Joaquin River (Stanislaus River to Delta Boundary)	Walthall Slough at Woodward Ave.
Delta Waterways (Stockton Ship Channel)	San Joaquin River at West Neugerbauer Rd.
Delta Waterways (export area, southern and western portions)	Old River at the west end of Clifton Court Rd.
Delta Waterways (central and eastern portions), Mosher Slough and Five Mile Slough	Light House Restaurant at West Brannon Island Rd.

Samples will be collected once during winter storm season (January/February), and monthly from May through August which is when applications are highest. To assess compliance with load allocations, the Coalition will need to monitor at additional Represented sites nearest to the Delta. See *Staff Recommendations* below.

Although there are TMDLs for salt, selenium and boron at the edge of the Coalition's boundary near Vernalis, the TMDLs do not require monitoring for these within the Coalition boundary. The East San Joaquin Water Quality Coalition and Westside San Joaquin River Watershed Coalition conduct the required monitoring in accordance with their Orders. Therefore, staff does not recommend salt, selenium or boron monitoring at this time since the TMDLs are based on sources found almost entirely outside of the Coalition boundary.

Mercury TMDL – monitoring requirements will be identified by the Central Valley Water Board following completion of Phase 1 Control studies.

San Joaquin River dissolved oxygen TMDL – see *Staff Recommendations* below.

### 5. 303(d) Constituents

The MRP requires that the 303(d) listed constituents are to be monitored if irrigated agriculture is a contributing source and the Executive Officer requests that monitoring be performed. At this time, the Executive Officer has not requested monitoring of specific 303(d) constituents. However, the Coalition will be monitoring for certain metals on 303(d) listed waterbodies, based on their evaluation of monitoring history and exceedances.

**STAFF RECOMMENDATIONS**

After staff met with the Coalition in September, the Coalition addressed many staff questions in the revised MPU. The following items should be addressed in the 1 August 2015 MPU.

- I. TMDL monitoring:
  - a. The MPU includes chlorpyrifos and diazinon TMDL monitoring within the Legal Delta to assess loading compliance. The MPU should state that the results collected from sites outside and nearest to the Delta, will be used to assess compliance with the load allocation.
  - b. Agriculture has been identified as a contributing source to low dissolved oxygen in the Stockton Deep Water Ship Channel. The MPU should acknowledge that the Coalition reviews dissolved oxygen monitoring results in the Stockton DWSC and from within its tributaries to assess compliance with the dissolved oxygen water quality objectives required in the TMDL.
  - c. Appendix I is presumably a comprehensive list of Core, Representative, and Management Plan monitoring. The TMDL monitoring schedule, which is part of management plan monitoring, should also be included here, as provided in the other MPU tables.
- II. Staff noted minor discrepancies in the Excel spreadsheet monitoring schedule submitted as an attachment versus the Appendix I.
  - a. The Excel monitoring schedule should be reconciled with the Appendix I. Management plan monitoring for disulfoton and *S.capricornutum* at Sand Creek, and management plan monitoring for chlorpyrifos at Upper Roberts Island Drain are not indicated on the Excel monitoring schedule.