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23 February 2011

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MONITORING AND REPORTING PROGRAM PLAN UPDATE CONSOLIDATION – EAST SAN JOAQUIN WATER QUALTIY COALITION

Thank you for submittal of the updated East San Joaquin Water Quality Coalition (Coalition) Monitoring and Reporting Program Plan (MRPP) and Quality Assurance Project Plan (QAPP) on 20 October 2010. The updated MRPP and QAPP consolidate the approved amendments since the 15 September 2008 MRPP approval. The updates also include corrections to typographical errors and revisions of some laboratory analytical methods, including stricter analytical method detection limits and reporting limits.

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff has reviewed the updated MRPP and QAPP and summarized the items submitted for approval (Table 1). With only one exception, all updates are accepted. The validation package for the sediment pyrethroid analytical method GCMS-NCI-SIM item is being addressed in a separate review memo. Once internal review is complete, a response for this item will be mailed to the Coalition.

Staff comments for items in Table 1 were communicated to the Coalition on 7 February 2011 via email. As a result, on 12 February 2011 the Coalition updated the MRPP and QAPP. The 12 February 2011 revised MRPP and QAPP are now posted on the Irrigated Lands Program web site.

Should the Coalition wish to revise or update any of its MRPP or QAPP, Executive Officer approval will be required prior to the implementation of any such changes. If you have any questions or comments you may contact Dania Huggins at (916) 464-4843, or by email at dhuggins@waterboards.ca.gov.

Original singed by Ken Landau for

Pamela C. Creedon
Executive Officer

Enclosure: MRPP and QAPP Review Table

	Description of Update to MRPP	MRPP Page No.	Staff Comment	Accepted/Rejected Pending
1	**Sample Sites**			
a	Removed South Slough @ Quinley Rd from Assessment site list	Table 4, Page 30 Figure 11, Page 32 Table 5, Page 37 Figure 12, Page 40 Verbiage, Page 44, 45 Table 7, Page 47 Table 10, Page 52 Table 11, Page 55 Table 13, Page 61 Attachment II	Approved on 3 June 2010	Accepted
b	Exchanged Mootz Drain @ Langworth Rd with Mootz Drain downstream of Langworth Pond.	same as above	Approved on 18 November 2009	Accepted
2	**Land use and rainfall data references.**			
a	Updated California Department of Pesticide Regulation and Department of Water Resources reference links.	Verbiage, Page 8	No comment	Accepted
3	**Monitoring strategy**			
a	Switched Mustang Creek to 2008-2010 monitoring and Peaslee Creek to 2013-2014 monitoring to agree with Table 13 Page 63.	Table 10, Page 52	No comment	Accepted
4	**Monitoring Constituents**			
a	Updated the spelling of "demeton-s". It was previously misspelled as "dimeton-s".	Table 12, Page 60 Table 14, Page 66	No comment	Accepted
b	Added paragraph explaining how the dropped constituents (May 2009 to July 2010) will be addressed.	Table 12, Page 62	No comment	Accepted
c	Added deltamethrin:tralomethrin to the sediment pyrethroids analysis list. Deltamethrin is listed in the MRP but due to an oversight the analyte was not previously added to the MRPP or QAPP tables.	Table 12, Page 60 Table 14, Page 68	Deltamethrin is required to be analyzed as per page 16 of the MRP. However, deltamethrin is not listed in the MRP Table II.D that lists the monitoring parameters. The Coalition did not include deltamethrin as part of the monitoring schedule because it was not found in Table II D. Deltamethrin, a pyrethroid, is only monitored when sediment toxicity exhibits a greater than or equal to 20% reduction in organism survival as compared to the control. From the time that the MRP Plan was approved in 2008 to the time when this oversight was acknowledged, the criteria for performing chemical analysis on sediment has not been triggered.	Accepted
d	Added organochlorines to Merced River @ Santa Fe, sediment to Cottonwood Creek @ Rd 20, carbofuran to Duck Slough @ Gurr Rd and remove Ceriodaphnia from Cottonwood Creek @ Rd 20 due to typos in the table originally submitted.	Table 13, Page 63	No comment	Accepted

		Description of Update to MRPP	MRPP Page No.	Staff Comment	Accepted/Rejected Pending
5		**Analytical Methods**			
	a	Updated sediment toxicity method to EPA 600/R-99-064 from EPA100.1 because of a typo. All samples analyzed for sediment toxicity have always used the EPA 600/R-99-064 method.	Table 14, Page 68	No comment	Accepted
	b	Updated methamidophos method to EPA 8321 from EPA 8141A. Laboratory started using EPA 8321 to analyze for methamidophos in July 2010.	Table 14, Page 68	The MRP QAPP Appendix A lists method EPA 8321 as an alternative method.	Accepted
	c	Updated sediment pyrethroid analytical method from WPA 8270 to GCMS-NCI-SIM. Laboratory started using GCMS-NCI-SIM to analyze for sediment pyrethroids in April 2010.	Table 14, Page 68	GCMS-NCI-SIM is a SWAMP approved method for pyrethroids. This method uses dual detection enabling the scan to distinguish between pyrethroids at greater certainty and uses a different surrogate.	Pending
	d	Updated trifluralin RL to 0.05 ug/L from 0.01 ug/L. The original (and not feasible) value of 0.01 ug/L is believed to be a typo, while the value to 0.05 ug/L is that recommended in the MRP.	Table 14, Page 68	No comment	Accepted
	e	Updated sediment pyrethroid MDL and RL values to match those recommended by the lab.	Table 14, Page 68	The new MDL and RL values are lower than the MRP minimum requirements.	Accepted
	f	Updated glyphosate, cadmium, lead, molybdenum, TKN and ammonia MDL values to match those achievable by the lab.	Table 14, Page 68	The new MDL and RL value for TKN are lower than the MRP minimum requirements. The MDL and RL for the remaining constituents meet the MRP Order requirements, as well.	Accepted
	g	Updated turbidity, hardness, molybdenum and TKN RL values to match those achievable by the lab (turbidity 0.5 NTU to 0.05 NTU, hardness 10 mg/L to 5 mg/L, molybdenum 0.2 ug/L to 0.25 ug/L, and TKN 0.5 mg/L to 0.1 mg/L.	Table 14, Page 68	The new MDL and RL value for TKN are lower than the MRP minimum requirements. The MDL and RL for the remaining constituents meet the MRP Order requirements, as well.	Accepted
	h	Updated dichlorvos and demeton-s RL values from 0.2 ug/L to 0.1 ug/L to correct an original typo.	Table 14, Page 68	No comment	Accepted
6		**Reporting Plan**			
	a	Updated verbiage to indicate that report submission will be electronic	Table 16, Page 75 Verbiage, page 74	No comment	Accepted

		Description of Update to QAPP	QAPP Page No.	Staff Comment	Accepted/Rejected Pending
1		**Caltest QA Officer**			
	a	Updated Caltest QA Officer. Sonya Babcock replaced Carmelita Oliveros.	Verbiage, page2 Figure1, Page11 Table 17, Page 51 Table 18, Page 53	No comment	Accepted
2		**MLJ Sampling Coordinator**			
	a	Updated MLJ Sampling Coordinator. Frank Wulff replaced Jon Katz.	Verbiage, page 26 Table 8, Page 26 Table 17, Page 51 Table 18, Page 53 Table 19, Page 55	No comment	Accepted
3		**Regional Board ILRP Monitoring Assessment Supervisor**			
	a	Updated Regional Board ILRP Monitoring Assessment Supervisor. Susan Fregien replaced Margie Read.	Verbiage, Page 2 Verbiage, Page 8 Figure 1, Page 11	No comment	Accepted
4		**Sample sites**			
	a	Removed South Slough @ Quinley Rd from Assessment site list.	Table 11, Page 31	Approved on 3 June 2010	Accepted
	b	Exchanged Mootz Drain @ Langworth Rd with Mootz Drain downstream of Langworth Pond.	Table 11, Page 31	Approved on 18 November 2009	Accepted
5		**Monitoring Constituents**			
	a	Added deltamethrin:tralomethrin to the sediment pyrethroids analysis list.	Table 2, Page 16 Table 5, Page 22 Table 13, Page 40	Deltamethrin is required to be analyzed as per page 16 of the MRP. However, deltamethrin is not listed in the MRP Table II.D that lists the monitoring parameters. The Coalition did not include deltamethrin as part of the monitoring schedule because it was not found in the table. Deltamethrin, a pyrethroid, is only monitored when sediment toxicity exhibit a greater than or equal to 20% reduction in organism survival as compared to the control. From the time that the MRP was approved in 2008 to the time when this oversight was acknowledged, the criteria for performing chemical analysis on sediment has not been triggered.	Accepted
6		**Data Quality Objectives**			
	a	Separated Matrix Spike/Lab Control Spike Frequency into two columns. Updated sediment TOC MS/LCS frequency to MS=N/A, LCS=1 per batch; grain size updated to N/A for both LCS and MS.	Table 5, Page 22	No comment	Accepted
	b	Updated sediment grain size Accuracy/Recovery from 90 -110% to N/A (recoveries are not possible for grain size). Updated sediment TOC from 75-125% to 21-199% to correct original typo.	Table 5, Page 22	Recovery rate must be MRP Compliant 75-125%. Staff rejects 21-199% recovery. Corrections were made to the QAPP 2/12/2011 revised version to 75-125%.	Accepted
	c	Updated glyphosate Accuracy/Recovery acceptability range from 72-131% to 85.7-121% to match the range recommended by the laboratory.	Table 5, Page 22	No comment	Accepted
	d	Updated metals Accuracy/Recovery acceptability range from 75-125% to 85-115% and nutrients Accuracy/Recovery range from 80-120% to 90-110% to match the range recommended by the laboratory; updated laboratory precision RPDs from 25 to 20 for nutrients, metals and physical parameters to match the acceptability criteria used by the laboratory.	Table 5, Page 22	No comment	Accepted

		Description of Update to QAPP	QAPP Page No.	Staff Comment	Accepted/Rejected Pending
7		**Analytical Methods**			
	a	Updated sediment toxicity method to EPA 600/R-99-064 from EPA 100.1. The original method listed is believed to be a typo and all samples analyzed for sediment toxicity have always used the EPA 600/R- 99-064 method.	Table 2, Page 16 Table 13, Page 40 Table 15, Page 44 Table 16, Page 45	No comment	Accepted
	b	Updated methamidophos method to EPA 8321 from EPA 8141A. laboratory started using EPA 8321 to analyze for methamidophos in July 2010.	Table 2, Page 16 Table 13, Page 40	The MRP QAPP Appendix A lists method EPA 8321 as an alternative method.	Accepted
	c	Updated sediment pyrethroid analytical method from EPA 8270 to GCMS-NCI-SIM.	Table 2, Page 16 Table 13, Page 40 Table 15, Page 44 Table 16, Page 45	GCMS-NCI-SIM is a SWAMP approved method for pyrethroids. The method is a modified 8270. This method uses dual detection enabling the scan to distinguish between pyrethroids at greater certainty and uses a different surrogate.	Pending
	d	Removed requirement for laboratory Control Spike/CRM/SRM from sediment grain size section of the Analytical QC table. This QC level is not required by SWAMP.	Table 16, Page 45	No comment	Accepted
	e	Removed requirements for internal standards performed for Organic Parameters: OPs, OCHs, carbamates, and additional herbicides.	Table 16, Page 45	Internal standards are optional. Lab is conducting external standards.	Accepted
	f	Updated trifluralin RL to 0.05 µg/L from 0.01 µg/L. The original (and not feasible) value of 0.01 µg/L is believed to be a typo, while the value to 0.05 µg/L is that recommended in the MRP.	Table 13, Page 40	No comment	Accepted
	g	Updated sediment pyrethroid MDL and RL values to match those recommended by the laboratory.	Table 13, Page 40	The new MDL and RL values are lower than the MRP minimum requirements.	Accepted
	h	Updated glyphosate, cadmium, lead, molybdenum, TKN and ammonia MDL values to match those achievable by the laboratory.	Table 13, Page 40	The new MDL and RL values for TKN are lower than the MRP minimum requirements. The MDL and RL for the remaining constituents meet the MRP Order requirements, as well.	Accepted
	I	Updated turbidity, hardness, molybdenum and TKN RL values to match those achievable by the laboratory (turbidity 0.5 NTU to 0.05 NTU, hardness 10 mg/L to 5 mg/L, molybdenum 0.2 ug/L to 0.25 ug/L, and TKN 0.5 mg/L to 0.1 mg/L.	Table 13, Page 40	The new MDL and RL values for TKN are lower than the MRP minimum requirements. The MDL and RL for the remaining constituents meet the MRP Order requirements, as well.	Accepted
	j	Updated the spelling of "demeton-s." It was previously misspelled as "dimeton-s."	Table 13, Page 40	No comment	Accepted
8		**Quality Control**			
	a	Updated organic and inorganic Field Blank Acceptable Limits from "<MDL" to "<RL or <sample/5" to agree with Table 7, Element 7, page 24.	Table 15, Page 44	No comment	Accepted
	b	Added precision calculation for sediment grain size.	Verbiage, Page 49	No comment	Accepted
9		**Data Management**			
	a	Updated location of Regional Data Center from UCD-AEAL to Central Valley RDC.	Verbiage, Page 56 Figure 4, Page 59	No comment	Accepted
10		**Standard Operating Procedures**			
	a	Updated chemistry and toxicity data verification, validation and loading SOPs; updated sample detail excel file creation SOP.	Appendices XXXV-XXXVII	No comment	Accepted
	b	Updated laboratory organic chemistry SOPs for EPA 619, EPA 8081A, EPA 8141A, EPA 549, EPA 8321A; updated laboratory toxicity SOPs for Acute Ceriodaphnia, Acute Pimephales, and Chronic Selenastrum toxicity tests; updated inorganic chemistry method SOPs as needed.	Appendices XI-XXXII	No comment	Accepted