

EXHIBIT 2

SAN JOAQUIN VALLEY DRAINAGE AUTHORITY

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December 31, 2006

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 December 31, 2006 semi-annual monitoring report

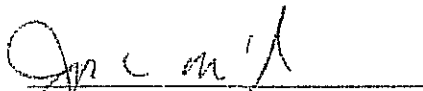
Dear Pamela,

Attached is the December 31, 2006 semi-annual monitoring report as required under the Monitoring and Reporting Program No. R5-2005-0833. This report covers the irrigation season monitoring from May 2006 through October 2006.

We have made significant steps during this period to identify water quality problems and follow up. We began Phase II monitoring in July and submitted a Water Quality Strategy on July 31, 2006. We are beginning to develop a management plan per your request of November 30, 2006 and have a meeting planned with your staff on January 8, 2007 to begin the process.

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 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

Covering the period: May 2006 through October 2006
(Sampling Events 22 through 27)

December 31, 2006

Prepared by:
Summers Engineering, Inc.
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SECTION 1: EXECUTIVE SUMMARY

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 460,500 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 center of 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 Grassland Drainage Area encompasses 97,400 acres that are geographically within the watershed. The Grassland Drainage Area is covered under waste discharge requirements (No. 5-01-234), which regulates the discharge of subsurface drainage water through the San Luis Drain to the San Joaquin River. The area coordinates its separate monitoring and reporting program under the above waste discharge requirements.

The described 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 and effectively and efficiently address water quality issues. The effects of discharges from the wetland areas are covered in this monitoring program. Grassland Water District has provided supplemental data from their monitoring efforts in **Appendix G**. The U.S. Fish and Wildlife Service has performed similar monitoring, however, this data is not yet available.

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 and 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 could 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. This report covers sampling events beginning May 2006 through October 2006.

The Monitoring and Reporting Plan for the Westside Coalition includes a monthly sampling plan for 19 monitoring sites within the coalition area as well as plans for sampling for two rain events during each year. During any given sampling event, each accessible site is visited, visually assessed, and samples are collected in accordance with the field sampling manual. **Table 1**, below, shows the monitoring events summary by site for the reporting period.

Table 1: May 2006 through October 2006 Sampling Event Summary

Site Designation	Site	Event 22	Event 23	Event 24	Event 25	Event 26		Event 27
		May	June	July	August	September		Oct.
1	Hospital Cr at River Road	S	S	S	S	S	SS	S
2	Ingram Cr at River Road	S	S	S	S	S	SS	S
3	Westley Wasteway near Cox Road	S	S	NF	S	S	SS	S
4	Del Puerto Cr near Cox Road	S	S	S	S	S	SS	S
5	Del Puerto Cr at Hwy 33	S	S	S	S	NF	SS	S
6	Salado Cr near Olive Ave.	BW	BW	BW	BW	BW	NP	BW
7	Ramona Lake near Fig Avenue	BW	BW	S	S	S	NP	S
8	Marshall Road Drain near River Road	BW	S	S	S	S	NP	S
9	Orestimba Cr at River Road	S	S	S	S	S	SS	S
10	Orestimba Cr at Hwy 33	S	S	S	S	S	SS	S
11	Newman Wasteway near Hills Ferry Road	S	S	S	S	S	SS	S
12	San Joaquin River at Sack Dam	S	S	S	S	S	NP	S
13	San Joaquin River at Lander Avenue	S	S	S	S	S	SS	S
14	Mud Slough u/s San Luis Drain	S	S	S	S	S	SS	S
15	Salt Slough at Lander Avenue	S	S	S	S	S	SS	S
16	Salt Slough at Sand Dam	S	S	S	S	S	SS	S
17	Los Banos Creek at Highway 140	S	S	S	S	S	SS	S
18	Los Banos Creek at China Camp Road	NF	NF	NF	NF	NF	SS	NF
19	Turner Slough near Edminster Road	S	S	S	S	S	SS	S

Notes: S = Water sampled according to the MRP.
 SS = Sediment sampled according to the MRP.
 NF = Not sampled due to lack of flow.
 NS = No sediment to collect.
 NP = Not included in sampling plan.
 BW = Not sampled due to SJR backwater into monitoring site.

The objectives of the 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 19 sites; the field coordinator for the northerly region is responsible for collecting samples from sites 1 through 10. The field coordinator for the southerly region and is responsible for collecting samples from sites 11 through 19. The

sampling crew for the northerly region is comprised of staff from Del Puerto Water District and Patterson Irrigation District. The southerly sampling crew is staffed by Central California Irrigation District. 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 2**. The laboratory, method, and constituents analyzed are shown in **Table 3**.

Table 2: Monitoring Stations and Samples

Map Designation	Site Description	General Physical	Irrigation Season Aquatic Toxicity	Winter Aquatic Toxicity	Sediment Toxicity	Drinking Water Constituents	Pesticide Sampling
	1	3	4	5	6	7	8
1	Hospital Creek at River Road	x	x		x	x	x
2	Ingram Creek at River Road	x	x		x	x	x
3	Westley Wasteway nr Cox Road	x	x		x	x	x
4	Del Puerto Creek nr Cox Road	x	x		x	x	x
5	Del Puerto Creek at Hwy 33	x	x		x	x	x
6	Salado Creek nr Olive Ave	x	x		x	x	x
7	Ramona Lake nr Fig Avenue	x	x		x	x	x
8	Marshall Road Drain nr River Road	x	x			x	x
9	Orestimba Creek at River Road	x	x		x	x	x
10	Orestimba Creek at Highway 33	x	x		x	x	x
11	Newman Wasteway nr Hills Ferry Rd	x	x		x	x	x
12	SJR at Sack Dam	x					
13	SJR at Lander Ave	x	x	x	x	x	x
14	Mud Sl upstream of San Luis Drain	x	x	x	x	x	x
15	Salt Sl at Lander Ave	x	x	x	x	x	x
16	Salt Sl at Sand Dam	x	x		x	x	x
17	Los Banos Cr at Hwy 140	x	x	x	x	x	x
18	Los Banos Cr at China Camp Road	x	x		x	x	x
19	Turner Slough nr Edminster Road	x	x		x	x	x
	Number of sites	19	18	4	17	18	18
	Times per year	13	8	4	2	13	8
	Total	247	144	16	34	234	144

In addition to the constituents presented in **Table 3**, aquatic and sediment toxicity samples were collected and analyzed. These samples were 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).

Fifteen of the 19 monitoring sites are located on streams that dominated by summer agricultural drainage runoff. The irrigation season within the Westside Coalition typically starts in March, with pre-irrigation and typically ends in August, just before harvest of the late season crops (such as cotton and fall corn). Because the irrigation period is also when pesticides are applied, and most likely to be carried off by tailwater drainage, the Westside Coalition has targeted this period

for pesticide and toxicity analysis. See the Monitoring and Reporting Plan, page 8 (April 1, 2004). Four of the monitoring sites received agricultural drainage during the irrigation season and wetland drainage during the fall and winter (SJR at Lander Ave., Mud Sl. u/s San Luis Drain, Salt Sl. at Lander Ave. and Los Banos Creek at Hwy 140). Because of this, these 4 sites are tested for pesticides and toxicity year-round.

Attachment 1 details the samples collected at each site during each sampling event. A summary of the monitoring results is presented in **Appendix A**. Significant aquatic toxicity was measured at 7 sites during the reporting period. These results, along with associated water quality and flow data, are summarized in **Attachment 2**. Details of the aquatic and sediment toxicity analysis are shown in **Appendix F**.

Table 3: 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	°C	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.)	BSK/Caltest	SM 2120B	-	COLOR-rev4E
	pH	BSK/Caltest	SM 4500-H+B	-	PH-rev4
	TDS	BSK/Caltest	SM 2540C	mg/L	TDS-rev4E
	TSS	BSK/Caltest	SM 2540D	mg/L	TSS-rev4
	Turbidity	BSK/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	BSK/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 385.2	mg/L	PHOS-rev4
	Ammonia (as N)	Caltest	EPA 350.2	mg/L	NH3-TKN-rev6E
	DOC	BSK/Caltest	SM 5310-B/C	mg/L	TOC-D0C-rev7E
TOC	BSK/Caltest	SM 5310-B/C	mg/L	TOC-D0C-rev7E	
E. Coli	BSK/Caltest	SM 9221BF/9223-B	MPN	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
	Pyrethroids	APPL	EPA 8081A-P	µg/L	ANA8081A
	Herbicides	APPL	EPA 619	µg/L	ANA8151A
Toxicity	<i>Ceriodaphnia d.</i>	PER	EPA-821-R-02-012	% survival	Acute Cerio SOP
	<i>Selenastrum c.</i>	PER	EPA-821-R-02-013 & EPA-600-4-91-002	cell growth	Chronic Selenastrum SOP
	<i>Pimephales p.</i>	PER	EPA-821-R-02-012	% survival	Acute FHM SOP
	<i>Hyalella a.</i>	PER	EPA-600-R-99-064	% survival	10-D HyalellaAcuteSedTest

BSK Labs in Fresno, California
APPL labs in Fresno, California
Pacific Ecorisk (PER) in Martinez, California

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

samples (MS/MSD). No significant quality control events were encountered, although there were a number of minor quality control issues, including exceedance of the field duplicate RPD value, hold time violation, or control sample failure. E. Coli samples for three sites (Mud Slough upstream of the San Luis Drain, and Salt Slough at both Lander Avenue and Sand Dam) during the June sampling event were spilled at the laboratory and were not analyzed. Results of the Quality Control samples are discussed in Section 4.

Monitoring Event Summaries.

High rainfall and snowfall in the Sierra Nevada mountain range resulted in significant, and fairly long-term water releases into the San Joaquin River. The higher flows in the river created a back-water condition at a number of the Westside Coalition's monitoring sites during the reporting period and thwarted efforts to collect some samples.

Event 22; May 9, 2006

Irrigation season water samples were collected at all sites except Los Banos Creek at China Camp Road (no flow), Marshall Road Drain (SJR high water conditions cause a backwater into the site), Ramona Lake (SJR backwater) and Salado Creek (SJR backwater). Aquatic toxicity was measured at Newman Wasteway and Turner Slough for Fathead Minnow. Prior to toxicity testing, the toxicity laboratory notified us that the Fathead samples looked less healthy than normal, and the toxicity at both sites was consistent with pathogen interference. Resample at both sites (5/17/06) indicated no toxicity.

Event 23; June 13, 2006

Irrigation season water samples were collected at all sites except Los Banos Creek at China Camp Road (no flow), Ramona Lake (SJR backwater), and Salado Creek (SJR backwater). Aquatic toxicity was measured for Fathead Minnow at Hospital Creek. A resample was collected on June 19 and no toxicity was measured. E. Coli sample containers for Salt Slough at Lander Ave., Salt Slough at Sand Dam, and Mud Slough were spilled at the laboratory and no E. Coli data is reported for those sites.

Event 24; July 11, 2006

Irrigation season water samples were collected at all sites except Los Banos Creek at China Camp Road (no flow), Westley Wasteway (no flow), and Salado Creek (SJR backwater). The wet winter and high water conditions cause the local landowner at Ramona Lake to install a pump for the Ramona Lake discharge, which was not running at the time of sample collection. A discharge sample for Ramona Lake was later collected on July 17th. Complete mortality to Ceriodaphnia was measured at Orestimba Creek at River Road, Orestimba Creek at Highway 33, and Ramona Lake. Resamples were collect for all three sites (7/17/06 for Orestimba Creek at River Road and Orestimba Creek at Highway 33; 7/25/06 for Ramona Lake) and indicated persistent toxicity at all sites. Dilution series testing measured 5.5 toxic units (TU) for Orestimba Creek at River Road, >16TU for Orestimba Creek at Highway 33, and 3.6TU for Ramona Lake. TIE analyses had similar results for all three sites, indicating a non-polar organic material was the cause. Chlorpyrifos and Diazinon, among other materials, were detected at Orestimba Creek at Highway 33 and Orestimba Creek at River Road. Chlorpyrifos and dimethoate were detected at Ramona Lake.

Event 25; August 8 and 9, 2006

Irrigation season water samples were collected at all sites except Salado Creek (SJR backwater) and Los Banos Creek at China Camp Road (no flow). Due to time limitations, samples at Orestimba Creek at River Road and at Highway 33 were collected on August 9th. Complete mortality for Ceriodaphnia was measured at Salt Slough at Sand Dam. A resample was collected on 8/15, however 0% survival was measured in both the site water and the control. A retest of the resample measured 10% survival, indicating toxicity was persistent. A dilution series analysis measured 2.8 toxic units, and a TIE indicated a non-polar organic material (at least partially metabolically activated) as the probable cause. Chlorpyrifos, dicofol, and methomyl were detected in the site water.

Event 26; Water samples on September 12, sediment samples on September 11

On Tuesday, September 12, non-irrigation samples were collected at all sites except Los Banos Creek at China Camp Road (no flow), Salado Creek (SJR backwater), and Del Puerto Creek at Highway 33 (no flow). In accordance with the Westside Coalition's MRP, four sites are sampled for aquatic toxicity and pesticides during the non-irrigation season (Salt Slough at Lander Ave., San Joaquin River at Lander Ave., Los Banos Creek at Highway 140, and Mud Slough) and no toxicity was measured in any of those samples. On Monday, September 11, sediment samples were collected at accessible sites and analyzed for toxicity to *Hyella azteca*. Marshall road Drain, Salado Creek, and Ramona Lake are piped discharges and are not sampled for sediment. Sediment toxicity was measured at Hospital Creek, Ingram Creek, Westley Wasteway, Del Puerto Creek near Cox Road, Del Puerto Creek at Highway 33, and Orestimba Creek at Highway 33. Sediment sample from Orestimba Creek at Highway 33 and Ingram Creek were analyzed for pyrethroids, organophosphate pesticides, organochlorine pesticides, and various physical parameters. DDT, DDD, DDE, and cyhalothrin were detected in both creeks. Bifenthrin and permethrin were also detected in the Orestimba Creek sample.

Event 27; October 10, 2006.

Non-irrigation season water samples were collected at all sites except Salado Creek (SJR backwater) and Los Banos Creek at China Camp Road (no flow). Toxicity and pesticide samples were collected at Salt Slough at Lander Ave., San Joaquin River at Lander Ave., Los Banos Creek at Highway 140, and Mud Slough. No toxicity was measured, however the sample collection staff noted 2 people in a boat with spray containers and suits, headed upstream in Mud Slough. They appeared to be Mosquito Abatement, but that was not confirmed.

SECTION 2: SAMPLING SITES DESCRIPTION

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

- Hospital and Ingram Creek (Designation 1 & 2, Table 2 of MRP). The confluence of Hospital and Ingram creeks is on the 303(d) list for pesticides. The sites are each located on the individual creeks, upstream of the confluence. Both of these creeks are significant drainages for the Patterson subarea. Ingram Creek site water is analyzed for Group A pesticides.

- Westley Wasteway (Designation 3). 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. Westley Wasteway site water is analyzed for Group A pesticides.
- Del Puerto Creek (Designation 4). 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. Del Puerto Creek site water is analyzed for Group A pesticides.
- Salado Creek, Ramona Lake, and Marshall Road Drain (Designations 6, 7 & 8). All three of these are significant drainages for the Patterson subarea. All three carry tail water from similar landuse areas, as well as operational spills. Salado Creek also collects storm water runoff from the City of Patterson. The outlet of Salado Creek is a pipe discharge into the San Joaquin River, and access for sampling is subject to the water level and flow conditions of the River, which frequently prevent sample collection. As of March, 2007, the Westside Coalition is proposing to discontinue monitoring at this location. Water from all three of these sites is analyzed for Group A pesticides.
- Orestimba Creek (Designation 9). There are two monitoring locations on Orestimba Creek; one near the discharge point to the San Joaquin River; and one upstream at Highway 33. The importance of Orestimba Creek is similar to that of Del Puerto: 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. Subsequently, the importance of these sites to the monitoring program is the same as for Del Puerto Creek. Orestimba Creek site water is analyzed for Group A pesticides.
- Newman Wasteway (Designation 11). The Newman Wasteway is a significant drainage for the Patterson subarea and is on the 303(d) list for salt and pesticides. This measures drainage that originates from the southerly region of the Patterson subarea. Newman Wasteway site water is analyzed for Group A pesticides.
- The San Joaquin River at Sack Dam and Lander Avenue (Designations 12 & 13). These are baseline sites to establish the water quality backdrop in the San Joaquin River. The Sack Dam site is a water supply site that delivers water to agricultural areas within the Dos Palos Subarea as well as wetland water supplies. It can also receive ag return waters from the Tranquillity subarea. It is included to determine supply side water quality that may be affected by upstream discharge. San Joaquin River at Lander Avenue site water is analyzed for Group A pesticides.
- Mud Slough and Salt Slough (Designations 14, 15 & 16). These sites measure both drainage originating from the Los Banos and Dos Palos subareas that flow through the wetlands, as well as discharge from the wetlands themselves. Both Mud and Salt Sloughs are 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 these sites throughout the year. These samples are analyzed for selenium, boron, and EC, along with other constituents. The SWAMP Data is available via the internet at:

<http://www.waterboards.ca.gov/centralvalley/programs/agunit/swamp/index.html>. Mud Slough and Salt Slough at Lander Avenue site water is analyzed for Group A pesticides.

- Los Banos Creek (Designations 17 & 18). Los Banos Creek carries storm water runoff from the Coastal Mountain Range, the City of Los Banos, and from the adjacent agricultural lands and wetlands. It also receives tail water from the Los Banos subarea. Two stations have been established on this waterbody, one upstream of the wetland area within the Los Banos subarea, and one within the wetlands.
- Turner Slough (Designation 19). This station is located on the eastside of the San Joaquin River and measures drainage from a portion of the Patterson subarea. Site water from Turner Slough is analyzed for Group A pesticides.

More than 56 different varieties of crops are grown within the Westside Coalition watershed area, ranging from fruit and nut trees to melons and cotton. **Table 4** shows the top twenty crops within the watershed area.

These crops are dispersed approximately evenly throughout the watershed area, with the exceptions of cotton (mostly in the Los Banos, Dos Palos and Tranquillity subareas), rice (Dos Palos subarea only), and fruit trees (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.

In general, annual field crops (cotton, tomatoes, melons, etc.) are planted in the spring between March and May, and harvested in the late summer and early fall, depending on the crop.

Table 4: Top 20 Crops Grown

Crop	Planted Acreage
Alfalfa	77,186
Cotton	67,906
Corn	22,189
Almonds	20,794
Cannery Tomatoes	17,673
Oats	12,944
Wheat	12,611
Green Beans	12,568
Fresh Market Tomatoes	11,349
Walnuts	8,852
Pasture	8,761
Native	8,260
Apricots	7,480
Dry Beans	7,240
Melons	6,565
Sugar Beets	6,280
Rice	4,131
Barley	3,226
Grapes	2,649
Broccoli	2,058

Orchard crops come out of dormancy between March and April, and are harvested in the late summer and fall.

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 are usually furrow irrigated using either a plowed head ditch or gated pipe, but may also be sprinkler 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 many of the older orchards are still flood irrigated.

Table 5 shows the types of pesticides used in 2004 reported from the California Department of Pesticide Regulation, by sub-watershed and crop type. This area includes 10 of the 19 monitoring sites within the Westside Coalition, 3 of which are on the 303d list for pesticides. Pesticide use data for 2005 is not yet available.

Table 5: Stanislaus County 2004 Pesticide Use by Subwatershed

	Pesticide Type	Fallow / Native	Field Crops	Pasture	Orchard Crops	Vineyards	Nursery
Del Puerto Cr. Subwatershed	Carbamates		x				
	Herbicides	x	x	x	x	x	
	Organochlorine		x				
	Organophosphorus		x		x		
	Pyrethroid		x		x	x	
Hospital/Ingram Cr. Subwatershed	Carbamates		x		x		
	Herbicides	x	x		x	x	
	Organochlorine		x				
	Organophosphorus		x		x		
	Pyrethroid		x		x	x	
Orestimba Cr. Subwatershed	Carbamates		x		x		
	Herbicides	x	x		x		x
	Organochlorine		x		x		
	Organophosphorus		x		x		
	Pyrethroid		x		x		
Salado Creek Subwatershed	Carbamates		x	x			
	Herbicides	x	x	x	x		
	Organochlorine		x				
	Organophosphorus		x		x		
	Pyrethroid		x		x		
Westley Wasteway Subwatershed	Carbamates		x		x		
	Herbicides	x	x		x	x	
	Organochlorine		x				
	Organophosphorus		x		x		
	Pyrethroid		x		x	x	

Note: Shaded regions indicate no recorded pesticide application on that crop type in that subwatershed.

FIGURE 1: WATERSHED MAP W/ MONITORING SITES.

Table 6 shows the 10 most commonly applied pesticides (by acreage) for the three major counties occupied by the Westside Coalition.

Table 6: Most Commonly Applied Pesticides by County.

Fresno		Merced		Stanislaus	
Pesticide	Class	Pesticide	Class	Pesticide	Class
Ethephon	OP	Ethephon	OP	Lambda-cyhalothrin	Pyrethroid
Chlorpyrifos	OP	Lambda-cyhalothrin	Pyrethroid	Chlorpyrifos	OP
Methomyl	Carbamate	Chlorpyrifos	OP	Dimethoate	OP
Esfenvalerate	Pyrethroid	Cyfluthrin	Pyrethroid	Esfenvalerate	Pyrethroid
Permethrin	Pyrethroid	Permethrin	Pyrethroid	Permethrin	Pyrethroid
Cyfluthrin	Pyrethroid	Dimethoate	OP	Bifenthrin	Pyrethroid
Aldicarb	Carbamate	Methomyl	Carbamate	Diazinon	OP
Dimethoate	OP	Esfenvalerate	Pyrethroid	Dicofol	OC
Endosulfan	OC	Aldicarb	Carbamate	Ziram	Carbamate
Diazinon	OP	Dicofol	OC	Methyl Parathion	OP

SECTION 3: FIELD SAMPLING PROCEEDURE

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. Two sampling crews are responsible for collecting samples at each of the 19 sites; the field coordinator for the northerly region is responsible for collecting samples from sites 1 through 10. The field coordinator for the southerly region and is responsible for collecting samples from sites 11 through 19. The sampling crew for the northerly region is comprised of staff from Del Puerto Water District and Patterson Irrigation District. The southerly sampling crew is staffed by Central California Irrigation District. These 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 Field Sampling manual.

Since the implementation of the monitoring program in July 2004, two minor changes have been made to the sampling procedure:

1. In accordance with a request from the Central Valley Regional Water Quality Control board, the five gallon fluorocarbon-lined polyethylene (FLPE) jerrycans have been replaced with five 1 gallon glass amber bottles.
2. Sediment sampling in the northerly region is performed with a stainless steel scoop instead of the mechanical Eckman sampler.

Additionally, in July 2006, the Westside Coalition transitioned to Phase II constituents at all of the 19 monitoring sites and have added the Group A pesticides analyses to nine monitoring stations. This revised list of constituents is listed in Table 7, below.

Table 7: Current Monitoring Constituents

Pesticides		General Chemistry Constituents	
Material	Class	Material	Class
Aldicarb	Carbamate	Bromide	Drinking Water
Carbaryl	Carbamate	E. Coli	Drinking Water
Carbofuran	Carbamate	Color	General Physical
Diuron	Carbamate	Dissolved Organic Carbon	General Physical
Linuron	Carbamate	Hardness (as CaCO3)	General Physical
Methiocarb	Carbamate	Total Dissolved Solids	General Physical
Methomyl	Carbamate	Total Organic Carbon	General Physical
Oxamyl	Carbamate	Total Suspended Solids	General Physical
4,4'-DDE	Organochlorine	Turbidity	General Physical
4,4'-DDT	Organochlorine	Arsenic	Metal
4,4'-TDE/DDD	Organochlorine	Boron	Metal
Dicofol	Organochlorine	Cadmium	Metal
Dieldrin	Organochlorine	Copper	Metal
Endrin	Organochlorine	Lead	Metal
Methoxychlor	Organochlorine	Nickel	Metal
Methamidophos	Organophosphate	Selenium	Metal
Azinphosmethyl	Organophosphate	Zinc	Metal
Chlorpyrifos	Organophosphate	Ammonia (as N)	Nutrient
Diazinon	Organophosphate	Nitrogen, Nitrate (as N)	Nutrient
Dimethoate	Organophosphate	Nitrogen, Nitrite	Nutrient
Disulfoton	Organophosphate	Phosphate as P, Ortho dissolved	Nutrient
Malathion	Organophosphate	Total Kjeldahl Nitrogen	Nutrient
Methidathion	Organophosphate	Total Phosphate as P	Nutrient
Parathion, methyl	Organophosphate		
Phorate	Organophosphate	Field Measurements	
Phosmet	Organophosphate	Material	
Bifenthrin	Pyrethroid	DO	
Cyfluthrin	Pyrethroid	EC	
Cypermethrin	Pyrethroid	Est Depth	
Esfenvalerate/Fenvalerate	Pyrethroid	pH	
Lambda cyhalothrin	Pyrethroid	Flow	
Permethrin	Pyrethroid	Staff Gage	
Atrazine	Triazine	Temp	
Cyanazine	Triazine		
Diuron	Triazine	Toxicity Analyses	
Linuron	Triazine	Material	Class
Molinate	Triazine	Hyalella azteca	Sediment Toxicity
Simazine	Triazine	Pimephales promelas	Fathead Minnow
Thiobencarb	Triazine	Selenastrum capricornutum	Algae
		Ceriodaphnia dubia	Water Flea

SECTION 4: FIELD QUALITY CONTROL SAMPLES

Field quality control samples included the collection of field duplicate samples for aquatic and sediment toxicity analysis, and the collection of both field duplicate and field blank samples for pesticides, drinking water, and general physical constituent analysis.

- **Water Chemistry Analyses.** Six field duplicate and field blank sample sets 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 123 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:

color	total dissolved solids	total suspended solids	turbidity
nitrite	bromide	total organic carbon	dissolved organic carbon
zinc	selenium		

In four cases, the results for both the event results and the field duplicate were near or below the reporting limit and should be considered estimated values. The cause of the remaining RPD violations is not known but assumed to be caused by a general lack of homogeneity in the stream. It is important to note that the duplicate samples are collected as “Field Duplicates”, where the duplicate sample water is collected directly from the stream simultaneously with the event water. Site conditions, such as variations in in-stream water quality, can significantly affect the RPD.

Six field blank sample sets were analyzed during the report period. Of these, two resulted in values greater than 20% of the event sample result, both during the June sampling event (Event 23). The dissolved organic carbon and total organic carbon measurements for the field blank at Del Puerto Creek near Cox Road were 27% and 20% (respectively) of the event result. The cause of these exceedances is unknown. Additionally, the total dissolved solids measurement in the field blank during the July sampling event measured 7,700 mg/L. A re-analysis of this sample measured non-detect.

There were a number of samples that were analyzed or re-analyzed outside of the designated hold-time. It is not expected that these hold-time violations will significantly affect the data usability.

- **Pesticide Analyses.** Field duplicate and field blank samples were collected and analyzed for pesticides. Trifluralin was detected in the May (Event 22, 0.21 µg/L) and June (Event 23, 0.051 µg/L) field blank, with corresponding event sample concentrations of 0.97 µg/L and 0.15 µg/L, respectively. Methyl parathion was detected in the July (Event 24, 0.11 µg/L) field blank, with a corresponding event sample concentration of 0.098 µg/L (RPD = 112%). Both the Event 24 field blank and event sample methyl parathion concentrations were below the detection limit and are considered estimated. The cause of the blank contamination is not known. There were no other pesticides detected in any of the field blank samples for the reporting period. Field duplicate samples were compared to their corresponding event samples, and there were seven violations of the RPD criteria. Five of these RPD criteria violations resulted from measurements that were at or below the detection limit, and are considered estimated values. During the July sampling event (Event 24), dimethoate was detected in the event sample (0.43 µg/L) and not detected in the field duplicate sample. During the September sampling event (Event 26), methomyl was detected at a concentration of 0.17 µg/L in the event sample and 0.22 µg/L in the

field duplicate (RPD = 29%). The cause of these differences are not known, but the impact on the monitoring program is considered negligible. The results of the 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 three species for five of the aquatic toxicity events tested during the reporting period. Field duplicate results were acceptable for all of the tests except for the Event 25 and 26 algae test, where the RPD was calculated to be 40% and 26% respectively. The cause of this exceedance is unknown but expected to be related to the inherent variability of the algae test. In both cases, the sample cell growth was measured to be above the control sample cell growth, indicating no toxicity. During the testing of the Event 25 resample of Salt Slough at Sand Dam, 0% survival of *Ceriodaphnia dubia* was measured in the control sample. A re-test of that sample set yielded acceptable results.
- **Sediment Toxicity Analysis.** Field duplicate samples were collected and analyzed for toxicity to *Hyalella azteca* in sediment. All field duplicate samples satisfied the RPD criteria.

SECTION 5: ANALYTICAL METHODS

Table 3 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 includes the additional Phase II constituents.

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 test results (including results from the initial bioassays, dilution series, and TIE's). The original laboratory reports are included in **Appendix F**. 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 F**, 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 6: DATA INTERPRETATION

The primary objective of the monitoring program is to identify streams and drainages that are adversely affected by agricultural discharges. 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.

The Westside Coalition's monitoring program includes 19 stations on the Westside of the San Joaquin Valley (see **Table 1** and **Figure 1**). These stations were selected to provide a

representative snapshot of all of the various regions of the watershed. A summary of this data is presented in **Appendix A**, and the laboratory data reports are provided in **Appendix F**.

All of the analyzed parameters were reviewed regularly to evaluate the overall health of the streams within the coalition area. However, toxicity results were used as the primary indicator of problem areas. During the May to October, 2006 period, seven toxic results were measured at seven monitoring stations. Three samples were toxic to *Pimephales promelas*, and four were toxic to *Ceriodaphnia dubia*. The details of these results are summarized in **Attachment 2**.

Follow up samples were collected for all seven toxic samples. The follow-up samples for those toxic to *Pimephales promelas* indicated no toxicity. The toxicity laboratory determined that pathogen interference (rather than site water contaminants) is the cause of the reduced survival observed during the initial toxicity tests. The four samples that were toxic to *Ceriodaphnia dubia* required dilution series and TIE evaluations. In all four cases, the TIE suggested that non-polar organic materials were at least partially responsible.

A variety of pesticide analyses were conducted in tandem with the toxicity screening. During the reporting period, 19 different pesticides were detected:

- Bifenthrin (2 detections): Bifenthrin is a pyrethroid insecticide that is registered for use on a variety of field crops such as cotton, beans, melons, and corn.
- Chlorpyrifos (16 detections): Chlorpyrifos is an 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.
- Cyanazine (2 detection): Cyanazine is a triazine pre- and post- emergent herbicide to control annual grasses and broadleaf weeds.
- DDT/DDE/DDD (27 detections): DDT is an organochlorine pesticide that was banned for agricultural use in 1972. However it had significant use in the region prior to that period and is still detected in the watershed a relatively low levels. DDE and DDD have no commercial value but are compounds normally associated with the degradation of DDT.
- Diazinon (6 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.
- Dicofol (10 detections): Dicofol is an organochlorine insecticide that is registered for use on a variety of field crops such as cotton, tomatoes, beans, and melons.
- Dieldrin (3 detections): Dieldrin is an organochlorine insecticide that is used on a variety of field and orchard crops including cotton, corn, and citrus.
- Dimethoate (18 detections): 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 (1 detections): Diuron is a substitute urea herbicide used to control weeds in a variety of field crops including cotton, alfalfa, and wheat. It is also effective in controlling algae.
- EPTC (7 detections): EPTC is a selective thiocarbamate herbicide used to control grassy and broadleaf weeds in a variety of field crops including beans and corn.

- Esfenvalerate/Fenvalerate (1 detections): Esfenvalerate/Fenvalerate is a pyrethroid insecticide used on a variety of field and orchard crops including almonds, peaches, and tomatoes.
- Lambda Cyhalothrin (3 detections): Lambda Cyhalothrin is a pyrethroid insecticide used on a variety of crops including cotton, almonds, apricots, tomatoes, and beans.
- Malathion (1 detections): Malathion is an organophosphate insecticide used on a variety of crops including alfalfa, walnuts, lettuce, grapes, and cotton.
- Methomyl (5 detections): Methomyl is a carbamate insecticide used on a variety of crops including corn, tomatoes, grapes, beans, and cotton.
- Methyl parathion (3 detection): Methyl parathion is an organophosphate pesticide used to control a wide range of insects. It is approved for a variety of non-food crops including alfalfa, cotton, and silage corn.
- Prowl (3 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.
- Trifluralin (20 detections): Trifluralin is a pre-emergent herbicide used to control broadleaf and grassy weeds and is approved for a variety of crops including fruit and nut trees, cotton, beans, and tomatoes.

Sediment samples were collected in accordance with the MRP in September 2006. Sixteen samples were collected, of which six exhibited significant toxicity to *Hyaella azteca*. Table 8 shows the results of the sediment toxicity survival analysis for sediment sampling events since the beginning of the Westside Coalition’s monitoring program.

Table 8: Sediment Toxicity Analysis Comparison

Site	Sep 06 % Survival	Sep 06 Toxicity (Y/N)	Mar 06 % Survival	Mar 06 Toxicity (Y/N)	Oct 05 % Survival	Oct 05 Toxicity (Y/N)	Mar 05 % Survival	Mar 05 Toxicity (Y/N)	Sep 04 % Survival	Sep 04 Toxicity (Y/N)
Hospital Creek	1.25	Y	82.5	Y	0	Y	16.2	Y	85	N
Ingram Creek	0	Y	23.8	Y	0	Y	32.5	Y	0	Y
Westley Wasteway	1.25	Y	0	Y	0	Y	0	Y	95.7	N
Del Puerto Creek (Cox Rd)	55	Y	0	Y	1.3	Y	N/A	N/A	93.75	N
Del Puerto Creek (Hwy 33)	1.25	Y	68.8	Y	0	Y	0	Y	N/A	N/A
Turner Slough	98.75	N	91.3	N	95	N	85	N	93.75	N
SJR at Lander	95	N	N/A	N/A	97.5	N	91.2	N	88.75	N
Salt Slough at Sand Dam	98.75	N	95	N	91.3	N	87.5	N	95	N
Orestimba Creek at River Rd.	96.25	N	97.5	N	93.8	N	51.2	Y	95	N
Orestimba Creek at Hwy 33	6.25	Y	66.3	N	32.5	Y	N/A	N/A	52.5	Y
Los Banos Creek at China Camp Rd.	100	N	93.8	N	91.3	Y	58.8	Y	95	N
Newman Wasteway	98.75	N	90	N	76.3	Y	72.5	Y	90	N
Los Banos Creek at Hwy 140	98.75	N	95	N	97.5	N	56.2	Y	93.75	N
Salt Slough at Lander	97.5	N	100	N	98.8	N	62.5	Y	92.5	N
Mud Slough	100	N	98.8	N	97.5	N	76.2	Y	92.8	N

Test species in all samples was *Hyaella azteca*
N/A indicates no sample taken or criteria not applicable.

It is significant to note that of the six locations that exhibited sediment toxicity, all of them have shown toxicity in at least three previous events since the beginning of the Westside Coalition’s monitoring program. In October of 2006, the Westside Coalition authorized sediment pesticide

analyses of sample from Ingram Creek and Orestimba Creek at Highway 33. These samples were analyzed for organophosphate, organochlorine, and pyrethroid pesticide groups as well as for some other chemical and physical properties. In both the Orestimba and Ingram Creek sample, low levels of DDT, DDE, DDD were detected, along with cyhalothrin. Bifenthrin and permethrin were also detected in the Orestimba Creek sample. No organophosphorous pesticides were detected in either sample. **Table 9** summarizes the analytical results. The Laboratory report is included in Appendix F, with the sediment toxicity results from Event 26.

Table 9: Sediment Pesticide Results.

Material	Ingram Creek	Orestimba Creek
4,4'-DDD (mg/kg)	0.0003J	0.0006J
4,4'-DDE (mg/kg)	0.0026J	0.0050J
4,4'-DDT (mg/kg)	0.0007J	0.0019J
Bifenthrin (mg/kg)	Not Detected	0.003
Cyhalothrin (mg/kg)	0.015	0.006
Permethrin (mg/kg)	Not Detected	0.011

J indicates estimated value below reporting limit.

Exceedences of Recommended Water Quality Values

In addition to aquatic and sediment toxicity screenings, water chemistry analyses were compared to recommended water quality values¹ (RWQV).

- Field, General Physical and Drinking Water Quality Exceedences.** Comparisons were made to four RWQVs. **Attachment 4** tabulates the results for these constituents and the comparison to the RWQVs. The Westside Coalition performed analyses or observed more than 2500 parameters during the reporting period, during which, 122 (5%) results were greater than the RWQVs. E. coli results accounted for 43 of these exceedences, 22 for TDS, 13 for TSS, 15 for electrical conductivity, 5 for Dissolved Oxygen, and 24 for pH. In the case of E. coli, it is not clear that discharge from irrigated agriculture is contributing to E. coli contamination, and the Westside Coalition is participating in a study by U.C. Davis to determine the source of the E. Coli. Samples were collected in September, however the results are not yet available.
- Pesticide exceedences.** The Westside Coalition tested for 1,660 pesticides during the reporting period. These analyses resulted in 120 detections, of which, 55 were greater than established RWQVs. Eight pesticides constituted the 55 exceedences, which are listed in **Table 10** (below).

¹ Water Quality Limits were taken from a Central Valley Regional Water Quality Control Board letter to the Westside Coalition, dated 30 September 2005.

Table 10: Pesticide Exceedances

Pesticide	Number of Exceedances
4,4'-DDE	17
Chlorpyrifos	15
4,4'-DDT	9
Dimethoate	4
Diazinon	3
Lambda cyhalothrin	3
Methyl parathion	3
Esfenvalerate/Fenvalerate	1

SECTION 7: ACTIONS TAKEN TO ADDRESS WATER QUALITY IMPACTS

1. Reporting and Outreach:

Since the inception of monitoring in July of 2004, the Westside Coalition has held numerous outreach meetings across the coalition area, where we have presented information on the coalition activities including monitoring results and recommended BMP implementation. 43 meetings with presentations to over 2,500 people have occurred. These outreach meetings have been documented in the reports to the Irrigated Lands program. **Table 11** shows the meetings that have been held during this reporting period.

These outreach meetings have included coalition and district meetings to inform growers, landowners and other interested parties about the Westside Coalition and to discuss issues that have been identified as a result of the monitoring program. Specific water quality issues encountered within the Westside Coalition monitoring program have also resulted in meetings with the affected parties focusing on solutions. Other types of outreach meetings have included West Stanislaus Resource Conservation District (WSRCD) meetings, county ag commissioner meetings, pest control advisor and grower meetings organized by the Westside Coalition, Coalition for Urban/Rural Environmental Stewardship (CURES), the WSRCD and others. Outreach has also included regular meetings with Regional Board Ag Waiver staff, and preparation and distribution of newsletters.

There are also monthly meetings of the governing body for the Westside Coalition that the continuing issues are discussed.

Pesticide manufacturers are also supporting the Westside Coalition's grower and PCA outreach through sponsorship and participation in some of the landowner meetings. They have also provided technical and BMP information for use in publications and presentations developed by CURES. Information on how to implement these label changes as well as other best management practices were presented at each of the landowner meetings described above.

Recent editions of the *Water Coalition Newsletter*, a publication covering waiver activities and BMP development for irrigated agriculture that is published by CURES through support from the

Almond Board of California, have been distributed to growers by districts within the Westside Coalition. Newsletters distributed by individual water districts have also included articles that update landowners on the conditional waiver program. Regular water district board meetings of participants in the Westside Coalition also include discussion of the Waiver and implementation measures.

Table 11: Outreach Meetings

Date	Group	Location	Description	Estimated Attendance
5/4/2006	San Luis & Delta-Mendota Wtr Auth. Bd Mtng	Los Banos	Regulatory Updates	35
5/10/2006	Stanislaus County Ag Comm/West Stan RCD	Grayson	Meeting regarding BMP development	25
8/22/2006	Various sponsored by Fresno County Farm Bureau, California Cotton Ginners Association, Westside San Joaquin River Watershed Coalition and CURES	Mendota	Meeting regarding Cotton BMP's	30
9/7/2006	Blewett Mutual Water Co	Vernalis	Meeting with Frank Bettencourt, operator of system to review drainage	1
9/20/2006	El Solyo Water District	Vernalis	Met with Board to review drainage issues and BMP's	9
10/11/2006	Gustine Drainage District	Gustine	Met with Board to review drainage issues and BMP's	6
11/27/2006	Salt Slough at Sand Dam Watershed	Dos Palos	Provided information on water quality exceedences and best management practices	20
11/30/2006	Orestimba creek Watershed	Newman	Provided information on water quality exceedences and best management practices	35

2. BMP Implementation:

Several specific projects have already been implemented within the Westside Coalition. These efforts on the ground to improve water quality include:

- Tailwater return systems have been installed in Tranquillity ID, the Grassland Drainage Area, Columbia Canal Company, Central California ID and Stevinson Water District. These projects and proposed future projects should yield immediate benefits to water quality in the affected streams and in the San Joaquin River.
- Construction of a regional tailwater return project to prevent surface runoff from entering the San Joaquin River and to improve water supplies within Patterson ID is complete and the project is operational, resulting in water quality improvements to the San Joaquin River. This return system intercepts water from the Marshall Road Drain and diverts it into a 65± acre foot reservoir, where it is returned to the irrigation system. The reservoir collects approximately 2000 cubic yards of sediment that settles out of the diverted water each year.

- Construction of a second tailwater return project in Patterson ID is currently underway and is expected to be completed by 2008. The project includes a 50± acre foot reservoir will collect tail water and operational spills from five canal laterals that would otherwise discharge into Del Puerto Creek. The project could potentially affects up to 4,500 acres by intercepting tail water and settling out suspended solids.
- A project to identify and design BMP's for reduction of discharge from the Orestimba Creek watershed is completed; project BMP recommendations were developed in binder format and distributed to landowners/operators.
- Landowners are continuing to install drip and micro spray irrigation systems. These systems reduce tailwater generation and subsequent discharge.

The Westside Coalition is also in the process of developing additional best management practices through several projects. These projects include:

- Demonstration of an achievable reduction of chlorpyrifos in drainage water discharging from the tributary watershed of Orestimba Creek into the San Joaquin River from alfalfa, vegetable and other row crop farms. Vegetated ditch BMPs have been constructed and will be tested this summer. PAM calcium applications and constructed wetlands will also be evaluated this summer. Work will include field site assessments, grower publications and BMP outreach.
- Examination and evaluation of four BMP strategies currently being used in the region for the control of sediments and pesticides: drainage retention ponds (reservoirs), constructed wetlands, vegetated ditches, PAM applications, and use of pesticide-degrading enzymes. Vegetated ditches have been constructed and will be tested this summer. Data has been compiled from previous studies. The project includes development of guidelines for BMP selection and grower outreach and education.

Table 12 lists the BMP development projects within the Westside Coalition.

Table 12 : BMP Project Development Summary

Line No.	Funding Source	Title	Sponsor	Description	Status
Current Projects:					
1	DWR Water Use Efficiency Funding	Marshall Road Reservoir	Patterson I. D.	Construction of regional tailwater return project to prevent surface runoff from entering the San Joaquin River and to improve water supplies within Patterson ID.	Project complete and operational, resulting in water quality improvements to the SJR.
2	CALFED Drinking Water Program - Prop 13	Orestimba Creek Watershed - Agricultural Water Quality Pilot Program	CURES	Identify and design BMP's for reduction of discharge from the Orestimba Creek watershed.	Project completed, project BMP recommendations developed in binder format and distributed to landowners/operators.
3	PRISM Grant - Dept of Pesticide Regulation	PIN No. 17 - Western San Joaquin Valley Pesticide BMP Implementation Program	SJVDA - Transferred to SL&D-MWA June 21, 2004	Demonstrate an achievable reduction of chlorpyrifos in drainage water discharging from the tributary watershed of Orestimba Creek into the San Joaquin River from alfalfa, vegetable and other row crop farms	Vegetated ditches BMP have been constructed and will be tested this summer. PAM calcium applications and constructed wetlands to be evaluated this summer. Work will include field site assessments, grower publications and BMP outreach.
4	CALFED Drinking Water Program - Prop 13	PIN No. 471 - Agricultural Discharge Management Program Monitoring and Evaluation - West Stanislaus County	SJVDA - Transferred to SL&D-MWA August 5, 2004	Examine and evaluate four BMP strategies currently being used in the region for the control of sediments and pesticides; drainage retention ponds (reservoirs), constructed wetlands, vegetated ditches and PAM applications.	Vegetated ditches BMP have been constructed and will be tested this summer. Data has been compiled from previous studies. Project includes development of guidelines for BMP selection and grower outreach and education.
5	CALFED Water Use Efficiency Grant	Decision support for implementation and evaluation of agricultural water reuse best management practices to improve district-level irrigation efficiency	Patterson ID	Marshall Road type reservoir on district's north side, return water storage and delivery	
6	SWRCB Ag Water Quality Grant Program - Prop 50 or Federal 319(h)	Real-time salt & nutrient drainage load reduction strategies - PIN 2168	Patterson ID & W. Stan ID	Marshall Road type reservoir on district's north side, return water storage and delivery and comparing it to private reservoir project in W. Stan	
7	SWRCB Ag Water Quality Grant Program - Prop 50 or Federal 319(h)	Adaptive, coordinated real-time management of wetland drainage - PIN 2216	Grassland Water District		

3. Monitoring Results:

In July of 2006, the Westside Coalition adjusted its monitoring program to include the Phase II constituents, as listed in the MRP (See Table 7). This information, along with the results gathered during the previous two years, 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 4. 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. Additionally, this data is being used to develop a management plan which will outline the approach the Westside Coalition will use to improve water quality. A number of preliminary conclusions can be made from the data collected so far:

- **Sediment Toxicity:** Six locations indicated significant toxicity from the September 06 sampling (see Table 8). All six of these sites were located in the northern region of the Westside Coalition and four of them (Hospital Creek, Ingram Creek, Westley

Wasteway, and Del Puerto Creek at Highway 33) have indicated toxicity in at least four of the last five sampling events. Additionally, these four sites are all in the same vicinity. In the southern region, three sites have never measured significant toxicity during the Westside Coalition's monitoring program, and four sites have only measured toxicity once. The Westside Coalition has supplied additional sediment sample to the Regional Board's SWAMP program on two occasions, and performed its own sediment pesticide analysis on samples collected in September of this year. Although no definitive conclusions can be made from these results, the detected presence of pyrethroid and organochlorine pesticides hint that pesticides may be a possible factor. Overall, the five sediment monitoring events provide the following preliminary conclusions: 1) the sediment toxicity problem is generally confined to a localized area in the northern region of the coalition. 2) Initial data indicates a possible pesticide connection within that region, although many of the detected pesticides were measured below effect concentration. 3) Outside of this northern region, the sediment toxicity testing indicates a much less significant issue.

- **Aquatic Toxicity:** During this monitoring period, four samples indicated significant toxicity to *Ceriodaphnia dubia*. In all four cases, follow up toxicity testing, as well as pesticide analysis results indicated pesticide were the likely cause. This has been the case in many of the *Ceriodaphnia dubia* toxicity hits since the beginning of the monitoring program and has been a topic discussed with growers, PCAs, and applicators in all of the regions of the Westside Coalition. The Coalition feels that progress and improvements are being made in the arena, however there is still work to be done.
- **Pesticide Analyses:** During this reporting period, 55 pesticide detections exceeded RWQVs. DDT/DDE accounted for 26 (47%) of these detections, Chlorpyrifos accounted for 15 (27%), Dimethoate – 4 (7%), Diazinon – 3 (5%), Methylparathion – 3 (5%), Lambda cyhalothrin – 3 (5%), and Esfenvalerate/Fenvalerate accounted for 1 (2%). In the case of DDT/DDE, this substance has been banned since 1972 and is likely being detected from legacy use prior to that period. It is doubtful that growers in the Coalition can do very much to impact the presence of these materials within the watershed. Chlorpyrifos has been the subject of many grower meetings and has shown a significant reduction in the number of exceedances since the same period last year (Chlorpyrifos detections exceeded the RWQV 23 times during the same period in 2005, a 35% reduction). The Westside Coalition believes that increased awareness resulting from Coalition-Grower meetings is at least partially responsible for this improvement. The other materials show little difference from the previous year, or have no historical data.
- **General Chemistry and Field Observations:** The monitoring results during this reporting period indicated the same issues as in previous reports. E. Coli continues to be the leading source of exceedances (43 during this period) in the category and the Westside Coalition is participating in a study to attempt to determine the source of this constituent. Other constituent exceedances include EC/TDS (15 and 22, respectively), TSS (13 exceedances), pH (24 exceedances), and DO (5 exceedances). 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). Although the Westside Coalition is aware of the need to

address these issues, limited resources has forced the Coalition to focus more on pesticide and toxicity exceedances.

SECTION 8: COMMUNICATION REPORTS

Exceedance and communication 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**. The communication reports describe the water quality objective violation, the follow-up testing that occurred, and the follow-up test results.

Follow-up included reporting statistically significant toxic events and exceedences of water quality values to the overlying district and to individual coalition participants. The districts would then communicate with the affected growers to notify them there is a problem. Meetings are then 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 8**).

Newsletters and literature have been distributed through meetings and district mailings regarding events within the Westside Coalition and actions that could be taken.

SECTION 9: CONCLUSIONS AND RECOMMENDATIONS

The Westside Coalition's monitoring program has identified constituents of concern. Beginning in July, 2006, Phase II monitoring was initiated. On July 31, 2006 the Westside Coalition submitted a water quality strategy to address items of concern from the monitoring program. Through outreach and development of BMP's items from this strategy are already being implemented. Work will begin this next year on further development of this strategy through a management plan request received from he Regional Board.

Attachment 1
Sampling Event Details

Event 22 May 06	BSK Gen Phy Dink Wb	APPL Pest	PER				Dup?
			End Tox	CD Tox	PP Tox	GC Tox	
Hospital Creek at River Road	HCARR	X	X	X	X	X	
Ingram Creek at River Road	ICARR	X	X	X	X	X	
Westley Wasteway nr Cox Road	WWNCR	X	X	X	X	X	
Del Puerto Creek nr Cox Road	DPCCR	X	X	X	X	X	
Del Puerto Creek at Hwy 33	DPCHW	X	X	X	X	X	
Salado Creek nr Olive Ave	SCOAV	SJR Backwater					X
Ramona Lake nr Fig Avenue	ROLFA	SJR Backwater					
Marshall Road Drain nr River Road	MRRDR	SJR Backwater					
Orestimba Creek at River Road	OCARR	X	X	X	X	X	
Orestimba Creek at Highway 33	OCAHW	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	NWHFR	X	X	X	X	X	
SJR at Sack Dam	SJRSD	X	X	X	X	X	
SJR at Lander Ave	SJRLA	X	X	X	X	X	
Mud SI upstream of San Luis Drain	MSUSL	X	X	X	X	X	
Salt SI at Lander Ave	SSALA	X	X	X	X	X	
Salt SI at Sand Dam	SSASD	X	X	X	X	X	
Los Banos Cr at Hwy 140	LBCHW	X	X	X	X	X	
Los Banos Cr at China Camp Road	LBCCC	No Flow					
Turner Slough nr Edminister Road	TSAER	X	X	X	X	X	

Event 24 July 06 (Begin Phase II)	Call Test Gen Phy Dink Wb	APPL Pest	PER				Dup?
			End Tox	CD Tox	PP Tox	GC Tox	
Hospital Creek at River Road	HCARR	X	X	X	X	X	
Ingram Creek at River Road	ICARR	X	X	X	X	X	
Westley Wasteway nr Cox Road	WWNCR	No Flow					
Del Puerto Creek nr Cox Road	DPCCR	X	X	X	X	X	
Del Puerto Creek at Hwy 33	DPCHW	X	X	X	X	X	
Salado Creek nr Olive Ave	SCOAV	SJR Backwater					X
Ramona Lake nr Fig Avenue	ROLFA	X	X	X	X	X	
Marshall Road Drain nr River Road	MRRDR	X	X	X	X	X	
Orestimba Creek at River Road	OCARR	X	X	X	X	X	
Orestimba Creek at Highway 33	OCAHW	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	NWHFR	X	X	X	X	X	
SJR at Sack Dam	SJRSD	X	X	X	X	X	
SJR at Lander Ave	SJRLA	X	X	X	X	X	
Mud SI upstream of San Luis Drain	MSUSL	X	X	X	X	X	
Salt SI at Lander Ave	SSALA	X	X	X	X	X	
Salt SI at Sand Dam	SSASD	X	X	X	X	X	
Los Banos Cr at Hwy 140	LBCHW	X	X	X	X	X	
Los Banos Cr at China Camp Road	LBCCC	No Flow					
Turner Slough nr Edminister Road	TSAER	X	X	X	X	X	

Event 23 June 06	BSK Gen Phy Dink Wb	APPL Pest	PER				Dup?
			End Tox	CD Tox	PP Tox	GC Tox	
Hospital Creek at River Road	HCARR	X	X	X	X	X	
Ingram Creek at River Road	ICARR	X	X	X	X	X	
Westley Wasteway nr Cox Road	WWNCR	X	X	X	X	X	
Del Puerto Creek nr Cox Road	DPCCR	X	X	X	X	X	
Del Puerto Creek at Hwy 33	DPCHW	X	X	X	X	X	
Salado Creek nr Olive Ave	SCOAV	SJR Backwater					
Ramona Lake nr Fig Avenue	ROLFA	SJR Backwater					
Marshall Road Drain nr River Road	MRRDR	X	X	X	X	X	
Orestimba Creek at River Road	OCARR	X	X	X	X	X	
Orestimba Creek at Highway 33	OCAHW	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	NWHFR	X	X	X	X	X	
SJR at Sack Dam	SJRSD	X	X	X	X	X	
SJR at Lander Ave	SJRLA	X	X	X	X	X	
Mud SI upstream of San Luis Drain	MSUSL	X	X	X	X	X	
Salt SI at Lander Ave	SSALA	X	X	X	X	X	
Salt SI at Sand Dam	SSASD	X	X	X	X	X	
Los Banos Cr at Hwy 140	LBCHW	X	X	X	X	X	
Los Banos Cr at China Camp Road	LBCCC	No Flow					
Turner Slough nr Edminister Road	TSAER	X	X	X	X	X	

Event 25 August 06	Call Test Gen Phy Dink Wb	APPL Pest	PER				Dup?
			End Tox	CD Tox	PP Tox	GC Tox	
Hospital Creek at River Road	HCARR	X	X	X	X	X	
Ingram Creek at River Road	ICARR	X	X	X	X	X	
Westley Wasteway nr Cox Road	WWNCR	X	X	X	X	X	
Del Puerto Creek nr Cox Road	DPCCR	X	X	X	X	X	
Del Puerto Creek at Hwy 33	DPCHW	X	X	X	X	X	
Salado Creek nr Olive Ave	SCOAV	SJR Backwater					
Ramona Lake nr Fig Avenue	ROLFA	X	X	X	X	X	
Marshall Road Drain nr River Road	MRRDR	X	X	X	X	X	
Orestimba Creek at River Road	OCARR	X	X	X	X	X	
Orestimba Creek at Highway 33	OCAHW	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	NWHFR	X	X	X	X	X	
SJR at Sack Dam	SJRSD	X	X	X	X	X	
SJR at Lander Ave	SJRLA	X	X	X	X	X	
Mud SI upstream of San Luis Drain	MSUSL	X	X	X	X	X	
Salt SI at Lander Ave	SSALA	X	X	X	X	X	
Salt SI at Sand Dam	SSASD	X	X	X	X	X	
Los Banos Cr at Hwy 140	LBCHW	X	X	X	X	X	
Los Banos Cr at China Camp Road	LBCCC	No Flow					
Turner Slough nr Edminister Road	TSAER	X	X	X	X	X	

Event 26 September 06	CallTest Gen Phy Drnk Wtr	APPL Fest	PER				Dup?
			End Tex	CD Tex	PP Tex	GC Tex	
Hospital Creek at River Road	X	X	X	X	X	X	
Ingram Creek at River Road	X	X	X	X	X	X	
Westley Wasteway nr Cox Road	X	X	X	X	X	X	
Del Puerto Creek nr Cox Road	X	X	X	X	X	X	
Del Puerto Creek at Hwy 33	No Flow						
Salado Creek nr Olive Ave	SJR Backwater						
Ramona Lake nr Fig Avenue	X	X	X	X	X	X	
Marshall Road Drain nr River Road	X	X	X	X	X	X	
Orestimba Creek at River Road	X	X	X	X	X	X	
Orestimba Creek at Highway 33	X	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	X	X	X	X	X	X	
SJR at Sack Dam	X	X	X	X	X	X	
SJR at Lander Ave	X	X	X	X	X	X	
Mud SI upstream of San Luis Drain	X	X	X	X	X	X	
Salt SI at Lander Ave	X	X	X	X	X	X	
Salt SI at Sand Dam	X	X	X	X	X	X	
Los Banos Cr at Hwy 140	X	X	X	X	X	X	
Los Banos Cr at China Camp Road	No Flow						
Turner Slough nr Edminster Road	X	X	X	X	X	X	

Event 27 October 06	CallTest Gen Phy Drnk Wtr	APPL Pest	PER				Dup?
			End Tex	CD Tex	PP Tex	BC Tex	
Hospital Creek at River Road	X	X	X	X	X	X	
Ingram Creek at River Road	X	X	X	X	X	X	
Westley Wasteway nr Cox Road	X	X	X	X	X	X	
Del Puerto Creek nr Cox Road	X	X	X	X	X	X	
Del Puerto Creek at Hwy 33	X	X	X	X	X	X	
Salado Creek nr Olive Ave	SJR Backwater						
Ramona Lake nr Fig Avenue	X	X	X	X	X	X	
Marshall Road Drain nr River Road	X	X	X	X	X	X	
Orestimba Creek at River Road	X	X	X	X	X	X	
Orestimba Creek at Highway 33	X	X	X	X	X	X	
Newman Wasteway nr Hillis Ferry Rd	X	X	X	X	X	X	
SJR at Sack Dam	X	X	X	X	X	X	
SJR at Lander Ave	X	X	X	X	X	X	
Mud SI upstream of San Luis Drain	X	X	X	X	X	X	
Salt SI at Lander Ave	X	X	X	X	X	X	
Salt SI at Sand Dam	X	X	X	X	X	X	
Los Banos Cr at Hwy 140	X	X	X	X	X	X	
Los Banos Cr at China Camp Road	No Flow						
Turner Slough nr Edminster Road	X	X	X	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	Units	Flow (cfs)	Temp (C)	EC (umho/cm)	pH	DO (mg/L)
Newman Wasteway near Hills Ferry Road	5/9/2006	22	Pimephales promelas	70	100	% survival	21.94	283	7.73	8.37	

Followup:

Follow-up sample was collected on 5/17/06 and tested for Fathead toxicity. No toxicity was measured. Toxicity measured in the initial test was indicative of pathogen interference.

Detected Pesticides

Water Chemistry	Control Results	mg/L
Bromide (Br)	0.065	
Dissolved Organic Carbon (DOC)	4.2	
E. coli (3x5 MTF)	170	MPN/100mLs
Total Organic Carbon (TOC)	4.9	
Total Dissolved Solids (TDS)	190	
Total Suspended (TSS)	32	
Turbidity	31	NTU

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Units	Flow (cfs)	Temp (C)	EC (umho/cm)	pH	DO (mg/L)
Turner Slough at Edminster Road	5/9/2006	22	Pimephales promelas	77	100	% survival	0	20.68	145	8.34	5.15

Followup:

Follow-up sample was collected on 5/17/06 and tested for Fathead toxicity. No toxicity was measured. Toxicity measured in the initial test was indicative of pathogen interference.

Detected Pesticides

Water Chemistry	Control Results	mg/L
Bromide (Br)	0.024	
Dissolved Organic Carbon (DOC)	5.3	
E. coli (3x5 MTF)	11	MPN/100mLs
Total Organic Carbon (TOC)	7.4	
Total Dissolved Solids (TDS)	100	
Total Suspended (TSS)	7.0	
Turbidity	4.0	NTU

Trifluralin	0.10B	ug/L
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J = Estimated value, below PQL.
 Y = % Difference primary and confirmation column is >40%.
 B = Constituent also detected in blank sample.
Tuesday, December 12, 2006

Monitoring Site	Sample Date	Event	Reactive Species	Control Results	Units	Flow (cfs)	Temp (C)	EC (umho/cm)	pH	DO (mg/L)
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Hospital Creek at River Road 6/13/2006 23 Pimephales promelas 55 100 % survival 3 17.54 103 7.89 9.53

Followup:

Follow-up sample was collected on 6/19/06 and tested for Fathead toxicity. No toxicity was measured. Toxicity measured in the initial test was indicative of pathogen interference.

Water Chemistry

Bromide (Br)	0.030	mg/L
Dissolved Organic Carbon (DOC)	2.9	mg/L
E. coli (3x5 MTF)	500	MPN/100mLs
Total Organic Carbon (TOC)	3.5	mg/L
Total Dissolved Solids (TDS)	87	mg/L
Total Suspended (TSS)	440	mg/L
Turbidity	120	NTU

Detected Pesticides

Trifluralin	0.15	ug/L
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J = Estimated value, below PQL.
 Y = % Difference primary and confirmation column is >40%.
 B = Constituent also detected in blank sample.
 Tuesday, December 12, 2006

Monitoring Site	Sample Date	Event	Reactive Species	Control Results	Units	Flow (cfs)	Temp (C)	EC (umho/cm)	pH	DO (mg/L)
Orestimba Creek at Hwy	7/11/2006	24	Ceriodaphnia dubia	0	% survival	11	30.6	510	8.4	5.58

33

Followup:

Dilution series indicated > 16 TU. TIE indicated non-polar organic materials were the main cause of toxicity. Follow-up sample collected on 7/17 and measured 0% survival.

Water Chemistry

Bromide	ND	mg/L
Dissolved Organic Carbon	9.6	mg/L
E. Coli	690	MPN/100mL
Total Organic Carbon	10	mg/L
Color	140	CU
Hardness (as CaCO3)	170	mg/L
Total Dissolved Solids	360	mg/L
Total Suspended Solids	190	mg/L
Turbidity	100	NTU
Arsenic	3.9	ug/L
Boron	0.21	mg/L
Cadmium	0.11	ug/L
Copper	12	ug/L
Lead	8.6	ug/L
Nickel	15	ug/L
Selenium	ND	ug/L
Zinc	34	ug/L
Ammonia (as N)	ND	mg/L
Nitrogen, Nitrate (as N)	5.7	mg/L
Nitrogen, Nitrite	0.024J	mg/L
Phosphate as P, Ortho dissolved	0.12	mg/L
Total Kjeldahl Nitrogen	1.1	mg/L
Total Phosphate as P	0.25	mg/L

Detected Pesticides

4,4'-DDE	0.087	ug/L
4,4'-DDT	0.055	ug/L
Chlorpyrifos	0.72	ug/L
Diazinon	1.2	ug/L
Dieldrin	0.0096J	ug/L
Dimethoate	0.17	ug/L

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

Monitoring Site	Sample Date	Event	Reactive Species	Control Results	Units	Flow (cfs)	Temp (c)	EC (µmho/cm)	pH	DO (mg/L)
Orestimba Creek at River Road	7/11/2006	24	Ceriodaphnia dubia	0	100	70	25.48	439	8	5.32

Followup: Dilution series indicated 5.5 TU. TIE indicated non-polar organic materials were the main cause of toxicity and metabolically-activated substances contributed. Follow-up sample collected on 7/17 and measured 0% survival.

Water Chemistry		Detected Pesticides	
Bromide	ND	4,4'-DDE	0.078 ug/L
Dissolved Organic Carbon	12 mg/L	4,4'-DDT	0.029 ug/L
E. Coli	650 MPN/100mL	Chlorpyrifos	0.51 ug/L
Total Organic Carbon	11 mg/L	Diazinon	0.017J ug/L
Color	320 CU	Dicofol	0.27 ug/L
Hardness (as CaCO3)	160 mg/L	Dimethoate	0.19 ug/L
Total Dissolved Solids	360 mg/L		
Total Suspended Solids	240 mg/L		
Turbidity	150 NTU		
Arsenic	4.5 ug/L		
Boron	0.21 mg/L		
Cadmium	0.1 ug/L		
Copper	17 ug/L		
Lead	8.8 ug/L		
Nickel	42 ug/L		
Selenium	ND ug/L		
Zinc	45 ug/L		
Ammonia (as N)	ND mg/L		
Nitrogen, Nitrate (as N)	2.4 mg/L		
Nitrogen, Nitrite	0.041 mg/L		
Phosphate as P, Ortho dissolved	0.13 mg/L		
Total Kjeldahl Nitrogen	1.4 mg/L		
Total Phosphate as P	0.52 mg/L		

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

Tuesday, December 12, 2006

Monitoring Site	Sample Date	Event	Reactive Species	Results	Control Results	Units	Flow (cfs)	Temp (c)	EC (µmho/cm)	pH	DO (mg/L)
Ramona Lake near Fig Avenue	7/17/2006	24-RS	Ceriodaphnia dubia	5	95	% survival	0	26.58	1182	8.01	5.68

Followup:

Dilution series indicated 3.6 TU. TIE indicated non-polar organic materials were the main cause of toxicity and metabolically-activated substances contributed. Follow-up sample collected on 7/25 and measured 0% survival.

Water Chemistry

Bromide	J0.52	mg/L
Dissolved Organic Carbon	5.9	mg/L
E. Coli	210	MPN/100mL
Total Organic Carbon	7.1	mg/L
Color	85	CU
Hardness (as CaCO3)	290	mg/L
Total Dissolved Solids	800	mg/L
Total Suspended Solids	110	mg/L
Turbidity	64	NTU
Arsenic	3.9	ug/L
Boron	670	ug/L
Cadmium	0.2	ug/L
Copper	7.9	ug/L
Lead	1.8	ug/L
Nickel	13	ug/L
Selenium	2	ug/L
Zinc	21	ug/L
Ammonia (as N)	0.19	mg/L
Nitrogen, Nitrate (as N)	2.9	mg/L
Nitrogen, Nitrite	0.11	mg/L
Phosphate as P, Ortho dissolved	0.031	mg/L
Total Kjeldahl Nitrogen	1.9	mg/L
Total Phosphate as P	0.2	mg/L

Detected Pesticides

Chlorpyrifos	0.29	ug/L
Dimethoate	0.11	ug/L

J = Estimated value, below PQL.
 Y = % Difference primary and confirmation column is >40%.
 B = Constituent also detected in blank sample.
 Tuesday, December 12, 2006

Monitoring Site	Sample Date	Event	Reactive Species	Control Results	Units	Flow (cfs)	Temp (C)	EC (umho/cm)	pH	DO (mg/L)
Salt Slough at Sand Dam	8/8/2006	25	Ceriodaphnia dubia	0	95	92.31	21.49	744	6.98	7.28

Followup:

Dilution series indicated 2.8 TU. TIE indicated non-polar organic materials were the main cause of toxicity and metabolically-activated substances contributed. Follow-up sample collected on 8/15 and measured 10% survival.

Water Chemistry

Bromide	ND	mg/L
Dissolved Organic Carbon	4.8	mg/L
E. Coli	110	MPN/100mL
Total Organic Carbon	4.7	mg/L
Color	75	CU
Hardness (as CaCO3)	160	mg/L
Total Dissolved Solids	380	mg/L
Total Suspended Solids	110	mg/L
Turbidity	63	NTU
Arsenic	6.7	ug/L
Boron	170	ug/L
Cadmium	0.03J	ug/L
Copper	5.9	ug/L
Lead	1.7	ug/L
Nickel	8.1	ug/L
Selenium	1	ug/L
Zinc	15	ug/L
Ammonia (as N)	ND	mg/L
Nitrogen, Nitrate (as N)	1.4	mg/L
Nitrogen, Nitrite	0.075	mg/L
Ortho Phosphate as P	0.29	mg/L
Total Kjeldahl Nitrogen	1.3	mg/L
Total Phosphate as P	0.46	mg/L

Detected Pesticides

Chlorpyrifos	0.23	ug/L
Dicofol	0.045J	ug/L
Methomyl	0.35	ug/L

J = Estimated value, below PQL.
 Y = % Difference primary and confirmation column is >40%.
 B = Constituent also detected in blank sample.
 Tuesday, December 12, 2006

Attachment 3
Field Quality Control Sample Results

Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Sample Date:	5/9/2006	Site: WVNCR			
Bromide (Br)	0.044	ND	mg/L	General Chemistry	0%
Dissolved Organic Carbon (DOC)	6.2	ND	mg/L	General Chemistry	0%
E. coli (3x5 MTF)	170	<2	MPN/100mLs	General Chemistry	0%
Total Dissolved Solids (TDS)	150	10	mg/L	General Chemistry	7%
Total Organic Carbon (TOC)	8.1	ND	mg/L	General Chemistry	0%
Total Suspended (TSS)	75	ND	mg/L	General Chemistry	0%
Turbidity	79	0.17	NTU	General Chemistry	0%
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	
Bolstar	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	Not detected	Not detected	ug/L	Pesticide	
Coumaphos	Not detected	Not detected	ug/L	Pesticide	
Def	Not detected	Not detected	ug/L	Pesticide	
Demeton-S	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dichlorvos	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	Not detected	Not detected	ug/L	Pesticide	
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
EPN	Not detected	Not detected	ug/L	Pesticide	
EPTC	Not detected	Not detected	ug/L	Pesticide	
Ethion	Not detected	Not detected	ug/L	Pesticide	
Ethoprop	Not detected	Not detected	ug/L	Pesticide	
Fenamiphos	Not detected	Not detected	ug/L	Pesticide	
Fensulfothion	Not detected	Not detected	ug/L	Pesticide	
Fenthion	Not detected	Not detected	ug/L	Pesticide	
Malathion	Not detected	Not detected	ug/L	Pesticide	
Merphos	Not detected	Not detected	ug/L	Pesticide	
Mevinphos	Not detected	Not detected	ug/L	Pesticide	
Naled	Not detected	Not detected	ug/L	Pesticide	
Parathion, ethyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Prowl	0.23	Not detected	ug/L	Pesticide	0%
Trichloronate	Not detected	Not detected	ug/L	Pesticide	
Trifluralin	0.97B	0.21B	ug/L	Pesticide	22%
Sample Date:	6/13/2006	Site: DPCCR			
Bromide (Br)	0.53	ND	mg/L	General Chemistry	0%
Dissolved Organic Carbon (DOC)	2.1	0.57	mg/L	General Chemistry	27%
E. coli (3x5 MTF)	500	<2	MPN/100mLs	General Chemistry	0%
Total Dissolved Solids (TDS)	540	ND	mg/L	General Chemistry	0%
Total Organic Carbon (TOC)	2.2	0.43	mg/L	General Chemistry	20%
Total Suspended (TSS)	59	ND	mg/L	General Chemistry	0%
Turbidity	38	0.050	NTU	General Chemistry	0%
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Bolstar	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	Not detected	Not detected	ug/L	Pesticide	
Coumaphos	Not detected	Not detected	ug/L	Pesticide	
Def	Not detected	Not detected	ug/L	Pesticide	
Demeton-S	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dichlorvos	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	0.16	Not detected	ug/L	Pesticide	0%
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
EPN	Not detected	Not detected	ug/L	Pesticide	
EPTC	Not detected	Not detected	ug/L	Pesticide	
Ethion	Not detected	Not detected	ug/L	Pesticide	
Ethoprop	Not detected	Not detected	ug/L	Pesticide	
Fenamiphos	Not detected	Not detected	ug/L	Pesticide	
Fensulfothion	Not detected	Not detected	ug/L	Pesticide	
Fenthion	Not detected	Not detected	ug/L	Pesticide	
Malathion	Not detected	Not detected	ug/L	Pesticide	
Merphos	Not detected	Not detected	ug/L	Pesticide	
Mevinphos	Not detected	Not detected	ug/L	Pesticide	
Naled	Not detected	Not detected	ug/L	Pesticide	
Parathion, ethyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Prowl	Not detected	Not detected	ug/L	Pesticide	
Trichloronate	Not detected	Not detected	ug/L	Pesticide	
Trifluralin	0.15	0.051J	ug/L	Pesticide	34%

Sample Date: 7/11/2006 **Site:** DPCHW

Ammonia (as N)	ND	ND	mg/L	General Chemistry	
Arsenic	2.2	ND	ug/L	General Chemistry	0%
Boron	0.092J	ND	mg/L	General Chemistry	0%
Bromide	0.049J	ND	mg/L	General Chemistry	0%
Cadmium	ND	ND	ug/L	General Chemistry	
Color	70	ND	CU	General Chemistry	0%
Copper	7.7	ND	ug/L	General Chemistry	0%
Dissolved Organic Carbon	5.7	ND	mg/L	General Chemistry	0%
E. Coli	280	ND	MPN/100mL	General Chemistry	0%
Hardness (as CaCO3)	64	ND	mg/L	General Chemistry	0%
Lead	1.3	ND	ug/L	General Chemistry	0%
Nickel	12	ND	ug/L	General Chemistry	0%
Nitrogen, Nitrate (as N)	0.5	ND	mg/L	General Chemistry	0%
Nitrogen, Nitrite	0.011J	ND	mg/L	General Chemistry	0%
Phosphate as P,Ortho dissolved	0.17	ND	mg/L	General Chemistry	0%
Selenium	3	ND	ug/L	General Chemistry	0%
Total Dissolved Solids	140	7700	mg/L	General Chemistry	5500%
Total Kjeldahl Nitrogen	0.49	ND	mg/L	General Chemistry	0%

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Total Organic Carbon	6.1	ND	mg/L	General Chemistry	0%
Total Phosphate as P	0.19	0.020J	mg/L	General Chemistry	11%
Total Suspended Solids	47	ND	mg/L	General Chemistry	0%
Turbidity	38	ND	NTU	General Chemistry	0%
Zinc	12	0.58J	ug/L	General Chemistry	5%
4,4'-DDE	0.011	Not detected	ug/L	Pesticide	0%
4,4'-DDT	Not detected	Not detected	ug/L	Pesticide	
4,4'-TDE/DDD	Not detected	Not detected	ug/L	Pesticide	
Aldicarb	Not detected	Not detected	ug/L	Pesticide	
Atrazine	Not detected	Not detected	ug/L	Pesticide	
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	
Bifenthrin	Not detected	Not detected	ug/L	Pesticide	
Carbaryl	Not detected	Not detected	ug/L	Pesticide	
Carbofuran	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	0.014J	Not detected	ug/L	Pesticide	0%
Cyanazine	Not detected	Not detected	ug/L	Pesticide	
Cyfluthrin	Not detected	Not detected	ug/L	Pesticide	
Cypermethrin	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dicofol	Not detected	Not detected	ug/L	Pesticide	
Dieldrin	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	0.43	Not detected	ug/L	Pesticide	0%
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
Diuron	Not detected	Not detected	ug/L	Pesticide	
Endrin	Not detected	Not detected	ug/L	Pesticide	
Esfenvalerate/Fenvalerate	Not detected	Not detected	ug/L	Pesticide	
Lambda cyhalothrin	Not detected	Not detected	ug/L	Pesticide	
Linuron	Not detected	Not detected	ug/L	Pesticide	
Malathion	Not detected	Not detected	ug/L	Pesticide	
Methamidophos	Not detected	Not detected	ug/L	Pesticide	
Methidathion	Not detected	Not detected	ug/L	Pesticide	
Methiocarb	Not detected	Not detected	ug/L	Pesticide	
Methomyl	Not detected	Not detected	ug/L	Pesticide	
Methoxychlor	Not detected	Not detected	ug/L	Pesticide	
Molinate	Not detected	Not detected	ug/L	Pesticide	
Oxamyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	0.098J	0.11	ug/L	Pesticide	112%
Permethrin	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Phosmet	Not detected	Not detected	ug/L	Pesticide	
Simazine	Not detected	Not detected	ug/L	Pesticide	
Thiobencarb	Not detected	Not detected	ug/L	Pesticide	
Sample Date:	8/8/2006	Site:	MRDRR		
Ammonia (as N)	0.11	ND	mg/L	General Chemistry	0%
Arsenic	4.8	ND	ug/L	General Chemistry	0%

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Boron	350	1	ug/L	General Chemistry	0%
Bromide	ND	ND	mg/L	General Chemistry	
Cadmium	0.1	ND	ug/L	General Chemistry	0%
Color	200	ND	CU	General Chemistry	0%
Copper	12	1.1	ug/L	General Chemistry	9%
Dissolved Organic Carbon	5.6	ND	mg/L	General Chemistry	0%
E. Coli	74	ND	MPN/100mL	General Chemistry	0%
Hardness (as CaCO3)	270	ND	mg/L	General Chemistry	0%
Lead	4.5	ND	ug/L	General Chemistry	0%
Nickel	13	ND	ug/L	General Chemistry	0%
Nitrogen, Nitrate (as N)	2.9	0.021J	mg/L	General Chemistry	1%
Nitrogen, Nitrite	0.099	ND	mg/L	General Chemistry	0%
Ortho Phosphate as P	0.15	ND	mg/L	General Chemistry	0%
Selenium	ND	ND	ug/L	General Chemistry	
Total Dissolved Solids	440	ND	mg/L	General Chemistry	0%
Total Kjeldahl Nitrogen	1.4	ND	mg/L	General Chemistry	0%
Total Organic Carbon	5.2	ND	mg/L	General Chemistry	0%
Total Phosphate as P	0.41	0.02	mg/L	General Chemistry	5%
Total Suspended Solids	180	ND	mg/L	General Chemistry	0%
Turbidity	120	0.12	NTU	General Chemistry	0%
Zinc	36	2	ug/L	General Chemistry	6%
4,4'-DDE	Not detected	Not detected	ug/L	Pesticide	
4,4'-DDT	Not detected	Not detected	ug/L	Pesticide	
4,4'-TDE/DDD	Not detected	Not detected	ug/L	Pesticide	
Aldicarb	Not detected	Not detected	ug/L	Pesticide	
Atrazine	Not detected	Not detected	ug/L	Pesticide	
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	
Bifenthrin	Not detected	Not detected	ug/L	Pesticide	
Carbaryl	Not detected	Not detected	ug/L	Pesticide	
Carbofuran	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	Not detected	Not detected	ug/L	Pesticide	
Cyanazine	Not detected	Not detected	ug/L	Pesticide	
Cyfluthrin	Not detected	Not detected	ug/L	Pesticide	
Cypermethrin	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dicofol	Not detected	Not detected	ug/L	Pesticide	
Dieldrin	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	0.74E	Not detected	ug/L	Pesticide	0%
Dimethoate	0.67	Not detected	ug/L	Pesticide	0%
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
Diuron	Not detected	Not detected	ug/L	Pesticide	
Endrin	Not detected	Not detected	ug/L	Pesticide	
Esfenvalerate/Fenvalerate	Not detected	Not detected	ug/L	Pesticide	
Lambda cyhalothrin	0.0085J	Not detected	ug/L	Pesticide	0%
Linuron	Not detected	Not detected	ug/L	Pesticide	

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Malathion	Not detected	Not detected	ug/L	Pesticide	
Methamidophos	Not detected	Not detected	ug/L	Pesticide	
Methidathion	Not detected	Not detected	ug/L	Pesticide	
Methiocarb	Not detected	Not detected	ug/L	Pesticide	
Methomyl	Not detected	Not detected	ug/L	Pesticide	
Methoxychlor	Not detected	Not detected	ug/L	Pesticide	
Molinate	Not detected	Not detected	ug/L	Pesticide	
Oxamyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	Not detected	Not detected	ug/L	Pesticide	
Permethrin	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Phosmet	Not detected	Not detected	ug/L	Pesticide	
Simazine	Not detected	Not detected	ug/L	Pesticide	
Thiobencarb	Not detected	Not detected	ug/L	Pesticide	

Sample Date: 9/12/2006 **Site:** SSALA

Ammonia (as N)	ND	ND	mg/L	General Chemistry	
Arsenic	6	ND	ug/L	General Chemistry	0%
Boron	460	4	ug/L	General Chemistry	1%
Bromide	0.57J	ND	mg/L	General Chemistry	0%
Cadmium	0.04J	ND	ug/L	General Chemistry	0%
Color	26	ND	CU	General Chemistry	0%
Copper	5.9	ND	ug/L	General Chemistry	0%
Dissolved Organic Carbon	5.9	0.31J	mg/L	General Chemistry	5%
Dissolved Organic Carbon	6.3	0.31J	mg/L	General Chemistry	5%
E. Coli	110	ND	MPN/100mL	General Chemistry	0%
Hardness (as CaCO3)	200	ND	mg/L	General Chemistry	0%
Lead	1.4	ND	ug/L	General Chemistry	0%
Nickel	9.3	ND	ug/L	General Chemistry	0%
Nitrogen, Nitrate-Nitrite	0.41	ND	mg/L	General Chemistry	0%
Nitrogen, Nitrite	0.0063J	ND	mg/L	General Chemistry	0%
Ortho Phosphate as P	0.14	ND	mg/L	General Chemistry	0%
Selenium	1	ND	ug/L	General Chemistry	0%
Total Dissolved Solids	640	ND	mg/L	General Chemistry	0%
Total Kjeldahl Nitrogen	0.8	ND	mg/L	General Chemistry	0%
Total Organic Carbon	5.7	0.35J	mg/L	General Chemistry	6%
Total Phosphate as P	0.37	0.013	mg/L	General Chemistry	4%
Total Suspended Solids	95	ND	mg/L	General Chemistry	0%
Turbidity	42	0.14	NTU	General Chemistry	0%
Zinc	13	1	ug/L	General Chemistry	8%
4,4'-DDE	Not detected	Not detected	ug/L	Pesticide	
4,4'-DDT	Not detected	Not detected	ug/L	Pesticide	
4,4'-TDE/DDD	Not detected	Not detected	ug/L	Pesticide	
Aldicarb	Not detected	Not detected	ug/L	Pesticide	
Atrazine	Not detected	Not detected	ug/L	Pesticide	
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Bifenthrin	Not detected	Not detected	ug/L	Pesticide	
Carbaryl	Not detected	Not detected	ug/L	Pesticide	
Carbofuran	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	0.047	Not detected	ug/L	Pesticide	0%
Cyanazine	Not detected	Not detected	ug/L	Pesticide	
Cyfluthrin	Not detected	Not detected	ug/L	Pesticide	
Cypermethrin	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dicofol	Not detected	Not detected	ug/L	Pesticide	
Dieldrin	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	Not detected	Not detected	ug/L	Pesticide	
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
Diuron	Not detected	Not detected	ug/L	Pesticide	
Endrin	Not detected	Not detected	ug/L	Pesticide	
Esfenvalerate/Fenvalerate	Not detected	Not detected	ug/L	Pesticide	
Lambda cyhalothrin	Not detected	Not detected	ug/L	Pesticide	
Linuron	Not detected	Not detected	ug/L	Pesticide	
Malathion	Not detected	Not detected	ug/L	Pesticide	
Methamidophos	Not detected	Not detected	ug/L	Pesticide	
Methidathion	Not detected	Not detected	ug/L	Pesticide	
Methiocarb	Not detected	Not detected	ug/L	Pesticide	
Methomyl	0.17	Not detected	ug/L	Pesticide	0%
Methoxychlor	Not detected	Not detected	ug/L	Pesticide	
Molinate	Not detected	Not detected	ug/L	Pesticide	
Oxamyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	Not detected	Not detected	ug/L	Pesticide	
Permethrin	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Phosmet	Not detected	Not detected	ug/L	Pesticide	
Simazine	Not detected	Not detected	ug/L	Pesticide	
Thiobencarb	Not detected	Not detected	ug/L	Pesticide	

Sample Date: 10/10/2006 **Site:** MSUSL

Ammonia (as N)	ND	ND	mg/L	General Chemistry	
Arsenic	4.8	0.3J	ug/L	General Chemistry	6%
Boron	660	2	ug/L	General Chemistry	0%
Bromide	0.41J	ND	mg/L	General Chemistry	0%
Cadmium	0.03J	ND	ug/L	General Chemistry	0%
Color	90	ND	CU	General Chemistry	0%
Copper	3.2	ND	ug/L	General Chemistry	0%
Dissolved Organic Carbon	5.7	0.40J	mg/L	General Chemistry	7%
Dissolved Organic Carbon	12	0.40J	mg/L	General Chemistry	3%
E. Coli	170	ND	MPN/100mL	General Chemistry	0%
Hardness (as CaCO3)	200	ND	mg/L	General Chemistry	0%
Lead	0.8	ND	ug/L	General Chemistry	0%
Nickel	7.6	ND	ug/L	General Chemistry	0%

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Nitrogen, Nitrate (as N)	0.1	ND	mg/L	General Chemistry	0%
Nitrogen, Nitrite	0.0055J	ND	mg/L	General Chemistry	0%
Ortho Phosphate as P	0.36	ND	mg/L	General Chemistry	0%
Selenium	2	ND	ug/L	General Chemistry	0%
Total Dissolved Solids	490	ND	mg/L	General Chemistry	0%
Total Kjeldahl Nitrogen	1.5	ND	mg/L	General Chemistry	0%
Total Organic Carbon	12	0.38J	mg/L	General Chemistry	3%
Total Phosphate as P	0.58	0.011	mg/L	General Chemistry	2%
Total Suspended Solids	50	ND	mg/L	General Chemistry	0%
Turbidity	21	0.06	NTU	General Chemistry	0%
Zinc	6	0.8J	ug/L	General Chemistry	13%
4,4'-DDE	Not detected	Not detected	ug/L	Pesticide	
4,4'-DDT	Not detected	Not detected	ug/L	Pesticide	
4,4'-TDE/DDD	Not detected	Not detected	ug/L	Pesticide	
a-BHC	Not detected	Not detected	ug/L	Pesticide	
Aldicarb	Not detected	Not detected	ug/L	Pesticide	
Aldrin	Not detected	Not detected	ug/L	Pesticide	
Atrazine	Not detected	Not detected	ug/L	Pesticide	
Azinphosmethyl	Not detected	Not detected	ug/L	Pesticide	
b-BHC	Not detected	Not detected	ug/L	Pesticide	
Bifenthrin	Not detected	Not detected	ug/L	Pesticide	
Carbaryl	Not detected	Not detected	ug/L	Pesticide	
Carbofuran	Not detected	Not detected	ug/L	Pesticide	
Chlorpyrifos	Not detected	Not detected	ug/L	Pesticide	
Cyanazine	Not detected	Not detected	ug/L	Pesticide	
Cyfluthrin	Not detected	Not detected	ug/L	Pesticide	
Cypermethrin	Not detected	Not detected	ug/L	Pesticide	
d-BHC	Not detected	Not detected	ug/L	Pesticide	
Diazinon	Not detected	Not detected	ug/L	Pesticide	
Dicofol	Not detected	Not detected	ug/L	Pesticide	
Dieldrin	Not detected	Not detected	ug/L	Pesticide	
Dimethoate	Not detected	Not detected	ug/L	Pesticide	
Disulfoton	Not detected	Not detected	ug/L	Pesticide	
Diuron	Not detected	Not detected	ug/L	Pesticide	
Endrin	Not detected	Not detected	ug/L	Pesticide	
Esfenvalerate/Fenvalerate	Not detected	Not detected	ug/L	Pesticide	
g-BHC (Lindane)	Not detected	Not detected	ug/L	Pesticide	
Heptachlor	Not detected	Not detected	ug/L	Pesticide	
Heptachlor epoxide	Not detected	Not detected	ug/L	Pesticide	
Lambda cyhalothrin	Not detected	Not detected	ug/L	Pesticide	
Linuron	Not detected	Not detected	ug/L	Pesticide	
Malathion	Not detected	Not detected	ug/L	Pesticide	
Methamidophos	Not detected	Not detected	ug/L	Pesticide	
Methidathion	Not detected	Not detected	ug/L	Pesticide	
Methiocarb	Not detected	Not detected	ug/L	Pesticide	

Event = Event Sample Result

FB = Field Blank Sample Result

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Blank

Analyte/Species	Event	FB	Units	Type	% Difference
Methomyl	Not detected	Not detected	ug/L	Pesticide	
Methoxychlor	Not detected	Not detected	ug/L	Pesticide	
Molinate	Not detected	Not detected	ug/L	Pesticide	
Oxamyl	Not detected	Not detected	ug/L	Pesticide	
Parathion, methyl	Not detected	Not detected	ug/L	Pesticide	
Permethrin	Not detected	Not detected	ug/L	Pesticide	
Phorate	Not detected	Not detected	ug/L	Pesticide	
Phosmet	Not detected	Not detected	ug/L	Pesticide	
Simazine	Not detected	Not detected	ug/L	Pesticide	
Thiobencarb	Not detected	Not detected	ug/L	Pesticide	
Toxaphene	Not detected	Not detected	ug/L	Pesticide	

Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Sample Date: 5/9/2006		Site: Westley Wasteway near Cox Road			
Ceriodaphnia dubia	Aquatic Toxicity	100	95	% survival	5%
Pimephales promelas	Aquatic Toxicity	95	100	% survival	5%
Selenastrum capricornutum	Aquatic Toxicity	2704000	2165000	cells/mL	20%
pH	Field Data	7.9	7.9	Std.Unit	0%
Dissolved Organic Carbon (DOC)	General Chemistry	6.2	5.8	mg/L	6%
Total Organic Carbon (TOC)	General Chemistry	8.1	7.8	mg/L	4%
Turbidity	General Chemistry	79	96	NTU	22%
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
Bolstar	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	Not detected	Not detected	ug/L	NA
Coumaphos	Pesticide	Not detected	Not detected	ug/L	NA
Def	Pesticide	Not detected	Not detected	ug/L	NA
Demeton-S	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dichlorvos	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	Not detected	Not detected	ug/L	NA
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
EPN	Pesticide	Not detected	Not detected	ug/L	NA
EPTC	Pesticide	Not detected	Not detected	ug/L	NA
Ethion	Pesticide	Not detected	Not detected	ug/L	NA
Ethoprop	Pesticide	Not detected	Not detected	ug/L	NA
Fenamiphos	Pesticide	Not detected	Not detected	ug/L	NA
Fensulfothion	Pesticide	Not detected	Not detected	ug/L	NA
Fenthion	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Merphos	Pesticide	Not detected	Not detected	ug/L	NA
Mevinphos	Pesticide	Not detected	Not detected	ug/L	NA
Naled	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, ethyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Prowl	Pesticide	0.23	0.22	ug/L	4%
Trichloronate	Pesticide	Not detected	Not detected	ug/L	NA
Trifluralin	Pesticide	0.97B	0.82B	ug/L	15%

Sample Date: 6/13/2006 Site: Del Puerto Creek near Cox Road

Ceriodaphnia dubia	Aquatic Toxicity	100	100	% survival	0%
Pimephales promelas	Aquatic Toxicity	98	98	% survival	0%
Selenastrum capricornutum	Aquatic Toxicity	1840000	1970000	cells/mL	7%
pH	Field Data	8.2	8.2	Std.Unit	0%
Dissolved Organic Carbon (DOC)	General Chemistry	2.1	2.1	mg/L	0%
Total Organic Carbon (TOC)	General Chemistry	2.2	2.2	mg/L	0%

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Turbidity	General Chemistry	38	35	NTU	8%
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
Bolstar	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	Not detected	Not detected	ug/L	NA
Coumaphos	Pesticide	Not detected	Not detected	ug/L	NA
Def	Pesticide	Not detected	Not detected	ug/L	NA
Demeton-S	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dichlorvos	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	0.16	0.18	ug/L	13%
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
EPN	Pesticide	Not detected	Not detected	ug/L	NA
EPTC	Pesticide	Not detected	Not detected	ug/L	NA
Ethion	Pesticide	Not detected	Not detected	ug/L	NA
Ethoprop	Pesticide	Not detected	Not detected	ug/L	NA
Fenamiphos	Pesticide	Not detected	Not detected	ug/L	NA
Fensulfothion	Pesticide	Not detected	Not detected	ug/L	NA
Fenthion	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Merphos	Pesticide	Not detected	Not detected	ug/L	NA
Mevinphos	Pesticide	Not detected	Not detected	ug/L	NA
Naled	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, ethyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Prowl	Pesticide	Not detected	Not detected	ug/L	NA
Trichloronate	Pesticide	Not detected	Not detected	ug/L	NA
Trifluralin	Pesticide	0.15	0.13	ug/L	13%

Sample Date: 7/11/2006

Site: Del Puerto Creek at Hwy 33

Ceriodaphnia dubia	Aquatic Toxicity	100	100	% survival	0%
Pimephales promelas	Aquatic Toxicity	98	95	% survival	3%
Selenastrum capricornutum	Aquatic Toxicity	1720000	1820000	cells/ml	6%
Ammonia (as N)	General Chemistry	ND	ND	mg/L	NA
Arsenic	General Chemistry	2.2	2.4	ug/L	9%
Boron	General Chemistry	0.092J	0.090J	mg/L	2%
Bromide	General Chemistry	0.049J	0.040J	mg/L	18%
Cadmium	General Chemistry	ND	ND	ug/L	NA
Color	General Chemistry	70	70	CU	0%
Copper	General Chemistry	7.7	7.6	ug/L	1%
Dissolved Organic Carbon	General Chemistry	5.7	6.1	mg/L	7%
E. Coli	General Chemistry	280	290	MPN/100	4%
Hardness (as CaCO3)	General Chemistry	64	58	mg/L	9%
Lead	General Chemistry	1.3	1.6	ug/L	23%

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Nickel	General Chemistry	12	12	ug/L	0%
Nitrogen, Nitrate (as N)	General Chemistry	0.5	6.3	mg/L	1,160% *
Nitrogen, Nitrite	General Chemistry	0.011J	0.0064J	mg/L	42% *
Phosphate as P,Ortho dissolved	General Chemistry	0.17	0.21	mg/L	24%
Selenium	General Chemistry	3	2J	ug/L	33% *
Total Dissolved Solids	General Chemistry	140	190	mg/L	36% *
Total Kjeldahl Nitrogen	General Chemistry	0.49	0.53	mg/L	8%
Total Organic Carbon	General Chemistry	6.1	6.3	mg/L	3%
Total Phosphate as P	General Chemistry	0.19	0.17	mg/L	11%
Total Suspended Solids	General Chemistry	47	180	mg/L	283% *
Turbidity	General Chemistry	38	59	NTU	55% *
Zinc	General Chemistry	12	16	ug/L	33% *
4,4'-DDE	Pesticide	0.011	0.0067J	ug/L	39% *
4,4'-DDT	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-TDE/DDD	Pesticide	Not detected	Not detected	ug/L	NA
Aldicarb	Pesticide	Not detected	Not detected	ug/L	NA
Atrazine	Pesticide	Not detected	Not detected	ug/L	NA
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
Bifenthrin	Pesticide	Not detected	Not detected	ug/L	NA
Carbaryl	Pesticide	Not detected	Not detected	ug/L	NA
Carbofuran	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	0.014J	Not detected	ug/L	100% *
Cyanazine	Pesticide	Not detected	0.10J	ug/L	NA
Cyfluthrin	Pesticide	Not detected	Not detected	ug/L	NA
Cypermethrin	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dicofol	Pesticide	Not detected	Not detected	ug/L	NA
Dieldrin	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	0.43	Not detected	ug/L	100% *
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
Diuron	Pesticide	Not detected	Not detected	ug/L	NA
Endrin	Pesticide	Not detected	Not detected	ug/L	NA
Esfenvalerate/Fenvalerate	Pesticide	Not detected	Not detected	ug/L	NA
Lambda cyhalothrin	Pesticide	Not detected	Not detected	ug/L	NA
Linuron	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Methamidophos	Pesticide	Not detected	Not detected	ug/L	NA
Methidathion	Pesticide	Not detected	Not detected	ug/L	NA
Methiocarb	Pesticide	Not detected	Not detected	ug/L	NA
Methomyl	Pesticide	Not detected	Not detected	ug/L	NA
Methoxychlor	Pesticide	Not detected	Not detected	ug/L	NA
Molinate	Pesticide	Not detected	Not detected	ug/L	NA
Oxamyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	0.098J	Not detected	ug/L	100% *

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Permethrin	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Phosmet	Pesticide	Not detected	Not detected	ug/L	NA
Simazine	Pesticide	Not detected	Not detected	ug/L	NA
Thiobencarb	Pesticide	Not detected	Not detected	ug/L	NA

Sample Date: 8/8/2006

Site: Marshall Road Drain near River Road

Ceriodaphnia dubia	Aquatic Toxicity	95	100	% survival	5%
Pimephales promelas	Aquatic Toxicity	100	97.5	% survival	3%
Selenastrum capricornutum	Aquatic Toxicity	1444750	956250	cells/ml	34% *
Ammonia (as N)	General Chemistry	0.11	ND	mg/L	100% *
Arsenic	General Chemistry	4.8	4.8	ug/L	0%
Boron	General Chemistry	350	340	ug/L	3%
Bromide	General Chemistry	ND	ND	mg/L	NA
Cadmium	General Chemistry	0.1	0.1	ug/L	0%
Color	General Chemistry	200	250	CU	25% *
Copper	General Chemistry	12	12	ug/L	0%
Dissolved Organic Carbon	General Chemistry	5.6	20	mg/L	257% *
E. Coli	General Chemistry	74	86	MPN/100	16%
Hardness (as CaCO3)	General Chemistry	270	210	mg/L	22%
Lead	General Chemistry	4.5	4.6	ug/L	2%
Nickel	General Chemistry	13	13	ug/L	0%
Nitrogen, Nitrate (as N)	General Chemistry	2.9	11	mg/L	279% *
Nitrogen, Nitrite	General Chemistry	0.099	0.094	mg/L	5%
Ortho Phosphate as P	General Chemistry	0.15	0.16	mg/L	7%
Selenium	General Chemistry	ND	1	ug/L	NA
Total Dissolved Solids	General Chemistry	440	510	mg/L	16%
Total Kjeldahl Nitrogen	General Chemistry	1.4	1.4	mg/L	0%
Total Organic Carbon	General Chemistry	5.2	5.6	mg/L	8%
Total Phosphate as P	General Chemistry	0.41	0.42	mg/L	2%
Total Suspended Solids	General Chemistry	180	200	mg/L	11%
Turbidity	General Chemistry	120	120	NTU	0%
Zinc	General Chemistry	36	34	ug/L	6%
4,4'-DDE	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-DDT	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-TDE/DDD	Pesticide	Not detected	Not detected	ug/L	NA
Aldicarb	Pesticide	Not detected	Not detected	ug/L	NA
Atrazine	Pesticide	Not detected	Not detected	ug/L	NA
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
Bifenthrin	Pesticide	Not detected	Not detected	ug/L	NA
Carbaryl	Pesticide	Not detected	Not detected	ug/L	NA
Carbofuran	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	Not detected	0.014J	ug/L	NA
Cyanazine	Pesticide	Not detected	Not detected	ug/L	NA

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Cyfluthrin	Pesticide	Not detected	Not detected	ug/L	NA
Cypermethrin	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dicofol	Pesticide	Not detected	0.019J	ug/L	NA
Dieldrin	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	0.67	0.66	ug/L	1%
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
Diuron	Pesticide	Not detected	Not detected	ug/L	NA
Endrin	Pesticide	Not detected	Not detected	ug/L	NA
Esfenvalerate/Fenvalerate	Pesticide	Not detected	Not detected	ug/L	NA
Lambda cyhalothrin	Pesticide	0.0085J	0.0087J	ug/L	2%
Linuron	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Methamidophos	Pesticide	Not detected	Not detected	ug/L	NA
Methidathion	Pesticide	Not detected	Not detected	ug/L	NA
Methiocarb	Pesticide	Not detected	Not detected	ug/L	NA
Methomyl	Pesticide	Not detected	Not detected	ug/L	NA
Methoxychlor	Pesticide	Not detected	Not detected	ug/L	NA
Molinate	Pesticide	Not detected	Not detected	ug/L	NA
Oxamyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	Not detected	Not detected	ug/L	NA
Permethrin	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Phosmet	Pesticide	Not detected	Not detected	ug/L	NA
Simazine	Pesticide	Not detected	Not detected	ug/L	NA
Thiobencarb	Pesticide	Not detected	Not detected	ug/L	NA

Sample Date: 9/11/2006

Site: Salt Slough at Lander Ave

Hyaella azteca	Sediment Toxicity	97.5	96.25	% survival	1%
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Sample Date: 9/12/2006

Site: Salt Slough at Lander Ave

Ceriodaphnia dubia	Aquatic Toxicity	100	95	% survival	5%
Pimephales promelas	Aquatic Toxicity	100	100	% survival	0%
Selenastrum capricornutum	Aquatic Toxicity	1873075	1758825	cells/ml	6%
Ammonia (as N)	General Chemistry	ND	ND	mg/L	NA
Arsenic	General Chemistry	6	5.3	ug/L	12%
Boron	General Chemistry	460	450	ug/L	2%
Bromide	General Chemistry	0.57J	0.34J	mg/L	40% *
Cadmium	General Chemistry	0.04J	0.04J	ug/L	0%
Color	General Chemistry	26	65	CU	150% *
Copper	General Chemistry	5.9	5.5	ug/L	7%
Dissolved Organic Carbon	General Chemistry	6.3	5.8	mg/L	8%
Dissolved Organic Carbon	General Chemistry	5.9	5.8	mg/L	2%
E. Coli	General Chemistry	110	88	MPN/100	20%

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Hardness (as CaCO3)	General Chemistry	200	200	mg/L	0%
Lead	General Chemistry	1.4	1.3	ug/L	7%
Nickel	General Chemistry	9.3	8.8	ug/L	5%
Nitrogen, Nitrate-Nitrite	General Chemistry	0.41	0.4	mg/L	2%
Nitrogen, Nitrite	General Chemistry	0.0063J	0.0059J	mg/L	6%
Ortho Phosphate as P	General Chemistry	0.14	0.14	mg/L	0%
Selenium	General Chemistry	1	1J	ug/L	0%
Total Dissolved Solids	General Chemistry	640	580	mg/L	9%
Total Kjeldahl Nitrogen	General Chemistry	0.8	0.82	mg/L	2%
Total Organic Carbon	General Chemistry	5.7	6.1	mg/L	7%
Total Phosphate as P	General Chemistry	0.37	0.36	mg/L	3%
Total Suspended Solids	General Chemistry	95	100	mg/L	5%
Turbidity	General Chemistry	42	46	NTU	10%
Zinc	General Chemistry	13	12	ug/L	8%
4,4'-DDE	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-DDT	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-TDE/DDD	Pesticide	Not detected	Not detected	ug/L	NA
Aldicarb	Pesticide	Not detected	Not detected	ug/L	NA
Atrazine	Pesticide	Not detected	Not detected	ug/L	NA
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
Bifenthrin	Pesticide	Not detected	Not detected	ug/L	NA
Carbaryl	Pesticide	Not detected	Not detected	ug/L	NA
Carbofuran	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	0.047	0.04	ug/L	15%
Cyanazine	Pesticide	Not detected	Not detected	ug/L	NA
Cyfluthrin	Pesticide	Not detected	Not detected	ug/L	NA
Cypermethrin	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dicofol	Pesticide	Not detected	Not detected	ug/L	NA
Dieldrin	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	Not detected	Not detected	ug/L	NA
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
Diuron	Pesticide	Not detected	Not detected	ug/L	NA
Endrin	Pesticide	Not detected	Not detected	ug/L	NA
Esfenvalerate/Fenvalerate	Pesticide	Not detected	Not detected	ug/L	NA
Lambda cyhalothrin	Pesticide	Not detected	Not detected	ug/L	NA
Linuron	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Methamidophos	Pesticide	Not detected	Not detected	ug/L	NA
Methidathion	Pesticide	Not detected	Not detected	ug/L	NA
Methiocarb	Pesticide	Not detected	Not detected	ug/L	NA
Methomyl	Pesticide	0.17	0.22	ug/L	29% *
Methoxychlor	Pesticide	Not detected	Not detected	ug/L	NA
Molinate	Pesticide	Not detected	Not detected	ug/L	NA

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Oxamyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	Not detected	Not detected	ug/L	NA
Permethrin	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Phosmet	Pesticide	Not detected	Not detected	ug/L	NA
Simazine	Pesticide	Not detected	Not detected	ug/L	NA
Thiobencarb	Pesticide	Not detected	Not detected	ug/L	NA

Sample Date: 10/10/2006

Site: Mud Slough Upstream of San Luis Drain

Ammonia (as N)	General Chemistry	ND	ND	mg/L	NA
Arsenic	General Chemistry	4.8	4.9	ug/L	2%
Boron	General Chemistry	660	610	ug/L	8%
Bromide	General Chemistry	0.41J	0.32J	mg/L	22%
Cadmium	General Chemistry	0.03J	0.02J	ug/L	33% *
Color	General Chemistry	90	85	CU	6%
Copper	General Chemistry	3.2	3.1	ug/L	3%
Dissolved Organic Carbon	General Chemistry	12	8.9	mg/L	26% *
Dissolved Organic Carbon	General Chemistry	5.7	8.9	mg/L	56% *
E. Coli	General Chemistry	170	230	MPN/100	35% *
Hardness (as CaCO3)	General Chemistry	200	220	mg/L	10%
Lead	General Chemistry	0.8	0.73	ug/L	9%
Nickel	General Chemistry	7.6	7.3	ug/L	4%
Nitrogen, Nitrate (as N)	General Chemistry	0.1	0.092	mg/L	8%
Nitrogen, Nitrite	General Chemistry	0.0055J	0.0055J	mg/L	0%
Ortho Phosphate as P	General Chemistry	0.36	0.35	mg/L	3%
Selenium	General Chemistry	2	ND	ug/L	100% *
Total Dissolved Solids	General Chemistry	490	480	mg/L	2%
Total Kjeldahl Nitrogen	General Chemistry	1.5	1.5	mg/L	0%
Total Organic Carbon	General Chemistry	12	6.2	mg/L	48% *
Total Phosphate as P	General Chemistry	0.58	0.56	mg/L	3%
Total Suspended Solids	General Chemistry	50	56	mg/L	12%
Turbidity	General Chemistry	21	22	NTU	5%
Zinc	General Chemistry	6	6	ug/L	0%
4,4'-DDE	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-DDT	Pesticide	Not detected	Not detected	ug/L	NA
4,4'-TDE/DDD	Pesticide	Not detected	Not detected	ug/L	NA
a-BHC	Pesticide	Not detected	Not detected	ug/L	NA
Aldicarb	Pesticide	Not detected	Not detected	ug/L	NA
Aldrin	Pesticide	Not detected	Not detected	ug/L	NA
Atrazine	Pesticide	Not detected	Not detected	ug/L	NA
Azinphosmethyl	Pesticide	Not detected	Not detected	ug/L	NA
b-BHC	Pesticide	Not detected	Not detected	ug/L	NA
Bifenthrin	Pesticide	Not detected	Not detected	ug/L	NA
Carbaryl	Pesticide	Not detected	Not detected	ug/L	NA

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Field Quality Control Samples

Field Duplicate and RPD Calculation

Analyte/Species	Type	Event	FD	Units	RPD
Carbofuran	Pesticide	Not detected	Not detected	ug/L	NA
Chlorpyrifos	Pesticide	Not detected	Not detected	ug/L	NA
Cyanazine	Pesticide	Not detected	Not detected	ug/L	NA
Cyfluthrin	Pesticide	Not detected	Not detected	ug/L	NA
Cypermethrin	Pesticide	Not detected	Not detected	ug/L	NA
d-BHC	Pesticide	Not detected	Not detected	ug/L	NA
Diazinon	Pesticide	Not detected	Not detected	ug/L	NA
Dicofol	Pesticide	Not detected	Not detected	ug/L	NA
Dieldrin	Pesticide	Not detected	Not detected	ug/L	NA
Dimethoate	Pesticide	Not detected	Not detected	ug/L	NA
Disulfoton	Pesticide	Not detected	Not detected	ug/L	NA
Diuron	Pesticide	Not detected	Not detected	ug/L	NA
Endrin	Pesticide	Not detected	Not detected	ug/L	NA
Esfenvalerate/Fenvalerate	Pesticide	Not detected	Not detected	ug/L	NA
g-BHC (Lindane)	Pesticide	Not detected	Not detected	ug/L	NA
Heptachlor	Pesticide	Not detected	Not detected	ug/L	NA
Heptachlor epoxide	Pesticide	Not detected	Not detected	ug/L	NA
Lambda cyhalothrin	Pesticide	Not detected	Not detected	ug/L	NA
Linuron	Pesticide	Not detected	Not detected	ug/L	NA
Malathion	Pesticide	Not detected	Not detected	ug/L	NA
Methamidophos	Pesticide	Not detected	Not detected	ug/L	NA
Methidathion	Pesticide	Not detected	Not detected	ug/L	NA
Methiocarb	Pesticide	Not detected	Not detected	ug/L	NA
Methomyl	Pesticide	Not detected	Not detected	ug/L	NA
Methoxychlor	Pesticide	Not detected	Not detected	ug/L	NA
Molinate	Pesticide	Not detected	Not detected	ug/L	NA
Oxamyl	Pesticide	Not detected	Not detected	ug/L	NA
Parathion, methyl	Pesticide	Not detected	Not detected	ug/L	NA
Permethrin	Pesticide	Not detected	Not detected	ug/L	NA
Phorate	Pesticide	Not detected	Not detected	ug/L	NA
Phosmet	Pesticide	Not detected	Not detected	ug/L	NA
Simazine	Pesticide	Not detected	Not detected	ug/L	NA
Thiobencarb	Pesticide	Not detected	Not detected	ug/L	NA
Toxaphene	Pesticide	Not detected	Not detected	ug/L	NA

Event = Event Sample Results

FD = Field Duplicate Sample Results

RPD = Relative percent difference

Tuesday, December 12, 2006

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Attachment 4
Exceedance of Recommended Water Quality
Values

Westside San Joaquin River Watershed Coalition

Exceedance Report

Del Puerto Creek at Hwy 33

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
pH	23	6/13/2006	8.63			8.5	6.5
4,4'-DDE	24	7/11/2006	0.011	ug/L		0.00059	
E. Coli	24	7/11/2006	280	MPN/100mL		220	
Parathion, methyl	24	7/11/2006	0.098J	ug/L		0.08	
pH	24	7/11/2006	8.96			8.5	6.5
4,4'-DDE	25	8/8/2006	0.0082J	ug/L		0.00059	
E. Coli	25	8/8/2006	650	MPN/100mL		220	
Lambda cyhalothrin	25	8/8/2006	0.005J	ug/L		0.00041	
DO	26	9/11/2006	4.98	mg/L			5
Hyalella azteca	26	9/11/2006	1.25	% survival	Yes		
pH	26	9/12/2006	6.08	units		8.5	6.5
pH	27	10/10/2006	6.32			8.5	6.5

Del Puerto Creek near Cox Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	23	6/13/2006	500	MPN/100mLs		220	
Total Dissolved Solids	23	6/13/2006	540	mg/L		500	
4,4'-DDE	24	7/11/2006	0.02	ug/L		0.00059	
Parathion, methyl	24	7/11/2006	0.16	ug/L		0.08	
Total Dissolved Solids	24	7/11/2006	510	mg/L		500	
4,4'-DDE	25	8/8/2006	0.0067J	ug/L		0.00059	
Chlorpyrifos	25	8/8/2006	0.033	ug/L		0.014	
E. Coli	25	8/8/2006	250	MPN/100mL		220	
Hyalella azteca	26	9/11/2006	55	% survival	Yes		
E. Coli	26	9/12/2006	290	MPN/100mL		220	
pH	26	9/12/2006	6.41	units		8.5	6.5
E. Coli	27	10/10/2006	730	MPN/100mL		220	

Hospital Creek at River Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	22	5/9/2006	900	MPN/100mLs		220	
E. Coli	23	6/13/2006	500	MPN/100mLs		220	
Pimephales promelas	23	6/13/2006	55	% survival	Yes		
Total Suspended Solids	23	6/13/2006	440	mg/L		400	
4,4'-DDE	24	7/11/2006	0.015	ug/L		0.00059	
Diazinon	24	7/11/2006	0.062Y	ug/L		0.05	
Total Suspended Solids	24	7/11/2006	840	mg/L		400	
4,4'-DDE	25	8/8/2006	0.033	ug/L		0.00059	
4,4'-DDT	25	8/8/2006	0.0097J	ug/L		0.00059	
E. Coli	25	8/8/2006	>2400	MPN/100mL		220	
pH	25	8/8/2006	6.32			8.5	6.5

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

Westside San Joaquin River Watershed Coalition

Exceedance Report

Hyaella azteca	26	9/11/2006	1.25	% survival	Yes	
Total Suspended Solids	26	9/12/2006	1600	mg/L		400
E. Coli	27	10/10/2006	>2400	MPN/100mL		220

Ingram Creek at River Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
4,4'-DDE	24	7/11/2006	0.079	ug/L		0.00059	
4,4'-DDT	24	7/11/2006	0.032	ug/L		0.00059	
Chlorpyrifos	24	7/11/2006	0.018J	ug/L		0.014	
Dimethoate	24	7/11/2006	1.4	ug/L		1	
Parathion, methyl	24	7/11/2006	0.17	ug/L		0.08	
Total Suspended Solids	24	7/11/2006	690	mg/L		400	
4,4'-DDE	25	8/8/2006	0.066	ug/L		0.00059	
4,4'-DDT	25	8/8/2006	0.026	ug/L		0.00059	
Chlorpyrifos	25	8/8/2006	0.017J	ug/L		0.014	
Dimethoate	25	8/8/2006	1.7	ug/L		1	
Total Suspended Solids	25	8/8/2006	410	mg/L		400	
Hyaella azteca	26	9/11/2006	0	% survival	Yes		
Total Suspended Solids	26	9/12/2006	840	mg/L		400	
Total Suspended Solids	27	10/10/2006	2600	mg/L		400	

Los Banos Creek at China Camp Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
EC	26	9/11/2006	3049	µmhos/cm		900	
pH	26	9/11/2006	6.4	units		8.5	6.5

Los Banos Creek at Hwy 140

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	22	5/9/2006	1600	MPN/100mLs		220	
EC	23	6/13/2006	1041	µmhos/cm		900	
Total Dissolved Solids	23	6/13/2006	690	mg/L		500	
E. Coli	24	7/11/2006	280	MPN/100mL		220	
Total Dissolved Solids	24	7/11/2006	720	mg/L		500	
Total Suspended Solids	24	7/11/2006	510	mg/L		400	
E. Coli	25	8/8/2006	2000	MPN/100mL		220	
EC	25	8/8/2006	1040	µmhos/cm		900	
EC	26	9/11/2006	1152	µmhos/cm		900	
Total Dissolved Solids	26	9/12/2006	700	mg/L		500	
E. Coli	27	10/10/2006	1700	MPN/100mL		220	

Marshall Road Drain near River Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	23	6/13/2006	300	MPN/100mLs		220	
4,4'-DDE	24	7/11/2006	0.03	ug/L		0.00059	

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

Westside San Joaquin River Watershed Coalition

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4,4'-DDT	24	7/11/2006	0.015	ug/L	0.00059	
Chlorpyrifos	24	7/11/2006	0.019J	ug/L	0.014	
Diazinon	24	7/11/2006	0.22	ug/L	0.05	
Dimethoate	24	7/11/2006	1.2	ug/L	1	
E. Coli	24	7/11/2006	>2400	MPN/100mL	220	
Lambda cyhalothrin	24	7/11/2006	0.03	ug/L	0.00041	
Total Dissolved Solids	24	7/11/2006	640	mg/L	500	
Total Suspended Solids	24	7/11/2006	560	mg/L	400	
Lambda cyhalothrin	25	8/8/2006	0.0085J	ug/L	0.00041	
E. Coli	26	9/12/2006	230	MPN/100mL	220	
pH	26	9/12/2006	6.47	units	8.5	6.5
Total Dissolved Solids	26	9/12/2006	1100	mg/L	500	
Total Suspended Solids	26	9/12/2006	2300	mg/L	400	
E. Coli	27	10/10/2006	410	MPN/100mL	220	

Mud Slough Upstream of San Luis Drain

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	22	5/9/2006	300	MPN/100mLs		220	
EC	24	7/11/2006	957	µmhos/cm		900	
Total Dissolved Solids	24	7/11/2006	610	mg/L		500	
Chlorpyrifos	25	8/8/2006	0.016J	ug/L		0.014	
E. Coli	25	8/8/2006	770	MPN/100mL		220	
E. Coli	26	9/12/2006	410	MPN/100mL		220	

Newman Wasteway near Hills Ferry Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
Pimephales promelas	22	5/9/2006	70	% survival	Yes		
4,4'-DDE	24	7/11/2006	0.0057J	ug/L		0.00059	
E. Coli	24	7/11/2006	>2400	MPN/100mL		220	
Total Dissolved Solids	24	7/11/2006	670	mg/L		500	
E. Coli	25	8/8/2006	410	MPN/100mL		220	
EC	25	8/8/2006	1178	µmhos/cm		900	
EC	25	8/8/2006	921	µmhos/cm		900	
Total Dissolved Solids	25	8/8/2006	780	mg/L		500	
EC	26	9/11/2006	915	µmhos/cm		900	
Total Dissolved Solids	26	9/12/2006	580	mg/L		500	
E. Coli	27	10/10/2006	550	MPN/100mL		220	
EC	27	10/10/2006	1485	µmhos/cm		900	
Total Dissolved Solids	27	10/10/2006	1100	mg/L		500	

Orestimba Creek at Hwy 33

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	22	5/9/2006	300	MPN/100mLs		220	
4,4'-DDE	23	6/13/2006	0.011	ug/L		0.00059	

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Westside San Joaquin River Watershed Coalition

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E. Coli	23	6/13/2006	500	MPN/100mLs		220
4,4'-DDE	24	7/11/2006	0.087	ug/L		0.00059
4,4'-DDT	24	7/11/2006	0.055	ug/L		0.00059
Ceriodaphnia dubia	24	7/11/2006	0	% survival	Yes	
Chlorpyrifos	24	7/11/2006	0.72	ug/L		0.014
Diazinon	24	7/11/2006	1.2	ug/L		0.05
E. Coli	24	7/11/2006	690	MPN/100mL		220
4,4'-DDE	25	8/9/2006	0.29	ug/L		0.00059
4,4'-DDT	25	8/9/2006	0.13	ug/L		0.00059
Chlorpyrifos	25	8/9/2006	0.051	ug/L		0.014
E. Coli	25	8/9/2006	1200	MPN/100mL		220
Esfenvalerate/Fenvalerate	25	8/9/2006	0.021	ug/L		0.007
Total Suspended Solids	25	8/9/2006	1500	mg/L		400
Hyalella azteca	26	9/11/2006	6.25	% survival	Yes	
E. Coli	26	9/12/2006	>2400	MPN/100mL		220

Orestimba Creek at River Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
E. Coli	22	5/9/2006	300	MPN/100mLs		220	
4,4'-DDE	23	6/13/2006	0.013	ug/L		0.00059	
Chlorpyrifos	23	6/13/2006	0.032	ug/L		0.014	
4,4'-DDE	24	7/11/2006	0.078	ug/L		0.00059	
4,4'-DDT	24	7/11/2006	0.029	ug/L		0.00059	
Ceriodaphnia dubia	24	7/11/2006	0	% survival	Yes		
Chlorpyrifos	24	7/11/2006	0.51	ug/L		0.014	
E. Coli	24	7/11/2006	650	MPN/100mL		220	
4,4'-DDE	25	8/9/2006	0.031	ug/L		0.00059	
4,4'-DDT	25	8/9/2006	0.013	ug/L		0.00059	
Chlorpyrifos	25	8/9/2006	0.052	ug/L		0.014	
Dimethoate	25	8/9/2006	1.8	ug/L		1	
E. Coli	25	8/9/2006	290	MPN/100mL		220	
E. Coli	26	9/12/2006	260	MPN/100mL		220	
E. Coli	27	10/10/2006	370	MPN/100mL		220	
pH	27	10/10/2006	6.42			8.5	6.5

Ramona Lake near Fig Avenue

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
Ceriodaphnia dubia	24-R	7/17/2006	5	% survival	Yes		
Chlorpyrifos	24-R	7/17/2006	0.29	ug/L		0.014	
EC	24-R	7/17/2006	1182	µmhos/cm		900	
Total Dissolved Solids	24-R	7/17/2006	800	mg/L		500	
EC	24-R	7/25/2006	1385	µmhos/cm		900	
E. Coli	25	8/8/2006	1000	MPN/100mL		220	
EC	25	8/8/2006	1002	µmhos/cm		900	

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Westside San Joaquin River Watershed Coalition

Exceedance Report

Total Dissolved Solids	25	8/8/2006	640	mg/L	500
E. Coli	26	9/12/2006	330	MPN/100mL	220
Total Dissolved Solids	26	9/12/2006	580	mg/L	500
Total Dissolved Solids	27	10/10/2006	520	mg/L	500

Salt Slough at Lander Ave

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
pH	22	5/9/2006	6.49			8.5	6.5
Total Dissolved Solids	24	7/11/2006	610	mg/L		500	
Chlorpyrifos	25	8/8/2006	0.039	ug/L		0.014	
E. Coli	25	8/8/2006	490	MPN/100mL		220	
Total Dissolved Solids	25	8/8/2006	530	mg/L		500	
EC	26	9/11/2006	939	µmhos/cm		900	
Chlorpyrifos	26	9/12/2006	0.047	ug/L		0.014	
Total Dissolved Solids	26	9/12/2006	640	mg/L		500	
EC	27	10/10/2006	1131	µmhos/cm		900	
Total Dissolved Solids	27	10/10/2006	710	mg/L		500	

Salt Slough at Sand Dam

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
DO	22	5/9/2006	4.47	mg/L			5
pH	23	6/13/2006	6.43			8.5	6.5
DO	24	7/11/2006	4.96	mg/L			5
Total Dissolved Solids	24	7/11/2006	550	mg/L		500	
Ceriodaphnia dubia	25	8/8/2006	0	% survival	Yes		
Chlorpyrifos	25	8/8/2006	0.23	ug/L		0.014	
pH	25	8/8/2006	6.33	units		8.5	6.5
Total Dissolved Solids	27	10/10/2006	520	mg/L		500	

San Joaquin River at Lander Ave

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
pH	22	5/9/2006	5.43			8.5	6.5
Total Dissolved Solids	24	7/11/2006	530	mg/L		500	

San Joaquin River at Sack Dam

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
pH	23	6/13/2006	9.78			8.5	6.5
pH	24	7/11/2006	8.61			8.5	6.5
pH	25	8/8/2006	5.29	units		8.5	6.5

Turner Slough at Edminster Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
Pimephales promelas	22	5/9/2006	77	% survival	Yes		
DO	22-R	5/17/2006	3.24	mg/L			5

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Westside San Joaquin River Watershed Coalition

Exceedance Report

DO	23	6/13/2006	3.48	mg/L		5
E. Coli	23	6/13/2006	900	MPN/100mLs	220	
pH	23	6/13/2006	5.91		8.5	6.5
E. Coli	24	7/11/2006	>2400	MPN/100mL	220	
pH	24	7/11/2006	6.24		8.5	6.5
E. Coli	25	8/8/2006	2000	MPN/100mL	220	
pH	25	8/8/2006	5.22		8.5	6.5
pH	25	8/8/2006	5.97	units	8.5	6.5
pH	26	9/11/2006	4.22	units	8.5	6.5
E. Coli	26	9/12/2006	1200	MPN/100mL	220	
EC	27	10/10/2006	1465	µmhos/cm	900	

Westley Wasteway near Cox Road

Analyte/Species	Event	Sample Date	Result	Units	Significant Toxicity	WQV Max	WQV Min
pH	22	5/9/2006	8.87			8.5	6.5
Chlorpyrifos	23	6/13/2006	0.032	ug/L		0.014	
E. Coli	23	6/13/2006	900	MPN/100mLs		220	
Total Suspended Solids	23	6/13/2006	1400	mg/L		400	
4,4'-DDE	25	8/8/2006	0.06	ug/L		0.00059	
4,4'-DDT	25	8/8/2006	0.024	ug/L		0.00059	
E. Coli	25	8/8/2006	920	MPN/100mL		220	
Total Suspended Solids	25	8/8/2006	860	mg/L		400	
Hyaella azteca	26	9/11/2006	1.25	% survival	Yes		
pH	26	9/12/2006	5.56	units		8.5	6.5
Total Suspended Solids	26	9/12/2006	560	mg/L		400	
pH	27	10/10/2006	6.37			8.5	6.5

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Tuesday, December 12, 2006

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