SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

P O Box 2157 Los Banos, CA 93635
209 826 9696 Phone 209 826 9698 Fax

November 27, 2013

Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA. 95670-6114

Subject: Westside San Joaquin River Watershed Coalition
Submittal of November 30, 2013 semi-annual monitoring report

Dear Pamela,

Attached is the November 30, 2013 semi-annual monitoring report as required under our Monitoring and Reporting Program Order No. R5-2008-0831 (as revised by the letter dated 3/9/12). This report covers the irrigation season monitoring from March through August 2013.

Laboratory reports associated with this monitoring period are included electronically (on a CD) as Appendix C, along with associated electronic data deliverables (EDDs). Hard copies of the laboratory reports can be provided upon request.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fine and imprisonment for violations.

If you should have any questions on the information submitted in this report, please give me a call directly at 559-582-9237.

Joseph C. McGahan
Watershed Coordinator
Westside San Joaquin River Watershed Coalition

San Joaquin Valley Drainage Authority

Westside San Joaquin River Watershed Coalition

Semi-Annual Monitoring Report
2013 Irrigation Season Report

Covering the period: March through August 2013
(Sampling Events 100 through 105)

November 30, 2013

Prepared by:
Summers Engineering, Inc.
Consulting Engineers
Hanford California

TABLE OF CONTENTS

SECTION 1: EXECUTIVE SUMMARY 1
SECTION 2: COALITION AND MONITORING PROGRAM DESCRIPTION 2
SECTION 3: MONITORING EVENT SUMMARIES 7
SECTION 4: SAMPLING SITE AND WATERSHED DESCRIPTIONS 9
SECTION 5: FIELD SAMPLING PROCEDURE 16
SECTION 6: FIELD AND LABORATORY QUALITY CONTROL SAMPLES 16
SECTION 7: ANALYTICAL METHODS 18
SECTION 8: DATA INTERPRETATION 18
SECTION 9: ACTIONS TAKEN TO ADDRESS WATER QUALITY IMPACTS – MANAGEMENT PLAN ACTIVITIES 25
SECTION 10: COMMUNICATION REPORTS 33
SECTION 11: CONCLUSIONS AND RECOMMENDATIONS 34

FIGURES

FIGURE 1 ..... WATERSHED MAP WITH MONITORING SITE LOCATIONS
FIGURE 2 ..... 2013 IRRIGATION SEASON PESTICIDE USE
FIGURE 3 ..... PERCENT OF TOTAL PESTICIDES DETECTED
FIGURE 4 ..... SPRING COUNT OF SEDIMENT TOXICITY
FIGURE 5 ..... AVERAGE SEDIMENT % SURVIVAL

ATTACHMENTS:

ATTACHMENT 1 ..... SAMPLING EVENT DETAILS
ATTACHMENT 2 ..... SIGNIFICANT AQUATIC TOXICITY RESULTS
ATTACHMENT 3 ..... FIELD QUALITY CONTROL SAMPLE RESULTS
ATTACHMENT 4 ..... SEDIMENT TOXICITY FOLLOW-UP ANALYSES
ATTACHMENT 5 .... EXCEEDANCE OF RECOMMENDED WATER QUALITY VALUES
ATTACHMENT 6 ..... MANAGEMENT PLAN ACTIVITIES
ATTACHMENT 7 ..... SPECIAL PROJECT MONITORING AND CONSTITUENTS

APPENDICES:

APPENDIX A ..... CHAIN OF CUSTODY SHEETS AND DATA SUMMARY
APPENDIX B ..... COMMUNICATION REPORTS
APPENDIX C ..... LABORATORY DATA REPORTS AND EDDS
APPENDIX D ..... LABORATORY QUALITY ASSURANCE REVIEW
APPENDIX E ..... SAMPLING EVENT PHOTOS
APPENDIX F ..... WETLAND WATER QUALITY SUMMARY

SEMI-ANNUAL MONITORING REPORT REQUIRED COMPONENTS

Component No.	Description	Report Section
1	Signed Transmittal Letter	Attached
2	Title Page	Cover
3	Table of Contents	Table of Contents
4	Executive Summary	Section 1
5	Description of the Coalition Group Geographical Area	Section 2
6	Monitoring Objectives and Design	Section 2
7	Site Descriptions and Rainfall Records	Sections 3 & 4
8	Location Map	Section 4
9	Tabulation of Analytical Results	Appendix A
10	Discussion of Data	Sections 3, 4, 6, 8, & 9, Attachments 1, & 2
11	SWAMP Comparable EDD	Appendix C
12	Sampling and Analytical Methods	Sections 2, 5, & 7
13	Copies of Chain of Custody Sheets	Appendix A
14	Field Data sheets, Laboratory Reports, Laboratory Raw Data	Appendix C
15	Laboratory and Field Quality Control Results	Section 6, Attachment 3, Appendix D
16	Summary of Quality Assurance Evaluation Results	Section 6, Appendix D
17	Method Used to Obtain Flow	Section 6
18	Monitoring Site and Event Photos	Appendix D
19	Summary of Exceedances and Related Pesticide Use Information	Sections 4, 8, Attachments 2 & 5, & Appendix B
20	Actions Taken to Address Water Quality Exceedances	Section 9
21	Management Plan Status Update	Section 9, Attachment 6
22	Conclusions and Recommendations	Section 11

SECTION 1: EXECUTIVE SUMMARY

This report covers the 2013 irrigation season sampling events beginning March 2013 through August 2013 (Event 100 through Event 105). Nineteen of the 22 monitoring sites within the Westside San Joaquin River Watershed Coalition (Westside Coalition) are located on streams that are dominated by summer agricultural drainage runoff.

The 2013 irrigation season was classified as a critical hydrologic year type for the westside of the San Joaquin Valley and Federal water districts were limited to 20% of federal water contract allocation. There were no significant storms during the report period. See **Section 3** for a discussion of measured rainfall. Irrigation season monitoring samples were collected at all sites containing sufficient water in accordance with the Westside Coalition's Monitoring and Reporting Plan (MRP – see MRP Order No. R5-2008-0831). Sediment samples were collected in March 2013, as scheduled. Severe sediment toxicity (<80% survival) was observed at Blewett Drain, Ingram Creek, Westley Wasteway and less significant sediment toxicity (>80 Survival) was observed at Ramona Lake and Newman Wasteway. Sediment samples for the three samples exhibiting severe toxicity were tested for selected pesticides. See **Sections 8** and **9.**

Attachment 1 details the samples collected at each site during each sampling event. A summary of the monitoring results is presented in **Appendix A**. During the report period, significant aquatic toxicity was measured once for algae and eight times for *Ceriodaphnia dubia* (water flea), summarized in **Table 1** below.

Table 1: Summary of Aquatic Toxicity

Event	Site	Species/% Survival or % Control Growth
100 (March)	Ingram Creek at River Rd.	*Selenastum* – 46% of Control Growth
100 (March)	Salt Slough at Sand Dam	*Ceriodaphnia dubia* – 0% Survival
100 (March)	Poso Sl. at Indiana Ave.	*Ceriodaphnia dubia* – 0% Survival
102 (May)	Del Puerto Cr at Cox Rd.	*Ceriodaphnia dubia* – 0% Survival
102 (May)	Ingram Cr at River Rd.	*Ceriodaphnia dubia* – 5% Survival
102 (May)	Marshall Rd Drain	*Ceriodaphnia dubia* – 0% Survival
102 (May)	Orestimba Cr. at Hwy 33	*Ceriodaphnia dubia* – 0% Survival
103 (June)	Del Puerto Cr. at Cox Rd.	*Ceriodaphnia dubia* – 10% Survival
103 (June)	Ingram Creek at River Rd.	*Ceriodaphnia dubia* – 0% Survival

These results, along with associated follow up testing, water quality and flow data, are summarized in **Attachment 2**. Details of the aquatic toxicity analyses are included in **Appendix C**.

Quality control samples were collected in addition to the event analysis sample. The quality control samples included field blanks, field duplicates, laboratory blanks and spike, and matrix spike/matrix spike duplicate samples (MS/MSD).

There were a handful of minor quality control issues, including exceedance of the field duplicate relative percent difference (RPD) value, and surrogate, matrix spike, or laboratory spike

recoveries outside of the expected range. During the June Event, the E. Coli sample bottle for Los Banos Creek at China Camp Road was broken in transit. None of these issues are expected to affect data usability. Results of the Field Quality Control samples are discussed in **Section 6** and **Attachment 3**. A review of laboratory quality assurance activities is included in **Appendix D**.

Table 2 lists the sites that were sampled during the 2013 irrigation season.

Table 2: Collected Samples March through August 2013.

Map Designation	Monitoring Site	Event 100		Event 101	Event 102	Event 103	Event 104	Event 105
	Discharge Sites	March		April	May	June	July	August
1	Hospital Cr at River Road	NF	SS	NF	S	S	S	NF
2	Ingram Cr at River Road	S	SS	S	S	S	S	S
3	Westley Wasteway near Cox Road	S	SS	S	S	S	S	S
4	Del Puerto Cr near Cox Road	S	SS	S	S	S	S	S
5	Del Puerto Cr at Hwy 33	NF	SS	NF	NF	NF	NF	NF
7	Ramona Lake near Fig Avenue	S	SS	S	S	S	S	S
8	Marshall Road Drain near River Road	S	NP	NF	S	S	S	S
9	Orestimba Cr at River Road	NF	SS	NF	NF	NF	NF	NF
10	Orestimba Cr at Hwy 33	S	SS	S	S	S	S	S
11	Newman Wasteway near Hills Ferry Road	S	SS	S	S	S	S	S
13	San Joaquin River at Lander Avenue	S	NP	S	S	S	S	S
14	Mud Slough u/s San Luis Drain	S	NP	S	S	S	S	S
15	Salt Slough at Lander Avenue	S	NP	S	S	S	S	S
16	Salt Slough at Sand Dam	S	SS	S	S	S	S	S
17	Los Banos Creek at Highway 140	S	NP	S	S	S	S	S
18	Los Banos Creek at China Camp Road	S	SS	S	S	S	S	S
19	Turner Slough near Edminster Road	S	NP	S	S	S	S	S
20	Blewett Drain near Highway 132	S	SS	NF	NF	S	S	S
21	Poso Slough at Indiana Avenue	S	SS	S	S	S	S	S
	Source Water Sites							
12	San Joaquin River at Sack Dam	S	NP	S	S	S	S	S
22	San Joaquin River at PID Pumps	S	NP	S	S	S	S	S
23	Delta Mendota Canal at Del Puerto WD	S	NP	S	S	S	S	S

Notes: S = Water sampled according to the MRP.
SS = Sediment sampled according to the MRP.
NA = Not sampled due to lack of safe access.
NF = Not sampled due to lack of flow.
NP = Not included in the sampling plan.
NS = Not sampled - sample missed.

SECTION 2: COALITION AND MONITORING PROGRAM DESCRIPTION

In June, 2003, the San Joaquin Valley Drainage Authority (SJVDA) submitted a Conditional Waiver Report for the Westside San Joaquin River Watershed Coalition (Westside Coalition). The Westside Coalition watershed generally lies on the westside of the San Joaquin River from approximately the Stanislaus River on the north to 10 miles south of Mendota and encompasses an area of approximately 460,000 acres. There are approximately 4,000 landowners and 1,500 operators within the watershed. Most of the watershed receives water supplies from the Central Valley Project, while certain areas receive water from the State Water Project. In addition, some areas receive supplies from the San Joaquin River and local water sources, one area receives a Kings River supply, and some areas receive water from groundwater wells. The Delta-Mendota Canal and San Luis Canal run through the watershed. Water deliveries are made to Federal Central Valley Project Contractors and to San Joaquin River Exchange Contractors from these facilities. State water deliveries are also made to one area.

The Westside Coalition area also includes federal, state and private managed wetlands. These areas share water delivery and drainage conveyance systems with the surrounding agricultural areas. Due to the integrated nature of the water facilities the managed wetlands have joined the Westside Coalition as a wetland sub-watershed participant to comply with the Conditional Waiver to effectively and efficiently address water quality issues. The effects of discharges from the wetland areas are covered in this monitoring program.

The communities of Grayson, Westley, Vernalis, Crows Landing, Patterson, Newman, Gustine, Stevinson, Los Banos, Dos Palos, South Dos Palos, Firebaugh, Mendota and Tranquillity lie within the geographic area of the Westside Coalition. These communities do not have discharges from irrigated lands and are not included in the Westside Coalition, but contribute storm waters and municipal waste waters to the watershed and may impact discharges from irrigated lands.

Interstate Highway 5, State Highways 33, 140, 165 and 152 and many county roads run through the geographic area of the Westside Watershed. Storm water discharges from these roads and highways can contribute contaminants to the same water bodies that carry agricultural return water.

The San Joaquin Valley Drainage Authority, a joint powers agency, is the umbrella organization for the Westside Coalition for purposes of the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands within the Central Valley Region (Resolution No.R5-2003-0105). On July 30, 2004, the Westside Coalition received approval for its irrigated agricultural monitoring plan from the Central Valley Regional Water Quality Control Board. The first sampling event took place on July 6, 2004, with subsequent event samples collected monthly. In February, 2008, the Westside Coalition received approval for a revised Monitoring and Reporting Plan (Revised MRP). The Revised MRP was designed to focus monitoring efforts at sites with known water or sediment issues and to support the Management Plan issues. The Revised MRP was implemented in March of 2008. Monitoring and Reporting Program Order No. R5-2008-0831 (MRP Order or MRP) was issued by the Regional Board in September 2008. This order was largely reflective of the Revised MRP and took effect in March 2009, modified after the 2011/12 assessment period. See **Attachment 7**.

The MRP Order includes a targeted monthly sampling plan for 22 monitoring sites within the Coalition area as well as plans for sampling for two rain events during each year. The monitoring sites include three source water sites and 19 sites that discharge agricultural drain water.

During any given sampling event, each accessible site is visited, visually assessed, and samples are collected in accordance with the field sampling manual. See **Table 2.**

The objectives of the original monitoring program are:

- To assess the existing water quality characteristics of major agricultural drains within the watershed area.
- To determine the location and magnitude of water quality problems.
- To determine the cause of water quality problems and develop solutions.

Two sampling crews have been trained by the analytical laboratories to collect samples according to the Westside Coalition's QAPP and Field Sampling Manual. These crews are responsible for collecting samples at each of the 22 sites; the field coordinator for the northerly region is responsible for collecting samples north of Newman Wasteway. The field coordinator for the southerly region is responsible for collecting samples south of (and including) Newman Wasteway. The sampling responsibilities include completion of the field data sheets, collection of water and sediment samples, completion of labels and chain of custody sheets, and coordination with the labs for sample pickup. The parameters analyzed at each site are shown in **Table 3**. The laboratory, method, and constituent groups analyzed are shown in **Table 4** and a list of specific analytes is included in **Attachment 7**.

Table 3: Monitoring Stations and Samples

Monitoring Site	Site Code	2013 Irrigation Season		
		Irrigation (Mar-Aug)*	Non-Irrigation (Sep-Feb)*	Rain Event (2x per year)
Discharge Sites				
Blewett Drain at Highway 132	VH132	Special	Core	Rain**
Poso Slough at Indiana Avenue	PSAIA	Special	Core	Rain**
Hospital Cr at River Road	HCARR	Special	-	Rain**
Ingram Cr at River Road	ICARR	Core + Special	Core	Rain**
Westley Wasteway near Cox Road	WWNCR	Core + Special	Core	Rain**
Del Puerto Cr near Cox Road	DPCCR	Core + Special	Core	Rain**
Del Puerto Cr at Hwy 33	DPCHW	Special	-	Rain**
Ramona Lake near Fig Avenue	ROLFA	Core + Special	Core	Rain**
Marshall Road Drain near River Road	MRDRR	Core + Special	Core	Rain**
Orestimba Cr at River Road	OCARR	Core + Special	Core	Rain**
Orestimba Cr at Hwy 33	OCAHW	Special	-	Rain**
Newman Wasteway near Hills Ferry Road	NWHFR	Core + Special	Core	Rain**
San Joaquin River at Lander Avenue	SJRLA	Core + Special	Core + Special	Rain**
Mud Slough u/s San Luis Drain	MSUSL	Core + Special	Core + Special	Rain**
Salt Slough at Lander Avenue	SSALA	Core + Special	Core + Special	Rain**
Salt Slough at Sand Dam	SSASD	Special	-	Rain**
Los Banos Creek at Highway 140	LBCHW	Core + Special	Core + Special	Rain**
Los Banos Creek at China Camp Road	LBCCC	Core + Special	Core	Rain**
Turner Slough near Edminster Road	TSAER	Core + Special	Core	Rain**
Source Water Sites				
San Joaquin River at Sack Dam	SJRSD	Source	Source	Source
Delta Mendota Canal at Del Puerto WD	DMCDP	Source	Source	Source
San Joaquin River at PID Pumps	SJRPP	Source	Source	Source

Table 4: Analytes, Laboratories, and Methods

	Constituent	Laboratory	Method	Units	Laboratory SOP No.
Field Data	pH	Field Crew	YSI meter	-	Field Manual
	Temperature	Field Crew	YSI meter	ºC	Field Manual
	Conductivity	Field Crew	YSI meter	µmhos/cm	Field Manual
	Dissolved Oxygen	Field Crew	YSI meter	mg/L	Field Manual
	Flow	Field Crew	Estimate	cfs	Field Manual
Gen. Phy. / D.W.	Color (A.P.H.A.)	Caltest	SM 2120B	-	COLOR-rev4E
	pH	Caltest	SM 4500-H+B	-	PH-rev4
	TDS	Caltest	SM 2540C	mg/L	TDS-rev4E
	TSS	Caltest	SM 2540D	mg/L	TSS-rev4
	Turbidity	Caltest	SM 2130B	NTU	TURB-rev4E
	Hardness	Caltest	EPA 130.2	mg/L	HARD-rev5E
	Metals	Caltest	EPA 200.7, 200.8	mg/L	M-ICP-rev10E & 2008rev5Ea
	Bromide/Nitrate	Caltest	EPA 300.0	mg/L	DIONEX-rev5E
	Nitrogen, Nitrite	Caltest	EPA 354.1	mg/L	NO2-rev6
	TKN	Caltest	EPA 351.3	mg/L	NH3-TKN-rev6E
	Phosphate	Caltest	EPA 365.2	mg/L	PHOS-rev4
	Ammonia (as N)	Caltest	EPA 350.2	mg/L	NH3-TKN-rev6E
	DOC	Caltest	SM 5310-B/C	mg/L	TOC-D0C-rev7E
	TOC	Caltest	SM 5310-B/C	mg/L	TOC-D0C-rev7E
	Fecal coliform	Caltest	SM20-9221B/E	mpn/100ml	MMOMUG-rev8E
	E. Coli	Caltest	SM 9221BF/9223-B	mpn/100ml	MMOMUG-rev8E
Pesticides	Organophosphates	APPL	EPA 8141A	µg/L	ANA8141A
	Organochlorines	APPL	8081A/8082	µg/L	ANA8081A
	Carbamates	APPL	EPA 8321A LL	µg/L	HPL8321A
	Herbicides	APPL	EPA 8141A	µg/L	ANA8151A
Sediment	Organochlorine	Caltest	SW846 8081	mg/kg (dry)	8081rev8
	Pyrethroid	Caltest	SW846 8270(SIM)	mg/kg (dry)	Pyrethroidsrev4a
	% Solids	Caltest	EPA 160.3	%	Residue-rev6
	TOC	Caltest	EPA 9060A	%	WalkleyBlack TOC
Toxicity	*Ceriodaphnia d.*	PER	EPA-821-R-02-012	% survival	Acute Cerio SOP
	Selenastrum c.	PER	EPA-821-R-02-013 & EPA-600-4-91-002	cell growth	Chronic Selenastrum SOP
	Pimephales p.	PER	EPA-821-R-02-012	% survival	Acute FHM SOP
	Hyalella a.	PER	EPA-600-R-99-064	% survival	10-D HyalellaAcuteSedTest

CalTest Labs in Napa, California
APPL Labs in Fresno, California
Pacific Ecorisk (PER) in Martinez, California

Aquatic toxicity samples were collected and analyzed by Pacific Ecorisk, Inc. using the methods described below:

- *Ceriodaphnia dubia*: "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (USEPA 2002a).
- *Pimephales promelas*: "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" (USEPA 2002a).
- *Selenastrum capricornutum*: "Short-term Methods for Estimated the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (USEPA 2002b).
- *Hyalella azteca*: "Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Organisms" (USEPA 2000).

SECTION 3: MONITORING EVENT SUMMARIES

Monitoring Event Summaries.
In accordance with the MRP order, irrigation season monitoring was implemented at all discharge sites beginning in March 2013. Each site was visited monthly during the reporting period and samples were collected from every site with sufficient water to submerge and fill a sample container.

Three CIMIS[1] stations were monitored by the Westside Coalition for rainfall: Patterson, Los Banos, and Panoche. **Table 5** summarizes the monthly rainfall measured at each station.

Table 5: Monthly Rainfall in Inches

Month	Patterson	Los Banos	Panoche
March	0.65	0.88	0.41
April	0.53	0.15	0.13
May	0.35	0	0
June	0.04	0	0
July	0	0	0
August	0	0	0
Report Period Total:	1.57	1.03	0.54

Rainfall during the 2013 irrigation season was typical of summer precipitation conditions and no significant storms occurred.

Event 100, March 11th and 12th, 2013.
Irrigation season water samples were collected at 16 discharge sites and 3 source water sites on March 12th in accordance with the Westside Coalition MRP. There was insufficient flow for sample collection at Hospital Creek, Del Puerto Creek at Highway 33, and Orestimba Creek at River Road. Aquatic toxicity was tested for algae, invertebrates, and fish in accordance with the Monitoring Order (see **Attachment 7**). Aquatic toxicity to algae was observed at Ingram Creek (46% different from control) with diuron and prowl detected in the sample. Aquatic toxicity to water flea was observed at Poso Slough (0% survival) and Salt Slough at Sand Dam (0% survival). Malathion was detected at elevated levels in both samples and chlorpyrifos was also detected in the Poso Slough sample. See **Attachment** 2. Sediment samples were collected at 13 monitoring sites on March 11th. Significant toxicity was observed in the Blewett Drain (3.75% survival) sample, the Ingram Creek sample (1.25% survival), the Westley Wasteway sample (1.25% survival), the Ramona Lake sample (91.25% survival), and the Newman Wasteway sample (90% survival). Although the toxicity in the Ramona Lake and Newman Wasteway samples was statistically significant, it did not require follow-up testing. Sediment from the Blewett, Ingram, and Westley Wasteway samples was sent to CalTest Laboratories for pesticide analysis. In these three sediment samples, pesticides were present in sufficient concentration to have caused the observed toxicity. See **Section 8** and **Attachment 4**.

[1] California Irrigation Management Information System, http://wwwcimis.water.ca.gov/cimis/welcome.jsp

Event 101, April 9th, 2013.
Irrigation season water samples were collected at 14 discharge sites and source water samples were collected at 3 sites on April 9th. There was insufficient flow to collect samples at Blewett Drain, Hospital Creek, Del Puerto Creek at Highway 33, Marshall Road Drain, Orestimba Creek at River Road. Aquatic toxicity samples were collected in accordance with the MRP and no toxicity was observed.

Event 102, May 14th, 2013.
Irrigation season water samples were collected at 16 monitoring sites and 3 source water sites on May 14th. There was insufficient flow for sample collection at Blewett Drain, Del Puerto Creek at Highway 33, and Orestimba Creek at River Road. Aquatic toxicity samples were collected in accordance with the MRP. Aquatic toxicity to water flea was observed at Ingram Creek (5% survival), Del Puerto Creek at Cox Road (0% survival), Marshall Road (0% survival), and Orestimba Creek at Highway 33 (0% survival). Follow-up TIE testing was performed on all four samples and indicated pesticides were the likely cause in all cases. Diazinon was detected in all four samples, along with carbaryl (Del Puerto Creek sample) and chlorpyrifos (Ingram Creek sample). See **Attachment 2**.

Event 103, June 11th, 2013.
Irrigation season water samples were collected at 17 monitoring sites and 3 source water sites on June 11th in accordance with the Westside Coalition's MRP. The E. Coli sample bottle for Los Banos Creek at China Camp Road was broken in transit to the laboratory. There was insufficient flow at Del Puerto Creek at Highway 33 and Orestimba Creek at River Road for sample collection. Aquatic toxicity was tested in accordance with the MPR, however presence of a foreign algae species in one of the algae samples caused the retest of the Poso Slough samples and required the sample to be retested (there was no observed toxicity in either sample set). One of the control sample sets for the water flea samples failed to meet the survival criteria, resulting a retest of six samples. Aquatic toxicity to water flea was observed at Ingram Creek (0% survival) and the Del Puerto Creek near Cox Road (10% survival) samples. TIE's were performed on both samples. In the Ingram Creek sample, the TIE indicated that pesticides were the cause and diazinon and toxaphene were detected in the sample. however the toxicity was not persistent in TIE for Del Puerto Creek the follow up testing and the TIE could not identify a cause. No pesticides were detected in that sample and the cause of toxicity is not known. See **Attachment 2**.

Event 104, July 9th, 2013.
Irrigation season water samples were collected at 17 discharge sites and 3 source water sites. There was insufficient flow at Del Puerto Creek at Highway 33 and at Orestimba Creek at River Road. Aquatic toxicity samples were collected in accordance with the MRP. No aquatic toxicity was observed in any of the samples.

Event 105, August 13th, 2013.
Irrigation season water samples were collected at 16 discharge sites and 3 source water sites. There was insufficient flow at Hospital Creek, Del Puerto Creek at Highway 33, and at Orestimba Creek at River Road. Aquatic toxicity samples were collected in accordance with the MRP. No aquatic toxicity was observed in any of the samples.

SECTION 4: SAMPLING SITE AND WATERSHED DESCRIPTIONS

Figure 1 shows the Westside Coalition area and the location of the monitoring sites. Following is a description and rationale for the monitoring sites.

- Blewett Drain near Highway 132 (originally called Vernalis at Highway 132 [VH132]). This site is located at the northerly boundary of the Westside Coalition. The cropping pattern for discharges into this drain is similar to that of Hospital Creek. Flow at this site is calculated as an estimated velocity and measured flow area. The Westside Coalition began monitoring this site in 2008.
- Poso Slough at Indiana Avenue (PSAIA). This site is located on Poso Slough near the boundary between San Luis Canal Company and Central California Irrigation District in the Dos Palos Subarea of the Westside Coalition. Flow at this site is calculated as an estimated velocity and measured flow area. The Westside Coalition began monitoring this site in 2008. Poso Slough is a tributary to Salt Slough, discharging upstream of the Sand Dam monitoring site.
- Hospital Creek at River Road (HCARR). This site is a significant drainage for the Patterson Subarea of the Westside Coalition and has been monitored since July 2004 for a variety of constituents. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. It is on the 303(d) list for pesticides. Flow at this site is measured by a rectangular weir.
- Ingram Creek at River Road (ICARR). This site is a significant drainage for the Patterson Subarea of the Westside Coalition and has been monitored since July 2004 for a variety of constituents. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. It is on the 303(d) list for pesticides. Flow at this site is measured by a rectangular weir.
- Westley Wasteway near Cox Road (WWNCR). Westley Wasteway is a significant drainage for the Patterson Subarea for both tailwater and storm runoff. Land use upstream of this monitoring station is similar to that of Del Puerto Creek. This site has been monitored for a variety of constituents since 2004. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at this site. Flow at this site is measured by a rectangular weir.
- Del Puerto Creek near Cox Road (DPCCR) and Del Puerto Creek near Highway 33 (DPCHW). Del Puerto Creek is on the 303(d) list for pesticides and is a major drainage for the Patterson Subarea and major storm runoff collector. Two stations are identified on this waterbody; one near the discharge to the San Joaquin River, and one at Highway 33, near the middle of the Patterson Subarea. Biological assessments are performed on Del Puerto Creek to assess its overall health, which will be useful in relating to collected water quality data. Both of these sites have been monitored for a variety of constituents since 2004. Sediment discharge, sediment toxicity, aquatic toxicity (water flea), and pesticides have been measured at both sites. At the Highway 33, flow is estimated using the float method. A beaver dam has been constructed (by a beaver) downstream of the Cox Road site, creating a backwater that prevents safe flow measurement at the site. The Coalition is considering options to address this issue.

- Ramona Lake near Fig Avenue (ROLFA). This site monitors discharge from a small lake as it flows into the San Joaquin River. Agricultural and storm runoff from the Patterson Subarea can discharge into the lake. This site has been monitored for a variety of constituents since 2004. Some pesticides have been measured at this site.
- Marshall Road Drain near River Road (MRDRR). This site monitors a pipe drain that carries agricultural and storm runoff from the Patterson Subarea of the Westside Coalition. This site has been monitored for a variety of constituents since 2004. Some pesticides and aquatic toxicity have been measured at this site. Flow from this site is measured by a weir within the pipe. During periods of high flow, the weir can become submerged and incapable of measuring flow.
- Orestimba Creek at River Road (OCARR) and Highway 33 (OCAHW). There are two monitoring locations on Orestimba Creek; one near the discharge point to the San Joaquin River; and one upstream at Highway 33. Orestimba Creek is similar to that of Del Puerto in both the surrounding landscape and discharged water quality. It is on the 303(d) list for pesticides, is a major drainage for the Patterson Subarea, and is included in the biological assessment portion of the monitoring program. Pesticides, sediment discharge, sediment toxicity, and aquatic toxicity have been measured at these sites. USGS monitors and reports flow at Orestimba Creek at River Road. Flow at Orestimba Creek at Highway 33 is calculated through an estimated velocity and cross-sectional flow area.
- Newman Wasteway near Hills Ferry Road (NWHFR). The Newman Wasteway is a significant drainage for the Patterson Subarea and is on the 303(d) list for salt and pesticides. This site measures drainage that originates from the southerly region of the Patterson Subarea, and has been monitored for a variety of constituents since 2004. Pesticides, sediment discharge, sediment toxicity, and aquatic toxicity have been measured at this site. Flow at this site is calculated through an estimated velocity and cross-sectional flow area.
- The San Joaquin River at Lander Avenue (SJRLA). This site is both a receiving waterbody for agricultural and storm drainage and a source water for districts that pump from the San Joaquin River. It also receives drainage flows from irrigated wetlands in the fall and winter months. It has been monitored for a variety of constituents since 2004, and pesticides, sediment toxicity, and aquatic toxicity have been measured. Flow at this site is reported by a nearby CDEC station.
- Mud Slough upstream of the San Luis Drain (MSUSL). This site measures drainage originating from the Dos Palos and Los Banos Subareas that flow through the wetlands as well as the wetlands themselves. Mud Slough is on the 303(d) list for a variety of constituents. In addition to the Westside Coalition's monitoring program, the Central Valley Regional Water Quality Control Board, Surface Water Ambient Monitoring Program (SWAMP) collects and analyzes samples from this site throughout the year. These samples are analyzed for selenium, boron, and EC, along with other constituents. Flow at this site is calculated as the difference between the flow downstream of the San Luis Drain (reported by CDEC) and the measured San Luis Drain Discharge. The SWAMP Data is available via the internet at: http://www.waterboards.ca.gov/centralvalley/programs/agunit/swamp/index.html.
- Salt Slough at Lander Avenue (SSALA) Salt Slough at Lander Avenue measures agricultural, storm, and wetland runoff from the Dos Palos and Los Banos Subareas, and

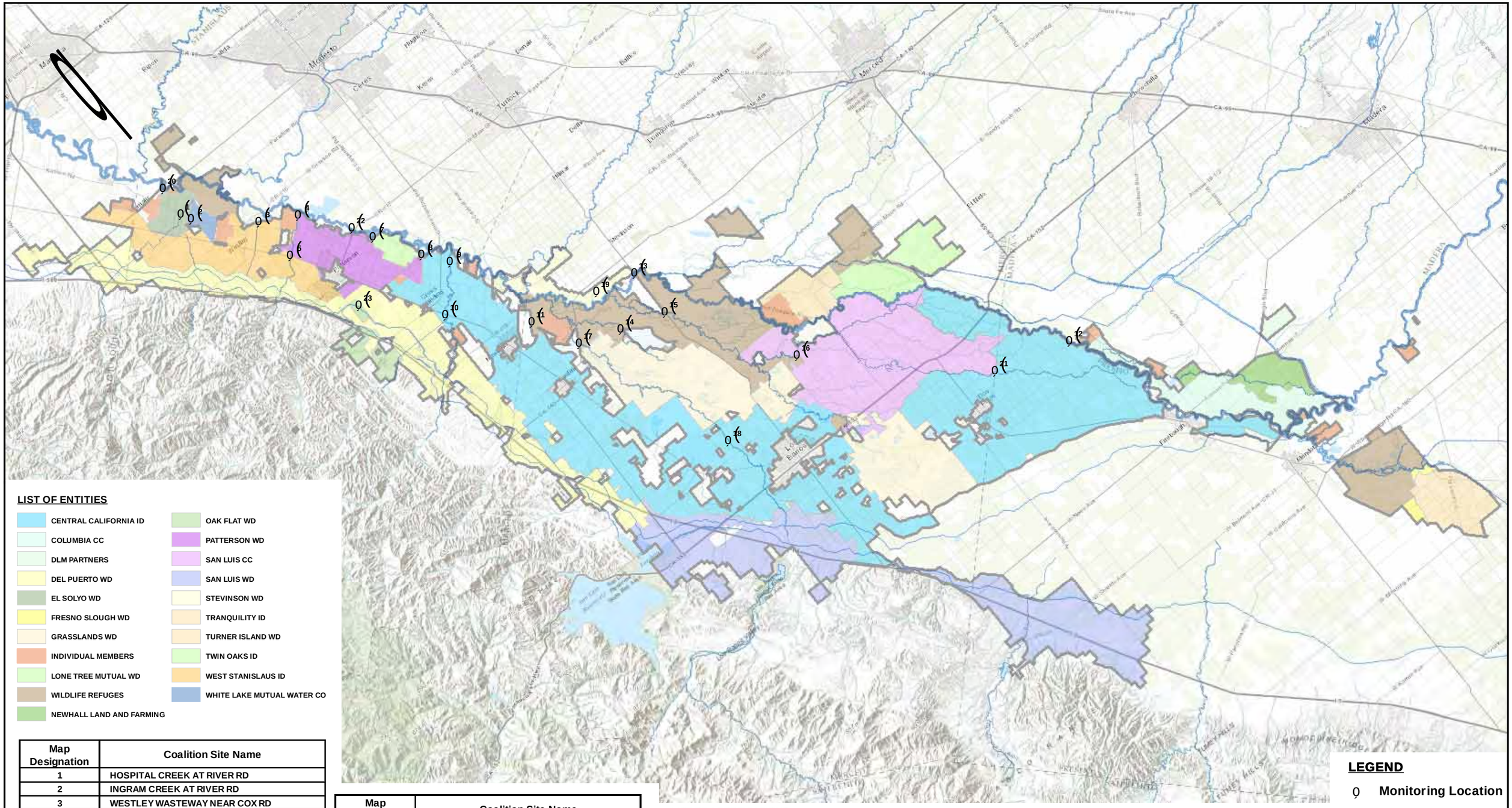
has been monitored (and 303(d) listed) for a variety of constituents since 2004. In addition to the Westside Coalition's monitoring program, the Central Valley Regional Water Quality Control Board, SWAMP collects and analyzes samples from this site throughout the year. These samples are analyzed for selenium, boron, and EC, along with other constituents. Flow at this site is reported by CDEC. The SWAMP Data is available via the internet at: http://www.waterboards.ca.gov/centralvalley/programs/agunit/swamp/index.html.

- Salt Slough at Sand Dam (SSASD). This site is upstream of the Lander Avenue site and measures agricultural and storm drainage originating in portions of the Dos Palos Subarea. Pesticides and aquatic toxicity have been measured at this site, which has been monitored for a variety of constituents since 2004. Flow at this site is measured by a weir.
- Los Banos Creek at Highway 140 (LBCHW). This site carries agricultural, storm and irrigated wetland runoff from the Los Banos Subarea. Some pesticides have been measured at this site. Flow at this site is calculated through an estimated velocity and cross-sectional flow area.
- Los Banos Creek at China Camp Road (LBCCC). This site monitors agricultural and storm runoff from the Los Banos Subarea, upstream of the Highway 140 site. There is a farmer-maintained dam downstream of this site which is frequently used to stop flows so that it may be diverted for irrigation. Flow at this site is calculated through an estimated velocity and cross-sectional flow area.
- Turner Slough near Edminster Road (TSAER). This station is located on the eastside of the San Joaquin River and measures drainage from a portion of the Patterson Subarea. A very small number of pesticides have been detected at this site since 2004. In 2007, Stevinson Water District constructed a drain water return system upstream of the Turner Slough discharge (and monitoring) point. This system captures most of the drainage that flows through Turner Slough and returns it to the Stevinson Water District irrigation system. Since the construction of this system, discharges from Turner Slough into the San Joaquin River have become infrequent. Flow at this site is calculated through an estimated velocity and cross-sectional flow area.
- San Joaquin River at Sack Dam (SJRSD). This is a source water monitoring site located at the diversion point for San Luis Canal Company. This site is monitored for source water constituents. Flow at this site is measured across the dam.
- Delta Mendota Canal at Del Puerto Water District (DMCDP). This site monitors water quality in the Delta Mendota Canal at a Del Puerto Water District turnout. This site characterizes the source water quality typical of the Delta Mendota Canal, and is monitored for source water constituents. Flow is not measured at this site.
- San Joaquin River at Patterson Irrigation District Pumps (SJRPP). This monitoring site is located at the Patterson Irrigation District pump station on the San Joaquin River and characterizes the source water quality of the San Joaquin River in the Patterson Subarea. This site is monitored for source water constituents. Flow from this site is reported by CDEC. This site is the same as the San Joaquin River at Las Palmas site listed in the Chlorpyrifos and Diazinon TMDL program.

Table 6 lists the monitoring sites and coordinates in the WGS84 datum.

Table 6: Monitoring Site Coordinates

Site	Latitude (N)	Longitude (W)
Hospital Cr at River Road	37.61047	121.23078
Ingram Cr at River Road	37.60022	121.22506
Westley Wasteway near Cox Road	37.55822	121.16372
Del Puerto Cr near Cox Road	37.53936	121.12206
Del Puerto Cr at Hwy 33	37.51406	121.15956
Ramona Lake near Fig Avenue	37.47875	121.06839
Marshall Road Drain near River Road	37.43631	121.03617
Orestimba Cr at River Road	37.41386	121.01489
Orestimba Cr at Hwy 33	37.37717	121.05856
Newman Wasteway near Hills Ferry Road	37.32036	120.98336
San Joaquin River at Sack Dam	36.98353	120.50050
San Joaquin River at Lander Avenue	37.29506	120.85139
Mud Slough u/s San Luis Drain	37.26164	120.90614
Salt Slough at Lander Avenue	37.24797	120.85225
Salt Slough at Sand Dam	37.13664	120.76194
Los Banos Creek at Highway 140	37.27619	120.95547
Los Banos Creek at China Camp Road	37.11447	120.88953
Turner Slough near Edminster Road	37.30411	120.90083
Blewett Drain at Highway 132	37.64053	121.22942
Poso Slough at Indiana Ave	37.00622	120.59033
SJR at PID Pumps	37.49739	121.08267
DMC at Del Puerto WD	37.43678	121.13347



LIST OF ENTITIES

- CENTRAL CALIFORNIA ID
- COLUMBIA CC
- DLM PARTNERS
- DEL PUERTO WD
- EL SOLYO WD
- FRESNO SLOUGH WD
- GRASSLANDS WD
- INDIVIDUAL MEMBERS
- LONE TREE MUTUAL WD
- WILDLIFE REFUGES
- NEWHALL LAND AND FARMING
- OAK FLAT WD
- PATTERSON WD
- SAN LUIS CC
- SAN LUIS WD
- STEVINSON WD
- TRANQUILITY ID
- TURNER ISLAND WD
- TWIN OAKS ID
- WEST STANISLAUS ID
- WHITE LAKE MUTUAL WATER CO

Map Designation	Coalition Site Name
1	HOSPITAL CREEK AT RIVER RD
2	INGRAM CREEK AT RIVER RD
3	WESTLEY WASTEWAY NEAR COX RD
4	DEL PUERTO CREEK NEAR COX RD
5	DEL PUERTO CREEK NEAR HWY 33
7	ROMONA LAKE NEAR FIG AVE
8	MARSHALL RD DRAIN NEAR RIVER RD
9	ORESTIMBA CREEK AT RIVER RD
10	ORESTIMBA CREEK AT HWY 33
11	NEWMAN WASTEWAY NEAR HILLS FERRY RD
12	SJR AT SAC DAM
13	SJR AT LANDER AVE
14	MUD SLOUGH U/S OF SAN LUIS DRAIN

Map Designation	Coalition Site Name
15	SALT SLOUGH AT LANDER AVE
16	SALT SLOUGH AT SAND DAM
17	LOS BANOS CREEK AT HWY 140
18	LOS BANOS CREEK AT CHINA CAMP RD
19	TURNER SLOUGH NEAR EDMINSTER RD
20	BLEWETT DRAIN NEAR HWY 132
21	POSO SLOUGH AT INDIANA AVE
22	SJR AT PID PUMPS
23	DMC AT DEL PUERTO WD

LEGEND

Monitoring Location

LIST OF ABBREVIATIONS

CC	CANAL COMPANY
CO	COMPANY
ID	IRRIGATION DISTRICT
WD	WATER DISTRICT

ACKNOWLEDGEMENTS

Basemap courtesy of Esri, DeLorme, NAVTEQ, TomTom,Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

SCALE IN MILES

0 6 12

NAD83 Cailfornia State Plane

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

WESTSIDE SAN JOAQUIN RIVER WATERSHED COALITION

MONITORING LOCATIONS

SUMMERS ENGINEERING INC.
Consulting Engineers
HANFORD CALIFORNIA

MAY 2013

MAPS\Wside coalition\05-08-13-wside coalition district map.mxd

More than 59 different varieties of crops are grown within the Westside Coalition watershed area, ranging from fruit and nut trees to melons and cotton. **Table 7** shows the top ten crops within the Coalition area based on 2012 irrigation season USDA data (2013 data is not yet available).

Table 7: Top 10 Crops Grown by County

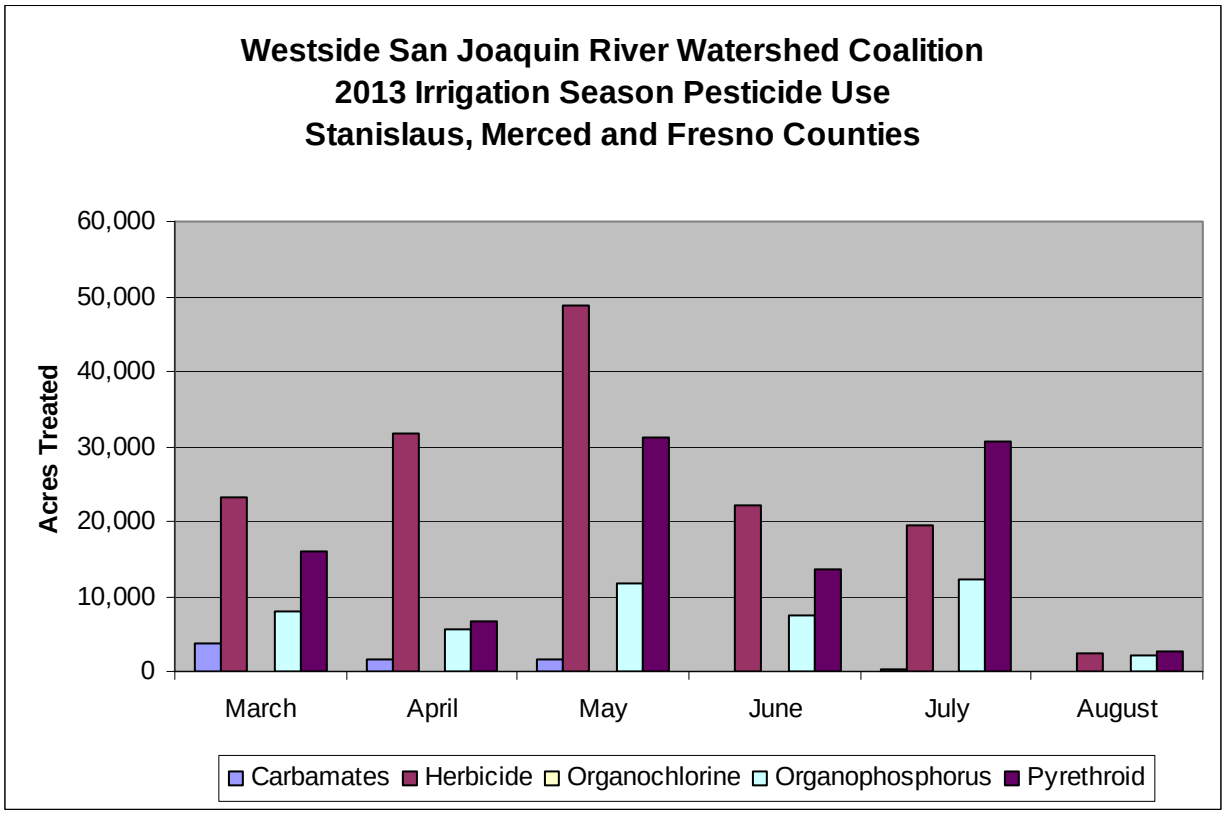
Fresno	Merced	Stanislaus
Cotton	Alfalfa	Almonds
Almonds	Cotton	Wheat
Alfalfa	Tomatoes	Alfalfa
Corn	Almonds	Tomatoes
Tomatoes	Wheat	Corn
Wheat	Corn	Walnuts
Grapes	Grapes	Grapes
Rice	Barley	Dry Beans
Pistachios	Pistachios	Apricots
Onions	Plums	Cherries

These crops are dispersed approximately evenly throughout the Coalition area, with the exceptions of cotton (mostly in the Los Banos, Dos Palos and Tranquillity Subareas), and fruit trees and beans (mostly in the Patterson Subarea). The planting practices are typical for conventional agriculture within the Central Valley. A complete crop list and detailed crop calendar was presented in the "Watershed Evaluation Report", submitted in April, 2004.

Annual field crops are typically planted as seed or transplants after the field has been pre-irrigated to provide salt leaching and soil moisture for germination. These crops can be furrow irrigated using either a plowed head ditch or gated pipe, sprinkler irrigated with hand-move sprinkler pipe, or sub-surface drip irrigated. Permanent field crops such as pasture or alfalfa are usually flood or sprinkler irrigated. The younger fruit and nut trees are almost universally irrigated with drip or micro-sprinkler systems, though some of the older orchards are still flood irrigated.

The irrigation season is typically the peak of agricultural activity, with most planting occurring between March and May, and irrigation and cultivation activities beginning just after planting and carrying on until harvest. Harvest timing is dependant or crop and weather conditions and may be as early as July or as late as October. Pesticide applications during the non-irrigation season include both insecticides and herbicides and will be applied according to the growth stage of the affected crop and the actual pest pressures. **Figure 2** shows the 2013 irrigation season monthly pesticide application within the Westside Coalition by pesticide group. Note that data for the full period is not available yet.

Figure 2: 2013 Irrigation Season Pesticide Use.



A more detailed review of pesticide use and detections is provided in **Section 8**. **Table 8** shows the 10 most commonly applied pesticides during the 2013 irrigation season (by acreage) within the three counties occupied by the Westside Coalition. A complete list of reported pesticide applications is included in **Attachment 6**.

Table 8: Most Commonly Applied Pesticides by County (2013 Irrigation Season)

Fresno County		Merced County		Stanislaus County	
Pesticide	**Class**	**Pesticide**	**Class**	**Pesticide**	**Class**
Glyphosate	Herbicide	Malathion	Organophosphorus	Gluphosate	Herbicide
Copper Sulfate	Herbicide	Glyphosate	Herbicide	Lambda Cyhalothrin	Pyrethroid
Paraquat Dichloride	Herbicide	Lambda-Cyhalothrin	Pyrethroid	Dimethoate	Organophosphorus
Bifenthrin	Pyrethroid	Carfentrazone-Ethyl	Herbicide	Esfenvalerate	Pyrethroid
Lambda-Cyhalothrin	Pyrethroid	Saflufenacil	Herbicide	Pendimethalin	Herbicide
Malathion	Organophosphorus	Rimsulfuron	Herbicide	Oxyflourfen	Herbicide
Saflufenacil	Herbicide	Nicosulfuron	Herbicide	Bifenthrin	Pyrethroid
Trifluralin	Herbicide	Cypermethrin	Pyrethroid	Medolachlor	Herbicide
Oxyfluorfen	Herbicide	Chlorpyrifos	Organophosphorus	Rimsulfuron	Herbicide
Pendimethalin	Herbicide			Paraquat Dichloride	Herbicide

SECTION 5: FIELD SAMPLING PROCEDURE

Field water quality data and sample collections were collected as outlined in the Westside Coalition's Quality Assurance Project Plan (QAPP) and Field Sampling Manual. Three sampling crews have been trained by the analytical laboratories to collect samples according to the Westside Coalition's QAPP and Field Sampling Manual. These crews are responsible for collecting samples at each of the monitoring sites: The field coordinator for the northerly region is responsible for collecting samples from north of Newman Wasteway. The field coordinator for the southerly region is responsible for collecting samples south of (and including) Newman Wasteway. The sampling responsibilities include completion of the field data sheets, collection of water and sediment samples, completion of labels and chain of custody sheets, and coordination with the labs for sample pickup. Samples are collected either as a direct grab from the waterbody or as a bucket grab, where a large volume of water is collected in a stainless steel bucket and transferred to the sample bottles. Details of these collection methods are explained in the Field Sampling Manual. The list of tested constituents is discussed in the MRP Order.

In accordance with the MRP Order, the Westside Coalition collected irrigation season samples starting with the March 2013 sample event. Aquatic toxicity, pesticides and metals are analyzed at specific sites according to the monitoring plan. See **Attachment 7**.

SECTION 6: FIELD AND LABORATORY QUALITY CONTROL SAMPLES

Laboratory Quality Control Samples. The three laboratories that perform analyses for the Westside Coalition monitoring activities are certified through the National Environmental Laboratory Accreditation Program (NELAP) and perform all testing and analyses according to the most current NELAP standards, including the performance of several quality control tests to ensure all methods and equipment are operating correctly. A handful of quality control tests for APPL and Caltest failed to meet acceptability criteria. These failures represented less than 5% of the total QA/QC analyses performed by each lab and do not affect data usability. Details of the laboratory quality control review are included in **Appendix D**. Although the Westside Coalition reviews each of the laboratories' QA/QC results, it considers each of the laboratories to be experts in their respective fields and defers to their judgment regarding data acceptability.

Field Quality Control Samples. Field quality control samples included the collection of field duplicate samples for sediment and aquatic toxicity analysis, and the collection of both field duplicate and field blank samples for pesticides, drinking water, and general physical constituent analysis. It should be noted that the field duplicate samples are typically collected as separate samples simultaneously with the event sample (as opposed to field split samples). The calculated RPD between the event sample and field duplicate sample should be considered a measurement of site water variability.

- **Water Chemistry Analyses.** Six sets of field duplicate and field blank samples were collected during the reporting period and analyzed for general chemistry and drinking water constituents. A comparison of the event samples, duplicate samples, and blank samples is tabulated in **Attachment 3**. A total of 155 duplicate analyses were completed

and compared to the event sample results. Fourteen duplicate samples exceeded the 25% relative percent difference (RPD) established in the QAPP for:

Bromide	Cadmium (total)	E. coli	Lead (Dissolved)
Nitrate+Nitrite	Orthophosphate	TKN	TOC
TSS	Turbidity		

These exceedances of the field duplicate quality control criteria account for approximately 9% of the field duplicates analyzed and are reflective of the complicated nature of the site water and the naturally occurring variations of the stream water quality. Although the number of field duplicates exceeding the RPD criteria is higher than in previous report periods, the Westside Coalition does not expect these variations to impact data usability.

Six field blank sample sets were analyzed during the report period (155 results, total). Of these, fourteen analyses resulted in values greater than 20% of the event sample result for:

Copper (total)	Copper (dissolved)	Lead (dissolved)
Zinc (dissolved)	Zinc (total)	TOC

- **Pesticide Analyses.** Six field duplicate and field blank samples sets were collected during the reporting period and analyzed for pesticides (270 duplicate and 276 blank resutls). Calculated RPD for field duplicate or field blank results did not exceeded the criteria (25% and 20%, respectively) any analyte during this report period. The results of the field blank, field duplicate and event sample comparisons are tabulated in **Attachment 3**.

- **Aquatic Toxicity Analyses.** Field duplicate samples were collected and analyzed for toxicity to all species tested during the report period. During Event 103 (June), the field duplicate sample for the algae test contain a foreign algae species which cause the RPD between the duplicate and event sample to be above the acceptable limit. The lab attempted to remove the foreign species and retest the samples but was unable to successfully remove the foreign algae. The calculated RPD value did not exceeded the 25% threshold during any other sample event for this report period.

- **Sediment Toxicity Analyses.** A field duplicate sample was collected for sediment toxicity during the March sampling event (Event 100). The measured RPD was 0%.

Completeness for sampling collection and analysis was reviewed for samples collected during this monitoring program. Completeness was measured for sample collection and transit, sample analysis, and field quality control samples.

- Collection and Transit: Completeness for this report period is 100%. During the May sample event (Event 102), the field sample crew failed to fill one of the five 1L bottles for pesticide analysis, however there was sufficient volume in the other four bottles and required analyses were performed. During the June sample event (Event 103) the E. coli

sample bottle for Los Banos Creek at China Camp Road was broken in transit. Although the sample was lost and thus not analyzed, it represents less than 1% of the total samples and does not measurable affect the collection completeness.

- Sample Analysis: Completeness for sample analysis during this reporting period is 100%.
- Field Quality Control Samples: All field quality control samples were collected and analyzed. Completeness for toxicity duplicate samples is 100% for this reporting period. The completeness for field blank and duplicate samples is 100% for both pesticide analyses and water chemistry samples.

SECTION 7: ANALYTICAL METHODS

Table 4 indicates the laboratories responsible for the analytical results of this monitoring program, the analytical method used, and the standard operating procedure (SOP) document number. This table reflects the constituents analyzed as part of the Revised MRP.

Chain of Custody (COC) sheets were maintained from the time of sample collection to receipt at the laboratories. Copies of the COC sheets are included in **Appendix A**, along with a summary of the data results. The data summary includes all of the field readings, analytical chemistry results, pesticide scan results, and toxicity screening test results. The original laboratory reports are included in **Appendix C**. These reports also include all of the field and internal quality control results.

The laboratory original data sheets (raw data) for the toxicity results are included in **Appendix C**, as part of the laboratory reports. Raw data for general physical results, drinking water results, and pesticide results are kept by the laboratories for a minimum of five years and are available upon request.

SECTION 8: DATA INTERPRETATION

The primary objective of the monitoring program is to identify water bodies that are adversely affected by agricultural discharges and to help determine the impacts of management activities. The monitoring program has used a combination of toxicity tests and pesticide analyses, along with close coordination among districts and growers to not only identify problem areas but also to determine the magnitude and cause of the problems. During this report period, toxicity analyses for all three species along with pesticide analyses and metals analyses were performed according to the irrigation season Special Monitoring schedule included in the MRP Order (as modified in the March 2012 letter. See **Attachment 7**).

The Westside Coalition's monitoring program includes 22 monitoring sites on the Westside of the San Joaquin Valley (see **Table 2** and **Figure 1**). These sites are representative of the various regions within the Coalition and include agricultural discharge sites, storm drainage sites, and irrigation source water sites. A summary of this data is presented in **Appendix A**, and the laboratory data reports are provided in **Appendix C**.

All of the analyzed parameters were reviewed regularly to evaluate the overall health of the water bodies within the Coalition area. This reporting period covered the 2013 irrigation season months, during which there was significant agricultural activity. Based on incidental reports from growers, pest pressures during this irrigation season were higher than normal requiring more aggressive actions to manage pests. Statistically significant aquatic toxicity occurred nine times during three sample events. These observations of aquatic toxicity are summarized below and detailed in **Attachment 2**.

Ceriodaphnia dubia. There were eight observations of *Ceriodaphnia dubia* toxicity at six monitoring sites during this report period. This toxicity occurred during the March event (two sites), the May event (four sites), and the June event (two sites).

- Poso Slough – March (Event 100); 0% survival. A dilution series test measured 2.9 toxic units and the TIE indicated pesticides were likely the cause. Chlorpyrifos (0.13 µg/L) and malathion (3.9 µg/L) were both detected in the sample.
- Salt Slough at Sand Dam – March (Event 100); 0% survival. A dilution series measured 2.6 toxic units and the TIE indicated pesticides were the likely cause. Malathion (2.7 µg/L) was detected in the sample.
- Del Puerto Creek near Cox Road – May (Event 102); 0% survival. A dilution series measured 3.1 toxic units and the TIE indicated that pesticides were the likely cause. Carbaryl (7.3 µg/L) and diazinon (0.066 µg/L) were detected in the sample.
- Del Puerto Creek near Cox Road – June (Event 103); 10% survival. In the initial screening test, survival at this sample was 100% and not toxic, however the control sample did not meet acceptability criteria and the sample set was retested. Survival for this sample in the retest was 10% and deemed to be toxic. A TIE was performed on the site, however toxicity was not persistent and the TIE could not determine a cause. No pesticides were detected in the sample and the cause of toxicity is not known.
- Ingram Creek at River Road – May (Event 102); 0% survival. A dilution series measured 3.1 toxic units and the TIE indicated that pesticides were the likely cause. Chlorpyrifos (0.27 µg/L) and diazinon (0.55 µg/L) were detected in the sample.
- Ingram Creek at River Road – June (Event 103); 0% survival. A dilution series measured 2.8 toxic units and the TIE indicated that pesticides were the likely cause. Diazinon (1.1 µg/L) and Toxaphene (0.41 µg/L) were detected in the sample.
- Marshall Road Drain at River Road – May (Event 102); 0% survival. A dilution series measured 6.1 toxic units and the TIE indicated that pesticides were the likely cause. Diazinon (2.9 µg/L) was detected in the sample.
- Orestimba Creek at Highway 33 – May (Event 102); 0% survival. A dilution series measured 2.8 toxic units and the TIE indicated that pesticides were the likely cause. Diazinon (1.3 µg/L) was detected in the sample.

Selenastrum capricornutum (algae). Toxicity to algae was observed during Event 100 (March)

- Ingram Creek at River Road – 54% of control growth. Follow up testing was not required (sample growth was >50% of control growth), however diuron (8.4µg/L) and prowl (0.38 µg/L) were detect in the sample.

Pimephales promelas (fathead minnow). There were no observations of fathead minnow toxicity during this report period.

Sediment Toxicity (*Hyalella azteca*). Fourteen samples were collected (including one duplicate) and tested for toxicity to *Hyalella azteca* on March 11th. Statistically significant toxicity was measured at five sites – three of which exhibited severe toxicity (<50% survival). Follow up pesticide analysis were performed on those three samples. **Table 9** lists the results for the sites exhibiting sediment toxicity. **Table 10** summarizes the detected pesticide data at those four sites. See **Appendix C** for the full laboratory report. **Table 11** shows the sediment toxicity results since September 2009.

Table 9: Sites Exhibiting Statistically Significant Toxicity to *Hyalella azteca.*

Site	Percent Survival
Blewett Drain at Highway 132*	3.75%
Ingram Creek at River Road*	1.25%
Westley Wasteway near Cox Road*	1.25%
Ramona Lake near Fig Avenue	91.25%
Newman Wasteway near Hills Ferry Road	90%

* Sample analyzed for specific pesticides.

Table 10: Detected Pesticides in Sediment Samples (March 2013)

	Blewett Drain at Hwy 132	Ingram Creek at River Rd.	Westley Wasteway
Sediment Toxicity (% survival)	3.75	1.25	1.25
Percent Solids (%)	66/96	64/92	60/93
Bifenthrin (ng/g)	13	11	36
Chlorpyrifos (ng/g)	0.63	14	21
Lambda-cyhalothrin (ng/g)	0.16j	4.8	1.1
Cyfluthrin (ng/g)	ND	1.1	ND
Cypermethrin (ng/g)	ND	0.26j	ND
DDD (ng/g)	ND	ND	ND
DDE (ng/g)	15	120	57
DDT (ng/g)	ND	ND	ND
Es/Fenvalerate (ng/g)	3.2	0.99	2.5
Total Organic Carbon (mg/kg)	5,800	7,000	17,000

Details of the sediment pesticide analyses are in **Attachment 4.**

Table 11: Sediment Toxicity Results.

Site	March 13 % Survival	March 13 Toxicity (Y/N)	Sept 12 % Survival	Sept 12 Toxicity (Y/N)	March 12 % Survival	March 12 Toxicity (Y/N)	Sept 11 % Survival	Sept 11 Toxicity (Y/N)
Blewett Drain (Vernalis at hwy 132)	**3.75**	**Y**	**3.75**	**Y**	95	N	**56.3**	**Y**
Hospital Creek	96.3	N	**2.5**	**Y**	**81.3**	**Y**	**20**	**Y**
Ingram Creek	**1.25**	**Y**	**1.3**	**Y**	**60**	**Y**	**0**	**Y**
Westley Wasteway	**1.25**	**Y**	**13.8**	**Y**	**15**	**Y**	90	N
Del Puerto Creek (Cox Rd)	96.2	N	93.8	N	97.5	N	88.8	N
Del Puerto Creek (Hwy 33)	98.8	N			98.6	N		
Orestimba Creek at River Rd.	98.8	N	77.5	N	97.5	N	96.3	N
Orestimba Creek at Hwy 33	93.8	N	**10**	**Y**	**36.3**	**Y**	**0**	**Y**
Ramona Lake at Fig Ave.	**91.3**	**Y**	96.3	N	95	N	96.3	N
Newman Wasteway	**90**	**Y**	92.5	N	100	N	97.5	N
Poso Slough	98.8	N	91.3	N	96.3	N	98.8	N
Turner Slough							95	N
SJR at Lander							98.8	N
Salt Slough at Lander							97.5	N
Salt Slough at Sand Dam	83.8	N	96.3	N	92.5	N	100	N
Los Banos Creek at Hwy 140							97.5	N
Los Banos Creek at China Camp Rd.	100	N	85	N	100	N	97.5	N
Los Banos Creek at Sunset Ave.								
Mud Slough							98.8	N

Site	May 11 % Survival	May 11 Toxicity (Y/N)	Sept 10 % Survival	Sept 10 Toxicity (Y/N)	March 10 % Survival	March 10 Toxicity (Y/N)	Sept 09 % Survival	Sept 09 Toxicity (Y/N)
Blewett Drain (Vernalis at hwy 132)	86.3	N						
Hospital Creek	8.75	**Y**	0	**Y**	77.5	**Y**	10	**Y**
Ingram Creek	16.3	**Y**	0	**Y**	35	**Y**	0	**Y**
Westley Wasteway	93.8	N	41.2	**Y**	N/A	N/A	92.5	**N**
Del Puerto Creek (Cox Rd)	81.3	N	0	**Y**	77.5	**Y**	13.8	Y
Del Puerto Creek (Hwy 33)	96.3	N	81.2	**Y**	92.5	N	N/A	N/A
Orestimba Creek at River Rd.	100	N	95	N	96.2	N	87.5	**N**
Orestimba Creek at Hwy 33	92.5	N	93.8	N	90	N	80	**N**
Ramona Lake at Fig Ave.	92.5	**Y**	92.5	N	93.8	N	92.5	N
Newman Wasteway			97.5	N	93.8	N	98.8	N
Poso Slough	87.5	**Y**						
Turner Slough	100	N						
SJR at Lander								
Salt Slough at Lander								
Salt Slough at Sand Dam	78.8	**Y**						
Los Banos Creek at Hwy 140	97.5	N						
Los Banos Creek at China Camp Rd.	98.15	N	98.8/96.2	N	95	N	96.2	N
Los Banos Creek at Sunset Ave.					96.2	N		
Mud Slough	96.3	N						

Pesticide Analyses.

A total of five different pesticides were detected in water samples during the 2013 irrigation season for a total of 117 detections. 29 of these detections (25%) were below the reporting limit (DNQ). Each of the detected pesticides is discussed below.

- Carbaryl (1 detection): Carbaryl is a carbamate insecticide used to control insects on a variety of citrus and nut trees and fruit and fiber crops.
- Chlorpyrifos (11 detections): Chlorpyrifos is a common organophosphate pesticide used to control a wide range of insects in orchards, pasture, and field crops. It can be used as a dormant spray for fruit and nut trees. Chlorpyrifos use during this reporting season likely occurred on field and forage crops (corn, cotton, and alfalfa) in the fall and as dormant sprays on fruit and nut trees in the mid to late winter.
- DDT/DDE/DDD (15 DDE detections): DDT is an organochlorine pesticide that was banned for agricultural use in 1972. It is a legacy pesticide that is still detected in the

watershed at relatively low levels. DDE and DDD have no commercial use but are compounds normally associated with the degradation of DDT.

- Diazinon (10 detections: Diazinon is an organophosphate pesticide used to control a wide range of insects and is frequently applied to nut trees, melons, and tomatoes, and is often used as a dormant spray for trees.
- Dieldrin (2 detections): Dieldrin is an orgaonchlorine insecticide that was used on a variety of field and orchard crops including cotton, corn, and citrus. Most uses of Dieldrin were banned in 1987.
- Dimethoate (5 detection): Dimethoate is an organophosphate pesticide used to control a wide range of insects. It is used on a variety of field crops including alfalfa, beans, tomatoes, and cotton.
- Diuron (41 detections): Diuron is a substitute urea herbicide used to control weeds in a variety of field crops including cotton, alfalfa, walnuts and wheat. It is also effective in controlling algae.
- Endosulfan I and II (2 detections each): Endosulfan is an organocholorine insecticide registered for use on cotton, tomatoes, fruit trees and other crops. Endosulfan II and endosulfan sulfate are typically associated with the breakdown of Eundosulfan. It is in the process of being phased out in the United States.
- Lindane (HCH) (2 detections as beta HCH): Lindane is an organochlorine insecticide used widely in the 1960's and 70's on cotton and other field crops. It's use was banned circa 1985. Beta HCH is a breakdown product of lindane.
- Malathion (4 detections): Malathion is an organophosphate insecticide used on a variety of crops including alfalfa, walnuts, lettuce, grapes, and cotton.
- Methomyl (3 detections): Methomyl is a carbamate insecticide used to control a variety of pests on vegetable, fruit, and field crops.
- Prowl (2 detections): Prowl is a herbicide used to control broadleaf and grassy weeds and is approved for a variety of crops including cotton, field corn, beans, rice, and vineyards.
- Toxaphene (2 detections): Toxaphene was used as an insecticide to treat mange in cattle as well as to control pests in cotton and corn. Toxaphene was banned in the United States in 1986.

Exceedances of Recommended Water Quality Values.

Water chemistry analyses were compared to recommended water quality values[2] (RWQV). **Attachment 5** tabulates all of the RWQV exceedances for the reporting period by site.

- **Field, General Physical and Drinking Water Quality Exceedances.** Comparisons were made to several RWQVs. **Attachment 5** tabulates the results for these constituents and the comparison to the RWQVs. The Westside Coalition performed analyses or observed more than 2,800 field and chemistry (non-pesticide) parameters during the reporting period, during which, 271 (10%) results were greater than the RWQVs. Electrical conductivity and total dissolved solids (TDS) accounted for 96 and 86, respectively, of these exceedances (approximately 67% of the exceedances, combined).

[2] Water Quality Limits were provided by the Central Valley Regional Water Quality Control Board as part of the MRP Order. Water quality limits for cadmium, copper, lead, nickel and zinc are calculated from equations provided by the Central Valley Regional Water Quality Control Board.

E. coli results accounted for 26 of these exceedances, 29 for boron and 17 for dissolved oxygen. The RWQV for cadmium, copper, lead, nickel, and zinc are dependant on site water hardness and is a calculated value. There were no exceedances of dissolved metals during this report period. Potential causes for EC/TDS, E. coli, DO, and boron exceedances are discussed below.

- **EC/TDS.** Electrical Conductivity and TDS are measures of the amount of salts dissolved in the water column. There are a variety of sources of salts that may be contributing to these results including natural marine sediments, accretion of shallow/perched ground water, and the irrigation source water. Additionally, the many growers to rely on wells to supplement surface water supplies. Most of the groundwater wells within the Westside Coalition are more saline than the surface water sources.
- **E. coli.** E. coli is a measurement of bacteria in the water column. The Westside Coalition has participated in a study to attempt to identify the source of these exceedances. The preliminary results were not conclusive, however human sources were identified as the possible cause for at least some of the exceedances. There is also some suspicion that E. coli colonies have become self-sustaining within some watersheds. The Westside Coalition's Management Plan, approved November 18, 2008, discusses future activities related to the E. coli exceedances. In a letter dated February 17, 2012, the Westside Coalition was requested to participate in a group discussion to develop a joint workplan. The Westside Coalition will participate in this workgroup.
- **Dissolved Oxygen.** DO is measured through a field probe at the time of sample collection. By it's nature, DO is a highly variable and influenced by a variety of conditions including sunlight exposure (related to time of day and time of year), turbidity, biological growth and decay, and channel turbulence. The cause of the DO exceedances measured during this report period is not immediately clear, in many cases, a low DO measurement is accompanied with no flow – indicating that the water is stagnant.
- **Boron.** Boron is a metal element commonly found in soils on the Westside of the San Joaquin Valley. It is not applied by growers for any agricultural purpose but may be dissolved in tail water, storm runoff, subsurface flows, or groundwater supplies.

The number and type of field and general chemistry exceedances were slightly less than the 2012 irrigation season (10% this year compared to 11% in 2012, for approximately the same number of samples).

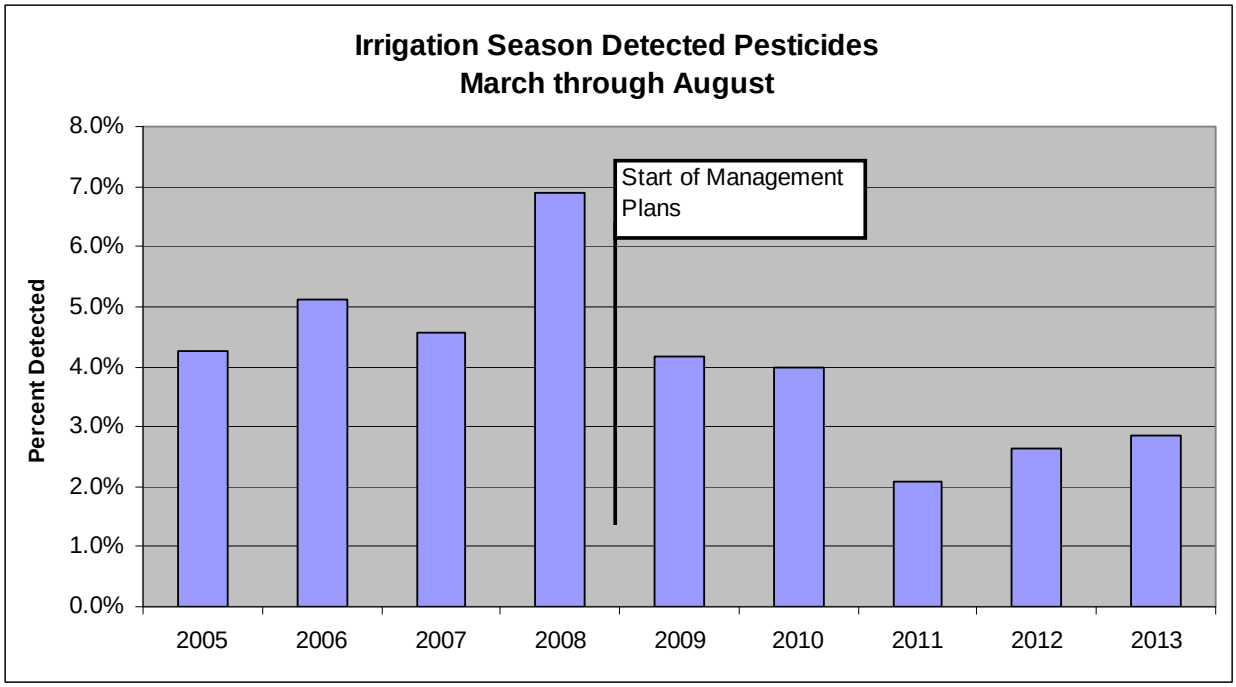
- **Pesticide exceedances.** Up to 48 different pesticides were tested at monitoring sites each month. During the non-irrigation season, pesticide samples are collected at four sites which convey irrigation runoff from wetland areas on a monthly basis, source water sites (organophosphorus pesticides) and at all sampled sites during rain events. Samples collected within the Westside Coalition during this report period provided more than 4,100 pesticide results, 97% of which resulted in no detection. Of the detected pesticides (117), 51 were greater than established RWQVs. These included:

- Carbaryl (1 exceedance)
- Chlorpyrifos (11 exceedances)
- DDE (15 exceedances)
- Diazinon (8 exceedances)
- Dimethoate (5 exceedances)
- Diuron (4 exceedances)
- Malathion (4 exceedances)
- Methomyl (1 exceedance)
- Toxaphene (2 exceedances)

Both DDE and toxaphene are legacy pesticides no longer in use and account for 33% of the exceedances.

As a fraction of the number of pesticide tests, there were slightly more pesticides detected during this reporting period as compared to the previous irrigation season (2.8% this period verses 2.6% in the 2012 irrigation season). **Figure 3** shows the percent of total pesticides detected in each irrigation season since 2005 (number of detections / number of results).

Figure 3: Percent of Total Pesticides Detected.



Chlorpyrifos and Diazinon. In 2010, the Regional Board implemented a chlorpyrifos and diazinon TMDL on the San Joaquin River. In response to this TMDL, the Westside Coalition has increased its outreach efforts with additional grower workshops and individual grower meetings in regions with a history of chlorpyrifos or diazinon exceedances. These meetings emphasized the water quality issues related to these materials and management practices that could be implemented to reduce or eliminate discharge. During this reporting period there were 10 detections of diazinon and 11 detections of chlorpyrifos at several monitoring sites within the Westside Coalition. The Westside Coalition mailed out 177

letters directly to growers in San Joaquin and Stanislaus counties in April, June and July for chlorpyrifos and malathion exceedances. Other letters and notices were given to district managers of CCID, San Luis Canal Company, West Stanislaus Irrigation District, Del Puerto Water District and Patterson Irrigation District regarding pesticide and toxicity exceedances. These flyers were distributed to growers within the respective districts. Pesticide use report (PUR) data was requested after the March and May exceedances were detected, however the data became available too late to provide useful information for effective grower outreach.

In accordance with the TMDL program requirements, an annual monitoring report for chlorpyrifos and diazinon monitoring results, covering the period of October 2011 through September 2012, was submitted in May 2013. Chlorpyrifos (0.038 µg/L) was detected in the San Joaquin River at Patterson Pumps (aka SJR at Las Palmas) in March (Event 100). The only other chlorpyrifos detection during this event was in Poso Slough, more than 40 miles upstream. Pesticide use data for the period of January 1 2013 to the date of the sample event was received and reviewed in May. The PUR data indicated five applications of chlorpyrifos on alfalfa between March 10 and March 11 2013 (144 acres, total) occurring in fields geographically upstream of the San Joaquin River at Patterson Pumps monitoring site. These applications occurred within the Ramona Lake and Marshall Road Drain subwatersheds. As indicated earlier, chlorpyrifos was not detected from either the Ramona Lake or Marshall Road Drain monitoring sites.

Partially in response to these water quality concerns, a Stakeholder group of growers in the Hospital and Ingram creeks subwatersheds was formed in 2012 and meets regularly to discuss water quality and regulatory issues. Details about this group are discussed in **Attachment 6**.

SECTION 9: ACTIONS TAKEN TO ADDRESS WATER QUALITY IMPACTS – MANAGEMENT PLAN ACTIVITIES

In October 2008, the Westside Coalition submitted a Management Plan and Focused Watershed Plan (Focused Plan) which described the actions that would be taken to address the water quality issues identified by the monitoring program. The Management Plan described a general approach that covered all of the subwatersheds within the Westside Coalition. Focused Plans have been developed for specific issues within Hospital Creek, Ingram Creek, Del Puerto Creek, Westley Wasteway, Orestimba Creek, Salt Slough (including both Salt Slough monitoring sites and Poso Slough), and Blewett and Marshall Road Drain subwatersheds (submitted July 2013). **Table 12** shows the implementation schedule listed in the Management Plan (see the Management Plan – General Approach, Table 4, October 23, 2008). In addition to these actions, the Westside Coalition reviews exceedances over the past three years to determine what modifications (if any) need to be made to the Management or Focused plans. A tally of exceedances from September 2010 through August 2013 is included in **Attachment 6**, along with a more detailed review of Management Plan activities. Based on the review of that data, additional focused plans are scheduled. These are shown in **Table 13**.

Table 12: Management Plan Implementation Schedule

Item	Action	Affecting	Estimated Start	Estimated Completion
1	Continue monitoring program	All Categories	On-going	On-going
2	Develop and implement Focused Plan	Site-specific	July 2008	2013
3	Compile MP inventory	All Categories	Jan. 2009	Complete for FP1, FP2, and FP3
4	Develop subwatershed maps	All Categories	On-going	Jan. 2013
5	Determine regional pesticide application	Pesticides, aquatic toxicity	On-going	Annually updated
6	Continue participation in the Dissolved Oxygen Study	Dissolved Oxygen	On-going	On-going
7	Analyze results of E. coli study and map/inventory potential sources	E. coli	Sept. 2007	Jan. 2010
8	Continue outreach and education efforts	All Categories	On-going	On-going
9	Analyze for correlation between low DO and other parameters	Dissolved Oxygen	Sept. 2008	June 2009
10	Continue participation in the Salinity TMDL Program	EC/TDS	On-going	On-going
11	Track changes in water quality	All Categories	On-going	On-going

Table 13: Anticipated Focused Plan Schedule

Subwatershed	Anticipated Start Date
Blewett Drain	July 2013 (Submitted)
Marshall Road Drain	July 2013 (Submitted)
Ramona Lake	February 2015
Newman Wasteway	February 2015
Los Banos Creek	February 2016

1. Continue Monitoring Program.

This semi-annual monitoring report represents the 18th monitoring report submitted by the Westside Coalition since its inception in 2004. The monitoring program (as revised by the MRP Order) is designed to be a dynamic program that aggressively tracks known water quality issues and conducts broad assessment monitoring to identify new issues (see the MRP Order). The monitoring program is also designed to support the activities of the Management Plan and the Focused Watershed plans. The results of the monitoring program are reported twice annually (June and November). Beginning in March of 2011 the Westside Coalition implemented assessment monitoring at all discharge sites which continued through February 2012. The results of the assessment monitoring period were reviewed and adjustments were made to the Special Project Monitoring table included in the MRP order (see **Attachment 7**).

2. Develop and Implement Focused Watershed Plan.

A Focused Plan for the Ingram and Hospital Creek watersheds was developed and submitted to the Regional Board on October 23, 2008 followed by a Focused Plan for the Westley Wasteway, Del Puerto Creek, and Orestimba Creek in February 2011. The Focused Plan for Salt Slough (including Poso Slough) was adopted in December 2011. A Focused Plan for Blewett Drain and Marshall Road Drain was submitted in July 2013. Since that time, the Westside Coalition has

implemented a number of activities. A detailed update of the focused plan activities is included in **Attachment 6.** Additional focused plans have been scheduled (see **Table 13**).

3. Compile Management Practice Inventory.

Management practice surveys have been completed for the following Focus Plan watershed:

- Hospital Creek
- Ingram Creek
- Del Puerto Creek
- Westley Wasteway
- Orestimba Creek
- Salt Slough (inclusive of Poso Slough)

Survey forms have recently been mailed out to growers within the Blewett Drain and Marshall Road Drain subwatersheds. Results from those surveys are not expected for several months. A summary of the survey results received to date are included in **Attachment 6**.

4. Develop Subwatershed Maps.

The Westside Coalition submitted subwatershed maps for the major watersheds within its boundaries in 2008. These maps were based on known drainage patterns and available mapping information. As part of the focused plans, the Westside Coalition collected highly detailed drainage information on the Ingram and Hospital Creek subwatersheds. Draft maps for the Westley Wasteway, Del Puerto Creek, Orestimba Creek, and Salt Slough subwatersheds have been developed and submitted in previous SAMRs. New draft maps for Blewett Drain and Marshall Road Drain have been recently submitted to the Regional Board as part of Focused Plan IV (see **Attachment 6**).

5. Determine Regional Pesticide Use.

Pesticide use report data is collected from the agricultural commissioners in the various counties occupied by the Westside Coalition. In addition to general trends analysis, specific regional pesticide use data is periodically reviewed to attempt to compare with pesticide detections through the monitoring program. Limitations with pesticide use report data completeness and availability limit the usefulness of this data for that purpose. A summary of available pesticide use data is provided in **Attachment 6**.

6. Continue Participation in the Dissolved Oxygen Study.

On January 27, 2005 the Central Valley Regional Water Quality Control Board adopted Resolution R5-2005-0005 which included a TMDL directed to the point and non-point discharges that contribute to the dissolved oxygen impairment in the Stockton Deepwater Ship Channel (DO TMDL). As part of the DO TMDL certain studies were required. The San Joaquin Valley Drainage Authority received funds from the State Water Resources Control Board to undertake these studies (Recipient Agreement ERP-02D-P63). These studies were completed in June of 2008. The project established a series of monitoring stations, developed a DO model, characterized the fate of algae and nutrients, developed linkages between flow, algae, nutrients and dissolved oxygen. Additional studies were proposed to connect the results of this effort to downstream impacts. This work is ongoing. The Westside Coalition has maintained the monitoring sites within boundaries of the Westside Coalition to maintain the data availability. The Westside Coalition also is prepared to continue to participate in the DO TMDL as further

actions are developed. The SJVDA is currently participating with other stakeholders to provide funding for operation of the aerator installed by the Department of Water Resources. A funding agreement was completed in April 2012 between the parties and a mechanism in place to fund short term operation of the Stockton Deepwater Ship Channel aerator until May 31, 2014. There are provisions in the agreement for extensions of time.

7. Analyze results of E. coli study and map/inventory potential sources.
Since 2007, the Westside Coalition has participated in studies and other investigations to attempt to identify the source and cause of various E. coli exceedances (reported in previous SAMRs). A technical committee is currently developing an approach plan with which the Westside Coalition will participate.

8. Continue Reporting and Outreach.
Westside Coalition outreach during this report period included direct to grower mailings, publications distributed by the districts, and various meetings.

- Direct mailings. The Westside Coalition mailed out 177 letters directly to growers in San Joaquin and Stanislaus counties in April, June and July for chlorpyrifos and malathion exceedances. Other letters and notices were given to district managers of CCID, San Luis Canal Company, West Stanislaus Irrigation District, Del Puerto Water District and Patterson Irrigation District regarding pesticide and toxicity exceedances. These flyers were distributed to growers within the respective districts. See **Attachment 6**.
- Stakeholder meeting. Beginning in November 2012, growers within the Hospital and Ingram creek subwatersheds formed a stakeholder group to discuss issues related to the ILRP, water quality conditions and management practices that they could implement at the farm level. The Stakeholder group has met monthly since its inception. In April 2013, the group sponsored a tour of the Stanislaus portion of the Coalition, exhibiting growers management practices and methods to 20 representatives from DPR, EPA, the Regional Board, the State Board and other agencies. More information on the Stakeholder group is included in **Attachment 6**.
- Grower Meetings. Four grower meetings were organized by various district members of the Coalition, during which the current water quality issues and future long term plan were discussed with the growers. These meetings are listed in **Table 14**.
- Individual (tailgate) meetings. Primarily in reaction to March and May pesticide exceedances, a staff person of the Westside Coalition performed tailgate meetings with five Coalition growers to discuss water quality issues and management practices.
- PCA/Pesticide Vendor Meetings. A staff person from the Westside Coalition met with the seven major pesticide distributors operating within the Westside Coalition. The primary purpose of these meetings was to clarify the pesticide-related water quality issues within the Westside Coalition.
- Observation drives. Staff from the Westside Coalition performed weekly drives through key coalition areas and reported observations on farming activities and creek or drain flow conditions. When appropriate, this information was used during tailgate and other outreach meetings. During this report period, more than 30 observation drives were completed.

Table 14 lists the outreach activities performed during this reporting period coalition-wide.

Table 14: Outreach Meetings

Date	Group	Location	Description	Attendance
3/1/2013	Pesticide Vendor visits	Stan. County	Review pesticide issues	3
3/12/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	20
3/22/2013	Pesticide Vendor visits	Modesto	Review pesticide issues	3
3/25/2013	Ingram/Hospital Outreach	Westley	Spanish Training Meeting	40
3/28/2013	SLCC Annual Meeting	Dos Palos	Update of ILRP and issues in area	25
4/2/2013	CCID Landowners Meeting	Firebaugh	Dos Palos Area Update	50
4/3/2013	CCID Landowners Meeting	Los Banos	Los Banos Area Update	75
4/4/2013	CCID Landowners Meeting	Gustine	Patterson Area Update	75
4/9/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	20
4/16/2013	Pesticide Vendor visit	Firebaugh	Review pesticide issues	2
4/18/2013	Westside Tour	Westley	Westside MP Tour	20
6/12/13	Patterson RCD meeting	Patterson	Sediment and pesticide exceedances	~10
6/27/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	14
8/28/2013	Tailgate meeting	Patterson	Review WQ issues and MPs	1
8/29/2013	Tailgate meeting	Patterson	Review WQ issues and MPs	1

Grant Funding

The Westside Coalition continued to offer private grant funding to its members totaling more $30,000 for construction of new tailwater silt ponds or to maintain existing ponds. The program funds 75% of the costs of any single project, up to a maximum of $6,000 per project. A large number of sediment ponds cleanout projects were completed at the end of the last irrigation season (reported in the November 2012 SAMR) and only one new project was funded this period. To date, $28,600 of the grant funds have been expended for this fiscal year (about 95% of the available funds). Most of these projects were in the northerly region of the Westside Coalition, affecting about 6,000 acres that drain into the Marshall Road Drain, Orestimba Creek, Spanish Land Grant Drain and Delta-Mendota Canal. See the November 2012 SAMR for details.

Proposition 84 has also been made available in 2012 through a program managed by CURES and funded by the State Water Resources Control Board. Information on the grant funding availability has been communicated during the previous reporting period to landowners and operators through direct mailings, grower group meetings and individual contacts with landowners.

The Proposition 84 program provides funding for projects in the Central Valley primarily for the purpose of improving irrigation systems. Outreach by CURES was focused on landowners with fields along waterways with management plans in place by the local watershed coalition and

located in the northern San Joaquin Valley, San Joaquin County/Sacramento Rivers Delta and southern Sacramento Valley. To date, 48 projects have been funded of which 18 have been completed. The projects will ultimately affect nearly 4,400 acres within the Westside Coalition. A map showing the completed and in-progress projects funded through Proposition 84 is included in **Attachment 6**.

In addition to grower-implemented management practices, several districts within the Westside Coalition have implemented or are in the process of implementing a number of regional drainage management projects. Although these project differ in approach, they all capture tailwater flows and return them to the irrigation system, thereby reducing the volume of tailwater discharged from the respective watershed. See **Attachment 6** for a more detailed discussion.

9. Analyze for Correlation Between Low DO and Other Parameters.

The Westside Coalition has performed a preliminary review of the low DO measurements and other data. A summary of this review was included in the November 2009 Semi-Annual Monitoring Report. No additional work has been performed on this issue.

10. Continue Participation in the Salinity TMDL Program.

The Westside Coalition is actively engaged in the Central Valley Salinity Alternatives for Long-term Sustainability (CVSALTS) process and is an active member of the Central Valley Salinity Coalition that has been organized to facilitate the funding of the CVSALT effort. The Coalition's participation includes both monetary contributions and a substantial commitment of staff time.

Specific actions by the Westside Coalition to support the CVSALT efforts include: (1) Coalition representative's consistent participation in the CVSALT committees and sub-committees including serving as chair of the Economic and Social Impact Committee. (2) Consistent participation and economic contributions to the Central Valley Salinity Coalition, including representative serving as president of the CV Salinity Coalition. In addition the San Joaquin Valley Drainage Authority is providing contracting and contract administration services for the CVSALT effort. The Westside Coalition has committed to substantial resources to help ensure that the CVSALT effort results in an effective and efficient salinity management program for the Central Valley.

The SJVDA has been participating with the US Bureau of Reclamation in implementation of a Real Time Monitoring Program (RTMP). This program is a component of the compliance with the Vernalis TMDL for salt. It is anticipated that the RTMP will be submitted to the CVSALTS Lower San Joaquin River Committee for review and comment and then would be taken to the Regional Board for approval.

11. Track Changes in Water Quality.

Water quality changes are tracked through the Westside Coalition's monitoring program (see the MRP Order). Water quality data is reported and summarized twice annually.

Other Activities:

- **Conversion to high efficiency irrigation systems:** Several of the districts within the Westside Coalition have implemented grant and loan programs to assist growers in upgrading their irrigation systems, and more 11,000 acres of high efficiency systems came on-line during the 2012/13 non-irrigation season within the Westside Coalition, including nearly 4,400 acres funded (or approved for funding) through the Proposition 84 program. Typically, irrigation improvements are installed during the non-irrigation season for use in the following irrigation season. For the 2013 irrigation season, San Luis Canal Company provided $1,128,000 in funding assistance for irrigation system improvements and CCID provided almost $1,300,000 in funding assistance.
- **NRCS EQUIP Funding:** The National Resource Conservation Service (NRCS) provides funding to growers for the construction of various improvements including distribution systems (i.e. canal lining or piping) and irrigation system improvements (such as drip or microsprinklers). Funding is provided directly to growers (although often with assistance from the Districts) and typically covers the cost of materials. NRCS provided almost $1.2 million in funding assistance in CCID alone.

Monitoring Results:
Data gathered since the inception of the monitoring program has allowed the Westside Coalition to identify problem areas and issues. Details of sites exhibiting significant toxicity during this monitoring period are included in **Attachment 2** and all results that exceeded RWQVs are included in **Attachment 5**. This information, along with results from previous years will be used as talking points during upcoming grower meetings to outline the problem issues and sites. The Management Plan and Focused Watershed Plan also outline approaches that will be implemented to address the highlighted issues. A number of preliminary conclusions can be made from the data collected so far:

- **Sediment Toxicity:** Sediment toxicity tests were performed on 14 samples (including one duplicate) collected in March (Event 100). Statistically significant toxicity was measured at five sites (See **Tables 10** and **11**), although two of the five measured survival at or greater than 90%. Follow up pesticide testing was performed on the three samples exhibiting severe toxicity. These results were compared to literature values for the purpose of determining the probable cause of toxicity in each sample. In all cases pesticides were present in sufficient quantity to have caused the toxicity.

    - Blewett Drain at Highway 13 (3.75% survival): A total of 2.33 sediment toxic units (TUs) were calculated based on the detected pesticides. Bifentrhin accounted for 1.88 TUs, esfenvalerate accounted for 0.34 TUs and chlorpyrifos accounted for 0.6 TUs.
    - Ingram Creek (1.25% Survival): 5.53 TUs were calculated, with bifenthrin and lambda cyhalothrin, and chlorpyrifos accounting for 2.78 TUs, 1.4 TUs, and 1.04 TUs, respectively.
    - Westley Wasteway (1.25% Survival): A total of 4.66 TUs, with bifentrhin, chlorpyrifos, and lambda cyhalothrin accounting for 3.79 TUs, 0.65 TUs, and 0.13 TUs, respectively.

Bifenthrin, Lambda-cyhalothrin, and Esfenvalerate are all pyethroids use on a variety of field and tree crops including, tomatoes, corn, beans, alfalfa, walnuts, and almonds, all of which are grown in the northerly part of the Westside Coalition. The majority of walnut and almond orchards within the Westside Coalition are irrigated with micro-sprinklers and drip systems which do not generate significant tailwater. It is likely that the discharge of these materials were from field crops using furrow or other surface irrigation methods.

Figure 4 shows the number statistically significant observations during the spring sediment sampling events. The Spring 2013 sediment results showed a higher number of sites with observed toxicity than the previous year, although toxicity two of the sites was relatively mild. The Westside Coalition believes the best way to reduce sediment toxicity will be through the management of sediment discharges at the farm level, however the steep land slopes and erodible condition of the soil, particularly in the Patterson Subarea, continues to be a hurdle. Sedimentation ponds and tailwater return ponds, along with grower awareness of the issue will likely reduce the amount of sediment load leaving the farm and depositing in the waterways. The Coalition's Management Plan and Focused Watershed Plan include management approaches to address sediment toxicity. There appears to be an improving trend in sediment toxicity, possibly due to the Coalition's outreach efforts.

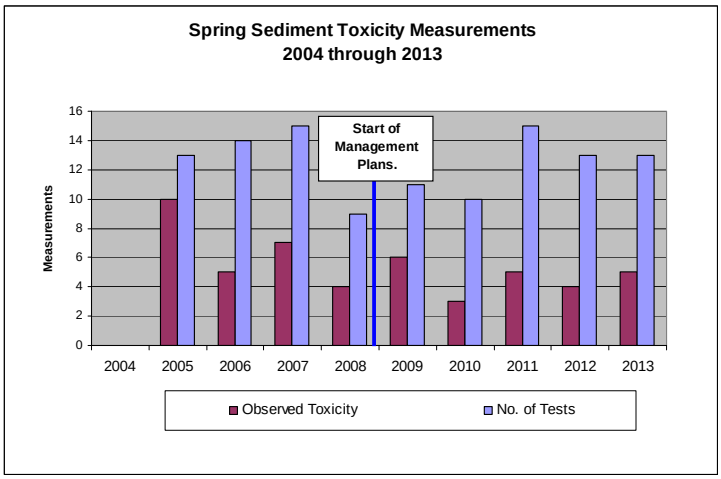


Figure 4: Fall Count of Sediment Toxicity.

Figure 5 shows the trend of percent survival for sediment toxicity (average percent survival for all tested sites at each event), along with a linear trendline. Based on the trendline, there appears to be an improving trend in terms of the magnitude of survival, although the most recent toxicity results were an improvement over the 2012 fall test results.

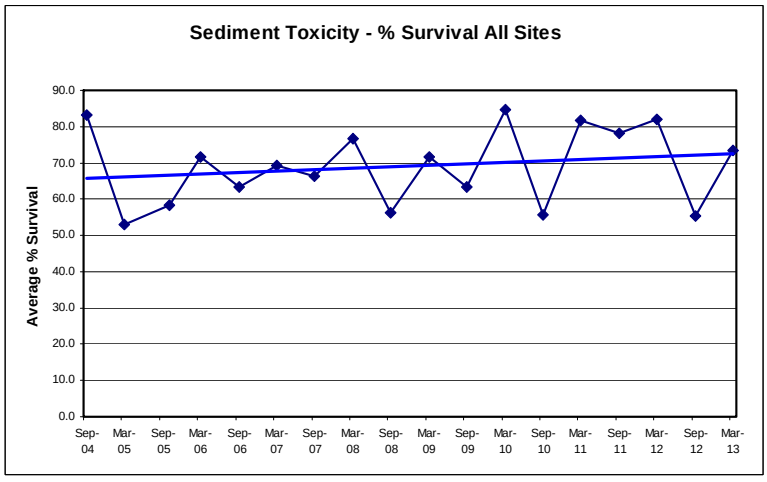


Figure 5: Percent Survival Trend.

- **Aquatic Toxicity:** Aquatic toxicity to *Ceriodaphnia dubia* (water flea), fathead minnow, and algae were tested in accordance with the MRP Order (see **Attachment 7**). A total of 173 aquatic toxicity tests were performed, including 16 field duplicates. Aquatic toxicity was observed once to algae and eight times to water flea. **Attachment 2** provides monitoring results for all of the sites that measured significant toxicity, including a discussion of the TIE and dilution series findings.

- **Pesticide Analyses:** During this reporting period, 14 different pesticides were detected in water samples during the 2013 irrigation season for a total of 117 detections. Fifty one of these detections exceeded the established RWQV, including 10 for chlorpyrifos and 8 for diazinon. See **Attachment 2**.

- **Chlorpyrifos and Diazinon TMDL Program:** In addition to its monthly monitoring program, the Westside Coalition also participates in the San Joaquin River Chlorpyrifos and Diazinon TMDL program. The Westside Coalition collects water monthly samples for chlorpyrifos and diazinon analysis at the San Joaquin River at Sack Dam, Lander Avenue, and Las Palmas Avenue (near the PID pumps) and collaborates with the Eastside Coalition in the development of the TMDL monitoring report and outreach activities. During this reporting period, chlorpyrifos was detected at the San Joaquin River at Patterson Pumps (Las Palmas Avenue) monitoring site during the March sample event. An annual monitoring report for the San Joaquin River Chlorpyrifos and Diazinon TMDL program covering October 2012 through September 2013 will be submitted to the Central Valley Regional Water Quality Control Board in May 2014.

- **General Chemistry and Field Observations:** The monitoring results for field and general chemistry tests were generally similar to previous irrigation seasons. EC/TDS measured the largest number of exceedances for this reporting period (96 and 86 exceedances, respectively). Bacteria continues to be a leading source of exceedances (26 for E. Coli during this period). There were also 29 boron exceedances. Boron is typically connected with shallow groundwater within the Westside San Joaquin Valley, and given the weak water supply, growers likely relied more on wells than is typical for a more normal water year. Dissolved cadmium, copper, lead, nickel, and zinc results were compared to the calculated RWQV (based on site water hardness) and no exceedances were measured during this reporting period. With many of these constituents, the source of the exceedance is neither clear nor easily traceable, and often can be found in the source water itself (such as the San Joaquin River at Sack Dam or the Delta-Mendota Canal).

SECTION 10: COMMUNICATION REPORTS

Exceedance reports were submitted to the Central Valley Regional Water Quality Control Board in response to monitoring results for the reporting period. These reports are included in **Appendix B.**

Follow-up included reporting statistically significant toxic events and exceedences of water quality values to the overlying districts, PCA's and to individual Coalition participants. The districts would then communicate with the affected growers to notify them that there is a problem. Meetings are then to be organized at the Coalition level as required to inform landowners, operators, PCA's, chemical applicators and others on monitoring results and likely best management measures that could be undertaken to minimize these problems (see **Table 14**).

SECTION 11: CONCLUSIONS AND RECOMMENDATIONS

The Westside Coalition's monitoring program has identified constituents of concern (see **Attachments 2** and **5**). The Westside Coalition has submitted a Management Plan and Focused Watershed Plan to address the water quality concerns discovered by previous monitoring. Implementation of these plans has begun.

The Westside Coalition monitoring program has accumulated data from 105 regular monitoring events and 13 rain events. Data from this reporting period has verified previously identified water quality issues but has also showed some indications of an improving trend in water quality (see **Section 9**). The Westside Coalition began implementation of management plans in 2008. For a basis of comparison, data from the most recent three year period (September 2010 to August 2013) was compared to the three year period prior to management plan implementation (September 2005 to August 2008) and there are some promising improvements:

- Ceriodaphnia dubia toxicity: 20 exceedances out of 480 tests (4%) for the most current period, compared to 25 exceedances out of 394 tests (6%).
- Fathead minnow toxicity: 1 exceedances out of 279 tests (<1%) for the most current period, compared to 5 exceedances out of 309 tests (2%).
- Algae toxicity: 17 exceedances out of 338 tests (5%) for the most current period, compared to 33 exceedances out of 345 tests (10%).
- Chlorpyrifos: 37 exceedances out of 599 tests (6%) for the most current period compared to 67 exceedances out of 390 tests (17%).
- Diazinon: 9 exceedances out of 600 tests (2%) for the most current period compared to 6 exceedances out of 391 tests (2%).
- Total pesticide detections: Approximately 2.1% of analyzed pesticides detected in the current period verses almost 5% of analyzed pesticides detected in the period prior to management plan implementation.
- Sediment toxicity: 28 toxicity observations out of 79 tests (35%) in the current period compared to 38 observations out of 85 tests (45%).

A complete tally of exceedances by site and constituent is included in **Attachment 6**.

Attachment 1
Sampling Event Details

Event 100	Map	Caltest		APPL	PER				
March, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	Dup?
Hospital Cr at River Road	HCARR	**No Flow**			x				
Ingram Cr at River Road	ICARR	x	x	x	x	x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x	x	x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x	x	x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**			x				
Ramona Lake near Fig Avenue	ROLFA	x		x	x	x			
Marshall Road Drain near River Road	MRDRR	x		x		x			
Orestimba Cr at River Road	OCARR	**No Flow**			x				
Orestimba Cr at Hwy 33	OCAHW	x	x	x	x	x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x	x	x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x	x	x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x	x	x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	x		x	x	x			
Poso Slough at Indiana Avenue	PSAIA	x	x	x	x	x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Event 101	Map	Caltest		APPL	PER				
April, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	Dup?
Hospital Cr at River Road	HCARR	**No Flow**							
Ingram Cr at River Road	ICARR	x	x	x		x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x		x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x		x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**							
Ramona Lake near Fig Avenue	ROLFA	x		x		x			
Marshall Road Drain near River Road	MRDRR	**No Flow**							
Orestimba Cr at River Road	OCARR	**No Flow**							
Orestimba Cr at Hwy 33	OCAHW	x	x	x		x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x		x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x		x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x		x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	**No Flow**							
Poso Slough at Indiana Avenue	PSAIA	x	x	x		x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Event 102	Map	Caltest		APPL	PER				
May, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	Dup?
Hospital Cr at River Road	HCARR	x	x	x		x		x	
Ingram Cr at River Road	ICARR	x	x	x		x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x		x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x		x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**							
Ramona Lake near Fig Avenue	ROLFA	x		x		x			
Marshall Road Drain near River Road	MRDRR	x		x		x			
Orestimba Cr at River Road	OCARR	**No Flow**							
Orestimba Cr at Hwy 33	OCAHW	x	x	x		x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x		x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x		x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x		x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	**No Flow**							
Poso Slough at Indiana Avenue	PSAIA	x	x	x		x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Event 103	Map	Caltest		APPL	PER				
June, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	Dup?
Hospital Cr at River Road	HCARR	x	x	x		x		x	
Ingram Cr at River Road	ICARR	x	x	x		x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x		x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x		x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**							
Ramona Lake near Fig Avenue	ROLFA	x		x		x			
Marshall Road Drain near River Road	MRDRR	x		x		x			
Orestimba Cr at River Road	OCARR	**No Flow**							
Orestimba Cr at Hwy 33	OCAHW	x	x	x		x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x		x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x		x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x		x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	x		x		x			
Poso Slough at Indiana Avenue	PSAIA	x	x	x		x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Event 104	Map	Caltest		APPL	PER				Dup?
July, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	
Hospital Cr at River Road	HCARR	x	x	x		x		x	
Ingram Cr at River Road	ICARR	x	x	x		x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x		x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x		x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**							
Ramona Lake near Fig Avenue	ROLFA	x		x		x			
Marshall Road Drain near River Road	MRDRR	x		x		x			
Orestimba Cr at River Road	OCARR	**No Flow**							
Orestimba Cr at Hwy 33	OCAHW	x	x	x		x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x		x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x		x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x		x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	x		x		x			
Poso Slough at Indiana Avenue	PSAIA	x	x	x		x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Event 105	Map	Caltest		APPL	PER				Dup?
August, 2013	Desig.	Gen Phy	metals	Pest	Sed Tox	CD Tox	PP Tox	SC Tox	
Hospital Cr at River Road	HCARR	**No Flow**							
Ingram Cr at River Road	ICARR	x	x	x		x		x	
Westley Wasteway near Cox Road	WWNCR	x	x	x		x		x	
Del Puerto Cr near Cox Road	DPCCR	x		x		x			
Del Puerto Cr at Hwy 33	DPCHW	**No Flow**							
Ramona Lake near Fig Avenue	ROLFA	x		x		x			
Marshall Road Drain near River Road	MRDRR	x		x		x			
Orestimba Cr at River Road	OCARR	**No Flow**							
Orestimba Cr at Hwy 33	OCAHW	x	x	x		x		x	
Newman Wasteway near Hills Ferry Road	NWHFR	x		x		x			
San Joaquin River at Lander Avenue	SJRLA	x		x		x			
Mud Slough u/s San Luis Drain	MSUSL	x		x		x			
Salt Slough at Lander Avenue	SSALA	x		x		x			
Salt Slough at Sand Dam	SSASD			x		x			
Los Banos Creek at Highway 140	LBCHW	x	x	x		x		x	
Los Banos Creek at China Camp Road	LBCCC	x	x	x		x	x	x	
Turner Slough near Edminster Road	TSAER	x		x		x	x		
Blewett Drain near Highway 132	VH132	x		x		x			
Poso Slough at Indiana Avenue	PSAIA	x	x	x		x	x	x	x
San Joaquin River at Sack Dam	SJRSD	x	x	x					
San Joaquin River at PID Pumps	SJRPP	x	x	x					
Delta Mendota Canal at Del Puerto WD	DMCDP	x	x	x					

Attachment 2
Significant Aquatic Toxicity Results

Westside San Joaquin River Watershed Coalition
Significant Aquatic Toxicity Results

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Ingram Creek at River Road	3/12/2013	100	Selenastrum capricornutum	1,360,000	2,523,000	46%	cells/ml

Followup: Cell growth was more than 50% of the control and follow up testing was not required. Diuron was detected in the sample at elevated levels and likely contributed to the toxicity.

Field Data

DO	6.13	mg/l
EC	400	µmhos/cm
Est Depth		ft
Flow	8.2	cfs
pH	7.51	
Staff Gage	0.4	ft
Temp	13.31	c

Water Chemistry

Bromide	0.57	DNQ	mg/L
Dissolved Organic Carbon	6.3		mg/L
E. coli	47		MPN/100
Total Organic Carbon	6.5		mg/L
Hardness as CaCO3	330		mg/L
Total Dissolved Solids	870		mg/L
Total Suspended Solids	449		mg/L
Turbidity	200		NTU
Arsenic	6.1		ug/L
Boron	870		ug/L
Cadmium	0.1		ug/L
Cadmium (Dissolved)	-0.05	ND	ug/L
Copper	17		ug/L
Copper (Dissolved)	2.1		ug/L
Lead	5.3		ug/L
Lead (Dissolved)	-0.03	ND	ug/L
Nickel	28		ug/L
Nickel (Dissolved)	2.4		ug/L
Selenium	1.2		ug/L
Zinc	33		ug/L
Zinc (Dissolved)	0.8	DNQ	ug/L
Ammonia as N	0.24		mg/L
Nitrate + Nitrite as N	3.3		mg/L
Nitrogen, Total Kjeldahl	0.47		mg/L
OrthoPhosphate as P	0.23		mg/L
Phosphate as P	0.77		mg/L

Detected Pesticides

DDE(p,p')	0.026	=
Diuron	8.4	=
Methomyl	0.054	DNQ
Prowl	0.38	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Poso Slough at Indiana Ave	3/12/2013	100	Ceriodaphnia dubia	0	95	100%	%

Followup: Follow up testing measured 2.9 toxic units and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	9.21	mg/l
EC	921	µmhos/cm
Est Depth	2.39	ft
Flow		cfs
pH	7.67	
Staff Gage		ft
Temp	17.3	c

Water Chemistry

Bromide	0.15	DNQ	mg/L
Dissolved Organic Carbon	5.3		mg/L
E. coli	63		MPN/100
Total Organic Carbon	5.3		mg/L
Hardness as CaCO3	210		mg/L
Total Dissolved Solids	560		mg/L
Total Suspended Solids	103		mg/L
Turbidity	55		NTU
Arsenic	8.8		ug/L
Boron	330		ug/L
Cadmium	0.08	DNQ	ug/L
Cadmium (Dissolved)	-0.05	ND	ug/L
Copper	5.6		ug/L
Copper (Dissolved)	2.3		ug/L
Lead	1.4		ug/L
Lead (Dissolved)	-0.03	ND	ug/L
Nickel	7		ug/L
Nickel (Dissolved)	2.6		ug/L
Selenium	0.58	DNQ	ug/L
Zinc	14		ug/L
Zinc (Dissolved)	1.1		ug/L
Ammonia as N	0.53		mg/L
Nitrate + Nitrite as N	2.9		mg/L
Nitrogen, Total Kjeldahl	1.2		mg/L
OrthoPhosphate as P	0.23		mg/L
Phosphate as P	0.41		mg/L

Detected Pesticides

Chlorpyrifos	0.13	=
Diuron	0.62	=
Malathion	3.9	=
Prowl	0.26	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Salt Slough at Sand Dam	3/12/2013	100	Ceriodaphnia dubia	0	95	100%	%

Followup: Follow up testing measured 2.6 toxic units and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	7.33	mg/l
EC	1056	µmhos/cm
Est Depth	6.84	ft
Flow		cfs
pH	7.61	
Staff Gage	2.35	ft
Temp	14.31	c

Water Chemistry

Detected Pesticides

Diuron	1.3	=
Malathion	2.7	=
Prowl	0.94	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Del Puerto Creek near Cox Road	5/14/2013	102	Ceriodaphnia dubia	0	100	100%	%

Followup: Follow up testing measured 3.1 toxic units and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	6.15	mg/l
EC	1293	µmhos/cm
Est Depth	2	ft
Flow	81	cfs
pH	8.19	
Staff Gage		ft
Temp	13.25	c

Water Chemistry

Bromide	0.44	DNQ	mg/L
Dissolved Organic Carbon	10		mg/L
E. coli	1986.3		MPN/100
Total Organic Carbon	16		mg/L
Hardness as CaCO3	420		mg/L
Total Dissolved Solids	940		mg/L
Total Suspended Solids	691		mg/L
Turbidity	450		NTU
Ammonia as N	0.18		mg/L
Nitrate + Nitrite as N	4.9		mg/L
Nitrogen, Total Kjeldahl	0.88		mg/L
OrthoPhosphate as P	0.05		mg/L
Phosphate as P	1.3		mg/L

Detected Pesticides

Carbaryl	7.3	=
DDE(p,p')	0.018	=
Diazinon	0.066	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Ingram Creek at River Road	5/14/2013	102	Ceriodaphnia dubia	5	100	95%	%

Followup: Follow up testing measured 3.1 toxic units and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	7.14	mg/l
EC	1172	µmhos/cm
Est Depth		ft
Flow	11.5	cfs
pH	8.04	
Staff Gage	0.5	ft
Temp	12.71	c

Water Chemistry

Bromide	0.44	DNQ	mg/L
Dissolved Organic Carbon	4.7		mg/L
E. coli	461.1		MPN/100
Total Organic Carbon	7.3		mg/L
Hardness as CaCO3	320		mg/L
Total Dissolved Solids	830		mg/L
Total Suspended Solids	548		mg/L
Turbidity	210		NTU
Arsenic	7.3		ug/L
Boron	790		ug/L
Cadmium	0.098	DNQ	ug/L
Cadmium (Dissolved)	-0.05	ND	ug/L
Copper	19		ug/L
Copper (Dissolved)	2.1		ug/L
Lead	6.4		ug/L
Lead (Dissolved)	-0.03	ND	ug/L
Nickel	31		ug/L
Nickel (Dissolved)	2.3		ug/L
Selenium	1.3		ug/L
Zinc	45		ug/L
Zinc (Dissolved)	2.6		ug/L
Ammonia as N	0.27		mg/L
Nitrate + Nitrite as N	5.7		mg/L
Nitrogen, Total Kjeldahl	3		mg/L
OrthoPhosphate as P	0.27		mg/L
Phosphate as P	0.82		mg/L

Detected Pesticides

Chlorpyrifos	0.27	=
DDE(p,p')	0.018	=
Diazinon	0.55	=
HCH, beta	0.016	=
Prowl	0.73	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Marshall Road Drain near River Road	5/14/2013	102	Ceriodaphnia dubia	0	95	100%	%

Followup: Follow up testing measured 6.1 toxic unites and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	5.61	mg/l
EC	1159	µmhos/cm
Est Depth		ft
Flow		cfs
pH	7.94	
Staff Gage		ft
Temp	13.33	c

Water Chemistry

Bromide	0.36	DNQ	mg/L
Dissolved Organic Carbon	5.2		mg/L
E. coli	43.5		MPN/100
Total Organic Carbon	5.8		mg/L
Hardness as CaCO3	270		mg/L
Total Dissolved Solids	790		mg/L
Total Suspended Solids	122		mg/L
Turbidity	55		NTU
Ammonia as N	0.12		mg/L
Nitrate + Nitrite as N	4.9		mg/L
Nitrogen, Total Kjeldahl	1.1		mg/L
OrthoPhosphate as P	0.18		mg/L
Phosphate as P	0.37		mg/L

Detected Pesticides

Diazinon	2.9	=
Prowl	0.50	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Orestimba Creek at Hwy 33	5/14/2013	102	Ceriodaphnia dubia	0	95	100%	%

Followup: Follow up testing measured 2.8 toxic units and the TIE indicated that pesticides were the likely cause of toxicity.

Field Data

DO	2.45	mg/l
EC	985	µmhos/cm
Est Depth		ft
Flow	0	cfs
pH	7.92	
Staff Gage		ft
Temp	13.51	c

Water Chemistry

Hardness as CaCO3	360		mg/L
Arsenic	2.5		ug/L
Boron	370		ug/L
Cadmium	-0.05	ND	ug/L
Cadmium (Dissolved)	-0.05	ND	ug/L
Copper	5		ug/L
Copper (Dissolved)	1.1		ug/L
Lead	1.1		ug/L
Lead (Dissolved)	-0.03	ND	ug/L
Nickel	4.8		ug/L
Nickel (Dissolved)	1.6		ug/L
Selenium	5.9		ug/L
Zinc	7.5		ug/L
Zinc (Dissolved)	0.9	DNQ	ug/L

Detected Pesticides

DDE(p,p')	0.012	=
Diazinon	1.3	=

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Del Puerto Creek near Cox Road	6/11/2013	103	Ceriodaphnia dubia	10	100	90%	%

Followup: Toxicity was not persistent in follow up testing. No pesticides were detected and the cause of toxicity is not known.

Field Data

DO	6.58	mg/l
EC	1277	µmhos/cm
Est Depth	1	ft
Flow	1.8	cfs
pH	7.47	
Staff Gage		ft
Temp	16.5	c

Water Chemistry

Bromide	0.39	DNQ	mg/L
Dissolved Organic Carbon	4.3		mg/L
E. coli	57.3		MPN/100
Total Organic Carbon	4.6		mg/L
Hardness as CaCO3	380		mg/L
Total Dissolved Solids	940		mg/L
Total Suspended Solids	12		mg/L
Turbidity	5.5		NTU
Ammonia as N	0.16		mg/L
Nitrate + Nitrite as N	3.9		mg/L
Nitrogen, Total Kjeldahl	1.3		mg/L
OrthoPhosphate as P	0.18		mg/L
Phosphate as P	0.23		mg/L

Detected Pesticides

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Percent Difference	Units
Ingram Creek at River Road	6/11/2013	103	Ceriodaphnia dubia	0	100	100%	%

Followup: Follow up testing measured 2.8 Toxic Units and a TIE indicated that a pesticide was the likely cause of toxicity.

Field Data

DO	5.62	mg/l
EC	1172	µmhos/cm
Est Depth		ft
Flow	12.2	cfs
pH	7.45	
Staff Gage	0.52	ft
Temp	15.4	c

Water Chemistry

Bromide	0.42	DNQ	mg/L
Dissolved Organic Carbon	5.6		mg/L
E. coli	2419.6	>	MPN/100
Total Organic Carbon	7.7		mg/L
Hardness as CaCO3	350		mg/L
Total Dissolved Solids	870		mg/L
Total Suspended Solids	759		mg/L
Turbidity	200		NTU
Arsenic	7.3		ug/L
Boron	760		ug/L
Cadmium	0.1		ug/L
Cadmium (Dissolved)	-0.05	ND	ug/L
Copper	18		ug/L
Copper (Dissolved)	1.9		ug/L
Lead	5.5		ug/L
Lead (Dissolved)	-0.03	ND	ug/L
Nickel	28		ug/L
Nickel (Dissolved)	2.9		ug/L
Selenium	1.4		ug/L
Zinc	40		ug/L
Zinc (Dissolved)	5.1		ug/L
Ammonia as N	0.44		mg/L
Nitrate + Nitrite as N	5.4		mg/L
Nitrogen, Total Kjeldahl	3.6		mg/L
OrthoPhosphate as P	0.22		mg/L
Phosphate as P	0.9		mg/L

Detected Pesticides

DDE(p,p')	0.040	=
Diazinon	1.1	=
Diuron	0.28	DNQ
Prowl	0.52	=
Toxaphene	0.41	DNQ

DNQ = Estimated value, below reporting limit.
Y = % Difference primary and confirmation column is >40%.
B = Constituent also detected in blank sample.

Attachment 3
Field Quality Control Sample Results

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
Sample Date:	**3/12/2013**	**Site:**	**Poso Slough at Indiana Ave**					
Ammonia as N	General Chemistry	0.53		-0.04	ND	mg/L	NA	
Arsenic	General Chemistry	8.8		-0.06	ND	ug/L	NA	
Boron	General Chemistry	330		-2	ND	ug/L	NA	
Bromide	General Chemistry	0.15	DNQ	-0.01	ND	mg/L	NA	
Cadmium	General Chemistry	0.08	DNQ	-0.05	ND	ug/L	NA	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	5.6		3.1		ug/L	45%	*
Copper (Dissolved)	General Chemistry	2.3		-0.07	ND	ug/L	NA	
Dissolved Organic Carbon	General Chemistry	5.3		-0.3	ND	mg/L	NA	
E. coli	General Chemistry	63		-1	ND	MPN/100 mL	NA	
Hardness as CaCO3	General Chemistry	210		-1.7	ND	mg/L	NA	
Lead	General Chemistry	1.4		0.06	DNQ	ug/L	96%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	7		0.06	DNQ	ug/L	99%	
Nickel (Dissolved)	General Chemistry	2.6		-0.06	ND	ug/L	NA	
Nitrate + Nitrite as N	General Chemistry	2.9		-0.02	ND	mg/L	NA	
Nitrogen, Total Kjeldahl	General Chemistry	1.2		-0.07	ND	mg/L	NA	
OrthoPhosphate as P	General Chemistry	0.23		-0.006	ND	mg/L	NA	
Phosphate as P	General Chemistry	0.41		-0.007	ND	mg/L	NA	
Selenium	General Chemistry	0.58	DNQ	-0.06	ND	ug/L	NA	
Total Dissolved Solids	General Chemistry	560		-4	ND	mg/L	NA	
Total Organic Carbon	General Chemistry	5.3		1.7		mg/L	68%	*
Total Suspended Solids	General Chemistry	103		-2	ND	mg/L	NA	
Turbidity	General Chemistry	55		-0.03	ND	NTU	NA	
Zinc	General Chemistry	14		2.9		ug/L	79%	*
Zinc (Dissolved)	General Chemistry	1.1		-0.5	ND	ug/L	NA	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	0.13	=	-0.0026	ND	ug/L	NA	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.62	=	-0.20	ND	ug/L	NA	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	3.9	=	-0.050	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	0.26	=	-0.04	ND	ug/L	NA	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date:	**4/9/2013**	**Site:**	**Poso Slough at Indiana Ave**					
Ammonia as N	General Chemistry	0.15		-0.04	ND	mg/L	NA	
Arsenic	General Chemistry	7.9		-0.06	ND	ug/L	NA	
Boron	General Chemistry	380		-2	ND	ug/L	NA	
Bromide	General Chemistry	0.28	DNQ	-0.02	ND	mg/L	NA	
Cadmium	General Chemistry	0.08	DNQ	-0.05	ND	ug/L	NA	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	8.5		3.4		ug/L	60%	*
Copper (Dissolved)	General Chemistry	1.4		3		ug/L	114%	*
Dissolved Organic Carbon	General Chemistry	3.4		-0.3	ND	mg/L	NA	
E. coli	General Chemistry	61		-1	ND	MPN/100 mL	NA	
Hardness as CaCO3	General Chemistry	220		-1.7	ND	mg/L	NA	
Lead	General Chemistry	2.7		0.06	DNQ	ug/L	98%	
Lead (Dissolved)	General Chemistry	-0.03	ND	0.04	DNQ	ug/L	NA	*
Nickel	General Chemistry	10		-0.06	ND	ug/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
Nickel (Dissolved)	General Chemistry	1.7		-0.06	ND	ug/L	NA	
Nitrate + Nitrite as N	General Chemistry	1.2		-0.02	ND	mg/L	NA	
Nitrogen, Total Kjeldahl	General Chemistry	1.3		-0.07	ND	mg/L	NA	
OrthoPhosphate as P	General Chemistry	0.11		-0.006	ND	mg/L	NA	
Phosphate as P	General Chemistry	0.38		-0.007	ND	mg/L	NA	
Selenium	General Chemistry	0.36	DNQ	-0.06	ND	ug/L	NA	
Total Dissolved Solids	General Chemistry	670		-4	ND	mg/L	NA	
Total Organic Carbon	General Chemistry	4.8		1.2		mg/L	75%	*
Total Suspended Solids	General Chemistry	173		-2	ND	mg/L	NA	
Turbidity	General Chemistry	100		-0.03	ND	NTU	NA	
Zinc	General Chemistry	23		3.1		ug/L	87%	
Zinc (Dissolved)	General Chemistry	-0.5	ND	1.8		ug/L	NA	*
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	4.4	=	-0.080	ND	ug/L	NA	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.23	DNQ	-0.20	ND	ug/L	NA	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 5/14/2013 Site: Poso Slough at Indiana Ave								
Ammonia as N	General Chemistry	0.51		-0.04	ND	mg/L	NA	
Arsenic	General Chemistry	6.1		-0.06	ND	ug/L	NA	
Boron	General Chemistry	400		-2	ND	ug/L	NA	
Bromide	General Chemistry	0.25	DNQ	-0.03	ND	mg/L	NA	
Cadmium	General Chemistry	0.07	DNQ	-0.05	ND	ug/L	NA	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	7.2		-0.07	ND	ug/L	NA	
Copper (Dissolved)	General Chemistry	2		-0.07	ND	ug/L	NA	
Dissolved Organic Carbon	General Chemistry	6		0.59		mg/L	90%	
E. coli	General Chemistry	178.5		-1	ND	MPN/100 mL	NA	
Hardness as CaCO3	General Chemistry	260		-1.7	ND	mg/L	NA	
Lead	General Chemistry	2		-0.03	ND	ug/L	NA	
Lead (Dissolved)	General Chemistry	0.03	DNQ	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	10		-0.06	ND	ug/L	NA	
Nickel (Dissolved)	General Chemistry	3.1		-0.06	ND	ug/L	NA	
Nitrate + Nitrite as N	General Chemistry	4.8		-0.02	ND	mg/L	NA	
Nitrogen, Total Kjeldahl	General Chemistry	1.9		-0.07	ND	mg/L	NA	
OrthoPhosphate as P	General Chemistry	0.27		-0.006	ND	mg/L	NA	
Phosphate as P	General Chemistry	0.59		-0.007	ND	mg/L	NA	
Selenium	General Chemistry	0.87	DNQ	-0.06	ND	ug/L	NA	
Total Dissolved Solids	General Chemistry	730		-4	ND	mg/L	NA	
Total Organic Carbon	General Chemistry	7.8		2.5		mg/L	68%	*
Total Suspended Solids	General Chemistry	144		-2	ND	mg/L	NA	
Turbidity	General Chemistry	65		-0.03	ND	NTU	NA	
Zinc	General Chemistry	16		-0.7	ND	ug/L	NA	
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Chlorpyrifos	Pesticide	0.26	=	-0.0026	ND	ug/L	NA
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA
Diuron	Pesticide	2.3	=	-0.20	ND	ug/L	NA
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA
Prowl	Pesticide	0.50	=	-0.04	ND	ug/L	NA
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA
Sample Date: 6/11/2013 Site: Poso Slough at Indiana Ave							
Ammonia as N	General Chemistry	1.7		-0.04	ND	mg/L	NA

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference
Arsenic	General Chemistry	6.9		-0.06	ND	ug/L	NA
Boron	General Chemistry	430		-2	ND	ug/L	NA
Bromide	General Chemistry	0.28	DNQ	-0.03	ND	mg/L	NA
Cadmium	General Chemistry	0.06	DNQ	-0.05	ND	ug/L	NA
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA
Copper	General Chemistry	6.9		-0.07	ND	ug/L	NA
Copper (Dissolved)	General Chemistry	2.1		-0.07	ND	ug/L	NA
Dissolved Organic Carbon	General Chemistry	6		0.62		mg/L	90%
E. coli	General Chemistry	2419.6	>	6.3		MPN/100 mL	100%
Hardness as CaCO3	General Chemistry	280		-1.7	ND	mg/L	NA
Lead	General Chemistry	1.7		-0.03	ND	ug/L	NA
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA
Nickel	General Chemistry	8.5		-0.06	ND	ug/L	NA
Nickel (Dissolved)	General Chemistry	2.8		-0.06	ND	ug/L	NA
Nitrate + Nitrite as N	General Chemistry	2.1		-0.02	ND	mg/L	NA
Nitrogen, Total Kjeldahl	General Chemistry	4		-0.07	ND	mg/L	NA
OrthoPhosphate as P	General Chemistry	0.27		-0.006	ND	mg/L	NA
Phosphate as P	General Chemistry	0.59		-0.007	ND	mg/L	NA
Selenium	General Chemistry	0.67	DNQ	-0.06	ND	ug/L	NA
Total Dissolved Solids	General Chemistry	670		-4	ND	mg/L	NA
Total Organic Carbon	General Chemistry	8.4		0.82		mg/L	90%
Total Suspended Solids	General Chemistry	147		-2	ND	mg/L	NA
Turbidity	General Chemistry	50		-0.03	ND	NTU	NA
Zinc	General Chemistry	15		-0.7	ND	ug/L	NA
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Chlorpyrifos	Pesticide	0.050	=	-0.0026	ND	ug/L	NA
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA
Diuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	0.44	=	-0.04	ND	ug/L	NA	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date:	**7/9/2013**	**Site:**	**Poso Slough at Indiana Ave**					
Ammonia as N	General Chemistry	0.88		-0.04	ND	mg/L	NA	
Arsenic	General Chemistry	7.3		0.07	DNQ	ug/L	99%	
Boron	General Chemistry	300		-2	ND	ug/L	NA	
Bromide	General Chemistry	0.16	DNQ	-0.03	ND	mg/L	NA	
Cadmium	General Chemistry	0.06	DNQ	-0.05	ND	ug/L	NA	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	7.4		8.2		ug/L	11%	*
Copper (Dissolved)	General Chemistry	1.9		2.7		ug/L	42%	*
Dissolved Organic Carbon	General Chemistry	5.5		-0.3	ND	mg/L	NA	
E. coli	General Chemistry	80.9		-1	ND	MPN/100 mL	NA	
Hardness as CaCO3	General Chemistry	200		-1.7	ND	mg/L	NA	
Lead	General Chemistry	2.5		0.1	DNQ	ug/L	96%	
Lead (Dissolved)	General Chemistry	-0.03	ND	0.03	DNQ	ug/L	NA	*
Nickel	General Chemistry	10		0.1	DNQ	ug/L	99%	
Nickel (Dissolved)	General Chemistry	2.2		-0.06	ND	ug/L	NA	
Nitrate + Nitrite as N	General Chemistry	1.9		-0.02	ND	mg/L	NA	
Nitrogen, Total Kjeldahl	General Chemistry	2.4		-0.07	ND	mg/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference	
OrthoPhosphate as P	General Chemistry	0.25		-0.006	ND	mg/L	NA	
Phosphate as P	General Chemistry	0.5		-0.007	ND	mg/L	NA	
Selenium	General Chemistry	0.5	DNQ	-0.06	ND	ug/L	NA	
Total Dissolved Solids	General Chemistry	490		-4	ND	mg/L	NA	
Total Organic Carbon	General Chemistry	7.1		-0.3	ND	mg/L	NA	
Total Suspended Solids	General Chemistry	211		-2	ND	mg/L	NA	
Turbidity	General Chemistry	95		-0.03	ND	NTU	NA	
Zinc	General Chemistry	20		5		ug/L	75%	*
Zinc (Dissolved)	General Chemistry	-0.5	ND	1.2		ug/L	NA	*
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.24	DNQ	-0.20	ND	ug/L	NA	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA
Sample Date: 8/13/2013 Site: Poso Slough at Indiana Ave							
Ammonia as N	General Chemistry	0.14		-0.04	ND	mg/L	NA
Arsenic	General Chemistry	6.5		-0.06	ND	ug/L	NA
Boron	General Chemistry	370		-2	ND	ug/L	NA
Bromide	General Chemistry	0.4	DNQ	-0.03	ND	mg/L	NA
Cadmium	General Chemistry	0.06	DNQ	-0.05	ND	ug/L	NA
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA
Copper	General Chemistry	5.4		-0.07	ND	ug/L	NA
Copper (Dissolved)	General Chemistry	1.3		-0.07	ND	ug/L	NA
Dissolved Organic Carbon	General Chemistry	4.1		-0.3	ND	mg/L	NA
E. coli	General Chemistry	235.9		-1	ND	MPN/100 mL	NA
Hardness as CaCO3	General Chemistry	220		-1.7	ND	mg/L	NA
Lead	General Chemistry	1.8		-0.03	ND	ug/L	NA
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA
Nickel	General Chemistry	7.1		-0.06	ND	ug/L	NA
Nickel (Dissolved)	General Chemistry	1.8		-0.06	ND	ug/L	NA
Nitrate + Nitrite as N	General Chemistry	0.42		-0.02	ND	mg/L	NA
Nitrogen, Total Kjeldahl	General Chemistry	1.5		-0.07	ND	mg/L	NA
OrthoPhosphate as P	General Chemistry	0.089		-0.006	ND	mg/L	NA
Selenium	General Chemistry	0.32	DNQ	-0.06	ND	ug/L	NA
Total Dissolved Solids	General Chemistry	640		-4	ND	mg/L	NA
Total Organic Carbon	General Chemistry	3.7		-0.3	ND	mg/L	NA
Total Suspended Solids	General Chemistry	116		-2	ND	mg/L	NA
Turbidity	General Chemistry	55		-0.03	ND	NTU	NA
Zinc	General Chemistry	15		-0.7	ND	ug/L	NA
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA
Azinphos methyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Blank

Analyte/Species	Type	Event	QC Code	FB	QC Code	Units	% Difference
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA
Diuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA

Event = Event Sample Result FB = Field Blank Sample Result

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Sample Date: 3/12/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	0.53		0.54		mg/L	2%	
Arsenic	General Chemistry	8.8		8.9		ug/L	1%	
Boron	General Chemistry	330		350		ug/L	6%	
Bromide	General Chemistry	0.15	DNQ	0.25	DNQ	mg/L	50%	*
Cadmium	General Chemistry	0.08	DNQ	0.07	DNQ	ug/L	13%	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	5.6		5.4		ug/L	4%	
Copper (Dissolved)	General Chemistry	2.3		2.2		ug/L	4%	
Dissolved Organic Carbon	General Chemistry	5.3		5.3		mg/L	0%	
E. coli	General Chemistry	63		79		MPN/100 mL	23%	
Hardness as CaCO3	General Chemistry	210		210		mg/L	0%	
Lead	General Chemistry	1.4		1.4		ug/L	0%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	7		7		ug/L	0%	
Nickel (Dissolved)	General Chemistry	2.6		2.6		ug/L	0%	
Nitrate + Nitrite as N	General Chemistry	2.9		2.8		mg/L	4%	
Nitrogen, Total Kjeldahl	General Chemistry	1.2		1.6		mg/L	29%	*
OrthoPhosphate as P	General Chemistry	0.23		0.22		mg/L	4%	
Phosphate as P	General Chemistry	0.41		0.44		mg/L	7%	
Selenium	General Chemistry	0.58	DNQ	0.62	DNQ	ug/L	7%	
Total Dissolved Solids	General Chemistry	560		560		mg/L	0%	
Total Organic Carbon	General Chemistry	5.3		5.4		mg/L	2%	
Total Suspended Solids	General Chemistry	103		107		mg/L	4%	
Turbidity	General Chemistry	55		50		NTU	10%	
Zinc	General Chemistry	14		12		ug/L	15%	
Zinc (Dissolved)	General Chemistry	1.1		1.3		ug/L	17%	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	0.13	=	0.14	=	ug/L	7%	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.62	=	0.60	=	ug/L	3%	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	3.9	=	4.1	=	ug/L	5%	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	0.26	=	0.27	=	ug/L	4%	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 4/9/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	0.15		0.19		mg/L	24%	
Arsenic	General Chemistry	7.9		7.5		ug/L	5%	
Boron	General Chemistry	380		380		ug/L	0%	
Bromide	General Chemistry	0.28	DNQ	0.28	DNQ	mg/L	0%	
Cadmium	General Chemistry	0.08	DNQ	0.05	DNQ	ug/L	46%	*
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	8.5		7.4		ug/L	14%	
Copper (Dissolved)	General Chemistry	1.4		1.4		ug/L	0%	
Dissolved Organic Carbon	General Chemistry	3.4		3.1		mg/L	9%	
E. coli	General Chemistry	61		80		MPN/100 mL	27%	*
Hardness as CaCO3	General Chemistry	220		220		mg/L	0%	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Lead	General Chemistry	2.7		2.4		ug/L	12%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	10		9.9		ug/L	1%	
Nickel (Dissolved)	General Chemistry	1.7		1.7		ug/L	0%	
Nitrate + Nitrite as N	General Chemistry	1.2		1.3		mg/L	8%	
Nitrogen, Total Kjeldahl	General Chemistry	1.3		1.4		mg/L	7%	
OrthoPhosphate as P	General Chemistry	0.11		0.11		mg/L	0%	
Phosphate as P	General Chemistry	0.38		0.37		mg/L	3%	
Selenium	General Chemistry	0.36	DNQ	0.39	DNQ	ug/L	8%	
Total Dissolved Solids	General Chemistry	670		650		mg/L	3%	
Total Organic Carbon	General Chemistry	4.8		3.2		mg/L	40%	*
Total Suspended Solids	General Chemistry	173		177		mg/L	2%	
Turbidity	General Chemistry	100		100		NTU	0%	
Zinc	General Chemistry	23		21		ug/L	9%	
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	4.4	=	4.5	=	ug/L	2%	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.23	DNQ	-0.20	ND	ug/L	NA	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 5/14/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	0.51		0.52		mg/L	2%	
Arsenic	General Chemistry	6.1		6.1		ug/L	0%	
Boron	General Chemistry	400		380		ug/L	5%	
Bromide	General Chemistry	0.25	DNQ	0.17	DNQ	mg/L	38%	*
Cadmium	General Chemistry	0.07	DNQ	0.08	DNQ	ug/L	13%	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	7.2		7		ug/L	3%	
Copper (Dissolved)	General Chemistry	2		2.1		ug/L	5%	
Dissolved Organic Carbon	General Chemistry	6		6.2		mg/L	3%	
E. coli	General Chemistry	178.5		160.7		MPN/100 mL	10%	
Hardness as CaCO3	General Chemistry	260		260		mg/L	0%	
Lead	General Chemistry	2		1.9		ug/L	5%	
Lead (Dissolved)	General Chemistry	0.03	DNQ	0.04	DNQ	ug/L	29%	*
Nickel	General Chemistry	10		9.4		ug/L	6%	
Nickel (Dissolved)	General Chemistry	3.1		3.2		ug/L	3%	
Nitrate + Nitrite as N	General Chemistry	4.8		5.3		mg/L	10%	
Nitrogen, Total Kjeldahl	General Chemistry	1.9		2.3		mg/L	19%	
OrthoPhosphate as P	General Chemistry	0.27		0.27		mg/L	0%	
Phosphate as P	General Chemistry	0.59		0.55		mg/L	7%	
Selenium	General Chemistry	0.87	DNQ	0.82	DNQ	ug/L	6%	
Total Dissolved Solids	General Chemistry	730		730		mg/L	0%	
Total Organic Carbon	General Chemistry	7.8		6		mg/L	26%	*
Total Suspended Solids	General Chemistry	144		140		mg/L	3%	
Turbidity	General Chemistry	65		65		NTU	0%	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD
Zinc	General Chemistry	16		16		ug/L	0%
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Chlorpyrifos	Pesticide	0.26	=	0.26	=	ug/L	0%
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA
Diuron	Pesticide	2.3	=	2.4	=	ug/L	4%
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Prowl	Pesticide	0.50	=	0.51	=	ug/L	2%	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 6/11/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	1.7		1.7		mg/L	0%	
Arsenic	General Chemistry	6.9		6.8		ug/L	1%	
Boron	General Chemistry	430		420		ug/L	2%	
Bromide	General Chemistry	0.28	DNQ	0.32	DNQ	mg/L	13%	
Cadmium	General Chemistry	0.06	DNQ	0.06	DNQ	ug/L	0%	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	6.9		6.7		ug/L	3%	
Copper (Dissolved)	General Chemistry	2.1		2.2		ug/L	5%	
Dissolved Organic Carbon	General Chemistry	6		5.9		mg/L	2%	
E. coli	General Chemistry	2419.6	>	2419.6	>	MPN/100 mL	0%	
Hardness as CaCO3	General Chemistry	280		260		mg/L	7%	
Lead	General Chemistry	1.7		1.7		ug/L	0%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	8.5		8.4		ug/L	1%	
Nickel (Dissolved)	General Chemistry	2.8		2.8		ug/L	0%	
Nitrate + Nitrite as N	General Chemistry	2.1		2.8		mg/L	29%	*
Nitrogen, Total Kjeldahl	General Chemistry	4		4.9		mg/L	20%	
OrthoPhosphate as P	General Chemistry	0.27		0.26		mg/L	4%	
Phosphate as P	General Chemistry	0.59		0.6		mg/L	2%	
Selenium	General Chemistry	0.67	DNQ	0.67	DNQ	ug/L	0%	
Total Dissolved Solids	General Chemistry	670		710		mg/L	6%	
Total Organic Carbon	General Chemistry	8.4		7		mg/L	18%	
Total Suspended Solids	General Chemistry	147		157		mg/L	7%	
Turbidity	General Chemistry	50		65		NTU	26%	*
Zinc	General Chemistry	15		14		ug/L	7%	
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	0.050	=	0.052	=	ug/L	4%	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	0.44	=	0.44	=	ug/L	0%	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 7/9/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	0.88		0.9		mg/L	2%	
Arsenic	General Chemistry	7.3		7.5		ug/L	3%	
Boron	General Chemistry	300		300		ug/L	0%	
Bromide	General Chemistry	0.16	DNQ	0.21	DNQ	mg/L	27%	*
Cadmium	General Chemistry	0.06	DNQ	0.08	DNQ	ug/L	29%	*
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	7.4		7.5		ug/L	1%	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
Copper (Dissolved)	General Chemistry	1.9		1.9		ug/L	0%	
Dissolved Organic Carbon	General Chemistry	5.5		5.2		mg/L	6%	
E. coli	General Chemistry	80.9		67		MPN/100 mL	19%	
Hardness as CaCO3	General Chemistry	200		180		mg/L	11%	
Lead	General Chemistry	2.5		2.4		ug/L	4%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	10		9.2		ug/L	8%	
Nickel (Dissolved)	General Chemistry	2.2		2.3		ug/L	4%	
Nitrate + Nitrite as N	General Chemistry	1.9		2.1		mg/L	10%	
Nitrogen, Total Kjeldahl	General Chemistry	2.4		2.6		mg/L	8%	
OrthoPhosphate as P	General Chemistry	0.25		0.25		mg/L	0%	
Phosphate as P	General Chemistry	0.5		0.54		mg/L	8%	
Selenium	General Chemistry	0.5	DNQ	0.46	DNQ	ug/L	8%	
Total Dissolved Solids	General Chemistry	490		480		mg/L	2%	
Total Organic Carbon	General Chemistry	7.1		7.4		mg/L	4%	
Total Suspended Solids	General Chemistry	211		150		mg/L	34%	*
Turbidity	General Chemistry	95		90		NTU	5%	
Zinc	General Chemistry	20		20		ug/L	0%	
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA	
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA	
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA	
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA	
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA	
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA	
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA	
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA	
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA	
Diuron	Pesticide	0.24	DNQ	0.25	DNQ	ug/L	4%	
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA	
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA	
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD	
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA	
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA	
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA	
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA	
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA	
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA	
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA	
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA	
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA	
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA	
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA	
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA	
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA	
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA	
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA	
Sample Date: 8/13/2013	**Site: Poso Slough at Indiana Ave**							
Ammonia as N	General Chemistry	0.14		0.16		mg/L	13%	
Arsenic	General Chemistry	6.5		6.8		ug/L	5%	
Boron	General Chemistry	370		370		ug/L	0%	
Bromide	General Chemistry	0.4	DNQ	0.39	DNQ	mg/L	3%	
Cadmium	General Chemistry	0.06	DNQ	0.06	DNQ	ug/L	0%	
Cadmium (Dissolved)	General Chemistry	-0.05	ND	-0.05	ND	ug/L	NA	
Copper	General Chemistry	5.4		5.7		ug/L	5%	
Copper (Dissolved)	General Chemistry	1.3		1.2		ug/L	8%	
Dissolved Organic Carbon	General Chemistry	4.1		3.9		mg/L	5%	
E. coli	General Chemistry	235.9		191.8		MPN/100 mL	21%	
Hardness as CaCO3	General Chemistry	220		210		mg/L	5%	
Lead	General Chemistry	1.8		1.8		ug/L	0%	
Lead (Dissolved)	General Chemistry	-0.03	ND	-0.03	ND	ug/L	NA	
Nickel	General Chemistry	7.1		7.4		ug/L	4%	
Nickel (Dissolved)	General Chemistry	1.8		1.8		ug/L	0%	
Nitrate + Nitrite as N	General Chemistry	0.42		0.41		mg/L	2%	
Nitrogen, Total Kjeldahl	General Chemistry	1.5		1.3		mg/L	14%	
OrthoPhosphate as P	General Chemistry	0.089		0.22		mg/L	85%	*
Selenium	General Chemistry	0.32	DNQ	0.36	DNQ	ug/L	12%	
Total Dissolved Solids	General Chemistry	640		640		mg/L	0%	

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD
Total Organic Carbon	General Chemistry	3.7		3.8		mg/L	3%
Total Suspended Solids	General Chemistry	116		123		mg/L	6%
Turbidity	General Chemistry	55		65		NTU	17%
Zinc	General Chemistry	15		17		ug/L	13%
Zinc (Dissolved)	General Chemistry	-0.5	ND	-0.5	ND	ug/L	NA
Aldicarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Aldrin	Pesticide	-0.009	ND	-0.009	ND	ug/L	NA
Atrazine	Pesticide	-0.07	ND	-0.07	ND	ug/L	NA
Carbaryl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Carbofuran	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Chlorpyrifos	Pesticide	-0.0026	ND	-0.0026	ND	ug/L	NA
Cyanazine	Pesticide	-0.09	ND	-0.09	ND	ug/L	NA
DDD(p,p')	Pesticide	-0.003	ND	-0.003	ND	ug/L	NA
DDE(p,p')	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
DDT(p,p')	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Demeton-s	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Diazinon	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Dichlorvos	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA
Dicofol	Pesticide	-0.01	ND	-0.01	ND	ug/L	NA
Dieldrin	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Dimethoate	Pesticide	-0.080	ND	-0.080	ND	ug/L	NA
Disulfoton	Pesticide	-0.020	ND	-0.020	ND	ug/L	NA
Diuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Endosulfan I	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endosulfan II	Pesticide	-0.004	ND	-0.004	ND	ug/L	NA
Endosulfan Sulfate	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Endrin	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
EPTC	Pesticide	-0.03	ND	-0.03	ND	ug/L	NA
HCH, alpha	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, beta	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
HCH, delta	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
HCH, gamma	Pesticide	-0.005	ND	-0.005	ND	ug/L	NA
Heptachlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Heptachlor epoxide	Pesticide	-0.007	ND	-0.007	ND	ug/L	NA
Linuron	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Malathion	Pesticide	-0.030	ND	-0.030	ND	ug/L	NA
Methamidophos	Pesticide	-0.10	ND	-0.10	ND	ug/L	NA
Methidathion	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Methiocarb	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Methomyl	Pesticide	-0.050	ND	-0.050	ND	ug/L	NA
Methoxychlor	Pesticide	-0.008	ND	-0.008	ND	ug/L	NA
Oxamyl	Pesticide	-0.20	ND	-0.20	ND	ug/L	NA
Parathion, Ethyl	Pesticide	-0.02	ND	-0.02	ND	ug/L	NA

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	QC Code	FD	QC Code	Units	RPD
Parathion, Methyl	Pesticide	-0.075	ND	-0.075	ND	ug/L	NA
Phorate	Pesticide	-0.072	ND	-0.072	ND	ug/L	NA
Phosmet	Pesticide	-0.06	ND	-0.06	ND	ug/L	NA
Prowl	Pesticide	-0.04	ND	-0.04	ND	ug/L	NA
Simazine	Pesticide	-0.08	ND	-0.08	ND	ug/L	NA
Toxaphene	Pesticide	-0.380	ND	-0.380	ND	ug/L	NA
Trifluralin	Pesticide	-0.036	ND	-0.036	ND	ug/L	NA

Event = Event Sample Results FD = Field Duplicate Sample Results RPD = Relative percent difference

Attachment 4
Sediment Toxicity Follow-up Analyses

Sediment Toxicity Follow-up Analysis

Blewett Drain at Highway 132

Toxicity Results Hyalella azteca 3.75 %

Sample Event: 100 3/11/2013

Pesticide	Results	Units
Bifenthrin	13	ng/g dw
Chlorpyrifos	0.63	ng/g dw
Cyfluthrin, total	ND	ng/g dw
Cyhalothrin, lambda, total	0.16 DNQ	ng/g dw
Cypermethrin, total	ND	ng/g dw
DDD(p,p')	ND	ng/g dw
DDE(p,p')	15	ng/g dw
DDT(p,p')	ND	ng/g dw
Esfenvalerate/Fenvalerate, total	3.2	ng/g dw
Fenpropathrin	ND	ng/g dw
Total Organic Carbon	5800	mg/Kg dw

DNQ: Result is below the report limit and is estimated

Sediment Toxicity Follow-up Analysis

Ingram Creek at River Road

Toxicity Results Hyalella azteca 1.25 %

Sample Event: 100 3/11/2013

Pesticide	Results	Units
Bifenthrin	11	ng/g dw
Chlorpyrifos	14	ng/g dw
Cyfluthrin, total	1.1	ng/g dw
Cyhalothrin, lambda, total	4.8	ng/g dw
Cypermethrin, total	0.26 DNQ	ng/g dw
DDD(p,p')	ND	ng/g dw
DDE(p,p')	120	ng/g dw
DDT(p,p')	ND	ng/g dw
Esfenvalerate/Fenvalerate, total	0.99	ng/g dw
Fenpropathrin	ND	ng/g dw
Total Organic Carbon	7000	mg/Kg dw

DNQ: Result is below the report limit and is estimated

Sediment Toxicity Follow-up Analysis

Westley Wasteway near Cox Road **Toxicity Results** Hyalella azteca 1.25 %

Sample Event: 100 3/11/2013

Pesticide	Results	Units
Bifenthrin	36	ng/g dw
Chlorpyrifos	21	ng/g dw
Cyfluthrin, total	ND	ng/g dw
Cyhalothrin, lambda, total	1.1	ng/g dw
Cypermethrin, total	ND	ng/g dw
DDD(p,p')	ND	ng/g dw
DDE(p,p')	57	ng/g dw
DDT(p,p')	ND	ng/g dw
Esfenvalerate/Fenvalerate, total	2.5	ng/g dw
Fenpropathrin	ND	ng/g dw
Total Organic Carbon	17000	mg/Kg dw

DNQ: Result is below the report limit and is estimated

Attachment 5
Exceedance of Recommended Water Quality Values

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	8	94
Aquatic Toxicity	Selenastrum capricornutum	1	42
Field Data	DO	17	124
Field Data	EC	96	111
Field Data	pH	3	125
General Chemistry	Ammonia as N	3	81
General Chemistry	Arsenic	7	39
General Chemistry	Boron	29	57
General Chemistry	E. Coli	26	98
General Chemistry	Selenium	4	39
General Chemistry	Total Dissolved Solids	86	99
Pesticide	Carbaryl	1	45
Pesticide	Chlorpyrifos	11	122
Pesticide	DDE(p,p')	15	63
Pesticide	Diazinon	8	122
Pesticide	Dimethoate	5	122
Pesticide	Diuron	4	96
Pesticide	Malathion	4	122
Pesticide	Methomyl	1	45
Pesticide	Toxaphene	2	63
Sediment Toxicity	Hyalella azteca	5	13

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Blewett Drain at Highway 132

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	3	3
General Chemistry	Ammonia as N	1	4
General Chemistry	Total Dissolved Solids	4	4
Pesticide	Chlorpyrifos	1	5
Sediment Toxicity	Hyalella azteca	1	1

Del Puerto Creek near Cox Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	2	6
Field Data	EC	4	5
General Chemistry	E. Coli	1	6
General Chemistry	Total Dissolved Solids	5	6
Pesticide	Carbaryl	1	6
Pesticide	DDE(p,p')	2	6

Delta Mendota Canal at DPWD

Type	Constituent	# of Exceedances	# of Tests
General Chemistry	Total Dissolved Solids	1	6
Pesticide	Chlorpyrifos	1	7

Hospital Creek at River Road

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	2	3
General Chemistry	Boron	1	3
Pesticide	Chlorpyrifos	2	3
Pesticide	Diazinon	2	3
Pesticide	Dimethoate	1	3

Ingram Creek at River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	2	6
Aquatic Toxicity	Selenastrum capricornutum	1	6
Field Data	EC	5	5
General Chemistry	Boron	5	6
General Chemistry	E. Coli	3	6
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Chlorpyrifos	1	6
Pesticide	DDE(p,p')	4	6
Pesticide	Diazinon	2	6
Pesticide	Dimethoate	1	6
Pesticide	Diuron	1	6

Pesticide	Toxaphene	1	6
Sediment Toxicity	Hyalella azteca	1	1

Los Banos Creek at China Camp Road

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	3	7
Field Data	EC	7	7
General Chemistry	Arsenic	5	6
General Chemistry	Boron	6	6
General Chemistry	E. Coli	2	5
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Chlorpyrifos	1	6

Los Banos Creek at Hwy 140

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	1	6
Field Data	EC	6	6
General Chemistry	Arsenic	2	6
General Chemistry	Boron	6	6
General Chemistry	E. Coli	3	6
General Chemistry	Total Dissolved Solids	6	6

Marshall Road Drain near River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	5
Field Data	EC	4	4
General Chemistry	Ammonia as N	1	5
General Chemistry	E. Coli	2	5
General Chemistry	Total Dissolved Solids	5	5
Pesticide	DDE(p,p')	1	5
Pesticide	Diazinon	1	6

Mud Slough Upstream of San Luis Drain

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	7	7
Field Data	pH	1	7
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Malathion	1	6
Pesticide	Methomyl	1	6

Newman Wasteway near Hills Ferry Road

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	4	7
Field Data	EC	7	7

General Chemistry	E. Coli	4	6
General Chemistry	Total Dissolved Solids	6	6
Pesticide	DDE(p,p')	1	6
Pesticide	Diazinon	1	6
Pesticide	Dimethoate	1	6
Pesticide	Diuron	1	6
Sediment Toxicity	Hyalella azteca	1	1

Orestimba Creek at Hwy 33

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	6
Field Data	DO	2	7
Field Data	EC	5	5
General Chemistry	Selenium	4	6
Pesticide	DDE(p,p')	6	6
Pesticide	Diazinon	1	7

Poso Slough at Indiana Ave

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	6
Field Data	DO	1	7
Field Data	EC	6	7
General Chemistry	Ammonia as N	1	6
General Chemistry	E. Coli	2	6
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Chlorpyrifos	3	6
Pesticide	Dimethoate	1	6
Pesticide	Diuron	1	6
Pesticide	Malathion	1	6

Ramona Lake near Fig Avenue

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	1	7
Field Data	EC	5	5
Field Data	pH	1	7
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Diazinon	1	7
Pesticide	Toxaphene	1	6
Sediment Toxicity	Hyalella azteca	1	1

Salt Slough at Lander Ave

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	6	6
General Chemistry	E. Coli	2	6

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

General Chemistry	Total Dissolved Solids	6	6
Pesticide	Malathion	1	6

Salt Slough at Sand Dam

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	6
Field Data	EC	7	7
Pesticide	Chlorpyrifos	1	6
Pesticide	Malathion	1	6

San Joaquin River at Lander Ave

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	6	6
Field Data	pH	1	6
General Chemistry	E. Coli	3	6
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Diuron	1	6

San Joaquin River at PID Pumps

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	6	6
General Chemistry	Boron	6	6
General Chemistry	Total Dissolved Solids	6	6
Pesticide	Chlorpyrifos	1	6
Pesticide	Dimethoate	1	6

Turner Slough at Edminster Road

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	4	6
Field Data	EC	6	6
General Chemistry	E. Coli	3	6
General Chemistry	Total Dissolved Solids	6	6

Westley Wasteway near Cox Road

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	1	7
Field Data	EC	4	5
General Chemistry	Boron	5	6
General Chemistry	E. Coli	1	6
General Chemistry	Total Dissolved Solids	5	6
Pesticide	DDE(p,p')	1	6
Sediment Toxicity	Hyalella azteca	1	1

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Blewett Drain at Highway 132

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Hyalella azteca	100	3/11/2013	3.75		%	yes		
Total Dissolved Solids	100	3/12/2013	750		mg/L		450	
EC	103	6/11/2013	877		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	600		mg/L		450	
Chlorpyrifos	104	7/9/2013	0.026	=	ug/L		0.015	
EC	104	7/9/2013	902		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	560		mg/L		450	
Ammonia as N	105	8/13/2013	6.7		mg/L		1.5	
EC	105	8/13/2013	998		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	510		mg/L		450	

Del Puerto Creek near Cox Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Flow	100	3/11/2013	0		cfs			0.01
Total Dissolved Solids	100	3/12/2013	1000		mg/L		450	
EC	101	4/9/2013	1100		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	1000		mg/L		450	
Carbaryl	102	5/14/2013	7.3	=	ug/L		2.53	
Ceriodaphnia dubia	102	5/14/2013	0		%	yes		
DDE(p,p')	102	5/14/2013	0.018	=	ug/L		0.00059	
E. Coli	102	5/14/2013	1986.3		MPN/100 mL		235	
EC	102	5/14/2013	1293		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	940		mg/L		450	
Ceriodaphnia dubia	103	6/11/2013	10		%	yes		
EC	103	6/11/2013	1277		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	940		mg/L		450	
DDE(p,p')	104	7/9/2013	0.0071	DNQ	ug/L		0.00059	
EC	105	8/13/2013	1800		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	1100		mg/L		450	

Delta Mendota Canal at DPWD

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Total Dissolved Solids	101	4/9/2013	540		mg/L		450	
Chlorpyrifos	102	5/14/2013	0.25	=	ug/L		0.015	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Hospital Creek at River Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Flow	100	3/11/2013	0		cfs			0.01
Boron	102	5/14/2013	780		ug/L		700	
Chlorpyrifos	102	5/14/2013	0.27	=	ug/L		0.015	
Diazinon	102	5/14/2013	0.25	=	ug/L		0.1	
EC	102	5/14/2013	1226		µmhos/cm		700	
Chlorpyrifos	103	6/11/2013	0.055	=	ug/L		0.015	
Diazinon	103	6/11/2013	0.22	=	ug/L		0.1	
EC	103	6/11/2013	1009		µmhos/cm		700	
Dimethoate	104	7/9/2013	11	=	ug/L		1	
Flow	105	8/13/2013	0		cfs			0.01

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Ingram Creek at River Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Hyalella azteca	100	3/11/2013	1.25		%	yes		
Boron	100	3/12/2013	870		ug/L		700	
DDE(p,p')	100	3/12/2013	0.026	=	ug/L		0.00059	
Diuron	100	3/12/2013	8.4	=	ug/L		2	
Selenastrum capricornutum	100	3/12/2013	1360000		cells/ml	yes		
Total Dissolved Solids	100	3/12/2013	870		mg/L		450	
Boron	101	4/9/2013	1100		ug/L		700	
EC	101	4/9/2013	1300		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	980		mg/L		450	
Boron	102	5/14/2013	790		ug/L		700	
Ceriodaphnia dubia	102	5/14/2013	5		%	yes		
Chlorpyrifos	102	5/14/2013	0.27	=	ug/L		0.015	
DDE(p,p')	102	5/14/2013	0.018	=	ug/L		0.00059	
Diazinon	102	5/14/2013	0.55	=	ug/L		0.1	
E. Coli	102	5/14/2013	461.1		MPN/100 mL		235	
EC	102	5/14/2013	1172		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	830		mg/L		450	
Boron	103	6/11/2013	760		ug/L		700	
Ceriodaphnia dubia	103	6/11/2013	0		%	yes		
DDE(p,p')	103	6/11/2013	0.040	=	ug/L		0.00059	
Diazinon	103	6/11/2013	1.1	=	ug/L		0.1	
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1172		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	870		mg/L		450	
Toxaphene	103	6/11/2013	0.41	DNQ	ug/L		0.0002	
DDE(p,p')	104	7/9/2013	0.0099	DNQ	ug/L		0.00059	
EC	104	7/9/2013	1120		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	760		mg/L		450	
Boron	105	8/13/2013	790		ug/L		700	
Dimethoate	105	8/13/2013	4.8	=	ug/L		1	
E. Coli	105	8/13/2013	816.4		MPN/100 mL		235	
EC	105	8/13/2013	1532		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	850		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Los Banos Creek at China Camp Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/11/2013	2152		µmhos/cm		700	
Flow	100	3/11/2013	0		cfs			0.01
Arsenic	100	3/12/2013	11		ug/L		10	
Boron	100	3/12/2013	2000		ug/L		700	
EC	100	3/12/2013	2174		µmhos/cm		700	
Flow	100	3/12/2013	0		cfs			0.01
Total Dissolved Solids	100	3/12/2013	1400		mg/L		450	
Arsenic	101	4/9/2013	13		ug/L		10	
Boron	101	4/9/2013	2000		ug/L		700	
EC	101	4/9/2013	2013		µmhos/cm		700	
Flow	101	4/9/2013	0		cfs			0.01
Total Dissolved Solids	101	4/9/2013	1300		mg/L		450	
Boron	102	5/14/2013	1100		ug/L		700	
DO	102	5/14/2013	4.78		mg/l			5
EC	102	5/14/2013	1371		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	850		mg/L		450	
Arsenic	103	6/11/2013	13		ug/L		10	
Boron	103	6/11/2013	910		ug/L		700	
Chlorpyrifos	103	6/11/2013	0.088	=	ug/L		0.015	
EC	103	6/11/2013	2065		µmhos/cm		700	
Flow	103	6/11/2013	0		cfs			0.01
Total Dissolved Solids	103	6/11/2013	940		mg/L		450	
Arsenic	104	7/9/2013	13		ug/L		10	
Boron	104	7/9/2013	1100		ug/L		700	
DO	104	7/9/2013	2.1		mg/l			5
E. Coli	104	7/9/2013	488.4		MPN/100 mL		235	
EC	104	7/9/2013	1196		µmhos/cm		700	
Flow	104	7/9/2013	0		cfs			0.01
Total Dissolved Solids	104	7/9/2013	740		mg/L		450	
Arsenic	105	8/13/2013	11		ug/L		10	
Boron	105	8/13/2013	1500		ug/L		700	
DO	105	8/13/2013	4.29		mg/l			5
E. Coli	105	8/13/2013	1986.3		MPN/100 mL		235	
EC	105	8/13/2013	1614		µmhos/cm		700	
Flow	105	8/13/2013	0		cfs			0.01
Total Dissolved Solids	105	8/13/2013	1000		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Los Banos Creek at Hwy 140

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Boron	100	3/12/2013	1700		ug/L		700	
E. Coli	100	3/12/2013	520		MPN/100 mL		235	
EC	100	3/12/2013	2166		µmhos/cm		700	
Total Dissolved Solids	100	3/12/2013	1300		mg/L		450	
Arsenic	101	4/9/2013	13		ug/L		10	
Boron	101	4/9/2013	3200		ug/L		700	
E. Coli	101	4/9/2013	770		MPN/100 mL		235	
EC	101	4/9/2013	3502		µmhos/cm		700	
Flow	101	4/9/2013	0		cfs			0.01
Total Dissolved Solids	101	4/9/2013	2300		mg/L		450	
Arsenic	102	5/14/2013	17		ug/L		10	
Boron	102	5/14/2013	1100		ug/L		700	
DO	102	5/14/2013	4.82		mg/l			5
EC	102	5/14/2013	1338		µmhos/cm		700	
Flow	102	5/14/2013	0		cfs			0.01
Total Dissolved Solids	102	5/14/2013	840		mg/L		450	
Boron	103	6/11/2013	1100		ug/L		700	
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1633		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	1000		mg/L		450	
Boron	104	7/9/2013	910		ug/L		700	
EC	104	7/9/2013	1168		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	730		mg/L		450	
Boron	105	8/13/2013	840		ug/L		700	
EC	105	8/13/2013	1222		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	740		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Marshall Road Drain near River Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	100	3/12/2013	390		MPN/100 mL		235	
Total Dissolved Solids	100	3/12/2013	950		mg/L		450	
Ceriodaphnia dubia	102	5/14/2013	0		%	yes		
Diazinon	102	5/14/2013	2.9	=	ug/L		0.1	
EC	102	5/14/2013	1159		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	790		mg/L		450	
EC	103	6/11/2013	1370		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	950		mg/L		450	
Ammonia as N	104	7/9/2013	3.8		mg/L		1.5	
DDE(p,p')	104	7/9/2013	0.015	DNQ	ug/L		0.00059	
E. Coli	104	7/9/2013	2419.6	>	MPN/100 mL		235	
EC	104	7/9/2013	1269		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	790		mg/L		450	
EC	105	8/13/2013	1695		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	960		mg/L		450	

Mud Slough Upstream of San Luis Drain

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/12/2013	2013		µmhos/cm		700	
Malathion	100	3/12/2013	0.11	=	ug/L		5E-07	
Methomyl	100	3/12/2013	1.2	=	ug/L		0.52	
Total Dissolved Solids	100	3/12/2013	1300		mg/L		450	
EC	101	4/9/2013	2667		µmhos/cm		700	
EC	101	4/9/2013	2667		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	1700		mg/L		450	
EC	102	5/14/2013	1197		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	780		mg/L		450	
EC	103	6/11/2013	2819		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	1200		mg/L		450	
EC	104	7/9/2013	1663		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	1100		mg/L		450	
EC	105	8/13/2013	1196		µmhos/cm		700	
pH	105	8/13/2013	8.75				8.5	6.5
Total Dissolved Solids	105	8/13/2013	720		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Newman Wasteway near Hills Ferry Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/11/2013	1324		µmhos/cm		700	
Hyalella azteca	100	3/11/2013	90		%	Yes		
Diuron	100	3/12/2013	2.3	=	ug/L		2	
E. Coli	100	3/12/2013	1000		MPN/100 mL		235	
EC	100	3/12/2013	1214		µmhos/cm		700	
Total Dissolved Solids	100	3/12/2013	760		mg/L		450	
EC	101	4/9/2013	2177		µmhos/cm		700	
Flow	101	4/9/2013	0		cfs			0.01
Total Dissolved Solids	101	4/9/2013	1400		mg/L		450	
Diazinon	102	5/14/2013	0.12	=	ug/L		0.1	
DO	102	5/14/2013	3.84		mg/l			5
EC	102	5/14/2013	950		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	600		mg/L		450	
DDE(p,p')	103	6/11/2013	0.0054	DNQ	ug/L		0.00059	
DO	103	6/11/2013	2.12		mg/l			5
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1155		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	710		mg/L		450	
DO	104	7/9/2013	2.76		mg/l			5
E. Coli	104	7/9/2013	1299.7		MPN/100 mL		235	
EC	104	7/9/2013	963		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	580		mg/L		450	
Dimethoate	105	8/13/2013	1.3	=	ug/L		1	
DO	105	8/13/2013	3.35		mg/l			5
E. Coli	105	8/13/2013	517.2		MPN/100 mL		235	
EC	105	8/13/2013	1317		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	840		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Orestimba Creek at Hwy 33

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
DDE(p,p')	100	3/12/2013	0.011	=	ug/L		0.00059	
Flow	100	3/12/2013	0		cfs			0.01
Selenium	100	3/12/2013	5.6		ug/L		5	
DDE(p,p')	101	4/9/2013	0.011	=	ug/L		0.00059	
EC	101	4/9/2013	980		µmhos/cm		700	
Ceriodaphnia dubia	102	5/14/2013	0		%	yes		
DDE(p,p')	102	5/14/2013	0.012	=	ug/L		0.00059	
Diazinon	102	5/14/2013	1.3	=	ug/L		0.1	
DO	102	5/14/2013	2.45		mg/l			5
EC	102	5/14/2013	985		µmhos/cm		700	
Flow	102	5/14/2013	0		cfs			0.01
Selenium	102	5/14/2013	5.9		ug/L		5	
DDE(p,p')	103	6/11/2013	0.015	=	ug/L		0.00059	
EC	103	6/11/2013	1072		µmhos/cm		700	
Selenium	103	6/11/2013	5.1		ug/L		5	
DDE(p,p')	104	7/9/2013	0.019	=	ug/L		0.00059	
EC	104	7/9/2013	1040		µmhos/cm		700	
Flow	104	7/9/2013	0		cfs			0.01
DDE(p,p')	105	8/13/2013	0.0069	DNQ	ug/L		0.00059	
DO	105	8/13/2013	4.53		mg/l			5
EC	105	8/13/2013	1677		µmhos/cm		700	
Flow	105	8/13/2013	0		cfs			0.01
Selenium	105	8/13/2013	8.1		ug/L		5	

Orestimba Creek at River Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Flow	100	3/11/2013	0		cfs			0.01

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Poso Slough at Indiana Ave

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Ceriodaphnia dubia	100	3/12/2013	0		%	yes		
Chlorpyrifos	100	3/12/2013	0.13	=	ug/L		0.015	
EC	100	3/12/2013	921		µmhos/cm		700	
Malathion	100	3/12/2013	3.9	=	ug/L		5E-07	
Total Dissolved Solids	100	3/12/2013	560		mg/L		450	
Dimethoate	101	4/9/2013	4.4	=	ug/L		1	
EC	101	4/9/2013	1089		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	670		mg/L		450	
Chlorpyrifos	102	5/14/2013	0.26	=	ug/L		0.015	
Diuron	102	5/14/2013	2.3	=	ug/L		2	
EC	102	5/14/2013	1197		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	730		mg/L		450	
Ammonia as N	103	6/11/2013	1.7		mg/L		1.5	
Chlorpyrifos	103	6/11/2013	0.050	=	ug/L		0.015	
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1147		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	670		mg/L		450	
DO	104	7/9/2013	4.93		mg/l			5
EC	104	7/9/2013	774		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	490		mg/L		450	
E. Coli	105	8/13/2013	235.9		MPN/100 mL		235	
EC	105	8/13/2013	912		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	640		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Ramona Lake near Fig Avenue

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Hyalella azteca	100	3/11/2013	91.25		%	Yes		
Total Dissolved Solids	100	3/12/2013	1400		mg/L		450	
EC	101	4/9/2013	1350		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	1200		mg/L		450	
Diazinon	102	5/14/2013	0.12	=	ug/L		0.1	
DO	102	5/14/2013	3.44		mg/l			5
EC	102	5/14/2013	1599		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	1100		mg/L		450	
EC	103	6/11/2013	1720		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	1200		mg/L		450	
Toxaphene	103	6/11/2013	0.47	DNQ	ug/L		0.0002	
EC	104	7/9/2013	1744		µmhos/cm		700	
pH	104	7/9/2013	8.99				8.5	6.5
Total Dissolved Solids	104	7/9/2013	1100		mg/L		450	
EC	105	8/13/2013	2215		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	1400		mg/L		450	

Salt Slough at Lander Ave

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/12/2013	1565		µmhos/cm		700	
Malathion	100	3/12/2013	0.11	=	ug/L		5E-07	
Total Dissolved Solids	100	3/12/2013	980		mg/L		450	
EC	101	4/9/2013	1541		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	950		mg/L		450	
E. Coli	102	5/14/2013	579.4		MPN/100 mL		235	
EC	102	5/14/2013	1287		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	760		mg/L		450	
EC	103	6/11/2013	1423		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	820		mg/L		450	
EC	104	7/9/2013	927		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	570		mg/L		450	
E. Coli	105	8/13/2013	272.3		MPN/100 mL		235	
EC	105	8/13/2013	1103		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	650		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Salt Slough at Sand Dam

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/11/2013	1052		µmhos/cm		700	
Ceriodaphnia dubia	100	3/12/2013	0		%	yes		
EC	100	3/12/2013	1056		µmhos/cm		700	
Malathion	100	3/12/2013	2.7	=	ug/L		5E-07	
Chlorpyrifos	101	4/9/2013	0.072	=	ug/L		0.015	
EC	101	4/9/2013	1105		µmhos/cm		700	
EC	102	5/14/2013	1018		µmhos/cm		700	
EC	103	6/11/2013	982		µmhos/cm		700	
EC	104	7/9/2013	735		µmhos/cm		700	
EC	105	8/13/2013	900		µmhos/cm		700	

San Joaquin River at Lander Ave

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Diuron	100	3/12/2013	4.2	=	ug/L		2	
EC	100	3/12/2013	1657		µmhos/cm		700	
Total Dissolved Solids	100	3/12/2013	1000		mg/L		450	
E. Coli	101	4/9/2013	260		MPN/100 mL		235	
EC	101	4/9/2013	1821		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	1100		mg/L		450	
E. Coli	102	5/14/2013	1986.3		MPN/100 mL		235	
EC	102	5/14/2013	1405		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	820		mg/L		450	
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1502		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	940		mg/L		450	
EC	104	7/9/2013	733		µmhos/cm		700	
pH	104	7/9/2013	8.53				8.5	6.5
Total Dissolved Solids	104	7/9/2013	870		mg/L		450	
EC	105	8/13/2013	1564		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	910		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

San Joaquin River at PID Pumps

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Boron	100	3/12/2013	1100		ug/L		700	
Chlorpyrifos	100	3/12/2013	0.038	=	ug/L		0.015	
EC	100	3/12/2013	988		µmhos/cm		700	
Total Dissolved Solids	100	3/12/2013	1200		mg/L		450	
Boron	101	4/9/2013	970		ug/L		700	
EC	101	4/9/2013	1200		µmhos/cm		700	
Total Dissolved Solids	101	4/9/2013	1000		mg/L		450	
Boron	102	5/14/2013	800		ug/L		700	
EC	102	5/14/2013	1526		µmhos/cm		700	
Total Dissolved Solids	102	5/14/2013	920		mg/L		450	
Boron	103	6/11/2013	1200		ug/L		700	
EC	103	6/11/2013	1961		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	1300		mg/L		450	
Boron	104	7/9/2013	760		ug/L		700	
Dimethoate	104	7/9/2013	1.4	=	ug/L		1	
EC	104	7/9/2013	1367		µmhos/cm		700	
Total Dissolved Solids	104	7/9/2013	910		mg/L		450	
Boron	105	8/13/2013	1000		ug/L		700	
EC	105	8/13/2013	1879		µmhos/cm		700	
Total Dissolved Solids	105	8/13/2013	990		mg/L		450	

San Joaquin River at Sack Dam

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Flow	103	6/11/2013	0		cfs			0.01
Flow	104	7/9/2013	0		cfs			0.01
Flow	105	8/13/2013	0		cfs			0.01

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Turner Slough at Edminster Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
EC	100	3/12/2013	1503		µmhos/cm		700	
Flow	100	3/12/2013	0		cfs			0.01
Total Dissolved Solids	100	3/12/2013	880		mg/L		450	
DO	101	4/9/2013	2.18		mg/l			5
E. Coli	101	4/9/2013	280		MPN/100 mL		235	
EC	101	4/9/2013	1324		µmhos/cm		700	
Flow	101	4/9/2013	0		cfs			0.01
Total Dissolved Solids	101	4/9/2013	790		mg/L		450	
DO	102	5/14/2013	3.05		mg/l			5
EC	102	5/14/2013	1465		µmhos/cm		700	
Flow	102	5/14/2013	0		cfs			0.01
Total Dissolved Solids	102	5/14/2013	850		mg/L		450	
E. Coli	103	6/11/2013	2419.6	>	MPN/100 mL		235	
EC	103	6/11/2013	1721		µmhos/cm		700	
Flow	103	6/11/2013	0		cfs			0.01
Total Dissolved Solids	103	6/11/2013	1000		mg/L		450	
DO	104	7/9/2013	1.74		mg/l			5
EC	104	7/9/2013	1499		µmhos/cm		700	
Flow	104	7/9/2013	0		cfs			0.01
Total Dissolved Solids	104	7/9/2013	900		mg/L		450	
DO	105	8/13/2013	3.08		mg/l			5
E. Coli	105	8/13/2013	344.8		MPN/100 mL		235	
EC	105	8/13/2013	1860		µmhos/cm		700	
Flow	105	8/13/2013	0		cfs			0.01
Total Dissolved Solids	105	8/13/2013	990		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Westside San Joaquin River Watershed Coalition

Water Quality Value Exceedances for the period of 3/1/2013 to 9/1/2013

Westley Wasteway near Cox Road

Analyte/Species	Event	Sample Date	Result		Units	Significant Toxicity	WQV Max	WQV Min
Hyalella azteca	100	3/11/2013	1.25		%	yes		
Boron	100	3/12/2013	900		ug/L		700	
Flow	100	3/12/2013	0		cfs			0.01
Total Dissolved Solids	100	3/12/2013	860		mg/L		450	
Boron	101	4/9/2013	990		ug/L		700	
EC	101	4/9/2013	800		µmhos/cm		700	
Flow	101	4/9/2013	0		cfs			0.01
Total Dissolved Solids	101	4/9/2013	960		mg/L		450	
Boron	102	5/14/2013	720		ug/L		700	
DO	102	5/14/2013	4.81		mg/l			5
E. Coli	102	5/14/2013	275.5		MPN/100 mL		235	
EC	102	5/14/2013	1065		µmhos/cm		700	
Flow	102	5/14/2013	0		cfs			0.01
Total Dissolved Solids	102	5/14/2013	760		mg/L		450	
Boron	103	6/11/2013	730		ug/L		700	
EC	103	6/11/2013	1176		µmhos/cm		700	
Total Dissolved Solids	103	6/11/2013	900		mg/L		450	
DDE(p,p')	104	7/9/2013	0.0040	DNQ	ug/L		0.00059	
Flow	104	7/9/2013	0		cfs			0.01
Boron	105	8/13/2013	780		ug/L		700	
EC	105	8/13/2013	1500		µmhos/cm		700	
Flow	105	8/13/2013	0		cfs			0.01
Total Dissolved Solids	105	8/13/2013	860		mg/L		450	

WQV = Water Quality Value as established by the Central Valley Regional Water Quality Control Board

DNQ = Detected, Not Quantifiable

Attachment 6
Management Plan Activities

San Joaquin Valley Drainage Authority

Westside San Joaquin River Watershed Coalition

Hospital and Ingram Creek Focused Watershed Plan
Westley Wasteway, Del Puerto Creek, and Orestimba Creek Focused Watershed Plan
Salt Slough Focused Watershed Plan
Draft Blewett Drain and Marshall Road Drain Watershed Plan

Status Report
November 30, 2013

Prepared by:
Summers Engineering, Inc.
Consulting Engineers
Hanford California

Introduction and Background

In October, 2008, the San Joaquin Valley Drainage Authority (SJVDA) submitted the first of what has become several Focused Watershed Plans:

- Focused Watershed Management Plan I (Focused Plan I); Ingram and Hospital Creeks, submitted October 2008.
- Focused Plan II: Westley Wasteway, Del Puerto Creek, and Orestimba Creek, finalized in February 2011.
- Focused Plan III: The Salt Slough watershed (including discharges into Poso Slough), adopted in December 2011 and performance goals were finalized in June of 2012.
- Focused Plan IV: Blewett Drain and Marshall Road Drain, draft submitted in July 2013.

Each of these focused plans identifies the specific constituents of concern and has developed performance goals to help address the water quality concerns.

The long term goals addressed in Section 5 of the Focused Plan I for Ingram and Hospital Creeks are as follows (in order of priority):

- Construct sediment basins to intercept direct tailwater discharges into Hospital and Ingram Creeks.
- Install high-efficiency irrigation systems such as sprinkler or drip irrigation, tailwater recirculation, gated pipes, shorter runs, etc., where warranted by the crops that are grown.
- Implement additional use of PAM to address sedimentation discharge.
- Reduce use of pesticides, or incorporate use of pesticides that are less likely to be transported to the waters of the State, or which breakdown quickly and are less likely to impact water quality.
- Calibrate ground spray rigs utilized on farmed acres to address possible overspray.
- Address potential aerial overspray by identifying the sensitive regions for all aerial applicators, or elimination of this as an acceptable application procedure for Ingram and Hospital Creeks.
- Increase size of vegetated buffer zones along the perimeters of Ingram and Hospital Creeks.

For the Focused Plan II for Westley Wasteway, and Del Puerto and Orestimba Creeks, the long term goals are listed as:

- Implement additional use of PAM to address sediment discharge
- Reduce use of pesticides, or incorporate use of pesticides that are less likely to be transported to the waters of the State, or which breakdown quickly and are less likely to impact water quality.
- Calibrate ground spray rigs utilized on farmed acres to address possible overspray.
- Address potential aerial overspray by identifying the sensitive regions for all aerial applicators, or elimination of this as an acceptable application procedure for these subwatersheds.

- Increase size of vegetated buffer zones along the perimeters of Westley Wasteway, Del Puerto Creek, and Orestimba Creek.
- Install high-efficiency irrigation systems such as sprinkler or drip irrigation, tailwater recirculation, gated pipes, shorter runs, etc., where warranted by the crops that are grown.

The long term goals for the Focused Plan III for the Salt Slough watershed are listed as:

- Reduce use of pesticides, or incorporate use of pesticides that are less likely to be transported to the waters of the State, or which breakdown quickly and are less likely to impact water quality.
- Calibrate spray rigs utilized on farmed acres to address possible overspray.
- Address potential aerial overspray by identifying the sensitive regions for all aerial applicators.
- Construct tailwater ponds to intercept and hold direct tailwater discharges.
- Install high-efficiency irrigation systems such as sprinkler or drip irrigation, tailwater recirculation, gated pipes, shorter runs, etc, where warranted by the crops that are grown.

The draft long term goals for Focused Plan IV for the Blewett Drain and Marshall Road Drain watershed are listed as:

- Install high-efficiency irrigation systems such as sprinkler or drip irrigation, tailwater recirculation, gated pipes, shorter runs, etc, where warranted by the crops that are grown.
- Address potential aerial overspray by identifying the sensitive regions for all aerial applicators.
- Construct tailwater ponds to intercept and hold direct tailwater discharges.
- Construct regional drainage return systems that reduce the volume of drain water discharged to the San Joaquin River.

This report summarizes the status of each of these goals for all of the focused plans.

Sediment Basins.

Sediment and tailwater basins collect and detain surface irrigation runoff prior to discharge into regional drains and creeks. Detention time provided by these ponds allows suspended sediment to settle out of the water column, reducing the sediment load discharged as well as a portion of the hydrophobic pesticides (such as pyrethroids). Since 2008, the Westside Coalition has provided funding assistance to growers who want to install new sedimentation ponds or clean out existing ponds. Typically, sediment ponds are cleaned and constructed during the non-irrigation season.

- New Activities - Funding Assistance. There was not wide interest in the Westside Coalitions sediment pond funding assistance program during this report period although a number of project were completed in the last irrigation season (summarized in the November 2012 SAMR) and only one resent request was submitted by the growers. The Westside Coalition will continue to offer and promote this program to growers.

High-efficiency Irrigation Systems.
High-efficiency irrigation systems have evolved significantly in recent years and now can replace conventional surface irrigation methods on practically every crop (with alfalfa and pasture as the largest exceptions). There are a several benefits to high-efficiency irrigation systems, however, in terms of drainage, the primary benefit is the virtual elimination of tailwater discharge. These advanced systems are designed to deliver water directly to each individual plant at a rate that is both uniform throughout the irrigated field and slow enough for soil to absorb, resulting in almost no surface runoff. Additionally, these systems allow for the direct application of fertilizer and other chemicals through the drip hoses. High-efficiency irrigation systems require a significant financial investment on the part of the grower (generally $1,000 to $2,000 per acre) and can take a number of years to recuperate that cost.

The acreage of high-efficiency irrigation systems continues to increase within the Westside Coalition. The Coalition is in the process of mapping the fields with these systems within the focused plans' subwatersheds.

Management Practice Surveys have provided some detail on the usage of high efficiency irrigation systems. **Table A6-1** shows the acreage (and percent of irrigated acreage) of these irrigation systems by watershed, based on the initial management practice surveys within each watershed and the estimated 2013 acreage. The estimated increase was based on a sampling of irrigation and water districts within the subject subwatersheds. Based on information provided by individual districts, the acreage of high efficiency irrigation systems has increased by approximately 11,000 acres Coalition-wide, largely due to aggressive funding assistance programs through individual Districts and other funding programs such as AWEP or EQUIP. These increases in irrigation improvements are reported at the District level and the geographic distribution is generally not available.

Table A6-1: High Efficiency Irrigation Systems by Subwatershed - Baseline.

Subwatershed	Survey Year	Initial Drip Acreage	Percent of Irrigated Acreage	2012/13 Estimated Drip Acreage	2012/13 Estimated Percent Drip
Hospital Creek	2010	3515	68%	3600	70%
Ingram Creek	2010	927	17%	3200	59%
Westley Wasteway	2011	2891	63%	3200	70%
Del Puerto Creek	2011	3934	50%	5900	75%
Orestimba Creek	2011	5821	50%	7400	64%
Salt Slough	2012	14,400	23%	30,800	48%
Blewett Drain	2014	Pending			
Marshall Road Drain	2014	Pending			

The estimates presented in **Table A6-1** are based on the geographic location of each district, an assumed distribution of the reported irrigation improvements, and mapping information provided by some districts. In October 2013, surveys were sent growers in the Blewett Drain watershed (30 surveys) and Marshall Road Drain watershed (370 surveys). The surveyed areas in both

watersheds includes both their primary drain area as well as adjacent representative drains. The Westside Coalition expects to have a partial update on these surveys by the June 2014 SAMR.

Irrigation system improvements are typically installed during the winter months for use in the following irrigation season. Much of the acreage that converted to high efficiency irrigation systems occurred outside of these six subwatersheds. The Westside Coalition is working with Districts to develop more complete GIS maps and other methods to geographically identify irrigation methods and this data will be updated as it becomes available.

PAM Usage.
PAM is a flocculating agent added to irrigation or drain water. When added to drain water with high suspended solids, PAM binds the suspended sediment materials together into larger particles which then settle out of the water column. When added to the irrigation water, PAM prevents the suspension of soil as the water travels down the furrow.

	
Tailwater with high suspended solids (no PAM usage)	Tailwater with PAM

In addition to the removal of suspended solids, PAM also helps to control the discharge of pyrethroids, which tend to adhere to the sediment particles which should result in a reduction of sediment toxicity within the subwatersheds.

PAM usage is difficult to track. Typically, PAM is added to irrigation or drain water on an "as needed" basis, which could be every third or fourth irrigation, depending on the soil, field slope, and crop. Additionally, PAM is not a material for which growers are required to report usage (as they must do for most pesticides), so there is no "clearinghouse" through which usage can be tracked. The only available mechanism for tracking PAM usage is through direct contact with the growers. **Table A6-2** shows the acreage that reported PAM usage through management practice surveys, and the associated percent of surface irrigation acreage reported in the baseline Management Practice surveys. To date, the Westside Coalition has not performed any follow-up surveys and no additional data on PAM usage trends is available.

Table A6-2: PAM by Subwatershed.

Subwatershed	Survey Year	Acreage	Percent of Irrigated Acreage
Hospital Creek	2010	488	29%
Ingram Creek	2010	4375	95%
Westley Wasteway	2011	3346	73%
Del Puerto Creek	2011	2955	37%
Orestimba Creek	2011	3408	29%
Salt Slough	2012	710	1.2%

Applications of PAM is only appropriate on fields that are surface irrigated (such as furrow or gated pipe) and produce tailwater. As a result, as more fields within the coalition are converted to drip irrigation systems, PAM usage will decrease.

Pesticide Use Activities.

Pesticide use activities vary depending on the crop planted, time of year, current and anticipated pest pressures, and available materials. Most growers utilize a pest control advisor (PCA) who is trained to identify insect, weed, and disease threats, and make recommendations on what material(s) should be applied and what cultural practices should be implemented. It should be noted that pesticides are applied in reaction to actual pest pressures and the material selected to target specific pests as well as rotate through a variety of materials to prevent pesticide resistance. Based on available Pesticide Use Report (PUR) data, most insecticide use (including pyrethroids and organophosphorus pesticides) occurred in May, July, and March (in order by acres treated) on a variety of field and tree crops. Herbicide use continued throughout the irrigation season. A summary of the 2013 irrigation PUR data by watershed is attached.

Chlorpyrifos exceedances were measured 11 times and diazinon exceedances were measured eight times (see **Table A6-3**). As with past pesticide exceedances, the Westside Coalition is working aggressively to increase awareness and encourage growers to implement management practices to avoid future exceedances. These activities included a number of meetings and workshops (addressed both to growers and PCAs) and a staff person from the Westside Coalition performed five field visits and more than 30 “drive through” visits to regions of the Coalition with known problems. These visits reviewed the status of irrigation activities, general watershed conditions, visually assessed drainage discharges, and provided a visible public presence.

Table A6-3: 2013 Irrigation Season Chlorpyrifos and Diazinon Exceedances

Site	FP #	Date	Constituent	Concentration (µg/L)
Blewett Drain	4	09-Jul-13	Chlorpyrifos	0.026
Delta-Mendota Canal		14-May-13	Chlorpyrifos	0.25
Hospital Creek	1	14-May-13	Chlorpyrifos	0.27
Hospital Creek	1	11-Jun-13	Chlorpyrifos	0.055
Ingram Creek	1	14-May-13	Chlorpyrifos	0.27
Los Banos Creek at China Camp Road		11-Jun-13	Chlorpyrifos	0.088
Poso Slough	3	12-Mar-13	Chlorpyrifos	0.13
Poso Slough	3	14-May-13	Chlorpyrifos	0.26
Poso Slough	3	11-Jun-13	Chlorpyrifos	0.050
Salt Slough at Sand Dam	3	09-Apr-13	Chlorpyrifos	0.072
San Joaquin River at Patterson Pumps		12-Mar-13	Chlorpyrifos	0.038
Hospital Creek	1	14-May-13	Diazinon	0.25
Hospital Creek	1	11-Jun-13	Diazinon	0.22
Ingram Creek	1	14-May-13	Diazinon	0.55
Ingram Creek	1	11-Jun-13	Diazinon	1.1
Marshall Road Drain	4	14-May-13	Diazinon	2.9
Newman Wasteway		14-May-13	Diazinon	0.12
Orestimba Creek at Highway 33	3	14-May-13	Diazinon	1.3
Ramona Lake		14-May-13	Diazinon	0.12

Available PUR data was reviewed for the period of January 2013 through August 2013. The complete summary is included in this attachment and summarized below for chlorpyrifos and diazinon.

- Blewett Drain: Four chlorpyrifos applications were reported in June and two applications were reported in July.
- Hospital Creek: Applications of chlorpyrifos were reported in March (1 application), June (4 applications), July (4 applications), and August (3 applications). Diazinon applications were reported in April (1 applications) and May (1 application).
- Ingram Creek: Applications of chlorpyrifos were reported in March (1 application), June (2 applications), and August (1 application). Diazinon applications were reported in reported in April (11 applications), May (3 applications), and June (1 application).
- Los Banos Creek at China Camp Road: 26 applications were reported in March.
- Poso Slough: One application of chlorpyrifos was reported in March and five applications were reported in August.
- Salt Slough at Sand Dam: 11 applications of chlorpyrifos were reported in March.
- San Joaquin River at Patterson Pumps: A number of tributaries discharge into the San Joaquin River upsteam of Patterson Pumps, from both sides of the river. For the three month period prior to the March detection, 11 applications of chlorpyrifos were observed in Stanislaus County, upstream of the Patterson Pumps sample site. All of these were reported from within the Ramona Lake watershed, which did not measure a chlorpyrifos detection.
- Marshall Road Drain: Two applications of diazinon were reported in April.

- Newman Wasteway: Four applications of diazinon were reported in January and two were reported in April.
- Orestimba Creek at Highway 33: Diazinon applications were reported in April (4 applications) and May (1 application).
- Ramona Lake: Two diazinon applications were reported in April.

The January to August 2013 period reported significantly more chlorpyrifos and diazinon use than the same period for 2012. Chlorpyrifos use for the 2013 period was up 381% from 2012 (16,200 acres treated verse 4,240 acres treated in 2012)[1]. There was no reported applications of diazinon in 2012, verses 3,880 acres treated in 2013. This significant increase in use is consistent with both the increase in detections of these materials in the monitoring data and incidental reports from growers and PCAs that pest pressures were much higher than normal during the 2013 irrigation season.

The Focused Plan 3 for the Salt Slough subwatersheds requires a review of annual pesticide use data. The Westside Coalition has summarized irrigation season pesticide use for the 2010, 2011, 2012 and 2013 irrigation seasons in **Table A6-4**. A summary of all available PUR data for the report period is included in this attachment. Note that, as with previous summaries, the PUR data summary contains incomplete and duplicate records and should be considered provisional.

Table A6-4: Salt Slough Non-irrigation Season Pesticide Use Summary.

Subwatershed	Pesticide Group	2013* Acres Treated	2012 Acres Treated	2011 Acres Treated	2010 Acres Treated
Poso Slough	Carbamates	262	1,685	335	770
	Herbicide	3517	29,907	32,335	20,950
	Organochlorine		190		
	Organophosphorus	1442	8,222	4,783	5,282
	Pyrethroid	311	8,680	12,115	14,171
Salt Sl. @ Sand Dam	Carbamates	0	382	1,049	1,806
	Herbicide	1938	26,600	45,978	36,941
	Organochlorine	0	1,435		175
	Organophosphorus	5368	4,433	5,294	5,984
	Pyrethroid	2227	7,443	14,851	14,044
Salt Sl. @ Lander Ave	Carbamates	0	382	1,451	2,444
	Herbicide	2285	32,902	59,600	45,261
	Organochlorine	0	1,568		175
	Organophosphorus	6795	6,209	5,747	6,604
	Pyrethroid	2227	8,870	19,021	16,843

* Partial data.

Calibrate Ground Spray Rigs to Address Overspray.

In addition to stressing proper spray applications near waterways in group and individual grower meetings, the Westside Coalition has contracted with CURES to provide a trained sprayer calibration technician and a high-tech instrument for calibrating orchard sprayers for members operating near priority waterways. Despite the Coalition's efforts to encourage calibrations, no

[1] PUR data include incomplete and duplicate records. Reported use may not reflect actual conditions.

calibrations have been performed to date. The Westside Coalition believes that this service is important for pesticide use management and is continuing outreach efforts.

Address Potential Aerial Overspray and Identify Sensitive Regions.
In previous updates, the Westside Coalition reported that aerial photo maps of Ingram, Hospital, Del Puerto, and Orestimba Creeks along with Westley Wasteway had been circulated to growers, PCAs and applicators.

Vegetated Buffer Zones along Creek Perimeters.
Vegetated buffer zones are intended to provide unfarmed space between the edge of a field and the creek. Conceptually, the buffer zone would reduce the amount of pesticides drifting into the creeks. The Westside Coalition is in the process of identifying buffer zones along the focused plans' targeted water ways. In the previous update, vegetated buffers for Ingram, Hospital, Del Puerto, and Orestimba Creeks, along with Westley Wasteway were described. The Westside Coalition performed a survey of aerial photos of the Salt Slough subwatershed (including the Poso Slough subwatershed). No significant vegetated buffer zones were discovered within the farmed portions of the watershed.

Management Practice Surveys.
Management practice surveys (surveys) were circulated throughout the Ingram and Hospital Creek subwatersheds (Focused Plan I Surveys) in 2009, and in the Focused Plan II subwatersheds during the summer of 2010. The Focused Plan III subwatershed management practice survey was completed and submitted to the Regional Board in June 2012. Summaries for the Focused Plan I, II, and III survey results were presented in previous updates and new information regarding acreage irrigated with high efficiency systems is presented in the **High-efficiency Irrigation Systems** section above. Survey forms for Focused Plan IV were mailed out to growers in the Blewett Drain and Marshall Road Drain subwatersheds in October 2013. No data from those surveys is yet available.

Outreach and Grower Education.
The Westside Coalition organizes outreach meetings throughout the year to inform growers and PCA about the materials that have been detected at the monitoring sites and to suggest possible practices that may prevent future detections. Additionally, the exceedance reports that are submitted to the Central Valley Regional Water Quality Control Board are also sent to the Westside Coalition member districts. A list of the meetings is included in **Table A6-5.**

Table A6-5: Outreach Meetings

Date	Group	Location	Description	Attendance
3/1/2013	Pesticide Vendor visits	Stan. County	Review pesticide issues	3
3/12/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	20
3/22/2013	Pesticide Vendor visits	Modesto	Review pesticide issues	3
3/25/2013	Ingram/Hospital Outreach	Westley	Spanish Training Meeting	40
3/28/2013	SLCC Annual Meeting	Dos Palos	Update of ILRP and issues in area	25
4/2/2013	CCID Landowners Meeting	Firebaugh	Dos Palos Area Update	50
4/3/2013	CCID Landowners Meeting	Los Banos	Los Banos Area Update	75
4/4/2013	CCID Landowners Meeting	Gustine	Patterson Area Update	75
4/9/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	20
4/16/2013	Pesticide Vendor visit	Firebaugh	Review pesticide issues	2
4/18/2013	Westside Tour	Westley	Westside MP Tour	20
6/12/13	Patterson RCD meeting	Patterson	Sediment and pesticide exceedances	~10
6/27/2013	Ingram/Hospital Stakeholder Meeting	Westley	Continuing stakeholder group meeting	14
8/28/2013	Tailgate meeting	Patterson	Review WQ issues and MPs	1
8/29/2013	Tailgate meeting	Patterson	Review WQ issues and MPs	1

The Coalition began conducting individual meetings with growers in March of 2010. These meetings target parcels adjacent to the creeks and major drains in the Focused Plan watersheds and resulting from observations during the Coalition's Field Visits. The intent of these meetings was to increase awareness of the water quality concerns related to agricultural practices. The individual contacts also help to gain parcel-specific information in regards to agricultural discharges and management practices currently implemented on the properties adjacent to the priority watersheds. In the individual grower visits the Coalition offer resources (i.e. management practice handbooks, information to obtain NRCS-EQIP funds) to aid them in implementing additional management practices if it is determined that additional practices are needed. This determination is made after the discussion and a review of the property by a Coalition representative.

Ingram/Hospital Creek Stakeholder Group.

In May of 2012, the West Stanislaus Resource Conservation District (West Stanislaus RCD) began facilitating a locally led stakeholder process in the Ingram and Hospital Creek watersheds to address the chronic water quality issues within those creeks. The Stakeholder Group is made up of growers within the Ingram/Hospital watersheds and meets monthly to review a variety of issues. The intent of these stakeholder meetings was to:

- make decisions regarding the development and implementation of conservation practices,
- identify opportunities to develop conservation practices that benefit the growers,
- weigh in on the development and implementation of agricultural regulations,
- keep informed about new conservation practices and opportunities,

- influence research and development of new conservation practices for particular crops, soil types and other local conservation needs,
- develop further funding and technical resources that help growers comply with regulations and implement conservation practices.

The Stakeholder group held its first meeting in November 2012, which focused on the stakeholder process, current regulatory environment and role of the Westside Coalition. Subsequent meetings have focused on recent water quality and sediment toxicity issues, outreach to other growers and outreach to regulating agencies.

The Stakeholder group maintains a website through the West Stanislaus RCD where the meeting schedules, agendas, notes and minutes are published.

https://sites.google.com/site/weststanrcd/stakeholder-project

Overview of Decision Tree for Adopting Management Practices

Management practices are adopted at the discretion of the landowner or operator. The Westside Coalition provides resources regarding applicable management practices given the specific water quality issue for a given subwatershed.

1. Management practice surveys mailed to landowners
2. Individual meeting held to discuss current/potential practices
3. Options reviewed with landowner
4. Landowner makes decision on implementing practice

Overview of Outreach Procedure resulting from Pesticide Exceedances.

Pesticide results are typically available to the Westside Coalition approximately 6 weeks after the sample collection. After receipt of this data, it is imported into the Coalition's database and reviewed for exceedances. When a pesticide detection is determined to have exceeded the recommended water quality value, the Westside Coalition begins a review procedure.

1. Determine the material, time of year, and subwatershed in which the material was applied.
2. Identify the crops that are registered for the subject material.
3. Review the subwatershed for the identified crops.

These steps can usually be performed within a week of the exceedance determination and will generally reduce the pool of growers who are likely to have contributed to the exceedance. With that information, the Coalition can target outreach efforts directly to those growers.

Grant Program Outreach.

Information on grant funding availability is continually communicated to landowners and operators through newsletters and direct mailings, grower group meetings and individual contacts with landowners. As noted earlier, grant funding assistance is available through a variety of sources including NRCS (EQIP and AWEP programs), internal district grant and loan programs, Agricultural Drainage Loan Program (ADLP – through State Water Resources Control Board) and California's Proposition 84. Specific information regarding the details of each project are not universally available (and is considered private in some cases) however and overview of funded amounts and acres improved is provided in **Table A6-7**, below.

Because of the high cost associated with irrigation system improvements, many growers take advantage of funding assistance provided by programs through NRCS and individual districts. Table A6-2 shows some of the funding assistance provided during the 2013 irrigation season.

Table A6-7: 2013 Irrigation Season Funding Assistance

District (source)	Funding Amount	Acres Funded
Del Puerto W.D. (ADLP Loans)	$369,500	314
CCID (Internal grant program)	$1,298,000	2,600
San Luis Canal Co. (Internal Grant Program)	$1,128,125	3,000
Prop 84 Funding (Coalition-wide)*	$4,239,109	4,613

* Includes completed and in-progress projects.

A map showing the location of completed and in-progress Prop 84 projects is included. Location information for other projects is not available.

Other Activities.

In addition to grower-level management practices, Westside Coalition districts are in the process of planning a number of regional projects that will help with drainage management and grower management practice implementation.

- Poso Canal and East Ditch Reservoirs project. CCID is in the process of designing two reservoirs that will capture excess flows and recirculate drain water while improving delivery flexibility. The reservoirs are expected to recover 4,000 acre feet per year of drain water and the improved delivery operation will help encourage growers to convert to high efficiency irrigation systems that will reduce tailwater volumes. Design work on both reservoirs is approximately 85% complete and construction is expected to begin in the fall of 2014. Both of these project will affect discharges into the Salt Slough subwatershed.
- Moran and Oil Station delivery system improvements. CCID is reviewing project alternatives to improve the delivery systems in two areas of the District. The existing systems are antiquated and are generally not compatible with high efficiency irrigation systems. Improvements would encourage growers to upgrade their irrigation systems and reduce tailwater discharges. Project concepts have been developed and CCID is actively pursuing funding options.
- Amaral Ditch System. The Amaral Ditch discharges surface runoff into the San Joaquin River in southern Stanislaus county. CCID has obtained funding to construct improvements to this system that would eliminate the discharge. Construction of these improvements is expected to begin in the Fall of 2014.
- Marshall Road and Spanish Land Grant Drain Return System. Patterson Irrigation District has developed a project concept to capture and recirculate drainage flows into the Marshall Road Drain and Spanish Land Grant Drain. Partial funding for this project has been awarded through a U.S. Bureau of Reclamation Grant and project design has begun. Construction is expected to begin in the Fall of 2014.

Subwatershed Review.
In March of 2013, the Westside Coalition performed a review of the collected water quality data from January 2010 through December 2012. The purpose of the review was to identify monitoring sites with water quality results that exceeded the water quality target values provided by the Regional Board. Based on this review, the Blewett Drain and Marshall Road Drain subwatersheds have been selected for inclusion in Focused Plan IV. A draft plan was submitted to the Regional Board in July 2013 and management practice inventory surveys were mailed out to growers within those subwatersheds in October 2013.

Exceedance Tally

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 9/1/2010 to 8/31/2013

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	20	480
Aquatic Toxicity	Pimephales promelas	1	279
Aquatic Toxicity	Selenastrum capricornutum	17	338
Field Data	DO	68	743
Field Data	EC	460	733
Field Data	pH	66	757
General Chemistry	Ammonia as N	11	534
General Chemistry	Arsenic	22	325
General Chemistry	Boron	127	433
General Chemistry	E. Coli	197	637
General Chemistry	Selenium	8	207
General Chemistry	Total Dissolved Solids	413	639
Pesticide	Aldrin	1	397
Pesticide	Carbaryl	1	348
Pesticide	Chlorpyrifos	37	599
Pesticide	DDD(p,p')	2	384
Pesticide	DDE(p,p')	90	384
Pesticide	DDT(p,p')	13	384
Pesticide	Diazinon	9	600
Pesticide	Dimethoate	6	600
Pesticide	Diuron	28	480
Pesticide	Malathion	13	600
Pesticide	Methomyl	1	348
Pesticide	Simazine	1	495
Pesticide	Toxaphene	4	397
Sediment Toxicity	Hyalella azteca	28	79

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 9/1/2010 to 8/31/2013

Blewett Drain at Highway 132

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	3	23
Field Data	EC	11	21
Field Data	pH	2	23
General Chemistry	Ammonia as N	2	18
General Chemistry	E. Coli	5	18
General Chemistry	Total Dissolved Solids	10	18
Pesticide	Chlorpyrifos	3	15
Pesticide	DDE(p,p')	1	14
Pesticide	Diuron	2	14
Sediment Toxicity	Hyalella azteca	3	5

Del Puerto Creek at Hwy 33

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	3	8
Field Data	pH	1	8
General Chemistry	Boron	1	4
General Chemistry	E. Coli	1	4
General Chemistry	Total Dissolved Solids	3	4
Pesticide	DDD(p,p')	1	5
Pesticide	DDE(p,p')	1	5
Pesticide	DDT(p,p')	1	5
Sediment Toxicity	Hyalella azteca	1	4

Del Puerto Creek near Cox Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	3	24
Field Data	EC	23	36
Field Data	pH	3	38
General Chemistry	Boron	3	12
General Chemistry	E. Coli	9	32
General Chemistry	Total Dissolved Solids	25	32
Pesticide	Carbaryl	1	24
Pesticide	Chlorpyrifos	3	25
Pesticide	DDE(p,p')	11	24
Pesticide	DDT(p,p')	1	24
Pesticide	Diuron	1	24
Sediment Toxicity	Hyalella azteca	1	6

Delta Mendota Canal at DPWD

Type	Constituent	# of Exceedances	# of Tests
Field Data	pH	4	36

General Chemistry	Total Dissolved Solids	3	36
Pesticide	Chlorpyrifos	1	38

Hospital Creek at River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	15
Aquatic Toxicity	Selenastrum capricornutum	1	15
Field Data	DO	1	20
Field Data	EC	7	20
Field Data	pH	2	20
General Chemistry	Arsenic	2	15
General Chemistry	Boron	3	15
General Chemistry	E. Coli	7	7
General Chemistry	Total Dissolved Solids	3	7
Pesticide	Chlorpyrifos	4	16
Pesticide	DDE(p,p')	5	7
Pesticide	Diazinon	2	16
Pesticide	Dimethoate	1	16
Pesticide	Diuron	1	15
Pesticide	Toxaphene	1	7
Sediment Toxicity	Hyalella azteca	5	6

Ingram Creek at River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	2	22
Aquatic Toxicity	Selenastrum capricornutum	4	22
Field Data	EC	24	33
Field Data	pH	3	35
General Chemistry	Ammonia as N	1	29
General Chemistry	Arsenic	1	22
General Chemistry	Boron	11	22
General Chemistry	E. Coli	12	29
General Chemistry	Total Dissolved Solids	24	29
Pesticide	Chlorpyrifos	5	23
Pesticide	DDE(p,p')	18	21
Pesticide	DDT(p,p')	3	21
Pesticide	Diazinon	2	23
Pesticide	Dimethoate	1	23
Pesticide	Diuron	5	22
Pesticide	Malathion	1	23
Pesticide	Simazine	1	24
Pesticide	Toxaphene	1	22
Sediment Toxicity	Hyalella azteca	6	6

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 9/1/2010 to 8/31/2013

Little Panoche Creek at W. Boundary

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	1
Aquatic Toxicity	Selenastrum capricornutum	1	1
Field Data	EC	1	1
Field Data	pH	1	1
General Chemistry	Boron	1	1
General Chemistry	E. Coli	1	1
General Chemistry	Total Dissolved Solids	1	1
Pesticide	DDE(p,p')	1	1

Los Banos Creek at China Camp Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Selenastrum capricornutum	2	27
Field Data	DO	8	45
Field Data	EC	33	45
Field Data	pH	7	47
General Chemistry	Arsenic	10	27
General Chemistry	Boron	20	27
General Chemistry	E. Coli	16	37
General Chemistry	Selenium	1	20
General Chemistry	Total Dissolved Solids	28	38
Pesticide	Aldrin	1	15
Pesticide	Chlorpyrifos	1	27

Los Banos Creek at Hwy 140

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	39
Field Data	DO	4	39
Field Data	EC	36	39
Field Data	pH	1	41
General Chemistry	Arsenic	6	32
General Chemistry	Boron	27	32
General Chemistry	E. Coli	25	38
General Chemistry	Total Dissolved Solids	36	38

Marshall Road Drain near River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	18
Field Data	EC	15	21
Field Data	pH	1	22
General Chemistry	Ammonia as N	2	22
General Chemistry	E. Coli	9	22

General Chemistry	Total Dissolved Solids	16	22
Pesticide	Chlorpyrifos	3	19
Pesticide	DDE(p,p')	6	18
Pesticide	DDT(p,p')	2	18
Pesticide	Diazinon	1	20
Pesticide	Diuron	1	18
Pesticide	Malathion	2	20

Mud Slough Upstream of San Luis Drain

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	1	40
Field Data	EC	39	40
Field Data	pH	6	42
General Chemistry	Boron	13	15
General Chemistry	E. Coli	8	38
General Chemistry	Total Dissolved Solids	37	38
Pesticide	Malathion	2	38
Pesticide	Methomyl	1	32

Newman Wasteway near Hills Ferry Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	26
Field Data	DO	14	43
Field Data	EC	41	43
Field Data	pH	1	45
General Chemistry	Boron	8	15
General Chemistry	E. Coli	15	38
General Chemistry	Total Dissolved Solids	36	38
Pesticide	DDE(p,p')	1	26
Pesticide	Diazinon	1	27
Pesticide	Dimethoate	2	27
Pesticide	Diuron	1	27
Sediment Toxicity	Hyalella azteca	1	5

Orestimba Creek at Hwy 33

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	2	25
Aquatic Toxicity	Selenastrum capricornutum	2	25
Field Data	DO	9	31
Field Data	EC	12	29
Field Data	pH	2	31
General Chemistry	E. Coli	7	13
General Chemistry	Selenium	7	18
Pesticide	Chlorpyrifos	1	27
Pesticide	DDD(p,p')	1	24

Pesticide	DDE(p,p')	22	24
Pesticide	DDT(p,p')	4	24
Pesticide	Diazinon	1	27
Pesticide	Toxaphene	1	25
Sediment Toxicity	Hyalella azteca	3	6

Orestimba Creek at River Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	16
Field Data	DO	1	22
Field Data	EC	10	22
Field Data	pH	3	22
General Chemistry	E. Coli	10	19
General Chemistry	Total Dissolved Solids	6	19
Pesticide	Chlorpyrifos	2	16
Pesticide	DDE(p,p')	12	15
Pesticide	DDT(p,p')	1	15

Poso Slough at Indiana Ave

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	4	28
Aquatic Toxicity	Selenastrum capricornutum	3	29
Field Data	DO	1	41
Field Data	EC	31	42
Field Data	pH	5	44
General Chemistry	Ammonia as N	3	38
General Chemistry	Arsenic	2	27
General Chemistry	E. Coli	20	38
General Chemistry	Total Dissolved Solids	27	38
Pesticide	Chlorpyrifos	6	27
Pesticide	DDE(p,p')	1	26
Pesticide	Diazinon	1	27
Pesticide	Dimethoate	1	27
Pesticide	Diuron	6	27
Pesticide	Malathion	2	27
Sediment Toxicity	Hyalella azteca	1	5

Ramona Lake near Fig Avenue

Type	Constituent	# of Exceedances	# of Tests
Field Data	DO	5	38
Field Data	EC	37	37
Field Data	pH	4	38
General Chemistry	Ammonia as N	1	34
General Chemistry	Boron	8	12
General Chemistry	E. Coli	2	34

General Chemistry	Total Dissolved Solids	34	34
Pesticide	Chlorpyrifos	2	25
Pesticide	DDE(p,p')	1	24
Pesticide	Diazinon	1	25
Pesticide	Toxaphene	1	24
Sediment Toxicity	Hyalella azteca	2	6

Salt Slough at Lander Ave

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Selenastrum capricornutum	1	21
Field Data	EC	38	39
General Chemistry	Boron	7	21
General Chemistry	E. Coli	5	38
General Chemistry	Total Dissolved Solids	38	38
Pesticide	Diuron	3	40
Pesticide	Malathion	3	40

Salt Slough at Sand Dam

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	28
Aquatic Toxicity	Selenastrum capricornutum	1	15
Field Data	DO	1	30
Field Data	EC	25	31
Field Data	pH	2	31
General Chemistry	Arsenic	1	15
General Chemistry	Total Dissolved Solids	10	15
Pesticide	Chlorpyrifos	3	27
Pesticide	Diuron	4	27
Pesticide	Malathion	2	27
Sediment Toxicity	Hyalella azteca	1	5

San Joaquin River at Fremont Ford

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Selenastrum capricornutum	1	4
Field Data	EC	4	4
General Chemistry	Boron	3	4
General Chemistry	Total Dissolved Solids	4	4
Pesticide	Diuron	1	4

San Joaquin River at Lander Ave

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	36
Field Data	EC	19	35
Field Data	pH	7	35

General Chemistry	E. Coli	9	33
General Chemistry	Total Dissolved Solids	18	33
Pesticide	Diuron	1	33
Pesticide	Malathion	1	33

San Joaquin River at PID Pumps

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	27	36
Field Data	pH	1	36
General Chemistry	Boron	16	36
General Chemistry	E. Coli	3	36
General Chemistry	Total Dissolved Solids	27	36
Pesticide	Chlorpyrifos	2	37
Pesticide	Dimethoate	1	37

San Joaquin River at Sack Dam

Type	Constituent	# of Exceedances	# of Tests
Field Data	EC	1	39
Field Data	pH	7	39
General Chemistry	E. Coli	1	37
General Chemistry	Total Dissolved Solids	1	38

Turner Slough at Edminster Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Ceriodaphnia dubia	1	26
Aquatic Toxicity	Pimephales promelas	1	26
Field Data	DO	19	40
Field Data	EC	13	39
Field Data	pH	1	40
General Chemistry	Ammonia as N	2	37
General Chemistry	E. Coli	14	37
General Chemistry	Total Dissolved Solids	13	37
Pesticide	DDE(p,p')	1	13
Pesticide	DDT(p,p')	1	13

Westley Wasteway near Cox Road

Type	Constituent	# of Exceedances	# of Tests
Aquatic Toxicity	Selenastrum capricornutum	1	23
Field Data	DO	1	38
Field Data	EC	10	36
Field Data	pH	2	38
General Chemistry	Boron	6	23
General Chemistry	E. Coli	18	32
General Chemistry	Total Dissolved Solids	13	32

Westside San Joaquin River Watershed Coalition

Number of Water Quality Value Exceedances for the period of 9/1/2010 to 8/31/2013

Pesticide	Chlorpyrifos	1	24
Pesticide	DDE(p,p')	9	23
Pesticide	Diuron	2	22
Sediment Toxicity	Hyalella azteca	4	6

Pesticide Use Report Summary

(Includes partial data, duplicate records and incomplete records)

Pesticide Use Summary

1/1/2013 through 8/31/2013

County **Fresno**

Monitoring Site **Poso Slough at Indiana Ave**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	262	1		Alfalfa
CARFENTRAZONE-ETHYL	May	39	1		Almonds
CHLORPYRIFOS	March	28	1		Alfalfa
CHLORPYRIFOS	August	192.3	4		Almonds
CHLORPYRIFOS	August	60	1		Alfalfa
CLETHODIM	February	50	2		Cotton
CLETHODIM	February	374	6		NA
DIMETHOATE	March	248	5		Alfalfa
DIMETHOATE	March	134	3		Wheat
DIMETHOATE	April	92	4		Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	88	2		Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	252	4		NA
GLYPHOSATE, ISOPROPYLAMINE SALT	March	58	1		Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	April	10	1		NA
GLYPHOSATE, ISOPROPYLAMINE SALT	July	102	1		Almonds
GLYPHOSATE, POTASSIUM SALT	January	123	1		NA
GLYPHOSATE, POTASSIUM SALT	January	210	1		Cotton
GLYPHOSATE, POTASSIUM SALT	January	156	1		Almonds
GLYPHOSATE, POTASSIUM SALT	January	125	1		Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	92	2		Cotton
GLYPHOSATE, POTASSIUM SALT	March	100	1		Cotton
GLYPHOSATE, POTASSIUM SALT	March	102	1		Almonds
GLYPHOSATE, POTASSIUM SALT	May	210	1		Cotton
GLYPHOSATE, POTASSIUM SALT	July	52	1		Almonds
GLYPHOSATE, POTASSIUM SALT	July	279.8	5		Cotton
GLYPHOSATE, POTASSIUM SALT	August	192.3	4		Almonds
HEXAZINONE	January	262	1		Alfalfa
LAMBDA-CYHALOTHRIN	March	20	1		Corn
LAMBDA-CYHALOTHRIN	March	29	1		Alfalfa
MALATHION	March	20	1		Corn
MALATHION	March	550	7		Alfalfa
METHOMYL	March	262	1		Alfalfa
OXYFLUORFEN	January	156	1		Almonds
OXYFLUORFEN	January	123	1		NA
OXYFLUORFEN	February	252	4		NA
OXYFLUORFEN	April	10	1		NA

***Includes duplicate and incomplete data**
**** Not available in all counties.**

PARAQUAT DICHLORIDE	January	786	3	Alfalfa
PARAQUAT DICHLORIDE	February	649.8	12	Cotton
PARAQUAT DICHLORIDE	March	184.5	3	Cotton
PARAQUAT DICHLORIDE	June	234	3	Almonds
PENDIMETHALIN	April	210	1	Cotton
RIMSULFURON	April	13	2	Tomatos
RIMSULFURON	May	19	1	Tomatos
SAFLUFENACIL	March	90	1	Almonds
SAFLUFENACIL	July	102	1	Almonds
TRIFLURALIN	February	198	4	Tomatos
TRIFLURALIN	February	524	2	Alfalfa
TRIFLURALIN	March	204	4	Tomatos
TRIFLURALIN	April	93.5	1	Alfalfa
TRIFLURALIN	April	255.9	4	Tomatos
TRIFLURALIN	May	183.7	3	Tomatos

Monitoring Site **San Joaquin River at Sack D**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	1136	8		Alfalfa
BETA-CYFLUTHRIN	June	156.2	4		Cotton
BIFENTHRIN	May	260	14		Almonds
CARFENTRAZONE-ETHYL	May	78	2		Almonds
CHLORPYRIFOS	August	243.4	5		Almonds
CLETHODIM	February	484	8		NA
CLETHODIM	February	100	4		Cotton
CLETHODIM	May	394	2		Tomatos
CLETHODIM	August	218	2		Alfalfa
DICOFOL	June	156.2	4		Cotton
DIMETHOATE	March	304	8		Wheat
DIMETHOATE	March	472	12		Alfalfa
DIMETHOATE	April	184	8		Alfalfa
ESFENVALERATE	January	140	7		Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	156.2	4		Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	February	504	8		NA
GLYPHOSATE, ISOPROPYLAMINE SALT	February	176	4		Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	March	116	2		Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	April	20	2		NA
GLYPHOSATE, ISOPROPYLAMINE SALT	April	432	2		Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	May	218	2		Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	July	204	2		Almonds
GLYPHOSATE, POTASSIUM SALT	January	453.83	16		Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, POTASSIUM SALT	January	246	2	NA
GLYPHOSATE, POTASSIUM SALT	March	204	2	Almonds
GLYPHOSATE, POTASSIUM SALT	March	394	2	Tomatos
GLYPHOSATE, POTASSIUM SALT	April	6.67	1	Grapes
GLYPHOSATE, POTASSIUM SALT	May	6.67	1	Grapes
GLYPHOSATE, POTASSIUM SALT	May	156.2	4	Cotton
GLYPHOSATE, POTASSIUM SALT	May	117.75	7	Almonds
GLYPHOSATE, POTASSIUM SALT	June	156.2	4	Cotton
GLYPHOSATE, POTASSIUM SALT	July	186.7	9	Almonds
GLYPHOSATE, POTASSIUM SALT	August	243.4	5	Almonds
HEXAZINONE	January	1136	8	Alfalfa
LAMBDA-CYHALOTHRIN	March	58	2	Alfalfa
LAMBDA-CYHALOTHRIN	March	40	2	Corn
LAMBDA-CYHALOTHRIN	May	390	21	Almonds
MALATHION	March	1478	20	Alfalfa
MALATHION	March	40	2	Corn
METHOMYL	March	1136	8	Alfalfa
METOLACHLOR	June	156.2	4	Cotton
OXYFLUORFEN	January	453.83	16	Almonds
OXYFLUORFEN	January	246	2	NA
OXYFLUORFEN	January	156.2	4	Cotton
OXYFLUORFEN	February	504	8	NA
OXYFLUORFEN	April	20	2	NA
OXYFLUORFEN	May	117.75	7	Almonds
OXYFLUORFEN	July	82.7	7	Almonds
PARAQUAT DICHLORIDE	January	3444	30	Alfalfa
PARAQUAT DICHLORIDE	April	20.01	3	Grapes
PARAQUAT DICHLORIDE	May	20.01	3	Grapes
PARAQUAT DICHLORIDE	June	468	6	Almonds
PENDIMETHALIN	January	59.11	7	Almonds
RIMSULFURON	April	188	8	Tomatos
RIMSULFURON	May	38	2	Tomatos
SAFLUFENACIL	March	180	2	Almonds
SAFLUFENACIL	July	204	2	Almonds
TRIFLURALIN	February	2272	16	Alfalfa
TRIFLURALIN	February	396	8	Tomatos
TRIFLURALIN	March	1056	12	Tomatos
TRIFLURALIN	April	93.5	1	Alfalfa
TRIFLURALIN	April	430.9	7	Tomatos
TRIFLURALIN	May	615.7	5	Tomatos
TRIFLURALIN	June	156.2	4	Cotton

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

County **Madera**

Monitoring Site **Poso Slough at Indiana Ave**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
COPPER SULFATE (BASIC)	January	175	3	746.55	Almonds
ESFENVALERATE	January	350	6	17.7782	Almonds
GLYPHOSATE, POTASSIUM SALT	February	455	7	941.153	Almonds
GLYPHOSATE, POTASSIUM SALT	April	123	1	508.917	Fallow
OXYFLUORFEN	February	455	7	42.7399	Almonds
PARAQUAT DICHLORIDE	April	123	1	42.5533	Fallow
PENDIMETHALIN	March	72.6	1	51.5528	Tomatos

Monitoring Site **San Joaquin River at Lander**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
GLYPHOSATE, ISOPROPYLAMINE SALT	January	21.35	1	21.3455	Almonds
LAMBDA-CYHALOTHRIN	March	45.4	1	1.3387	Alfalfa
MALATHION	March	45.4	1	57.9827	Alfalfa
OXYFLUORFEN	January	21.35	1	31.2734	Almonds
SAFLUFENACIL	January	21.35	1	0.931	Almonds

Monitoring Site **San Joaquin River at Sack D**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CARBARYL	April	1	1	2	Pistachios
COPPER SULFATE (BASIC)	January	656	10	2798.5	Almonds
ESFENVALERATE	January	1006	16	51.1092	Almonds
FENOXAPROP-P-ETHYL	January	130.6	2	10.7492	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	January	91.6	2	88.3778	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	January	283.4	2	273.469	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	February	6.2	2	8.9728	Fallow
GLYPHOSATE, POTASSIUM SALT	January	257.5	3	643.029	Almonds
GLYPHOSATE, POTASSIUM SALT	February	2018.9	29	4098.59	Almonds
GLYPHOSATE, POTASSIUM SALT	February	112.5	1	232.695	Fallow
GLYPHOSATE, POTASSIUM SALT	February	105	1	217.193	Pistachios
GLYPHOSATE, POTASSIUM SALT	March	438	2	1812.24	Fallow
GLYPHOSATE, POTASSIUM SALT	March	214	3	315.832	Almonds
GLYPHOSATE, POTASSIUM SALT	April	628	4	2598.38	Fallow
GLYPHOSATE, POTASSIUM SALT	April	100	2	189.665	Cotton
GLYPHOSATE, POTASSIUM SALT	April	244	6	430.966	Almonds
GLYPHOSATE, POTASSIUM SALT	April	350.9	2	1451.78	Pomegranate

***Includes duplicate and incomplete data**
**** Not available in all counties.**

LAMBDA-CYHALOTHRIN	March	239	4	7.1528	Alfalfa
MALATHION	March	130.6	2	159.810	Wheat
ORYZALIN	February	350.9	2	1459.82	Pomegranate
OXYFLUORFEN	January	91.6	2	45.9504	Cotton
OXYFLUORFEN	January	160	2	15.0492	Almonds
OXYFLUORFEN	January	283.4	2	142.185	Corn
OXYFLUORFEN	February	350.9	2	440.041	Pomegranate
OXYFLUORFEN	February	1824	26	176.016	Almonds
PARAQUAT DICHLORIDE	January	239	4	165.423	Alfalfa
PARAQUAT DICHLORIDE	February	112.5	1	19.4632	Fallow
PARAQUAT DICHLORIDE	February	350.9	2	303.576	Pomegranate
PARAQUAT DICHLORIDE	March	438	2	151.581	Fallow
PARAQUAT DICHLORIDE	April	628	4	217.279	Fallow
PARAQUAT DICHLORIDE	April	70	1	96.9008	Almonds
PENDIMETHALIN	January	239	4	905.298	Alfalfa
PENDIMETHALIN	January	97.5	1	184.658	Almonds
PENDIMETHALIN	February	112.5	1	159.772	Fallow
PENDIMETHALIN	February	105	1	198.863	Pistachios
PENDIMETHALIN	February	120	1	227.272	Almonds
PENDIMETHALIN	March	145.2	2	103.106	Tomatos
PENDIMETHALIN	March	30	1	56.8179	Almonds
SAFLUFENACIL	February	74.9	2	3.276	Almonds

County **Merced**

Monitoring Site **Los Banos Creek at China C**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	February	48.92	1	55.0489	Wheat
BROMOXYNIL HEPTANOATE	January	68	1	11.6998	Oats
BROMOXYNIL OCTANOATE	January	68	1	12.1331	Oats
CARFENTRAZONE-ETHYL	January	611	15	7.4421	Oats
CARFENTRAZONE-ETHYL	February	315.1	10	4.5428	Oats
CARFENTRAZONE-ETHYL	February	235	3	3.3919	Barley
CARFENTRAZONE-ETHYL	February	425.1	14	4.9686	Wheat
CARFENTRAZONE-ETHYL	March	3.3	1	0.0375	Oats
CARFENTRAZONE-ETHYL	March	20	1	0.2811	Tomatos
CHLORPYRIFOS	March	1005.89	26	445.552	Alfalfa
DICAMBA, DIMETHYLAMINE SALT	January	611	5	87.3476	Oats
DICAMBA, DIMETHYLAMINE SALT	January	1530	12	218.964	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	232.02	7	33.5619	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	267.1	8	38.6426	Oats

***Includes duplicate and incomplete data**
**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

DICAMBA, DIMETHYLAMINE SALT	February	235	3	33.6024	Barley
DICAMBA, DIMETHYLAMINE SALT	March	3.3	1	0.4578	Oats
DICAMBA, DIMETHYLAMINE SALT	March	20	1	2.9757	Tomatos
DIMETHOATE	March	200	2	98.941	Alfalfa
DIURON	January	476	12	441.094	Alfalfa
DIURON	February	15	1	9.5982	Alfalfa
ESFENVALERATE	January	225	2	11.4205	Almonds
ESFENVALERATE	February	25	1	1.3015	Alfalfa
ESFENVALERATE	February	37	1	1.9522	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	January	32.5	1	32.5255	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	147	7	73.4876	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	February	24	1	30.0359	Alfalfa
GLYPHOSATE, POTASSIUM SALT	January	162	3	128.264	Cotton
GLYPHOSATE, POTASSIUM SALT	January	85	2	104.914	Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	9	1	12.4126	Apricots
GLYPHOSATE, POTASSIUM SALT	February	238	6	331.348	Cotton
GLYPHOSATE, POTASSIUM SALT	February	38	1	49.0988	Corn
GLYPHOSATE, POTASSIUM SALT	February	87	2	149.986	Alfalfa
GLYPHOSATE, POTASSIUM SALT	March	575.6	9	1039.68	Corn
HEXAZINONE	January	624.96	16	162.979	Alfalfa
HEXAZINONE	February	142.4	5	37.4187	Alfalfa
LAMBDA-CYHALOTHRIN	March	1793.29	47	50.3708	Alfalfa
MALATHION	March	559.4	20	609.788	Alfalfa
MCPA, DIMETHYLAMINE SALT	January	1688	13	735.951	Wheat
MCPA, DIMETHYLAMINE SALT	January	1618	23	673.832	Oats
MCPA, DIMETHYLAMINE SALT	February	52	3	29.2031	Wheat
MCPA, DIMETHYLAMINE SALT	February	85	1	47.0859	Oats
METOLACHLOR	March	15.9	1	21.117	Tomatos
OXYFLUORFEN	January	309	10	153.437	Cotton
OXYFLUORFEN	January	32.5	1	16.3134	Almonds
OXYFLUORFEN	February	38	1	3.5717	Corn
OXYFLUORFEN	February	228	5	93.8072	Cotton
OXYFLUORFEN	March	80	2	17.5374	Corn
PARAQUAT DICHLORIDE	January	1088.3	29	1050.02	Alfalfa
PARAQUAT DICHLORIDE	February	177.4	7	122.787	Alfalfa
PENDIMETHALIN	January	32.5	1	61.5527	Almonds
PENDIMETHALIN	January	1224.96	30	3487.52	Alfalfa
PENDIMETHALIN	February	166.4	6	360.604	Alfalfa
PENDIMETHALIN	February	60	2	57.7649	Cotton
PENDIMETHALIN	March	15.9	1	7.5378	Tomatos
PENDIMETHALIN	March	53	3	50.1891	Cotton

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

Monitoring Site **Los Banos Creek at Hwy 140**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	298	7	8.0634	Alfalfa
2,4-D, DIMETHYLAMINE SALT	February	48.92	1	55.0489	Wheat
2,4-D, DIMETHYLAMINE SALT	March	8	1	0.3406	Almonds
BROMOXYNIL HEPTANOATE	January	357	2	61.424	Wheat
BROMOXYNIL HEPTANOATE	January	298	6	54.7139	Oats
BROMOXYNIL HEPTANOATE	February	133	4	22.8834	Alfalfa
BROMOXYNIL HEPTANOATE	February	99	2	12.7321	Wheat
BROMOXYNIL HEPTANOATE	February	212	5	36.4759	Oats
BROMOXYNIL OCTANOATE	January	357	2	63.699	Wheat
BROMOXYNIL OCTANOATE	January	298	6	56.7403	Oats
BROMOXYNIL OCTANOATE	February	99	2	13.2037	Wheat
BROMOXYNIL OCTANOATE	February	212	5	37.827	Oats
BROMOXYNIL OCTANOATE	February	133	4	23.731	Alfalfa
CARFENTRAZONE-ETHYL	January	70	1	1.0248	Corn
CARFENTRAZONE-ETHYL	January	3070.3	70	283.92	Oats
CARFENTRAZONE-ETHYL	January	179	3	2.6235	Wheat
CARFENTRAZONE-ETHYL	February	3	1	0.0878	Pluot
CARFENTRAZONE-ETHYL	February	2247.4	53	32.4108	Oats
CARFENTRAZONE-ETHYL	February	8	1	0.2343	Cherrys
CARFENTRAZONE-ETHYL	February	948	28	12.6479	Wheat
CARFENTRAZONE-ETHYL	February	263	5	3.8018	Barley
CARFENTRAZONE-ETHYL	March	32	2	0.4685	Cherrys
CARFENTRAZONE-ETHYL	March	20	1	0.2811	Tomatos
CARFENTRAZONE-ETHYL	March	3.3	1	0.0375	Oats
CHLORPYRIFOS	March	1715.89	42	713.896	Alfalfa
CLETHODIM	February	133	4	17.4681	Alfalfa
DICAMBA, DIMETHYLAMINE SALT	January	70	1	168.829	Corn
DICAMBA, DIMETHYLAMINE SALT	January	1530	12	218.964	Wheat
DICAMBA, DIMETHYLAMINE SALT	January	1431	25	248.612	Oats
DICAMBA, DIMETHYLAMINE SALT	February	560.92	16	84.0147	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	263	5	37.7831	Barley
DICAMBA, DIMETHYLAMINE SALT	February	676.1	14	102.563	Oats
DICAMBA, DIMETHYLAMINE SALT	March	20	1	2.9757	Tomatos
DICAMBA, DIMETHYLAMINE SALT	March	3.3	1	0.4578	Oats
DIMETHOATE	March	1198	18	5540.85	Alfalfa
DIURON	January	768	21	842.357	Alfalfa
DIURON	February	74	1	118.353	Oats
DIURON	February	60	1	239.904	Right of Way

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

DIURON	February	36	2	41.0532	Alfalfa
ESFENVALERATE	January	5	1	0.244	Pluot
ESFENVALERATE	January	25	2	2.247	Peaches
ESFENVALERATE	January	225	2	11.4205	Almonds
ESFENVALERATE	February	154	1	7.516	Almonds
ESFENVALERATE	February	25	1	1.3015	Alfalfa
ESFENVALERATE	February	77	2	3.9044	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	January	32	4	45.2578	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	48	1	47.6967	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	267	4	267.046	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	January	2.5	1	10.0017	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	January	18	1	26.9769	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	January	475.03	14	789.695	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	187	5	280.763	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	January	147	7	73.4876	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	January	13	1	19.5033	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	February	24	1	30.0359	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	3	1	6.001	Pluot
GLYPHOSATE, ISOPROPYLAMINE SALT	February	45.8	4	81.2138	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	870	7	717.097	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	18	1	38.0065	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	30	1	45.0077	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	20	1	50.0598	Persimmon
GLYPHOSATE, ISOPROPYLAMINE SALT	March	52	3	114.071	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	March	3.5	1	14.0024	Nursery
GLYPHOSATE, POTASSIUM SALT	January	315	6	421.709	Alfalfa
GLYPHOSATE, POTASSIUM SALT	January	313	7	297.296	Cotton
GLYPHOSATE, POTASSIUM SALT	February	9	1	12.4126	Apricots
GLYPHOSATE, POTASSIUM SALT	February	369.1	6	668.392	Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	38	1	49.0988	Corn
GLYPHOSATE, POTASSIUM SALT	February	85	1	82.7508	Almonds
GLYPHOSATE, POTASSIUM SALT	February	238	6	331.348	Cotton
GLYPHOSATE, POTASSIUM SALT	February	60	1	103.439	Right of Way
GLYPHOSATE, POTASSIUM SALT	February	60.5	2	104.321	Fallow
GLYPHOSATE, POTASSIUM SALT	March	75	1	129.312	Cotton
GLYPHOSATE, POTASSIUM SALT	March	575.6	9	1039.68	Corn
HEXAZINONE	January	1273.86	31	326.208	Alfalfa
HEXAZINONE	February	142.4	5	37.4187	Alfalfa
IMAZAMOX, AMMONIUM SALT	January	154	2	5.1815	Alfalfa
IMAZAMOX, AMMONIUM SALT	February	118	1	3.9702	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	January	154	2	10.1895	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	February	251	5	19.1424	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

LAMBDA-CYHALOTHRIN	January	418	2	8.34	Almonds
LAMBDA-CYHALOTHRIN	March	3989.29	92	113.096	Alfalfa
MALATHION	March	1632.4	44	1763.65	Alfalfa
MALATHION	March	28	2	35.2171	Barley
MCPA, DIMETHYLAMINE SALT	January	70	1	26.1232	Corn
MCPA, DIMETHYLAMINE SALT	January	2140	17	1005.22	Wheat
MCPA, DIMETHYLAMINE SALT	January	4165.3	81	2098.19	Oats
MCPA, DIMETHYLAMINE SALT	February	1856.3	40	1049.2	Oats
MCPA, DIMETHYLAMINE SALT	February	369	11	197.822	Wheat
METOLACHLOR	March	15.9	1	21.117	Tomatos
METOLACHLOR	March	307	7	432.259	Beans
NORFLURAZON	January	134.5	2	52.8585	Almonds
ORYZALIN	January	8	1	24.9613	Cherrys
ORYZALIN	January	39.53	2	150.891	Almonds
ORYZALIN	February	8	1	33.2817	Cherrys
ORYZALIN	February	20	1	24.9613	Almonds
ORYZALIN	February	18	1	56.1628	Walnuts
OXYFLUORFEN	January	13	1	3.2607	Walnuts
OXYFLUORFEN	January	460	14	167.624	Cotton
OXYFLUORFEN	January	19	3	4.5148	Cherrys
OXYFLUORFEN	January	267	4	66.9693	Tomatos
OXYFLUORFEN	January	416.53	10	278.133	Almonds
OXYFLUORFEN	February	60	1	15.0493	Right of Way
OXYFLUORFEN	February	38	1	3.5717	Corn
OXYFLUORFEN	February	530	5	170.611	Almonds
OXYFLUORFEN	February	18	1	9.0296	Walnuts
OXYFLUORFEN	February	60.5	2	15.1496	Fallow
OXYFLUORFEN	February	45.8	4	5.7533	Cherrys
OXYFLUORFEN	February	228	5	93.8072	Cotton
OXYFLUORFEN	March	167.9	3	26.7697	Almonds
OXYFLUORFEN	March	30	1	7.5246	Walnuts
OXYFLUORFEN	March	80	2	17.5374	Corn
PARAQUAT DICHLORIDE	January	1930.3	49	1614.54	Alfalfa
PARAQUAT DICHLORIDE	February	74	1	51.219	Oats
PARAQUAT DICHLORIDE	February	392.4	12	281.153	Alfalfa
PARAQUAT DICHLORIDE	March	40	1	41.7758	Fallow
PARAQUAT DICHLORIDE	March	40	1	27.6859	Beans
PARAQUAT DICHLORIDE	March	143	2	101.841	Almonds
PENDIMETHALIN	January	289	6	764.201	Almonds
PENDIMETHALIN	January	2318.86	53	6725.31	Alfalfa
PENDIMETHALIN	February	3	1	11.3636	Pluot
PENDIMETHALIN	February	74	1	280.302	Oats

***Includes duplicate and incomplete data**

**** Not available in all counties.**

PENDIMETHALIN	February	180	1	340.907	Almonds
PENDIMETHALIN	February	629.5	14	1007.8	Alfalfa
PENDIMETHALIN	February	60	2	57.7649	Cotton
PENDIMETHALIN	February	60.5	2	85.9086	Fallow
PENDIMETHALIN	March	240	6	227.272	Beans
PENDIMETHALIN	March	135	1	178.976	Almonds
PENDIMETHALIN	March	53	3	50.1891	Cotton
PENDIMETHALIN	March	15.9	1	7.5378	Tomatos
RIMSULFURON	January	13	1	0.4062	Walnuts
RIMSULFURON	January	23	1	0.7188	Almonds
RIMSULFURON	January	32	4	1.5312	Cherrys
RIMSULFURON	February	85	1	6.5625	Almonds
RIMSULFURON	February	45.8	4	1.4375	Cherrys
SAFLUFENACIL	January	77	2	3.367	Almonds
SAFLUFENACIL	February	245	2	8.3125	Almonds
SIMAZINE	January	211.5	4	105.202	Almonds
SIMAZINE	February	20	1	8.0101	Almonds
SIMAZINE	February	18	1	17.9836	Walnuts
TRIFLURALIN	March	67	1	36.7152	Beans

Monitoring Site **Newman Wasteway near Hill**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	44	2	2.1912	Alfalfa
CARFENTRAZONE-ETHYL	January	248	4	3.8791	Oats
CARFENTRAZONE-ETHYL	February	203	5	3.6305	Oats
CARFENTRAZONE-ETHYL	February	98	2	1.4348	Wheat
CARFENTRAZONE-ETHYL	March	158	4	2.305	Corn
CARFENTRAZONE-ETHYL	March	78	2	1.1419	Oats
CHLORPYRIFOS	March	332	11	141.503	Alfalfa
DIAZINON	January	230	2	456.413	Almonds
DICAMBA, DIMETHYLAMINE SALT	January	210	2	31.6494	Oats
DICAMBA, DIMETHYLAMINE SALT	February	152	3	29.2315	Oats
DIMETHOATE	March	92	1	45.5129	Alfalfa
DIURON	January	28	1	42.0519	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	103	2	103.018	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	20	1	20.0034	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	179	5	268.526	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	98	4	98.117	Almonds
GLYPHOSATE, POTASSIUM SALT	January	50	1	137.918	Tomatos
HEXAZINONE	January	120	2	60.819	Alfalfa
ISOXABEN	January	20	1	19.95	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

LAMBDA-CYHALOTHRIN	February	55	1	1.7406	Alfalfa
LAMBDA-CYHALOTHRIN	March	523	10	14.2926	Alfalfa
MCPA, DIMETHYLAMINE SALT	January	248	4	116.58	Oats
MCPA, DIMETHYLAMINE SALT	February	152	3	59.8098	Oats
MCPA, DIMETHYLAMINE SALT	February	98	2	54.2618	Wheat
MCPA, DIMETHYLAMINE SALT	March	78	2	43.1879	Oats
ORYZALIN	March	98	4	203.850	Almonds
OXYFLUORFEN	January	103	2	6.4411	Walnuts
OXYFLUORFEN	January	50	1	25.0821	Tomatos
OXYFLUORFEN	January	20	1	10.0328	Almonds
OXYFLUORFEN	March	204	6	51.2239	Walnuts
PARAQUAT DICHLORIDE	January	92	1	63.6777	Alfalfa
PARAQUAT DICHLORIDE	February	25	1	25.8804	Alfalfa
PARAQUAT DICHLORIDE	March	25	1	17.3037	Walnuts
PENDIMETHALIN	January	92	1	174.242	Alfalfa
PENDIMETHALIN	February	373	7	1412.87	Alfalfa
PENDIMETHALIN	February	25	1	47.3482	Walnuts
SAFLUFENACIL	March	98	4	2.1438	Almonds

Monitoring Site **Poso Slough at Indiana Ave**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CARFENTRAZONE-ETHYL	March	52	2	0.7613	Tomatos
DIMETHOATE	March	104	3	42.1489	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	47	2	47.0388	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	January	32	2	32.0055	Cotton
GLYPHOSATE, POTASSIUM SALT	January	44	1	60.6839	Alfalfa
GLYPHOSATE, POTASSIUM SALT	January	212.49	5	292.993	Cotton
GLYPHOSATE, POTASSIUM SALT	January	138	4	179.983	Corn
GLYPHOSATE, POTASSIUM SALT	February	210	7	289.628	Cotton
GLYPHOSATE, POTASSIUM SALT	March	149	6	226.185	Cotton
GLYPHOSATE, POTASSIUM SALT	March	52	2	71.7173	Tomatos
HEXAZINONE	February	28	1	4.968	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	January	44	1	2.9219	Alfalfa
MALATHION	March	14	1	14.0228	Alfalfa
OXYFLUORFEN	January	32	2	4.0132	Cotton
OXYFLUORFEN	January	155	5	27.194	Corn
OXYFLUORFEN	March	149	6	29.7975	Cotton
PARAQUAT DICHLORIDE	February	20	1	13.843	Alfalfa
PENDIMETHALIN	February	28	1	79.545	Alfalfa
TRIFLURALIN	February	20	1	40	Alfalfa
TRIFLURALIN	March	52	2	39.1091	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

Monitoring Site **Salt Slough at Lander Ave**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	March	64.8	1	54.6888	Wheat
BIFENTHRIN	March	150.4	3	15.0426	Corn
BROMOXYNIL HEPTANOATE	February	145	1	21.5001	Oats
BROMOXYNIL OCTANOATE	February	145	1	22.2964	Oats
CARFENTRAZONE-ETHYL	January	333.07	7	3.1343	Wheat
CARFENTRAZONE-ETHYL	February	82	2	1.0963	Wheat
CARFENTRAZONE-ETHYL	February	176	4	2.0099	Oats
CARFENTRAZONE-ETHYL	March	67.8	1	1.9864	Corn
CHLORPYRIFOS	March	1001.69	16	368.058	Alfalfa
CLETHODIM	February	163.3	2	43.4747	Cotton
DICAMBA, DIMETHYLAMINE SALT	January	203.6	3	1566.21	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	78.5	2	11.2418	Wheat
DIMETHOATE	March	165	5	70.0682	Alfalfa
DIURON	January	384.55	6	471.234	Alfalfa
DIURON	February	806.09	17	715.984	Alfalfa
FENOXAPROP-P-ETHYL	January	46.8	2	3.849	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	January	641.18	9	732.524	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	125.5	1	125.541	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	January	354.7	5	390.827	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	January	179.4	3	179.471	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	February	571.99	11	637.83	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	February	196.2	4	196.273	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	February	1269.8	20	1270.16	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	February	2537.77	34	2638.43	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	181.4	2	238.161	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	March	67.8	1	98.1417	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	March	53.6	2	55.2185	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	March	353	8	358.912	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	March	85.8	1	85.8146	Tomatos
GLYPHOSATE, POTASSIUM SALT	January	100	1	137.918	Alfalfa
GLYPHOSATE, POTASSIUM SALT	January	475.56	11	478.743	Cotton
GLYPHOSATE, POTASSIUM SALT	January	142.75	2	191.821	Tomatos
GLYPHOSATE, POTASSIUM SALT	January	1184.67	22	1472.18	Corn
GLYPHOSATE, POTASSIUM SALT	February	100	2	103.383	Corn
GLYPHOSATE, POTASSIUM SALT	February	357	7	492.367	Tomatos
GLYPHOSATE, POTASSIUM SALT	February	513.2	13	941.649	Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	402.6	9	565.105	Cotton
GLYPHOSATE, POTASSIUM SALT	March	274.44	6	473.059	Cotton

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, POTASSIUM SALT	March	264.9	3	365.317	Tomatos
GLYPHOSATE, POTASSIUM SALT	March	93	2	153.089	Alfalfa
GLYPHOSATE-TRIMESIUM	January	43.24	1	40.6996	Cotton
HEXAZINONE	January	753.34	14	299.4	Alfalfa
HEXAZINONE	February	772.89	13	425.674	Alfalfa
IMAZAMOX, AMMONIUM SALT	January	78.6	1	5.2865	Alfalfa
IMAZAMOX, AMMONIUM SALT	February	20	1	1.0121	Alfalfa
IMAZAMOX, AMMONIUM SALT	March	73	1	3.6842	Wheat
IMAZETHAPYR, AMMONIUM SALT	February	111.6	5	9.3267	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	March	52	1	5.145	Alfalfa
LAMBDA-CYHALOTHRIN	January	47.94	1	1.4522	Alfalfa
LAMBDA-CYHALOTHRIN	March	2320.36	41	270.792	Alfalfa
MALATHION	January	47.94	1	48.1824	Alfalfa
MALATHION	March	538.5	12	657.463	Wheat
MALATHION	March	5089.5	83	5876.90	Alfalfa
MCPA, DIMETHYLAMINE SALT	January	841.6	17	5237.84	Wheat
MCPA, DIMETHYLAMINE SALT	February	170	1	144.490	Pasture
MCPA, DIMETHYLAMINE SALT	February	810.3	14	638.44	Wheat
MCPA, DIMETHYLAMINE SALT	February	321	5	215.702	Oats
OXYFLUORFEN	January	532.3	10	251.283	Cotton
OXYFLUORFEN	January	650.49	12	184.404	Corn
OXYFLUORFEN	January	497.45	7	152.279	Tomatos
OXYFLUORFEN	February	196.2	4	73.8217	Melons
OXYFLUORFEN	February	427.69	10	216.393	Cotton
OXYFLUORFEN	February	349.87	6	82.4574	Tomatos
OXYFLUORFEN	February	359.8	8	135.383	Corn
OXYFLUORFEN	March	462.44	8	201.259	Cotton
OXYFLUORFEN	March	85.8	1	32.2857	Tomatos
PARAQUAT DICHLORIDE	January	1501.12	21	1039.07	Alfalfa
PARAQUAT DICHLORIDE	February	49.45	1	68.4673	Corn
PARAQUAT DICHLORIDE	February	1248.29	27	712.894	Alfalfa
PARAQUAT DICHLORIDE	February	21.41	1	25.9417	Cotton
PARAQUAT DICHLORIDE	March	30	4	41.529	Cotton
PENDIMETHALIN	January	1849.55	25	4339.74	Alfalfa
PENDIMETHALIN	February	983.36	24	2309.54	Alfalfa
PENDIMETHALIN	March	93.6	1	97.4947	Wheat
PENDIMETHALIN	March	23	1	77.6511	Alfalfa
TRIFLURALIN	January	1196.8	18	2393.6	Alfalfa
TRIFLURALIN	February	344	7	688	Alfalfa
TRIFLURALIN	March	51.5	2	103	Alfalfa
TRIFLURALIN	March	152.9	1	92.0711	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

Monitoring Site **Salt Slough at Sand Dam**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
BIFENTHRIN	March	150.4	3	15.0426	Corn
CARFENTRAZONE-ETHYL	January	268.27	6	2.4222	Wheat
CARFENTRAZONE-ETHYL	February	82	2	1.0963	Wheat
CARFENTRAZONE-ETHYL	March	67.8	1	1.9864	Corn
CHLORPYRIFOS	March	588.66	11	246.088	Alfalfa
CLETHODIM	February	163.3	2	43.4747	Cotton
DICAMBA, DIMETHYLAMINE SALT	January	203.6	3	1566.21	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	78.5	2	11.2418	Wheat
DIMETHOATE	March	165	5	70.0682	Alfalfa
DIURON	January	332.85	5	410.199	Alfalfa
DIURON	February	462.06	14	509.563	Alfalfa
FENOXAPROP-P-ETHYL	January	46.8	2	3.849	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	January	179.4	3	179.471	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	January	641.18	9	732.524	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	125.5	1	125.541	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	January	115.4	2	151.466	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	2228.37	25	2328.95	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	1115	15	1115.29	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	February	314.9	6	380.633	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	February	181.4	2	238.161	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	196.2	4	196.273	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	53.6	2	55.2185	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	March	67.8	1	98.1417	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	March	85.8	1	85.8146	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	March	205.7	6	211.567	Cotton
GLYPHOSATE, POTASSIUM SALT	January	142.75	2	191.821	Tomatos
GLYPHOSATE, POTASSIUM SALT	January	1184.67	22	1472.18	Corn
GLYPHOSATE, POTASSIUM SALT	January	475.56	11	478.743	Cotton
GLYPHOSATE, POTASSIUM SALT	January	100	1	137.918	Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	357	7	492.367	Tomatos
GLYPHOSATE, POTASSIUM SALT	February	402.6	9	565.105	Cotton
GLYPHOSATE, POTASSIUM SALT	February	100	2	103.383	Corn
GLYPHOSATE, POTASSIUM SALT	February	407.6	9	759.597	Alfalfa
GLYPHOSATE, POTASSIUM SALT	March	274.44	6	473.059	Cotton
GLYPHOSATE, POTASSIUM SALT	March	93	2	153.089	Alfalfa
GLYPHOSATE, POTASSIUM SALT	March	264.9	3	365.317	Tomatos
GLYPHOSATE-TRIMESIUM	January	43.24	1	40.6996	Cotton
HEXAZINONE	January	753.34	14	299.4	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

HEXAZINONE	February	428.86	10	255.377	Alfalfa
IMAZAMOX, AMMONIUM SALT	January	78.6	1	5.2865	Alfalfa
IMAZAMOX, AMMONIUM SALT	February	20	1	1.0121	Alfalfa
IMAZAMOX, AMMONIUM SALT	March	73	1	3.6842	Wheat
IMAZETHAPYR, AMMONIUM SALT	February	6	1	0.5928	Alfalfa
LAMBDA-CYHALOTHRIN	January	47.94	1	1.4522	Alfalfa
LAMBDA-CYHALOTHRIN	March	2076.86	37	263.509	Alfalfa
MALATHION	January	47.94	1	48.1824	Alfalfa
MALATHION	March	470.2	9	573.829	Wheat
MALATHION	March	4144.23	70	4541.81	Alfalfa
MCPA, DIMETHYLAMINE SALT	January	708.5	13	5164.09	Wheat
MCPA, DIMETHYLAMINE SALT	February	718.6	12	560.484	Wheat
MCPA, DIMETHYLAMINE SALT	February	170	1	144.490	Pasture
OXYFLUORFEN	January	258.15	4	62.2438	Tomatos
OXYFLUORFEN	January	650.49	12	184.404	Corn
OXYFLUORFEN	January	532.3	10	251.283	Cotton
OXYFLUORFEN	February	196.2	4	73.8217	Melons
OXYFLUORFEN	February	349.87	6	82.4574	Tomatos
OXYFLUORFEN	February	225.4	4	84.7976	Corn
OXYFLUORFEN	February	320.7	7	176.141	Cotton
OXYFLUORFEN	March	315.14	6	127.357	Cotton
OXYFLUORFEN	March	85.8	1	32.2857	Tomatos
PARAQUAT DICHLORIDE	January	1354.42	19	937.527	Alfalfa
PARAQUAT DICHLORIDE	February	904.26	24	593.832	Alfalfa
PARAQUAT DICHLORIDE	February	49.45	1	68.4673	Corn
PARAQUAT DICHLORIDE	March	30	4	41.529	Cotton
PENDIMETHALIN	January	1702.85	23	4061.9	Alfalfa
PENDIMETHALIN	February	983.36	24	2309.54	Alfalfa
PENDIMETHALIN	March	23	1	77.6511	Alfalfa
PENDIMETHALIN	March	93.6	1	97.4947	Wheat
TRIFLURALIN	January	674.3	13	1348.6	Alfalfa
TRIFLURALIN	February	344	7	688	Alfalfa
TRIFLURALIN	March	152.9	1	92.0711	Tomatos
TRIFLURALIN	March	51.5	2	103	Alfalfa

Monitoring Site **San Joaquin River at Lander**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	243.88	5	11.2818	Alfalfa
2,4-D, DIMETHYLAMINE SALT	January	238.8	2	134.404	Wheat
2,4-D, DIMETHYLAMINE SALT	February	134.7	2	113.654	Wheat
2,4-D, DIMETHYLAMINE SALT	March	64.8	1	54.6888	Wheat

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

BROMOXYNIL OCTANOATE	March	103	1	54.8099	Alfalfa
CARFENTRAZONE-ETHYL	January	130	1	2.3791	Oats
CARFENTRAZONE-ETHYL	January	370.3	7	4.5726	Wheat
CARFENTRAZONE-ETHYL	January	153.7	1	2.2488	Barley
CARFENTRAZONE-ETHYL	February	38	1	0.5622	Oats
CARFENTRAZONE-ETHYL	February	105.7	1	2.3191	Corn
CARFENTRAZONE-ETHYL	February	424.8	8	5.2846	Wheat
CARFENTRAZONE-ETHYL	March	346	5	5.0692	Barley
CARFENTRAZONE-ETHYL	March	174.5	3	5.1113	Corn
CHLORPYRIFOS	March	772.94	11	254.467	Alfalfa
CLETHODIM	February	163.3	2	43.4747	Cotton
COPPER SULFATE (BASIC)	March	45.92	1	32.6491	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	353.9	6	1587.71	Wheat
DIURON	January	313.5	4	336.976	Alfalfa
DIURON	February	573.86	10	349.541	Alfalfa
FENOXAPROP-P-ETHYL	January	105	4	8.6353	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	January	125.5	1	125.541	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	January	50	1	48.2411	Right of Way
GLYPHOSATE, ISOPROPYLAMINE SALT	January	179.4	3	179.471	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	January	95.4	1	95.4163	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	181.4	2	238.161	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	565.2	8	696.309	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	February	1003.5	13	1051	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	February	231.8	4	307.989	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	189.6	4	189.672	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	20.4	4	29.5235	Wheat
GLYPHOSATE, ISOPROPYLAMINE SALT	March	20	1	28.9447	Right of Way
GLYPHOSATE, ISOPROPYLAMINE SALT	March	174.5	3	252.591	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	March	533.8	12	710.297	Cotton
GLYPHOSATE, ISOPROPYLAMINE SALT	March	161.6	3	233.886	Tomatos
GLYPHOSATE, POTASSIUM SALT	January	79	1	108.955	Tomatos
GLYPHOSATE, POTASSIUM SALT	January	21.2	1	29.2386	Corn
GLYPHOSATE, POTASSIUM SALT	February	65.5	1	90.3363	Corn
GLYPHOSATE, POTASSIUM SALT	February	134.6	2	233.081	Alfalfa
GLYPHOSATE, POTASSIUM SALT	February	178	4	245.494	Tomatos
GLYPHOSATE, POTASSIUM SALT	February	33.2	1	34.314	Cotton
GLYPHOSATE, POTASSIUM SALT	March	255.6	3	352.518	Tomatos
GLYPHOSATE, POTASSIUM SALT	March	133.2	2	224.034	Cotton
HEXAZINONE	January	498.57	8	193.826	Alfalfa
HEXAZINONE	February	873.36	13	400.427	Alfalfa
IMAZAMOX, AMMONIUM SALT	January	78.6	1	5.2865	Alfalfa
IMAZAMOX, AMMONIUM SALT	February	303.8	4	15.3211	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

IMAZAMOX, AMMONIUM SALT	March	73	1	3.6842	Wheat
IMAZETHAPYR, AMMONIUM SALT	February	6	1	0.5928	Alfalfa
LAMBDA-CYHALOTHRIN	March	96.6	1	2.6178	Sudan Grass
LAMBDA-CYHALOTHRIN	March	4976	67	139.124	Alfalfa
MALATHION	March	1902.8	33	2294.83	Wheat
MALATHION	March	4113.1	53	4996.37	Alfalfa
MCPA, DIMETHYLAMINE SALT	January	153.7	1	85.0913	Barley
MCPA, DIMETHYLAMINE SALT	January	3168.5	47	8240.94	Wheat
MCPA, DIMETHYLAMINE SALT	February	582.1	10	389.092	Wheat
MCPA, DIMETHYLAMINE SALT	March	346	5	191.622	Barley
METOLACHLOR	March	86.72	2	115.314	Tomatos
OXYFLUORFEN	January	219.78	4	94.0874	Corn
OXYFLUORFEN	January	50	1	37.6232	Right of Way
OXYFLUORFEN	January	174.4	2	50.7461	Tomatos
OXYFLUORFEN	January	125.5	1	47.2146	Cotton
OXYFLUORFEN	February	178	4	33.4495	Tomatos
OXYFLUORFEN	February	96.2	2	36.1985	Corn
OXYFLUORFEN	February	492.8	7	148.707	Cotton
OXYFLUORFEN	February	189.6	4	71.3335	Melons
OXYFLUORFEN	March	20	1	5.0164	Right of Way
OXYFLUORFEN	March	538.3	6	165.823	Cotton
PARAQUAT DICHLORIDE	January	961	9	639.409	Alfalfa
PARAQUAT DICHLORIDE	February	722.86	12	303.116	Alfalfa
PENDIMETHALIN	January	1189	13	2287.00	Alfalfa
PENDIMETHALIN	February	442.26	7	1036.67	Alfalfa
PENDIMETHALIN	March	93.6	1	97.4947	Wheat
TRIFLURALIN	January	1639.9	20	3279.8	Alfalfa
TRIFLURALIN	February	130.1	3	260.2	Alfalfa
TRIFLURALIN	March	755.33	10	391.405	Tomatos
TRIFLURALIN	March	51.5	2	103	Alfalfa

County **San Joaquin**

Monitoring Site **Blewett Drain at Highway 13**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	February	79	1	66.6619	Wheat
IMAZAMOX, AMMONIUM SALT	January	82	1	4.1385	Alfalfa
LAMBDA-CYHALOTHRIN	March	29	1	0.9018	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

Monitoring Site **Hospital Creek at River Roa**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	February	38	1	20.7135	Wheat
2,4-D, DIMETHYLAMINE SALT	April	457.2	12	322.542	Barley
BIFENTHRIN	June	150	3	29.7319	Almonds
BIFENTHRIN	July	40	1	7.9285	Almonds
BROMOXYNIL HEPTANOATE	February	272	12	93.5984	Barley
BROMOXYNIL OCTANOATE	February	272	12	97.0652	Barley
BROMOXYNIL OCTANOATE	March	340	4	123.471	Wheat
CARFENTRAZONE-ETHYL	February	1154.6	24	16.904	Barley
ESFENVALERATE	February	346	2	14.0722	Apricots
ESFENVALERATE	March	92	2	5.1473	Apricots
ESFENVALERATE	April	51	1	2.4891	Walnuts
ESFENVALERATE	May	37	1	1.8806	Almonds
ESFENVALERATE	June	70	2	3.4164	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	147	1	128.662	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	56	1	112.019	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	February	158	2	316.054	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	92.66	2	185.188	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	115.34	2	230.719	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	April	125.26	4	188.065	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	37	1	111.019	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	250.5	3	1002.17	Almonds
LAMBDA-CYHALOTHRIN	May	334	6	11.828	Almonds
LAMBDA-CYHALOTHRIN	May	346	2	13.8814	Apricots
MCPA, DIMETHYLAMINE SALT	February	679	3	383.656	Wheat
OXYFLUORFEN	January	56	1	28.092	Olive
OXYFLUORFEN	February	158	2	14.8486	Almonds
OXYFLUORFEN	April	125.26	4	31.4028	Almonds
OXYFLUORFEN	May	37	1	18.8078	Almonds
OXYFLUORFEN	June	250.5	3	125.651	Almonds
PARAQUAT DICHLORIDE	March	200.4	3	16.5815	Almonds
PENDIMETHALIN	January	56	1	159.090	Olive
PENDIMETHALIN	March	200.4	3	379.544	Almonds
SETHOXYDIM	March	92.66	2	36.9131	Almonds

***Includes duplicate and incomplete data**
**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

County **Stanislaus**

Monitoring Site **Blewett Drain at Highway 13**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
BIFENTHRIN	July	461.6	5	84.6565	Almonds
CARFENTRAZONE-ETHYL	January	170	2	1.8553	Wheat
CARFENTRAZONE-ETHYL	January	50	2	0.3748	Oats
CARFENTRAZONE-ETHYL	February	17.46	2	0.3832	Almonds
CARFENTRAZONE-ETHYL	March	44	1	0.6372	Almonds
CARFENTRAZONE-ETHYL	May	26.32	2	0.7706	Cherrys
CARFENTRAZONE-ETHYL	May	29.1	2	0.852	Almonds
CARFENTRAZONE-ETHYL	July	26.32	2	0.7706	Cherrys
CHLORPYRIFOS	March	627	10	269.353	Alfalfa
CHLORPYRIFOS	June	455	4	919.13	Walnuts
CHLORPYRIFOS	July	258	2	521.177	Walnuts
CHLORPYRIFOS	August	2	2	3.7578	Cherrys
DICAMBA, DIMETHYLAMINE SALT	January	170	2	18.1745	Wheat
DIMETHOATE	March	57	1	28.1611	Alfalfa
ESFENVALERATE	January	37	1	1.8806	Almonds
ESFENVALERATE	April	12.6	1	0.5125	Almonds
ESFENVALERATE	May	175	2	8.785	Walnuts
ESFENVALERATE	May	359	5	16.0423	Almonds
ESFENVALERATE	June	55	1	2.6876	Walnuts
ESFENVALERATE	June	170	1	10.3728	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	69.33	1	138.704	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	January	22.92	1	34.3506	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	143.77	3	218.593	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	15.78	2	15.7826	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	17.46	2	17.463	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	170	1	255.044	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	78	1	156.027	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	May	273.95	3	495.502	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	365	4	625.171	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	120	1	180.031	Walnuts
GLYPHOSATE, POTASSIUM SALT	June	22	2	30.342	Corn
GLYPHOSATE, POTASSIUM SALT	July	250	3	331.003	Corn
ISOXABEN	February	17.46	2	13.095	Almonds
ISOXABEN	February	15.78	2	11.835	Cherrys
LAMBDA-CYHALOTHRIN	March	927.6	13	23.2514	Alfalfa
LAMBDA-CYHALOTHRIN	May	605	4	20.8657	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

LAMBDA-CYHALOTHRIN	May	197	2	6.4382	Walnuts
LAMBDA-CYHALOTHRIN	June	142	3	3.9649	Almonds
LAMBDA-CYHALOTHRIN	July	8	1	0.2621	Tomatos
MCPA, DIMETHYLAMINE SALT	January	170	2	48.0079	Wheat
MCPA, DIMETHYLAMINE SALT	January	50	2	41.549	Oats
MCPA, DIMETHYLAMINE SALT	February	40	1	22.6026	Wheat
ORYZALIN	January	43.5	1	180.969	Almonds
ORYZALIN	February	17.46	2	54.478	Almonds
ORYZALIN	February	15.78	2	49.236	Cherrys
OXYFLUORFEN	January	120.77	2	156.931	Almonds
OXYFLUORFEN	January	69.33	1	34.7738	Olive
OXYFLUORFEN	February	15.78	2	3.958	Cherrys
OXYFLUORFEN	March	170	1	42.6396	Almonds
OXYFLUORFEN	April	44	1	22.0723	Almonds
OXYFLUORFEN	April	78	1	19.564	Walnuts
OXYFLUORFEN	May	273.95	3	55.676	Almonds
OXYFLUORFEN	June	365	4	140.084	Almonds
OXYFLUORFEN	July	120	1	12.0394	Walnuts
PARAQUAT DICHLORIDE	February	57	1	4.7163	Alfalfa
PARAQUAT DICHLORIDE	March	44	1	3.6406	Almonds
PARAQUAT DICHLORIDE	April	44	1	3.6406	Almonds
PARAQUAT DICHLORIDE	May	29.1	2	40.283	Almonds
PARAQUAT DICHLORIDE	May	26.32	2	36.4346	Cherrys
PARAQUAT DICHLORIDE	July	26.32	2	36.4346	Cherrys
PENDIMETHALIN	January	77.27	1	146.363	Almonds
PENDIMETHALIN	January	69.33	1	196.969	Olive
PENDIMETHALIN	June	98	1	189.393	Almonds
RIMSULFURON	July	8	1	0.25	Tomatos
SAFLUFENACIL	June	50	1	2.191	Almonds
SETHOXYDIM	April	78	1	27.3378	Walnuts

Monitoring Site **Del Puerto Creek at Hwy 33**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	February	48	2	22.5584	Grapes
2,4-D, DIMETHYLAMINE SALT	March	40	2	31.1649	Walnuts
2,4-D, DIMETHYLAMINE SALT	March	15	1	14.535	Grapes
2,4-D, DIMETHYLAMINE SALT	April	38.5	1	24.9344	Almonds
2,4-D, DIMETHYLAMINE SALT	May	30	1	10.9012	Grapes
2,4-D, DIMETHYLAMINE SALT	July	30	1	51.4272	Apricots
BIFENTHRIN	June	35	1	3.5053	Almonds
BIFENTHRIN	July	94	2	9.4141	Melons

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

BIFENTHRIN	July	155	3	25.3059	Almonds
BIFENTHRIN	August	25	1	2.5038	Melons
BROMOXYNIL HEPTANOATE	January	5	1	1.0754	Wheat
BROMOXYNIL HEPTANOATE	January	10.5	2	2.8492	Oats
BROMOXYNIL HEPTANOATE	February	120	4	41.2659	Oats
BROMOXYNIL HEPTANOATE	February	43	2	7.3778	Alfalfa
BROMOXYNIL OCTANOATE	January	5	1	1.1152	Wheat
BROMOXYNIL OCTANOATE	January	10.5	2	2.9548	Oats
BROMOXYNIL OCTANOATE	February	43	2	7.6511	Alfalfa
BROMOXYNIL OCTANOATE	February	120	4	42.7943	Oats
CARFENTRAZONE-ETHYL	January	451	4	4.3103	Wheat
CLETHODIM	May	18.3	1	2.2892	Almonds
COPPER SULFATE (BASIC)	January	130	1	554.58	Almonds
COPPER SULFATE (PENTAHYDRATE)	January	75	2	742.5	Apricots
DIAZINON	March	28	1	55.5634	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	275	2	29.5279	Wheat
DIMETHOATE	March	262	3	118.056	Alfalfa
DIMETHOATE	April	78.18	3	30.1855	Tomatos
DIMETHOATE	June	72.73	1	36.2319	Tomatos
DIMETHOATE	July	160	1	79.7181	Tomatos
ESFENVALERATE	January	75	2	4.8805	Apricots
ESFENVALERATE	January	35	1	1.4235	Cherrys
ESFENVALERATE	February	170	5	6.8977	Apricots
ESFENVALERATE	March	293	4	11.9167	Apricots
ESFENVALERATE	April	30	1	1.2201	Cherrys
ESFENVALERATE	April	25	1	1.0168	Apricots
ESFENVALERATE	May	210	6	10.6656	Apricots
ESFENVALERATE	May	149	2	9.4227	Almonds
ESFENVALERATE	June	28	1	1.1388	Tomatos
ESFENVALERATE	July	160	1	7.3208	Tomatos
ESFENVALERATE	August	150	1	9.7611	Almonds
FENPROPATHRIN	April	85	4	17.2627	Cherrys
FENPROPATHRIN	May	11	1	2.5775	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	99.2	6	113.936	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	January	87	2	148.105	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	98	1	196.033	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	January	54	2	34.3745	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	255	3	131.894	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	114	5	183.205	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	February	32	2	33.5061	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	758	7	586.748	Peaches
GLYPHOSATE, ISOPROPYLAMINE SALT	February	96	3	93.2013	Grapes

***Includes duplicate and incomplete data**

**** Not available in all counties.**

GLYPHOSATE, ISOPROPYLAMINE SALT	March	15	1	57.8893	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	March	40	2	35.0809	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	98	1	98.0167	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	March	70	1	135.075	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	April	18	1	52.1004	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	April	38.5	1	42.1048	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	90	1	135.023	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	May	30	1	43.417	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	May	5	2	3.8592	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	May	13	1	25.0854	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	May	62	2	47.6736	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	205	2	280.661	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	10.5	2	10.5018	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	July	30	1	57.8893	Apricots
IMAZAMOX, AMMONIUM SALT	February	43	2	1.4319	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	February	43	2	2.816	Alfalfa
LAMBDA-CYHALOTHRIN	January	95	3	2.2078	Apricots
LAMBDA-CYHALOTHRIN	January	30	1	0.6972	Cherrys
LAMBDA-CYHALOTHRIN	February	256	9	5.9571	Apricots
LAMBDA-CYHALOTHRIN	March	300	4	9.3253	Alfalfa
LAMBDA-CYHALOTHRIN	March	260	7	7.2387	Apricots
LAMBDA-CYHALOTHRIN	March	1074	8	26.6242	Peaches
LAMBDA-CYHALOTHRIN	April	90	4	2.8461	Cherrys
LAMBDA-CYHALOTHRIN	April	135	2	5.6622	Apricots
LAMBDA-CYHALOTHRIN	May	435	12	13.3613	Apricots
LAMBDA-CYHALOTHRIN	June	102	2	2.5285	Almonds
LAMBDA-CYHALOTHRIN	June	28	1	0.823	Tomatos
MALATHION	May	11	1	19.7092	Cherrys
MCPA, DIMETHYLAMINE SALT	January	187.5	4	108.028	Oats
MCPA, DIMETHYLAMINE SALT	January	456	5	177.797	Wheat
MCPA, DIMETHYLAMINE SALT	February	120	4	67.7625	Oats
METOLACHLOR	March	28	1	37.2748	Tomatos
NORFLURAZON	January	14	1	11.004	Cherrys
NORFLURAZON	January	19	1	14.934	Apricots
NORFLURAZON	February	8	1	6.288	Apricots
ORYZALIN	January	52	1	108.165	Almonds
ORYZALIN	February	68	1	137.162	Grapes
ORYZALIN	February	50	1	104.005	Almonds
ORYZALIN	March	30	1	41.6021	Apricots
ORYZALIN	March	40	1	55.466	Cherrys
ORYZALIN	June	4.8	1	9.9845	Almonds
OXYFLUORFEN	January	54	2	6.8557	Cherrys

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

OXYFLUORFEN	January	99.2	6	19.865	Apricots
OXYFLUORFEN	January	98	1	49.1609	Olive
OXYFLUORFEN	January	87	2	16.5542	Almonds
OXYFLUORFEN	February	164	4	96.3153	Grapes
OXYFLUORFEN	February	155	3	53.7555	Almonds
OXYFLUORFEN	February	12	1	3.0099	Cherrys
OXYFLUORFEN	February	64	4	16.0525	Apricots
OXYFLUORFEN	March	40	1	20.3108	Cherrys
OXYFLUORFEN	March	30	1	15.2331	Apricots
OXYFLUORFEN	April	9	1	6.269	Almonds
OXYFLUORFEN	May	18.3	1	8.0628	Almonds
OXYFLUORFEN	June	154.8	2	35.282	Almonds
OXYFLUORFEN	July	11.96	3	2.9189	Cherrys
PARAQUAT DICHLORIDE	January	112	1	73.1076	Alfalfa
PARAQUAT DICHLORIDE	February	68	1	43.0418	Grapes
PARAQUAT DICHLORIDE	March	40	1	17.4065	Cherrys
PARAQUAT DICHLORIDE	March	30	1	13.0549	Apricots
PARAQUAT DICHLORIDE	April	11.5	1	15.9194	Cherrys
PARAQUAT DICHLORIDE	April	9	1	11.8225	Almonds
PARAQUAT DICHLORIDE	May	11.5	1	15.9194	Cherrys
PARAQUAT DICHLORIDE	June	4.8	1	0.5957	Almonds
PARAQUAT DICHLORIDE	June	10.4	1	1.2908	Apricots
PARAQUAT DICHLORIDE	July	11.96	3	14.894	Cherrys
PARAQUAT DICHLORIDE	July	21	1	27.6973	Almonds
PENDIMETHALIN	January	98	1	278.408	Olive
PENDIMETHALIN	January	112	1	212.120	Alfalfa
PENDIMETHALIN	February	48	2	88.134	Grapes
PENDIMETHALIN	March	28	1	26.515	Tomatos
PENDIMETHALIN	May	13	1	24.6211	Cherrys
PENDIMETHALIN	June	144.21	2	96.9692	Tomatos
RIMSULFURON	April	78.18	3	2.4425	Tomatos
RIMSULFURON	June	72.73	1	2.2725	Tomatos
SIMAZINE	January	52	1	104.024	Almonds
ZIRAM	March	526	10	2398.56	Apricots
ZIRAM	April	80	2	297.92	Apricots

Monitoring Site **Del Puerto Creek near Cox**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	January	45.45	3	49.5816	Almonds
2,4-D, DIMETHYLAMINE SALT	February	48	2	22.5584	Grapes
2,4-D, DIMETHYLAMINE SALT	March	15	1	14.535	Grapes

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

2,4-D, DIMETHYLAMINE SALT	March	40	2	31.1649	Walnuts
2,4-D, DIMETHYLAMINE SALT	April	38.5	1	24.9344	Almonds
2,4-D, DIMETHYLAMINE SALT	May	27	2	30.3827	Turf grass
2,4-D, DIMETHYLAMINE SALT	May	30	1	10.9012	Grapes
2,4-D, DIMETHYLAMINE SALT	June	7.51	2	5.7125	Walnuts
2,4-D, DIMETHYLAMINE SALT	June	0.32	1	0.3489	Almonds
2,4-D, DIMETHYLAMINE SALT	July	30	1	51.4272	Apricots
BIFENTHRIN	April	20	1	2.003	Walnuts
BIFENTHRIN	June	35	1	3.5053	Almonds
BIFENTHRIN	July	95	1	15.5234	Tomatos
BIFENTHRIN	July	455	4	84.7696	Almonds
BIFENTHRIN	July	94	2	9.4141	Melons
BIFENTHRIN	July	30	1	2.9794	Corn
BIFENTHRIN	August	25	1	2.5038	Melons
BROMOXYNIL HEPTANOATE	January	63	3	13.5495	Wheat
BROMOXYNIL HEPTANOATE	January	10.5	2	2.8492	Oats
BROMOXYNIL HEPTANOATE	February	20	1	6.8822	Wheat
BROMOXYNIL HEPTANOATE	February	156	5	53.6539	Oats
BROMOXYNIL HEPTANOATE	February	105	4	18.0039	Alfalfa
BROMOXYNIL OCTANOATE	January	10.5	2	2.9548	Oats
BROMOXYNIL OCTANOATE	January	214	6	67.6123	Wheat
BROMOXYNIL OCTANOATE	February	20	1	7.1371	Wheat
BROMOXYNIL OCTANOATE	February	175	6	62.3966	Oats
BROMOXYNIL OCTANOATE	February	105	4	18.6708	Alfalfa
CAPTAN	February	8	1	16	Almonds
CARBARYL	May	150	2	201	Tomatos
CARFENTRAZONE-ETHYL	January	3.05	1	0.075	Walnuts
CARFENTRAZONE-ETHYL	January	30	1	0.3373	Oats
CARFENTRAZONE-ETHYL	January	475	5	4.6617	Wheat
CARFENTRAZONE-ETHYL	February	4	1	0.1124	Almonds
CARFENTRAZONE-ETHYL	February	90	1	1.3177	Wheat
CARFENTRAZONE-ETHYL	April	3.13	1	0.0937	Walnuts
CARFENTRAZONE-ETHYL	May	25	1	0.5435	Tomatos
CARFENTRAZONE-ETHYL	June	7.51	2	0.1874	Walnuts
CARFENTRAZONE-ETHYL	June	0.32	1	0.0187	Almonds
CHLORPYRIFOS	January	8	1	15.0315	Almonds
CHLORPYRIFOS	March	420.5	13	128.256	Alfalfa
CHLORPYRIFOS	May	18	1	33.774	Walnuts
CLETHODIM	May	18.3	1	2.2892	Almonds
CLETHODIM	July	75	3	12.3056	Alfalfa
CLETHODIM	July	23.64	1	2.8933	Almonds
COPPER SULFATE (BASIC)	January	130	1	554.58	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

COPPER SULFATE (BASIC)	April	13	1	92.43	Walnuts
COPPER SULFATE (PENTAHYDRATE)	January	75	2	742.5	Apricots
DIAZINON	March	28	1	55.5634	Tomatos
DIAZINON	April	277	3	549.680	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	30	1	3.2046	Oats
DICAMBA, DIMETHYLAMINE SALT	January	275	2	29.5279	Wheat
DIMETHOATE	March	525	12	207.244	Alfalfa
DIMETHOATE	April	123.18	5	48.7394	Tomatos
DIMETHOATE	April	18	1	9.8742	Alfalfa
DIMETHOATE	May	648.26	15	261.512	Tomatos
DIMETHOATE	June	50	1	12.3874	Fallow
DIMETHOATE	June	148.37	5	73.9386	Tomatos
DIMETHOATE	July	713.56	9	317.806	Tomatos
DIMETHOATE	August	151	3	75.2538	Tomatos
DIURON	January	81	3	131.259	Alfalfa
ESFENVALERATE	January	75	2	4.8805	Apricots
ESFENVALERATE	January	15	1	0.7614	Almonds
ESFENVALERATE	January	35	1	1.4235	Cherrys
ESFENVALERATE	February	237	8	9.6177	Apricots
ESFENVALERATE	March	313	6	12.7367	Apricots
ESFENVALERATE	April	30	1	1.2201	Cherrys
ESFENVALERATE	April	25	1	1.0168	Apricots
ESFENVALERATE	May	347	14	17.6221	Apricots
ESFENVALERATE	May	703	10	37.5814	Almonds
ESFENVALERATE	June	53	3	3.4489	Walnuts
ESFENVALERATE	June	40	1	2.603	Almonds
ESFENVALERATE	June	233	3	9.4747	Tomatos
ESFENVALERATE	July	764.92	9	32.0878	Tomatos
ESFENVALERATE	August	150	1	9.7611	Almonds
ESFENVALERATE	August	151	3	6.9044	Tomatos
ETHALFLURALIN	April	56	1	71.214	Beans
FENPROPATHRIN	April	85	4	17.2627	Cherrys
FENPROPATHRIN	May	11	1	2.5775	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	15	1	30.0359	Turf grass
GLYPHOSATE, ISOPROPYLAMINE SALT	January	3	1	4.0007	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	19	1	19.0324	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	January	277	3	415.551	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	January	107	3	168.109	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	98	1	196.033	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	January	54	2	34.3745	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	99.2	6	113.936	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	February	758	7	586.748	Peaches

***Includes duplicate and incomplete data**

**** Not available in all counties.**

GLYPHOSATE, ISOPROPYLAMINE SALT	February	241	7	198.135	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	February	43	3	37.2336	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	277.73	4	165.98	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	33	1	33.0056	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	February	174	6	287.713	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	March	98	1	98.0167	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	March	20	2	40.2996	Turf grass
GLYPHOSATE, ISOPROPYLAMINE SALT	March	40	2	35.0809	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	70	1	135.075	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	15	1	57.8893	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	April	90	1	135.023	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	April	18	1	52.1004	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	April	446	10	1037.27	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	9.25	1	9.0733	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	April	15	1	10.0017	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	610	6	1847.95	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	May	5	2	3.8592	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	May	50	2	200.034	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	May	148	4	162.351	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	May	102	3	167.694	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	13	1	25.0854	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	June	54.5	5	54.5093	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	395	4	1040.79	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	32	1	24.0041	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	July	405.5	6	1419.16	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	30	1	57.8893	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	July	16	1	16.0273	Corn
GLYPHOSATE, POTASSIUM SALT	January	90.45	4	80.3988	Almonds
GLYPHOSATE, POTASSIUM SALT	January	3.05	1	5.7926	Walnuts
GLYPHOSATE, POTASSIUM SALT	February	4	1	9.1026	Almonds
GLYPHOSATE, POTASSIUM SALT	April	37	1	102.059	Almonds
GLYPHOSATE, POTASSIUM SALT	April	3.13	1	10.2611	Walnuts
GLYPHOSATE, POTASSIUM SALT	May	83	2	114.472	Corn
GLYPHOSATE, POTASSIUM SALT	June	0.32	1	1.4343	Almonds
GLYPHOSATE, POTASSIUM SALT	June	7.51	2	26.2044	Walnuts
HEXAZINONE	January	322	11	138.805	Alfalfa
HEXAZINONE	February	80	1	40.717	Alfalfa
IMAZAMOX, AMMONIUM SALT	February	105	4	3.4991	Alfalfa
IMAZETHAPYR, AMMONIUM SALT	February	122	5	8.5684	Alfalfa
ISOXABEN	April	2	1	1.5	Almonds
LAMBDA-CYHALOTHRIN	January	30	1	0.6972	Cherrys
LAMBDA-CYHALOTHRIN	January	95	3	2.2078	Apricots

***Includes duplicate and incomplete data**

**** Not available in all counties.**

LAMBDA-CYHALOTHRIN	January	120	1	2.7926	Almonds
LAMBDA-CYHALOTHRIN	February	256	9	5.9571	Apricots
LAMBDA-CYHALOTHRIN	March	996.5	24	35.8925	Alfalfa
LAMBDA-CYHALOTHRIN	March	1074	8	26.6242	Peaches
LAMBDA-CYHALOTHRIN	March	347	9	9.559	Apricots
LAMBDA-CYHALOTHRIN	April	100	5	3.2427	Cherrys
LAMBDA-CYHALOTHRIN	April	17	1	0.5453	Alfalfa
LAMBDA-CYHALOTHRIN	April	135	2	5.6622	Apricots
LAMBDA-CYHALOTHRIN	May	435	12	13.3613	Apricots
LAMBDA-CYHALOTHRIN	May	63	4	2.3153	Walnuts
LAMBDA-CYHALOTHRIN	May	377.93	7	8.7984	Tomatos
LAMBDA-CYHALOTHRIN	May	860	5	31.3956	Almonds
LAMBDA-CYHALOTHRIN	June	40	2	0.9454	Walnuts
LAMBDA-CYHALOTHRIN	June	211	5	6.2845	Almonds
LAMBDA-CYHALOTHRIN	June	150	4	2.6684	Tomatos
LAMBDA-CYHALOTHRIN	July	533	7	15.1962	Almonds
MALATHION	May	22	3	30.4412	Cherrys
MCPA, DIMETHYLAMINE SALT	January	217.5	5	116.527	Oats
MCPA, DIMETHYLAMINE SALT	January	665	10	293.206	Wheat
MCPA, DIMETHYLAMINE SALT	February	110	2	14.4881	Wheat
MCPA, DIMETHYLAMINE SALT	February	175	6	98.8636	Oats
METOLACHLOR	March	28	1	37.2748	Tomatos
METOLACHLOR	April	278	3	333.946	Tomatos
METOLACHLOR	April	73	2	116.144	Beans
METOLACHLOR	May	125	2	166.217	Tomatos
METOLACHLOR	May	45	1	67.4905	Beans
METOLACHLOR	June	17.2	1	22.8768	Beans
NORFLURAZON	January	27.63	2	21.7172	Almonds
NORFLURAZON	January	19	1	14.934	Apricots
NORFLURAZON	January	14	1	11.004	Cherrys
NORFLURAZON	February	8	1	6.288	Apricots
ORYZALIN	January	97	2	168.161	Almonds
ORYZALIN	February	50	1	104.005	Almonds
ORYZALIN	February	68	1	137.162	Grapes
ORYZALIN	March	30	1	41.6021	Apricots
ORYZALIN	March	40	1	55.466	Cherrys
ORYZALIN	April	20	1	27.3028	Almonds
ORYZALIN	June	4.8	1	9.9845	Almonds
OXAMYL	May	65	1	32.3571	Tomatos
OXYFLUORFEN	January	197.45	7	57.3528	Almonds
OXYFLUORFEN	January	54	2	6.8557	Cherrys
OXYFLUORFEN	January	277	3	13.0026	Fallow

***Includes duplicate and incomplete data**

**** Not available in all counties.**

OXYFLUORFEN	January	98	1	49.1609	Olive
OXYFLUORFEN	January	3.05	1	1.525	Walnuts
OXYFLUORFEN	January	99.2	6	19.865	Apricots
OXYFLUORFEN	February	64	4	16.0525	Apricots
OXYFLUORFEN	February	309	8	132.684	Grapes
OXYFLUORFEN	February	23	2	3.4697	Cherrys
OXYFLUORFEN	February	159	4	55.7866	Almonds
OXYFLUORFEN	February	33	1	2.0668	Fallow
OXYFLUORFEN	March	40	1	20.3108	Cherrys
OXYFLUORFEN	March	30	1	15.2331	Apricots
OXYFLUORFEN	April	115	1	21.895	Tomatos
OXYFLUORFEN	April	42.5	1	1.9987	Grapes
OXYFLUORFEN	April	330.5	8	105.789	Almonds
OXYFLUORFEN	April	3.13	1	1.5842	Walnuts
OXYFLUORFEN	May	60	2	2.8218	Grapes
OXYFLUORFEN	May	58.3	2	28.3736	Almonds
OXYFLUORFEN	June	154.8	2	35.282	Almonds
OXYFLUORFEN	July	305.5	5	114.234	Almonds
OXYFLUORFEN	July	11.96	3	2.9189	Cherrys
PARAQUAT DICHLORIDE	January	17.73	1	2.2009	Almonds
PARAQUAT DICHLORIDE	January	488.5	14	216.377	Alfalfa
PARAQUAT DICHLORIDE	February	68	1	43.0418	Grapes
PARAQUAT DICHLORIDE	February	108	2	8.9362	Alfalfa
PARAQUAT DICHLORIDE	March	40	1	17.4065	Cherrys
PARAQUAT DICHLORIDE	March	10.34	1	1.7111	Almonds
PARAQUAT DICHLORIDE	March	30	1	13.0549	Apricots
PARAQUAT DICHLORIDE	April	11.5	1	15.9194	Cherrys
PARAQUAT DICHLORIDE	April	59	2	76.0504	Almonds
PARAQUAT DICHLORIDE	April	10	1	1.2411	Apricots
PARAQUAT DICHLORIDE	May	11.5	1	15.9194	Cherrys
PARAQUAT DICHLORIDE	June	10.4	1	1.2908	Apricots
PARAQUAT DICHLORIDE	June	13	1	13.786	Walnuts
PARAQUAT DICHLORIDE	June	54.8	2	64.8236	Almonds
PARAQUAT DICHLORIDE	July	12	1	17.2116	Walnuts
PARAQUAT DICHLORIDE	July	11.96	3	14.894	Cherrys
PARAQUAT DICHLORIDE	July	44.64	2	31.6093	Almonds
PENDIMETHALIN	January	98	1	278.408	Olive
PENDIMETHALIN	January	413	10	716.852	Alfalfa
PENDIMETHALIN	February	22.73	1	43.0301	Almonds
PENDIMETHALIN	February	48	2	88.134	Grapes
PENDIMETHALIN	February	108	2	128.787	Alfalfa
PENDIMETHALIN	March	29	1	14.962	Walnuts

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

PENDIMETHALIN	March	28	1	26.515	Tomatos
PENDIMETHALIN	April	55	1	52.0831	Beans
PENDIMETHALIN	April	287.94	5	256.097	Tomatos
PENDIMETHALIN	April	9.25	1	4.2909	Cherrys
PENDIMETHALIN	April	22	1	20.8332	Alfalfa
PENDIMETHALIN	May	631.55	9	498.975	Tomatos
PENDIMETHALIN	May	13	1	24.6211	Cherrys
PENDIMETHALIN	June	17.2	1	16.2878	Beans
PENDIMETHALIN	June	376.75	7	260.235	Tomatos
RIMSULFURON	January	15.27	1	0.9544	Almonds
RIMSULFURON	February	22.73	1	1.42	Almonds
RIMSULFURON	April	123.18	5	4.32	Tomatos
RIMSULFURON	May	656.19	17	19.5127	Tomatos
RIMSULFURON	June	238.37	6	6.6577	Tomatos
RIMSULFURON	July	43.64	2	1.365	Tomatos
SAFLUFENACIL	February	22.73	1	0.994	Almonds
SAFLUFENACIL	April	37	1	1.6188	Almonds
SAFLUFENACIL	July	63	2	2.751	Almonds
SETHOXYDIM	April	20	1	2.1029	Almonds
SETHOXYDIM	June	33	2	8.664	Asparagus
SIMAZINE	January	79.63	3	128.891	Almonds
SIMAZINE	January	10	1	19.9818	Walnuts
TRIFLURALIN	April	85	1	38.7841	Tomatos
TRIFLURALIN	April	17	1	5.6164	Beans
TRIFLURALIN	May	80	2	51.3629	Beans
ZIRAM	March	526	10	2398.56	Apricots
ZIRAM	April	80	2	297.92	Apricots

Monitoring Site **Hospital Creek at River Roa**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	May	149	3	72.1121	Beans
2,4-D, DIMETHYLAMINE SALT	January	18.18	1	19.7977	Almonds
2,4-D, DIMETHYLAMINE SALT	March	191.43	3	187.12	Almonds
2,4-D, DIMETHYLAMINE SALT	April	35	1	57.2346	Almonds
BIFENTHRIN	May	326	5	30.2894	Almonds
BIFENTHRIN	July	175	2	11.8496	Tomatos
BIFENTHRIN	July	1933.67	19	376.439	Almonds
BROMOXYNIL HEPTANOATE	February	120	2	20.6467	Alfalfa
BROMOXYNIL OCTANOATE	February	120	2	21.4114	Alfalfa
CARBARYL	April	80	1	40	Tomatos
CARFENTRAZONE-ETHYL	January	2.63	1	0.077	Cherrys

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

CARFENTRAZONE-ETHYL	January	60	1	0.8808	Oats
CARFENTRAZONE-ETHYL	January	14	1	0.1499	Wheat
CARFENTRAZONE-ETHYL	February	17.46	2	0.3832	Almonds
CARFENTRAZONE-ETHYL	March	51.43	2	0.3764	Almonds
CARFENTRAZONE-ETHYL	May	29.1	2	0.852	Almonds
CARFENTRAZONE-ETHYL	May	174.9	1	5.116	Grapes
CARFENTRAZONE-ETHYL	May	200	2	4.7569	Fallow
CARFENTRAZONE-ETHYL	May	120	1	1.7616	Beans
CARFENTRAZONE-ETHYL	May	80	1	1.7616	Tomatos
CARFENTRAZONE-ETHYL	May	31.58	3	0.9246	Cherrys
CARFENTRAZONE-ETHYL	July	26.32	2	0.7706	Cherrys
CARFENTRAZONE-ETHYL	August	108	2	3.1624	Almonds
CARFENTRAZONE-ETHYL	August	5.26	1	0.154	Cherrys
CHLORPYRIFOS	March	65	1	15.2569	Alfalfa
CHLORPYRIFOS	June	516	4	1042.35	Walnuts
CHLORPYRIFOS	July	516	4	1042.35	Walnuts
CHLORPYRIFOS	August	2.5	3	4.6973	Cherrys
CLETHODIM	February	70	1	9.319	Alfalfa
CLETHODIM	July	140	3	37.2549	Alfalfa
DIAZINON	April	80	1	158.753	Tomatos
DIAZINON	May	95	1	188.519	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	14	1	1.465	Wheat
DIMETHOATE	March	135	2	67.0523	Alfalfa
DIMETHOATE	May	494.59	16	170.983	Tomatos
DIMETHOATE	May	220	3	109.175	Alfalfa
DIMETHOATE	June	205	3	50.8553	Tomatos
DIMETHOATE	July	135	2	66.805	Alfalfa
DIMETHOATE	July	345	4	128.296	Tomatos
DIMETHOATE	July	318	4	157.709	Beans
DIMETHOATE	August	170	2	84.7005	Tomatos
ESFENVALERATE	January	42	1	2.1344	Almonds
ESFENVALERATE	May	606	6	30.8126	Almonds
ESFENVALERATE	May	110	2	5.3686	Walnuts
ESFENVALERATE	June	170	1	10.3728	Almonds
ESFENVALERATE	June	110	2	5.3752	Walnuts
ESFENVALERATE	June	160	2	6.5074	Tomatos
ESFENVALERATE	July	250	3	10.1645	Tomatos
ESFENVALERATE	July	70	1	4.5552	Almonds
ETHALFLURALIN	May	607	7	771.909	Beans
FENPROPATHRIN	April	10	1	2.5024	Cherrys
FLUAZIFOP-P-BUTYL	June	174.9	1	65.8621	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	January	249.27	3	341.891	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, ISOPROPYLAMINE SALT	January	69.33	1	138.704	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	January	81.84	3	158.717	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	2.63	1	3.9507	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	65	1	81.3471	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	17.46	2	17.463	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	70	1	135.075	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	18.94	3	18.9431	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	March	433.43	5	596.683	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	165	2	609.829	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	April	166.5	3	338.298	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	13.89	1	27.7763	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	120	1	221.516	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	May	454.22	4	1052.13	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	31.66	1	79.1735	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	May	205	2	568.081	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	June	429	6	1016.07	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	275	2	273.602	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	July	1251	12	2684.6	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	51.25	1	128.142	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	August	108	2	216.037	Almonds
GLYPHOSATE, POTASSIUM SALT	January	29.29	2	41.8908	Almonds
GLYPHOSATE, POTASSIUM SALT	February	99	2	140.676	Almonds
GLYPHOSATE, POTASSIUM SALT	February	167.64	1	462.412	Grapes
GLYPHOSATE, POTASSIUM SALT	March	55	1	75.8549	Almonds
GLYPHOSATE, POTASSIUM SALT	April	35	1	48.2713	Almonds
GLYPHOSATE, POTASSIUM SALT	May	189	3	474.438	Almonds
GLYPHOSATE, POTASSIUM SALT	May	85	1	80.5993	Corn
GLYPHOSATE, POTASSIUM SALT	May	174.9	1	482.437	Grapes
GLYPHOSATE, POTASSIUM SALT	June	85	1	115.851	Corn
GLYPHOSATE, POTASSIUM SALT	June	14	1	16.5502	Fallow
GLYPHOSATE, POTASSIUM SALT	July	49	1	67.5798	Almonds
IMAZETHAPYR, AMMONIUM SALT	February	120	2	8.5246	Alfalfa
ISOXABEN	February	17.46	2	13.095	Almonds
ISOXABEN	February	18.94	3	14.205	Cherrys
LAMBDA-CYHALOTHRIN	March	702.1	10	20.8839	Alfalfa
LAMBDA-CYHALOTHRIN	April	40	2	1.6777	Cherrys
LAMBDA-CYHALOTHRIN	May	135	2	3.6329	Alfalfa
LAMBDA-CYHALOTHRIN	May	231	3	5.1417	Tomatos
LAMBDA-CYHALOTHRIN	May	45	1	1.8874	Walnuts
LAMBDA-CYHALOTHRIN	May	1363	10	51.8491	Almonds
LAMBDA-CYHALOTHRIN	May	15	1	0.4442	Apricots
LAMBDA-CYHALOTHRIN	June	95	1	2.8136	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

LAMBDA-CYHALOTHRIN	June	388	4	10.8719	Almonds
LAMBDA-CYHALOTHRIN	July	115	1	5.0197	Walnuts
LAMBDA-CYHALOTHRIN	July	218	3	5.8664	Beans
LAMBDA-CYHALOTHRIN	July	55	1	1.5429	Almonds
LAMBDA-CYHALOTHRIN	July	65	1	1.7492	Alfalfa
LAMBDA-CYHALOTHRIN	July	71	1	1.9106	Tomatos
LAMBDA-CYHALOTHRIN	August	108	2	3.5389	Almonds
MCPA, DIMETHYLAMINE SALT	January	14	1	3.9328	Wheat
METOLACHLOR	May	120	1	159.978	Fallow
METOLACHLOR	May	183.67	2	250.585	Tomatos
METOLACHLOR	May	707	8	1204.44	Beans
ORYZALIN	February	17.46	2	54.478	Almonds
ORYZALIN	February	18.94	3	59.0957	Cherrys
OXYFLUORFEN	January	203.56	4	137.906	Almonds
OXYFLUORFEN	January	36	1	36.5594	Walnuts
OXYFLUORFEN	January	69.33	1	34.7738	Olive
OXYFLUORFEN	February	32	2	5.8495	Almonds
OXYFLUORFEN	February	167.64	1	85.1428	Grapes
OXYFLUORFEN	February	18.94	3	4.7506	Cherrys
OXYFLUORFEN	March	170	1	42.6396	Almonds
OXYFLUORFEN	April	13.89	1	3.4914	Almonds
OXYFLUORFEN	April	156	2	39.128	Walnuts
OXYFLUORFEN	May	342	3	100.788	Almonds
OXYFLUORFEN	June	349.8	2	131.611	Grapes
OXYFLUORFEN	June	429	6	214.201	Almonds
OXYFLUORFEN	July	925	9	208.432	Almonds
OXYFLUORFEN	July	6	1	1.1287	Apricots
PARAQUAT DICHLORIDE	February	30	1	20.7645	Almonds
PARAQUAT DICHLORIDE	March	6	1	0.7447	Apricots
PARAQUAT DICHLORIDE	April	60	2	41.529	Almonds
PARAQUAT DICHLORIDE	May	31.58	3	43.716	Cherrys
PARAQUAT DICHLORIDE	May	29.1	2	40.283	Almonds
PARAQUAT DICHLORIDE	June	174.9	1	28.9431	Grapes
PARAQUAT DICHLORIDE	June	59	1	83.1756	Almonds
PARAQUAT DICHLORIDE	June	6	1	0.7447	Apricots
PARAQUAT DICHLORIDE	July	8	2	11.2794	Olive
PARAQUAT DICHLORIDE	July	70	1	72.6756	Almonds
PARAQUAT DICHLORIDE	July	26.32	2	36.4346	Cherrys
PARAQUAT DICHLORIDE	July	6	1	0.7447	Apricots
PARAQUAT DICHLORIDE	August	5.26	1	7.2814	Cherrys
PENDIMETHALIN	January	36	1	102.272	Walnuts
PENDIMETHALIN	January	69.33	1	196.969	Olive

***Includes duplicate and incomplete data**

**** Not available in all counties.**

PENDIMETHALIN	January	106.56	3	219.052	Almonds
PENDIMETHALIN	February	167.64	1	634.997	Grapes
PENDIMETHALIN	May	166	2	147.111	Tomatos
PENDIMETHALIN	May	120	1	113.636	Fallow
PENDIMETHALIN	May	220	2	208.332	Beans
PENDIMETHALIN	June	196	2	378.786	Almonds
PERMETHRIN	May	226	2	33.9	Corn
RIMSULFURON	January	18.18	1	1.1362	Almonds
RIMSULFURON	February	167.64	1	10.4775	Grapes
RIMSULFURON	April	21.59	1	0.6747	Tomatos
RIMSULFURON	May	465	14	15.4414	Tomatos
RIMSULFURON	May	97	1	0.3125	Almonds
RIMSULFURON	June	30	1	1.405	Tomatos
SAFLUFENACIL	March	187	3	8.1812	Almonds
SAFLUFENACIL	May	128.36	3	5.6157	Almonds
SAFLUFENACIL	June	158	3	6.916	Almonds
SETHOXYDIM	April	156	2	54.6756	Walnuts
TRIFLURALIN	May	112.67	1	84.8435	Tomatos

Monitoring Site **Ingram Creek at River Road**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	May	224	4	75.8424	Beans
2,4-D, DIMETHYLAMINE SALT	January	18.18	1	19.7977	Almonds
2,4-D, DIMETHYLAMINE SALT	February	35	1	19.7539	Oats
2,4-D, DIMETHYLAMINE SALT	March	191.43	3	187.12	Almonds
2,4-D, DIMETHYLAMINE SALT	April	30	3	32.7036	Almonds
2,4-D, DIMETHYLAMINE SALT	July	30	1	51.3132	Fallow
BETA-CYFLUTHRIN	July	62	1	0.1656	Beans
BIFENTHRIN	May	591	11	54.9111	Almonds
BIFENTHRIN	July	864.67	15	171.388	Almonds
BIFENTHRIN	July	355	4	25.9333	Tomatos
BROMOXYNIL HEPTANOATE	February	120	2	20.6467	Alfalfa
BROMOXYNIL OCTANOATE	January	124	2	43.9956	Oats
BROMOXYNIL OCTANOATE	February	120	2	21.4114	Alfalfa
CARBARYL	April	416	4	353	Tomatos
CARBARYL	May	270	3	243	Tomatos
CARFENTRAZONE-ETHYL	January	14	1	0.1499	Wheat
CARFENTRAZONE-ETHYL	January	2.63	1	0.077	Cherrys
CARFENTRAZONE-ETHYL	February	215	4	3.1476	Oats
CARFENTRAZONE-ETHYL	March	74	7	1.8448	Cherrys
CARFENTRAZONE-ETHYL	March	4.8	1	0.1406	Apricots

***Includes duplicate and incomplete data**
**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

CARFENTRAZONE-ETHYL	March	51.43	2	0.3764	Almonds
CARFENTRAZONE-ETHYL	April	16.84	2	0.4931	Cherrys
CARFENTRAZONE-ETHYL	May	22.1	3	0.6471	Cherrys
CARFENTRAZONE-ETHYL	May	320	3	7.3922	Fallow
CARFENTRAZONE-ETHYL	May	174.9	1	5.116	Grapes
CARFENTRAZONE-ETHYL	May	200	2	4.4039	Tomatos
CARFENTRAZONE-ETHYL	May	120	1	1.7616	Beans
CARFENTRAZONE-ETHYL	June	46.84	5	1.3715	Cherrys
CARFENTRAZONE-ETHYL	June	38.18	2	1.118	Almonds
CARFENTRAZONE-ETHYL	July	24.99	3	0.7317	Walnuts
CARFENTRAZONE-ETHYL	July	30	3	0.8784	Almonds
CARFENTRAZONE-ETHYL	July	74	7	2.1668	Cherrys
CARFENTRAZONE-ETHYL	August	108	2	3.1624	Almonds
CARFENTRAZONE-ETHYL	August	5.26	1	0.154	Cherrys
CHLORPYRIFOS	March	65	1	15.2569	Alfalfa
CHLORPYRIFOS	June	90	2	90.9029	Walnuts
CHLORPYRIFOS	August	0.5	1	0.9395	Cherrys
CLETHODIM	February	70	1	9.319	Alfalfa
DIAZINON	April	110	7	140	Cherrys
DIAZINON	April	80	1	159.936	Fallow
DIAZINON	April	280	3	555.634	Tomatos
DIAZINON	May	119.77	3	237.672	Tomatos
DIAZINON	June	62	1	123.033	Beans
DICAMBA, DIMETHYLAMINE SALT	January	14	1	1.465	Wheat
DIMETHOATE	March	135	2	67.0523	Alfalfa
DIMETHOATE	April	80	1	7.2494	Tomatos
DIMETHOATE	May	220	3	109.175	Alfalfa
DIMETHOATE	May	977.59	28	349.534	Tomatos
DIMETHOATE	June	573	12	138.877	Tomatos
DIMETHOATE	July	802	10	397.433	Beans
DIMETHOATE	July	585	7	247.026	Tomatos
DIMETHOATE	July	135	2	66.805	Alfalfa
DIMETHOATE	August	170	2	84.7005	Tomatos
ESFENVALERATE	May	90	2	4.3925	Walnuts
ESFENVALERATE	May	188	2	9.504	Almonds
ESFENVALERATE	May	140	2	6.8328	Apricots
ESFENVALERATE	June	269	4	11.4947	Tomatos
ESFENVALERATE	June	50	1	3.2537	Almonds
ESFENVALERATE	July	410	5	15.0386	Tomatos
ESFENVALERATE	July	70	1	4.5552	Almonds
ETHALFLURALIN	May	897	10	1140.7	Beans
ETHALFLURALIN	June	60	1	76.3007	Beans

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

FENPROPATHRIN	April	10	1	2.5024	Cherrys
FENPROPATHRIN	May	200	13	68.7772	Cherrys
FLUAZIFOP-P-BUTYL	June	174.9	1	65.8621	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	January	61	2	115.02	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	2.63	1	3.9507	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	65	1	62.7134	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	January	237	3	220.002	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	70	1	135.075	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	65	1	81.3471	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	February	294	2	153.627	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	3.16	1	3.1605	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	104.25	3	93.1096	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	75	1	144.723	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	80	1	154.372	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	March	4.8	1	9.6016	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	March	263.43	4	341.64	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	36.5	2	34.9324	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	78.89	8	117.251	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	April	390	4	1410.79	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	April	23	2	51.2488	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	120	1	480.574	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	57.22	5	114.451	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	209.22	2	487.381	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	86.65	5	174.17	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	May	120	1	221.516	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	May	3.67	1	5.5059	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	May	205	2	568.081	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	June	146.18	4	292.41	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	46.84	5	108.699	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	June	275	2	273.602	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	June	25	1	21.7725	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	July	1134.82	19	2258.99	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	74	7	148.025	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	July	81.24	5	186.839	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	August	108	2	216.037	Almonds
GLYPHOSATE, POTASSIUM SALT	January	29.29	2	41.8908	Almonds
GLYPHOSATE, POTASSIUM SALT	February	167.64	1	462.412	Grapes
GLYPHOSATE, POTASSIUM SALT	February	97	1	137.918	Almonds
GLYPHOSATE, POTASSIUM SALT	May	345	3	316.336	Corn
GLYPHOSATE, POTASSIUM SALT	May	97	1	220.669	Almonds
GLYPHOSATE, POTASSIUM SALT	May	174.9	1	482.437	Grapes
GLYPHOSATE, POTASSIUM SALT	June	85	1	115.851	Corn

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, POTASSIUM SALT	June	14	1	16.5502	Fallow
IMAZETHAPYR, AMMONIUM SALT	February	120	2	8.5246	Alfalfa
ISOXABEN	February	3.16	1	2.37	Cherrys
LAMBDA-CYHALOTHRIN	March	550	7	16.1234	Alfalfa
LAMBDA-CYHALOTHRIN	April	180	9	7.55	Cherrys
LAMBDA-CYHALOTHRIN	April	54.5	2	1.0874	Tomatos
LAMBDA-CYHALOTHRIN	May	275	5	9.007	Walnuts
LAMBDA-CYHALOTHRIN	May	135	2	3.6329	Alfalfa
LAMBDA-CYHALOTHRIN	May	15	1	0.4442	Apricots
LAMBDA-CYHALOTHRIN	May	984	12	25.1667	Tomatos
LAMBDA-CYHALOTHRIN	May	398	10	12.8441	Almonds
LAMBDA-CYHALOTHRIN	June	244	4	6.4332	Tomatos
LAMBDA-CYHALOTHRIN	June	80	2	2.6214	Almonds
LAMBDA-CYHALOTHRIN	July	151	2	4.0634	Tomatos
LAMBDA-CYHALOTHRIN	July	65	1	1.7492	Alfalfa
LAMBDA-CYHALOTHRIN	July	570	7	15.5148	Beans
LAMBDA-CYHALOTHRIN	July	40	2	1.3108	Almonds
LAMBDA-CYHALOTHRIN	July	115	1	5.0197	Walnuts
LAMBDA-CYHALOTHRIN	August	128	3	4.1943	Almonds
MALATHION	May	20	1	35.7791	Cherrys
MCPA, DIMETHYLAMINE SALT	January	124	2	70.068	Oats
MCPA, DIMETHYLAMINE SALT	January	14	1	3.9328	Wheat
MCPA, DIMETHYLAMINE SALT	February	110	2	62.3194	Oats
METOLACHLOR	May	542.67	7	721.999	Tomatos
METOLACHLOR	May	1199	14	2042.40	Beans
METOLACHLOR	May	120	1	159.978	Fallow
METOLACHLOR	June	122	2	180.735	Beans
ORYZALIN	January	65	1	68.6074	Almonds
ORYZALIN	February	294	2	279.285	Almonds
ORYZALIN	February	3.16	1	9.8597	Cherrys
ORYZALIN	March	44	4	183.049	Cherrys
ORYZALIN	April	30	3	93.6048	Almonds
ORYZALIN	June	38.18	2	119.128	Almonds
OXYFLUORFEN	January	191.29	4	57.2249	Almonds
OXYFLUORFEN	January	65	1	16.3034	Grapes
OXYFLUORFEN	January	61	2	49.1005	Walnuts
OXYFLUORFEN	February	167.64	1	85.1428	Grapes
OXYFLUORFEN	February	333	4	137.690	Almonds
OXYFLUORFEN	February	3.16	1	0.7926	Cherrys
OXYFLUORFEN	February	104.25	3	29.918	Walnuts
OXYFLUORFEN	March	36.5	2	18.5235	Walnuts
OXYFLUORFEN	March	104.33	2	39.7279	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

OXYFLUORFEN	April	43.89	4	7.2537	Almonds
OXYFLUORFEN	May	54.99	4	6.9064	Walnuts
OXYFLUORFEN	May	3.67	1	1.3976	Cherrys
OXYFLUORFEN	May	97	1	20.5251	Almonds
OXYFLUORFEN	June	349.8	2	131.611	Grapes
OXYFLUORFEN	June	108	2	13.5443	Almonds
OXYFLUORFEN	July	1027.85	15	214.58	Almonds
OXYFLUORFEN	July	5	1	1.2641	Walnuts
OXYFLUORFEN	July	6	1	1.1287	Apricots
PARAQUAT DICHLORIDE	February	68.4	2	47.343	Almonds
PARAQUAT DICHLORIDE	February	16.66	2	17.3788	Walnuts
PARAQUAT DICHLORIDE	March	104.33	2	75.1357	Almonds
PARAQUAT DICHLORIDE	March	6	1	0.7447	Apricots
PARAQUAT DICHLORIDE	April	80	3	55.372	Almonds
PARAQUAT DICHLORIDE	April	16	2	1.3238	Walnuts
PARAQUAT DICHLORIDE	April	16.84	2	23.3116	Cherrys
PARAQUAT DICHLORIDE	May	113	4	94.1056	Almonds
PARAQUAT DICHLORIDE	May	22.1	3	30.593	Cherrys
PARAQUAT DICHLORIDE	June	144	4	129.980	Almonds
PARAQUAT DICHLORIDE	June	26	2	3.227	Apricots
PARAQUAT DICHLORIDE	June	174.9	1	28.9431	Grapes
PARAQUAT DICHLORIDE	June	50	3	37.8019	Walnuts
PARAQUAT DICHLORIDE	July	6	1	0.7447	Apricots
PARAQUAT DICHLORIDE	July	184	3	103.278	Almonds
PARAQUAT DICHLORIDE	August	5.26	1	7.2814	Cherrys
PENDIMETHALIN	January	61	2	173.295	Walnuts
PENDIMETHALIN	January	29.29	2	72.689	Almonds
PENDIMETHALIN	February	167.64	1	634.997	Grapes
PENDIMETHALIN	February	38.4	1	72.7269	Almonds
PENDIMETHALIN	February	90.91	4	156.401	Walnuts
PENDIMETHALIN	March	36.5	2	69.1284	Walnuts
PENDIMETHALIN	March	104.33	2	197.613	Almonds
PENDIMETHALIN	May	120	1	113.636	Fallow
PENDIMETHALIN	May	894	11	696.739	Tomatos
PENDIMETHALIN	May	422	5	399.619	Beans
PENDIMETHALIN	June	62	1	58.7118	Beans
RIMSULFURON	January	18.18	1	1.1362	Almonds
RIMSULFURON	February	167.64	1	10.4775	Grapes
RIMSULFURON	March	4.8	1	0.3	Apricots
RIMSULFURON	April	76.09	3	2.3779	Tomatos
RIMSULFURON	May	97	1	0.3125	Almonds
RIMSULFURON	May	1073	23	32.4146	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

RIMSULFURON	June	255	6	8.2657	Tomatos
SAFLUFENACIL	March	202	3	8.8375	Almonds
SAFLUFENACIL	April	12.5	1	0.5469	Walnuts
SAFLUFENACIL	April	13.33	1	0.5832	Almonds
SAFLUFENACIL	May	63.03	2	2.7575	Almonds
SAFLUFENACIL	May	54.99	4	2.4092	Walnuts
SAFLUFENACIL	June	108	2	4.725	Almonds
SAFLUFENACIL	July	5	1	0.217	Walnuts
SETHOXYDIM	February	9	1	3.1544	Almonds
TRIFLURALIN	May	112.67	1	84.8435	Tomatos

Monitoring Site **Los Banos Creek at Hwy 140**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
DIURON	February	4	1	1.1248	Right of Way
OXYFLUORFEN	February	4	1	1.1545	Right of Way
PARAQUAT DICHLORIDE	February	4	1	1.9467	Right of Way

Monitoring Site **Marshall Road Drain near R**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	January	89.27	2	40.5813	Almonds
2,4-D, DIMETHYLAMINE SALT	May	2.85	1	5.1123	Almonds
2,4-D, DIMETHYLAMINE SALT	June	26	1	43.9126	Almonds
BETA-CYFLUTHRIN	July	24.6	1	0.0657	Beans
BIFENTHRIN	May	164.85	2	13.1398	Tomatos
BIFENTHRIN	July	124	2	15.1306	Almonds
BIFENTHRIN	July	339.4	2	27.6016	Tomatos
BIFENTHRIN	July	235	3	21.4523	Melons
BROMOXYNIL HEPTANOATE	January	174	2	59.8755	Wheat
BROMOXYNIL HEPTANOATE	February	10	1	3.4411	Oats
BROMOXYNIL HEPTANOATE	February	109	3	37.5083	Wheat
BROMOXYNIL HEPTANOATE	March	40	1	6.8822	Oats
BROMOXYNIL HEPTANOATE	March	90	2	15.485	Wheat
BROMOXYNIL OCTANOATE	January	244	4	86.9293	Wheat
BROMOXYNIL OCTANOATE	February	10	1	3.5686	Oats
BROMOXYNIL OCTANOATE	February	109	3	38.8975	Wheat
BROMOXYNIL OCTANOATE	March	90	2	16.0585	Wheat
BROMOXYNIL OCTANOATE	March	40	1	7.1371	Oats
CARFENTRAZONE-ETHYL	January	123	1	1.3493	Wheat
CARFENTRAZONE-ETHYL	January	24	1	0.2635	Almonds
CARFENTRAZONE-ETHYL	June	21.82	1	0.3186	Walnuts
CHLORPYRIFOS	March	115	3	50.8722	Alfalfa

***Includes duplicate and incomplete data**

****** Not available in all counties.**

CHLORPYRIFOS	April	30	1	59.9905	Walnuts
CHLORPYRIFOS	May	15	1	28.145	Walnuts
CHLORPYRIFOS	June	40	1	20.0436	Almonds
CHLORPYRIFOS	June	39	2	78.1711	Walnuts
CLETHODIM	April	11	1	1.4701	Almonds
CLETHODIM	May	73	1	8.8438	Spice
CLETHODIM	June	63	1	7.633	Spice
DIAZINON	April	360	2	714.386	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	123	1	13.1846	Wheat
DIMETHOATE	March	236	4	116.751	Alfalfa
DIMETHOATE	April	90	5	22.1627	Tomatos
DIMETHOATE	April	85	2	21.1751	Alfalfa
DIMETHOATE	June	17.46	2	8.6494	Tomatos
DIMETHOATE	July	24.6	1	12.1895	Beans
DIMETHOATE	August	48	2	23.9154	Tomatos
ESFENVALERATE	May	15	1	0.7614	Walnuts
ESFENVALERATE	May	18	1	0.9175	Almonds
ESFENVALERATE	June	106	3	4.3079	Tomatos
ESFENVALERATE	July	15	1	0.7353	Tomatos
ESFENVALERATE	July	115	1	5.8436	Almonds
ESFENVALERATE	July	45	2	2.9283	Walnuts
ESFENVALERATE	August	48	2	2.1995	Tomatos
ESFENVALERATE	August	75	1	4.8805	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	113.27	3	71.3077	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	48	2	48.0082	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	February	22	1	15.0753	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	50	1	101.482	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	March	145	2	279.799	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	75	1	217.085	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	172	2	338.578	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	54	1	216.037	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	11	1	16.8131	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	82.85	2	166.274	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	50	1	50.0085	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	May	3	1	5.9949	Pasture
GLYPHOSATE, ISOPROPYLAMINE SALT	June	215	4	212.209	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	544	6	622.057	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	50	1	50.0085	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	July	118	2	222.268	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	August	150	1	300.051	Almonds
GLYPHOSATE, POTASSIUM SALT	March	20.45	1	28.1904	Walnuts
GLYPHOSATE, POTASSIUM SALT	April	155	2	96.5426	Fallow

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, POTASSIUM SALT	June	21.82	1	45.1268	Walnuts
HEXAZINONE	January	104	2	52.9321	Alfalfa
HEXAZINONE	February	124	4	63.1114	Alfalfa
LAMBDA-CYHALOTHRIN	March	615	13	18.3032	Alfalfa
LAMBDA-CYHALOTHRIN	April	85	2	2.6738	Alfalfa
LAMBDA-CYHALOTHRIN	May	9	1	0.2936	Walnuts
LAMBDA-CYHALOTHRIN	May	45	1	1.3188	Tomatos
LAMBDA-CYHALOTHRIN	June	171	3	6.7819	Walnuts
LAMBDA-CYHALOTHRIN	June	123.46	5	3.6576	Tomatos
LAMBDA-CYHALOTHRIN	July	18	1	0.755	Almonds
MCPA, DIMETHYLAMINE SALT	January	367	5	172.639	Wheat
MCPA, DIMETHYLAMINE SALT	February	109	3	62.2206	Wheat
MCPA, DIMETHYLAMINE SALT	February	10	1	5.6506	Oats
MCPA, DIMETHYLAMINE SALT	March	160	3	118.079	Wheat
MCPA, DIMETHYLAMINE SALT	March	40	1	24.2786	Oats
METOLACHLOR	March	35	1	59.6677	Beans
METOLACHLOR	March	220	4	292.439	Tomatos
METOLACHLOR	April	215	3	322.455	Beans
METOLACHLOR	April	285	4	342.272	Tomatos
METOLACHLOR	May	161	4	214.05	Tomatos
METOLACHLOR	June	49.6	2	65.9107	Beans
NAPROPAMIDE	April	63	1	126	Spice
ORYZALIN	January	75	1	156.008	Almonds
ORYZALIN	February	22	1	79.1624	Almonds
ORYZALIN	August	150	1	312.016	Almonds
OXYFLUORFEN	January	18	1	0.5618	Walnuts
OXYFLUORFEN	January	75	1	75.2463	Almonds
OXYFLUORFEN	February	48	2	3.0099	Fallow
OXYFLUORFEN	February	22	1	37.6232	Almonds
OXYFLUORFEN	March	50	1	1.5651	Fallow
OXYFLUORFEN	March	150	1	38.103	Almonds
OXYFLUORFEN	March	20.45	1	7.7993	Walnuts
OXYFLUORFEN	April	33	2	26.984	Almonds
OXYFLUORFEN	May	80	1	20.0657	Almonds
OXYFLUORFEN	May	3	1	1.0033	Pasture
OXYFLUORFEN	June	518	5	76.8773	Almonds
OXYFLUORFEN	August	150	1	30.4662	Almonds
PARAQUAT DICHLORIDE	January	18	1	12.4587	Walnuts
PARAQUAT DICHLORIDE	January	184	2	126.016	Alfalfa
PARAQUAT DICHLORIDE	February	138	5	69.3545	Alfalfa
PARAQUAT DICHLORIDE	March	14	1	2.3168	Xmas Trees
PARAQUAT DICHLORIDE	April	26.25	2	34.625	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

PARAQUAT DICHLORIDE	May	95	1	65.7541	Fallow
PARAQUAT DICHLORIDE	June	264	3	344.650	Almonds
PARAQUAT DICHLORIDE	August	22	1	28.7417	Almonds
PENDIMETHALIN	January	254	3	678.027	Alfalfa
PENDIMETHALIN	February	138	5	391.097	Alfalfa
PENDIMETHALIN	February	15	1	21.3256	Onion
PENDIMETHALIN	March	35	1	36.6891	Beans
PENDIMETHALIN	March	220	4	208.332	Tomatos
PENDIMETHALIN	March	22	1	41.6665	Almonds
PENDIMETHALIN	April	285	4	229.620	Tomatos
PENDIMETHALIN	April	63	1	21.3256	Spice
PENDIMETHALIN	May	209	6	197.916	Tomatos
PENDIMETHALIN	May	65	1	123.105	Alfalfa
PENDIMETHALIN	June	23	1	10.8712	Tomatos
PENDIMETHALIN	June	49.6	2	46.9694	Beans
PROMETRYN	February	136	2	261.745	Spice
PROMETRYN	April	189	3	94.4451	Spice
PROMETRYN	May	73	1	36.4756	Spice
PROMETRYN	July	73	1	72.9113	Spice
RIMSULFURON	January	9.27	1	0.2897	Almonds
RIMSULFURON	April	90	5	3.56	Tomatos
RIMSULFURON	May	84.85	1	2.65	Tomatos
RIMSULFURON	June	17.46	2	1.0875	Tomatos
SAFLUFENACIL	May	2.85	1	0.133	Almonds
SAFLUFENACIL	June	26	1	0.882	Almonds
SETHOXYDIM	February	15	1	3.9394	Onion
TRIFLURALIN	April	215	3	161.283	Beans
TRIFLURALIN	May	169.7	1	85.1647	Tomatos

Monitoring Site **Newman Wasteway near Hill**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
(S)-CYPERMETHRIN	March	80	2	3.9678	Alfalfa
2,4-D, DIMETHYLAMINE SALT	January	60	1	102.626	Pasture
2,4-D, DIMETHYLAMINE SALT	April	40	1	21.8037	Almonds
2,4-D, DIMETHYLAMINE SALT	May	40	1	21.8037	Almonds
BIFENTHRIN	March	65	1	6.0892	Broccoli
BIFENTHRIN	July	75	1	7.0306	Almonds
BROMOXYNIL HEPTANOATE	January	60	1	10.6287	Alfalfa
BROMOXYNIL OCTANOATE	January	60	1	11.0223	Alfalfa
CARFENTRAZONE-ETHYL	January	140	2	2.0497	Oats
CARFENTRAZONE-ETHYL	February	142	1	2.079	Oats

***Includes duplicate and incomplete data**
**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

CARFENTRAZONE-ETHYL	February	60	2	0.8784	Wheat
CARFENTRAZONE-ETHYL	March	10	1	0.1464	Oats
CARFENTRAZONE-ETHYL	March	110	2	1.6104	Olive
CARFENTRAZONE-ETHYL	July	101	1	1.7744	Almonds
CHLORPYRIFOS	March	378.8	12	133.404	Alfalfa
CHLORPYRIFOS	June	25	1	26.3051	Citrus
CHLORPYRIFOS	July	155	1	291.235	Almonds
CLETHODIM	February	38	2	9.9758	Alfalfa
COPPER SULFATE (BASIC)	January	280	2	1194.48	Almonds
COPPER SULFATE (BASIC)	January	10.25	3	32.595	Cherrys
DIAZINON	January	92	1	182.565	Almonds
DIAZINON	January	10.25	3	20.5	Cherrys
DIAZINON	April	44	2	130.971	Peppers
DICAMBA, DIMETHYLAMINE SALT	January	140	2	21.1036	Oats
DIMETHOATE	March	144	3	71.0941	Alfalfa
DIMETHOATE	March	65	1	32.136	Broccoli
DIMETHOATE	April	140	1	69.7533	Broccoli
DIMETHOATE	April	44	2	10.923	Peppers
DIMETHOATE	May	206	4	37.3205	Tomatos
ESFENVALERATE	April	50	2	1.6269	Cherrys
ESFENVALERATE	April	140	1	4.2689	Broccoli
ESFENVALERATE	May	679	6	24.3723	Almonds
ESFENVALERATE	June	70	1	2.8502	Broccoli
FENPROPATHRIN	May	10.25	3	3.2062	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	72.5	2	145.025	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	14.1	4	28.2153	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	66	1	66.0113	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	250	2	500.085	Olive
GLYPHOSATE, ISOPROPYLAMINE SALT	February	50	1	50.0085	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	80	2	140.024	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	55	1	55.0094	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	May	299	3	372.055	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	199	2	471.586	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	193	2	335.557	Almonds
GLYPHOSATE, POTASSIUM SALT	January	40	1	27.5836	Cherrys
GLYPHOSATE, POTASSIUM SALT	March	110	2	151.71	Olive
GLYPHOSATE, POTASSIUM SALT	May	11	1	22.7289	Walnuts
IMAZETHAPYR, AMMONIUM SALT	January	60	1	3.1759	Alfalfa
LAMBDA-CYHALOTHRIN	March	582.8	16	16.4397	Alfalfa
LAMBDA-CYHALOTHRIN	April	10.25	3	0.4399	Cherrys
LAMBDA-CYHALOTHRIN	May	60	1	1.6262	Alfalfa
LAMBDA-CYHALOTHRIN	May	193	2	6.3242	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

LAMBDA-CYHALOTHRIN	July	92	1	3.0146	Almonds
MCPA, DIMETHYLAMINE SALT	January	140	2	62.0135	Oats
MCPA, DIMETHYLAMINE SALT	February	142	1	86.1891	Oats
MCPA, DIMETHYLAMINE SALT	February	60	2	33.2214	Wheat
MCPA, DIMETHYLAMINE SALT	March	10	1	5.5369	Oats
NORFLURAZON	January	37.5	1	14.7375	Almonds
ORYZALIN	January	40	1	39.0041	Cherrys
ORYZALIN	March	101	1	1.3494	Almonds
OXYFLUORFEN	January	54.1	5	16.7119	Cherrys
OXYFLUORFEN	January	66	1	4.1335	Walnuts
OXYFLUORFEN	January	125	1	62.7053	Olive
OXYFLUORFEN	January	72.5	2	72.7382	Almonds
OXYFLUORFEN	February	50	1	6.337	Almonds
OXYFLUORFEN	March	110	2	55.1806	Olive
OXYFLUORFEN	April	40	1	6.0197	Almonds
OXYFLUORFEN	April	140	1	26.6478	Broccoli
OXYFLUORFEN	May	135	1	16.9354	Almonds
OXYFLUORFEN	June	199	2	24.9416	Almonds
OXYFLUORFEN	July	92	1	11.5378	Almonds
PARAQUAT DICHLORIDE	January	80	1	3.3097	Fallow
PARAQUAT DICHLORIDE	January	456.8	14	302.621	Alfalfa
PARAQUAT DICHLORIDE	March	124	1	63.8438	Almonds
PARAQUAT DICHLORIDE	March	65	1	33.7492	Fallow
PARAQUAT DICHLORIDE	April	124	1	64.7525	Almonds
PARAQUAT DICHLORIDE	May	135	1	174.703	Almonds
PARAQUAT DICHLORIDE	June	30	1	31.1467	Walnuts
PARAQUAT DICHLORIDE	July	50	1	51.9111	Almonds
PENDIMETHALIN	January	444.8	13	842.42	Alfalfa
PENDIMETHALIN	January	72.5	2	205.984	Almonds
PENDIMETHALIN	January	250	2	710.224	Olive
PENDIMETHALIN	January	14.1	4	48.5792	Cherrys
PENDIMETHALIN	April	80	1	75.7572	Tomatos
PENDIMETHALIN	May	30	1	28.4089	Beans
RIMSULFURON	May	121	3	5.03	Tomatos
SAFLUFENACIL	January	35	1	1.533	Almonds
SAFLUFENACIL	April	40	1	1.75	Almonds
SAFLUFENACIL	July	92	1	4.025	Almonds
SIMAZINE	January	14.1	4	7.0439	Cherrys
SIMAZINE	January	72.5	2	36.0887	Almonds
TRIFLURALIN	February	78	2	156	Alfalfa
TRIFLURALIN	April	144	3	288	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

Monitoring Site **Orestimba Creek at Hwy 33**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	April	6.09	1	6.933	Almonds
2,4-D, DIMETHYLAMINE SALT	May	15	1	24.5291	Walnuts
2,4-D, DIMETHYLAMINE SALT	May	68	2	111.194	Almonds
2,4-D, DIMETHYLAMINE SALT	June	15	1	24.5509	Walnuts
2,4-D, DIMETHYLAMINE SALT	July	48.63	4	59.867	Walnuts
BETA-CYFLUTHRIN	July	50	1	0.1327	Beans
BIFENTHRIN	May	100	2	7.8118	Tomatos
BIFENTHRIN	May	123	2	15.4032	Walnuts
BIFENTHRIN	June	90	1	7.0506	Melons
BIFENTHRIN	July	295	2	38.7784	Almonds
BIFENTHRIN	July	80	1	6.2694	Melons
BROMOXYNIL HEPTANOATE	January	208	5	71.5753	Wheat
BROMOXYNIL OCTANOATE	January	208	5	74.2263	Wheat
CARBARYL	July	60	1	30	Melons
CARFENTRAZONE-ETHYL	January	135	2	1.9865	Wheat
CARFENTRAZONE-ETHYL	February	87	1	1.2743	Oats
CARFENTRAZONE-ETHYL	February	55	1	0.8052	Walnuts
CARFENTRAZONE-ETHYL	March	45	2	1.3176	Almonds
CARFENTRAZONE-ETHYL	March	29.92	3	0.6746	Walnuts
CARFENTRAZONE-ETHYL	May	16.67	1	0.3748	Walnuts
CARFENTRAZONE-ETHYL	June	20	1	0.2998	Apricots
CARFENTRAZONE-ETHYL	July	101	1	1.7744	Almonds
CARFENTRAZONE-ETHYL	July	3	1	0.0375	Walnuts
CHLORPYRIFOS	April	27	1	11.2453	Alfalfa
CHLORPYRIFOS	April	15	1	29.9952	Walnuts
CHLORPYRIFOS	May	170	3	321.501	Walnuts
CHLORPYRIFOS	June	349	9	671.928	Walnuts
CHLORPYRIFOS	July	36	1	101.003	Almonds
DIAZINON	April	565	4	1121.19	Tomatos
DIAZINON	May	80	1	158.753	Tomatos
DIMETHOATE	March	160	2	49.4309	Tomatos
DIMETHOATE	March	65	1	32.1108	Alfalfa
DIMETHOATE	April	156.73	5	72.5732	Tomatos
DIMETHOATE	May	666.64	17	191.59	Tomatos
DIMETHOATE	June	36	1	17.7735	Alfalfa
DIMETHOATE	June	497	7	142.995	Tomatos
DIMETHOATE	July	130	2	64.7709	Tomatos
DIMETHOATE	July	355	6	176.934	Beans

***Includes duplicate and incomplete data**

**** Not available in all counties.**

DIURON	April	120.22	2	251.579	Walnuts
ESFENVALERATE	April	10	1	0.3254	Cherrys
ESFENVALERATE	May	160	1	6.5074	Almonds
ESFENVALERATE	May	76	1	3.8654	Walnuts
ESFENVALERATE	June	215	3	5.4628	Walnuts
ESFENVALERATE	June	395	4	16.0667	Tomatos
ESFENVALERATE	June	240	1	15.6178	Almonds
ESFENVALERATE	July	348	4	14.1536	Tomatos
ESFENVALERATE	July	85	1	4.3209	Walnuts
ESFENVALERATE	July	315	3	20.4983	Almonds
ESFENVALERATE	August	245	2	15.9431	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	170	2	52.0089	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	January	26.12	3	33.1257	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	179.62	8	281.608	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	20	1	30.0051	Right of Way
GLYPHOSATE, ISOPROPYLAMINE SALT	February	92.73	7	93.776	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	85	1	6.001	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	March	293.89	5	442.506	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	90	1	360.061	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	March	60	1	60.0102	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	120.75	7	143.224	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	March	85	1	14.0024	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	April	456.09	5	614.225	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	320	3	1280.59	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	213.55	3	202.898	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	75	1	16.0027	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	May	85	1	2.0003	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	May	102	3	117.02	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	61.53	6	120.861	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	June	150	2	240.287	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	June	160	2	160.191	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	20	1	40.0683	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	June	82.5	3	59.48	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	June	85	1	10.0017	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	June	210	2	307.982	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	409.7	17	685.42	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	75	1	12.002	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	July	48.63	4	72.9324	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	August	70	1	140.024	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	August	2.3	1	8.0014	Walnuts
GLYPHOSATE, POTASSIUM SALT	February	76.36	4	105.204	Walnuts
GLYPHOSATE, POTASSIUM SALT	March	50	1	68.959	Melons

***Includes duplicate and incomplete data**

**** Not available in all counties.**

GLYPHOSATE, POTASSIUM SALT	March	10.23	1	14.0676	Walnuts
GLYPHOSATE, POTASSIUM SALT	April	353	6	922.844	Beans
GLYPHOSATE, POTASSIUM SALT	April	230	2	173.025	Almonds
GLYPHOSATE, POTASSIUM SALT	April	70	1	220.669	Melons
GLYPHOSATE, POTASSIUM SALT	May	150	2	413.754	Beans
GLYPHOSATE, POTASSIUM SALT	May	18	1	24.8252	Corn
GLYPHOSATE, POTASSIUM SALT	May	13.33	2	27.5284	Walnuts
LAMBDA-CYHALOTHRIN	January	709	7	26.0987	Almonds
LAMBDA-CYHALOTHRIN	March	65	1	1.9453	Alfalfa
LAMBDA-CYHALOTHRIN	April	535	3	20.7045	Almonds
LAMBDA-CYHALOTHRIN	April	35	2	1.2124	Walnuts
LAMBDA-CYHALOTHRIN	April	27	1	0.5759	Alfalfa
LAMBDA-CYHALOTHRIN	May	990	26	34.979	Almonds
LAMBDA-CYHALOTHRIN	May	55	2	1.6163	Tomatos
LAMBDA-CYHALOTHRIN	May	144	4	2.7934	Pistachios
LAMBDA-CYHALOTHRIN	May	402	5	15.6272	Walnuts
LAMBDA-CYHALOTHRIN	June	413	7	12.2363	Tomatos
LAMBDA-CYHALOTHRIN	June	496	8	19.763	Walnuts
LAMBDA-CYHALOTHRIN	July	330	5	9.0688	Tomatos
LAMBDA-CYHALOTHRIN	July	368	12	12.5622	Almonds
LAMBDA-CYHALOTHRIN	July	175	3	5.2374	Beans
MCPA, DIMETHYLAMINE SALT	January	343	7	309.354	Wheat
MCPA, DIMETHYLAMINE SALT	February	87	1	48.1933	Oats
METOLACHLOR	March	360	2	478.653	Tomatos
METOLACHLOR	April	740	6	984.102	Tomatos
METOLACHLOR	May	503	8	1001.86	Beans
METOLACHLOR	May	80	1	106.385	Tomatos
METOLACHLOR	June	37	2	63.9911	Beans
NAPROPAMIDE	June	15	1	30	Almonds
NORFLURAZON	March	270.71	3	70.2212	Almonds
ORYZALIN	March	146	3	96.3442	Almonds
ORYZALIN	March	25	1	78.0039	Apricots
ORYZALIN	April	35	1	36.4018	Almonds
ORYZALIN	May	20	1	10.4005	Almonds
ORYZALIN	August	55.84	6	116.111	Walnuts
OXAMYL	May	120	1	179.208	Tomatos
OXYFLUORFEN	January	26.12	3	5.0365	Walnuts
OXYFLUORFEN	January	179.62	8	57.5716	Almonds
OXYFLUORFEN	February	73.82	6	17.6979	Almonds
OXYFLUORFEN	February	76.36	4	82.087	Walnuts
OXYFLUORFEN	March	25	1	6.337	Apricots
OXYFLUORFEN	March	55.23	2	15.156	Walnuts

***Includes duplicate and incomplete data**

**** Not available in all counties.**

OXYFLUORFEN	March	293.89	5	155.662	Almonds
OXYFLUORFEN	April	337.4	5	88.5697	Almonds
OXYFLUORFEN	May	90.56	6	40.6306	Walnuts
OXYFLUORFEN	May	253.8	8	99.8071	Almonds
OXYFLUORFEN	May	15	1	3.8184	Apricots
OXYFLUORFEN	June	210	2	26.3262	Almonds
OXYFLUORFEN	June	65	1	18.4926	Walnuts
OXYFLUORFEN	July	278.7	14	34.8392	Almonds
OXYFLUORFEN	August	33.33	2	4.1737	Walnuts
PARAQUAT DICHLORIDE	January	110	1	76.1363	Alfalfa
PARAQUAT DICHLORIDE	February	81.09	2	7.753	Almonds
PARAQUAT DICHLORIDE	February	55	1	5.6893	Walnuts
PARAQUAT DICHLORIDE	March	25	1	17.3037	Apricots
PARAQUAT DICHLORIDE	March	50	1	52.2197	Melons
PARAQUAT DICHLORIDE	March	85	1	89.8179	Fallow
PARAQUAT DICHLORIDE	March	230	2	87.3427	Almonds
PARAQUAT DICHLORIDE	April	32.4	1	41.0238	Almonds
PARAQUAT DICHLORIDE	May	15	1	12.9847	Apricots
PARAQUAT DICHLORIDE	May	93.67	3	86.2419	Walnuts
PARAQUAT DICHLORIDE	May	139.8	4	145.463	Almonds
PARAQUAT DICHLORIDE	June	75	2	81.8862	Almonds
PARAQUAT DICHLORIDE	July	42.5	1	55.9378	Almonds
PARAQUAT DICHLORIDE	August	32	1	41.0238	Almonds
PARAQUAT DICHLORIDE	August	55.84	6	9.2372	Walnuts
PENDIMETHALIN	January	110	1	208.332	Alfalfa
PENDIMETHALIN	January	113.38	6	233.673	Almonds
PENDIMETHALIN	February	81.09	2	139.052	Almonds
PENDIMETHALIN	March	270.71	3	512.649	Almonds
PENDIMETHALIN	March	45	1	85.2268	Walnuts
PENDIMETHALIN	March	360	2	340.907	Tomatos
PENDIMETHALIN	April	9.86	1	18.6741	Cherrys
PENDIMETHALIN	April	740	6	700.754	Tomatos
PENDIMETHALIN	May	503	8	629.184	Beans
PENDIMETHALIN	May	104.8	3	198.598	Almonds
PENDIMETHALIN	May	77.64	5	196.893	Walnuts
PENDIMETHALIN	June	80	2	66.2875	Walnuts
PENDIMETHALIN	June	37	2	46.3616	Beans
PERMETHRIN	April	90	1	4.5	Melons
RIMSULFURON	January	85	1	0.625	Nursery
RIMSULFURON	January	14	2	0.4375	Walnuts
RIMSULFURON	February	15	1	0.625	Almonds
RIMSULFURON	February	85	1	0.0938	Nursery

***Includes duplicate and incomplete data**

**** Not available in all counties.**

RIMSULFURON	March	45.83	3	1.43	Walnuts
RIMSULFURON	April	136.73	4	2.845	Tomatos
RIMSULFURON	May	521.64	14	22.89	Tomatos
RIMSULFURON	June	57	3	2.67	Tomatos
SAFLUFENACIL	January	35	1	1.533	Almonds
SAFLUFENACIL	February	25	2	1.085	Almonds
SAFLUFENACIL	March	70.71	2	3.087	Almonds
SAFLUFENACIL	April	40	1	1.75	Almonds
SAFLUFENACIL	May	32.64	3	1.421	Walnuts
SAFLUFENACIL	May	20	1	0.875	Almonds
SAFLUFENACIL	July	111	3	4.9018	Almonds
SAFLUFENACIL	August	22.51	4	0.98	Walnuts
SETHOXYDIM	April	175	1	61.3348	Almonds
SETHOXYDIM	May	70	1	24.5339	Almonds
SIMAZINE	January	35	1	17.4276	Almonds
SIMAZINE	February	20	1	39.9636	Right of Way
SIMAZINE	August	55.84	6	111.538	Walnuts
TRIFLURALIN	March	160	2	161.644	Tomatos
TRIFLURALIN	April	32.4	1	31.5603	Almonds
TRIFLURALIN	May	243	3	121.876	Tomatos

Monitoring Site **Orestimba Creek at River R**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	April	51.09	2	31.4403	Almonds
2,4-D, DIMETHYLAMINE SALT	May	113	3	135.701	Almonds
2,4-D, DIMETHYLAMINE SALT	May	15	1	24.5291	Walnuts
2,4-D, DIMETHYLAMINE SALT	June	15	1	24.5509	Walnuts
2,4-D, DIMETHYLAMINE SALT	July	73.63	5	100.749	Walnuts
ACEPHATE	July	120	1	116.4	Beans
BETA-CYFLUTHRIN	July	50	1	0.1327	Beans
BIFENTHRIN	May	228	3	31.0223	Walnuts
BIFENTHRIN	May	100	2	7.8118	Tomatos
BIFENTHRIN	June	90	1	7.0506	Melons
BIFENTHRIN	July	628	7	81.131	Almonds
BIFENTHRIN	July	80	1	6.2694	Melons
BIFENTHRIN	July	50	1	5.0075	Corn
BROMOXYNIL HEPTANOATE	January	208	5	71.5753	Wheat
BROMOXYNIL HEPTANOATE	February	245	6	63.2066	Wheat
BROMOXYNIL OCTANOATE	January	208	5	74.2263	Wheat
BROMOXYNIL OCTANOATE	February	245	6	65.5476	Wheat
CARBARYL	July	60	1	30	Melons

***Includes duplicate and incomplete data**
**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

CARFENTRAZONE-ETHYL	January	165	3	2.4257	Wheat
CARFENTRAZONE-ETHYL	February	84	1	1.2368	Wheat
CARFENTRAZONE-ETHYL	February	55	1	0.8052	Walnuts
CARFENTRAZONE-ETHYL	February	87	1	1.2743	Oats
CARFENTRAZONE-ETHYL	March	10	1	0.1499	Wheat
CARFENTRAZONE-ETHYL	March	29.92	3	0.6746	Walnuts
CARFENTRAZONE-ETHYL	March	45	2	1.3176	Almonds
CARFENTRAZONE-ETHYL	May	17	1	0.2075	Almonds
CARFENTRAZONE-ETHYL	May	16.67	1	0.3748	Walnuts
CARFENTRAZONE-ETHYL	June	20	1	0.2998	Apricots
CARFENTRAZONE-ETHYL	July	3	1	0.0375	Walnuts
CARFENTRAZONE-ETHYL	July	248.25	3	3.9108	Almonds
CHLORPYRIFOS	March	197	2	92.5711	Alfalfa
CHLORPYRIFOS	April	87	3	173.972	Walnuts
CHLORPYRIFOS	April	27	1	11.2453	Alfalfa
CHLORPYRIFOS	May	170	3	321.501	Walnuts
CHLORPYRIFOS	June	349	9	671.928	Walnuts
CHLORPYRIFOS	July	103	2	237.25	Almonds
CLETHODIM	June	260	2	63.5358	Beans
DIAZINON	April	776	8	1539.9	Tomatos
DIAZINON	May	255	4	506.024	Tomatos
DIMETHOATE	March	160	2	49.4309	Tomatos
DIMETHOATE	March	419	6	206.966	Alfalfa
DIMETHOATE	April	220.61	8	104.155	Tomatos
DIMETHOATE	May	804.29	23	225.586	Tomatos
DIMETHOATE	June	88	1	43.845	Beans
DIMETHOATE	June	545	9	154.829	Tomatos
DIMETHOATE	June	36	1	17.7735	Alfalfa
DIMETHOATE	July	563	8	280.024	Beans
DIMETHOATE	July	225	4	88.2397	Tomatos
DIURON	January	87	1	15.9997	Alfalfa
DIURON	April	120.22	2	251.579	Walnuts
DIURON	May	18	1	23.9904	Walnuts
ESFENVALERATE	April	10	1	0.3254	Cherrys
ESFENVALERATE	May	155	4	7.4835	Walnuts
ESFENVALERATE	May	160	1	6.5074	Almonds
ESFENVALERATE	June	240	1	15.6178	Almonds
ESFENVALERATE	June	367	6	12.8812	Walnuts
ESFENVALERATE	June	495	5	20.1338	Tomatos
ESFENVALERATE	July	330	4	18.5591	Walnuts
ESFENVALERATE	July	315	3	20.4983	Almonds
ESFENVALERATE	July	653	9	26.5437	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

ESFENVALERATE	August	245	2	15.9431	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	26.12	3	33.1257	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	January	179.62	8	281.608	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	170	2	52.0089	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	February	92.73	7	93.776	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	85	1	6.001	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	February	20	1	30.0051	Right of Way
GLYPHOSATE, ISOPROPYLAMINE SALT	March	60	1	60.0102	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	March	293.89	5	442.506	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	March	280	3	842.473	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	March	85	1	14.0024	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	March	190	2	482.411	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	March	120.75	7	143.224	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	75	1	16.0027	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	April	100	1	400.683	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	April	213.55	3	202.898	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	April	551	8	2205.11	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	501.09	6	704.240	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	85	1	2.0003	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	May	175	3	700.119	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	May	159	5	202.646	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	114.53	8	196.89	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	June	520	6	798.726	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	370	5	592.708	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	June	20	1	40.0683	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	June	210	3	208.432	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	85	1	10.0017	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	June	82.5	3	59.48	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	July	75	1	12.002	Nursery
GLYPHOSATE, ISOPROPYLAMINE SALT	July	97.03	6	147.994	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	July	501.7	18	823.655	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	August	2.3	1	8.0014	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	August	85	2	170.029	Almonds
GLYPHOSATE, POTASSIUM SALT	January	17	1	10.5507	Almonds
GLYPHOSATE, POTASSIUM SALT	February	106.36	5	146.579	Walnuts
GLYPHOSATE, POTASSIUM SALT	March	29.32	2	40.3824	Walnuts
GLYPHOSATE, POTASSIUM SALT	March	50	1	68.959	Melons
GLYPHOSATE, POTASSIUM SALT	April	70	1	220.669	Melons
GLYPHOSATE, POTASSIUM SALT	April	353	6	922.844	Beans
GLYPHOSATE, POTASSIUM SALT	April	230	2	173.025	Almonds
GLYPHOSATE, POTASSIUM SALT	May	18	1	24.8252	Corn
GLYPHOSATE, POTASSIUM SALT	May	370	5	1020.59	Beans

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, POTASSIUM SALT	May	116	5	129.588	Walnuts
GLYPHOSATE, POTASSIUM SALT	July	147.25	2	253.824	Almonds
HEXAZINONE	January	197	2	61.4287	Alfalfa
ISOXABEN	March	3.27	1	2.4525	Walnuts
LAMBDA-CYHALOTHRIN	January	709	7	26.0987	Almonds
LAMBDA-CYHALOTHRIN	March	506	7	14.6224	Alfalfa
LAMBDA-CYHALOTHRIN	April	35	2	1.2124	Walnuts
LAMBDA-CYHALOTHRIN	April	27	1	0.5759	Alfalfa
LAMBDA-CYHALOTHRIN	April	535	3	20.7045	Almonds
LAMBDA-CYHALOTHRIN	May	55	2	1.6163	Tomatos
LAMBDA-CYHALOTHRIN	May	144	4	2.7934	Pistachios
LAMBDA-CYHALOTHRIN	May	402	5	15.6272	Walnuts
LAMBDA-CYHALOTHRIN	May	1085	28	38.6901	Almonds
LAMBDA-CYHALOTHRIN	June	548	9	21.8281	Walnuts
LAMBDA-CYHALOTHRIN	June	413	7	12.2363	Tomatos
LAMBDA-CYHALOTHRIN	July	368	12	12.5622	Almonds
LAMBDA-CYHALOTHRIN	July	263	4	7.8552	Beans
LAMBDA-CYHALOTHRIN	July	330	5	9.0688	Tomatos
MCPA, DIMETHYLAMINE SALT	January	373	8	327.563	Wheat
MCPA, DIMETHYLAMINE SALT	February	87	1	48.1933	Oats
MCPA, DIMETHYLAMINE SALT	February	210	5	96.654	Wheat
MCPA, DIMETHYLAMINE SALT	March	10	1	6.103	Wheat
METOLACHLOR	March	360	2	478.653	Tomatos
METOLACHLOR	April	1115	11	1515.03	Tomatos
METOLACHLOR	May	897	13	1667.93	Beans
METOLACHLOR	May	461	8	612.874	Tomatos
METOLACHLOR	June	37	2	63.9911	Beans
NAPROPAMIDE	June	15	1	30	Almonds
NORFLURAZON	March	270.71	3	70.2212	Almonds
ORYZALIN	March	25	1	78.0039	Apricots
ORYZALIN	March	3.27	1	13.6039	Walnuts
ORYZALIN	March	146	3	96.3442	Almonds
ORYZALIN	April	35	1	36.4018	Almonds
ORYZALIN	May	20	1	10.4005	Almonds
ORYZALIN	July	147.25	2	306.275	Almonds
ORYZALIN	August	91.68	8	190.621	Walnuts
OXAMYL	May	120	1	179.208	Tomatos
OXYFLUORFEN	January	196.62	9	60.13	Almonds
OXYFLUORFEN	January	26.12	3	5.0365	Walnuts
OXYFLUORFEN	February	106.36	5	85.8593	Walnuts
OXYFLUORFEN	February	73.82	6	17.6979	Almonds
OXYFLUORFEN	March	190	2	28.2174	Fallow

***Includes duplicate and incomplete data**

**** Not available in all counties.**

OXYFLUORFEN	March	25	1	6.337	Apricots
OXYFLUORFEN	March	305.89	6	157.206	Almonds
OXYFLUORFEN	March	145.09	5	105.684	Walnuts
OXYFLUORFEN	April	337.4	5	88.5697	Almonds
OXYFLUORFEN	May	188.56	8	57.6864	Walnuts
OXYFLUORFEN	May	275.8	10	105.372	Almonds
OXYFLUORFEN	May	15	1	3.8184	Apricots
OXYFLUORFEN	June	520	6	78.9986	Almonds
OXYFLUORFEN	June	65	1	18.4926	Walnuts
OXYFLUORFEN	July	322.3	15	57.0303	Almonds
OXYFLUORFEN	July	23.4	1	5.8517	Walnuts
OXYFLUORFEN	August	69.17	4	8.6483	Walnuts
PARAQUAT DICHLORIDE	January	574	7	303.272	Alfalfa
PARAQUAT DICHLORIDE	January	18	1	12.4587	Almonds
PARAQUAT DICHLORIDE	February	55	1	5.6893	Walnuts
PARAQUAT DICHLORIDE	February	81.09	2	7.753	Almonds
PARAQUAT DICHLORIDE	March	67.5	1	11.1702	Walnuts
PARAQUAT DICHLORIDE	March	25	1	17.3037	Apricots
PARAQUAT DICHLORIDE	March	237.14	3	96.2827	Almonds
PARAQUAT DICHLORIDE	March	85	1	89.8179	Fallow
PARAQUAT DICHLORIDE	March	50	1	52.2197	Melons
PARAQUAT DICHLORIDE	April	32.4	1	41.0238	Almonds
PARAQUAT DICHLORIDE	May	93.67	3	86.2419	Walnuts
PARAQUAT DICHLORIDE	May	15	1	12.9847	Apricots
PARAQUAT DICHLORIDE	May	139.8	4	145.463	Almonds
PARAQUAT DICHLORIDE	June	135	3	160.216	Almonds
PARAQUAT DICHLORIDE	July	216.1	5	253.571	Almonds
PARAQUAT DICHLORIDE	July	195	1	32.2693	Walnuts
PARAQUAT DICHLORIDE	August	32	1	41.0238	Almonds
PARAQUAT DICHLORIDE	August	91.68	8	15.1648	Walnuts
PENDIMETHALIN	January	341	4	507.119	Alfalfa
PENDIMETHALIN	January	148.38	8	260.377	Almonds
PENDIMETHALIN	February	81.09	2	139.052	Almonds
PENDIMETHALIN	March	360	2	340.907	Tomatos
PENDIMETHALIN	March	260	1	246.211	Beans
PENDIMETHALIN	March	45	1	85.2268	Walnuts
PENDIMETHALIN	March	282.71	4	535.376	Almonds
PENDIMETHALIN	April	120	1	113.636	Beans
PENDIMETHALIN	April	925	9	875.943	Tomatos
PENDIMETHALIN	April	9.86	1	18.6741	Cherrys
PENDIMETHALIN	May	985	14	1131.62	Beans
PENDIMETHALIN	May	381	7	360.794	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

PENDIMETHALIN	May	77.64	5	196.893	Walnuts
PENDIMETHALIN	May	114.8	4	217.537	Almonds
PENDIMETHALIN	June	37	2	46.3616	Beans
PENDIMETHALIN	June	80	2	66.2875	Walnuts
PERMETHRIN	April	90	1	4.5	Melons
RIMSULFURON	January	14	2	0.4375	Walnuts
RIMSULFURON	January	85	1	0.625	Nursery
RIMSULFURON	February	85	1	0.0938	Nursery
RIMSULFURON	February	15	1	0.625	Almonds
RIMSULFURON	March	45.83	3	1.43	Walnuts
RIMSULFURON	April	200.61	7	5.84	Tomatos
RIMSULFURON	May	644.14	19	27.77	Tomatos
RIMSULFURON	June	57	3	2.67	Tomatos
SAFLUFENACIL	January	35	1	1.533	Almonds
SAFLUFENACIL	February	25	2	1.085	Almonds
SAFLUFENACIL	March	70.71	2	3.087	Almonds
SAFLUFENACIL	April	40	1	1.75	Almonds
SAFLUFENACIL	May	37	2	1.4949	Almonds
SAFLUFENACIL	May	76.64	5	3.0834	Walnuts
SAFLUFENACIL	June	110	2	4.816	Almonds
SAFLUFENACIL	July	23.4	1	1.0207	Walnuts
SAFLUFENACIL	July	111	3	4.9018	Almonds
SAFLUFENACIL	August	22.51	4	0.98	Walnuts
SETHOXYDIM	April	175	1	61.3348	Almonds
SETHOXYDIM	May	70	1	24.5339	Almonds
SIMAZINE	January	52	2	22.5341	Almonds
SIMAZINE	February	20	1	39.9636	Right of Way
SIMAZINE	August	91.68	8	183.113	Walnuts
TRIFLURALIN	March	160	2	161.644	Tomatos
TRIFLURALIN	April	190	2	143.045	Tomatos
TRIFLURALIN	April	32.4	1	31.5603	Almonds
TRIFLURALIN	April	48	1	23.8555	Beans
TRIFLURALIN	May	243	3	121.876	Tomatos

Monitoring Site **Ramona Lake near Fig Aven**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	January	28.36	3	30.9176	Almonds
2,4-D, DIMETHYLAMINE SALT	February	8	1	9.0303	Almonds
2,4-D, DIMETHYLAMINE SALT	June	3	1	2.2506	Walnuts
BIFENTHRIN	July	100	1	10.1753	Almonds
BROMOXYNIL HEPTANOATE	February	370	11	127.266	Wheat

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

BROMOXYNIL HEPTANOATE	February	177	6	60.894	Oats
BROMOXYNIL HEPTANOATE	March	90	2	15.485	Wheat
BROMOXYNIL HEPTANOATE	March	40	1	6.8822	Oats
BROMOXYNIL OCTANOATE	January	70	2	24.8362	Wheat
BROMOXYNIL OCTANOATE	February	370	11	131.980	Wheat
BROMOXYNIL OCTANOATE	February	177	6	63.1494	Oats
BROMOXYNIL OCTANOATE	March	90	2	16.0585	Wheat
BROMOXYNIL OCTANOATE	March	40	1	7.1371	Oats
CAPTAN	February	17	1	34	Almonds
CARFENTRAZONE-ETHYL	January	14	1	0.2061	Wheat
CARFENTRAZONE-ETHYL	February	53	2	0.7496	Wheat
CARFENTRAZONE-ETHYL	April	124	2	1.8072	Tomatos
CHLORPYRIFOS	January	17	1	31.9419	Almonds
CHLORPYRIFOS	March	435	16	157.559	Alfalfa
CHLORPYRIFOS	June	40	1	20.0436	Almonds
DIAZINON	April	40	2	79.3762	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	14	1	1.0612	Wheat
DICAMBA, DIMETHYLAMINE SALT	February	53	2	7.959	Wheat
DIMETHOATE	March	234	8	82.2123	Alfalfa
DIMETHOATE	April	124	3	30.8907	Alfalfa
DIMETHOATE	April	11	2	4.1951	Tomatos
DIMETHOATE	June	49.33	6	24.4469	Tomatos
DIMETHOATE	July	39	2	19.4113	Tomatos
DIMETHOATE	August	76	3	37.8661	Tomatos
DIURON	January	29	1	42.6398	Alfalfa
ESFENVALERATE	February	15	2	0.7093	Apricots
ESFENVALERATE	May	88	4	4.4836	Almonds
ESFENVALERATE	June	57	2	3.4685	Almonds
ESFENVALERATE	June	15	1	256.391	Tomatos
ESFENVALERATE	July	14	1	0.911	Walnuts
ESFENVALERATE	July	101	3	4.3861	Tomatos
ESFENVALERATE	August	76	3	3.4815	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	January	28.36	3	42.4836	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	8	1	8.0096	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	87	4	87.0149	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	April	124	2	247.788	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	4.25	1	8.4927	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	7	1	13.988	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	May	50	1	50.0085	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	3	1	4.03	Walnuts
GLYPHOSATE, ISOPROPYLAMINE SALT	June	524	15	521.261	Corn
GLYPHOSATE, ISOPROPYLAMINE SALT	June	100	1	150.256	Almonds

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

GLYPHOSATE, ISOPROPYLAMINE SALT	July	140	2	140.024	Alfalfa
GLYPHOSATE, ISOPROPYLAMINE SALT	July	100	1	150.256	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	July	50	1	50.0085	Corn
GLYPHOSATE, POTASSIUM SALT	February	62	1	128.264	Fallow
GLYPHOSATE, POTASSIUM SALT	April	80	1	110.334	Alfalfa
GLYPHOSATE, POTASSIUM SALT	June	53	2	73.0966	Corn
GLYPHOSATE, POTASSIUM SALT	July	25	1	34.4795	Corn
HEXAZINONE	January	1144	28	557.579	Alfalfa
HEXAZINONE	February	241	5	123.169	Alfalfa
ISOXABEN	April	4.25	1	3.1875	Almonds
LAMBDA-CYHALOTHRIN	March	2219	55	67.0037	Alfalfa
LAMBDA-CYHALOTHRIN	April	124	3	3.9006	Alfalfa
LAMBDA-CYHALOTHRIN	May	10	1	0.2479	Apricots
LAMBDA-CYHALOTHRIN	May	40	1	1.5469	Almonds
LAMBDA-CYHALOTHRIN	June	57.33	6	1.7405	Tomatos
LAMBDA-CYHALOTHRIN	July	31	2	1.1228	Almonds
MCPA, DIMETHYLAMINE SALT	January	84	3	43.4525	Wheat
MCPA, DIMETHYLAMINE SALT	February	177	6	99.9939	Oats
MCPA, DIMETHYLAMINE SALT	February	423	13	238.307	Wheat
MCPA, DIMETHYLAMINE SALT	March	160	3	118.079	Wheat
MCPA, DIMETHYLAMINE SALT	March	40	1	24.2786	Oats
METOLACHLOR	April	67	1	98.0344	Corn
METOLACHLOR	April	49	3	65.1108	Tomatos
METOLACHLOR	May	63	3	72.2299	Tomatos
ORYZALIN	April	7	1	14.5607	Cherrys
OXYFLUORFEN	February	149	5	20.9888	Fallow
OXYFLUORFEN	May	4	1	4.0622	Almonds
OXYFLUORFEN	June	100	1	12.5411	Almonds
PARAQUAT DICHLORIDE	January	877	24	371.425	Alfalfa
PARAQUAT DICHLORIDE	February	293	7	177.52	Alfalfa
PARAQUAT DICHLORIDE	May	14	2	15.9333	Almonds
PENDIMETHALIN	January	1142	28	3165.70	Alfalfa
PENDIMETHALIN	February	62	1	29.3559	Fallow
PENDIMETHALIN	February	233	6	654.353	Alfalfa
PENDIMETHALIN	April	67	1	63.4466	Corn
PENDIMETHALIN	April	111	4	105.113	Tomatos
PENDIMETHALIN	May	65	1	123.105	Alfalfa
PENDIMETHALIN	May	150	7	136.363	Tomatos
PENDIMETHALIN	June	46	2	21.7802	Tomatos
RIMSULFURON	January	28.36	3	0.8862	Almonds
RIMSULFURON	April	11	2	0.4225	Tomatos
RIMSULFURON	May	15.5	1	0.485	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

RIMSULFURON	June	57.33	6	3.0925	Tomatos

Monitoring Site **Westley Wasteway near Cox**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
2,4-D, DIMETHYLAMINE SALT	February	18	1	8.4594	Grapes
2,4-D, DIMETHYLAMINE SALT	April	38.5	1	24.9344	Almonds
2,4-D, DIMETHYLAMINE SALT	May	50	1	43.2617	Almonds
2,4-D, DIMETHYLAMINE SALT	July	80	2	131.425	Apricots
BETA-CYFLUTHRIN	July	120	1	0.3202	Beans
BIFENTHRIN	June	35	1	3.5053	Almonds
BIFENTHRIN	July	168	3	14.2414	Melons
BIFENTHRIN	July	1125	6	217.572	Almonds
BROMOXYNIL OCTANOATE	January	165	2	58.5566	Oats
BROMOXYNIL OCTANOATE	January	75	1	26.596	Wheat
CARBARYL	May	225	2	162.5	Tomatos
CARFENTRAZONE-ETHYL	January	56	1	0.8246	Oats
CARFENTRAZONE-ETHYL	January	176	2	1.2931	Wheat
CARFENTRAZONE-ETHYL	February	250	2	3.6602	Tomatos
CARFENTRAZONE-ETHYL	March	55	1	0.4831	Apricots
CHLORPYRIFOS	April	110	2	103.341	Alfalfa
CLETHODIM	March	85	1	4.2321	Almonds
COPPER SULFATE (BASIC)	January	130	1	554.58	Almonds
COPPER SULFATE (PENTAHYDRATE)	January	68	1	673.2	Apricots
DIAZINON	April	50	1	99.2203	Tomatos
DICAMBA, DIMETHYLAMINE SALT	January	56	1	8.4415	Oats
DIMETHOATE	March	296	5	119.026	Alfalfa
DIMETHOATE	April	20	1	4.9471	Tomatos
DIMETHOATE	May	437.42	11	156.793	Tomatos
DIMETHOATE	June	132.73	2	51.0731	Tomatos
DIMETHOATE	July	255	3	126.17	Beans
DIMETHOATE	July	534.92	6	266.498	Tomatos
ESFENVALERATE	January	68	1	4.425	Apricots
ESFENVALERATE	January	35	1	1.4235	Cherrys
ESFENVALERATE	February	130	4	5.2709	Apricots
ESFENVALERATE	March	195	3	7.9309	Apricots
ESFENVALERATE	April	193	1	7.8479	Almonds
ESFENVALERATE	April	30	1	1.2201	Cherrys
ESFENVALERATE	April	25	1	1.0168	Apricots
ESFENVALERATE	May	130	4	6.5985	Apricots
ESFENVALERATE	May	578	4	31.2355	Almonds
ESFENVALERATE	June	68	1	4.425	Almonds

***Includes duplicate and incomplete data**
**** Not available in all counties.**

ESFENVALERATE	June	217	2	8.824	Tomatos
ESFENVALERATE	July	901.92	10	37.4955	Tomatos
ESFENVALERATE	August	150	1	9.7611	Almonds
FENPROPATHRIN	April	84	3	17.6521	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	January	302	3	341.44	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	January	54	3	81.0968	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	January	14	1	21.0251	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	330.28	7	286.561	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	February	38	2	31.9432	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	February	12	1	18.0215	Cherrys
GLYPHOSATE, ISOPROPYLAMINE SALT	February	250	2	500.598	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	February	122	2	97.541	Peaches
GLYPHOSATE, ISOPROPYLAMINE SALT	February	351	7	476.525	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	February	120	1	120.021	Beans
GLYPHOSATE, ISOPROPYLAMINE SALT	February	320	3	320.055	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	March	140	1	202.613	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	March	55	1	38.3197	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	March	50	1	96.4822	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	April	90	1	135.023	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	April	385	4	1177.83	Tomatos
GLYPHOSATE, ISOPROPYLAMINE SALT	April	90	3	168.758	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	April	403.5	4	992.267	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	April	191.5	2	766.131	Melons
GLYPHOSATE, ISOPROPYLAMINE SALT	May	58	1	61.0443	Grapes
GLYPHOSATE, ISOPROPYLAMINE SALT	May	146.5	2	333.528	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	May	65	1	260.044	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	May	50	1	57.8893	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	June	260	2	590.101	Almonds
GLYPHOSATE, ISOPROPYLAMINE SALT	June	50	2	174.180	Fallow
GLYPHOSATE, ISOPROPYLAMINE SALT	July	80	2	159.196	Apricots
GLYPHOSATE, ISOPROPYLAMINE SALT	July	475	4	1179.59	Almonds
GLYPHOSATE, POTASSIUM SALT	January	45	1	33.1003	Almonds
GLYPHOSATE, POTASSIUM SALT	April	83	2	228.944	Almonds
LAMBDA-CYHALOTHRIN	January	70	2	1.6268	Apricots
LAMBDA-CYHALOTHRIN	January	30	1	0.6972	Cherrys
LAMBDA-CYHALOTHRIN	February	243	8	5.6531	Apricots
LAMBDA-CYHALOTHRIN	March	381	6	11.6737	Alfalfa
LAMBDA-CYHALOTHRIN	March	122	2	3.1235	Peaches
LAMBDA-CYHALOTHRIN	March	640	12	16.6589	Apricots
LAMBDA-CYHALOTHRIN	April	109	4	3.7485	Cherrys
LAMBDA-CYHALOTHRIN	April	185	3	6.9017	Apricots
LAMBDA-CYHALOTHRIN	May	177	2	5.2058	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

LAMBDA-CYHALOTHRIN	May	10	1	0.2726	Walnuts
LAMBDA-CYHALOTHRIN	May	1298	7	50.6584	Almonds
LAMBDA-CYHALOTHRIN	May	397	10	12.2966	Apricots
LAMBDA-CYHALOTHRIN	June	10	1	0.2726	Walnuts
LAMBDA-CYHALOTHRIN	June	58	1	1.7973	Almonds
LAMBDA-CYHALOTHRIN	June	225	3	5.1055	Tomatos
LAMBDA-CYHALOTHRIN	July	135	2	3.9863	Beans
LAMBDA-CYHALOTHRIN	July	448	3	12.5582	Almonds
MCPA, DIMETHYLAMINE SALT	January	251	3	139.851	Wheat
MCPA, DIMETHYLAMINE SALT	January	45	1	25.4505	Oats
METOLACHLOR	April	117	1	155.578	Tomatos
METOLACHLOR	April	108	1	143.58	Beans
METOLACHLOR	May	335	4	497.350	Beans
NORFLURAZON	January	19	1	14.934	Apricots
NORFLURAZON	January	14	1	11.004	Cherrys
NORFLURAZON	February	8	1	6.288	Apricots
ORYZALIN	January	97	2	168.161	Almonds
ORYZALIN	February	98	1	93.095	Apricots
ORYZALIN	February	220	4	272.18	Almonds
OXYFLUORFEN	January	14	1	3.5115	Cherrys
OXYFLUORFEN	January	54	3	13.5443	Apricots
OXYFLUORFEN	January	132	3	18.8116	Almonds
OXYFLUORFEN	February	320	3	20.0858	Fallow
OXYFLUORFEN	February	220	4	130.327	Almonds
OXYFLUORFEN	February	38	2	18.1494	Grapes
OXYFLUORFEN	February	12	1	3.0099	Cherrys
OXYFLUORFEN	February	120	1	7.5246	Beans
OXYFLUORFEN	February	162	5	60.2973	Apricots
OXYFLUORFEN	April	480	5	173.328	Almonds
OXYFLUORFEN	May	96.5	1	48.4185	Almonds
OXYFLUORFEN	June	188.5	2	78.7442	Almonds
OXYFLUORFEN	July	1.33	1	0.2502	Cherrys
OXYFLUORFEN	July	160	2	95.0612	Almonds
OXYFLUORFEN	July	50	1	26.3362	Apricots
PARAQUAT DICHLORIDE	January	110	2	76.8285	Alfalfa
PARAQUAT DICHLORIDE	February	28	1	8.3552	Almonds
PARAQUAT DICHLORIDE	April	253	4	299.552	Almonds
PARAQUAT DICHLORIDE	June	228.5	3	250.495	Almonds
PARAQUAT DICHLORIDE	July	1.33	1	0.1651	Cherrys
PENDIMETHALIN	January	55	1	52.0831	Alfalfa
PENDIMETHALIN	February	38.64	2	73.1436	Almonds
PENDIMETHALIN	February	18	1	33.0585	Grapes

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

1/1/2013 through 8/31/2013

PENDIMETHALIN	April	226.94	4	188.863	Tomatos
PENDIMETHALIN	April	108	1	102.272	Beans
PENDIMETHALIN	May	498	8	353.673	Tomatos
PENDIMETHALIN	May	290	3	274.62	Beans
PENDIMETHALIN	June	121.21	1	86.098	Tomatos
RIMSULFURON	February	38.64	2	2.4125	Almonds
RIMSULFURON	May	437.42	11	14.4475	Tomatos
RIMSULFURON	June	297.73	4	7.5708	Tomatos
SAFLUFENACIL	February	102.28	3	4.473	Almonds
SAFLUFENACIL	March	85	1	1.4166	Almonds
SAFLUFENACIL	April	83	2	3.6313	Almonds
SIMAZINE	January	52	1	104.024	Almonds
SIMAZINE	February	63.64	1	63.5821	Almonds
TRIFLURALIN	May	45	1	33.757	Beans
ZIRAM	March	415	8	1892.4	Apricots
ZIRAM	April	80	2	297.92	Apricots

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Chlorpyrifos & Diazinon Specific Pesticide Use Report Summary

(Includes partial data, duplicate records and incomplete records)

Pesticide Use Summary

3/1/2013 through 8/31/2013

County **Fresno**

Monitoring Site **Poso Slough at Indiana Ave**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	28	1		Alfalfa
CHLORPYRIFOS	August	60	1		Alfalfa
CHLORPYRIFOS	August	192.3	4		Almonds

Monitoring Site **San Joaquin River at Sack D**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	August	243.4	5		Almonds

County **Merced**

Monitoring Site **San Joaquin River at Lander**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	70	2	17.7014	Alfalfa

County **Stanislaus**

Monitoring Site **Blewett Drain at Highway 13**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	June	455	4	919.13	Walnuts
CHLORPYRIFOS	July	258	2	521.177	Walnuts
CHLORPYRIFOS	August	4	4	7.5156	Cherrys

Monitoring Site **Del Puerto Creek at Hwy 33**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
DIAZINON	March	28	1	55.5634	Tomatos

Monitoring Site **Del Puerto Creek near Cox R**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	January	8	1	15.0315	Almonds
CHLORPYRIFOS	March	535.5	17	166.887	Alfalfa
CHLORPYRIFOS	May	18	1	33.774	Walnuts
DIAZINON	March	28	1	55.5634	Tomatos
DIAZINON	April	277	3	549.680	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

3/1/2013 through 8/31/2013

Monitoring Site **Hospital Creek at River Roa**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	130	2	30.5138	Alfalfa
CHLORPYRIFOS	June	516	4	1042.35	Walnuts
CHLORPYRIFOS	July	516	4	1042.35	Walnuts
CHLORPYRIFOS	August	5	6	9.3946	Cherrys
DIAZINON	April	160	2	317.505	Tomatos
DIAZINON	May	380	4	754.074	Tomatos

Monitoring Site **Ingram Creek at River Road**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	130	2	30.5138	Alfalfa
CHLORPYRIFOS	June	90	2	90.9029	Walnuts
CHLORPYRIFOS	August	1	2	1.879	Cherrys
DIAZINON	April	80	1	159.936	Fallow
DIAZINON	April	360	4	714.386	Tomatos
DIAZINON	April	110	7	140	Cherrys
DIAZINON	May	404.77	6	803.228	Tomatos

Monitoring Site **Newman Wasteway near Hill**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	197.6	8	69.5956	Alfalfa

Monitoring Site **Orestimba Creek at Hwy 33**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	April	45	3	89.9856	Walnuts
CHLORPYRIFOS	April	54	2	22.4906	Alfalfa
CHLORPYRIFOS	May	510	9	964.504	Walnuts
CHLORPYRIFOS	June	1047	27	2015.78	Walnuts
CHLORPYRIFOS	July	108	3	303.01	Almonds
DIAZINON	April	1130	8	2242.38	Tomatos
DIAZINON	May	240	3	476.258	Tomatos

Monitoring Site **Orestimba Creek at River Ro**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	March	307	3	147.652	Alfalfa
CHLORPYRIFOS	April	145	6	289.954	Walnuts
CHLORPYRIFOS	April	54	2	22.4906	Alfalfa

***Includes duplicate and incomplete data**

**** Not available in all counties.**

Pesticide Use Summary

3/1/2013 through 8/31/2013

CHLORPYRIFOS	May	510	9	964.504	Walnuts
CHLORPYRIFOS	June	1047	27	2015.78	Walnuts
CHLORPYRIFOS	July	242	5	575.503	Almonds
DIAZINON	April	1552	16	3079.8	Tomatos
DIAZINON	May	540	8	1071.58	Tomatos

Monitoring Site **Ramona Lake near Fig Aven**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	January	17	1	31.9419	Almonds
CHLORPYRIFOS	March	139	6	53.4288	Alfalfa

Monitoring Site **Westley Wasteway near Cox**

Pesticide AI	Month	Acres Treated*	No of Applications *	AI Use Qty** (lbs)	Commodity
CHLORPYRIFOS	April	110	2	103.341	Alfalfa
DIAZINON	April	50	1	99.2203	Tomatos

***Includes duplicate and incomplete data**

**** Not available in all counties.**

District Outreach Flyers

Apply Today!

Call Alejandro at SLCC to get qualified and going

Alejandro Paolini
Water Conservation Specialist
Office Phone: (209) 826-5112
(209) 387-4305
Cell: (209) 587-1241
Fax: (209) 387-4237
apaolini@slcc.net

2013 Water Conservation Program

Same Funding Levels

Easy to Apply, No Deadline

ON-FARM PROJECTS

GRANT

50% cost-share for all for irrigation enhancements and on-farm ditch improvements up to **$250/acre** maximum.

Drip Systems, Tailwater Return Systems, Micro-Sprinklers, Laser Leveling, Dairy related projects, other irrigation efficiency improvements

LOAN

3% interest loans up to **$250/acre** maximum for farmer's portion after grant cost-share. 5 year term. One annual payment

Maximum Canal Company participation:

$500/acre benefited combining grant and loan portions

Deadline

August 9, 2013

Conservation Program

Step-by-Step

Fill out application on-line or in the office and submit with project design and cost estimate by deadline

All projects will be reviewed by the Water Conservation Committee for preliminary approval

Once notified of approval, submit construction schedule to CCID

Any changes to submitted design MUST be provided to CCID *prior* to construction

Upon completion of engineering evaluation, notice to construct will be issued

Periodic inspections throughout construction will be done by CCID

After final inspection, bills are submitted

Completed projects are presented to the Board of Directors and funds are disbursed to Landowner

For Questions or More Information
Please contact:
Tracey Rosin
Conservation Coordinator
Phone: (209) 826-1421
Cell: (209) 777-8060
Fax: (209) 826-3184
trosin@ccidwater.org

2013 On-Farm Water Conservation Program

The Water Conservation Program deadline for funding requests is August 9, 2013. A project design and cost estimate must be submitted prior to the deadline date to be considered for preliminary approval. All applications will be processed and reviewed collectively in time for October construction. Water Conservation Program Guidelines are available on-line at www.ccidwater.org. Funding levels may be pro-rated based on the number of applications received.

DEADLINE AUGUST 9, 2013

GRANT PROGRAM

50% cost-share

for all Concrete Lining or Pipelining up to **$400/acre** benefited

25% cost-share

for irrigation enhancements up to **$400/acre** benefited such as:

Tailwater Return Systems, Micro-Sprinklers, Drip Systems, Dairy related projects, other irrigation efficiency improvements

LOAN PROGRAM

3% interest loans up to $1000/acre benefited for farmer's portion after cost-share grant.

One annual payment per year

5 year term for on-farm systems 10 year term for community ditches

Contact your local FSA office for additional funding options

SAN JOAQUIN VALLEY
DRAINAGE AUTHORITY

P O Box 2157 Los Banos, CA 93635
209 826 9696 Phone 209 826 9698 Fax

May 15, 2013

URGENT MATTER!

SUBJECT: Detection of Malathion

Dear Members of the Westside San Joaquin River Watershed Coalition;

The March sampling by the Westside Coalition showed detections of malathion at several locations: Salt Slough at Sand Dam, Salt Slough at Lander Ave, Poso Slough at Indiana Ave and Mud Slough upstream of the San Luis Drain. Since there was high pest pressure on alfalfa during this time period it is likely that these discharges came from application on alfalfa.

Current state regulations prohibit the discharge of malathion off property unless the discharger has an approved management plan from the Regional Water Quality Control Board. So any detections at our monitoring locations are considered exceedances. When we measure detections we are required to follow up with this notice and to work with farmers to prevent its occurrence. Please make this requirement known to your PCA's and comply with this regulation. Failure to comply can have serious consequences including enforcement by the Regional Water Quality Control Board and loss of coverage from the Westside Coalition.

If you have any questions, please contact your district, Joe McGahan (Watershed Coordinator) or Chris Linneman at 559-582-9237.

Very truly yours,

Joe McGahan
Watershed Coordinator
G:\data\NEW Wordpro\SLDMWA\76e4 Ag Waiver\letters\2013\05-16-13-Malathion Notice.doc

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

P O Box 2157 Los Banos, CA 93635
209 826 9696 Phone 209 826 9698 Fax

April 26, 2013

URGENT MATTER!

SUBJECT: Sediment Discharges from Blewett Drain, Ingram Creek and Hospital Creek

Dear Members of the Westside San Joaquin River Watershed Coalition:

Field visits on April 24 revealed significant sediment discharges from the above creeks. Sediment is one of the constituents that are subject to discharge regulations from the Regional Water Quality Control Board.

The Regional Water Quality Control Board is particularly concerned with the discharges of sediment and has taken actions that have resulted in fines being levied against farmers in the valley.

It is vital that actions be taken to eliminate sediment discharge from farms. Some of these actions are:

- Use of PAM to prevent discharge of sediment in tailwater
- Capture tailwater and allow sediment to settle before discharge
- Keep tailwater ponds cleaned and large enough to capture tailwater
- Run tailwater through vegetated filter strips or ditches before discharge

Failure to meet these regulations could result in termination of discharge.

If you have any questions, please contact Joe McGahan (Watershed Coordinator) at 559-582-9237 or Rich Peltzer (field representative) at 209-404-2642.

Very truly yours,

Joe McGahan
Watershed Coordinator

Blewett Drain discharge to San Joaquin River

Hospital Creek at River Road

Ingram Creek at River Road

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

P O Box 2157 Los Banos, CA 93635
209 826 9696 Phone 209 826 9698 Fax

March 14, 2013

URGENT MATTER!

SUBJECT: Water Flea Toxicity in Poso and Salt Sloughs

Dear Members of the Westside San Joaquin River Watershed Coalition;

Water quality problems are continuing to be found by Coalition sampling within the Westside region. Samples collected March 12th showed complete mortality to water flea in samples collected from the Poso Slough at Indiana Avenue and Salt Slough at Sand Dam monitoring sites.

Water flea is an indicator organism to test for toxicity from pesticides in the water ways. The samples from these two sites showed 100% mortality within 24 hours, indicating a high concentration of pesticide(s) within the water.

In the past, toxicity of this level has been caused by chlorpyrifos (Lorsban, Lock-on, NuPhos, Govern, Scout, Empire, Dursban), although other materials could also cause the toxicity.

The Regional Water Quality Control Board is particularly concerned with the discharge of chlorpyrifos and has developed a regulatory program specifically for chlorpyrifos in the San Joaquin River and its tributaries (including Salt Slough).

Pesticide data will be available in the coming weeks and additional notices will be sent out at that time.

If you have any questions, please contact your district, Joe McGahan (Watershed Coordinator) or Chris Linneman at 559-582-9237.

Very truly yours,

Joe McGahan
Watershed Coordinator

Management Practice Maps

Marshall Road Drain and Spanish Land Grant Drain **FIGURE 3**

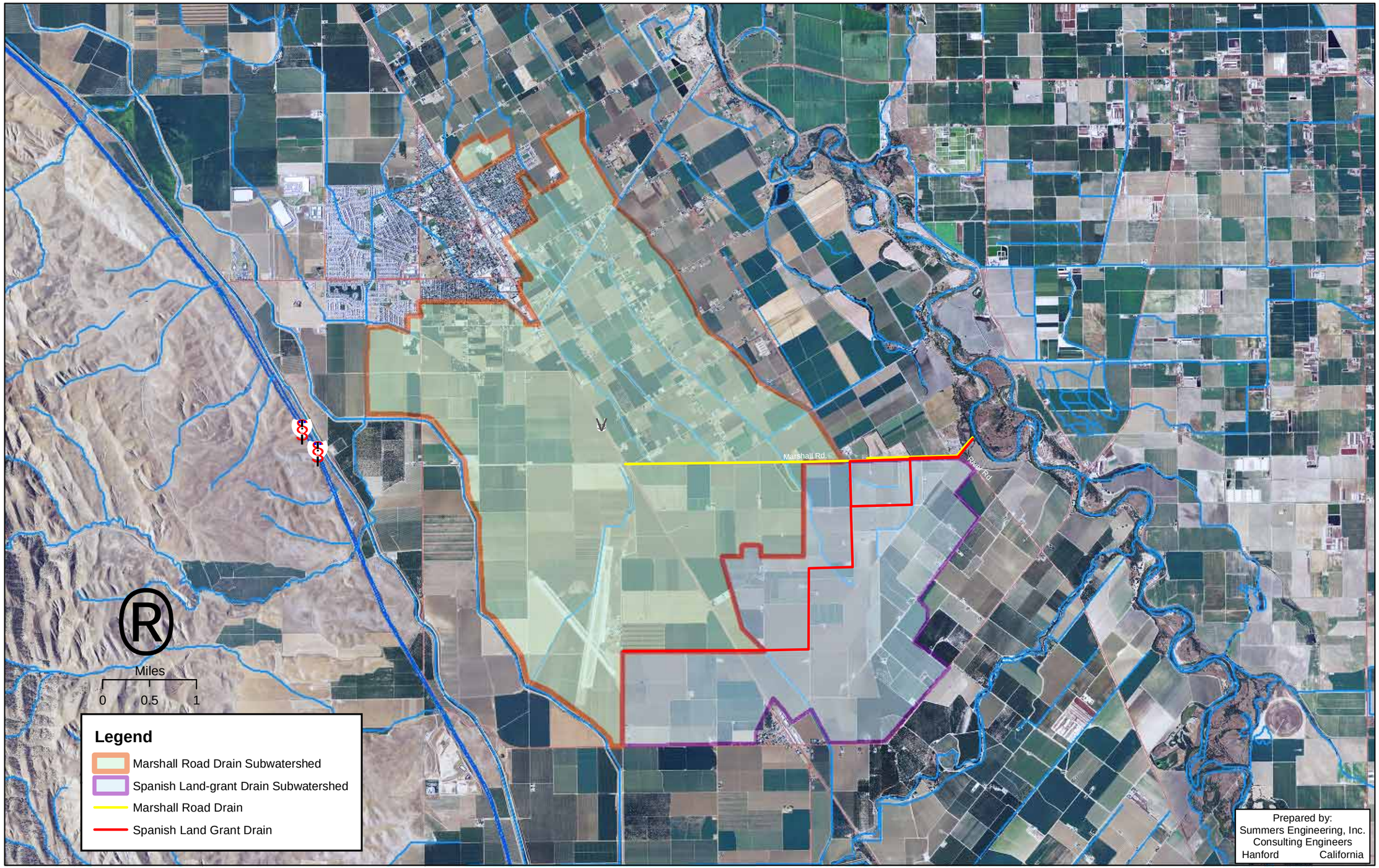


FIGURE 2

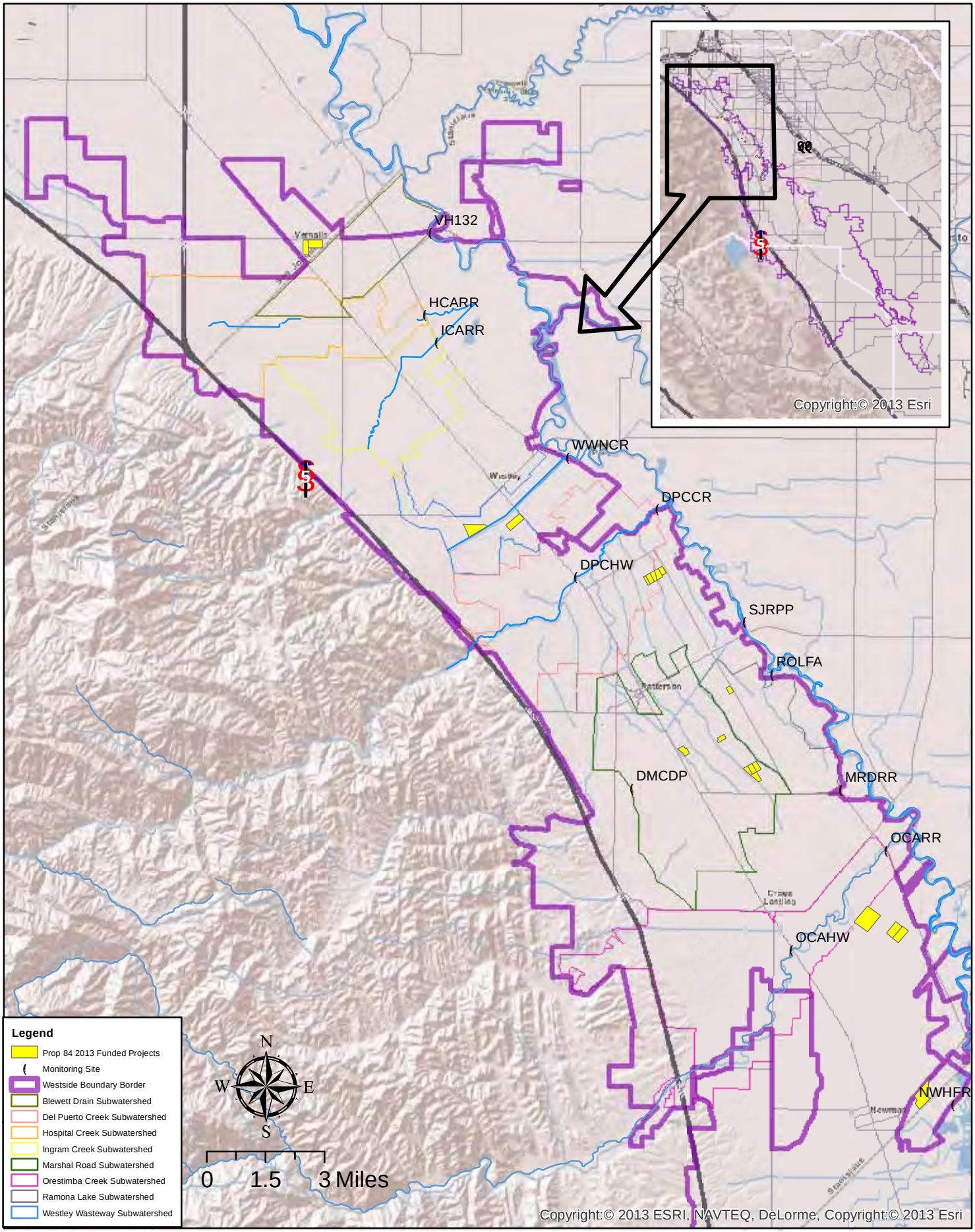
LEGEND

- Blewett Drain Subwatershed
- Blewett-Represented Subwatershed
- COALITION BOUNDARY
- MONITORING SITES
- BANTA-CARBONA I.D.
- DEL PUERTO W. D.
- WEST STANISLAUS I.D.
- EL SOLYO WD

WESTSIDE WATERSHED COALITION
BLEWETT DRAIN SUBWATERSHED

SUMMERS ENGINEERING INC.
Consulting Engineers
HANFORD CALIFORNIA
AUGUST 2013

MAPS\Wside coalition\Subwatershed Maps\Blewett Drain_photo.mxd



WESTSIDE SAN JOAQUIN RIVER WATERSHED COALITION

Proposition 84 Projects as of August 2013

Summers Engineering, Inc.
Consulting Engineers
Hanford California

Attachment 7
Special Project Monitoring and Constituents

TABLE 4a: Monitoring Site Tests March 2012-February 2014

Monitoring Site	Site Code	Season			Non-Irrig Season Core	Irrig Season Core	Special Study Analytes - March 2012 through February 2014									
		Irrigation (Mar-Aug)*	Non-Irrigation (Sep-Feb)*	Rain Event (2x per year)			Metals**	Ceriodaphnia Toxicity	Fathead Toxicity	Algae Toxicity	Sediment Toxicity	Pesticides OP	Pesticides OC	Pesticides Group A	Pesticides Carb	Pesticides Herb
Discharge Sites																
Vernalis at Highway 132	VH132	Special	Core	Rain**	x			x			x	x	x	x		x
Poso Slough at Indiana Avenue	PSAIA	Special	Core	Rain**	x		x	x		x	x	x	x	x	x	x
Hospital Cr at River Road	HCARR	Special	-	Rain**			x	x		x	x	x			x	x
Ingram Cr at River Road	ICARR	Core + Special	Core	Rain**	x	x	x	x		x	x	x	x	x	x	x
Westley Wasteway near Cox Road	WWNCR	Core + Special	Core	Rain**	x	x	x	x		x	x	x	x	x		x
Del Puerto Cr near Cox Road	DPCCR	Core + Special	Core	Rain**	x	x		x			x	x	x	x	x	x
Del Puerto Cr at Hwy 33	DPCHW	Special	-	Rain**				x			x	x	x	x	x	x
Ramonal Lake near Fig Avenue	ROLFA	Core + Special	Core	Rain**	x	x		x			x	x	x	x		x
Marshall Road Drain near River Road	MRDRR	Core + Special	Core	Rain**	x	x		x				x	x	x		x
Orestimba Cr at River Road	OCARR	Core + Special	Core	Rain**	x	x	x	x		x	x	x	x	x	x	x
Orestimba Cr at Hwy 33	OCAHW	Special	-	Rain**			x	x		x	x	x	x	x	x	x
Newman Wasteway near Hills Ferry Road	NWHFR	Core + Special	Core	Rain**	x	x		x			x	x	x	x		x
San Joaquin River at Lander Avenue	SJRLA	Core + Special	Core + Special	Rain**	x	x		x				x				x
Mud Slough u/s San Luis Drain	MSUSL	Core + Special	Core + Special	Rain**	x	x		x				x	x	x	x	x
Salt Slough at Lander Avenue	SSALA	Core + Special	Core + Special	Rain**	x	x		x				x	x	x	x	x
Salt Slough at Sand Dam	SSASD	Special	-	Rain**				x			x	x			x	x
Los Banos Creek at Highway 140	LBCHW	Core + Special	Core + Special	Rain**	x	x	x	x		x		x				x
Los Banos Creek at China Camp Road	LBCCC	Core + Special	Core	Rain**	x	x	x	x	x	x	x	x				x
Turner Slough near Edminster Road	TSAER	Core + Special	Core	Rain**	x	x		x	x			x				x
~~Little Panoche Cr at Western Boundary~~	~~LPCWB~~	~~Assmt~~	~~Assmt~~	~~Rain**~~												
~~Little Panoche Cr at San Luis Canal~~	~~LPCSL~~	~~Assmt~~	~~Assmt~~	~~Rain**~~												
~~Russell Ave. Drain at San Luis Canal~~	~~RADSL~~	~~Assmt~~	~~Assmt~~	~~Rain**~~												
~~Los Banos Creek at Sunset Ave~~	~~LBCSA~~	~~Assmt~~	~~Assmt~~	~~Rain**~~												
Source Water Sites																
San Joaquin River at Sack Dam	SJRSD	Source	Source	Source	x	x						x				
Delta Mendota Canal at Del Puerto WD	DMCDP	Source	Source	Source	x	x						x				
San Joaquin River at PID Pumps	SJRPP	Source	Source	Source	x	x						x				

* Irrigation season will run from March through August. Non-irrigation season will run from September through February. The Westside Coalition, in colaboration with the Regional Water Quality Control Board, may shift the seasons up or back 1 month to ac

** During rain event sample collection, Discharge sites will be sampled for the constituents listed

* Rain events only

** Special Site list. See Table 5

TABLE 5: Chemical Analyses

	Material	Matrix	Ass'ment	Core	Rain Event	Special Study	Source Water
Field Measurements	Flow (cfs)	Water	x	x	x	x	x
	Photo Documentation	Site	x	x	x	x	x
	Electrical Conductivity (µs/cm)	Water	x	x	x	x	x
	Temperature (ºc)	Water	x	x	x	x	x
	pH	Water	x	x	x	x	x
	Dissolved Oxygen (mg/L)	Water	x	x	x	x	x
Drinking Water	Bromide (Br)	Water	x	x	x	x	
	Dissolved Organic Carbon (DOC)	Water	x	x	x	x	
	E. Coli	Water	x	x	x	x	x
	Total Organic Carbon (TOC)	Water	x	x	x	x	
Gen Phys	Hardness (as CACO3)	Water	x	x	x	x	x
	Total Dissolved Solids (TDS)	Water	x	x	x	x	x
	Total Suspended (TSS)	Water	x	x	x	x	x
	Turbidity	Water	x	x	x	x	x
Metals	Arsenic	Water	x		x		
	Boron	Water	x		x	x	x
	Cadmium	Water	x		x		
	Copper	Water	x		x	x	x
	Lead	Water	x		x		
	Nickel	Water	x		x	x	x
	Selenium	Water	x		x		
	Zinc	Water	x		x	x	x
Nutrients	Ammonia (as N)	Water	x	x	x	x	
	Nitrogen, Nitrate-Nitrite	Water	x	x	x	x	
	Total Kjeldahl Nitrogen	Water	x	x	x	x	
	Total Phosphate as P	Water	x	x	x	x	
	Ortho Phosphate as P (Soluble)	Water	x	x	x	x	
Toxicity	Ceriodaphnia dubia	Water	x		x	See Attachment 1	
	Pimephales promelas	Water	x		x		
	Selenastrum capricornutum	Water	x		x		

TABLE 6: Pesticide Analyses

	Material	Matrix	Assessment	Core	Rain Event	Source
OP Pesticides	Azinphosmethyl	Water	x	(no pesticides)	x	x
	Chlorpyrifos	Water	x		x	x
	Demeton-S	Water	x		x	x
	Diazinon	Water	x		x	x
	Dichlorovos	Water	x		x	x
	Dimethoate	Water	x		x	x
	Disulfoton	Water	x		x	x
	Malathion	Water	x		x	x
	Methidathion	Water	x		x	x
	Methamidophos	Water	x		x	x
	Parathion, ethyl	Water	x		x	x
	Parathion, methyl	Water	x		x	x
	Phorate	Water	x		x	x
	Phosmet	Water	x		x	x
	EPTC	Water	x		x	x
Herbicides	Atrizine	Water	x		x	
	Cyanazine	Water	x		x	
	Diuron	Water	x		x	
	Linuron	Water	x		x	
	Prowl	Water	x		x	x
	Simazine	Water	x		x	
	Trifluralin	Water	x		x	x
Addnl Group A OC Pesticides	Aldrin	Water	x		x	
	a-BHC	Water	x		x	
	b-BHC	Water	x		x	
	d-BHC	Water	x		x	
	g-BHC (Lindane)	Water	x		x	
	a-Chlordane	Water	x		x	
	g-Chlordane	Water	x		x	
	Endosulfan I	Water	x		x	
	Endosulfan II	Water	x		x	
	Endosulfan Sulfate	Water	x		x	
	Heptachlor	Water	x		x	
	Heptachlor epoxide	Water	x		x	
	Toxaphene	Water	x		x	
OC Pest (Base)	Dicofol	Water	x		x	
	DDD(p,p')	Water	x		x	
	DDE(p,p')	Water	x		x	
	DDT(p,p')	Water	x		x	
	Dieldrin	Water	x		x	
	Endrin	Water	x		x	
	Methoxychlor	Water	x		x	
Carbamate Pest.	Aldicarb	Water	x		x	
	Carbaryl	Water	x		x	
	Carbofuran	Water	x		x	
	Methiocarb	Water	x		x	
	Methomyl	Water	x		x	
	Oxamyl	Water	x		x	