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Central Valley Regional Water Quality Control Board

13 February 2014

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

REVISED 2014 WATER YEAR MONITORING PLAN – EAST SAN JOAQUIN WATER QUALITY COALITION

Thank you for submitting the revised Monitoring Plan Update for the 2014 water year within the East San Joaquin Water Quality Coalition (Coalition) region.

Central Valley Regional Water Quality Control Board staff reviewed the addendum and the revisions submitted on 10 December 2013 for items requested in the 9 October 2013 conditional approval of the Coalition's monitoring plan. Staff found that all items were adequately addressed, and that the Coalition's revised Monitoring Plan Update meets the requirements in the Monitoring and Reporting program plan R5-2012-0116-R1.

I approve the Coalition's revised Monitoring Plan for the 2014 water year. As noted in the attached memorandum, management plan monitoring is not required for site/constituent combinations approved for removal from the Coalition's Management Plan on 15 October 2013.

If you have any questions or comments regarding this letter, please contact Jelena Hartman at jelena.hartman@waterboards.ca.gov or by phone at 916-464-4628.

Original signed by

Pamela C. Creedon
Executive Officer

Enclosure: Staff Review of Revised Monitoring Plan Update for 2014 Water Year

Central Valley Regional Water Quality Control Board

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

FROM: Jelena Hartman
Environmental Scientist
MONITORING AND IMPLEMENTATION UNIT
IRRIGATED LANDS REGULATORY PROGRAM

DATE: 29 January 2014

SUBJECT: EAST SAN JOAQUIN WATER QUALITY COALITION'S
REVISED MONITORING PLAN UPDATE FOR 2014 WATER YEAR

The California Regional Water Quality Control Board, Central Valley Region received a Monitoring Plan Update (MPU) report from the East San Joaquin Water Quality Coalition (Coalition) on 1 August 2013. The proposed surface water monitoring schedule for the 2014 water year (1 October 2013 through 30 September 2014) was conditionally approved on 8 October 2013. The Coalition submitted a revised Monitoring Plan Update on 10 December 2013, and provided minor clarifications in a 28 January 2014 email.

The addendum and revisions to the Monitoring Plan address the conditions in the 8 October 2013 approval as summarized below (all changes are documented in Table A of the revised Monitoring Plan Update report):

- Monitoring metals at Core sites will include two storm and two high total suspended solids (TSS) irrigation events. In addition, the Coalition will conduct management plan monitoring based on use and months of previous exceedances for Cores sites in a management plan for metals (Table A of the memorandum).
- If there are identified water quality problems at the Core sites, the information considered in Represented site evaluations is included, and a justification for the proposed monitoring is provided. For toxicity monitoring, the pesticide use data for Represented sites were evaluated for compounds associated with potential toxicity to standard model organisms¹.
- Recommended changes to the proposed monitoring schedule and corrections in text, tables, and Attachment A were made.

¹ The Coalition developed a list of pesticide properties relating the active ingredient to the toxicity mechanism, class of chemical, solubility, soil half-life, partitioning coefficient and LC50 for *C. dubia*, *S. capricornutum*, and *P. promelas* (Table 8 in 2008 East San Joaquin Water Quality Coalition Management Plan). The list now includes 114 active ingredients with the highest agricultural use in the Coalition region (sum of pounds applied); a summary is presented in Table I-1 of the Addendum to the 2013 Monitoring Plan Update.

It should be noted that management plans for several site/constituent combinations were approved for completion on 15 October 2013. Thus, Management Plan Monitoring (MPM) is not required for constituents marked by two red asterisks in Table B of the memorandum.

Issues associated with management plan monitoring (MPM) to be addressed in the future include prioritization of exceedances, and evaluations for toxicity and other constituents not applied by agriculture. In the current Monitoring Plan, Represented sites were not evaluated for low priority constituents² under a management plan at Core sites; Represented monitoring proposed for lead and molybdenum in the original submission was removed in the revised Monitoring Plan.

Table A. Proposed monitoring schedule for metals at all Core sites includes a minimum of two storm and two high TSS irrigation events (marked as “2+2” if no additional monitoring is scheduled). Shaded cells denote sites where two or more exceedances were observed in a three-year period, and monitoring is based on previous monitoring results and use information and is in addition to the “2+2” design at the site.

Monitoring Site Name	Arsenic (Total)	Boron (Total)	Cadmium (Dissolved)	Copper (Dissolved)	Lead (Dissolved)	Molybdenum (Total)	Nickel (Dissolved)	Selenium (Total)	Zinc (Dissolved)
Dry Creek @ Wellsford Rd	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2	2+2
Prairie Flower Drain @ Crows	2+2	2+2	2+2	2+2	2+2	Monthly	2+2	2+2	2+2
Highline Canal @ Hwy 99	2+2	2+2	2+2	Dec-Apr	Feb, Apr-Aug	2+2	2+2	2+2	2+2
Merced River @ Santa Fe	2+2	2+2	2+2	2+2	Jan-Feb	2+2	2+2	2+2	2+2
Duck Slough @ Gurr Rd	2+2	2+2	2+2	Dec-Feb Apr-Sep	Jan-Feb, Apr-Sep	2+2	2+2	2+2	2+2
Cottonwood Creek @ Rd 20	2+2	2+2	2+2	Monthly	Jan, Feb, Jun	2+2	2+2	2+2	2+2

Minor clarifications/items to note:

- MPM for toxicity to *C. dubia* at Hilmar Drain has been removed in the revised Monitoring Plan. The removal is justified because management plan for toxicity to *C. dubia* has never been triggered, and not because there were three years of monitoring with no exceedances as language reads in Table A of the revised Monitoring Plan.
- The correct months for lead MPM at Black Rascal Creek are April and September; Item 4 in Table A of revised MPU incorrectly identifies “May and July”.
- The correct months for chlorpyrifos monitoring at Highline Canal @ Lombardy are Jan, Mar, Jul and Aug; an error was noted in Attachment A, tab “MPM_Schedule_by_Month”

² E.g. see pages 21-22 in the Coalition’s 2013 Management Plan Update Report.

Table B. Summary of the proposed monitoring at Represented sites: monitoring for constituents under a management plan at Represented sites is shown in open cells, and Represented monitoring based on water quality at Core sites is shown in blue cells. Note: the table does not indicate monitoring at Core sites – only management plan constituents are shown in gray rows to illustrate Represented site evaluations conducted based on the water quality at Core sites.

Zone	Site Name	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	<i>C. dubia</i>	<i>P. promelas</i>	<i>S. capricornutum</i>	<i>H. azteca</i>
1	Dry Creek @ Wellsford Rd				Jul-Sep				Feb, Sep #			Mar, Sep
1	Mootz Drain dwnstrm of Langworth				*				*			Mar, Sep
1	Rodden Creek @ Rodden Rd				*				*			*
2	Prairie Flower Drain @ Crows Ld Rd			Oct-Sep			Jul-Sep		Mar, Aug-Sep	Apr, Jul	Oct, Dec-Feb, Apr-May	Mar, Sep
2	Hatch Drain @ Tuolumne Rd						Jun-Jul		*	*	Jan-Feb, Apr-May, Jul-Aug	Mar, Sep
2	Hilmar Drain @ Central Ave	Jan-Mar, Jul					Jul-Aug	Dec-Jan Apr, Jun	*	*	Apr, Jul, Sep	Mar, Sep
2	Lateral 5 1/2 @ Slough Blaker Rd						Jun-Aug		Mar, Jun-Aug	Mar, Jun-Jul	Jan-Jul	Mar, Sep
2	Lateral 2 1/2 near Keyes Rd				Apr-Aug		*		*	*	Dec, Feb, Apr-May	Mar, Sep
2	Lateral 6 and 7 @ Central Ave						Jun-Aug		Mar, Apr, Jul	Mar-Apr	Dec-Jun	Mar, Sep
2	Levee Drain @ Carpenter Rd						Jul		Feb, Jul	Feb, Jul	Feb, Jun-Jul	Mar, Sep
2	Lower Stevinson @ Faith Home Rd						Jun-Aug		Mar-Apr, Jul	Mar-Apr	Jan-Jun	Mar, Sep
2	Unnamed Drain @ Hogin Rd						Jul-Aug		Jul-Aug	Aug	Jun-Jul	Mar, Sep
2	Westport Drain @ Vivian Rd				Mar, Jul-Sep		*		*	*	Feb, Apr-May	Mar, Sep
3	Highline Canal @ Hwy 99	Dec-Apr	Feb, Apr-Aug						Mar, May, Sep		Feb-May	Mar, Sep
3	Highline Canal @ Lombardy Rd	Jan-Mar, May, Aug	Feb, May-Jun, Aug-Sep		Jan, Mar, Jul-Aug				Jan-Mar, Jun, Sep		Feb-May, Aug-Sep	Mar, Sep
3	Mustang Creek @ East Ave	Oct-Apr	*						*		*	Mar, Sep
4	Merced River @ Santa Fe		Jan-Feb		Nov, Jan, Jul				Jan, Mar, Jul-Aug			
4	Livingston Drain @ Robin Ave	Dec-Feb, May-Jul, Sep	Jan-Feb		Jan, Apr-Aug				*		Feb, Apr-May	
4	Bear Creek @ Kibby Rd	**			*				*			
4	Black Rascal Creek @ Yosemite Rd		Apr, Sep		May, Jul-Sep				May, Jul-Aug			
4	Canal Creek @ West Bellevue Rd				May, Aug				May, Aug			
4	Howard Lateral @ Hwy 140				Nov, Jan, Jul				*			
4	McCoy Lateral @ Hwy 140				*				*			
4	Unnamed Drain @ Hw 140				*				*			
5	Duck Slough @ Gurr Rd	Dec-Feb, Apr-Sep	Jan-Feb, Apr-Sep						Feb-Mar			Sep
5	Deadman Creek @ Gurr Rd	*			Mar-Apr, Aug-Sep				Nov, Feb-Mar	Nov-Mar, May-Jun	Feb, Jul	
5	Deadman Creek @ Hwy 59	*			Mar-Apr, Aug-Sep				*		Jan, Apr	
5	Miles Creek @ Reilly Rd	Jan-Aug	Jan-Feb, Jun-Aug		Mar, Jun-Sep	Jan, Feb			Jan, Sep		Feb, Apr, Jun	Sep
6	Cottonwood Creek @ Rd 20	Oct-Sep	Jan-Feb, Jun		**							
6	Ash Slough @ Ave 21	Jan-Feb, Apr-Sep			*							
6	Berenda Slough along Ave 18 1/2	Oct-Sep			Apr-Sep						**	
6	Dry Creek @ Rd 18	Oct-Feb, Apr-Sep	May-Jun, Aug-Sep		Oct-Dec, Feb, Apr, Jul-Aug	**		Jan-Mar			Jan-Feb, May	Mar, Sep

* Rationale for no monitoring included in the MPU (or 28 January communication for Zone 1) was reviewed by staff.

In a management plan for toxicity to *C. dubia* which will be monitored monthly; no MPM is scheduled.

** Coalition's request to complete management plan was approved on 15 October 2013, MPM not required.