13 November 2015

Mr. Parry Klassen, Executive Director  
East San Joaquin Water Quality Coalition  
1201 L Street  
Modesto, CA 95354

APPROVAL OF THE 2016 WATER YEAR MONITORING PLAN UPDATE – EAST SAN JOAQUIN WATER QUALITY COALITION

Thank you for the timely submission of the Monitoring Plan Update (MPU) for the 2016 water year within the East San Joaquin Water Quality Coalition (Coalition) Area. Staff reviewed the proposed monitoring plan for compliance with the Monitoring and Reporting Program (MRP) R5-2012-0116-R3 (Order).

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 2016 water year is consistent with the requirements of the Order.

Based on the information in the submitted documents and the attached staff memorandum, I approve the Coalition’s revised Monitoring Plan for the 2016 water year. If you have questions regarding this letter, please contact Yared Kebede at (916) 464-4828 or by email at yared.kebede@waterboards.ca.gov.

Sincerely,

Original signed by

Pamela C. Creedon  
Executive Officer

Enclosure: Staff Review of Monitoring Plan Update

Cc: Michael Johnson, MLJ-LLC, Davis
TO: Susan Fregien  
Senior Environmental Scientist  
Monitoring and Implementation Unit  
Irrigated Lands Regulatory Program

FROM: Yared Kebede  
Environmental Scientist  
Monitoring and Implementation Unit  
Irrigated Lands Regulatory Program

DATE: 10 November 2015

SUBJECT: EAST SAN JOAQUIN WATER QUALITY COALITION’S MONITORING PLAN UPDATE FOR 2016 WATER YEAR

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) received a Monitoring Plan Update (MPU) report from the East San Joaquin Water Quality Coalition (Coalition) on 1 August 2015, as required by the Monitoring and Reporting Program (MRP) R5-2012-0116-R3 (Order). The MPU report provides the proposed surface water monitoring schedule for the 2016 water year (1 October 2015 through 30 September 2016). Staff and Coalition representatives held a meeting on 3 September to discuss staff’s comments and questions on the MPU. On 18 September, the Coalition submitted a revised MPU with clarifications and corrections.

Staff reviewed the 2016 water year MPU to determine compliance with requirements pursuant to the MRP Order. Overall, the proposed monitoring plan meets the requirements of the Order, and staff recommends approval of the Coalition’s 2016 MPU. A summary of the main elements of the proposed monitoring plan is below.

Monitoring Sites, Parameters, Schedule and Frequency

The monitoring design for the 2016 water year includes six Core sites (one Core site for each of the six zones in the Coalition region), 23 Represented sites, and three sites established for diazinon and chlorpyrifos Total Maximum Daily Load (TMDL) compliance on the San Joaquin River. As required by the MRP Order, the Coalition identified a specific set of monitoring parameters for each site that is scheduled to be monitored (see MPU, Tables 1 and 2), selected appropriate monitoring periods, and included a discussion of the rationale to support the proposed schedule.

As required by the MRP Order, the Coalition will schedule sampling events to capture at least two storm runoff events per year. The Coalition defines a storm monitoring event as “monitoring within three days of a rainfall event that exceeds 0.25 inches within 24 hours.”
1. Core Site Monitoring

The Coalition scheduled Core site monitoring at the second set of Core sites (MPU Table 6) for the 2016 water year as required in the Order. These Core sites will be monitored for two consecutive years for all constituents, with the exception of metals, glyphosate, paraquat, and sediment toxicity. When a water quality objective or a trigger limit is exceeded at the monitored Core site, the parameter associated with the exceedance will be monitored for a third consecutive year (unless already under a management plan).

Pesticides: Until the process for selecting pesticides to be monitored is completed and issued by the Executive Officer, the Coalition will monitor currently registered pesticides in MPU Table 7. Pesticide monitoring is proposed to be monthly, with the exception of glyphosate and paraquat, which will be monitored during one storm and one irrigation event, as approved on 6 May 2011.

Metals: As required in the MRP, an evaluation of each metal at each site provides justification for a decision whether monitoring is needed. The evaluation considers previous monitoring data, 303(d) status, monitoring history (adequate characterization and exceedances), management plan status, Toxicity Identification Evaluation (TIE) results, pesticide application history and acres treated. Staff reviewed the Coalition’s decision process and proposed monitoring schedule and concurs with the metals monitoring decision.

Aquatic and Sediment Toxicity: The Coalition surface water monitoring includes monthly monitoring of water column toxicity to three test species (Ceriodaphnia dubia, Pimephales promelas and Selenastrum capricornutum). The Coalition will conduct TIEs to identify the potential sources of toxicity (e.g. metals, pesticides, ammonia, etc.) when percent survival or growth is 50% or less compared to the control. The Coalition will also monitor sediment toxicity to Hyalella azteca twice a year (once each during irrigation and storm runoff events). Additional sediment chemistry analyses for chlorpyrifos, piperonyl butoxide and pyrethroids will be conducted on sediment samples when survival of H. azteca is less than 80% compared to the control.

2. Represented Site Monitoring

As the 2016 water year is the first year to be monitored under the updated Surface Water Quality Management Plan (SQMP), the proposed monitoring at the Represented sites (MPU pages 35-100) is based on: a) the management plans for high-priority constituents (applied pesticides, metals and toxicity) already in place at each Represented site, and b) exceedances of the trigger limit for a constituent at the representative Core site that are evaluated and deemed to also pose a threat to water quality at the Represented site.

a) The evaluation of management plan monitoring took into account previous monitoring results and pesticide use reports (MPU Figures 10 - 40) for the high-priority constituents in Represented subwatersheds. The evidence considered in the evaluation of management plan monitoring is documented for pesticides and applied metals, and the MPU contains a justification for the proposed monitoring schedule.

b) To evaluate the potential for similar risks or threats to water quality at the Represented sites when an exceedance of a water quality trigger limit was observed at a Core site, the Coalition considered pesticide use information (including pounds of Active Ingredients and trends in use through time), previous monitoring results, and acres treated.
On 29 September, the Executive Officer approved the Coalition’s proposal to participate in the Delta RMP, and suspend monitoring at Highline Canal @ Lombardy Rd. The Coalition shifted all management plans and monitoring to the representative, Highline Canal @ Hwy 99, site.

The Coalition proposes to develop source identification studies and workplans for constituents with potential irrigated agricultural sources that need further evaluation, including nutrients (ammonia, nitrate), metals (arsenic, cadmium, lead and molybdenum), bacteria (*E.coli*), and the legacy pesticide DDE at the Represented sites. The exception are sites with a lead management plan for which the Coalition proposes to continue monitoring for dissolved lead to gather sufficient data and justify the management plan completion. Staff conducted a detailed review of the evaluations and justifications for monitoring decisions at the Represented sites, and concurs with the rationale and monitoring decisions provided in the MPU.

3. Management Plan Monitoring
The Coalition’s management plan monitoring schedule is based on the monitoring strategy proposed in the updated SQMP, and considers the 10-year compliance schedule (MPU Table 4). The Coalition followed an evaluation process (MPU Figure 1) for high priority constituents to conduct focused outreach and water quality monitoring in site subwatersheds that will reach the compliance deadline within three years. The Coalition proposes to delay water quality monitoring for newly initiated management plans until the start of focused outreach, when the 10-year deadline is not within the next three years. Staff concurs with the Coalition’s Management Plan Strategy, as this approach will allow the Coalition to identify and implement management practices necessary to meet the receiving water limitations, evaluate compliance, and meet the 10-year deadline required by the Order.

The Coalition outlined a timeline to address management plan constituents that require workplans and source identification studies (SQMP Table 18). The results of the preliminary analyses (DO, pH, molybdenum, arsenic), conclusion of region-wide programs, CV-SALTS (specific conductance, ammonia, nitrates), and development of a workplan (*E.coli*, DDE) will be used to define an appropriate monitoring strategy for these management plan constituents. Staff supports the proposal to monitor constituents that require source identification studies as part of an approved source identification study.

4. TMDL Monitoring
To ensure compliance with the diazinon and chlorpyrifos TMDL requirements, the Coalition is responsible for monitoring three of the six compliance points, including San Joaquin River at the Airport Way Bridge near Vernalis. On 29 September, the Executive Officer approved the Coalition to suspend monitoring at the Vernalis site and instead utilize the Delta RMP data from Vernalis for chlorpyrifos and diazinon TMDL compliance. The Coalition will continue monitoring the two remaining compliance sites, i.e., San Joaquin River at Hills Ferry Rd and San Joaquin River at the Maze Blvd Bridge, as proposed in the MPU. The Westside San Joaquin River Watershed Coalition monitors the other three compliance points monthly. To assess compliance with the load allocations, monthly monitoring of TMDL constituents will occur at six Core sites; chlorpyrifos will also be monitored at 12 Represented sites.

Monitoring requirements for the remaining adopted TMDLs (San Joaquin River Deep Water Ship Channel dissolved oxygen and San Joaquin River salt, boron, selenium) will continue to be conducted at the Core and Represented monitoring sites.