Monitoring Plan Update

October 2013 – September 2014

August 1, 2013 (Revised September 17, 2013)

Irrigated Lands Regulatory Program
Central Valley Regional Water Quality Control

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List of Acronyms and Terms

C	Core site
cfs	cubic feet per second
DO	Dissolved Oxygen
DWSC	Deep Water Ship Channel
ESJWQC	East San Joaquin Water Quality Coalition
ILRP	Irrigated Lands Regulatory Program
Order	Waste Discharge Requirements General Order R5-2012-0016 Growers within the Eastern San Joaquin River Watershed
MPM	Management Plan Monitoring
MRP	Monitoring and Reporting Program
MRPP	Monitoring and Reporting Program Plan
pH	Power of Hydrogen
PUR	Pesticide Use Report
Regional Board	Central Valley Regional Water Quality Control Board
R	Represented site
SC	Specific Conductivity
TDS	Total Dissolved Solids
TIE	Toxicity Identification Evaluation
TOC	Total Organic Carbon
TSS	Total Suspended Solids
TMDL	Total Maximum Daily Load
US EPA	United States Environmental Protection Agency
WQO	Water Quality Objective
WQTL	Water Quality Trigger Limit

SURFACE WATER MONITORING OVERVIEW

This Monitoring Plan Update report provides the monitoring schedule that will be performed and the rationale for that schedule for the water year 2014. Monitoring will be performed by the East San Joaquin Water Quality Coalition (ESJWQC or the Coalition) as determined in the Waste Discharge Requirements General Order for Growers within the Eastern San Joaquin River Watershed, Order R5-2012-0116 (hereafter "Order"). The Coalition will perform four different types of monitoring during the 2014 water year:

- Core Site Monitoring,
- Represented Site Monitoring,
- Management Plan Monitoring,
- Special Project Monitoring.

As described in the Monitoring and Reporting Program (MRP), Attachment B to the Order, surface water monitoring at Core sites will occur once a month based on a water year (October 2013 through September 2014) and will include an assessment of field parameters, nutrients, pathogens, pesticides, metals and toxicity to water column and sediment species. Attachment A (Monitoring Parameters and Sites) is an excel workbook that includes a table of all monitoring parameters and sites scheduled for the 2014 water year. If an exceedance of a water quality trigger limit (WQTL) occurs at a Core site, the Coalition will evaluate the potential for similar risks or threats to water quality associated with that parameter at each of the Represented sites in that zone. Management Plan Monitoring (MPM) will occur based on the prioritization process described in the approved ESJWQC Management Plan and ensures that monitoring can identify constituent of concern discharged to the watershed. Special Project Monitoring includes monitoring six compliance locations within the San Joaquin River to ensure compliance with the Diazinon and Chlorpyrifos Total Maximum Daily Load (TMDL) requirements. These constituents are monitored once during the storm season and once a month in May through September.

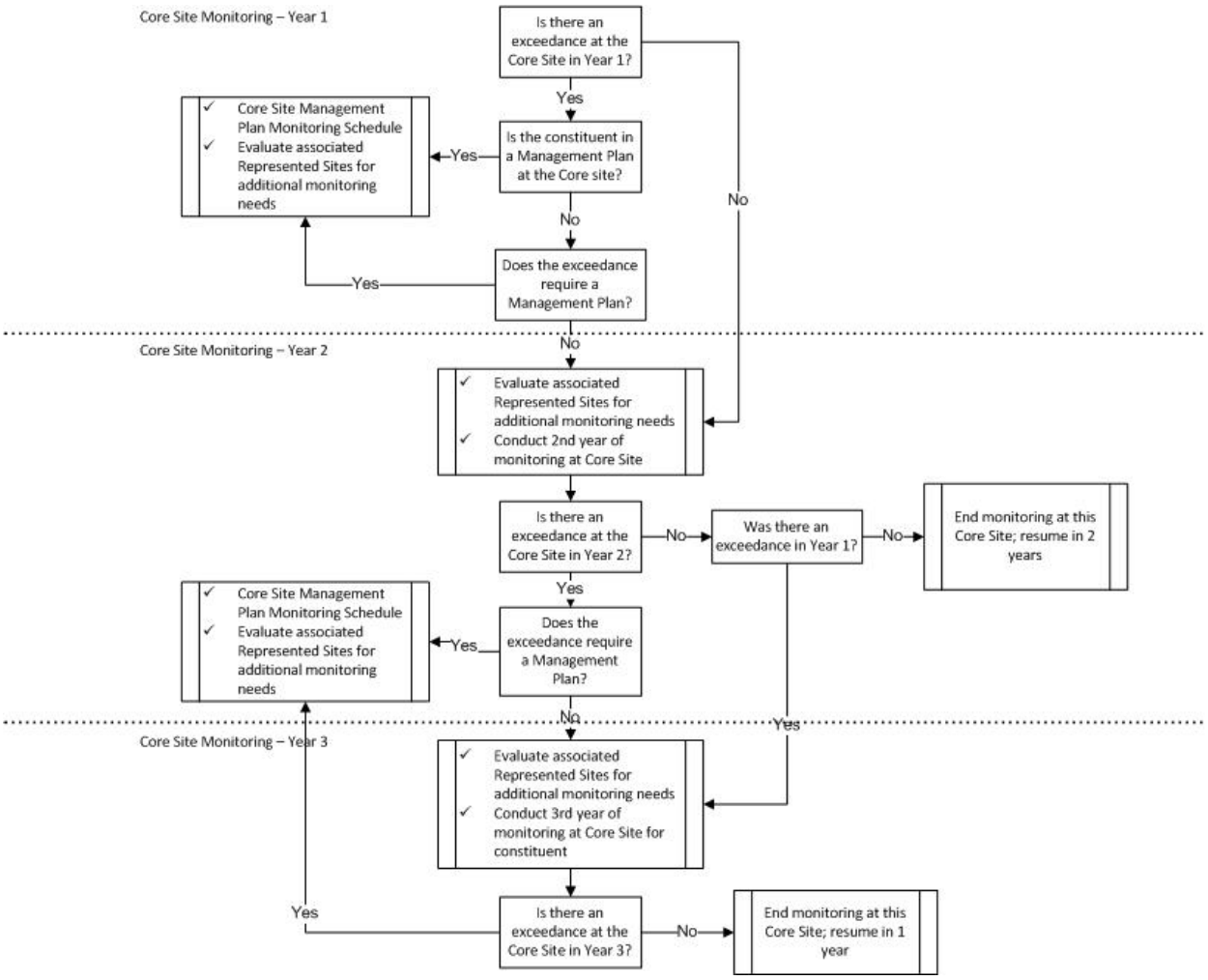
CORE SITE MONITORING

For the 2014 water year, the Coalition will monitor within each of the six zones in the ESJWQC boundary for 12 months (October 2013 through September 2014) at the designated Core sites (Attachment B of the Order, page 4). Table 1 includes a list of Core sites within each zone that are to be monitored during the 2014 water year. The Core site in each zone will be monitored for a minimum of two consecutive years before rotating to the second Core site in the zone. If the concentration of a constituent exceeds the WQTL at a Core site, the Core site will be monitored for an additional third consecutive year (Attachment B of the Order, page 3). If a Core site is currently in a management plan or if the concentration of a constituent and the number of exceedances requires the Core site to be placed in a management plan, the site will be evaluated for MPM. The flow chart in Figure 1 depicts the Core site monitoring strategy.

Table 1. ESJWQC Core sites by zone.

Zone	Site Type	Site Name	Station Code	Latitude	Longitude
1	Core	Dry Creek @ Wellsford Rd	535XDCAWR	37.6602	-120.8743
2	Core	Prairie Flower Drain @ Crows Landing Rd	535XPFDCL	37.4422	-121.0024
3	Core	Highline Canal @ Hwy 99	535XHCHNN	37.4153	-120.7557
4	Core	Merced River @ Santa Fe	535XMRSFD	37.4271	-120.6721
5	Core	Duck Slough @ Gurr Rd	535XDSAGR	37.2142	-120.5596
6	Core	Cottonwood Creek @ Rd 20	545XCCART	36.8686	-120.1818

Figure 1. ESJWQC flowchart for the Core site monitoring strategy.



The Coalition will monitor general water quality parameters, nutrients, bacteria, water column and sediment toxicity, pesticides and metals at each Core site as listed in Table 2, Attachment B of the Order (page 7). Table 2 lists all parameters to be monitored during the 2014 water year at Core sites.

Table 2. ESJWQC parameters to be monitored at the Core sites for the 2014 water year.

Measured Parameter	Monitoring Frequency
Photo Monitoring	
Photograph documentation	With every monitoring event
WATER COLUMN SAMPLING	
Physical Parameters and General Chemistry	
Estimated flow (cfs, field measure)	October-September
pH (field measure)	October-September
Electrical Conductivity (at 25°C, field measure)	October-September
Dissolved Oxygen (DO, field measure)	October-September
Temperature (field measure)	October-September
Turbidity	October-September
Total Suspended Solids (TSS)	October-September
Hardness (as $CaCO_3$)	October-September
Total Organic Carbon (TOC)	October-September
Bacteria	
E. coli	October-September
Water Column Toxicity Test	
Algae - *Selenastrum capricornutum*	October-September
Water Flea - *Ceriodaphnia dubia*	October-September
Fathead Minnow - *Pimephales promelas*	October-September
Toxicity Identification Evaluation (TIE)[1]	As needed based on section III.C.4 of Attachment B
Pesticides[2]	
Carbamates	
Aldicarb	October-September
Carbaryl	October-September
Carbofuran	October-September
Methiocarb	October-September
Methomyl	October-September
Oxamyl	October-September
Organochlorines	
Dichlorodiphenyldichloroethane (DDD)	One storm, one irrigation event per year
Dichlorodiphenyldichloroethylene (DDE)	One storm, one irrigation event per year
Dichlorodiphenyltrichloroethane (DDT)	One storm, one irrigation event per year
Dicofol	One storm, one irrigation event per year
Dieldrin	One storm, one irrigation event per year
Endrin	One storm, one irrigation event per year
Methoxychlor	One storm, one irrigation event per year
Group A	
Aldrin	One storm, one irrigation event per year
Chlordane	One storm, one irrigation event per year
Heptachlor	One storm, one irrigation event per year
Heptachlor Epoxide	One storm, one irrigation event per year
Hexachlorocyclohexane (gamma-HCH)	One storm, one irrigation event per year
Hexachlorocyclohexane (alpha-HCH)	One storm, one irrigation event per year
Hexachlorocyclohexane (beta-HCH)	One storm, one irrigation event per year
Hexachlorocyclohexane (delta-HCH)	One storm, one irrigation event per year
Endosulfan I	One storm, one irrigation event per year

Measured Parameter	Monitoring Frequency
Endosulfan II	One storm, one irrigation event per year
Toxaphene	One storm, one irrigation event per year
Organophosphates	
Azinphos-methyl	October-September
Chlorpyrifos	October-September
Diazinon	October-September
Dichlorvos	October-September
Dimethoate	October-September
Demeton-s	October-September
Disulfoton (Disyton)	October-September
Malathion	October-September
Methamidophos	October-September
Methidathion	October-September
Parathion-methyl	October-September
Phorate	October-September
Phosmet	October-September
Herbicides	
Atrazine	October-September
Cyanazine	October-September
Diuron	October-September
Glyphosate	One storm, one irrigation event per year
Linuron	October-September
Paraquat	One storm, one irrigation event per year
Simazine	October-September
Trifluralin	October-September
Metals	
Arsenic (total)	See Core Site Metals section below
Boron (total)	See Core Site Metals section below
Cadmium (total and dissolved)	See Core Site Metals section below
Copper (total and dissolved)	See Core Site Metals section below
Lead (total and dissolved)	See Core Site Metals section below
Molybdenum (total)	See Core Site Metals section below
Nickel (total and dissolved)	See Core Site Metals section below
Selenium	See Core Site Metals section below
Zinc (total and dissolved)	See Core Site Metals section below
Nutrients	
Nitrate plus Nitrite as Nitrogen	October-September
Total Ammonia	October-September
Unionized Ammonia (calculated value)	October-September
Soluble Orthophosphate	October-September
SEDIMENT SAMPLING	
Sediment Toxicity	
Hyalella azteca	March, September
Sediment Pesticides	
Bifenthrin	As Needed[3]
Cyfluthrin	As Needed[3]
Cypermethrin	As Needed[3]
Deltamethrin: Tralomethrin	As Needed[3]
Esfenvalerate	As Needed[3]
Lambda-Cyhalothrin	As Needed[3]
Permethrin	As Needed[3]
Fenpropathrin	As Needed[3]

Measured Parameter	Monitoring Frequency
Chlorpyrifos	As Needed[3]
Piperonyl butoxide (PBO)	As Needed[3]
Other Sediment Parameters	
Total Organic Carbon	March, September
Grain Size	March, September

[1] Specific TIE manipulations utilized in each test will be reported.
[2] Pesticides and monitoring frequency determined according to the process identified in section III.C.3 of the Order.
[3] Pesticide analysis shall be performed on sediment samples measuring significant toxicity and < 80% organism survival compared to the control.

Core Site Pesticides

This will be the first year of Core site monitoring under the Order and therefore the pesticides scheduled for monitoring are in accordance with the ESJWQC 2008 Monitoring and Reporting Program Plan (2008 MRPP), approved on August 25th, 2008. The 2008 MRPP was amended on May 6th, 2011 to reduce monitoring for paraquat, glyphosate and all organochlorines (including Group A pesticides), to one storm and one irrigation event per year; the Coalition will continue to follow this monitoring strategy for the 2014 water year.

Core Site Metals

The metals listed in Table 2 of Attachment B of the Order for inclusion in the monitoring program were evaluated to determine the timing and frequency of monitoring using the flowchart in Figure 2. The flowchart evaluates each metal by evaluating past monitoring results and application history at each Core site.

The flow chart first evaluates whether the metal is a constituent responsible for a 303d listing of the Core site waterbody in the zone. If the metal is the cause of a 303d listing and there is an approved TMDL, then the Coalition will monitor based on the schedule outlined in the TMDL or determined by the Regional Water Board. There is a TMDL for selenium discharges on the west side of the San Joaquin River basin and a TMDL for boron for the San Joaquin River segment between the Merced and Tuolumne Rivers. The boron TMDL is being addressed through the Basin Plan amendment process for the Control of Salt and Boron Discharges into the San Joaquin River. There is currently no required TMDL monitoring at any of the Core sites for either selenium or boron.

If there is no approved TMDL for the 303d listed metal the Coalition reviews past monitoring data and determines if sufficient data exist to propose delisting of the water body. If there are not sufficient data, the Coalition will develop monitoring options as determined by Figure 2 for discussion with the Regional Water Board. None of the Core site waterbodies are listed for metals on the 2010 California 303d List of Water Quality Limited Segments.

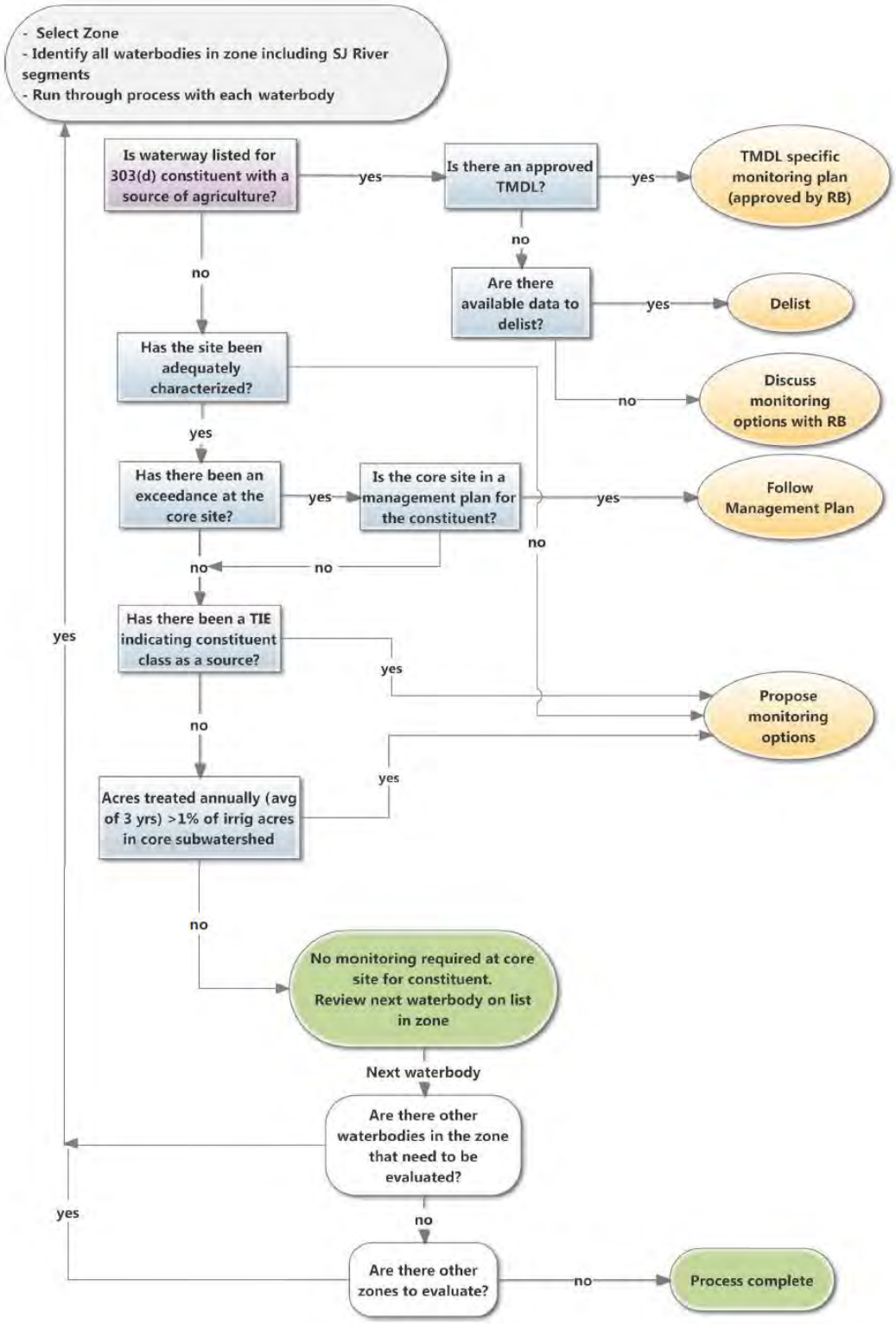
If a metal is not a cause of a 303d listing for the Core site waterbody, past monitoring results are reviewed to determine if the site has been adequately characterized, if there have been exceedances of a water quality trigger limit for the metal, or if toxicity test results indicate that the metal is the source of toxicity. These evaluations lead to one of the following decisions: 1) follow the monitoring as

described in the ESJWQC Management Plan (characterization adequate, two or more exceedances in a 3 year period), 2) develop a monitoring schedule based on past results and application data (characterization not adequate), or 3) no monitoring is necessary (characterization adequate, no exceedances).

All metals were monitored at the Core sites during various periods from 2006 through June 2013 except for molybdenum and dissolved metals. Molybdenum and the dissolved fractions for cadmium, copper, lead, nickel, and zinc were added to the ESJWQC MRP in October 2008. At that time, the Coalition's monitoring strategy included Core and Assessment Monitoring, as determined by the 2008 MRP. Assessment Monitoring included the analysis of samples for a large suite of constituents, including total and dissolved metals. Compared to Assessment Monitoring, Core Monitoring included analyses for a reduced number constituents (primarily physical parameters and nutrients) during Core Monitoring years. Core sites in each zone rotated into Assessment Monitoring every three years. Core sites were monitored for every metal during Assessment Monitoring in 2011 (with the exception of arsenic, cadmium, lead and molybdenum; see below). Metals were monitored at Core sites during Management Plan Monitoring if the metal was listed as a high priority constituent in a high priority subwatershed management plan.

In November 2010 the Coalition requested a reduction in the monitoring of metals that are not applied by agriculture (arsenic, cadmium, lead, and molybdenum) to four times a year; twice during two storm events and twice during two high flow irrigation events associated with movement of sediments from irrigated fields (high TSS). The Regional Water Board approved an amendment to the MRPP in May 2011 and the Coalition reduced monitoring after the August irrigation event in 2011; molybdenum was first monitored at the Core sites in 2011.

Figure 2. ESJWQC flowchart for the Core site metals monitoring strategy.



Dry Creek @ Wellsford Rd

Dry Creek @ Wellsford Rd is the Core site in Zone 1. The decision for monitoring for metals at Dry Creek @ Wellsford Rd during the 2014 water year is outlined in Table 3; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 4. Only concentrations of copper and lead exceeded their respective hardness-based WQTLs in samples collected from Dry Creek @ Wellsford (Table 4).

Table 3. Results of the flow chart analysis for Dry Creek @ Wellsford Rd outlined in Figure 2.
"X" indicates a monitoring decision.

Flow chart question	As, Tot	B, Tot	Cd, Tot	Cd, Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
3. Has there been an exceedance?	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan														
4. Propose monitoring plan	X	X		X		X		X	X		X	X		X
5. No monitoring			X		X		X			X			X	

Monitoring Decision #4- Monitoring plan

Arsenic, Boron, Dissolved Copper, Dissolved Cadmium, Dissolved Lead, Molybdenum, Selenium, Dissolved Nickel, Dissolved Zinc

Copper was removed from the active Dry Creek @ Wellsford Rd management plan in 2012; no exceedances of the WQTL for copper have occurred since February 2008 (Table 4). In addition, there is a decreasing trend in copper detections since 2008. However, because applications of pounds of active ingredient continue to be >1% of the irrigated acres, the Coalition proposes to monitor at Dry Creek @ Wellsford Rd every third year starting in the 2014 water year (1 year of monitoring followed by 2 years of no monitoring). The frequency of the monitoring will be monthly from January to August.

The remaining metals, arsenic, boron, molybdenum, selenium, dissolved cadmium, dissolved lead, dissolved nickel, and dissolved zinc were monitored in 2008 and 2011. There were no exceedances of the WQTLs for these constituents in either year. Because it has been three years since the last monitoring for these constituents, the ESJWQC will monitor these metals in 2014. Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP.

Monitoring Decision #5 - No monitoring

Total Cadmium, Total Copper, Total Lead, Total Nickel, and Total Zinc

Monitoring of total cadmium, total copper, total lead, total nickel, and total zinc are no longer necessary because the Coalition is monitoring the dissolved phase of these metals (Table 4). There were no exceedances of any of the WQTLs for these constituents with the exception of one exceedance of the WQTL for lead (total) in February 2008. With only one exceedance, Dry Creek @ Wellsford is not in a management plan for lead. Lead is not applied by agriculture and based on water quality results lead is not being mobilized by agricultural practices. In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 3) for total cadmium, total copper, total lead, total nickel, and total zinc at Dry Creek @ Wellsford Rd.

Table 4. Dry Creek @ Wellsford Rd site subwatershed dissolved and total metals monitoring results (2006-2012).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/18/2006	1.3	26	NA	<0.04	NA	5.1	NA	0.54	NA	NA	3.4	<0.7	NA	12	NA
2006	Jun	6/15/2006	0.8	14	NA	<0.02	NA	3.9	NA	0.64	NA	NA	2.3	<0.9	NA	11	NA
2006	Jul	7/13/2006	0.9	16	NA	<0.02	NA	3.1	NA	0.38	NA	NA	2	<0.9	NA	5	NA
2006	Aug	8/10/2006	1.1	16	NA	<0.02	NA	3.4	NA	0.48	NA	NA	2.4	<0.9	NA	6	NA
2006	Sep	9/14/2006	0.4	16	NA	<0.02	NA	3.5	NA	0.41	NA	NA	1.7	<0.9	NA	15	NA
2007	Feb	2/11/2007	1	20	NA	<0.02	NA	1.9	NA	0.19	NA	NA	1.7	<0.9	NA	7	NA
2007	Feb	2/28/2007	1.6	32	NA	0.03	NA	8.4	NA	2	NA	NA	4.1	<0.9	NA	14	NA
2007	Apr	4/17/2007	1.3	14	NA	<0.02	NA	5.1	NA	0.8	NA	NA	2.7	1	NA	7	NA
2007	May	5/15/2007	1.8	16	NA	<0.02	NA	6.1	NA	1	NA	NA	3.1	<0.9	NA	8	NA
2007	Jun	6/19/2007	2	22	NA	<0.04	NA	5.9	NA	0.93	NA	NA	3.7	NA	NA	7	NA
2007	Jul	7/17/2007	1.5	19	NA	<0.04	NA	3.9	NA	0.45	NA	NA	2.5	NA	NA	3	NA
2007	Aug	8/14/2007	1.4	24	NA	0.2	NA	5.3	NA	0.58	NA	NA	3.1	NA	NA	7	NA
2007	Sep	9/11/2007	1	21	NA	<0.04	NA	3.3	NA	0.34	NA	NA	2.5	NA	NA	6	NA
2008	Jan	1/24/2008	1.1	25	NA	<0.02	NA	12	NA	2.4	NA	NA	4.6	0.62	NA	18	NA
2008	Feb	2/26/2008	0.8	21	NA	0.05	NA	11	NA	1.8	NA	NA	4.1	0.46	NA	14	NA
2008	Apr	4/22/2008	1.1	21	NA	0.02	NA	4.7	NA	0.67	NA	NA	2.6	<0.22	NA	7	NA
2008	May	5/20/2008	1.5	20	NA	<0.06	NA	3.8	NA	0.83	NA	NA	2.4	0.96	NA	6	NA
2008	Jun	6/17/2008	1.2	19	NA	<0.06	NA	3.7	NA	0.69	NA	NA	2.5	0.7	NA	7	NA
2008	Jul	7/22/2008	1.3	20	NA	<0.06	NA	3.2	NA	0.42	NA	NA	2.1	0.23	NA	10	NA
2008	Aug	8/19/2008	1.2	18	NA	<0.06	NA	5.3	NA	0.6	NA	NA	2.4	<0.11	NA	7	NA
2008	Sep	9/23/2008	1	20	NA	<0.06	NA	2.3	NA	0.28	NA	NA	1.7	<0.11	NA	4	NA
2009	Dec	12/15/2009	NA	NA	NA	NA	NA	NA	<0.071	0.13	NA	NA	NA	NA	NA	NA	10
2010	Feb	2/23/2010	NA	NA	NA	NA	3.2	3.9	NA	NA	NA	NA	NA	NA	NA	NA	<2
2010	Apr	4/20/2010	NA	NA	NA	NA	2.8	4.3	NA	NA	NA	NA	NA	NA	NA	NA	13
2010	Jul	7/20/2010	NA	NA	NA	NA	NA	NA	0.15	0.52	NA	NA	NA	NA	NA	NA	18
2010	Aug	8/17/2010	NA	NA	NA	NA	NA	NA	0.11	0.46	NA	NA	NA	NA	NA	NA	7
2010	Sep	9/14/2010	NA	NA	NA	NA	NA	NA	0.14	0.51	NA	NA	NA	NA	NA	NA	8
2010	Oct	10/19/2010	NA	NA	NA	NA	NA	NA	0.18	0.48	NA	NA	NA	NA	NA	NA	2
2010	Nov	11/16/2010	NA	NA	NA	NA	NA	NA	0.13	0.27	NA	NA	NA	NA	NA	NA	9
2010	Dec	12/14/2010	NA	NA	NA	NA	NA	NA	<0.071	0.19	NA	NA	NA	NA	NA	NA	<2
2011	Jan	1/18/2011	0.6	25	<0.011	<0.011	1.5	2.4	<0.071	0.18	0.246	0.88	1.1	0.08	<0.7	1.2	<2
2011	Feb	2/17/2011	0.59	28	<0.011	<0.011	1.7	2.1	<0.071	0.08	0.43	0.95	1.1	<0.06	0.9	1.6	12
2011	Mar	3/15/2011	0.66	31	<0.011	<0.011	2	2.8	0.08	0.24	0.31	1.1	1.3	0.08	0.9	1.3	7
2011	Apr	4/19/2011	1	29	<0.04	<0.04	2.5	3.8	0.12	0.4	0.6	1.5	1.9	0.11	1.4	3.2	10
2011	May	5/10/2011	1	22	<0.04	<0.04	2	3.2	0.14	0.5	0.72	1.5	1.8	0.07	1.9	4.9	6
2011	Jun	6/14/2011	1.1	19	<0.04	<0.04	2.2	3.7	0.24	0.68	0.49	1.7	2.4	0.08	2.1	5.2	14

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2011	Jul	7/12/2011	1.2	27	<0.04	<0.04	2	3.5	0.21	0.69	0.73	1.8	2.8	0.07	0.9	3.9	14
2011	Aug	8/9/2011	1	21	<0.04	<0.04	1.9	3	0.15	0.45	0.79	1.6	2.2	0.08	1.5	3.5	12
2011	Sep	9/6/2011	NA	19	NA	NA	2.2	3	NA	NA	NA	1.5	1.9	<0.06	2.4	4	7
2011	Oct	10/11/2011	NA	15	NA	NA	2.1	3.3	NA	NA	NA	1.3	1.7	<0.06	1.3	3	5
2011	Nov	11/8/2011	NA	14	NA	NA	1.3	1.7	NA	NA	NA	0.64	0.8	<0.06	<0.8	1.9	2
2011	Dec	12/6/2011	NA	14	NA	NA	1.1	1.4	NA	NA	NA	0.73	0.8	<0.06	1	1.2	2
2012	Feb	2/7/2012	NA	NA	NA	NA	1.3	1.6	NA	NA	NA	NA	NA	NA	NA	NA	<2
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Samples collected in 2007			8	8	0	8	0	8	0	8	0	0	8	4	0	8	0
Samples collected in 2008			8	8	0	8	0	8	0	8	0	0	8	8	0	8	3
Samples collected in 2009			0	0	0	0	0	0	1	1	0	0	0	0	0	0	12
Samples collected in 2010			0	0	0	0	2	2	6	6	0	0	0	0	0	0	12
Samples collected in 2011			8	12	8	8	12	12	8	8	8	12	12	12	12	12	12
Samples collected in 2012			0	0	0	0	1	1	0	0	0	0	0	0	0	0	3
Total Samples Collected			**29**	**33**	**8**	**29**	**15**	**36**	**15**	**36**	**8**	**12**	**33**	**29**	**12**	**33**	**42**
Total Exceedances			**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**0%**	**0%**	**0%**	**0%**	**0%**	**8.3%**	**0%**	**2.7%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Prairie Flower Drain @ Crows Landing Rd

Prairie Flower Drain @ Crows Landing Rd is the Core site in Zone 2. The decision for monitoring for metals at Prairie Flower Drain @ Crows Landing Rd during the 2014 water year is outlined in Table 5; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 6. Only concentrations of molybdenum and arsenic exceeded the WQTL in samples collected from Prairie Flower Drain @ Crows Landing Rd (Table 6).

Table 5. Results of the flow chart analysis for Prairie Flower Drain @ Crows Landing Rd outlined in Figure 2.
"X" indicates a monitoring decision.

Flow chart question	As, Tot	B, Tot	Cd Tot	Cd Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No
3. Has there been an exceedance?	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan									X[1]					
4. Propose monitoring plan	X	X		X		X		X	X		X	X		X
5. No monitoring			X		X		X			X			X	

[1]Management plan places molybdenum as a Priority E constituent.

Monitoring Decision #3 - Monitoring according to a management plan

Molybdenum

Utilizing water quality data from 2011 and the flow chart in Figure 2, the monitoring decision for molybdenum is to monitor according to a management plan (Table 5). After the exceedances of the molybdenum WQTL in 2011, the Coalition developed a management plan for molybdenum in 2012. In that management plan, molybdenum was assigned a Priority E because molybdenum is not applied by agriculture. Although molybdenum is listed as a trace element in some fertilizer mixes, it is applied only in regions where the soils are low in molybdenum. Growers on the ESJWQC Board of Directors who farm indicate that because molybdenum is in sufficient concentration in soils across the Coalition region, and because of the expense of molybdenum, it is not added as a fertilizer amendment in the Coalition region. If molybdenum is added routinely as an amendment in fertilizers, it is likely that other monitoring locations would have experienced similar exceedances of the WQTL. The only location with molybdenum concentrations above the WQTL is Prairie Flower Drain (Table 6). Also, the dates of the exceedances make it unlikely that the exceedances are the result of fertilizer applications as the greatest concentrations of molybdenum were found in months with no fertilizer applications in the Prairie Flower Drain watershed. Fertilizers are applied the mid-spring and exceedances of the molybdenum WQTL

occurred in January, February, March, May and June. Three of the exceedances occurred prior to planting and fertilization. The Coalition believes that the exceedances of the WQTL in 2011 are not the result of fertilizer applications but the result of the drain intercepting shallow groundwater with a naturally elevated concentration of molybdenum.

Molybdenum is a Priority E constituent in the ESJWQC Management Plan and does not require monitoring. However, since two consecutive years of monitoring have not been conducted for molybdenum at Prairie Flower Drain @ Crows Landing Rd, the Coalition will monitor for molybdenum monthly during the 2014 and 2015 water years. After that time, the Coalition will review the results and discuss possible monitoring strategies with Regional Board staff. Once a month monitoring in the 2014 and 2015 water year monitoring in addition to the 2011 monitoring results should provide sufficient information to determine the frequency of any additional monitoring.

Monitoring Decision #4- Propose monitoring plan

Arsenic, Boron, Dissolved Cadmium, Dissolved Copper, Dissolved Lead, Dissolved Nickel, Selenium and Dissolved Zinc

Arsenic, boron, and selenium have been sampled periodically since the Coalition initiated monitoring at Prairie Flower Drain @ Crows Landing Rd in 2004. Monitoring for the dissolved fraction of cadmium, copper, lead, nickel, and zinc was initiated in 2008. Monitoring occurred in 2011 for metals and sampling for these metals was terminated in August 2011. There were no exceedances of any of the WQTLs for these metals. Because it has been three years since the last monitoring for these constituents, the ESJWQC will monitor these metals in 2014. Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP.

Monitoring Decision #5 - No monitoring

Total Cadmium, Copper, Lead, Nickel, and Zinc

Total cadmium, total copper, total lead, total nickel, and total zinc are no longer necessary because the Coalition is monitoring for the dissolved fraction of the same metals (Table 6). There have been no exceedances of any of the WQTLs for these constituents. In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 5) for total cadmium, lead, nickel, and zinc at Prairie Flower Drain @ Crows Landing Rd.

Table 6. Prairie Flower Drain @ Crows Landing Rd site subwatershed dissolved and total metals monitoring results (2006-2011).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/18/2006	8.8	420	NA	0.07	NA	10	NA	0.64	NA	NA	9.3	3	NA	11	NA
2006	Jun	6/15/2006	7.6	300	NA	0.04	NA	7.9	NA	0.52	NA	NA	7.5	3	NA	13	NA
2006	Jul	7/13/2006	4.2	150	NA	0.05	NA	7.3	NA	0.68	NA	NA	4.3	2	NA	14	NA
2006	Aug	8/10/2006	7.7	320	NA	0.04	NA	8.4	NA	0.49	NA	NA	7.3	2	NA	12	NA
2006	Sep	9/14/2006	5.4	170	NA	0.04	NA	8.8	NA	0.78	NA	NA	5.9	<0.9	NA	25	NA
2007	Feb	2/11/2007	9.6	420	NA	0.07	NA	8.5	NA	0.17	NA	NA	7.7	2	NA	11	NA
2007	Mar	3/1/2007	8	400	NA	0.05	NA	9.1	NA	<0.1	NA	NA	8.3	3	NA	3	NA
2007	Apr	4/17/2007	8.8	430	NA	0.04	NA	8.1	NA	0.12	NA	NA	6.6	3	NA	4	NA
2007	May	5/15/2007	9.6	400	NA	<0.02	NA	9.4	NA	<0.1	NA	NA	6.3	4	NA	3	NA
2007	Jun	6/19/2007	12	330	NA	0.05	NA	11	NA	0.35	NA	NA	8.7	NA	NA	7	NA
2007	Jul	7/17/2007	5.7	200	NA	<0.04	NA	6.5	NA	0.21	NA	NA	4.9	NA	NA	15	NA
2007	Aug	8/14/2007	4.6	130	NA	0.08	NA	9.6	NA	1	NA	NA	7	NA	NA	21	NA
2007	Sep	9/11/2007	4.2	200	NA	0.09	NA	6.6	NA	0.13	NA	NA	3.1	NA	NA	9	NA
2008	Jan	1/24/2008	6.8	360	NA	<0.02	NA	9.2	NA	0.28	NA	NA	6	1.1	NA	20	NA
2008	Feb	2/26/2008	7.7	440	NA	<0.02	NA	9.1	NA	0.02	NA	NA	6.5	1.4	NA	4	NA
2008	Apr	4/22/2008	8.4	390	NA	<0.02	NA	11	NA	0.32	NA	NA	7.9	1.1	NA	7	NA
2008	May	5/20/2008	9.3	330	NA	<0.06	NA	9	NA	0.32	NA	NA	6.3	1.8	NA	10	NA
2008	Jun	6/17/2008	6.9	290	NA	0.06	NA	9.6	NA	0.67	NA	NA	6.8	1.4	NA	15	NA
2008	Jul	7/22/2008	4.6	160	NA	<0.06	NA	7.1	NA	0.23	NA	NA	4.5	0.18	NA	6	NA
2008	Aug	8/19/2008	4.4	170	NA	<0.06	NA	4.4	NA	0.13	NA	NA	2.8	0.22	NA	4	NA
2008	Sep	9/23/2008	10	360	NA	<0.06	NA	8.3	NA	0.28	NA	NA	7.3	1	NA	5	NA
2011	Jan	1/18/2011	7.9	447	0.05	0.06	6.4	8.1	<0.071	0.08	25	5.1	5.5	0.48	4	6.1	8
2011	Feb	2/17/2011	7.6	375	0.02	0.02	6	7.1	<0.071	<0.071	21	4.1	4.7	0.43	1	1.6	20
2011	Mar	3/15/2011	6.8	390	0.02	0.03	6.1	6.7	<0.071	<0.071	19	4.2	4.3	0.36	0.96	2	14
2011	Apr	4/19/2011	4.6	207	<0.04	0.06	6.6	10	0.08	0.22	8.2	3	3.4	0.38	6.8	13	40.5
2011	May	5/10/2011	5.3	231	<0.04	<0.04	5.3	6.6	<0.03	0.08	11	3.3	3.7	0.32	1.7	2.8	13
2011	Jun	6/14/2011	6	288	<0.04	<0.04	4.6	6.1	<0.03	0.22	13	3.2	4	0.32	0.7	3.5	29
2011	Jul	7/12/2011	5.2	234	0.04	0.06	5.9	8.2	0.05	0.28	9.8	3.5	4.6	0.43	2.4	5.5	13
2011	Aug	8/9/2011	4.2	179	<0.04	0.05	3.3	4.9	0.04	0.19	6.9	2.1	2.5	0.24	2.5	5.6	12
2011	Sep	9/6/2011	NA	96	NA	NA	2.4	3.6	NA	NA	NA	1.3	1.8	0.16	2.4	5.8	22
2011	Oct	10/11/2011	NA	381	NA	NA	4.3	5.9	NA	NA	NA	4.3	4.8	0.38	5.8	2.9	18
2011	Nov	11/8/2011	NA	347	NA	NA	5.6	6.5	NA	NA	NA	4.2	4.7	0.37	<0.7	1.7	8
2011	Dec	12/6/2011	NA	344	NA	NA	6.4	7.4	NA	NA	NA	4.3	5.1	0.38	1.2	2	14
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Samples collected in 2007			8	8	0	8	0	8	0	8	0	0	8	4	0	8	0

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
Samples collected in 2008			8	8	0	8	0	8	0	8	0	0	8	8	0	8	3
Samples collected in 2011			8	12	8	8	12	12	8	8	8	12	12	12	12	12	13
Total Collected			**29**	**33**	**8**	**29**	**12**	**33**	**8**	**29**	**8**	**12**	**33**	**29**	**12**	**33**	**16**
Total Exceedances			**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**3.4%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**62.5%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Table 7. Molybdenum results of samples collected from locations within the ESJWQC.

Dry sites not included. Bold station names indicate sites that are within a zone that has had one or more exceedance of the molybdenum WQTL.

Station Name	Min of Sample Date	Max of Sample Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		Total Count of Result	Total Avg of Result
			Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg	Count	Avg		
Berenda Slough along Ave 18 1/2	1/18/2011	8/16/2011	1	1.30	1	0.89	1	0.96	1	1.10	1	0.83	1	0.74	1	0.46	1	0.44									8	0.84
Burnett Lateral @ 28 Mile Rd	2/20/2013	2/20/2013			1	0.60																					1	0.60
Cottonwood Creek @ Rd 20	1/18/2011	8/16/2011	1	1.80	1	1.90	1	1.50	1	1.40	1	1.40	1	1.30	1	1.30	1	1.30									8	1.49
Deadman Creek @ Gurr Rd	10/21/2008	12/14/2010	1	4.00	1	4.90	1	2.70	1	2.10					1	1.70	1	0.91	1	1.60	2	3.02	2	4.30	3	4.33	14	3.25
Deadman Creek @ Hwy 59	1/18/2011	4/12/2012	1	2.60	1	4.80	1	2.40	2	3.50	1	2.50	1	2.50	1	1.70	1	2.30									9	2.87
Dry Creek @ Rd 18	4/2/2013	4/2/2013							1	1.70																	1	1.70
Dry Creek @ Wellsford Rd	1/18/2011	8/9/2011	1	0.25	1	0.43	1	0.31	1	0.60	1	0.72	1	0.49	1	0.73	1	0.79									8	0.54
Duck Slough @ Gurr Rd	12/16/2008	8/16/2011	2	1.70	2	4.00	2	1.08	2	1.74	1	0.61	1	0.74	1	0.42	1	0.58							1	2.10	13	1.65
Highline Canal @ Hwy 99	3/15/2011	8/9/2011					1	0.33	1	0.28	1	0.29	1	0.24	1	0.25	1	0.25									6	0.27
Highline Canal @ Lombardy Rd	1/18/2011	4/12/2012	1	1.50	1	1.60	1	0.31	2	0.27	1	0.29	1	0.24	1	0.23	1	0.26									9	0.55
Howard Lateral @ Hwy 140	4/21/2009	10/19/2010							1	1.00					1	0.63	1	1.00	1	0.51	1	0.34					5	0.70
Lateral 2 1/2 near Keyes Rd	10/21/2008	10/19/2010							1	0.44					1	0.55	1	0.33	1	0.91	2	0.83	1	2.50			7	0.91
Lateral 3 along East Taylor Rd	3/15/2011	8/9/2011					1	0.33	1	0.35	1	0.26	1	0.58	1	0.29	1	0.26									6	0.35
Levee Drain @ Carpenter Rd	4/12/2012	4/2/2013			1	9.50			2	6.40																	3	7.43
McCoy Lateral @ Hwy 140	1/18/2011	4/12/2012	1	0.49					2	0.92	1	0.41	1	0.41	1	0.63	1	0.41									7	0.60
Merced River @ Santa Fe	10/21/2008	8/9/2011	2	0.49	2	0.50	2	0.54	2	0.53	1	0.40	1	0.32	1	0.32	1	0.39			1	0.35	1	0.38	1	0.38	15	0.44
Miles Creek @ Reilly Rd	2/20/2013	4/2/2013			1	1.50			1	0.95																	2	1.23
Mootz Drain @ Langworth Rd	11/11/2008	4/21/2009			1	1.80	1	2.70	1	1.10													1	0.93	1	0.65	5	1.44
Mootz Drain Downstream of Langworth Pond	12/15/2009	4/2/2013							1	0.80					1	0.79	1	0.74	1	0.64					2	1.70	6	1.06
Mustang Creek @ East Ave	2/7/2009	12/15/2009			1	3.10	1	2.90																	1	2.80	3	2.93
Prairie Flower Drain @ Crows Landing Rd	1/18/2011	8/9/2011	1	25.0	1	21.0	1	19.0	1	8.20	1	11.0	1	13.0	1	9.80	1	6.90									8	14.24
Rodden Creek @ Rodden Rd	1/18/2011	4/12/2012	1	0.20	1	0.22	1	0.29	2	0.30	1	0.23	1	0.25	1	0.20	1	0.28									9	0.25
Unnamed Drain @ Hwy 140	4/2/2013	4/2/2013							1	5.30																	1	5.30
Grand Total (Counts / Averages)			**13**	**3.19**	**17**	**3.60**	**16**	**2.31**	**28**	**1.88**	**12**	**1.58**	**12**	**1.73**	**16**	**1.25**	**16**	**1.07**	**4**	**0.92**	**6**	**1.40**	**5**	**2.48**	**9**	**2.48**	**154**	**2.05**

Highline Canal @ Hwy 99

Highline Canal @ Hwy 99 is the Core site in Zone 3. The decision for monitoring for metals at Highline Canal @ Hwy 99 during the 2014 water year is outlined in Table 8; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 9. Only concentrations of copper and lead exceeded the WQTL in samples collected from Highline Canal @ Hwy 99 (Table 9).

Table 8. Results of the flow chart analysis for Highline Canal @ Hwy 99 outlined in Figure 2.
"X" indicates a monitoring decision.

Flow chart question	As, Tot	B, Tot	Cd Tot	Cd Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
3. Has there been an exceedance?	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	Yes	Yes	Yes[1]	Yes[1]	No	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan						X		X[2]						
4. Propose monitoring plan	X	X		X					X		X	X		X
5. No monitoring			X		X		X[2]			X			X	

[1]The management plan is for lead regardless of the fraction.
[2]Management plan places lead as a Priority E constituent.

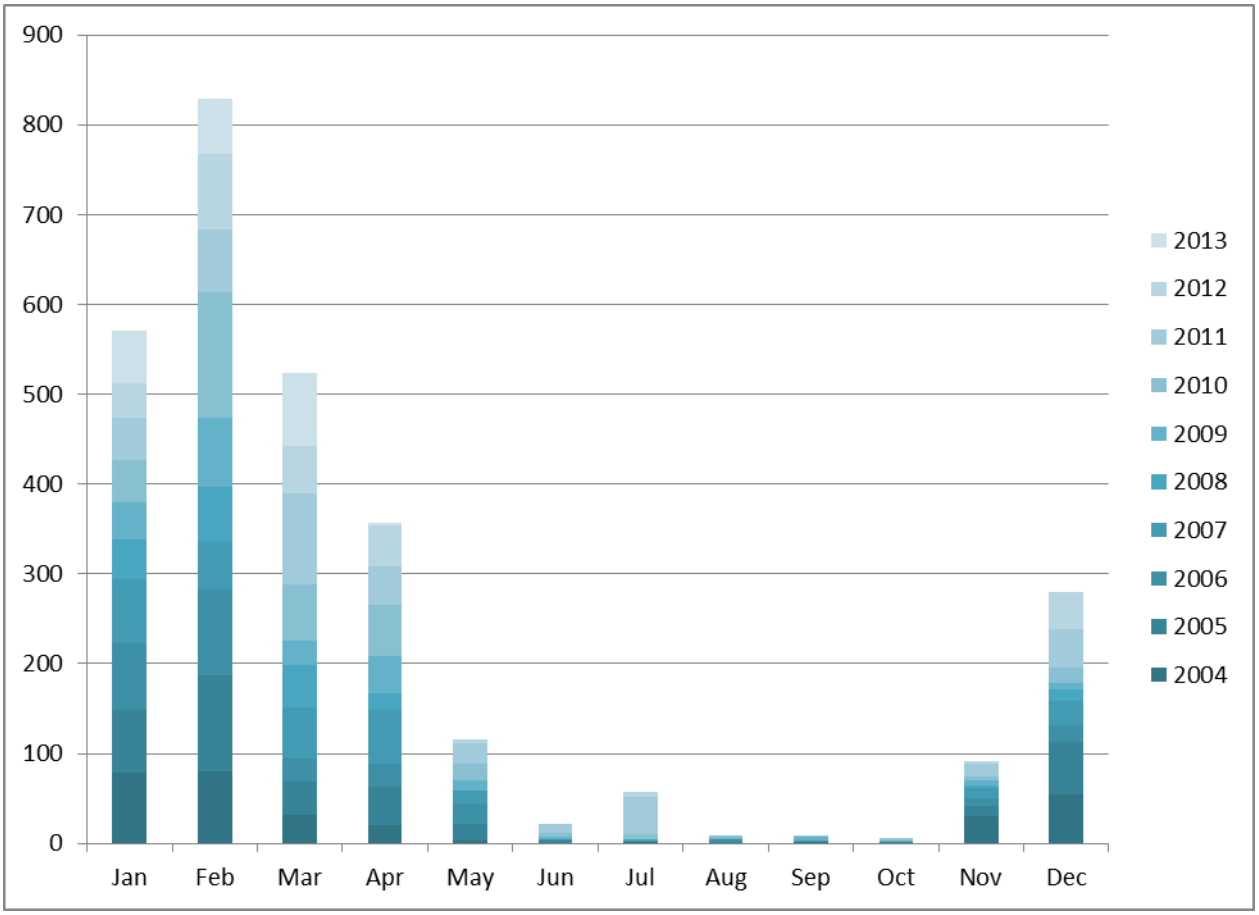
Monitoring Decision #3 - Monitoring according to a management plan

Copper

Copper was placed in the Highline Canal @ Hwy 99 site subwatershed management plan in 2008. From 2007 through 2008 all copper exceedances were based on total copper concentrations and the hardness based trigger limit. Since monitoring for the dissolved fraction, there have been two exceedances of copper (2012). Based on past monitoring exceedances, the Coalition has been conducting MPM at Highline Canal @Hwy 99 for copper from January, February, April, June, July and August. A majority of copper applications occur between January and April (Figure 3). The least amount of copper is applied between May and November although there have been exceedances in June, July and August (Figure 3, Table 9). The exceedances that have occurred in June, July and August were in samples collected in 2007 that were analyzed for the total fraction only; the results range from 2.4 to 3.2 µg/L copper (Table 9). There have been no exceedances of copper in samples collected in June, July and August in 2008, 2010 and 2011; to date there have been no exceedances in June of 2013. To ensure that monitoring represents months of the highest likelihood of copper discharge into Highline Canal, the Coalition will remove monitoring in June, July and August from its MPM schedule and add in monitoring in the

months of March and December to capture the potential of copper movement from fields during storm events. For the 2014 Water Year, the Coalition will conduct MPM for dissolved copper from January through April and December.

Figure 3. Sum of pounds of copper (AI) applied in the Highline Canal @ Hwy 99 subwatershed from 2004 - 2013 (2013 PUR data are not complete).



Lead

Lead was placed in the Highline Canal @ Hwy 99 site subwatershed management plan in 2007. From 2006 through 2007 all lead exceedances were based on total lead concentrations and the hardness based trigger limit. Since monitoring for the dissolved fraction, there have been no exceedances of lead (Table 9). Based on past monitoring exceedances, the Coalition will continue to conduct MPM at Highline Canal @Hwy 99 for dissolved lead in February and April through August.

Monitoring Decision #4- Propose monitoring plan

Arsenic, Boron, Dissolved Cadmium, Dissolved Nickel, Selenium, Dissolved Zinc

Arsenic, boron, and selenium have been sampled periodically since the Coalition initiated monitoring at Highline Canal @ Highway 99 in 2006. Sampling for dissolved cadmium, dissolved nickel, and dissolved zinc was initiated in 2008. Monitoring occurred in 2011, 2012, and 2013 but few samples have been

collected. There were no exceedances of any of the WQTLs for these metals. Because there has been little monitoring for these constituents over the last three years, the ESJWQC will monitor these metals in 2014. Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP.

Monitoring Decision #5 - No monitoring

Total Cadmium, Copper, Lead, Nickel, and Zinc

Total cadmium, total copper, total lead, total nickel, and total zinc are no longer necessary because the Coalition is monitoring for the dissolved phase of the same metals (Table 9). There were no exceedances of any of the WQTLs for these constituents. In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 8) for total cadmium, lead, nickel, and zinc at Highline Canal @ Highway 99.

Table 9. Highline Canal @ Hwy 99 site subwatershed dissolved and total metals monitoring results (2006-2013).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/17/2006	<0.2	6	NA	<0.04	NA	1.8	NA	0.42	NA	NA	1.2	<0.7	NA	3	NA
2006	Jun	6/14/2006	<0.3	6	NA	<0.02	NA	1.7	NA	0.38	NA	NA	1	<0.9	NA	8	NA
2006	Jul	7/12/2006	<0.3	6	NA	<0.02	NA	1.6	NA	0.48	NA	NA	1.2	<0.9	NA	11	NA
2006	Aug	8/9/2006	<0.3	4	NA	<0.02	NA	1.3	NA	0.39	NA	NA	0.9	<0.9	NA	6	NA
2006	Sep	9/13/2006	<0.3	7	NA	<0.02	NA	1.3	NA	0.24	NA	NA	0.8	<0.9	NA	19	NA
2007	Feb	2/11/2007	1.4	11	NA	<0.02	NA	3	NA	0.52	NA	NA	1.4	<0.9	NA	24	NA
2007	Feb	2/28/2007	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2007	Apr	4/17/2007	0.9	5	NA	0.08	NA	11	NA	5.1	NA	NA	2.9	<0.9	NA	34	NA
2007	May	5/15/2007	0.4	9	NA	<0.02	NA	1.4	NA	0.3	NA	NA	1	<0.9	NA	2	NA
2007	Jun	6/19/2007	0.6	5	NA	<0.04	NA	2.4	NA	0.5	NA	NA	1.3	NA	NA	3	NA
2007	Jul	7/17/2007	0.8	5	NA	<0.04	NA	3.2	NA	1	NA	NA	2	NA	NA	6	NA
2007	Aug	8/14/2007	0.46	10	NA	<0.04	NA	1.9	NA	0.44	NA	NA	1	NA	NA	7	NA
2007	Sep	9/11/2007	0.5	7	NA	<0.04	NA	1.5	NA	0.48	NA	NA	0.6	NA	NA	3	NA
2008	Jan	1/24/2008	5.2	82	NA	0.2	NA	37	NA	3.4	NA	NA	11	0.74	NA	36	NA
2008	Feb	2/26/2008	8.6	110	NA	0.096	NA	81	NA	1.1	NA	NA	10	0.85	NA	31	NA
2008	Apr	4/22/2008	0.4	6	NA	<0.02	NA	1.8	NA	0.3	NA	NA	1.1	<0.22	NA	3	NA
2008	Apr	4/29/2008	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	May	5/20/2008	0.49	6	NA	<0.06	NA	1.6	NA	0.48	NA	NA	1.1	0.8	NA	3	NA
2008	Jun	6/3/2008	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	Jun	6/17/2008	0.45	6	NA	<0.06	NA	1.2	NA	0.28	NA	NA	0.8	0.7	NA	3	NA
2008	Jul	7/8/2008	NA	NA	NA	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	Jul	7/22/2008	0.4	5	NA	<0.06	NA	1.2	NA	0.4	NA	NA	0.8	<0.11	NA	6	NA
2008	Aug	8/5/2008	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
2008	Aug	8/19/2008	0.4	5	NA	<0.06	NA	1	NA	0.18	NA	NA	0.6	<0.11	NA	2	NA
2008	Sep	9/23/2008	0.3	5	NA	<0.06	NA	1.1	NA	0.22	NA	NA	0.7	<0.11	NA	3	NA
2008	Oct	10/21/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Nov	11/11/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Dec	12/16/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Jan	1/20/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Mar	3/17/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Nov	11/17/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Jan	1/19/2010	NA	NA	NA	NA	2.5	5.7	NA	NA	NA	NA	NA	NA	NA	NA	33
2010	Feb	2/23/2010	NA	NA	NA	NA	6.3	7.8	NA	NA	NA	NA	NA	NA	NA	NA	19
2010	Apr	4/20/2010	NA	NA	NA	NA	0.89	2.2	NA	NA	NA	NA	NA	NA	NA	NA	13
2010	Jun	6/15/2010	NA	NA	NA	NA	0.65	1.2	NA	NA	NA	NA	NA	NA	NA	NA	6
2010	Jul	7/20/2010	NA	NA	NA	NA	0.48	1.3	NA	NA	NA	NA	NA	NA	NA	NA	5

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2010	Aug	8/17/2010	NA	NA	NA	NA	0.52	1.2	NA	NA	NA	NA	NA	NA	NA	NA	10
2010	Dec	12/14/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011	Jan	1/18/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011	Feb	2/17/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011	Mar	3/15/2011	0.44	6.7	<0.011	<0.011	1.1	2.1	0.09	0.34	0.33	0.77	1.1	<0.06	1.1	2.3	<2
2011	Apr	4/19/2011	0.39	6.7	<0.04	<0.04	0.97	1.3	0.07	0.2	0.28	0.75	0.75	0.08	0.95	1.2	<2
2011	May	5/10/2011	0.36	6.7	<0.04	<0.04	0.3	0.89	0.04	0.28	0.29	0.46	0.79	<0.06	<0.7	1.2	3
2011	Jun	6/14/2011	0.35	5.3	<0.04	<0.04	0.58	1.1	0.07	0.22	0.24	0.44	0.62	<0.06	<0.7	1.3	3
2011	Jul	7/12/2011	0.36	6.7	<0.04	<0.04	0.53	1.4	0.16	0.53	0.25	0.4	1	<0.06	<0.7	1.8	15
2011	Aug	8/9/2011	0.32	6.7	<0.04	<0.04	0.3	0.82	0.04	0.39	0.246	0.4	0.76	<0.06	<0.7	1.3	14
2011	Sep	9/6/2011	NA	5.7	NA	NA	0.51	5.2	NA	NA	NA	0.5	3.8	<0.06	<0.7	13	168
2011	Oct	10/11/2011	NA	4.7	NA	NA	0.11	0.88	NA	NA	NA	0.32	0.56	<0.06	<0.7	1.1	<2
2011	Nov	11/8/2011	NA	4.9	NA	NA	1.4	2.2	NA	NA	NA	0.56	0.94	<0.06	<0.7	2.1	4
2011	Dec	12/6/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Jan	1/10/2012	NA	NA	NA	NA	4.5	5.6	NA	NA	NA	NA	NA	NA	NA	NA	<2
2012	Feb	2/7/2012	NA	NA	NA	NA	3.8	4.7	0.14	0.33	NA	NA	NA	NA	NA	NA	2
2012	Mar	3/6/2012	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Jan	1/8/2013	NA	NA	NA	NA	11	19	NA	NA	NA	NA	NA	NA	NA	NA	NA
2013	Feb	2/12/2013	NA	NA	NA	NA	6.7	9.1	0.12	0.99	NA	NA	NA	NA	NA	NA	NA
2013	Apr	4/2/2013	NA	NA	NA	NA	1.2	2.5	0.08	0.59	NA	NA	NA	NA	NA	NA	NA
2013	May	5/14/2013	NA	NA	NA	NA	NA	NA	0.05	0.19	NA	NA	NA	NA	NA	NA	NA
2013	Jun	6/11/2013	NA	NA	NA	NA	0.54	1	0.04	0.18	NA	NA	NA	NA	NA	NA	NA
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Samples collected in 2007			7	7	0	7	0	7	0	7	0	0	7	3	0	7	0
Samples collected in 2008			8	8	0	8	0	12	0	8	0	0	8	8	0	8	0
Samples collected in 2010			0	0	0	0	6	6	0	0	0	0	0	0	0	0	11
Samples collected in 2011			6	9	6	6	9	9	6	6	6	9	9	9	9	9	9
Samples collected in 2012			0	0	0	0	2	2	1	1	0	0	0	0	0	0	2
Samples collected in 2013			0	0	0	0	4	4	4	4	0	0	0	0	0	0	0
Total Collected[1]			**26**	**29**	**6**	**26**	**21**	**45**	**11**	**31**	**6**	**9**	**29**	**25**	**9**	**29**	**22**
Total Exceedances			**0**	**0**	**0**	**0**	**3**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**0%**	**0%**	**0%**	**0%**	**14.3%**	**0%**	**0%**	**22.6%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

[1]The total reflects the number of samples collected to be analyzed for metals; Highline Canal @ Hwy 99 was dry 12 times from 2006 through June 2013.

Merced River @ Santa Fe

Merced River @ Santa Fe is the Core site in Zone 4. The decision for monitoring for metals Merced River @ Santa Fe during the 2014 water year is outlined in Table 10; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 11. Only concentrations of copper and lead exceeded the WQTL in samples collected from Merced River @ Santa Fe (Table 11).

Table 10. Results of the flow chart analysis for Merced River @ Santa Fe outlined in Figure 2.

Flow chart question	As, Tot	B, Tot	Cd Tot	Cd Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
3. Has there been an exceedance?	No	No	No	No	Yes	No	Yes	No	No	No	No	No	No	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	No	No	Yes[1]	Yes[1]	No	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan								X[2]						
4. Propose monitoring plan	X	X		X		X			X		X	X		X
5. No monitoring			X		X		X[2]			X			X	

[1]The management plan is for lead regardless of the fraction.

[2]Management plan places lead as a Priority E constituent.

Monitoring Decision #3-Monitoring according to the Management Plan

Lead

Lead was placed in the Merced River @ Santa Fe site subwatershed management plan in 2009. The two lead exceedances occurred in February 2007 (0.82 µg/L) and January 2008 (5.6 µg/L) and were based on total lead concentrations using the hardness-based trigger limit. Since monitoring was initiated for the dissolved fraction in 2008, there have been no exceedances of the lead WQTL (Table 11). Based on past monitoring exceedances, the Coalition will continue to conduct MPM at Highline Canal @Hwy 99 for dissolved lead in January and February of 2014.

Monitoring Decision #4 – Propose monitoring plan

Arsenic, Boron, Dissolved Copper, Dissolved Cadmium, Dissolved Lead, Molybdenum, Selenium, Dissolved Nickel, Dissolved Zinc

The metals, arsenic, boron, molybdenum, selenium, cadmium, copper, lead, nickel, and zinc were monitored periodically through 2011. There were no exceedances of the WQTLs for these constituents during the entire period of monitoring. Because it has been three years since the last monitoring for these constituents, the ESJWQC will monitor these metals in 2014. Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP.

Monitoring Decision #5 - No monitoring

Total Cadmium, Total Copper, Total Lead, Total Nickel, and Total Zinc

Monitoring for total cadmium, total copper, total lead, total nickel, and total zinc are no longer necessary because the Coalition is monitoring for the dissolved phase of the same metals (Table 11). There were no exceedances of any of the WQTLs for these constituents In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 10) for total cadmium, lead, nickel, and zinc at Merced River @ Santa Fe.

Table 11. Merced River @ Santa Fe site subwatershed dissolved and total metals monitoring results (2006-2011).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/16/2006	0.5	4	NA	<0.02	NA	NA	NA	0.12	NA	NA	0.7	<0.9	NA	7	NA
2006	Jun	6/14/2006	<0.3	5	NA	<0.02	NA	0.9	NA	0.14	NA	NA	0.5	<0.9	NA	2	NA
2006	Jul	7/12/2006	0.6	5	NA	<0.02	NA	1.3	NA	0.19	NA	NA	0.6	<0.9	NA	3	NA
2006	Aug	8/9/2006	0.5	3	NA	<0.02	NA	0.8	NA	0.14	NA	NA	0.5	<0.9	NA	3	NA
2006	Sep	9/13/2006	<0.3	7	NA	<0.02	NA	1.4	NA	0.11	NA	NA	0.5	<0.9	NA	19	NA
2007	Feb	2/12/2007	1.1	9	NA	<0.02	NA	2.9	NA	0.82	NA	NA	1.7	<0.9	NA	14	NA
2007	Feb	2/28/2007	1.5	11	NA	<0.02	NA	3.4	NA	0.68	NA	NA	1.9	<0.9	NA	6	NA
2007	Apr	4/17/2007	1	5	NA	<0.02	NA	1.4	NA	0.12	NA	NA	0.47	<0.9	NA	2	NA
2007	May	5/15/2007	0.3	10	NA	<0.02	NA	0.9	NA	<0.1	NA	NA	0.4	<0.9	NA	<0.4	NA
2007	Jun	6/19/2007	1.1	5	NA	<0.04	NA	1.3	NA	0.1	NA	NA	0.4	NA	NA	2	NA
2007	Jul	7/17/2007	1.3	30	NA	<0.04	NA	1.4	NA	0.14	NA	NA	0.5	NA	NA	<0.7	NA
2007	Aug	8/14/2007	1	12	NA	<0.04	NA	1.5	NA	0.1	NA	NA	0.47	NA	NA	1	NA
2007	Sep	9/11/2007	0.6	8	NA	<0.04	NA	0.8	NA	0.07	NA	NA	0.4	NA	NA	<0.7	NA
2008	Jan	1/24/2008	1.7	17	NA	0.1	NA	22	NA	5.6	NA	NA	11	0.23	NA	38	NA
2008	Feb	2/26/2008	1	11	NA	0.03	NA	5.2	NA	1.2	NA	NA	3.2	0.65	NA	9	NA
2008	Apr	4/22/2008	0.8	7	NA	<0.02	NA	1.4	NA	0.15	NA	NA	0.6	<0.22	NA	2	NA
2008	May	5/20/2008	0.9	7	NA	<0.06	NA	0.8	NA	0.09	NA	NA	0.4	0.77	NA	1	NA
2008	Jun	6/17/2008	1	8	NA	<0.06	NA	1.1	NA	0.11	NA	NA	0.46	0.55	NA	4	NA
2008	Jul	7/22/2008	1.1	6	NA	<0.06	NA	0.8	NA	0.13	NA	NA	0.2	<0.11	NA	3	NA
2008	Aug	8/19/2008	0.9	6	NA	<0.06	NA	1.2	NA	0.13	NA	NA	0.5	0.12	NA	1	NA
2008	Sep	9/23/2008	0.6	5	NA	<0.06	NA	0.7	NA	0.09	NA	NA	0.3	<0.11	NA	1	NA
2008	Oct	10/21/2008	0.53	7	<0.011	<0.011	0.6	0.8	<0.071	<0.14	0.35	0.2	0.3	<0.06	<0.8	<0.8	<2
2008	Nov	11/11/2008	0.6	5	<0.011	<0.011	0.6	1.2	<0.071	0.3	0.38	0.3	0.6	<0.06	<0.8	2	<2
2008	Dec	12/16/2008	0.48	4	<0.011	<0.011	0.45	0.6	<0.071	<0.071	0.38	0.3	0.2	<0.06	<0.8	<0.8	<2
2009	Jan	1/20/2009	0.5	6	<0.011	<0.011	0.4	0.6	<0.071	<0.071	0.54	0.3	0.2	<0.06	<0.8	<0.8	<2
2009	Feb	2/7/2009	0.62	7	<0.011	<0.011	0.49	0.9	<0.071	0.11	0.59	0.4	0.46	<0.06	<0.8	1	<2
2009	Mar	3/17/2009	0.68	6.8	<0.011	<0.011	0.73	1	<0.071	0.1	0.67	0.43	0.42	0.14	1.2	0.9	<2
2009	Apr	4/21/2009	0.79	7.6	<0.011	<0.011	0.79	1.1	<0.071	0.1	0.68	0.51	0.44	0.09	<0.8	1.4	<2
2009	May	5/19/2009	NA	7.6	NA	NA	0.7	1	NA	NA	NA	0.53	0.42	0.09	<0.8	1.6	<2
2009	Jun	6/16/2009	NA	NA	NA	NA	0.58	0.9	NA	NA	NA	NA	NA	NA	NA	NA	<2
2009	Jul	7/21/2009	NA	NA	NA	NA	0.8	0.41	NA	NA	NA	NA	NA	NA	NA	NA	<1
2009	Aug	8/18/2009	NA	NA	NA	NA	0.76	1.1	NA	NA	NA	NA	NA	NA	NA	NA	<2
2009	Sep	9/22/2009	NA	NA	NA	NA	0.28	0.97	NA	NA	NA	NA	NA	NA	NA	NA	<2
2009	Oct	10/20/2009	NA	NA	NA	NA	0.61	0.82	NA	NA	NA	NA	NA	NA	NA	NA	<2
2009	Nov	11/17/2009	NA	NA	NA	NA	0.35	0.51	NA	NA	NA	NA	NA	NA	NA	NA	<2
2009	Dec	12/15/2009	NA	NA	NA	NA	0.54	0.6	NA	NA	NA	NA	NA	NA	NA	NA	<2

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2010	Jan	1/19/2010	NA	NA	NA	NA	1.6	9.4	NA	NA	NA	NA	NA	NA	NA	NA	150
2010	Feb	2/23/2010	NA	NA	NA	NA	0.78	1	NA	NA	NA	NA	NA	NA	NA	NA	<2
2010	Mar	3/23/2010	NA	NA	NA	NA	0.95	1.2	NA	NA	NA	NA	NA	NA	NA	NA	<2
2010	Apr	4/20/2010	NA	NA	NA	NA	0.84	1.1	NA	NA	NA	NA	NA	NA	NA	NA	<2
2010	May	5/18/2010	NA	NA	NA	NA	0.72	1.3	NA	NA	NA	NA	NA	NA	NA	NA	2
2010	Jun	6/15/2010	NA	NA	NA	NA	0.64	1.6	NA	NA	NA	NA	NA	NA	NA	NA	<2
2010	Jul	7/20/2010	NA	NA	NA	NA	0.59	1.2	<0.071	0.14	NA	NA	NA	NA	NA	NA	<2
2010	Aug	8/17/2010	NA	NA	NA	NA	0.49	0.72	<0.071	0.074	NA	NA	NA	NA	NA	NA	<2
2010	Sep	9/14/2010	NA	NA	NA	NA	0.67	1.2	<0.071	0.13	NA	NA	NA	NA	NA	NA	2
2010	Oct	10/19/2010	NA	NA	NA	NA	0.498	0.62	<0.071	<0.071	NA	NA	NA	NA	NA	NA	<2
2010	Nov	11/16/2010	NA	NA	NA	NA	0.38	0.53	0.09	<0.071	NA	NA	NA	NA	NA	NA	<2
2010	Dec	12/14/2010	NA	NA	NA	NA	0.28	0.56	<0.071	<0.071	NA	NA	NA	NA	NA	NA	<2
2011	Jan	1/18/2011	0.75	6.8	<0.011	<0.011	0.54	1.1	<0.071	0.1	0.44	0.44	0.61	0.1	<0.8	<0.8	<2
2011	Feb	2/17/2011	0.45	4.9	<0.011	<0.011	0.56	0.63	<0.071	0.08	0.4	0.33	0.37	<0.06	<0.8	<0.8	6
2011	Mar	3/15/2011	0.57	4.7	<0.011	<0.011	0.52	0.88	<0.071	0.08	0.41	0.36	0.48	0.1	<0.8	<0.8	4
2011	Apr	4/19/2011	0.54	5.5	<0.04	<0.04	0.52	0.7	<0.03	0.07	0.37	0.38	0.38	0.13	<0.7	<0.7	<2
2011	May	5/10/2011	0.59	5.3	<0.04	<0.04	0.21	0.495	<0.03	0.08	0.4	0.33	0.44	0.1	<0.7	<0.7	4
2011	Jun	6/14/2011	0.66	4.7	<0.04	<0.04	0.48	1.1	0.03	0.18	0.32	0.27	0.54	0.06	<0.7	1	2
2011	Jul	7/12/2011	0.51	6.7	<0.04	<0.04	0.49	0.74	<0.03	0.08	0.32	0.27	0.37	0.07	<0.7	<0.7	2
2011	Aug	8/9/2011	0.75	5.8	<0.04	<0.04	0.37	0.76	0.04	0.14	0.39	0.31	0.48	<0.06	<0.7	<0.7	4
2011	Sep	9/6/2011	NA	5.1	NA	NA	0.46	0.94	NA	NA	NA	0.28	0.34	<0.06	<0.7	1.3	<2
2011	Oct	10/11/2011	NA	3.7	NA	NA	0.08	0.7	NA	NA	NA	0.2	0.37	<0.06	<0.7	0.8	<2
2011	Nov	11/8/2011	NA	3.3	NA	NA	0.19	0.28	NA	NA	NA	0.1	0.14	<0.06	<0.7	<0.7	<2
2011	Dec	12/6/2011	NA	4.3	NA	NA	0.38	0.65	NA	NA	NA	0.18	0.2	<0.06	<0.7	<0.7	2
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	4	0	5	0	0	5	5	0	5	0
Samples collected in 2007			8	8	0	8	0	8	0	8	0	0	8	4	0	8	0
Samples collected in 2008			11	11	3	11	3	11	3	11	3	3	11	11	3	11	3
Samples collected in 2009			4	5	4	4	12	12	4	4	4	5	5	5	5	5	12
Samples collected in 2010			0	0	0	0	12	12	6	6	0	0	0	0	0	0	12
Samples collected in 2011			8	12	8	8	12	12	8	8	8	12	12	12	12	12	12
Total Collected			**36**	**41**	**15**	**36**	**39**	**59**	**21**	**42**	**15**	**20**	**41**	**37**	**20**	**41**	**39**
Total Exceedances			**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**0%**	**0%**	**0%**	**0%**	**0%**	**1.7%**	**0%**	**4.8%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Duck Slough @ Gurr Rd

Duck Slough @ Gurr Rd is the Core site in Zone 5. The decision for monitoring for metals Duck Slough @ Gurr Rd during the 2014 water year is outlined in Table 12; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 13. Only concentrations of copper and lead exceeded the WQTL in samples collected from Duck Slough @ Gurr Rd (Table 13).

Table 12. Results of the flow chart analysis for Duck Slough at Gurr Rd outlined in Figure 2.

Flow chart question	As, Tot	B, Tot	Cd Tot	Cd Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes[1]	No[1]	No	Yes	No	No	Yes	No
3. Has there been an exceedance?	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan						X		X[2]						
4. Propose monitoring plan	X	X		X					X		X	X		X
5. No monitoring			X		X		X[2]			X			X	

[1]The management plan is for lead regardless of the fraction.

[2]Management plan places lead as a Priority E constituent.

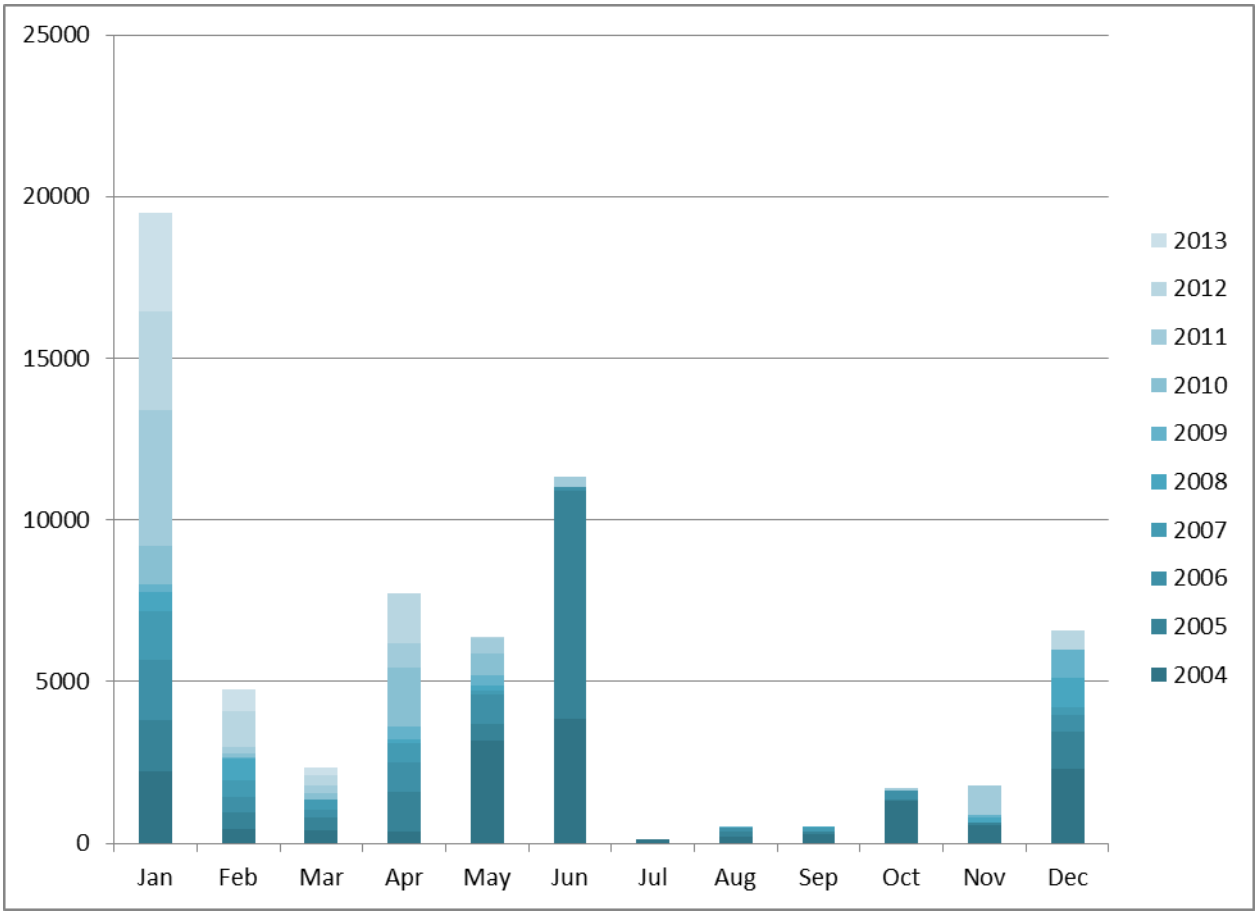
Monitoring Decision #3-Monitoring according to a management plan

Copper

Copper was placed in the Duck Slough @ Gurr Rd site subwatershed management plan in 2007. From 2006 through 2008 all copper exceedances were based on total copper concentrations and the hardness-based trigger limit. Since monitoring for the dissolved fraction was initiated in 2008, there has been one exceedance of copper (2009) (Table 13). Duck Slough @ Hwy 99 was a monitoring location upstream from Gurr Road that was in a copper management plan due to exceedances in February, April, June, August and September from 2006 through 2008. Duck Slough @ Hwy 99 was removed from the Coalition's monitoring plan in 2013 due to highway construction at the sampling location. Therefore, monitoring for management plan constituents from Duck Slough @ Hwy 99 will occur at the downstream Gurr Road location. The Coalition scheduled MPM at Duck Slough @ Gurr Rd in 2013 for copper in January, February, and from April through September; there have been no exceedances of the WQTL to date (up through June) for either the total or dissolved copper (Table 13). A majority of copper applications occur between January, May, June and December within the Duck Slough subwatershed,

however there were no June applications in 2007, 2008, 2009, 2010, 2012 or 2013 (Figure 4). Based on past exceedances that occurred in both the Duck Slough @ Gurr Rd and the Duck Slough @ Hwy 99 site subwatersheds, the Coalition will conduct MPM (once a month) for dissolved copper in January, February, April, May, June, July, August and September. In addition, December will be added in to fully characterize the site in the 2014 Water Year.

Figure 4. Sum of pounds of copper (AI) applied in the Duck Slough @ Gurr Rd subwatershed from 2004 - 2013 (2013 PUR data are not complete).



Lead

Lead was placed in the Duck Slough @ Gurr Rd site subwatershed management plan in 2008. From 2006 through 2007 all lead exceedances were based on total lead concentrations and the hardness-based trigger limit. Since monitoring for the dissolved fraction, there have been no exceedances of the WQTL for lead (Table 13). Based on past monitoring exceedances, the Coalition will continue to conduct MPM at Duck Slough @ Gurr Rd for dissolved lead in January, February and April through August.

Monitoring Decision #3 – Propose monitoring plan

Arsenic, Boron, Dissolved Copper, Dissolved Cadmium, Dissolved Lead, Molybdenum, Selenium, Dissolved Nickel, Dissolved Zinc

The metals, arsenic, boron, molybdenum, selenium, dissolved cadmium, dissolved nickel, and dissolved zinc were monitored up to 2011 and periodically thereafter although there were no exceedances of the WQTLs for these constituents since a single exceedance of the dissolved copper WQTL in 2009. Because it has been three years since the last monitoring for these constituents, the ESJWQC will monitor these metals in 2014. Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP.

Monitoring Decision #5 - No monitoring

Total Cadmium, Total Nickel, and Total Zinc

Monitoring total cadmium, total nickel, and total zinc are no longer necessary because of the monitoring of the dissolved phase of the same metals (Table 13). There were no exceedances of any of the WQTLs for these constituents. In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 13) for total cadmium, total nickel, and total zinc at Duck Slough @ Gurr Rd.

Table. Duck Slough @ Gurr Rd site subwatershed dissolved and total metals monitoring results (2006-2013).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/17/2006	2.8	13	NA	<0.04	NA	2.9	NA	0.24	NA	NA	3	<0.7	NA	3	NA
2006	Jun	6/14/2006	6.6	54	NA	0.04	NA	120	NA	0.71	NA	NA	8.4	<0.9	NA	7	NA
2006	Jul	7/12/2006	5.3	27	NA	0.06	NA	14	NA	2.7	NA	NA	17	<0.9	NA	21	NA
2006	Aug	8/8/2006	2.5	25	NA	<0.02	NA	3.8	NA	0.55	NA	NA	3.7	<0.9	NA	9	NA
2006	Sep	9/13/2006	1.7	12	NA	<0.02	NA	4.1	NA	0.84	NA	NA	4.9	<0.9	NA	8	NA
2007	Feb	2/12/2007	7.3	16	NA	0.2	NA	47	NA	13	NA	NA	54	<0.9	NA	83	NA
2007	Feb	2/28/2007	3.3	9	NA	0.04	NA	11	NA	2.4	NA	NA	13	1	NA	22	NA
2007	Apr	4/24/2007	4.5	19	NA	<0.02	NA	4.6	NA	0.4	NA	NA	5	0.9	NA	6	NA
2007	May	5/29/2007	1.9	19	NA	<0.04	NA	5.3	NA	1	NA	NA	3.5	<0.98	NA	13	NA
2007	Jun	6/19/2007	NA	NA	NA	NA	NA	5.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	Jun	6/26/2007	1.5	11	NA	<0.04	NA	4.6	NA	1	NA	NA	3.2	NA	NA	8	NA
2007	Jul	7/24/2007	1.7	12	NA	<0.04	NA	4	NA	0.84	NA	NA	2.4	NA	NA	7	NA
2007	Jul	7/31/2007	NA	NA	NA	NA	NA	8.6	NA	NA	NA	NA	NA	NA	NA	14	NA
2007	Aug	8/21/2007	1.9	19	NA	<0.04	NA	4.8	NA	1.1	NA	NA	3.6	NA	NA	9	NA
2007	Sep	9/18/2007	3.1	18	NA	<0.04	NA	5.5	NA	1.1	NA	NA	5.6	NA	NA	7	NA
2008	Jan	1/25/2008	2.6	14	NA	0.07	NA	13	NA	2.7	NA	NA	13	0.81	NA	19	NA
2008	Feb	2/25/2008	2.7	15	NA	0.1	NA	17	NA	3.7	NA	NA	17	0.43	NA	25	NA
2008	Apr	4/29/2008	2.3	18	NA	<0.06	NA	2.7	NA	0.38	NA	NA	2.1	0.38	NA	4	NA
2008	May	5/27/2008	3.4	37	NA	<0.06	NA	7.1	NA	0.95	NA	NA	5.4	1	NA	10	NA
2008	Jun	6/24/2008	1.2	11	NA	<0.06	NA	4	NA	0.95	NA	NA	3	0.62	NA	8	NA
2008	Jul	7/29/2008	2.8	28	NA	<0.06	NA	5.4	NA	1.1	NA	NA	4.8	0.36	NA	12	NA
2008	Aug	8/26/2008	1.9	16	NA	<0.06	NA	3.5	NA	1.1	NA	NA	2.4	0.39	NA	6	NA
2008	Sep	9/30/2008	2.3	16	NA	<0.06	NA	6.1	NA	1.5	NA	NA	4.7	0.21	NA	10	NA
2008	Oct	10/21/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Nov	11/11/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Dec	12/16/2008	3.8	37	<0.011	<0.011	0.3	1.2	<0.071	0.26	2.1	0.4	1.1	0.24	<0.8	3	<2
2009	Jan	1/20/2009	3.7	39	<0.011	<0.011	0.2	0.4	<0.071	<0.071	2.3	0.2	0.2	0.21	<0.8	<0.8	<2
2009	Feb	2/7/2009	6.8	130	0.07	0.08	7.6	11	0.15	0.71	6.8	4.2	7	0.42	22	28	34
2009	Mar	3/17/2009	3.4	15	<0.011	0.02	4.6	6.3	0.08	0.7	1.3	3	4.5	0.19	1.1	3.1	<2
2009	Apr	4/21/2009	4.9	48	0.03	0.03	2.6	3.3	0.08	0.23	2.8	1.5	1.9	0.19	5.2	7.2	<2
2009	May	5/19/2009	NA	47	NA	NA	7.3	15	NA	NA	NA	3.6	11	0.31	5.5	20	84
2010	Jan	1/19/2010	NA	NA	NA	NA	2	12	NA	NA	NA	NA	NA	NA	NA	NA	190
2010	Feb	2/23/2010	NA	NA	NA	NA	4.4	5.4	NA	NA	NA	NA	NA	NA	NA	NA	3
2010	Jun	6/15/2010	NA	NA	NA	NA	1.2	3.3	NA	NA	NA	NA	NA	NA	NA	NA	32
2010	Jul	7/20/2010	NA	NA	NA	NA	1	3.6	NA	NA	NA	NA	NA	NA	NA	NA	38
2010	Dec	12/14/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2011	Jan	1/18/2011	2.1	11	<0.011	<0.011	1.1	2.2	<0.071	0.24	1.1	1.5	2.3	0.3	<0.8	1.5	13
2011	Feb	2/17/2011	2.1	13	<0.011	<0.011	1.4	1.6	<0.071	0.13	1.2	1.3	1.7	0.14	<0.8	1	5
2011	Mar	3/15/2011	2.1	10	<0.011	0.011	1.3	1.9	<0.071	0.21	0.86	1.3	1.7	0.14	<0.8	0.9	6
2011	Apr	4/19/2011	1.5	13	<0.04	<0.04	1.5	3.3	0.07	0.44	0.67	1	2.6	0.19	0.8	3.1	18
2011	May	5/17/2011	1.1	12	<0.04	<0.04	0.85	2.6	0.06	0.5	0.61	0.66	2.4	0.1	0.9	4.8	42
2011	Jun	6/21/2011	2.6	14	<0.04	<0.04	1.5	8.5	0.06	1.7	0.74	1.3	9.1	0.15	<0.7	13	93
2011	Jul	7/19/2011	0.81	8.6	<0.04	<0.04	0.89	3	0.06	0.71	0.42	0.63	2.1	0.07	<0.7	4.5	6
2011	Aug	8/16/2011	1.5	11	<0.04	<0.04	0.91	4	0.09	0.96	0.58	0.84	4.2	0.09	<0.7	5.6	42
2011	Sep	9/13/2011	NA	8.8	NA	NA	0.5	3.1	NA	NA	NA	0.58	3.1	NA	<0.7	5.2	44
2011	Oct	10/11/2011	NA	5.5	NA	NA	0.42	2.8	NA	NA	NA	0.44	2.6	<0.06	<0.7	4.4	34
2011	Nov	11/8/2011	NA	5.7	NA	NA	0.75	1.7	NA	NA	NA	0.58	1.8	<0.06	<0.7	2.1	5
2011	Dec	12/6/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Jan	1/10/2012	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Feb	2/7/2012	NA	NA	NA	NA	7.5	11	NA	NA	NA	NA	NA	NA	NA	NA	54
2013	Jan	1/8/2013	NA	NA	NA	NA	3.1	6	0.17	1.1	NA	NA	NA	NA	NA	NA	NA
2013	Feb	2/12/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Feb	2/20/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Apr	4/2/2013	NA	NA	NA	NA	1.6	2.3	0.06	0.21	NA	NA	NA	NA	NA	NA	NA
2013	May	5/14/2013	NA	NA	NA	NA	1.3	2.8	0.06	0.46	NA	NA	NA	NA	NA	NA	NA
2013	Jun	6/11/2013	NA	NA	NA	NA	1.3	3.7	0.11	0.77	NA	NA	NA	NA	NA	NA	NA
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Samples collected in 2007			8	8	0	8	0	10	0	8	0	0	8	4	0	9	0
Samples collected in 2008			9	9	1	9	1	9	1	9	1	1	9	9	1	9	1
Samples collected in 2009			4	5	4	4	5	5	4	4	4	5	5	5	5	5	12
Samples collected in 2010			0	0	0	0	4	4	0	0	0	0	0	0	0	0	11
Samples collected in 2011			8	11	8	8	11	11	8	8	8	11	11	10	11	11	11
Samples collected in 2012			0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
Samples collected in 2013			0	0	0	0	4	4	4	4	0	0	0	0	0	0	0
Total Collected[1]			**34**	**38**	**13**	**34**	**26**	**49**	**17**	**38**	**13**	**17**	**38**	**33**	**17**	**39**	**37**
Total Exceedances			**0**	**0**	**0**	**0**	**1**	**8**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**0%**	**0%**	**0%**	**0%**	**3.8%**	**16.3%**	**0%**	**10.5%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

[1]The total reflects the number of samples collected to be analyzed for metals; Duck Slough @ Gurr Rd was dry 7 times from 2006 through June 2013.

Cottonwood Creek @ Rd 20

Cottonwood Creek @ Rd 20 is the Core site in Zone 6. The decision for monitoring for metals Cottonwood Creek @ Rd 20 during the 2014 water year is outlined in Table 14; the monitoring plan is based on results from 2006 to June, 2013. Metals monitoring results are listed in Table 15. Only concentrations of copper and lead exceeded the WQTL in samples collected from Cottonwood Creek @ Rd 20 (Table 15).

Table 13. Results of the flow chart analysis for Cottonwood Creek at Rd 20 outlined in Figure 2.

Flow chart question	As, Tot	B, Tot	Cd Tot	Cd Dis	Cu, Tot	Cu, Dis	Pb, Tot	Pb, Dis	Mo, Tot	Ni, Tot	Ni, Dis	Se, Tot	Zn, Tot	Zn, Dis
1. Is site on 303d list for constituent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
2. Has the site been adequately characterized?	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	Yes	No
3. Has there been an exceedance?	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	No	No	No	No
4. Is waterbody in a management plan for constituent?	No	No	No	No	Yes	Yes	Yes[1]	Yes[1]	Yes	No	No	No	No	No
5. Has there been a TIE indicating the constituent class as causal agent?	No	No	No	No	No	No	No	No	No	No	No	No	No	No
6. Acres treated > 1%?	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No
Monitoring Decision														
1. TMDL-specific monitoring														
2. Delist from TMDL or discuss monitoring delist options														
3. Monitoring according to management plan						X		X[2]						
4. Propose monitoring plan	X	X		X		X			X		X	X		X
5. No monitoring			X		X		X[2]			X			X	

[1]The management plan is for lead regardless of the fraction.

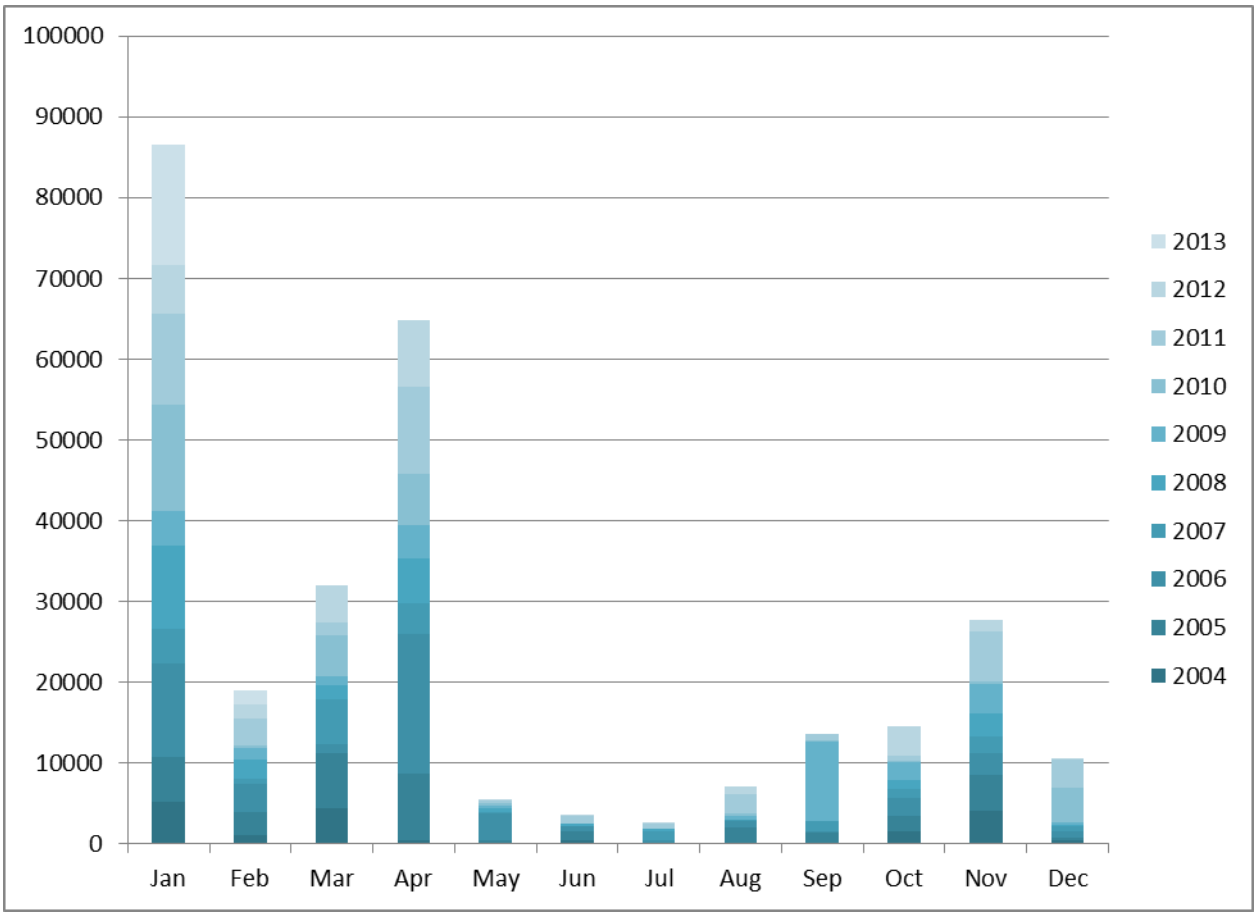
[2]Management plan places lead as a Priority E constituent.

Monitoring Decision #3-Monitoring according to a management plan

Copper

Copper was placed in the Cottonwood Creek @ Rd 20 site subwatershed management plan in 2007. Exceedances of the copper WQTL have occurred in most months of the year despite a change in use from January (greatest amount of applications) and July (least amount of applications) (Figure 5). Past exceedances have occurred in January, April and April through October (Table 15). Due to past exceedances and the amount of copper use within the subwatershed, the Coalition will monitor for dissolved copper once a month for all months in the 2014 Water Year.

Figure 5. Sum of pounds of copper (AI) applied in the Cottonwood Creek @ Hwy 20 subwatershed from 2004 - 2013 (2013 PUR data are not complete).



Lead

Lead was placed in the Cottonwood Creek @ Hwy 20 site subwatershed management plan in 2009. From 2006 through 2008 all lead exceedances were based on total lead concentrations and the hardness-based trigger limit (Table 15). Since monitoring for the dissolved fraction, there have been no exceedances of the WQTL for lead (Table 15). Based on past monitoring exceedances, the Coalition will continue to conduct MPM at Cottonwood Creek @ Hwy 20 for dissolved lead in January, February and June.

Monitoring Decision #4 – Propose monitoring plan

Arsenic, Boron, Dissolved Cadmium, Molybdenum, Dissolved Nickel, Selenium and Dissolved Zinc

The metals, arsenic, boron, molybdenum, selenium, dissolved cadmium, dissolved nickel, and dissolved zinc were monitored periodically up to 2013 and there were no exceedances of the WQTLs. Very little water has been present at the site since 2008 with the exception of 2011 when several samples were collected and analyzed for these metals. Because it has been three years since the last monitoring for these constituents, the ESJWQC will monitor these metals in 2014 if water is available to sample.

Monitoring frequency will be four times during the year as specified in the 2011 revisions to the MRPP. Because Cottonwood Creek does not receive a large amount of storm water drainage, it is possible that even during rainfall events no water will be present in this water body.

Monitoring Decision #5 - No monitoring

Total Cadmium, Total Nickel, and Total Zinc

Monitoring total cadmium, total nickel, and total zinc are no longer necessary because of the monitoring of the dissolved phase of the same metals (Table 15). There were no exceedances of any of the WQTLs for these constituents. In addition, the dissolved fraction is the bioavailable fraction of these metals and is the fraction that will be monitored. Working through the flow chart in Figure 2 results in a decision of no monitoring (Monitoring Decision #5 of Table 14) for total cadmium, total nickel, and total zinc at Cottonwood Creek @ Road 20.

Table 14. Cottonwood Creek at Rd 20 site subwatershed dissolved and total metals monitoring results (2006-2013).

Total Suspended Solids (TSS) results are included as a measurement of sediment mobilization. An exceedance of a WQTL is highlighted in blue. "NA" indicates that a constituent was not analyzed on that date.

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2006	May	5/16/2006	1.2	32	NA	<0.04	NA	4.4	NA	0.42	NA	NA	0.8	<0.7	NA	4	NA
2006	Jun	6/13/2006	0.7	11	NA	<0.02	NA	8	NA	0.73	NA	NA	1.1	<0.9	NA	7	NA
2006	Jul	7/11/2006	1.1	16	NA	<0.02	NA	5.3	NA	0.52	NA	NA	1.1	<0.9	NA	5	NA
2006	Aug	8/8/2006	1.3	15	NA	<0.02	NA	4.1	NA	0.41	NA	NA	1.2	<0.9	NA	4	NA
2006	Sep	9/12/2006	0.8	20	NA	<0.02	NA	5.5	NA	0.52	NA	NA	1.1	<0.9	NA	20	NA
2007	Apr	4/24/2007	0.9	25	NA	<0.02	NA	3.9	NA	0.22	NA	NA	0.8	<0.9	NA	3	NA
2007	May	5/29/2007	0.8	28	NA	<0.04	NA	6.7	NA	0.35	NA	NA	0.9	<0.98	NA	5	NA
2007	Jun	6/19/2007	NA	NA	NA	NA	NA	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
2007	Jun	6/26/2007	0.9	26	NA	<0.04	NA	4.3	NA	0.3	NA	NA	0.8	NA	NA	3	NA
2007	Jul	7/24/2007	1.2	27	NA	<0.04	NA	5.4	NA	0.55	NA	NA	0.8	NA	NA	6	NA
2007	Aug	8/21/2007	1	28	NA	<0.04	NA	5.2	NA	0.37	NA	NA	0.8	NA	NA	5	NA
2007	Sep	9/18/2007	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2007	Sep	9/25/2007	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Jan	1/25/2008	2.1	15	NA	<0.04	NA	24	NA	5.4	NA	NA	3.1	0.59	NA	30	NA
2008	Feb	2/25/2008	1.8	40	NA	0.02	NA	21	NA	1.9	NA	NA	3.1	0.41	NA	14	NA
2008	Mar	3/28/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Apr	4/29/2008	2	32	NA	<0.06	NA	8	NA	0.82	NA	NA	1.7	0.3	NA	10	NA
2008	May	5/27/2008	1.1	36	NA	<0.06	NA	4.9	NA	0.24	NA	NA	0.8	0.83	NA	3	NA
2008	Jun	6/24/2008	1.4	34	NA	<0.06	NA	4.5	NA	0.59	NA	NA	1	0.73	NA	4	NA
2008	Jul	7/29/2008	1.1	34	NA	<0.06	NA	4.8	NA	1	NA	NA	1.3	<0.11	NA	6	NA
2008	Aug	8/26/2008	0.8	27	NA	<0.06	NA	4.4	NA	0.6	NA	NA	0.8	<0.11	NA	5	NA
2008	Sep	9/30/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Oct	10/21/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Nov	11/11/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2008	Dec	12/16/2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Jan	1/20/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Mar	3/17/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Apr	4/21/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Jul	7/21/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Sep	9/22/2009	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Feb	2/23/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Mar	3/23/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Apr	4/20/2010	NA	NA	NA	NA	3.1	4.2	NA	NA	NA	NA	NA	NA	NA	NA	5
2010	May	5/18/2010	NA	NA	NA	NA	3.6	5.1	NA	NA	NA	NA	NA	NA	NA	NA	2
2010	Jun	6/15/2010	NA	NA	NA	NA	3.2	10	NA	NA	NA	NA	NA	NA	NA	NA	60
2010	Jul	7/20/2010	NA	NA	NA	NA	2.8	5.6	NA	NA	NA	NA	NA	NA	NA	NA	9

Year	Month	Date	As, Total (µg/L)	B, Total (µg/L)	Cd, Dissolved (µg/L)	Cd, Total (µg/L)	Cu, Dissolved (µg/L)	Cu, Total (µg/L)	Pb, Dissolved (µg/L)	Pb, Total (µg/L)	Mo, Total (µg/L)	Ni, Dissolved (µg/L)	Ni, Total (µg/L)	Se, Total (µg/L)	Zn, Dissolved (µg/L)	Zn, Total (µg/L)	TSS, Total (mg/L)
2010	Aug	8/17/2010	NA	NA	NA	NA	5.3	6.6	NA	NA	NA	NA	NA	NA	NA	NA	13
2010	Sep	9/14/2010	NA	NA	NA	NA	3.5	8.5	NA	NA	NA	NA	NA	NA	NA	NA	17
2010	Nov	11/16/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Dec	12/14/2010	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011	Jan	1/18/2011	1.1	29	<0.011	0.012	2.4	4.4	0.08	0.43	1.8	0.7	1.1	0.1	1	3.4	7
2011	Feb	2/17/2011	0.7	31	<0.011	<0.011	2.3	3.8	<0.071	0.33	1.9	0.42	0.61	0.07	<0.8	2.9	19
2011	Mar	3/15/2011	0.78	23	<0.011	<0.011	2.7	3.9	<0.071	0.29	1.5	0.48	0.6	0.07	<0.8	2.1	6
2011	Apr	4/19/2011	1.5	27	<0.04	<0.04	4.6	7.3	0.13	0.47	1.4	0.72	1	0.08	1.2	2.5	19
2011	May	5/17/2011	1.1	20	<0.04	<0.04	3.8	5.9	0.11	0.35	1.4	0.4	0.68	0.07	0.7	2	10
2011	Jun	6/21/2011	1.1	18	<0.04	<0.04	3.7	5.9	0.12	0.41	1.3	0.4	0.65	0.07	0.97	2.8	22
2011	Jul	7/19/2011	1	19	<0.04	<0.04	4.3	6.2	0.11	0.3	1.3	0.32	0.46	0.06	<0.7	1.5	20
2011	Aug	8/16/2011	0.88	19	<0.04	<0.04	3.4	6.4	0.12	0.42	1.3	0.3	0.57	<0.06	<0.7	2.3	21
2011	Sep	9/13/2011	NA	17	NA	NA	5.8	9.8	NA	NA	NA	0.24	0.48	NA	<0.7	2.5	9
2011	Oct	10/11/2011	NA	22	NA	NA	4.1	14	NA	NA	NA	0.43	2.9	0.07	0.9	14	241.5
2011	Nov	11/8/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011	Dec	12/6/2011	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Jan	1/10/2012	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Feb	2/7/2012	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2012	Mar	3/6/2012	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Jan	1/8/2013	NA	NA	NA	NA	13	18	0.28	1.4	NA	NA	NA	NA	NA	NA	20
2013	Feb	2/12/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Feb	2/20/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Mar	3/12/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Apr	4/2/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	May	5/14/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2013	Jun	6/11/2013	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Sample and Exceedance Summary																	
Samples collected in 2006			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Samples collected in 2007			5	5	0	5	0	6	0	5	0	0	5	2	0	5	0
Samples collected in 2008			7	7	0	7	0	7	0	7	0	0	7	7	0	7	0
Samples collected in 2009			0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Samples collected in 2010			0	0	0	0	6	6	0	0	0	0	0	0	0	0	8
Samples collected in 2011			8	10	8	8	10	10	8	8	8	10	10	9	10	10	16
Samples collected in 2012			0	0	0	0	1	1	1	1	0	0	0	0	0	0	0
Samples collected in 2013			5	5	0	5	0	5	0	5	0	0	5	5	0	5	0
Total Collected[1]			**25**	**27**	**8**	**25**	**17**	**35**	**9**	**26**	**8**	**10**	**27**	**23**	**10**	**27**	**31**
Total Exceedances			**0**	**0**	**0**	**0**	**7**	**12**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
% Exceedances			**0%**	**0%**	**0%**	**0%**	**41%**	**34%**	**0%**	**11.5%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

[1]The total reflects the number of samples collected to be analyzed for metals; Cottonwood Creek @ Rd 20 was dry 28 times from 2006 through June 2013.

REPRESENTED SITE MONITORING

The Coalition will evaluate the potential risk for water quality impairments at Represented sites when an exceedance of a water quality trigger limit occurs at an associated Core site and monitor accordingly (Attachment B of the Order, page 4). Table 16 includes a list of the Represented sites in each zone. From this list, sites were identified for monitoring during the 2014 water year based on the following criteria:

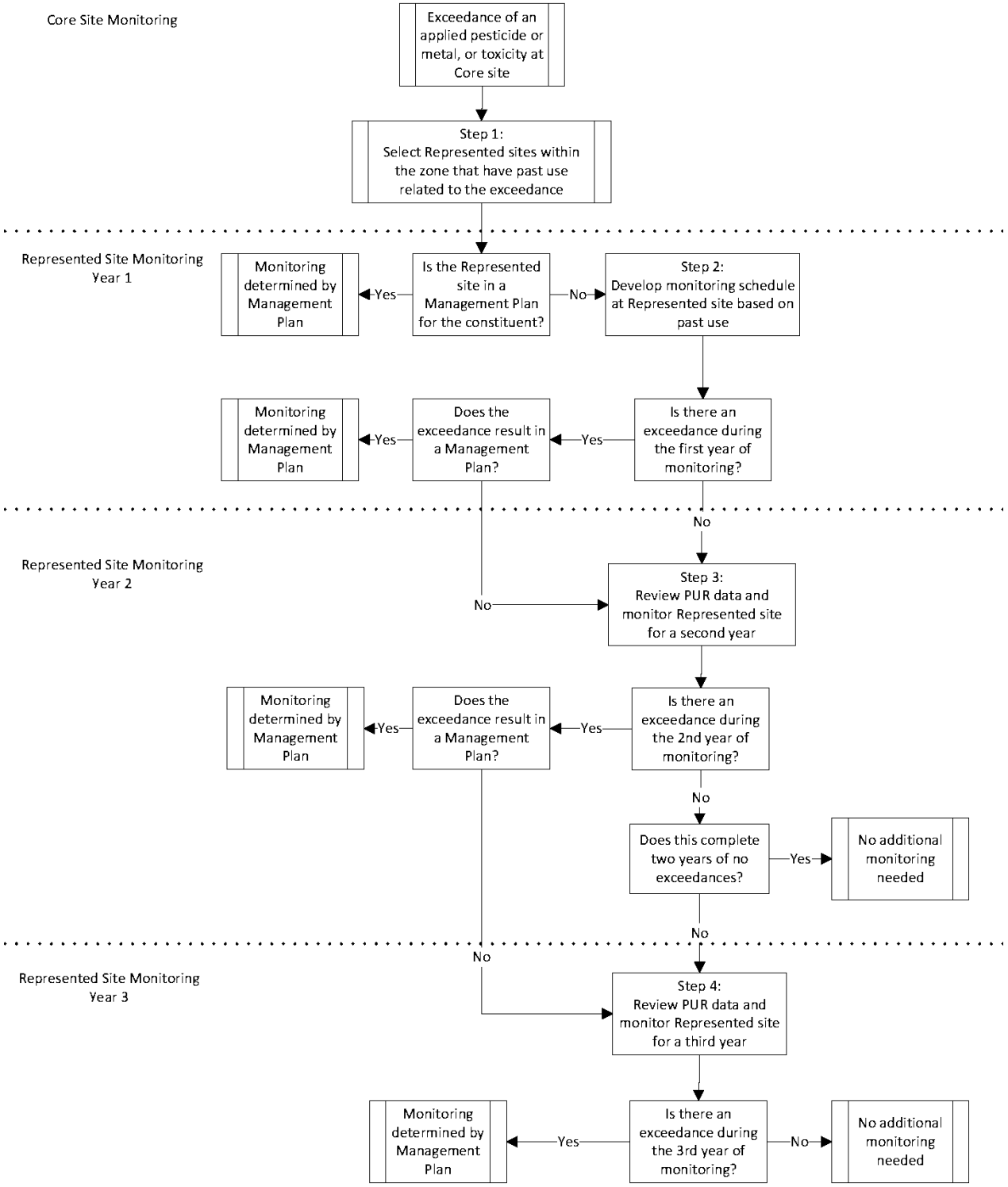
1. An exceedance of an applied pesticide, metal or toxicity at the Core site,
2. The Core site is in a management plan for an applied pesticide, metal or toxicity and monitoring is necessary to characterize potential discharge.

Once Represented site monitoring is initiated, the Coalition will monitor at the Represented site once a month for a minimum of two years. The flowchart in Figure 6 depicts the Represented site monitoring strategy.

Table 15. ESJWQC Represented sites by zone.

ZONE	SITE TYPE	SITE NAME	STATION CODE	LATITUDE	LONGITUDE
1	Represented	Mootz Drain Downstream of Langworth Pond	535XMDDLP	37.7055	-120.8943
1	Represented	Rodden Creek @ Rodden Rd	535XRCARD	37.7904	-120.8079
2	Represented	Hatch Drain @ Tuolumne Rd	535XHDATR	37.5149	-121.0122
2	Represented	Hilmar Drain @ Central Ave	535XHDACA	37.3906	-120.9582
2	Represented	Lateral 2 1/2 near Keyes Rd	535LTHNKR	37.5478	-121.0927
2	Represented	Lateral 5 1/2 @ South Blaker Rd	535LFHASB	37.4582	-120.9672
2	Represented	Lateral 6 and 7 @ Central Ave	535LSSACA	37.3977	-120.9597
2	Represented	Levee Drain @ Carpenter Rd	535XLDACR	37.4790	-121.0301
2	Represented	Lower Stevinson @ Faith Home Rd	535LSAFHR	37.3723	-120.9231
2	Represented	Unnamed Drain @ Hogin Rd	535XUDAHR	37.4312	-120.9938
2	Represented	Westport Drain @ Vivian Rd	535XWDAVR	37.5368	-121.0486
3	Represented	Highline Canal @ Lombardy Rd	535XHCALR	37.4556	-120.7207
3	Represented	Mustang Creek @ East Ave	535XMCAEA	37.4918	-120.6839
4	Represented	Bear Creek @ Kibby Rd	535XBCAKR	37.3128	-120.4138
4	Represented	Black Rascal Creek @ Yosemite Rd	535BRCAYR	37.3321	-120.3947
4	Represented	Canal Creek @ West Bellevue Rd	535CCAWBR	37.3607	-120.5494
4	Represented	Howard Lateral @ Hwy 140	535XHLAHO	37.3079	-120.7820
4	Represented	Livingston Drain @ Robin Ave	535XLDARA	37.3169	-120.7423
4	Represented	McCoy Lateral @ Hwy 140	535XMLAHO	37.3094	-120.7875
4	Represented	Unnamed Drain @ Hwy 140	535XUDAHO	37.3133	-121.8921
5	Represented	Deadman Creek @ Gurr Rd	535XDCAGR	37.1936	-120.5612
5	Represented	Deadman Creek @ Hwy 59	535DMCAHF	37.1981	-120.4869
5	Represented	Miles Creek @ Reilly Rd	535XMCARR	37.2582	-120.4755
6	Represented	Ash Slough @ Ave 21	545XASAAT	37.0545	-120.4158
6	Represented	Berenda Slough along Ave 18 1/2	545XBSAAE	37.0182	-120.3265
6	Represented	Dry Creek @ Rd 18	545XDCARE	36.9818	-120.2195

Figure 6. ESJWQC flowchart for the Represented site monitoring strategy.



Silva Drain @ Meadow Dr has been omitted from the Represented site list because the Coalition requested to remove it from the ESJWQC monitoring schedule on June 4th, 2013. The Coalition is awaiting approval from the Central Valley Regional Water Quality Control Board (Regional Board). If the site removal is not approved, the 2014 water year monitoring schedule will be updated to include Silva Drain @ Meadow Dr.

Table 16 of this document differs from Table 1 of Attachment B of the Order. Table 16 includes the Unnamed Drain @ Hwy 140 and Westport Drain @ Vivian Rd sites which are included in the ESJWQC monitoring schedule and will be evaluated as Represented sites.

For the 2014 water year, the Coalition reviewed high priority (e.g. applied pesticides, applied metals or toxicity) Core site management plans and Represented sites within the same zone to determine if additional monitoring at the Represented sites is necessary. The Coalition will monitor at the Represented sites listed in Table 17.

Table 16. ESJWQC Represented site monitoring schedule for high priority management plan constituents.
Shaded cells indicate site and constituents to be monitored. "M" indicates Management Plan Monitoring.

Zone	Site Type	Site Name	Chlorpyrifos	Copper	Diazinon	Dimethoate	Diuron	Lead	Molybdenum	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
1	**Core**	**Dry Creek @ Wellsford Rd**	**M**										**M**
1	Represented	Mootz Drain Downstream of Langworth											
1	Represented	Rodden Creek @ Rodden Rd											
2	**Core**	**Prairie Flower Drain @ Crows Landing**				**M**				**M**	**M**	**M**	**M**
2	Represented	Hatch Drain @ Tuolumne Rd										M	M
2	Represented	Hilmar Drain @ Central Ave		M			M			M		M	M
2	Represented	Lateral 2 1/2 near Keyes Rd	M										
2	Represented	Lateral 5 1/2 @ Sough Blaker Rd											
2	Represented	Lateral 6 and 7 @ Central Ave											
2	Represented	Levee Drain @ Carpenter Rd											
2	Represented	Lower Stevinson @ Faith Home Rd											
2	Represented	Unnamed Drain @ Hogin Rd											
2	Represented	Westport Drain @ Vivian Rd	M									M	
3	**Core**	**Highline Canal @ Hwy 99**		**M**				**M**		**M**		**M**	**M**
3	Represented	Highline Canal @ Lombardy Rd	M	M				M		M		M	M
3	Represented	Mustang Creek @ East Ave		M									
4	**Core**	**Merced River @ Santa Fe**	**M**					**M**		**M**			
4	Represented	Bear Creek @ Kibby Rd		M									
4	Represented	Black Rascal Creek @ Yosemite Rd	M					M		M			
4	Represented	Canal Creek @ West Bellevue Rd											
4	Represented	Howard Lateral @ Hwy 140											
4	Represented	Livingston Drain @ Robin Ave	M	M				M				M	
4	Represented	McCoy Lateral @ Hwy 140											
4	Represented	Unnamed Drain @ Hwy 140											
5	**Core**	**Duck Slough @ Gurr Rd**		**M**				**M**		**M**			**M**

Zone	Site Type	Site Name	Chlorpyrifos	Copper	Diazinon	Dimethoate	Diuron	Lead	Molybdenum	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
5	Represented	Deadman Creek @ Gurr Rd	M							M	M	M	
5	Represented	Deadman Creek @ Hwy 59	M									M	
5	Represented	Miles Creek @ Reilly Rd	M	M	M			M		M		M	M
6	**Core**	**Cottonwood Creek @ Rd 20**	**M**	**M**				**M**					
6	Represented	Ash Slough @ Ave 21		M									
6	Represented	Berenda Slough along Ave 18 1/2	M	M								M	
6	Represented	Dry Creek @ Rd 18	M	M	M		M	M				M	M

M– Monitoring due to constituents in an active management plan.

The Coalition determined that some Represented sites do not need to be monitored for Core site management plan constituents because Core site water quality impairments are not present at the Represented sites. Each Core site is listed by zone below with that site's management plan constituent followed by the Represented sites where these constituents are not being monitored with the rational for no additional monitoring.

Zone 1 - Dry Creek @ Wellsford Rd

Dry Creek @ Wellsford management plan constituents to be monitored in the 2014 water year:

- chlorpyrifos
- *H. azteca* sediment toxicity

Rodden Creek @ Rodden Rd

Monitoring for chlorpyrifos and *H. azteca* toxicity at Rodden Creek @ Rodden Rd occurred during 2011 and 2012 Assessment Monitoring; all chlorpyrifos results were non detect and no toxicity occurred.

Zone 2 - Prairie Flower Drain @ Crows Landing Rd

Prairie Flower Drain @ Crows Landing Rd management plan constituents to be monitored in the 2014 water year:

- dimethoate
- *C. dubia* water column toxicity
- *P. promelas* water column toxicity
- *S. capricornutum* water column toxicity
- *H. azteca* sediment toxicity

Hatch Drain @ Tuolumne Rd

Management Plan Monitoring is scheduled at Hatch Drain @ Tuolumne for *H. azteca* and *S. capricornutum* toxicity. Hatch Drain @ Tuolumne will also be monitored for dimethoate based on the Core site MPM during the 2014 water year (Table 17).

Ceriodaphnia dubia toxicity was monitored once a month at Hatch Drain @ Tuolumne Rd from May through September 2007 and January through October 2008; no toxicity occurred. Toxicity to *C. dubia* occurred at the Core site in Zone 2, Prairie Flower Drain @ Crows Landing Rd, once in March 2006, September 2007 and September 2011. Toxicity Identification Evaluations were run on the 2007 and 2011 samples due to 100% mortality. Based on the TIE results and water quality data, the 2007 toxicity was associated with chlorpyrifos (0.094 µg/L detected in samples collected one week earlier) and the 2011 toxicity was associated with dimethoate (10 µg/L in samples collected at the same time)and pyrethroids. Chlorpyrifos was monitored once a month at Hatch Drain @ Tuolumne Rd from May through September 2007 and January through September 2008; all results were non detect. Exceedances of the WQTL for chlorpyrifos occurred at the Core site four times from 2005 through 2008; in comparison, no exceedances of the WQTL for chlorpyrifos have occurred at Hatch Drain @ Tuolumne Rd. Toxicity to *P. promelas* was monitored once a month at Hatch Drain @ Tuolumne Rd from May through September 2007 and January through September 2008; no toxicity occurred. Toxicity to *P. promelas* has occurred at the Core site in Zone 2 in July 2007 and April 2011; however, this water quality impairment is specific to the Core site in Zone 2. Toxicity to *P. promelas* has been associated with high ammonia concentrations and there have been reported dairy wastewater discharges in the Prairie Flower Drain subwatershed. Hatch Drain @ Tuolumne Rd had only one exceedance of ammonia in 2007 and did not result in toxicity to *P. promelas*. In comparison, there were 11 exceedances at the Core site, from 2006 through 2013The Coalition determined that *P. promelas* toxicity and ammonia do not need to be monitored at Hatch Drain @ Tuolumne based on the monitoring results from 2007 and 2008. The 2011 toxicity at the Core site was most likely due to a dairy discharge and therefore does not require additional monitoring at Hatch Drain. If toxicity continues to occur at the Core site, the Coalition will re-evaluate toxicity monitoring at Hatch Drain @ Tuolumne Rd.

Hilmar Drain @ Central Ave

Management Plan Monitoring is scheduled at Hilmar Drain @ Central Ave for *H. azteca*, *C. dubia* and *S. capricornutum* toxicity during the 2014 water year (Table 17). The Coalition monitored for dimethoate once a month in May through September 2006, February through September 2007 and January, February and April through September 2008. There were a total of 21 sampling events; 19 of the 21 samples were non detect for dimethoate and no exceedances of the WQTL for dimethoate (1.0 µg/L) occurred. Figure 7 illustrates pounds of dimethoate applied in site subwatersheds within Zone 2 relative to concentrations of dimethoate (non detects are indicated as a 0). The use in all Zone 2 subwatersheds indicates an increase in use around March and again between June and August. However, the only subwatershed in Zone 2 with exceedances of dimethoate is Prairie Flower Drain. Therefore, dimethoate exceedances at Prairie Flower Drain appear to be specific to that subwatershed. However, since it has been over three years since Hilmar Drain has been monitored for dimethoate, the Coalition will monitor for dimethoate in the 2014 water year in March, July and August.

Pimephales promelas toxicity was monitored once in February, March and May through September in 2005, March and May through September in 2006, February through September in 2007 and January,

February and April through September in 2008; no toxicity occurred. Toxicity to *P. promelas* has been associated with high ammonia concentrations. Only two exceedances of ammonia occurred at Hilmar Drain @ Central Ave, once in 2006 and once in 2007. Neither exceedances of the ammonia WQTL resulted in toxicity to *P. promelas*. The 2011 toxicity that occurred at Prairie Flower Drain was most likely due to dairy wastewater discharge based on reports from Regional Board staff and is not reflective of all conditions in Zone 2. Therefore, the Coalition determined that monitoring for *P. promelas* toxicity at Hilmar Drain @ Central Ave is not necessary for the 2014 water year.

Lateral 2 ½ near Keyes Rd

Represented site monitoring at Lateral 2 ½ near Keyes Rd is scheduled for *H. azteca* and *S. capricornutum* (Table 17). Lateral 2 ½ near Keyes Rd was monitored once a month for dimethoate from October through November 2008, monthly during Assessment Monitoring in 2009 and 2010,, April and July 2011, and April 2012; all results were non detect and no exceedances of the dimethoate WQTL occurred. Lateral 2 ½ near Keyes Rd was dry December 2008 through March 2009, November 2009 through February 2010, and November through December 2010. Figure 7 indicates a similar dimethoate use pattern in the Lateral 2 ½ near Keyes subwatershed as other sites in Zone 2. Based on past monitoring results during months of similar amounts of dimethoate applications, and the most recent monitoring occurring the year prior to the Prairie Flower Drain most recent dimethoate exceedance, the Coalition will not monitor for dimethoate at Lateral 2 ½ near Keyes Rd for the 2014 water year.

Monthly monitoring for *C. dubia* toxicity occurred from October through November 2008, April through October 2009 and March through October 2010; no toxicity occurred. Lateral 2 ½ near Keyes Rd was dry December 2008 through March 2009, November 2009 through February 2010, and November through December 2010. Lateral 2 ½ near Keyes is in a management plan for chlorpyrifos (the likely source of *C. dubia* toxicity at the Core site in 2007) and none of the chlorpyrifos exceedances have been associated with toxicity to *C. dubia* (Figure 8). The Coalition determined that monitoring for *C. dubia* at Lateral 2 ½ near Keyes Rd is not necessary during the 2014 water year based on three years of monitoring with no toxicity to *C. dubia*. If toxicity to *C. dubia* continues to occur at the Core site, the Coalition will re-evaluate *C. dubia* toxicity monitoring at Lateral 2 ½ near Keyes Rd.

Monthly monitoring for *P. promelas* toxicity occurred in October through November 2008, April through October 2009 and March through October 2010; no toxicity occurred. Lateral 2 ½ near Keyes Rd was dry December 2008 through March 2009, November 2009 through February 2010, and November through December 2010. Toxicity to *P. promelas* has been associated with high ammonia concentrations. Only one exceedance of ammonia occurred at Lateral 2 ½ near Keyes Rd in 2008 and resulted in no toxicity to *P. promelas*. As mentioned above, the 2011 toxicity that occurred at Prairie Flower Drain was most likely due to dairy wastewater discharge based on reports from Regional Board staff and is not reflective of all conditions in Zone 2. Therefore, the Coalition determined that monitoring for *P. promelas* toxicity is not necessary at Lateral 2 ½ near Keyes Rd for the 2014 water year.

Westport Drain @ Vivian Rd

Management Plan Monitoring is scheduled at Westport Drain @ Vivian Rd for *S. capricornutum* toxicity. Westport Drain @ Vivian Rd will also be monitored for *H. azteca* sediment toxicity due to sediment toxicity at the Core site, Prairie Flower Drain @ Crows Landing Rd (Table 17).

Westport Drain @ Vivian Rd was monitored once a month for dimethoate from May through September 2007 and January through September 2008; all results were non detect (Figure 7). There have been no reported applications of dimethoate in 2011, 2012 or 2013 (Figure 7). Based on previous monitoring results and the lack of use within this site subwatershed, Westport Drain @ Vivian Rd will not be monitored for dimethoate in the 2014 water year.

C*eriodaphnia dubia* was monitored monthly at Westport Drain @ Vivian Rd from May through September 2007 and January through September 2008; no toxicity occurred. Toxicity to *C. dubia* occurred at the Core site in Zone 2, Prairie Flower Drain @ Crows Landing Rd, once in March 2006, September 2007 and September 2011. As mentioned earlier, the likely source of the 2007 toxicity was chlorpyrifos for the 2011 toxicity a combination of dimethoate and pyrethroids. Two exceedances of the WQTL for chlorpyrifos occurred in samples from Westport Drain @ Vivian Rd, one in 2007 and 2008, resulting in a management plan (Figure 8). Management Plan Monitoring will occur at Westport Drain @ Vivian Rd for chlorpyrifos in the 2014 water year. The Coalition determined that monitoring for *C. dubia* at Westport Drain @ Vivian Rd is not necessary during the 2014 water year based on two years of monitoring with no toxicity to *C. dubia* and no applications of dimethoate in 2011 (unlike Prairie Flower Drain). In addition, Westport Drain @ Vivian Rd will continue to be monitored for chlorpyrifos. If toxicity to *C. dubia* continues to occur at the Core site, the Coalition will re-evaluate *C. dubia* toxicity monitoring at Westport Drain @ Vivian Rd.

Pimephales promelas toxicity was monitored monthly at Westport Drain @ Vivian Rd from May through September 2007 and January through September 2008; no toxicity occurred. Toxicity to *P. promelas* is associated with high ammonia concentrations; no exceedances of ammonia have occurred while monitoring at Westport Drain @ Vivian Rd. Therefore, the Coalition determined that monitoring for *P. promelas* toxicity at Westport Drain @ Vivian Rd is not necessary for the 2014 water year. If toxicity to *P. promelas* continues to occur at the Core site, the Coalition will re-evaluate *P. promelas* toxicity monitoring at Westport Drain @ Vivian Rd.

Figure 7. Prairie Flower Drain @ Crows Landing Rd dimethoate applications (sum of pounds applied, indicated by lines) and concentrations (µg /L, indicated by symbols) compared to Zone 2 Represented sites.

Asterisks indicate what month an exceedances of the WQTL for dimethoate occurred.

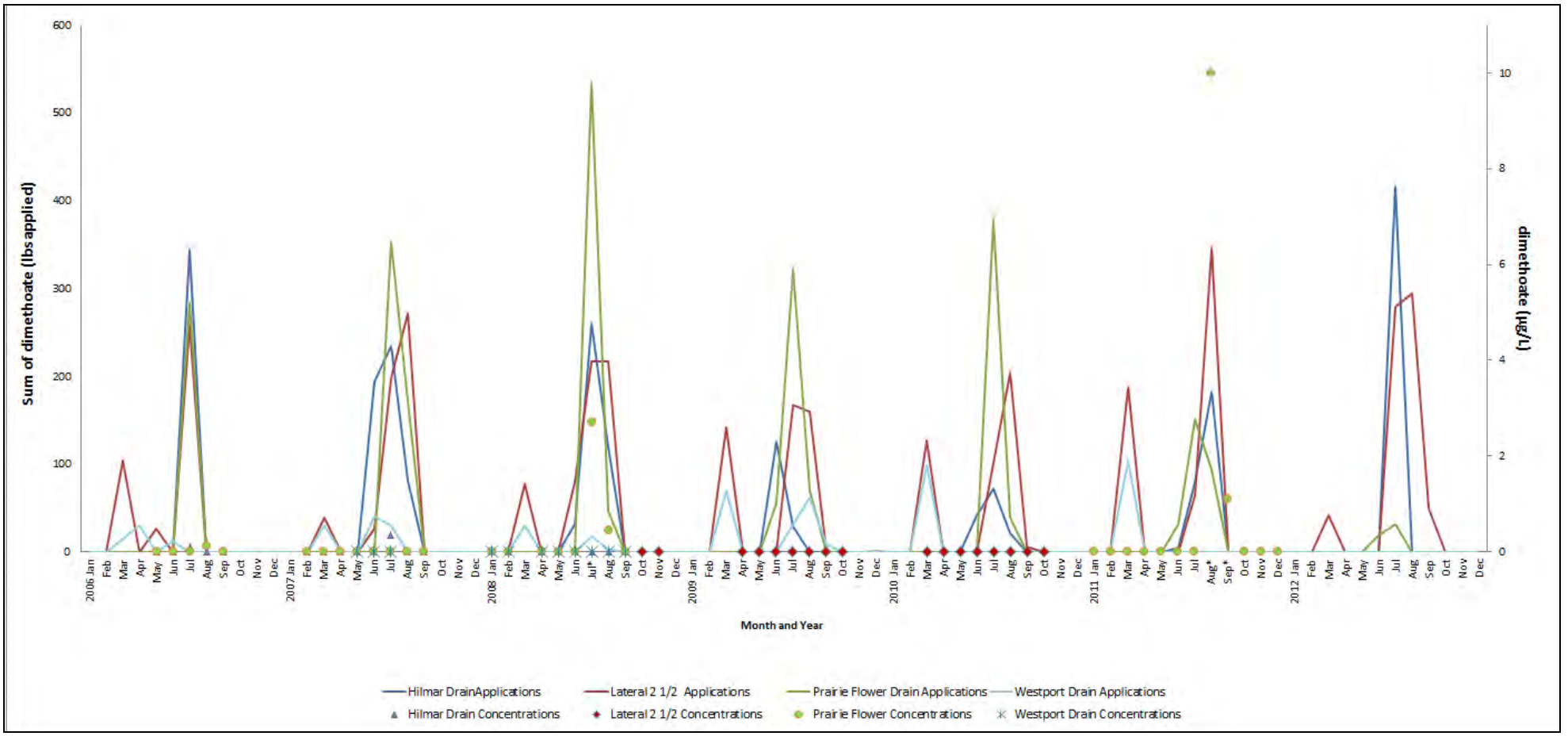
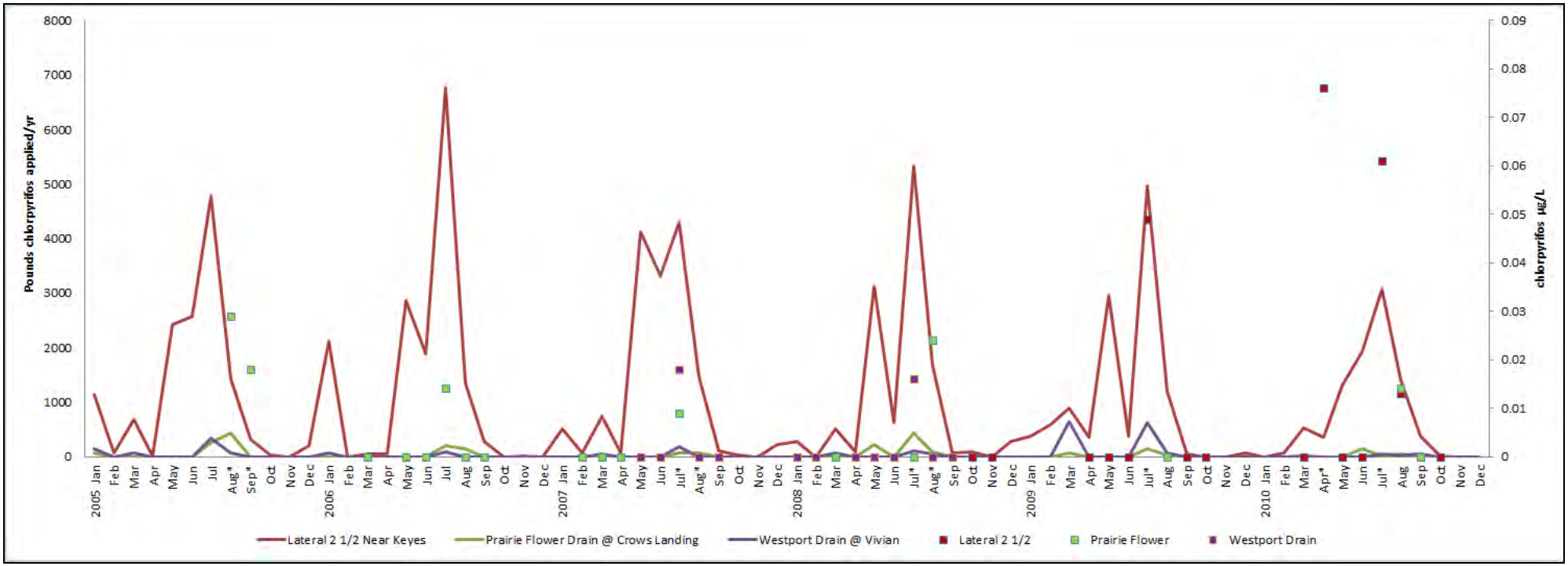


Figure 8. Prairie Flower Drain @ Crows Landing Rd chlorpyrifos applications (sum of pounds applied, indicated by lines) and concentrations (µg/L, indicated by symbols) compared to Zone 2 Represented sites.

Asterisks indicate what month an exceedances of the WQTL for chlorpyrifos occurred.



Zone 3 - Highline Canal @ Hwy 99

Highline Canal @ Hwy 99 Management Plan Monitoring constituents to be monitored in the 2014 water year:

- copper
- *C. dubia* toxicity
- *S. capricornutum* toxicity
- *H. azteca* sediment toxicity
- lead

Highline Canal @ Lombardy Rd

Core management plan constituents will be addressed in the Highline Canal @ Lombardy Rd site subwatershed management plan during the 2014 water year (Table 17).

Mustang Creek @ East Ave

Management Plan Monitoring is scheduled at Mustang Creek @ East Ave for copper during the 2014 water year. Represented site monitoring will also occur at Mustang Creek @ East Ave for *C. dubia*, *S. capricornutum* toxicity and *H. azteca* sediment toxicity based the Core site MPM during the 2014 water year (Table 17).

Zone 4 - Merced River @ Santa Fe

Merced River @ Santa Fe Management Plan Monitoring constituents to be monitored in the 2014 water year:

- chlorpyrifos
- *C. dubia* toxicity
- lead

Bear Creek @ Kibby Rd

Bear Creek @ Kibby Rd site subwatershed was approved to remove chlorpyrifos and *C. dubia* toxicity from its active management plan in 2012. Monitoring occurred once a month in May through September in 2006, April through September in 2007, January, February and April through September in 2008; no exceedances occurred.

Howard Lateral @ Hwy 140

Represented site monitoring will occur at Howard Lateral @ Hwy 140 for lead (Table 17). *Ceriodaphnia dubia* toxicity was monitored once a month at Howard Lateral @ Hwy 140 April through October 2009 and April through October 2010; no toxicity occurred.

Livingston Drain @ Robin Ave

Management Plan Monitoring is scheduled at Livingston Drain @ Robin Ave for chlorpyrifos and lead during the 2014 water year (Table 17). *Ceriodaphnia dubia* toxicity was monitored once a month in May through September 2007 and January through September 2008; no toxicity occurred.

McCoy Lateral @ Hwy 140

Represented site monitoring at McCoy Lateral @ Hwy 140 is scheduled for lead (Table 17). The Coalition monitored once a month for chlorpyrifos and C. dubia toxicity in January and April through November in 2011, March through September and December in 2012; no exceedances of the WQTL or toxicity occurred.

Zone 5 - Duck Slough @ Gurr Rd

Duck Slough @ Gurr Rd management plan constituents to be monitored in the 2014 water year:

- copper
- *C. dubia* toxicity
- *H. azteca* sediment toxicity
- lead

Deadman Creek @ Gurr Rd

Deadman Creek @ Gurr Rd is currently in a management plan for *C. dubia*; therefore MPM will occur for *C. dubia* in the 2014 water year (Table 17). Copper was approved to be removed from the Deadman Creek @ Gurr Rd active management plan in 2012. The Coalition monitored for lead at Deadman Creek @ Gurr Rd once a month from May through September 2006, February and April through September 2007, February and April through December 2008, January through April and December 2009, and July through December 2010; no exceedances occurred. Sediment samples were collected and tested for *H. azteca* toxicity in August 2004, August 2006, March and August 2007 and 2008, April and August 2009, and March and September 2010; no toxicity occurred.

Deadman Creek @ Hwy 59

Copper was monitored monthly from April through September 2008, January through December 2011 and January through December 2012; no exceedances occurred. Lead was monitored monthly April through September 2008, January through April and December 2009, July through December 2010, January through August 2011 and April 2012; no exceedances occurred. Ceriodaphnia dubia toxicity was monitored in 2006 through 2008 and every month in 2011 and 2012; 43 samples were collected and tested and no toxicity occurred. Sediment toxicity to H. azteca was monitored in 2006, 2007, and 2008. Sediment toxicity to H. azteca occurred once in 2008; however, the site was resampled the following week and toxicity was not persistent. Monitoring continued in 2011 and 2012 and no toxicity to H. azteca occurred.

Zone 6 - Cottonwood Creek @ Rd 20

Cottonwood Creek @ Rd 20 Management Plan Monitoring constituents to be monitored in the 2014 water year:

- chlorpyrifos
- copper
- lead

Ash Slough @ Ave 21

Ash Slough @ Ave 21 is in a management plan for copper; therefore, MPM will occur in the 2014 water year for copper (Table 17). Lead and chlorpyrifos were approved to be removed from the Ash Slough @ Ave 21 active management plan in 2012.

SPECIAL PROJECT MONITORING

In addition to Core and Represented site monitoring, the Coalition will conduct site specific monitoring to address parameters associated with a TMDL and MPM to address sites in a management plan.

Management Plan Monitoring

The Coalition will continue to conduct MPM based on the monitoring strategy outlined in the2008 MRPP (pages 33-35) and the ESJWQC Management Plan, approved November 25th 2008 (amended on June, 21 2010). Management Plan Monitoring is conducted as part of the Coalition's management plan strategy to identify contaminant sources and evaluate effectiveness of newly implemented management practices. Table 18 is a schedule for monitoring management plan constituents during the 2014 water year at Core and Represented sites Management Plan Monitoring. Core site MPM will be conducted on a frequency according to Attachment B, section III.A.1 of the Order; all management plan constituents will be monitored on a monthly basis at the Core sites during the 2014 water year. Represented site MPM will be conducted on a frequency designed to be representative of discharge of the management plan constituent. Therefore, the following process was used to determine the frequency of MPM:

- determine months of past exceedances for high priority constituents (e.g. applied pesticides, metals, toxicity)
- determine months of high use and seasonal trends using PUR data and compare that with water quality data

For the 2014 water year, 6th priority site subwatersheds (Mustang Creek @ East Ave, Silva Drain @ Meadow Dr and Westport Drain @ Vivian Rd) will rotate into high priority status and the Coalition will conduct MPM for high priority management plan constituents (Table 18). Silva Drain @ Meadow Dr has not been included in the MPM schedule because it is unclear at this time whether or not this waterbody will be monitored for management plan constituents. The Coalition requested on June 4th, 2013 to remove it from the ESJWQC monitoring schedule and is working with Regional Board staff to determine if this waterbody discharges into the Merced River. The Coalition has included the next site in rotation for high priority monitoring, Ash Slough @ Ave 21, in place of Silva Drain MPM. If it is determined that MPM should be conducted in the 2014 water year for Silva Drain, the Coalition will submit an amendment to the 2013 Monitoring Plan Update.

Table 17. ESJWQC Management Plan Monitoring schedule (listed alphabetically by site).

Shaded cells indicate additional months of MPM based on PUR data. "X" indicates scheduled MPM.

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Ash Slough @ Ave 21	Represented	2014	January	X										
Ash Slough @ Ave 21	Represented	2014	February	X										
Ash Slough @ Ave 21	Represented	2014	April	X										
Ash Slough @ Ave 21	Represented	2014	May	X										
Ash Slough @ Ave 21	Represented	2014	June	X										
Ash Slough @ Ave 21	Represented	2014	July	X										
Ash Slough @ Ave 21	Represented	2014	August	X										
Ash Slough @ Ave 21	Represented	2014	September	X										
Bear Creek @ Kibby Rd	Represented	2014	January	X										
Bear Creek @ Kibby Rd	Represented	2014	February	X										
Bear Creek @ Kibby Rd	Represented	2014	March	X										
Bear Creek @ Kibby Rd	Represented	2014	April	X										
Bear Creek @ Kibby Rd	Represented	2014	August	X										
Berenda Slough along Ave 18 1/2	Represented	2013	October	X										
Berenda Slough along Ave 18 1/2	Represented	2013	November	X										
Berenda Slough along Ave 18 1/2	Represented	2013	December	X										
Berenda Slough along Ave 18 1/2	Represented	2014	January	X										
Berenda Slough along Ave 18 1/2	Represented	2014	February	X										
Berenda Slough along Ave 18 1/2	Represented	2014	March	X										
Berenda Slough along Ave 18 1/2	Represented	2014	April	X			X							
Berenda Slough along Ave 18 1/2	Represented	2014	May	X			X						X	
Berenda Slough along Ave 18 1/2	Represented	2014	June	X			X							
Berenda Slough along Ave 18 1/2	Represented	2014	July	X			X						X	
Berenda Slough along Ave 18 1/2	Represented	2014	August	X			X							
Berenda Slough along Ave 18 1/2	Represented	2014	September	X			X							
Black Rascal Creek @ Yosemite Rd	Represented	2014	April		X									
Black Rascal Creek @ Yosemite Rd	Represented	2014	May				X				X			
Black Rascal Creek @ Yosemite Rd	Represented	2014	July				X				X			

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Black Rascal Creek @ Yosemite Rd	Represented	2014	August				X				X			
Black Rascal Creek @ Yosemite Rd	Represented	2014	September		X		X							
Cottonwood Creek @ Rd 20	Core	2013	October	X										
Cottonwood Creek @ Rd 20	Core	2014	January	X	X		X							
Cottonwood Creek @ Rd 20	Core	2014	February	X	X		X							
Cottonwood Creek @ Rd 20	Core	2014	April	X										
Cottonwood Creek @ Rd 20	Core	2014	May	X										
Cottonwood Creek @ Rd 20	Core	2014	June	X	X									
Cottonwood Creek @ Rd 20	Core	2014	July	X										
Cottonwood Creek @ Rd 20	Core	2014	August	X										
Cottonwood Creek @ Rd 20	Core	2014	September	X										
Deadman Creek @ Gurr Rd	Represented	2013	November								X	X		
Deadman Creek @ Gurr Rd	Represented	2013	December									X		
Deadman Creek @ Gurr Rd	Represented	2014	January									X		
Deadman Creek @ Gurr Rd	Represented	2014	February								X	X	X	
Deadman Creek @ Gurr Rd	Represented	2014	March				X				X	X		
Deadman Creek @ Gurr Rd	Represented	2014	April				X							
Deadman Creek @ Gurr Rd	Represented	2014	May									X		
Deadman Creek @ Gurr Rd	Represented	2014	June									X		
Deadman Creek @ Gurr Rd	Represented	2014	July										X	
Deadman Creek @ Gurr Rd	Represented	2014	August				X							
Deadman Creek @ Gurr Rd	Represented	2014	September				X							
Deadman Creek @ Hwy 59	Represented	2014	January										X	
Deadman Creek @ Hwy 59	Represented	2014	March				X							
Deadman Creek @ Hwy 59	Represented	2014	April				X						X	
Deadman Creek @ Hwy 59	Represented	2014	August				X							
Deadman Creek @ Hwy 59	Represented	2014	September				X							
Dry Creek @ Rd 18	Represented	2013	October	X			X							
Dry Creek @ Rd 18	Represented	2013	November	X			X							
Dry Creek @ Rd 18	Represented	2013	December	X			X							

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Dry Creek @ Rd 18	Represented	2014	January	X				X		X			X	
Dry Creek @ Rd 18	Represented	2014	February	X			X	X		X			X	
Dry Creek @ Rd 18	Represented	2014	March							X				X
Dry Creek @ Rd 18	Represented	2014	April	X			X							
Dry Creek @ Rd 18	Represented	2014	May	X	X								X	
Dry Creek @ Rd 18	Represented	2014	June	X	X									
Dry Creek @ Rd 18	Represented	2014	July	X			X							
Dry Creek @ Rd 18	Represented	2014	August	X	X		X							
Dry Creek @ Rd 18	Represented	2014	September	X	X									X
Dry Creek @ Wellsford Rd	Core	2014	March											X
Dry Creek @ Wellsford Rd	Core	2014	July				X							
Dry Creek @ Wellsford Rd	Core	2014	August				X							
Dry Creek @ Wellsford Rd	Core	2014	September				X							X
Duck Slough @ Gurr Rd	Core	2013	December	X										
Duck Slough @ Gurr Rd	Core	2014	January	X	X									
Duck Slough @ Gurr Rd	Core	2014	February	X	X						X			
Duck Slough @ Gurr Rd	Core	2014	March								X			
Duck Slough @ Gurr Rd	Core	2014	April	X	X									
Duck Slough @ Gurr Rd	Core	2014	May	X	X									
Duck Slough @ Gurr Rd	Core	2014	June	X	X									
Duck Slough @ Gurr Rd	Core	2014	July	X	X									
Duck Slough @ Gurr Rd	Core	2014	August	X	X									
Duck Slough @ Gurr Rd	Core	2014	September	X	X									X
Hatch Drain @ Tuolumne Rd	Represented	2014	January										X	
Hatch Drain @ Tuolumne Rd	Represented	2014	February										X	
Hatch Drain @ Tuolumne Rd	Represented	2014	March											X
Hatch Drain @ Tuolumne Rd	Represented	2014	April										X	
Hatch Drain @ Tuolumne Rd	Represented	2014	May										X	
Hatch Drain @ Tuolumne Rd	Represented	2014	July										X	
Hatch Drain @ Tuolumne Rd	Represented	2014	August										X	

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Hatch Drain @ Tuolumne Rd	Represented	2014	September											X
Highline Canal @ Hwy 99	Core	2014	December	X										
Highline Canal @ Hwy 99	Core	2014	January	X										
Highline Canal @ Hwy 99	Core	2014	February	X	X								X	
Highline Canal @ Hwy 99	Core	2014	March	X							X		X	X
Highline Canal @ Hwy 99	Core	2014	April	X	X								X	
Highline Canal @ Hwy 99	Core	2014	May		X						X		X	
Highline Canal @ Hwy 99	Core	2014	June	X	X									
Highline Canal @ Hwy 99	Core	2014	July	X	X									
Highline Canal @ Hwy 99	Core	2014	August	X	X									
Highline Canal @ Hwy 99	Core	2014	September								X			X
Highline Canal @ Lombardy Rd	Represented	2014	January	X			X				X			
Highline Canal @ Lombardy Rd	Represented	2014	February	X	X						X		X	
Highline Canal @ Lombardy Rd	Represented	2014	March	X			X				X		X	X
Highline Canal @ Lombardy Rd	Represented	2014	April										X	
Highline Canal @ Lombardy Rd	Represented	2014	May	X	X								X	
Highline Canal @ Lombardy Rd	Represented	2014	June		X						X			
Highline Canal @ Lombardy Rd	Represented	2014	July				X							
Highline Canal @ Lombardy Rd	Represented	2014	August	X	X		X						X	
Highline Canal @ Lombardy Rd	Represented	2014	September		X						X		X	X
Hilmar Drain @ Central Ave	Represented	2013	December							X				
Hilmar Drain @ Central Ave	Represented	2014	January	X						X				
Hilmar Drain @ Central Ave	Represented	2014	February	X										
Hilmar Drain @ Central Ave	Represented	2014	March	X										X
Hilmar Drain @ Central Ave	Represented	2014	April							X			X	
Hilmar Drain @ Central Ave	Represented	2014	June							X				
Hilmar Drain @ Central Ave	Represented	2014	July	X									X	
Hilmar Drain @ Central Ave	Represented	2014	September										X	X
Lateral 2 1/2 near Keyes Rd	Represented	2014	April				X							
Lateral 2 1/2 near Keyes Rd	Represented	2014	May				X							

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Lateral 2 1/2 near Keyes Rd	Represented	2014	June				X							
Lateral 2 1/2 near Keyes Rd	Represented	2014	July				X							
Lateral 2 1/2 near Keyes Rd	Represented	2014	August				X							
Livingston Drain @ Robin Ave	Represented	2013	December	X										
Livingston Drain @ Robin Ave	Represented	2014	January	X	X		X							
Livingston Drain @ Robin Ave	Represented	2014	February	X	X								X	
Livingston Drain @ Robin Ave	Represented	2014	April				X						X	
Livingston Drain @ Robin Ave	Represented	2014	May	X			X						X	
Livingston Drain @ Robin Ave	Represented	2014	June	X			X							
Livingston Drain @ Robin Ave	Represented	2014	July	X			X							
Livingston Drain @ Robin Ave	Represented	2014	August				X							
Livingston Drain @ Robin Ave	Represented	2014	September	X										
Merced River @ Santa Fe	Core	2013	November				X							
Merced River @ Santa Fe	Core	2014	January		X		X				X			
Merced River @ Santa Fe	Core	2014	February		X									
Merced River @ Santa Fe	Core	2014	March								X			
Merced River @ Santa Fe	Core	2014	July				X				X			
Merced River @ Santa Fe	Core	2014	August								X			
Miles Creek @ Reilly Rd	Represented	2014	January	X	X						X			
Miles Creek @ Reilly Rd	Represented	2014	February	X	X			X					X	
Miles Creek @ Reilly Rd	Represented	2014	March	X			X							
Miles Creek @ Reilly Rd	Represented	2014	April	X									X	
Miles Creek @ Reilly Rd	Represented	2014	May	X										
Miles Creek @ Reilly Rd	Represented	2014	June	X	X		X						X	
Miles Creek @ Reilly Rd	Represented	2014	July	X	X		X							
Miles Creek @ Reilly Rd	Represented	2014	August	X	X		X							
Miles Creek @ Reilly Rd	Represented	2014	September				X				X			X
Mustang Creek @ East Ave	Represented	2013	October	X										
Mustang Creek @ East Ave	Represented	2013	November	X										
Mustang Creek @ East Ave	Represented	2013	December	X										

Site Name	Site Type	Year	Month	Copper	Lead	Molybdenum	Chlorpyrifos	Diazinon	Dimethoate	Diuron	*C. dubia*	*P. promelas*	*S. capricornutum*	*H. azteca*
Mustang Creek @ East Ave	Represented	2014	January	X										
Mustang Creek @ East Ave	Represented	2014	February	X										
Mustang Creek @ East Ave	Represented	2014	March	X										
Mustang Creek @ East Ave	Represented	2014	April	X										
Prairie Flower Drain @ Crows Landing Rd	Core	2013	October			X							X	
Prairie Flower Drain @ Crows Landing Rd	Core	2013	December			X							X	
Prairie Flower Drain @ Crows Landing Rd	Core	2014	January			X							X	
Prairie Flower Drain @ Crows Landing Rd	Core	2014	February			X							X	
Prairie Flower Drain @ Crows Landing Rd	Core	2014	March			X					X			X
Prairie Flower Drain @ Crows Landing Rd	Core	2014	April			X						X	X	
Prairie Flower Drain @ Crows Landing Rd	Core	2014	May			X							X	
Prairie Flower Drain @ Crows Landing Rd	Core	2014	June			X								
Prairie Flower Drain @ Crows Landing Rd	Core	2014	July			X			X			X		
Prairie Flower Drain @ Crows Landing Rd	Core	2014	August			X			X		X			
Prairie Flower Drain @ Crows Landing Rd	Core	2014	September			X			X		X			X
Westport Drain @ Vivian Rd	Represented	2014	February										X	
Westport Drain @ Vivian Rd	Represented	2014	March				X							
Westport Drain @ Vivian Rd	Represented	2014	April										X	
Westport Drain @ Vivian Rd	Represented	2014	May										X	
Westport Drain @ Vivian Rd	Represented	2014	July				X							
Westport Drain @ Vivian Rd	Represented	2014	August				X							
Westport Drain @ Vivian Rd	Represented	2014	September				X							

Represented sites with a high priority management plan are listed alphabetically below. Each site subwatershed section includes a discussion of the high priority management plan constituents that will be monitored and the evaluation of monitoring frequency (past exceedances and PUR evaluations). Each site subwatershed section also includes MPM constituent specific charts of the pounds applied from 2004 – 2012 for each month. Below each chart of use, is a table noting the months of past sampling and exceedances by year. In the same figure is a sum of use from 2004 – 2012 and for the last three years (2010 – 2012). PUR data is preliminary from 2011 and 2012 and has been received directly from County Agricultural Commissioners. Water quality results were reviewed up through March 2013 where applicable. More recent data was not available at the time of this report. All of this information was utilized in determining the monitoring frequency.

Ash Slough @ Ave 21

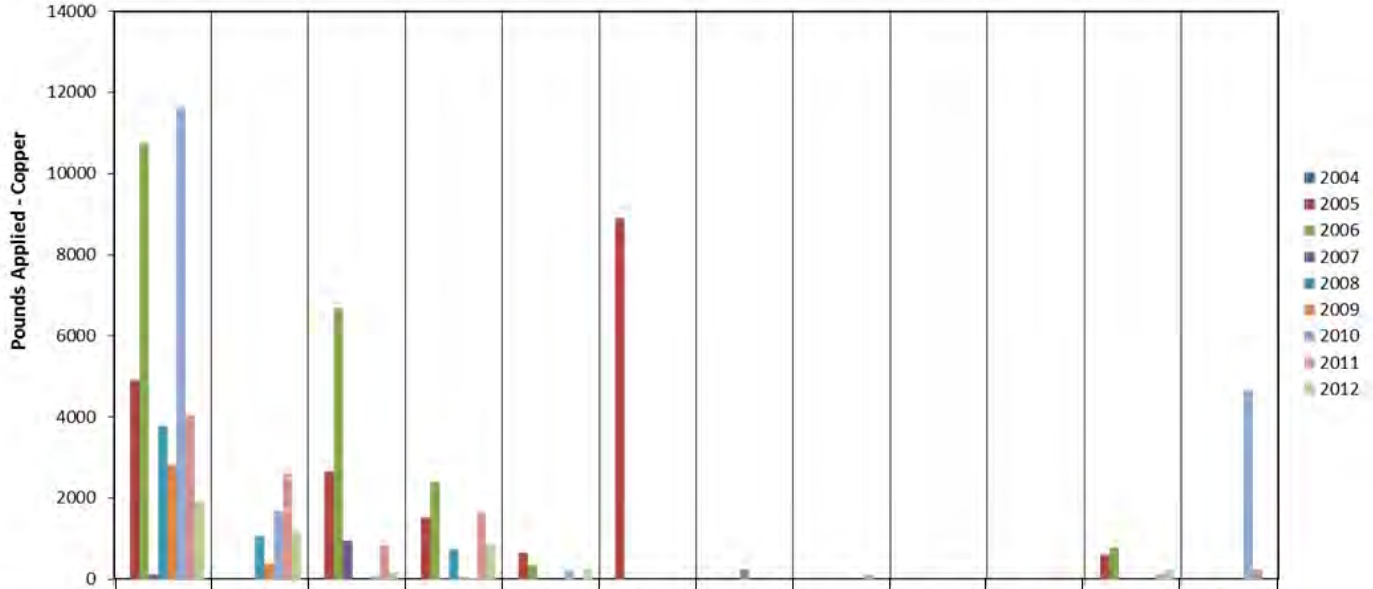
Ash Slough @ Ave 21 has been added as a sixth priority site subwatershed (2014-2016) in Zone 6. Ash Slough @ Ave 21 is currently in a management plan for copper (Table 18). Chlorpyrifos, lead and E. coli were removed in May 2012.

Copper

The Coalition will conduct MPM for copper at Ash Slough @ Ave 21 during past months of exceedances (April through September) for the 2014 water year (Figure 9). In addition, the Coalition will include MPM in January and February to characterize storm water runoff. The three years that this site was monitored in January through March it was dry, however the site has not been monitored since 2010 (Figure 9).

Figure 9. Ash Slough @ Ave 21 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006					X	X	X	X	X			
2007				Dry	Dry	Dry	Dry	Dry	Dry			
2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2009	Dry	Dry	Dry	Dry	X	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2010	Dry	Dry	Dry	X	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011												
2012												
2013												
Total Use (2004-2012)	39,921	6,932	11,370	7,294	1,472	8,899	248	124	0	0	1,778	4,900
% Total (2004-2012)	***48%***	***8%***	***14%***	***9%***	***2%***	***11%***	***<1%***	***<1%***	***0%***	***0%***	***2%***	***6%***
Total Use (2010-2012)	17,547	5,495	1,068	2,542	466	0	0	124	0	0	377	4,900
% Total (2010-2012)	***54%***	***17%***	***3%***	***8%***	***1%***	***0%***	***0%***	***<1%***	***0%***	***0%***	***1%***	***15%***

Bear Creek @ Kibby Rd

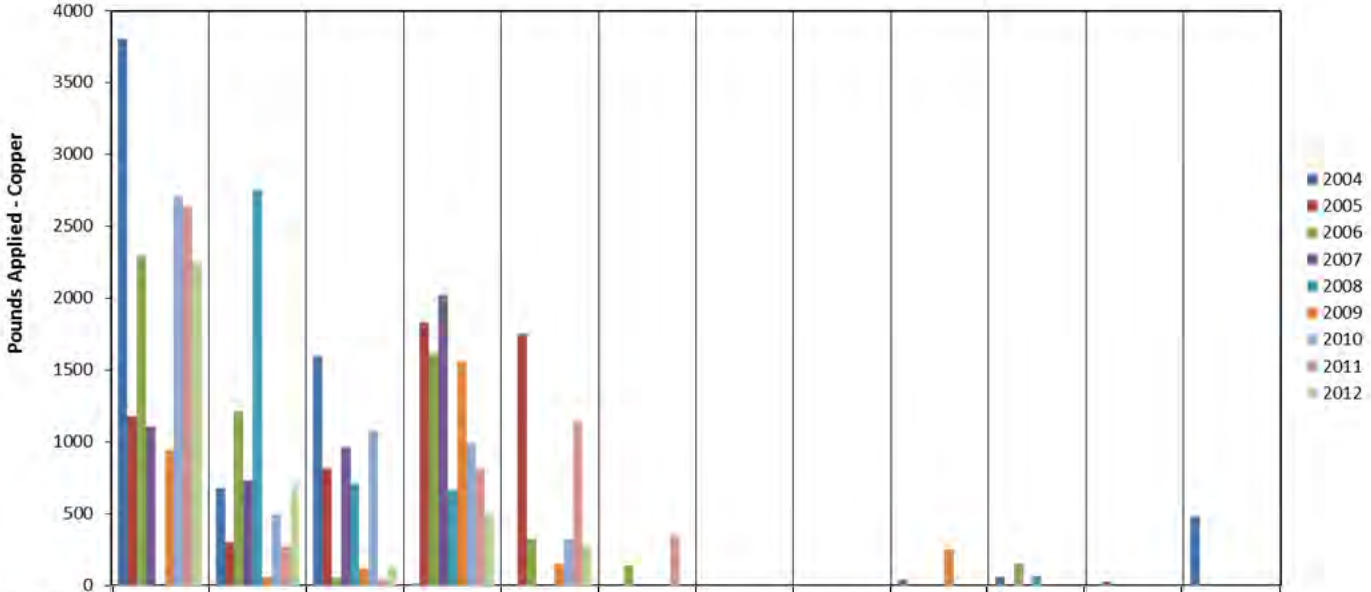
Bear Creek @ Kibby Rd is a second priority site subwatershed (2010-2012) in Zone 4. Bear Creek @ Kibby Rd is currently in a management plan for copper, E. coli and pH (Table 18). No MPM for pH and E. coli is scheduled. Chlorpyrifos, C. dubia toxicity and DO were removed May 2012. The Coalition does not conduct MPM for E. coli or pH.

Copper

Management Plan Monitoring for copper occurred in 2012, concluding two consecutive years of monitoring with no exceedances of the WQTL for copper. The Coalition requested the removal copper from the active management plan on November 7, 2012. The Coalition will continue to monitor for copper during in January, February and August (months of past exceedances). In addition, March and April will be monitored for copper to characterize storm water runoff. There has only been one year of monitoring during March (2007) and two years of monitoring during April (2007 and 2008; Figure 10). Due to the lack of past monitoring, similar patterns of use, and the potential for storm runoff, the Coalition is adding March and April to the 2014 MPM schedule.

Figure 10. Bear Creek @ Kibby Rd 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007		X										
2008	X	X						X				
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	16,930	7,202	5,508	10,036	3,986	492	0	0	291	280	27	484
% Total (2004-2012)	***37%***	***16%***	***12%***	***22%***	***9%***	***1%***	***0%***	***0%***	***1%***	***1%***	***<1%***	***1%***
Total Use (2010-2012)	7,600	1,456	1,246	2,315	1,743	350	0	0	0	0	0	0
% Total (2010-2012)	**52%**	**10%**	**8%**	**16%**	**12%**	**2%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**

Berenda Slough @ Avenue 18 1/2

Berenda Slough along Avenue 18 ½ is a third priority site subwatershed (2011-2013) in Zone 6. Berenda Slough along Avenue 18 ½ is currently in a management plan for chlorpyrifos, copper, S. capricornutum toxicity, E. coli and DO. Management Plan Monitoring is scheduled for the 2014 water year for chlorpyrifos, copper and S. capricornutum toxicity (Table 18).

Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos during the 2014 water year in April, July and September due to months of past exceedances (Figure 11). Chlorpyrifos has been analyzed in samples collected during irrigation months (May through September) over five years (2006 – 2008, 2011 and 2012). There has not been an exceedance of the chlorpyrifos WQTL in May, June or August. Due the total use and the variability in use between years from 2004 - 2012, the Coalition will add May, June and August to its MPM schedule for the 2014 water year (Figure 11).

Copper

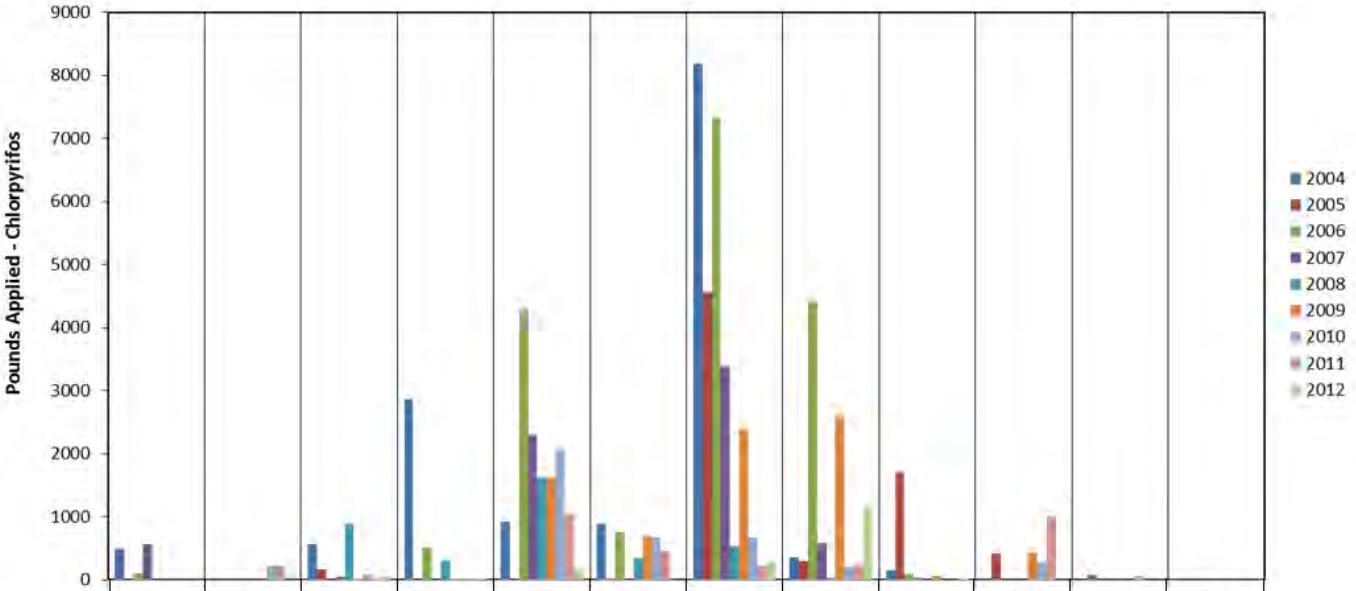
The Coalition will conduct MPM for copper October through February and April through September during the 2014 water year based on past exceedances (Figure 12). In 2011, there were copper exceedances in every month except March (11 exceedances of the copper WQTL). March is being added to the MPM schedule to ensure characterization of copper discharge in the watershed. Monitoring for copper will occur in all months during the 2014 water year (Figure 12).

S. capricornutum toxicity

There are many potential sources for algae toxicity including a large suite of herbicides. The source of algae toxicity within Berenda Slough is unknown and therefore the Coalition will conduct MPM for S. capricornutum toxicity in May and June based on past exceedances (Table 18).

Figure 11. Berenda Slough@ Avenue 18 1/2 2004-2012 chlorpyrifos use and monitoring.

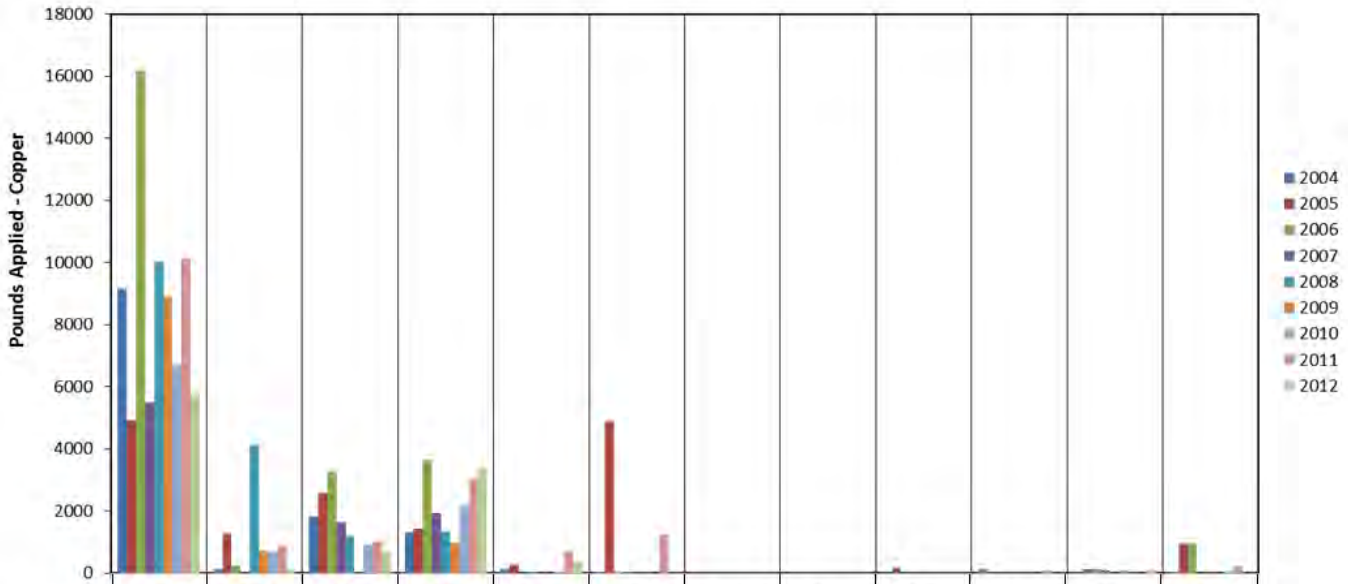
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006							X		X			
2007				Dry			X		Dry			
2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry			
2009												
2010												
2011				X								
2012		Dry	Dry	Dry	Dry				Dry	Dry	Dry	Dry
2013												
Total Use (2004-2012)	1,165	447	1,882	3,780	14,049	3,856	27,591	9,914	2,075	2,158	143	0
% Total (2004-2012)	**2%**	**1%**	**3%**	**6%**	**21%**	**6%**	**41%**	**15%**	**3%**	**3%**	***<1%***	***0%***
Total Use (2010-2012)		447	190	44	3,300	1,137	1,201	1,609	24	1,296	69	0
% Total (2010-2012)		**5%**	**2%**	**0%**	**35%**	**12%**	**13%**	**17%**	***<1%***	**14%**	**1%**	***0%***

Figure 12. Berenda Slough @ Avenue 18 1/2 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007												
2008	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry			
2009												
2010												
2011	X	X		X	X	X	X	X	X	X	X	X
2012		Dry	Dry	Dry	Dry	X	X		Dry	Dry	Dry	Dry
2013												
Total Use (2004-2012)	77,317	8,198	13,144	19,244	1,593	6,225	0	0	186	237	589	2,250
% Total (2004-2012)	***60%***	***6%***	***10%***	***15%***	***1%***	***5%***	***0%***	***0%***	***<1%***	***<1%***	***<1%***	***2%***
Total Use (2010-2012)	22,655	1,701	2,642	8,585	1,158	1,251	0	0	0	108	121	278
% Total (2010-2012)	***59%***	***4%***	***7%***	***22%***	***3%***	***3%***	***0%***	***0%***	***0%***	***<1%***	***<1%***	***1%***

Black Rascal Creek @ Yosemite Rd

Black Rascal Creek @ Yosemite Rd is a fourth priority site subwatershed (2012-2014) in Zone 4. Black Rascal Creek @ Yosemite Rd is currently in a management plan for chlorpyrifos, C. dubia toxicity, DO, E. coli, lead and pH. Management Plan Monitoring is scheduled during the 2014 water year for chlorpyrifos, lead and toxicity to C. dubia (Table 18). Lead is not currently applied by agriculture and therefore cannot be associated with use. The MPM for lead at Black Rascal Creek @ Yosemite Rd will be conducted during months of past exceedances including May and September.

Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos at Black Rascal Creek @ Yosemite Rd during past months of exceedances (May and July through September) for the 2014 water year (Figure 13).

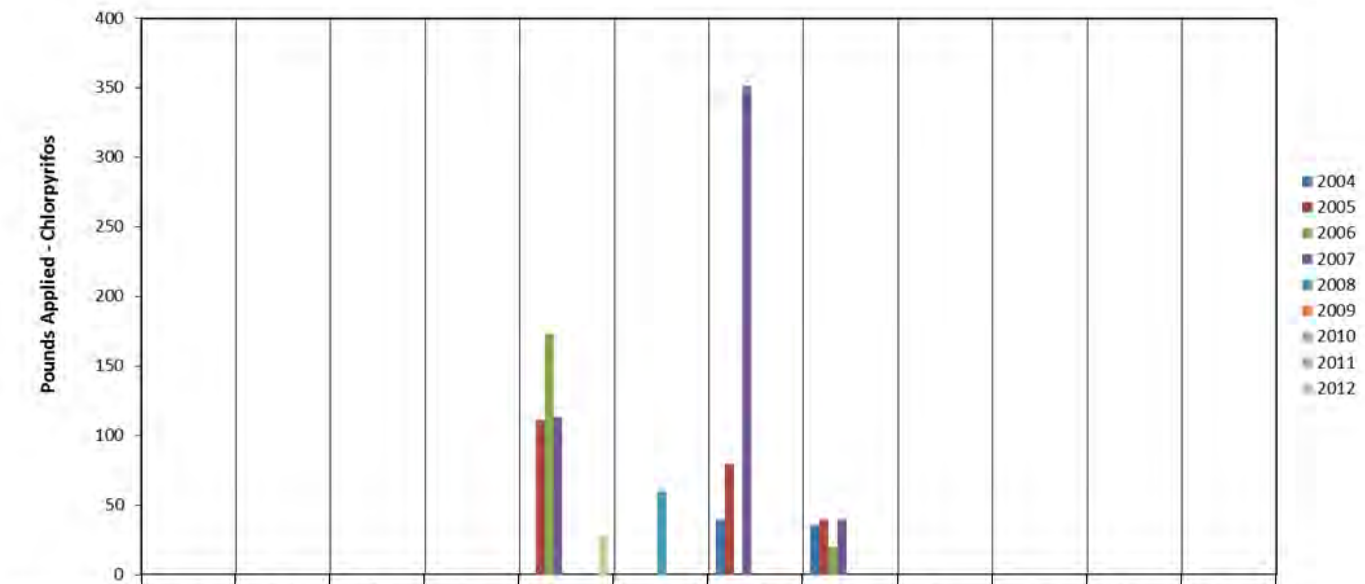
Based on past exceedances and current PUR data, the Coalition determined that MPM is not necessary in October through April or in June. No exceedances of the WQTL for chlorpyrifos occurred during winter months (January through March) and no applications of chlorpyrifos were reported during October through April, 2004 through 2012. From 2004 through 2012 there has been a single application of chlorpyrifos. No exceedances of the WQTL occurred during Normal Monitoring in 2006 through 2008 (Figure 13).

C. dubia toxicity

Water column toxicity to C. dubia occurred in samples collected from Black Rascal Creek @ Yosemite Rd in the months of May, July and August. Chlorpyrifos was also detected at concentrations above the WQTL in those same samples and is a probable cause of the toxicity. The only month that there was not C. dubia toxicity and there was an exceedance of the chlorpyrifos WQTL was September, 2008. There were no applications of chlorpyrifos in September and it is believed that the chlorpyrifos exceedance was due to no flow and residual chlorpyrifos from the August applications. The Coalition has identified the source of the chlorpyrifos WQTL exceedance and the C. dubia toxicity and has determined that monitoring in May, July and August for C. dubia (months of chlorpyrifos applications and C. dubia toxicity) characterizes the constituent of concern.

Figure 13. Black Rascal Creek @ Yosemite Rd 2004-2012 chlorpyrifos use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006					X							
2007							X	X	X			
2008												
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	0	0	0	0	426	60	471	136	0	0	0	0
% Total (2004-2012)	*0%*	*0%*	*0%*	*0%*	*39%*	*5%*	*43%*	*12%*	*0%*	*0%*	*0%*	*0%*
Total Use (2010-2012)	0	0	0	0	28	0	0	0	0	0	0	0
% Total (2010-2012)	*0%*	*0%*	*0%*	*0%*	*100%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

Deadman Creek @ Gurr Rd

Deadman Creek @ Gurr Rd is a fourth priority site subwatershed (2012-2014) in Zone 5. Deadman Creek @ Gurr Rd is currently in a management plan for chlorpyrifos, C. dubia toxicity, P. promelas toxicity, S. capricornutum toxicity, ammonium, arsenic, DO, E. coli, pH, Specific Conductivity (SC) and Total Dissolved Solids (TDS). Management Plan Monitoring is scheduled for the 2014 water year for chlorpyrifos, C. dubia toxicity, P. promelas toxicity and S. capricornutum toxicity (Table 18).

Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos at Deadman Creek @ Gurr Rd during months of past exceedances (March, April, August and September) for the 2014 water year (Figure 14).

Based on an evaluation of PUR data, the Coalition determined that MPM is not necessary in October through February and May through July. Applications of chlorpyrifos during October from 2010 through 2012 account for only 9% of total applications in the subwatershed and were the result of applications to drip irrigated vineyards. From 2004 to 2012, a single application of chlorpyrifos occurred during November months, very low use occurred during the January months and no applications occurred during the December or February months. In addition, the Coalition monitored for chlorpyrifos October through January from 2008 through 2010 and in February from 2007 through 2010; no exceedances of the WQTL for chlorpyrifos occurred (Figure 14).

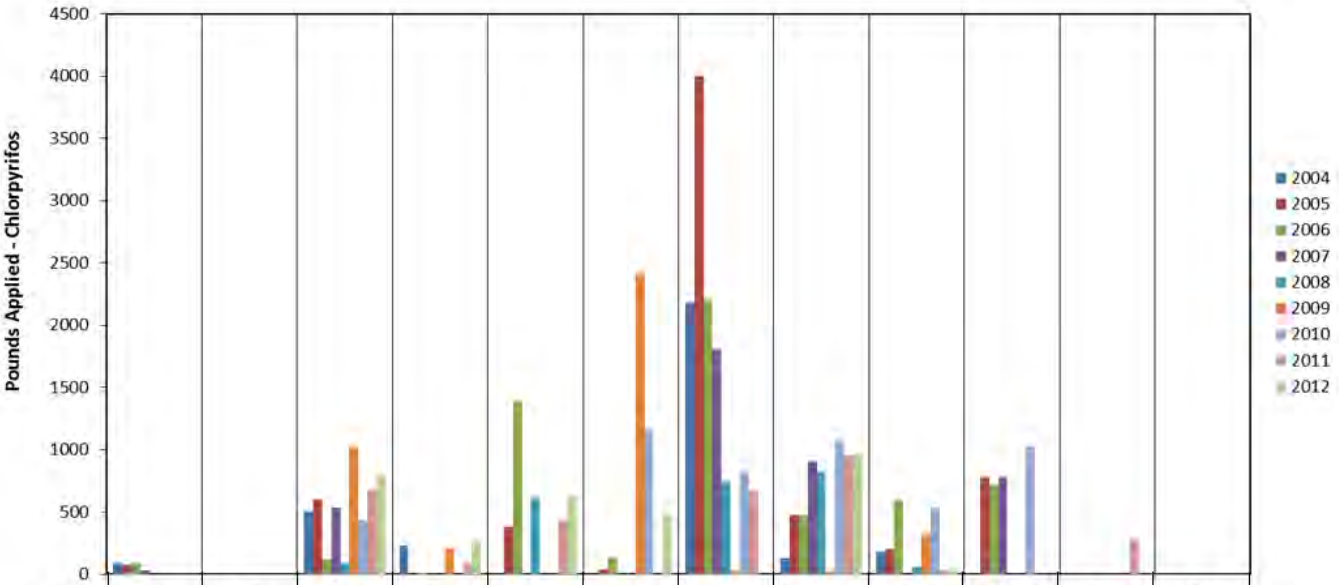
During May through July (2004-2012), applications of chlorpyrifos were consistent; applications of chlorpyrifos in May account for 9% of the total use in the subwatershed, applications in June account for 11% and July applications account for 33%. However, monitoring data from 2006 through 2007 resulted in no exceedances of the WQTL for chlorpyrifos from May through July; therefore, chlorpyrifos is not impairing the water quality at Deadman Creek @ Gurr Rd (Figure 14).

C. dubia, S. capricornutum and P. promelas toxicity

Water column toxicity that has occurred at Deadman Creek @ Gurr Rd cannot be sourced to an applied constituent. Therefore, MPM for C. dubia, S. capricornutum and P. promelas will occur during months in which past exceedances have occurred (Table 18).

Figure 14. Deadman Creek @ Gurr Rd 2004-2012 chlorpyrifos use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006									X			
2007												
2008												
2009												
2010			X	X				X				
2011												
2012												
2013												
Total Use (2004-2012)	286	0	4,788	791	3,457	4,244	12,468	5,834	1,962	3,311	282	0
% Total (2004-2012)	**1%**	***0%***	**13%**	**2%**	**9%**	**11%**	**33%**	**16%**	**5%**	**9%**	**1%**	***0%***
Total Use (2010-2012)	0	0	1,905	345	1,073	1,649	1,491	3,000	604	1,027	282	0
% Total (2010-2012)	***0%***	***0%***	**17%**	**3%**	**9%**	**14%**	**13%**	**26%**	**5%**	**9%**	**2%**	***0%***

Deadman Creek @ Hwy 59

Deadman Creek @ Hwy 59 is a forth priority site subwatershed (2012-2014) in Zone 5, upstream of Deadman Creek @ Gurr Rd. Deadman Creek @ Hwy 59 is currently in a management plan for chlorpyrifos, S. capricornutum toxicity, arsenic, DO, E. coli and pH. Management Plan Monitoring is scheduled for the 2014 water year for chlorpyrifos and S. capricornutum toxicity (Table 18).

Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos at Deadman Creek @ Hwy 59 during months of past exceedances (April, August and September) for the 2014 water year. In addition, March MPM will be added to evaluate if increased chlorpyrifos use in March is impairing the water quality at Deadman Creek @ Hwy 59 (Figure 15).

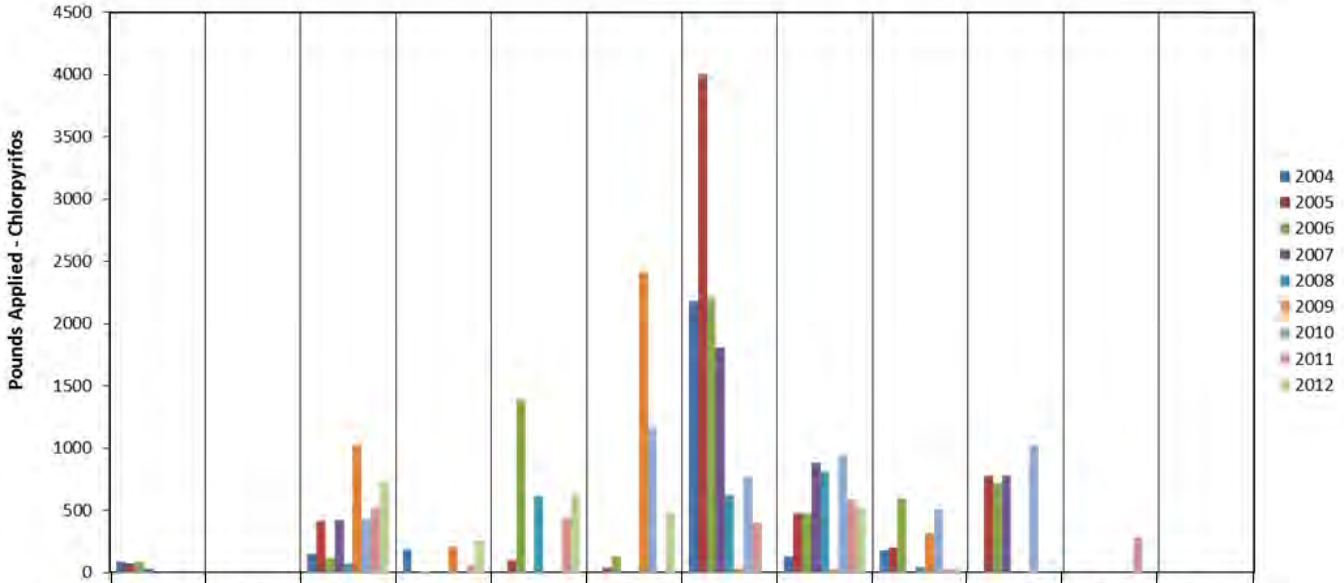
Based on past monitoring data and PUR data, MPM is not necessary from October through February and May through July. Over the past three years chlorpyrifos use has been low during the October, November and January months and no chlorpyrifos use was recorded in December and February (Figure 15).

S. capricornutum toxicity

Algae toxicity first occurred in samples collected in January 2008 during a storm event. The herbicides simazine and diuron were also detected at levels above their respective WQTLs in the same samples and were a likely cause of the toxicity. During the first irrigation event of the same year (April 29, 2008), samples collected at Deadman Creek @ Hwy 59 were also toxic to S. capricornutum including resamples collected one week later to test for toxicity persistence. There was no exceedance of herbicide WQTLs in the April 2008 samples. Deadman Creek @ Hwy 59 was sampled for 12 months in 2011 and 2012 for herbicides and algae toxicity and there were no water quality impairments. The Coalition will continue to monitor for S. capricornutum in the 2014 water year during January and April to characterize agricultural discharge with the potential to result in algae toxicity.

Figure 15. Deadman Creek @ Hwy 59 2004-2012 chlorpyrifos use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006									X			
2007								X				
2008								X	X			
2009								Dry	Dry			
2010												
2011				X					X			
2012					Dry			Dry				
2013												
Total Use (2004-2012)	286	0	3,901	720	3,180	4,244	12,032	4,861	1,930	3,311	282	0
% Total (2004-2012)	*1%*	*0%*	*11%*	*2%*	*9%*	*12%*	*35%*	*14%*	*6%*	*10%*	*1%*	*0%*
Total Use (2010-2012)	0	0	1,687	315	1,073	1,649	1,178	2,066	586	1,027	282	0
% Total (2010-2012)	*0%*	*0%*	*17%*	*3%*	*11%*	*17%*	*12%*	*21%*	*6%*	*10%*	*3%*	*0%*

Dry Creek @ Rd 18

Dry Creek @ Rd 18 is a third priority site subwatershed (2011-2013) in Zone 6. Dry Creek @ Rd 18 is currently in a management plan for chlorpyrifos, copper, diazinon, diuron, H. azteca sediment toxicity, S. capricornutum toxicity, DO, E. coli, lead and pH. Management Plan Monitoring is scheduled for the 2014 water year for chlorpyrifos, copper, diazinon, diuron, H. azteca sediment toxicity and S. capricornutum toxicity (Table 18).

Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos at Dry Creek @ Rd 18 during months of past exceedances (February, April and July) for the 2014 water year. Management Plan Monitoring is being added for the month of August based on PUR data. The PUR data indicate an increasing trend in chlorpyrifos use during August in the past three years. No exceedances of the WQTL occurred from 2005 through 2008 (Figure 16). The 2014 Monitoring Update Report will evaluate monitoring quality results from 2013 (August monitoring) and determine if future monitoring in August is necessary to characterize chlorpyrifos discharge.

The Coalition will continue to monitor from October through December 2013 for chlorpyrifos at Dry Creek @ Rd 18 (previously scheduled under the 2013 monitoring schedule which is based on a calendar year). In 2014, the Coalition will review PUR data along with the water quality data collected in 2013and conduct MPM during months when past exceedances occurred to characterize the potential for water quality impairments due to irrigation discharge (Figure 16).

Copper

The Coalition will conduct MPM for copper at Dry Creek @ Rd 18 during months of past exceedances (January, February and April through September) for the 2014 water year (Figure 17). The Coalition will continue to monitor from October through December 2013 since the Coalition has not previously monitored during those months and there are applications of copper. Next year, the Coalition will review the PUR data along with the water quality data collected in 2013 and conduct monitoring during months of past exceedances.

Diazinon

The Coalition will conduct MPM in February for diazinon for the 2014 water year at Dry Creek @ Rd 18 due to past exceedances. January MPM is being added due to high diazinon use; January months account for 40% of all diazinon use in the subwatershed from 2010 through 2012 (Figure 18). January and February MPM will allow the Coalition to better evaluate the potential for storm water runoff during winter months and determine if diazinon is impairing the water quality at Dry Creek @ Rd 18.

Diuron

The Coalition will conduct January and February diuron MPM for the 2014 water year at Dry Creek @ Rd 18 due to past exceedances. In addition, the Coalition will evaluate if high diuron use during winter

months is potentially affecting the water quality at Dry Creek @ Rd 18 by adding March MPM. Diuron applications in March months account for 35% of all use in the subwatershed from 2010 through 2012 (Figure 19).

S. capricornutum toxicity

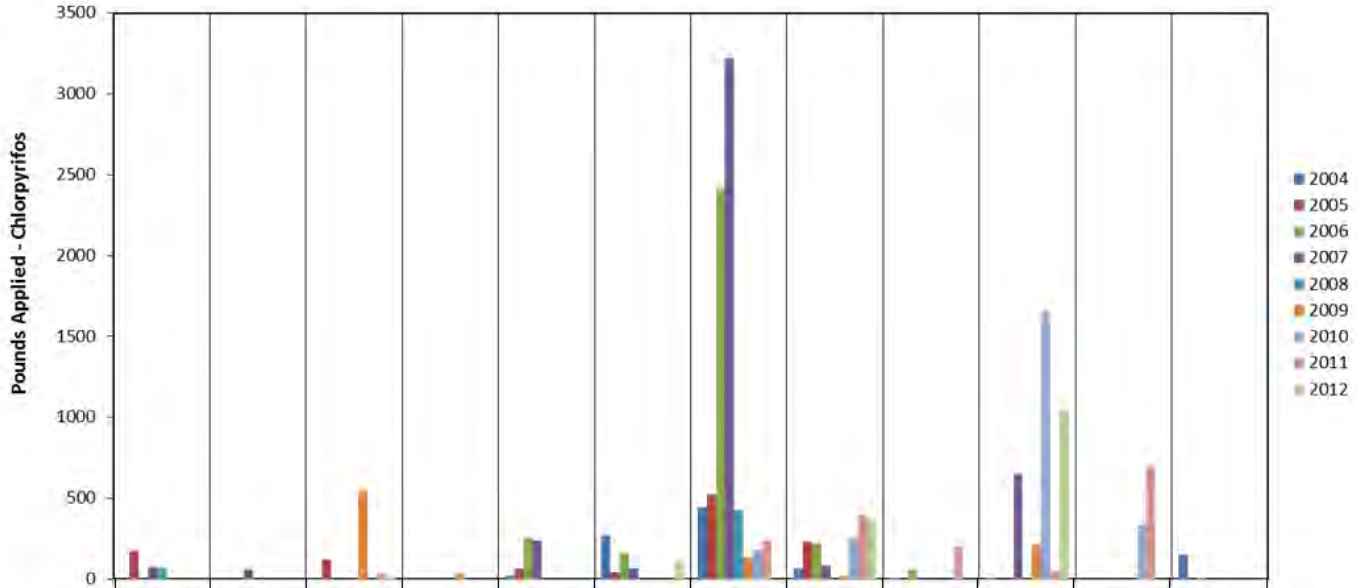
There have been five samples collected from Dry Creek @ Rd 18 that were toxic to algae. Of the samples that were toxicity to algae and were also analyzed for herbicides, one of the three samples contained a concentration of diuron above the WQTL. The Coalition will continue to conduct MPM during January, February and May which are the months in which past exceedances have occurred (Table 18).

H. azteca sediment toxicity

Sediment toxicity monitoring is conducted twice a year – once during the storm season and once during the irrigation season. The Coalition will conduct MPM for H. azteca sediment toxicity in March and September.

Figure 16. Dry Creek @ Rd 18 2004-2012 chlorpyrifos use and monitoring.

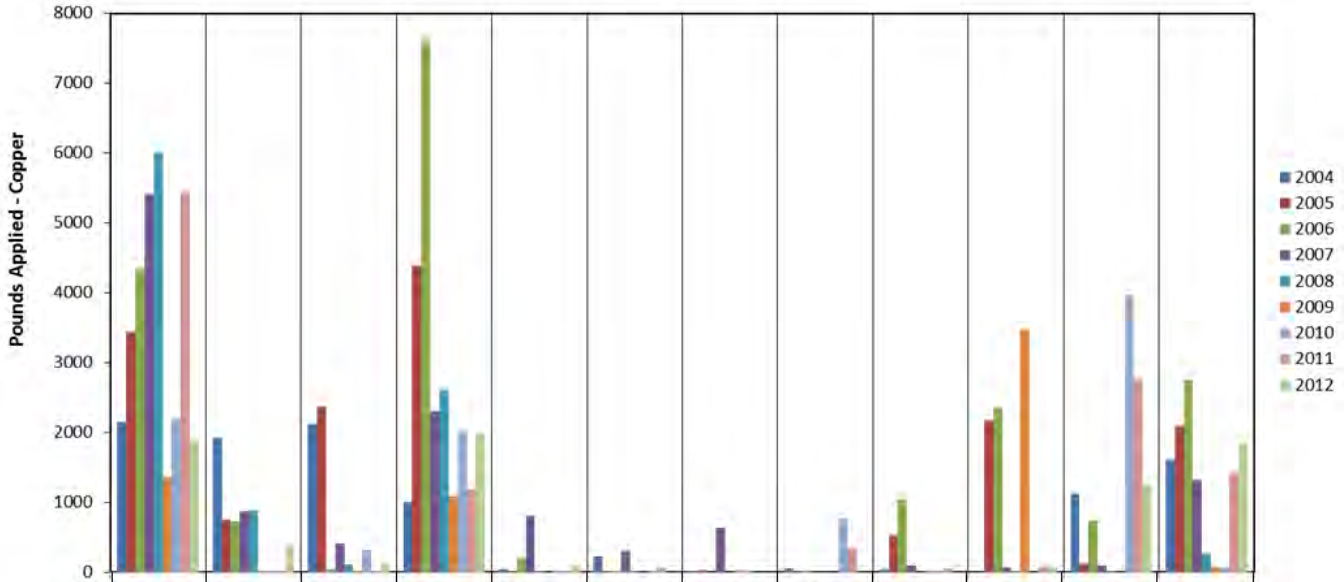
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006							X					
2007				X					Dry			
2008		X							Dry			
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	319	61	715	37	580	655	7,581	1,644	260	3,620	1,034	154
% Total (2004-2012)	*2%*	*<1%*	*4%*	*<1%*	*3%*	*4%*	*46%*	*10%*	*2%*	*22%*	*6%*	*1%*
Total Use (2010-2012)	0	0	51	0	0	114	417	1,027	202	2,747	1,034	0
% Total (2010-2012)	*0%*	*0%*	*1%*	*0%*	*0%*	*2%*	*7%*	*18%*	*4%*	*49%*	*18%*	*0%*

Figure 17. Dry Creek @ Rd 18 2004-2012 copper use and monitoring.

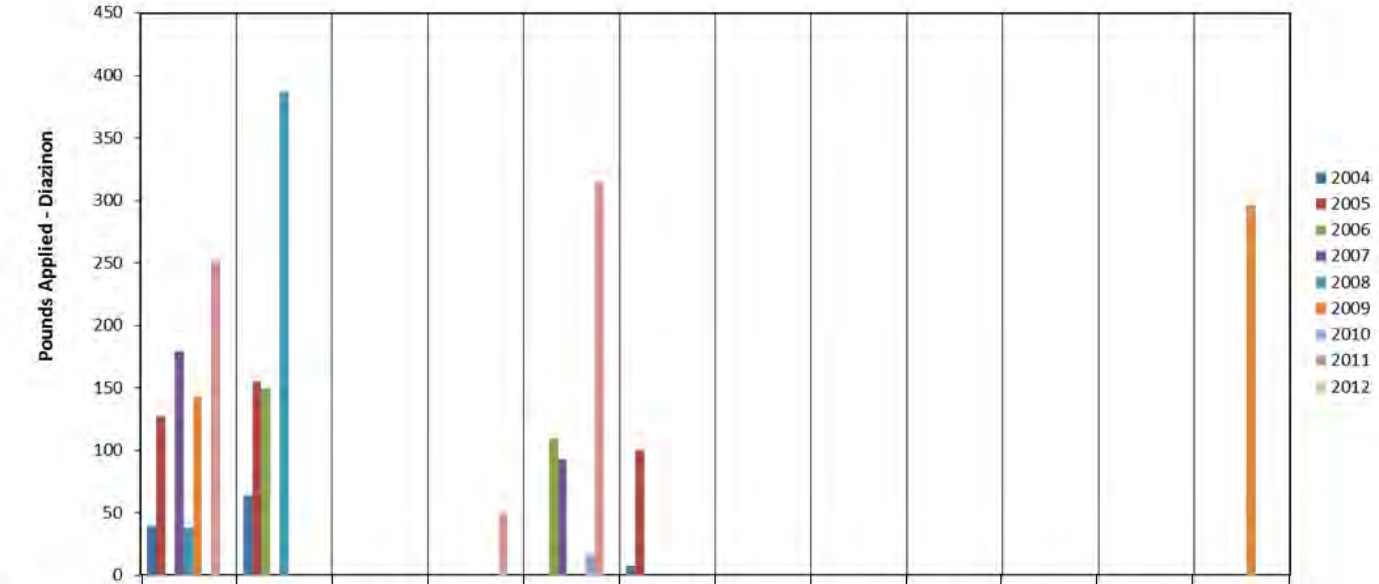
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006					X	X	X	X	X			
2007		X		X	X	X	X	X	Dry			
2008	X	X		X	X	X	X	X	Dry			
2009												
2010												
2011	X			X	X	X	X	X	X			
2012		X										
2013	X											
Total Use (2004-2012)	32,239	5,558	5,512	24,201	1,171	617	698	1,194	1,770	8,259	10,076	11,491
% Total (2004-2012)	***31%***	***5%***	***5%***	***24%***	***1%***	***1%***	***1%***	***1%***	***2%***	***8%***	***10%***	***11%***
Total Use (2010-2012)	9,528	390	445	5,198	119	75	2	1,117	60	162	7,991	3,354
% Total (2010-2012)	***34%***	***1%***	***2%***	***18%***	***<1%***	***<1%***	***<1%***	***4%***	***<1%***	***1%***	***28%***	***12%***

Figure 18. Dry Creek @ Rd 18 2004-2012 diazinon use and monitoring.

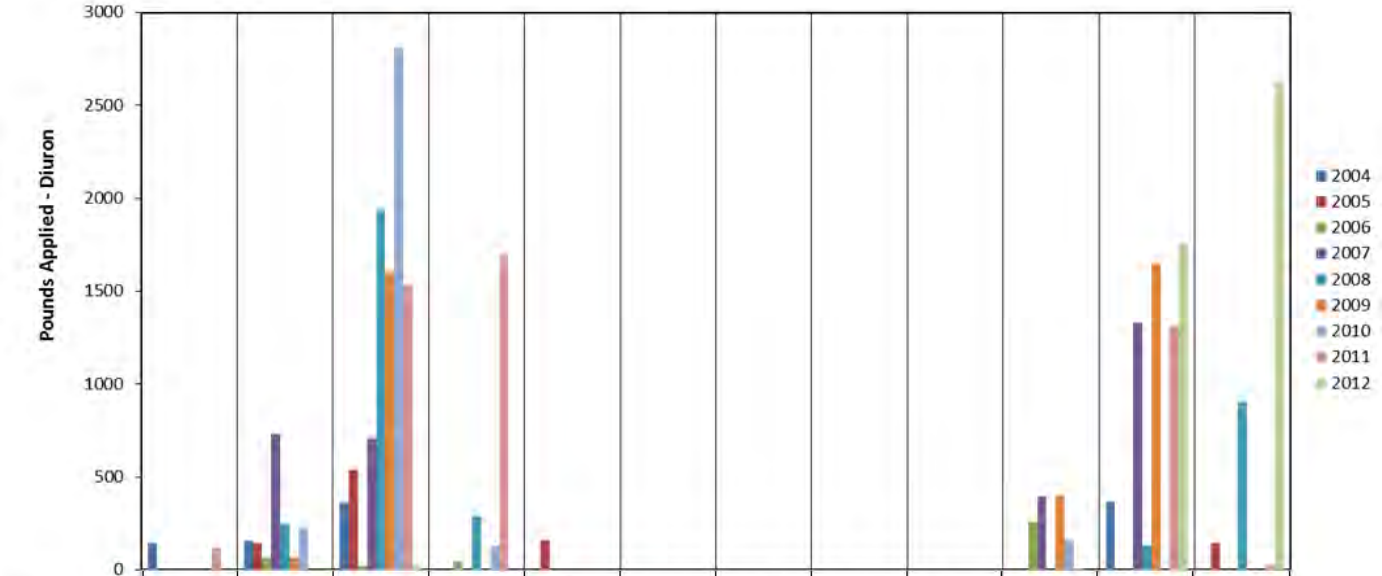
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007		X							Dry			
2008		X							Dry			
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	779	756	0	50	534	108	0	0	0	0	0	296
% Total (2004-2012)	***31%***	***30%***	***0%***	***2%***	***21%***	***4%***	***0%***	***0%***	***0%***	***0%***	***0%***	***12%***
Total Use (2010-2012)	252	0	0	50	332	0	0	0	0	0	0	0
% Total (2010-2012)	***40%***	***0%***	***0%***	***8%***	***52%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***

Figure 19. Dry Creek @ Rd 18 2004-2012 diuron use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007									Dry			
2008	X	X							Dry			
2009												
2010												
2011												
2012												
2013	X											
Total Use (2004-2012)	266	1,636	9,542	2,159	160	0	0	0	0	1,217	6,545	3,697
% Total (2004-2012)	*1%*	*6%*	*38%*	*9%*	*1%*	*0%*	*0%*	*0%*	*0%*	*5%*	*26%*	*15%*
Total Use (2010-2012)	120	227	4,373	1,824	0	0	0	0	0	163	3,073	2,648
% Total (2010-2012)	*1%*	*2%*	*35%*	*15%*	*0%*	*0%*	*0%*	*0%*	*0%*	*1%*	*25%*	*21%*

Highline Canal @ Lombardy Rd

Highline Canal @ Lombardy Rd is a fifth priority site subwatershed (2013-2015) in Zone 3. Highline Canal @ Lombardy Rd is currently in a management plan for chlorpyrifos, copper, C. dubia toxicity, H. azteca sediment toxicity, S. capricornutum toxicity, E. coli, lead, pH and SC. Management Plan Monitoring is scheduled for the 2014 water year for chlorpyrifos, copper, H. azteca sediment toxicity and C. dubia and S. capricornutum toxicity (Table 18).

Chlorpyrifos

Management Plan Monitoring for chlorpyrifos will occur at Highline Canal @ Lombardy Rd in January, March, July and August based on previous exceedances; no additional months have been added. The Coalition reviewed PUR data and concluded that although chlorpyrifos was applied during October, November and December months, the applications only account for 13% of the use in the subwatershed from 2004 through 2012. Monthly monitoring in 2011 and 2012 included October through December months; no exceedances of the WQTL occurred. The Coalition has monitored six years during the months of February, April through June and September from 2006 through 2012 without any exceedances of the WQTL for chlorpyrifos; therefore, MPM will occur during months when past exceedances have occurred (Figure 20).

Copper

Management Plan Monitoring for copper will occur at Highline Canal @ Lombardy Rd in January through March, May and August 2014 based on previous exceedances.

April, November and December months are not included in the MPM schedule despite applications of products with copper (Figure 21). The Coalition monitored for three years in April and two years in November and December between 2008 and 2012 without any exceedances of the copper WQTL. Under the 2008 MRPP, the Coalition began analyzing separately for total and dissolved fractions of metals and believes this more accurate description of water quality may reduce the frequency of copper exceedances. Furthermore, since there are months of copper use and no exceedances of the WQTL and months of copper use and exceedances of the WQTL, the Coalition concluded there is no correlation between the amount of copper applications and exceedances of the hardness based WQTL for copper. For example, the two exceedance in August 2008 and 2009 occurred when no applications of copper were made, whereas April, November and December show consistent copper use but three years of monitoring resulted in no exceedances of the WQTL (Figure 21). Therefore, only months in which past exceedances of the copper WQTL have occurred will be monitored in the 2014 water year.

C. dubia toxicity

Management Plan Monitoring for C. dubia toxicity will occur in September, January – March, and June of the 2014 water year. Toxicity to C. dubia cannot always be associated with a specific applied pesticide. Only one of the six samples with toxicity was associated with an exceedance of the chlorpyrifos WQTL.

Therefore, MPM is scheduled in the 2014 water year for months in which past exceedances have occurred.

S. capricornutum toxicity

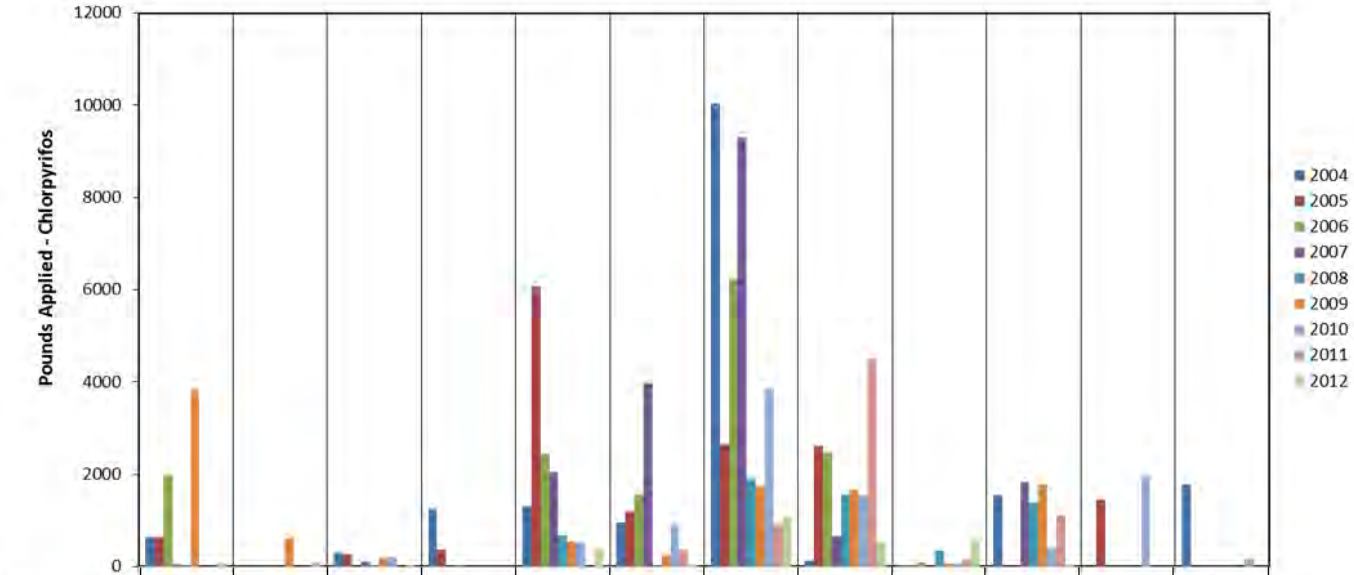
Samples collected from Highline Canal @ Lombardy Rd have been toxic to *S. capricornutum* six times since 2005. Of those six samples, only one sample had an exceedance of an herbicide WQTL (diuron, sample collected in February 2007). Diuron is not in a management plan for this site since this was the only exceedance. The *S. capricornutum* toxicity sampling is scheduled to occur once in months where previous samples have been toxic including February, March, April, May, August and September.

H. azteca toxicity

Sediment toxicity monitoring is conducted twice a year – once during the storm season and once during the irrigation season. The Coalition will conduct MPM for H. azteca sediment toxicity in March and September.

Figure 20. Highline Canal @ Lombardy 2004-2012 chlorpyrifos use and monitoring.

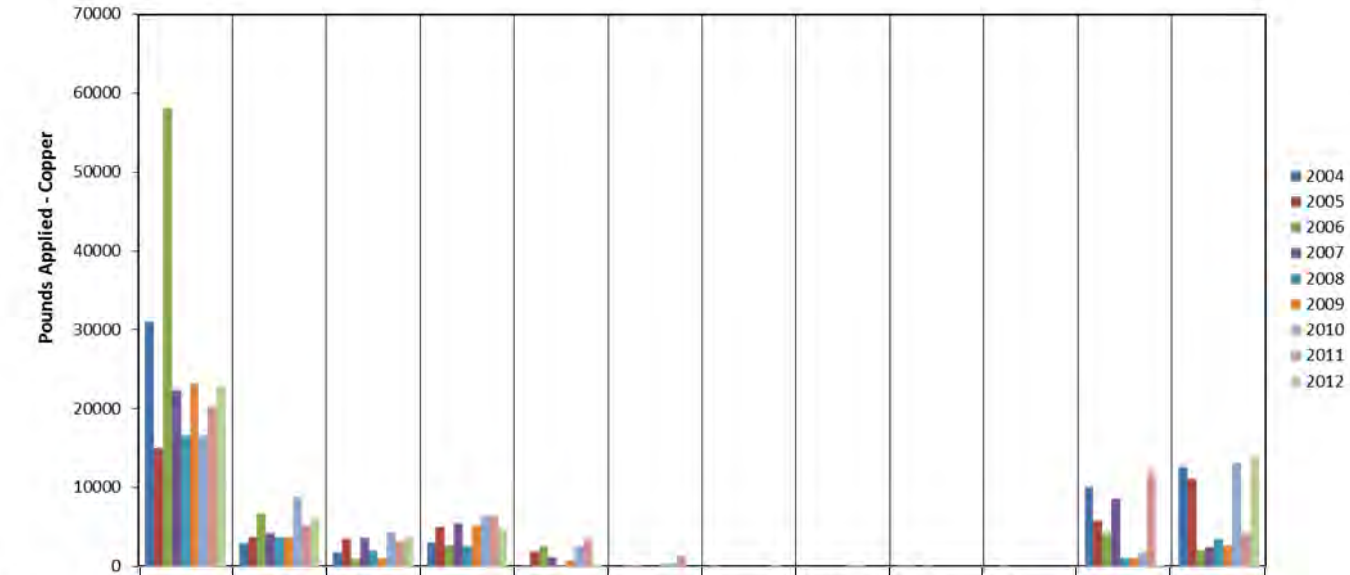
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006			X									
2007							X					
2008	X							X				
2009												
2010	X											
2011												Dry
2012												
2013												
Total Use (2004-2012)	7,247	707	1,398	1,726	13,984	9,244	37,731	15,633	1,302	8,073	3,400	1,938
% Total (2004-2012)	*7%*	*1%*	*1%*	*2%*	*14%*	*9%*	*37%*	*15%*	*1%*	*8%*	*3%*	*2%*
Total Use (2010-2012)	80	86	550	105	903	1,309	5,849	6,569	783	1,526	1,955	157
% Total (2010-2012)	*<1%*	*<1%*	*3%*	*1%*	*5%*	*7%*	*29%*	*33%*	*4%*	*8%*	*10%*	*1%*

Figure 21. Highline Canal @ Lombardy 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007		X			X							
2008	X	X						X				
2009								X				
2010		X										
2011		X										Dry
2012		X	X									
2013	X											
Total Use (2004-2012)	226,052	45,115	24,202	41,583	12,796	2,376	36	149	135	9	44,408	65,607
% Total (2004-2012)	***49%***	***10%***	***5%***	***9%***	***3%***	***1%***	***<1%***	***<1%***	***<1%***	***<1%***	***10%***	***14%***
Total Use (2010-2012)	59,757	20,145	11,151	17,622	6,295	1,856	11	50	0	0	13,752	31,264
% Total (2010-2012)	***37%***	***12%***	***7%***	***11%***	***4%***	***1%***	***<1%***	***<1%***	***0%***	***0%***	***8%***	***19%***

Hilmar Drain @ Central Ave

Hilmar Drain @ Central Ave is a fourth priority site subwatershed (2012-2014) in Zone 2. Hilmar Drain @ Central Ave is currently in a management plan for copper, diuron, nitrate, H. azteca sediment toxicity, S. capricornutum toxicity, ammonia, DO, E. coli, pH and SC. Management Plan Monitoring is scheduled for the 2014 water year for copper, diuron, H. azteca sediment toxicity and S. capricornutum toxicity (Table 18). These samples are collected once a month during times of past exceedances.

Copper

The Coalition will conduct MPM for copper during months of past exceedances (February and July) for the 2014 water year (Figure 22). Applications of copper occurred January through April from 2004 through 2012. The Coalition is extending MPM to included January and March to evaluate the potential for discharge during storm water runoff to impair water quality during times of high use.

Diuron

The Coalition will conduct MPM for diuron during months of past exceedances (April and June) for the 2014 water year (Figure 23). The Coalition reviewed PUR data from 2010-2012 and added December and January to the MPM schedule. December and January accounts for 96% of the pounds of diuron applied in the site subwatershed from 2004 through 2012.

S. capricornutum toxicity

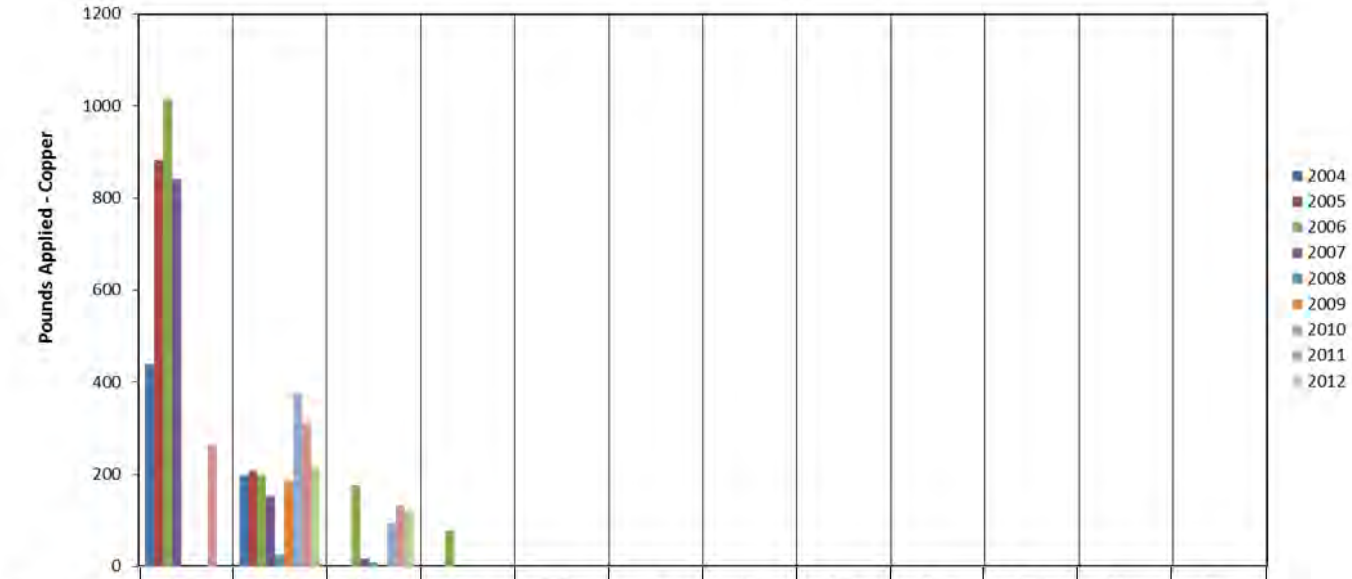
Samples collected in April, July and September have been toxic to algae. Toxic samples collected in April 2007 and 2008 also had detections of diuron above the WQTL. Management Plan Monitoring will continue in April for the 2014 water year and correspond to diuron analysis. In addition, samples will be tested for toxicity to *S. capricornutum* once in July and September.

H. azteca toxicity

Sediment toxicity monitoring is conducted twice a year – once during the storm season and once during the irrigation season. The Coalition will conduct MPM for H. azteca sediment toxicity in March and September.

Figure 22. Hilmar Drain @ Central Ave 2004-2012 copper use and monitoring.

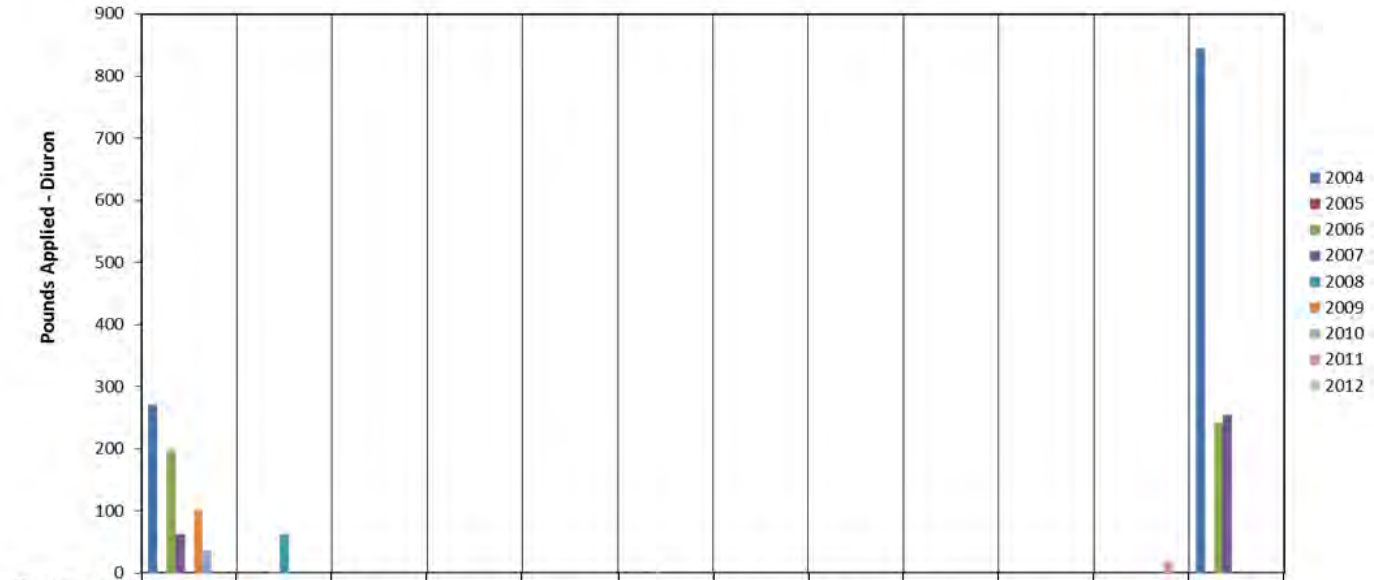
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006							X					
2007		X										
2008												
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	1,722	938	274	39	0	0	0	0	0	0	0	0
% Total (2004-2012)	*58%*	*32%*	*9%*	*1%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Total Use (2010-2012)	132	454	174	0	0	0	0	0	0	0	0	0
% Total (2010-2012)	*17%*	*60%*	*23%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*

Figure 23. Hilmar Drain @ Central Ave 2004-2012 diuron use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007				X		X						
2008				X								
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	669	64	0	0	0	1	0	0	0	0	20	1,342
% Total (2004-2012)	*32%*	*3%*	*0%*	*0%*	*0%*	*<1%*	*0%*	*0%*	*0%*	*0%*	*1%*	*64%*
Total Use (2010-2012)	35	0	0	0	0	0	0	0	0	0	20	0
% Total (2010-2012)	*64%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*36%*	*0*

Lateral 2 ½ near Keyes Rd

Lateral 2 ½ near Keyes Rd is a third priority site subwatershed (2011-2013) in Zone 2. Lateral 2 ½ near Keys Rd is currently in a management plan for chlorpyrifos and pH.

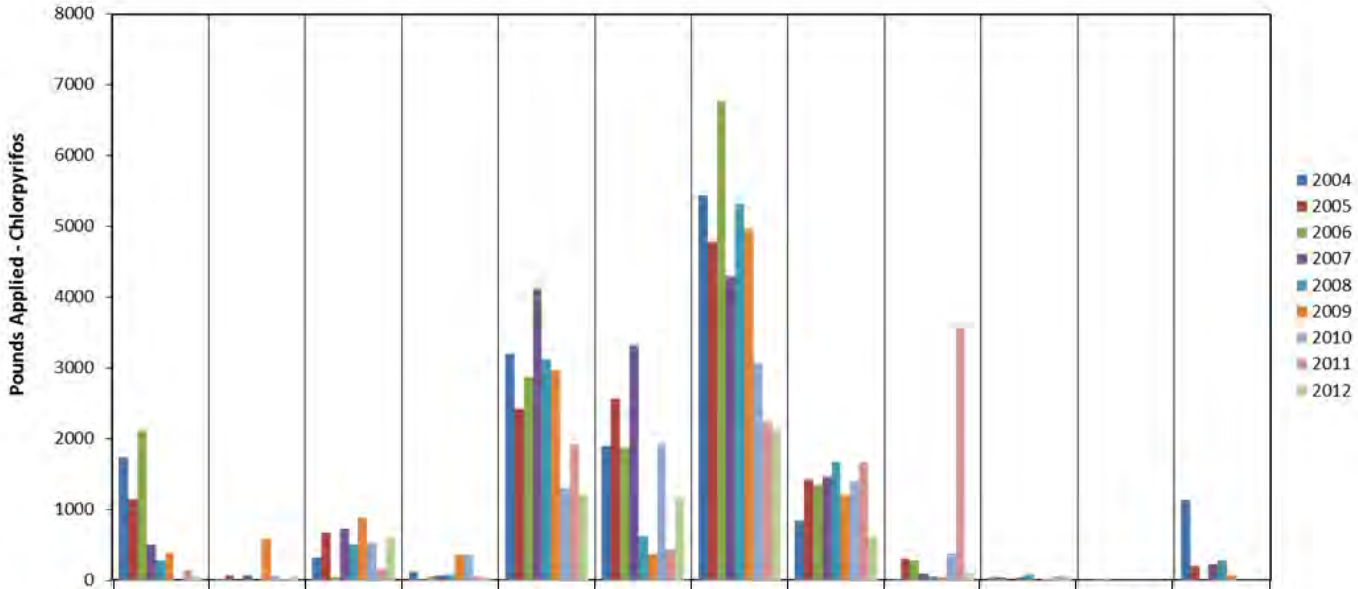
Chlorpyrifos

The Coalition will conduct MPM for chlorpyrifos during months of past exceedances (April and July) for the 2014 water year (Table 18). The Coalition is adding May, June and August to the MPM schedule in order to extend monitoring through the months of high applications of chlorpyrifos (Figure 24).

Although applications of chlorpyrifos were made from September through March from 2004-2012, the Coalition monitored from 2008 through 2010 from October through December and two years during September and January through March. No exceedances of the WQTL for chlorpyrifos occurred; therefore, the Coalition concluded that chlorpyrifos use during these months is not impairing the water quality at Lateral 2 ½ near Keyes Rd (Figure 24).

Figure 24. Lateral 2 ½ near Keyes Rd 2004-2012 chlorpyrifos use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007												
2008												Dry
2009	Dry	Dry	Dry				X				Dry	Dry
2010	Dry	Dry		X			X				Dry	Dry
2011												
2012												
2013												
Total Use (2004-2012)	6,371	868	4,473	1,150	23,151	14,225	39,016	11,642	4,918	327	5	1,931
% Total (2004-2012)	***6%***	***1%***	***4%***	***1%***	***21%***	***13%***	***36%***	***11%***	***5%***	***<1%***	***<1%***	***2%***
Total Use (2010-2012)	192	132	1,308	465	4,451	3,553	7,442	3,695	4,092	126	0	0
% Total (2010-2012)	***1%***	***1%***	***5%***	***2%***	***17%***	***14%***	***29%***	***15%***	***16%***	***<1%***	***0%***	***0%***

Livingston Drain @ Robin Ave

Livingston Drain @ Robin Ave is a third priority site subwatershed (2011-2013) located in Zone 4. Livingston Drain @ Robin Ave is currently in a management plan for chlorpyrifos, copper, lead, and *S. capricornutum* toxicity, *E. coli* and pH; MPM is scheduled for lead, chlorpyrifos, copper and *S. capricornutum* during the 2014 water year. Lead is not currently applied by agriculture and therefore cannot be associated with use. The MPM for lead at Livingston Drain @ Robin Ave will be conducted during months of past exceedances including January and February.

Chlorpyrifos

During the 2014 water year, MPM for chlorpyrifos will occur at Livingston Drain @ Robin Ave in January and June through August due to past exceedances of the WQTL. The Coalition reviewed PUR data from 2010-2012 and is adding April and May to the MPM schedule. Applications of chlorpyrifos during April and May account for 38% of the total pounds applied during the past three years. Although March accounts for 38% of the use in the past three years, the Coalition will not extend MPM to this month. In the past three years, the only use of chlorpyrifos in March occurred in 2012 (Figure 25). Prior to 2012, use had declined to zero from 2004-2011. The Coalition will evaluate PUR data next year to assess whether or not there is an increasing trend in use of chlorpyrifos in March.

Copper

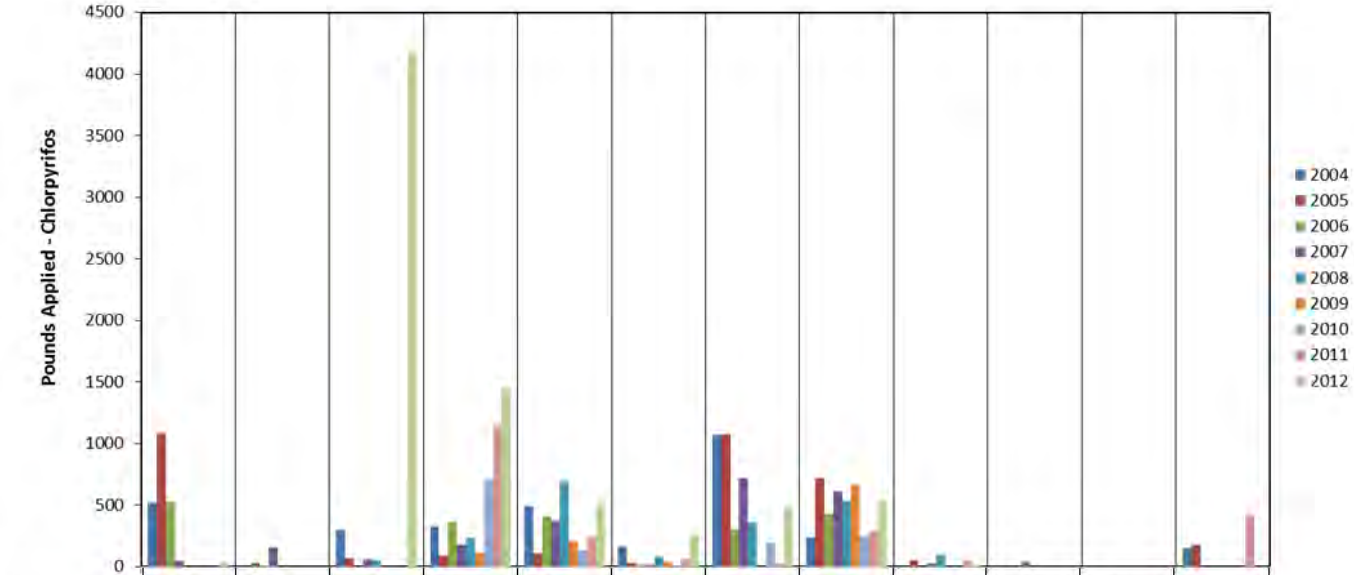
Management Plan Monitoring for copper will occur once a month at Livingston Drain @ Robin Ave in January-February, May-July, and September due to past exceedances. Based on a review of 2010-2012 PUR data, the Coalition is including December to the MPM schedule. Copper applications in December account for 14% of the pounds of copper applied during the past three years and monitoring has not occurred in December previously (Figure 26).

S. capricornutum toxicity

There have been four samples collected from Livingston Drain @ Robin Ave that were toxic to algae (two were resamples). All four samples were collected within 30 days of each other in April and May 2008. There was no association of the toxicity in these samples with herbicide detections or exceedances. The Coalition will continue to conduct MPM during February, April and May which are the months in which past exceedances have occurred (Table 18).

Figure 25. Livingston Drain @ Robin Ave 2004-2012 chlorpyrifos use and monitoring.

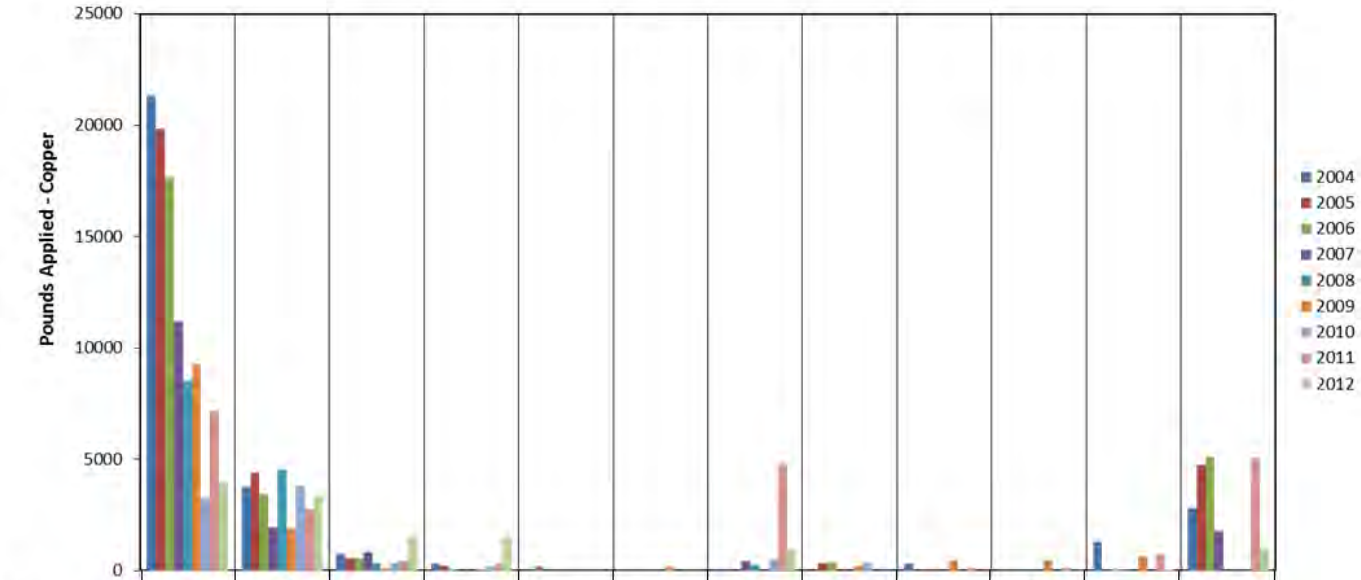
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007								X				
2008	X		Dry			X	X					
2009												
2010												
2011	Dry											
2012												
2013												
Total Use (2004-2012)	2,223	198	4,672	4,624	3,172	692	4,232	4,271	258	37	0	759
% Total (2004-2012)	*9%*	*1%*	*19%*	*18%*	*13%*	*3%*	*17%*	*17%*	*1%*	*<1%*	*0%*	*3%*
Total Use (2010-2012)	41	0	4,188	3,304	891	328	702	1,068	76	0	0	426
% Total (2010-2012)	*<1%*	*0%*	*38%*	*30%*	*8%*	*3%*	*6%*	*10%*	*1%*	*0%*	*0%*	*4%*

Figure 26. Livingston Drain @ Robin Ave 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007					X	X	X		X			
2008	X	X	Dry			X	X					
2009												
2010												
2011	Dry	Dry					X		X			
2012		X										
2013		Dry										
Total Use (2004-2012)	102,239	29,849	5,486	2,601	165	191	6,953	1,343	920	624	2,757	20,542
% Total (2004-2012)	***59%***	***17%***	***3%***	***1%***	***<1%***	***<1%***	***4%***	***1%***	***1%***	***<1%***	***2%***	***12%***
Total Use (2010-2012)	14,396	9,903	2,354	1,991	0	0	6,264	375	156	156	775	6,108
% Total (2010-2012)	***34%***	***23%***	***6%***	***5%***	***0%***	***0%***	***15%***	***1%***	***<1%***	***<1%***	***2%***	***14%***

Miles Creek @ Reilly Rd

Miles Creek @ Reilly Rd is a fifth priority site subwatershed (2013-2015) located in Zone 5. Miles Creek @ Reilly Rd is currently in a management plan for copper, lead, chlorpyrifos, diazinon, water column toxicity to *C. dubia* and *S. capricornutum* and sediment toxicity to *H. azteca*. Management Plan Monitoring is scheduled for the 2014 water year for all of the listed constituents. Lead is not currently applied by agriculture and therefore cannot be associated with use. The MPM for lead at Miles Creek @ Reilly Rd will be conducted during months of past exceedances including January, February, June, July, and August.

Chlorpyrifos

Management Plan Monitoring for chlorpyrifos will occur in July, August and September due to past exceedances. The Coalition reviewed PUR data from 2010-2012 and is adding March and June to the MPM schedule. Chlorpyrifos use during these two months accounts for 44% of pounds applied over the last three years (Figure 27). Chlorpyrifos use during May has been high in the past; however, there have been no applications in the last three years.

Copper

Management Plan Monitoring for copper will occur January,February and May-August due to past exceedances. Based on a review of PUR data from 2010-2012 the Coalition is adding March and April to the MPM schedule (Figure 28). This allows the Coalition to evaluate water quality in eight consecutive months accounting for 84% of copper use in the past three years.

Diazinon

Management Plan Monitoring for diazinon will occur once in February. Before 2013, this site was monitored in 2007 and 2008 with no exceedances of the diazinon WQTL. The first exceedance occurred in February 2013 which triggered a management plan for diazinon at Miles Creek @ Riley Rd. From 2010 – 2012, the only applications of diazinon have occurred in February and December; PUR data for 2013 are not currently available (Figure 29). The Coalition will evaluate PUR data again next year to determine if additional months need to be added to the MPM schedule.

C. dubia toxicity

Toxicity to *C. dubia* occurred in September 2007 and again in January 2008. In September, samples with toxicity had a concentration of chlorpyrifos above the WQTL and in January there was a concentration of methidathion above the WQTL. Chlorpyrifos MPM will also occur in September; methidathion is no longer a registered active ingredient. Monitoring in September and January will characterize the potential of *C. dubia* toxicity due to agricultural discharge.

S. capricornutum toxicity

Management Plan Monitoring will occur in February, April and June to test for algae toxicity based on exceedances that occurred in 2007, 2008 and 2013. Algae toxicity cannot be sourced to a specific

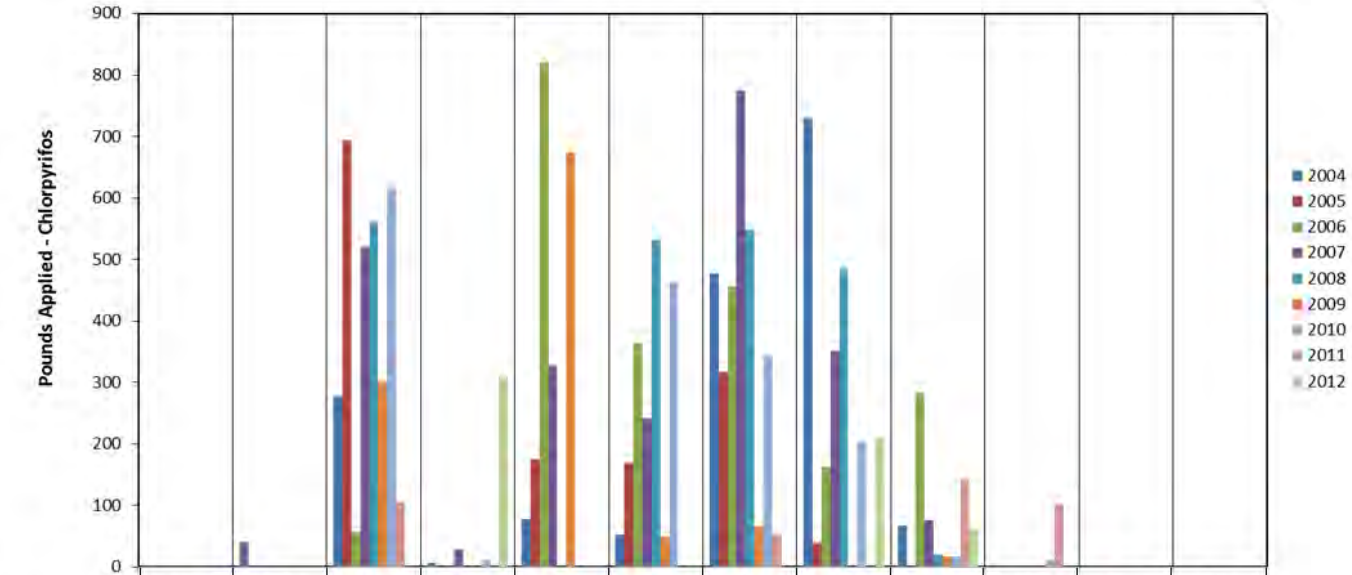
applied pesticide or metal and therefore the monitoring frequency has been determined by past exceedances.

H. azteca toxicity

Sediment toxicity monitoring is conducted twice a year – once during the storm season and once during the irrigation season. The Coalition will conduct MPM for H. azteca sediment toxicity in September based on previous water quality results.

Figure 27. Miles Creek @ Reilly Rd 2004-2012 chlorpyrifos use and monitoring.

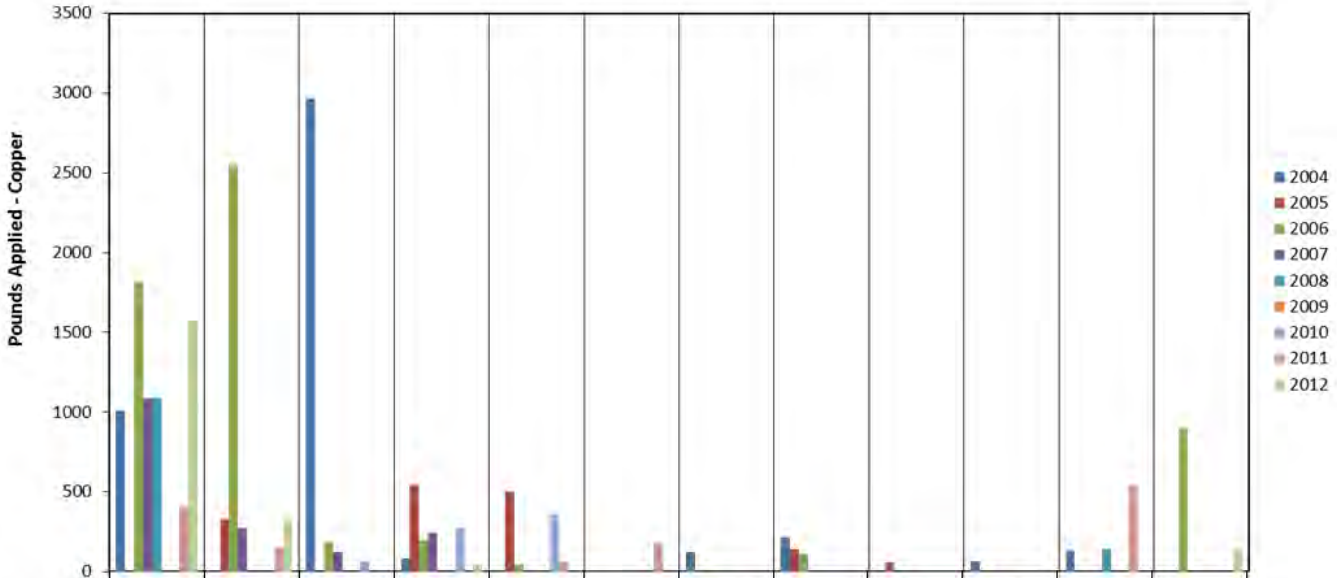
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007									X			
2008							X	X				
2009							X					
2010												
2011												
2012												
2013												
Total Use (2004-2012)	0	40	3,132	355	2,075	1,873	3,037	2,185	685	113	0	0
% Total (2004-2012)	*0%*	*<1%*	*23%*	*3%*	*15%*	*14%*	*23%*	*16%*	*5%*	*1%*	*0%*	*0%*
Total Use (2010-2012)	0	0	723	321	0	463	396	415	222	113	0	0
% Total (2010-2012)	*0%*	*0%*	*27%*	*12%*	*0%*	*17%*	*15%*	*16%*	*8%*	*4%*	*0%*	*0%*

Figure 28. Miles Creek @ Reilly Rd 2004-2012 copper use and monitoring.

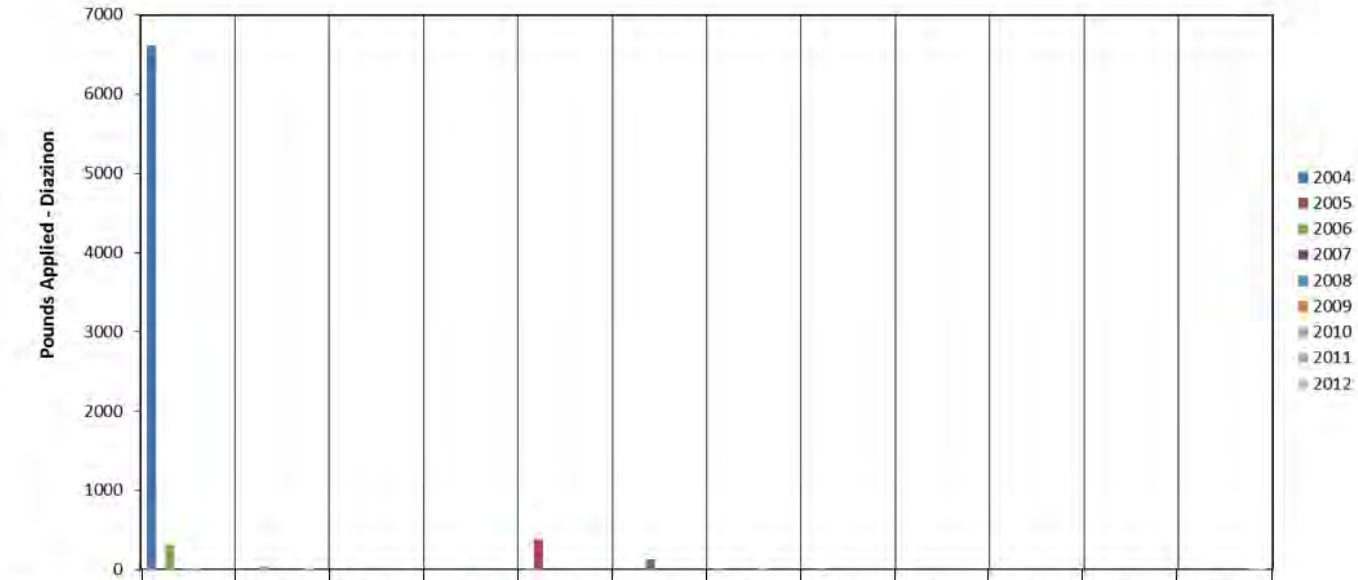
Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007					X	X		X				
2008	X	X					X	X				
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	6,983	3,631	3,341	1,378	963	179	120	467	57	62	817	1,035
% Total (2004-2012)	***37%***	***19%***	***18%***	***7%***	***5%***	***1%***	***1%***	***2%***	***<1%***	***<1%***	***4%***	***5%***
Total Use (2010-2012)	1,979	481	63	314	414	179	0	0	0	0	542	138
% Total (2010-2012)	***48%***	***12%***	***2%***	***8%***	***10%***	***4%***	***0%***	***0%***	***0%***	***0%***	***13%***	***3%***

Figure 29. Miles Creek @ Reilly Rd 2004-2012 diazinon use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
2012												
2013		X										
Total Use (2004-2012)	6,968	57	0	0	389	136	31	10	0	0	0	23
% Total (2004-2012)	***92%***	***1%***	***0%***	***0%***	***5%***	***2%***	***<1%***	***<1%***	***0%***	***0%***	***0%***	***<1%***
Total Use (2010-2012)	0	14	0	0	0	0	0	0	0	0	0	23
% Total (2010-2012)	***0%***	***38%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***0%***	***63%***

Mustang Creek @ East Ave

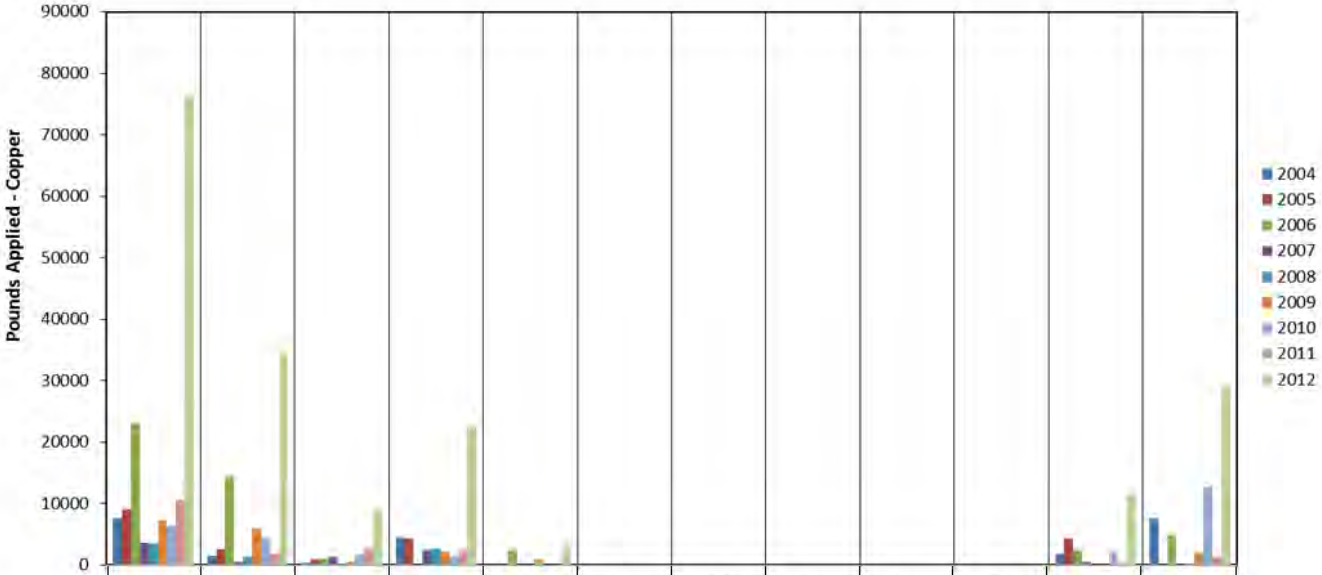
Mustang Creek @ East Ave is a sixth priority site subwatershed (2014-2016) located in Zone 5. Mustang Creek @ East Ave is currently in a management plan for copper and MPM is scheduled for the 2014 water year.

Copper

During the 2014 water year, MPM for copper will occur once a month in October and from December through February due to past exceedances. Based on a review of the most recent PUR data, applications from November through April accounts for 99% of the pounds of copper applied in the site subwatershed during the past three years (2010-2012; Figure 30). The Coalition is adding November, March, and April to the MPM schedule which will result in monitoring during the first seven months of the water year (October – April) and will allow the Coalition to evaluate water quality during the months of highest copper use.

Figure 30. Mustang Creek @ East Ave 2004-2012 copper use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006							Dry		Dry			
2007				Dry			Dry	Dry	Dry			
2008				Dry	Dry	Dry		Dry	Dry	Dry	Dry	Dry
2009	Dry	X		Dry	Dry	Dry	Dry	Dry	Dry	X	Dry	X
2010					Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
2011												
2012												
2013	X		Dry	Dry	Dry							
Total Use (2004-2012)	76,263	34,554	9,042	22,345	3,285	0	0	0	0	0	11,659	29,003
% Total (2004-2012)	***41%***	***19%***	***5%***	***12%***	***2%***	***0%***	***0%***	***0%***	***0%***	***0%***	***6%***	***16%***
Total Use (2010-2012)	24,335	12,291	4,993	5,923	870	0	0	0	0	0	2,444	16,222
% Total (2010-2012)	***36%***	***18%***	***7%***	***9%***	***1%***	***0%***	***0%***	***0%***	***0%***	***0%***	***4%***	***24%***

Westport Drain @ Vivian Rd

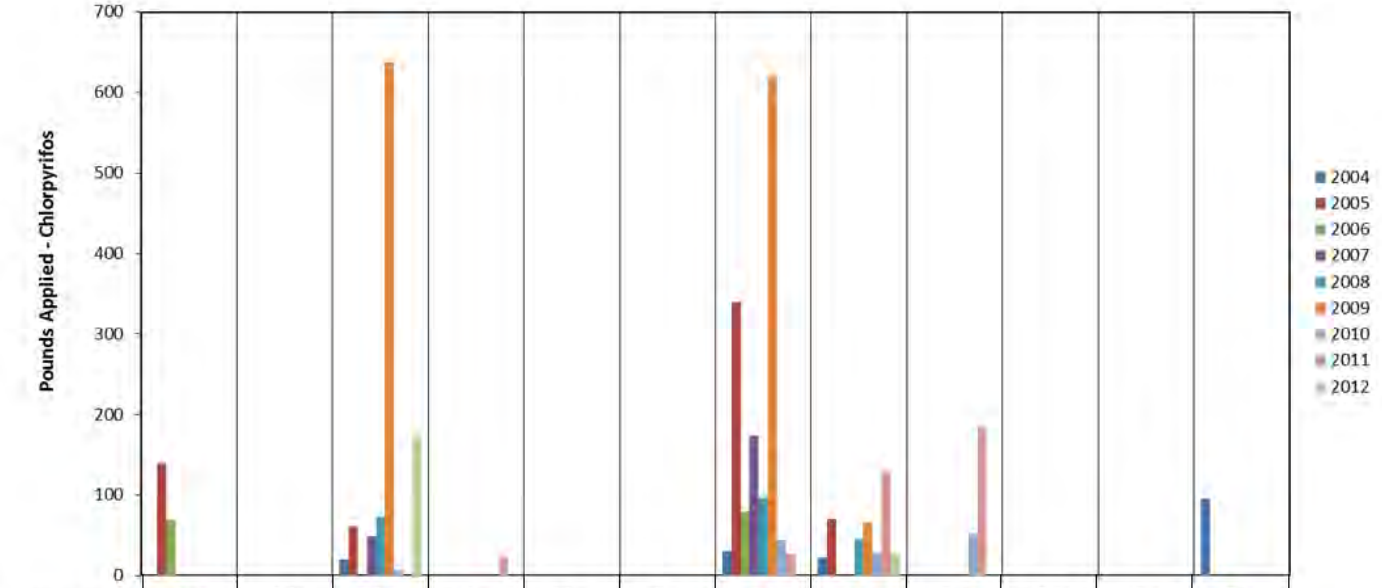
Westport Drain @ Vivian Rd is a sixth priority site subwatershed (2014-2016) located in Zone 2. Westport Drain @ Vivian Rd is currently in a management plan for chlorpyrifos and MPM is scheduled for the 2014 water year.

Chlorpyrifos

Management Plan Monitoring for chlorpyrifos will occur once in July based on previous exceedances. In addition, the Coalition will add MPM in March, August, and September based on a review of the most recent PUR data. March and July through September account for 96% of the pounds of chlorpyrifos applied in the site subwatershed over the past three years (2010-2012; Figure 31).

Figure 31. Westport Drain @ Vivian Ave 2004-2012 chlorpyrifos use and monitoring.

Shaded cells represent months of past monitoring. "X" depicts months in which exceedances occurred.



Monitoring Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004												
2005												
2006												
2007							X					
2008							X					
2009												
2010												
2011												
2012												
2013												
Total Use (2004-2012)	209	0	1,022	23	0	0	1,414	388	237	0	0	96
% Total (2004-2012)	*6%*	*0%*	*30%*	*1%*	*0%*	*0%*	*42%*	*11%*	*7%*	*0%*	*0%*	*3%*
Total Use (2010-2012)	0	0	182	23	0	0	71	184	237	0	0	0
% Total (2010-2012)	*0%*	*0%*	*26%*	*3%*	*0%*	*0%*	*10%*	*26%*	*34%*	*0%*	*0%*	*0%*

Total Maximum Daily Load Monitoring

The ESJWQC will monitor in accordance with adopted Basin Plan provisions or as directed by the Executive Officer parameters that are part of an adopted TMDL with a source of agriculture. Currently these include the San Joaquin River Deep Water Ship Channel (DWSC) dissolved oxygen; San Joaquin River salt, boron, selenium, diazinon and chlorpyrifos. The ESJWQC utilizes existing monitoring data for all of the above TMDLs except for diazinon and chlorpyrifos.

Chlorpyrifos and Diazinon

The ESJWQC and the Westside San Joaquin River Watershed Coalition are implementing monitoring and reporting programs to comply with requirements for the San Joaquin River diazinon and chlorpyrifos TMDL established by the Basin Plan. To determine compliance with diazinon and chlorpyrifos at the six compliance points designated in the Basin Plan. The ESJWQC monitors three compliance locations on the San Joaquin River for chlorpyrifos and diazinon: San Joaquin River at Hills Ferry Rd, San Joaquin River at the Maze Blvd Bridge, San Joaquin River at the Airport Way Bridge near Vernalis. These sites will be monitored once during the winter storm season (January or February) and monthly from May through September.