

Table A. Updates to ESJWQC MRPP submitted on August 25, 2008 and amended on October 20, 2010, February 16, 2012 and April 30, 2012.

Item No.	Description of Update	MRPP Page No.	CVRWQCB Approval Date
Amended on October 20, 2010			
1	Sample sites.		
	Removed South Slough @ Quinley Rd from Assessment site list; Exchanged Mootz Drain @ Langworth Rd with Mootz Drain downstream of Langworth Pond.	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	June 3, 2010; November 18, 2009
2	Land use and rainfall data references.		
	Updated California Department of Pesticide Regulation and Department of Water Resources reference links.	Verbiage, Page 8	
3	Monitoring strategy.		
	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	
4	Monitoring constituents.		
	Updated the spelling of "demeton-s." It was previously misspelled as "demeton-s."	Table 12, Page 58 Table 14, Page 66	February 23, 2011
	Added paragraph explaining the dropped constituents from May 2009 to July 2010.	Verbiage, Page 59	February 23, 2011
	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 our MRPP or QAPP tables.	Table 12, Page 58 Table 14, Page 66	February 23, 2011
	Added organochlorines to Merced River @ Santa Fe, sediment to Cottonwood Creek @ Rd 20, carbofuran to Duck Slough @ Gurr Rd and remove <i>Ceriodaphnia</i> from Cottonwood Creek @ Rd 20 due to typos in the table originally submitted.	Table 13, Page 61	February 23, 2011
5	Analytical Methods.		

Item No.	Description of Update	MRPP Page No.	CVRWQCB Approval Date
	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 14, Page 66	February 23, 2011
	Updated methamidophos method to EPA 8321 from EPA 8141A. Lab started using EPA 8321 to analyze for methamidophos in July 2010.	Table 14, Page 66	February 23, 2011
	Updated sediment pyrethroid analytical method from EPA 8270 to GCMS-NCI-SIM. Lab started using GCMS-NCI-SIM to analyze for sediment pyrethroids in April 2010.	Table 14, Page 66	February 18, 2011
	Updated trifluralin RL to 0.05µg/L from 0.01µg/L. The original (and not feasible) value of 0.01µg/L is believed to be a typo, while the value to 0.05 µg/L is that recommended in the MRP.	Table 14, Page 66	February 23, 2011
	Updated sediment pyrethroid MDL and RL values to match those recommended by the lab.	Table 14, Page 66	February 23, 2011
	Updated glyphosate, cadmium, lead, molybdenum, TKN and ammonia MDL values to match those achievable by the lab.	Table 14, Page 66	February 23, 2011
	Updated turbidity, hardness, molybdenum, lead 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 0.3 µg/L to 0.25 µg/L, lead 0.5 µg/L to 0.25 µg/L and TKN 0.5 mg/L to 0.1 mg/L).	Table 14, Page 66	February 23, 2011
	Updated dichlorvos and demeton-s RL values from 0.2µg/L to 0.1µg/L to correct an original typo.	Table 14, Page 66	February 23, 2011
6	Reporting Plan.		
	Updated verbiage to indicate that report submission will be electronic.	Table 16, Page 73 Verbiage, page 72	May 17, 2010
7	Updates to QAPP (see QAPP Table A).	Attachment IV	February 23, 2011
Amended on February 16, 2012			
8	Removal of Yori Grove Drain @ East Taylor Rd.		February 7, 2012
	Removed Yori Grove Drain from associated tables. Removed site description and crop acreage information for Yori Grove Drain. Updated the monitoring schedule to reflect Levee Drain @ Carpenter Rd commencing monitoring in 2012 instead of 2013.	Table 4, Page 31 Table 5, Page 37 Verbiage, Page 46 Table 7, Page 49 Table 10, Page 52	
Amended on April 30, 2012			
9	Suspension of Core Monitoring and MPM (except Bear Creek @ Kibby Rd). Reduced Assessment Monitoring constituents.		April 17, 2012
	Deleted pathogens.	Table 8, Page 50	

Item		MRPP	CVRWQCB
No.	Description of Update	Page No.	Approval Date
	Deleted Core Monitoring constituents including nutrients, general physical parameters, pathogens, photo monitoring and parameter(s) of concern; these, minus pathogens, are now only monitored when a Core site is rotated into Assessment Monitoring.	Table 9, Page 51	
	Deleted reference to Core Monitoring (C) after 2012; Core Monitoring has been suspended until a new Order is adopted. Bolded Core sites.	Table 10, Pages 53-54	
	Deleted reference to Core Monitoring. Deleted rows for all Group A pesticides (TMDL/CWA 303(d) listed), <i>E. coli</i> (pathogens), all organochlorines, paraquat dichloride and glyphosate (herbicides), metals except copper and zinc, Total Kjeldahl Nitrogen, and total phosphorous (nutrients).	Table 12, Pages 61-62	
10	Removal of Duck Slough @ Hwy 99.		April 26, 2012
	Removed Duck Slough @ Hwy 99 from associated tables. Removed site description and crop acreage information for Duck Slough @ Hwy 99.	Table 4, Page 30-31 Table 5, Page 37 Verbiage, Page 42 Table 7, Page 46-48 Table 10, Page 53-54	

Table 4. Primary water bodies that drain directly into the major rivers of the ESJWQC region and the beneficial use for each of the major rivers. Sites are sorted alphabetically by name.

ID	Site Subwatershed (site name)	Immediate Downstream River	Beneficial Use of Immediate Downstream River
1	Ash Slough @ Avenue 21**	San Joaquin River ²	1-4, 7-9, 11-15
2	Bear Creek @ Kibby Rd**	San Joaquin River ²	1-4, 7-9, 11-15
3	Berenda Slough along Avenue 18 ½	San Joaquin River ²	1-4, 7-9, 11-15
4	Black Rascal Creek @ Yosemite Rd	San Joaquin River ²	1-4, 7-9, 11-15
5	Burnett Lateral @ 28 Mile Rd	Sacramento San Joaquin Delta ⁶	1-5, 7-13, 15, 16
5	Burnett Lateral @ 28 Mile Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
6	Canal Creek @ West Bellevue Rd	San Joaquin River ²	1-4, 7-9, 11-15
A	Cottonwood Creek @ Rd 20	San Joaquin River ²	1-4, 7-9, 11-15
7	Deadman Creek @ Gurr Rd	San Joaquin River ²	1-4, 7-9, 11-15
7	Deadman Creek @ Gurr Rd	San Joaquin River ²	1-4, 7-9, 11-15
8	Deadman Creek @ Hwy 59	San Joaquin River ²	1-4, 7-9, 11-15
8	Deadman Creek @ Hwy 59	San Joaquin River ²	1-4, 7-9, 11-15
9	Dry Creek @ Rd 18**	San Joaquin River ²	1-4, 7-9, 11-15
B	Dry Creek @ Wellsford Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
C	Duck Slough @ Gurr Rd	San Joaquin River ²	1-4, 7-9, 11-15
11	Hatch Drain @ Tuolumne Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
D	Highline Canal @ Hwy 99	Merced River ⁵	1, 3-15
D	Highline Canal @ Hwy 99	San Joaquin River ³	1-4, 7-9, 11-13, 15
12	Highline Canal @ Lombardy Rd	Merced River ⁵	1, 3-15
12	Highline Canal @ Lombardy Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
13	Hilmar Drain @ Central Ave	San Joaquin River ³	1-4, 7-9, 11-13, 15
14	Howard Lateral @ Hwy 140	San Joaquin River ²	1-4, 7-9, 11-15
15	Lateral 2 1/2 near Keyes Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
16	Lateral 5 1/2 @ South Blaker Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
17	Lateral 6 and 7 @ Central Ave	San Joaquin River ³	1-4, 7-9, 11-13, 15
18	Levee Drain @ Carpenter Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
19	Livingston Drain @ Robin Ave	San Joaquin River ²	1-4, 7-9, 11-15
20	Lower Stevinson @ Faith Home Rd	Merced River ⁵	1, 3-15
21	McCoy Lateral @ Hwy 140	San Joaquin River ²	1-4, 7-9, 11-15
E	Merced River @ Santa Fe	Merced River ⁵	1, 3-15
22	Miles Creek @ Reilly Rd	San Joaquin River ²	1-4, 7-9, 11-15
35	Mootz Drain downstream of Langworth Pond	San Joaquin River ³	1-4, 7-9, 11-13, 15
24	Mustang Creek @ East Ave	Merced River ⁵	1, 3-15
24	Mustang Creek @ East Ave	San Joaquin River ³	1-4, 7-9, 11-13, 15

ID	Site Subwatershed (site name)	Immediate Downstream River	Beneficial Use of Immediate Downstream River
25	Peaslee Creek @ Lake Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
F	Prairie Flower Drain @ Crows Landing Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
26	Rodden Creek @ Rodden Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
27	Silva Drain @ Meadow Dr	Merced River ⁵	1, 3-15
29	Unnamed Drain @ Cemetary Rd	San Joaquin River ²	1-4, 7-9, 11-15
30	Unnamed Drain @ Hogin Rd	San Joaquin River ³	1-4, 7-9, 11-13, 15
31	Unnamed Drain @ Hwy 140	San Joaquin River ²	1-4, 7-9, 11-15
32	Unnamed Drain near Bear Creek @ West Bose Rd	San Joaquin River ²	1-4, 7-9, 11-15
33	Westport Drain @ Vivian Ave	San Joaquin River ³	1-4, 7-9, 11-13, 15

¹ Friant Dam to Mendota Pool reach

² Sack Dam to Merced River reach (all waterbodies that drain to this reach enter via the East Side Bypass with the exception of Livingston Drain)

³ Mouth of Merced River to Vernalis

⁴ New Don Pedro Reservoir to San Joaquin River reach

⁵ McSwain Reservoir to San Joaquin River reach

⁶ "Beneficial uses vary throughout the Delta and will be evaluated on a case-by-case basis" (wording from the Basin Plan).

⁷ Goodwin Dam to San Joaquin River

** Surface water flow in these water bodies terminates in subterranean flow except for periods of increased runoff during large winter storms

* Beneficial Use code list:

- 1 - Municipal and Domestic Supply
- 2 - Agriculture Supply (irrigation)
- 3 - Agriculture Supply (stock watering)
- 4 - Industrial Process Supply
- 5 - Industrial Service Supply
- 6 - Hydropower Generation
- 7 - Water Contact Recreation
- 8 - Non-contact Water Recreation
- 9 - Warm Freshwater Habitat
- 10 - Cold Freshwater Habitat
- 11 - Migration of Aquatic Organisms (warm)
- 12 - Migration of Aquatic Organisms (cold)
- 13 - Spawning, Reproduction, and/or Early Development (warm)
- 14 - Spawning, Reproduction, and/or Early Development (cold)
- 15 - Wildlife Habitat

Table 5. ESJWQC sampling locations for Assessment Monitoring. One Assessment Monitoring locations will be monitored within each zone and will rotate every two years. Sites are sorted by zone number and site name.

ID	Zone	Monitoring Type	Site Name	Station Code	Latitude	Longitude
5	1	Assessment	Burnett Lateral @ 28 Mile Rd	535BLATMR	37.80343	-120.83992
35	1	Assessment	Mootz Drain downstream of Langworth Pond	535XMDDLDP	37.70551	-120.89438
26	1	Assessment	Rodden Creek @ Rodden Rd	535XRCARD	37.79042	-120.80790
11	2	Assessment	Hatch Drain @ Tuolumne Rd	535XHDATA	37.51490	-121.01220
13	2	Assessment	Hilmar Drain @ Central Ave	535XHDACA	37.39060	-120.95820
15	2	Assessment	Lateral 2 1/2 near Keyes Rd	535LTHNKR	37.54780	-121.09274
16	2	Assessment	Lateral 5 1/2 @ South Blaker Rd	535LFHASB	37.45823	-120.96726
17	2	Assessment	Lateral 6 and 7 @ Central Ave	535LSSACA	37.39779	-120.95971
18	2	Assessment	Levee Drain @ Carpenter Rd	535XLDACR	37.47903	-121.03012
20	2	Assessment	Lower Stevinson @ Faith Home Rd	535LSAFHR	37.37238	-120.92318
30	2	Assessment	Unnamed Drain @ Hogan Rd	535XUDAHR	37.43129	-120.99380
33	2	Assessment	Westport Drain @ Vivian Rd	535XWDAVR	37.53680	-121.04860
12	3	Assessment	Highline Canal @ Lombardy Ave	535XHCHNN	37.45560	-120.72070
24	3	Assessment	Mustang Creek @ East Ave	535XMCAEA	37.49180	-120.68390
25	3	Assessment	Peaslee Creek @ Lake Rd	535XPCALR	37.61769	-120.50733
2	4	Assessment	Bear Creek @ Kibby Rd	535XBCAKR	37.31280	-120.41380
4	4	Assessment	Black Rascal Creek @ Yosemite Rd	535BRCAJR	37.33210	-120.39470
6	4	Assessment	Canal Creek @ West Bellevue Rd	535CCAWBR	37.36075	-120.54941
14	4	Assessment	Howard Lateral @ Hwy 140	535XHLAHO	37.30790	-120.78200
19	4	Assessment	Livingston Drain @ Robin Ave	535XLDARA	37.31690	-120.74230
21	4	Assessment	McCoy Lateral @ Hwy 140	535XMLAHO	37.30945	-120.78759
27	4	Assessment	Silva Drain @ Meadow Dr	535XSDAMD	37.42910	-120.62610
29	4	Assessment	Unnamed Drain @ Cemetary Rd	535XUDACR	37.32835	-120.92290
31	4	Assessment	Unnamed Drain @ Hwy 140	535XUDAHO	37.31370	-120.89110
32	4	Assessment	Unnamed Drain near Bear Creek @ West Bose Rd	535UNDAWB	37.29159	-120.81410
7	5	Assessment	Deadman Creek @ Gurr Rd	535XDCAGR	37.19360	-120.56120
8	5	Assessment	Deadman Creek @ Hwy 59	535DMCAHF	37.19810	-120.48690
22	5	Assessment	Miles Creek @ Reilly Rd	535XMCARR	37.25820	-120.47550
1	6	Assessment	Ash Slough @ Ave 21	545XASAAT	37.05450	-120.41580
3	6	Assessment	Berenda Slough along Ave 18 1/2	545XBSAAE	37.01820	-120.32650
9	6	Assessment	Dry Creek @ Rd 18	545XDCARE	36.98180	-120.21950

Deadman Creek @ Gurr Rd (48,056 irrigated acres) - This site subwatershed is a downstream site from Deadman Creek @ Hwy 59. The primary agriculture in the site subwatershed is orchards and row crops with some irrigated pasture upstream.

Deadman Creek @ Highway 59 (38,230 irrigated acres) – Deadman Creek flows out of the Sierra foothills and confluences with Dutchman’s Creek in the vicinity of Highway 59. The primary agriculture in the site subwatershed is orchards and row crops with some irrigated pasture upstream.

Dry Creek @ Road 18 (23,086 irrigated acres) – Dry Creek originates in the Sierra foothills and flows to the north of the city of Madera eventually drains into the San Joaquin River through various channels and irrigation ditches. Deciduous crops are the primary irrigated agriculture in the upper portion of the site subwatershed whereas vineyards predominate in the lower portions. There are field crops scattered throughout the site subwatershed.

Dry Creek @ Wellsford Road (23,115 irrigated acres) – This site subwatershed is in the northern part of the Coalition region and drains a combination of field crops, deciduous nuts, and vineyards. Dry Creek originates to the east of Modesto and drains into the Tuolumne River. This site subwatershed samples Dry Creek at the furthest downstream location that collects agricultural drainage prior to flowing through the urban areas of Modesto. Dairies are located upstream of this site and the town of Waterford may contribute an urban signal.

Duck Slough @ Gurr Road (28,636 irrigated acres) – This site subwatershed is a monitoring location downstream from Duck Slough @ Hwy 99. Located to the south and west of Merced, this site drains field crops immediately upstream and deciduous nuts further upstream as well as some irrigated pasture. The city of Merced delivers treated water to Duck Slough a few miles upstream of the Gurr Road site. Duck Slough flows west eventually becoming Deadman Creek in the western portion of the Coalition region. The slough eventually flows into the San Joaquin River via Deadman Creek and Deep Slough.

Hatch Drain @ Tuolumne Rd (259 irrigated acres) – This small site subwatershed is located in the western portion of the Coalition region in Stanislaus County. The two major crops are citrus and field crops.

Highline Canal @ Highway 99 (35,220 irrigated acres) – The Highline Canal is a conveyance of the Turlock Irrigation District and carries both clean irrigation water and irrigation return flow during the summer, and storm water runoff during the winter. This site was selected as a downstream companion site to the Highline Canal @ Lombardy Road site. This site subwatershed is monitored to determine the relative contribution of the upstream and downstream site subwatersheds to water quality impairments. The sampling site is located just south of Delhi as the canal crosses the highway. The irrigated agriculture is primarily deciduous nuts, and these are located at the lower end of the site subwatershed. A small number of vineyards are also present.

Site Subwatershed Land Use

Table 7. Acreage of crops grown in site subwatersheds of the ESJWQC region showing irrigated (I) and non-irrigated (NI) acres. Sites are listed alphabetically.

Site Subwatershed	Citrus		Deciduous nut and fruit		Field crop		Grain and hay		Idle		Wild vegetation*	Water surface		Pasture		Rice	Feedlot, dairy, farmstead		Truck, nursery, berry		Urban	Golfcourse, cemetery, landscape		Vineyard	Total Acres	Irrigated Acres
	I	NI	I	NI	I	NI	I	NI	I	NI		I	NI	I	NI		I	NI	I	NI		I	NI			
Ash Slough @ Ave 21			6889		9101		726		33			1273	4936				712	635	1311	33	5383	31032	27704			
Bear Creek @ Kibby Rd			2983		1581		223	242			238		1414				67	539	10			7297	6740			
Berenda Slough along Ave 18 1/2	97		15574		3048		1804	1413	261		3792	267	1695				720	116	1622	215	2412	33034	25006			
Black Rascal Creek @ Yosemite Rd			180		142		11	167					201				11					712	535			
Burnett Lateral @ 28 Mile Rd			452				118	15		29	16	696	19				35		2			1382	1163			
Canal Creek @ West Bellevue Rd			1892		634		201	171	633	6967	8	1300					219		13		245	12284	4241			
Cottonwood Creek @ Rd 20	571		10326		3724	314	664	2009	1172		11352	615	847				562	85	10062	25	23310	65637	40699			
Deadman Creek @ Gurr Rd	7		11333		16221		4286	672		12060	393	14833	21				914	3393	399		1596	66129	48056			
Deadman Creek @ Hwy 59	7		10246		11458		2366	1153	666		7318	296	8740	626				3329	312		1418	47935	38230			
Dry Creek @ Rd 18	422		12103		1105		444	1213	495		3918	104	637				446	169	4614	314	6710	32697	22086			
Dry Creek @ Wellsford Rd		8	8064		4516		2395	239		4606	204	7346	1310	1188	1414		486				1762	33538	23115			
Duck Slough @ Gurr Rd			8766		7975		1271	322	832		3154	172	7303	76	318	1056	2172	676	17			34108	28636			
Hatch Drain @ Tuolumne Rd					155								104				17		11			286	259			
Highline Canal @ Hwy 99	77		20603		7029		661	12	221		550	183	4826	352			1356	371	619	4	1432	38295	35220			
Highline Canal @ Lombardy Ave	77		16644		6771		661	12	80		507	179	4769	352			1187	110	345	1	1041	32738	30154			
Hilmar Drain @ Central Ave			87		1968						9	11	664				215					2954	2718			

Site Subwatershed	Citrus		Deciduous nut and fruit	Deciduous nut and fruit	Field crop		Grain and hay		Idle	Idle	Wild vegetation*	Water surface	Pasture		Rice	Feedlot, dairy, farmstead	Truck, nursery, berry	Urban	Golfcourse, cemetery, landscape	Vineyard	Total Acres	Irrigated Acres
	I	NI			I	NI	I	NI					I	NI								
	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI	I	NI
Howard Lateral @ Hwy 140			1260		251		167		114		159	5	377			76	1602	41		105	4158	3876
Lateral 2 ½ near Keyes Rd	26	7	23792		4492		100	3	441		1587	206	2542	20		1290	674	4348	251	672	40452	32740
Lateral 5 ½ @ South Blaker Rd	87		21403		13393		211	55	123		1682	301	7669	37		2484	930	1629	20	942	50965	44758
Lateral 5 ½ @ South Blaker Rd Storm	10		9238		7559		113	44	123		1287	140	4162	20		1583	921	1468	20	118	26806	22244
Lateral 6 & 7 @ Central Ave	96		34615		21008		822	757	173		2471	511	9829	522		4175	1065	2677	257	4191	83167	71798
Lateral 6 & 7 @ Central Ave Storm	19		11539		11575		118	44	92		1556	334	4837	39		2713	921	2340	253	205	36585	29306
Levee Drain @ Carpenter Rd					1675						23	96	826			335		9			2964	2500
Livingston Drain @ Robin Ave			2367		58		176		18		131	2	58	20		146	922	37		58	3992	3656
Lower Stevinson @ Faith Home Rd	106		40000	7	18265		833	784	417		2661	372	9260	532		3827	1510	4020	121	4591	87306	74983
Lower Stevinson @ Faith Home Rd Storm	29		10633		7762		130	44	166		1475	295	3873	38		1888	890	1981	105	184	29493	23668
McCoy Lateral @ Hwy 140			1573		1264		234		214		117	28	222	9		276	924	13		1327	6202	5759
Merced River @ Santa Fe	45		14109		5422	140	700	226	141	276	5006	256	4483	101		1099	278	339	4	2616	35242	27796
Miles Creek @ Reilly Rd	3		1767		3927		548	536	145		568	82	2201			475	1073	860	15		12200	9664
Mootz Drain downstream of Langworth Pond					100				2				972			122		4			1200	1074
Mustang Creek @ East Ave			4095		2053		486	701			374	5	235			86				5244	13279	12113
Peaslee Creek @ Lake Rd			482													20				327	829	809
Prairie Flower Drain @ Crows Landing Rd					2674							30	1406			443					4553	4080
Rodden Creek @ Rodden Rd			80		3			38	5			33	159			4		17			339	246

Site Subwatershed	Citrus		Deciduous nut and fruit		Field crop		Grain and hay		Idle		Wild vegetation*	Water surface	Pasture		Rice	Feedlot, dairy, farmstead	Truck, nursery, berry	Urban	Golfcourse, cemetery, landscape	Vineyard	Total Acres	Irrigated Acres
	I	NI	I	NI	I	NI	I	NI	I	NI												
Silva Drain @ Meadow Dr					59								8	4							70	67
Unnamed Drain @ Cemetary Rd					269						353		833								1455	1102
Unnamed Drain @ Hogin Rd					515						89	40	576			36					1256	1091
Unnamed Drain @ Hwy 140					43						58		400			20					522	444
Unnamed Drain near Bear Creek @ West Bose Rd					182		56		670				190			35	77				1212	1176
Westport Drain @ Vivian Rd			432		575								264			126		7		202	1607	1474

Table 8. Assessment Monitoring schedule.

Parameters (See Table 12 for details)	Monitoring Frequency ¹
303(d) waste constituent to be monitored if Agriculture is identified as contributing source	Monthly
Water Column Toxicity	Monthly
Toxicity Identification Evaluation (as needed based on toxicity results)	Monthly
Pesticides	Monthly
Metals	Monthly
Nutrients	Monthly
General Physical Parameters (including flow)	Monthly
Sediment Toxicity Sampling (all)	Twice per year ²
Photo monitoring (digital)	Every monitoring site with every monitoring event

¹Every third year Core Monitoring will include all Assessment Monitoring parameters and be conducted monthly for a period of 12 months.

²One sample will be collected between 15 August and 15 October and the second between 1 March and 30 April of each year.

Table 9. Core Monitoring schedule.

Parameters (See Table 12 for details)	Monitoring Frequency¹
Assessment Monitoring	Once every three years

¹Every third year Core sites will be monitored for all Assessment Monitoring parameters.

Table 10. Assessment and Core Monitoring schedule. C = Core Monitoring. A = Assessment Monitoring. Core sites are bolded.

Zone	Site ID	Monitoring Location	2008 ¹	2009	2010	2011 ²	2012 ³	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
1	B	Dry Creek @ Wellsford Rd	C	C	C	A	C		A			A			A		A			A			A	
1	35	Mootz Drain downstream of Langworth Pond	A	A	A					A	A					A	A					A	A	
1	26	Rodden Creek @ Rodden Rd				A	A					A	A					A	A					A
1	5	Burnett Lateral @ 28 Mile Rd						A	A					A	A					A	A			
2	F	Prairie Flower Drain @ Crows Landing	C	C	C	A	C		A			A			A		A			A				A
2	15	Lateral 2 1/2 near Keyes Rd	A	A	A																		A	A
2	18	Levee Drain @ Carpenter Rd					A	A																
2	16	Lateral 5 1/2 @ South Blaker Rd							A	A														
2	30	Unnamed Drain @ Hugin Rd									A	A												
2	17	Lateral 6 and 7 @ Central Ave											A	A										
2	13	Hilmar Drain @ Central Ave													A	A								
2	20	Lower Stevenson @ Faith Home Rd															A	A						
2	11	Hatch Drain @ Tuolumne Rd																	A	A				
2	33	Westport Drain @ Vivian Rd																			A	A		
3	D	Highline Canal @ Hwy 99	C	C	C	A	C		A			A			A		A			A				A
3	24	Mustang Creek @ East Ave	A	A	A					A	A					A	A					A	A	
3	12	Highline Canal @ Lombardy Ave				A	A					A	A					A	A					A
3	25	Peaslee Creek @ Lake Rd						A	A					A	A					A	A			
4	E	Merced River @ Santa Fe Rd	C	C	C	A	C		A			A			A		A			A				A
4	14	Howard Lateral @ Hwy 140	A	A	A																			A
4	21	McCoy Lateral @ Hwy 140				A	A																	
4	31	Unnamed Drain @ Hwy 140						A	A															
4	32	Unnamed Drain near Deep Slough @ West Bose Rd								A	A													
4	29	Unnamed Drain @ Cemetary Rd										A	A											

Zone	Site ID	Monitoring Location	2008 ¹	2009	2010	2011 ²	2012 ³	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
4	6	Canal Creek @ West Bellevue Rd												A	A									
4	19	Livingston Drain @ Robin Ave														A	A							
4	2	Bear Creek @ Kibby Rd																A	A					
4	4	Black Rascal Creek @ Yosemite Rd																		A	A			
4	27	Silva Drain @ Meadow Dr																				A	A	
5	C	Duck Slough @ Gurr Rd	C	C	C	A	C		A			A			A			A			A			A
5	7	Deadman Creek @ Gurr Rd	A	A	A					A	A					A	A					A	A	
5	8	Deadman Creek @ Hwy 59				A	A					A	A					A	A					A
5	22	Miles Creek @ Reilly Rd						A	A					A	A					A	A			
6	A	Cottonwood Creek @ Rd 20	C	C	C	A	C		A			A			A			A			A			A
6	1	Ash Slough @ Ave 21	A	A	A					A	A					A	A					A	A	
6	3	Berenda Slough along Ave 18 1/2				A	A					A	A					A	A					A
6	9	Dry Creek @ Rd 18						A	A					A	A					A	A			

¹2008 sampling was only for October through December under the original MRPP.

²2011 Assessment Monitoring took place in Zone 2 at Lateral 3 along East Taylor Rd (site was originally designated as Yori Grove Drain @ East Taylor Rd).

³Core Monitoring was suspended as of April 17, 2012 until directed otherwise by the Executive Officer or superseded by a new MRP Order issued by the Central Valley Water Board or Executive Officer.

Table 12. Coalition monitoring parameters.

Constituents, Parameters, and Tests	Monitoring Type
Photo Monitoring	
Photograph of monitoring location	With every monitoring event
WATER COLUMN SAMPLING	
Physical Parameters and General Chemistry	
Flow (field measure)	Assessment
pH (field measure)	Assessment
Electrical Conductivity (field measure)	Assessment
Dissolved Oxygen (field measure)	Assessment
Temperature (field measure)	Assessment
Turbidity	Assessment
Total Dissolved Solids	Assessment
Total Suspended Solids	Assessment
Hardness	Assessment
Total Organic Carbon	Assessment
Water Column Toxicity Test	
Algae - <i>Selenastrum capricornutum</i>	Assessment
Water Flea – <i>Ceriodaphnia dubia</i>	Assessment
Fathead Minnow - <i>Pimephales promelas</i>	Assessment
Toxicity Identification Evaluation ¹	As needed based on criteria described in MRP Part II.E
Pesticides	
Carbamates	
Aldicarb	Assessment
Carbaryl	Assessment
Carbofuran	Assessment
Methiocarb	Assessment
Methomyl	Assessment
Oxamyl	Assessment
Organophosphates	
Azinphos-methyl	Assessment
Chlorpyrifos	Assessment
Diazinon	Assessment
Dichlorvos	Assessment
Dimethoate	Assessment
Demeton-s	Assessment
Disulfoton (Disyton)	Assessment
Malathion	Assessment
Methamidophos	Assessment
Methidathion	Assessment
Parathion-methyl	Assessment
Phorate	Assessment
Phosmet	Assessment
Herbicides	

Constituents, Parameters, and Tests	Monitoring Type
Atrazine	Assessment
Cyanazine	Assessment
Diuron	Assessment
Linuron	Assessment
Simazine	Assessment
Trifluralin	Assessment
Metals	
Copper (total and dissolved)	Assessment
Zinc (total and dissolved)	Assessment
Nutrients	
Nitrate plus Nitrite as Nitrogen	Assessment
Total Ammonia	Assessment
Unionized Ammonia (calculated value)	Assessment
Soluble Orthophosphate	Assessment
SEDIMENT SAMPLING	
Sediment Toxicity	
<i>Hyalella azteca</i>	Assessment
Pesticides (as needed based on criteria described in MRP Part II.E.2)	
Bifenthrin	As needed based on criteria described in MRP Part II.E
Cyfluthrin	As needed based on criteria described in MRP Part II.E
Cypermethrin	As needed based on criteria described in MRP Part II.E
Deltamethrin: Tralomethrin	As needed based on criteria described in MRP Part II.E
Esfenvalerate	As needed based on criteria described in MRP Part II.E
Lambda-Cyhalothrin	As needed based on criteria described in MRP Part II.E
Permethrin	As needed based on criteria described in MRP Part II.E
Fenpropathrin	As needed based on criteria described in MRP Part II.E
Chlorpyrifos	As needed based on criteria described in MRP Part II.E
Other sediment parameters	
Total Organic Carbon	Assessment
Grain Size	Assessment

¹Specific TIE manipulations utilized in each test will be reported.