East San Joaquin
WATER QUALITY COALITION

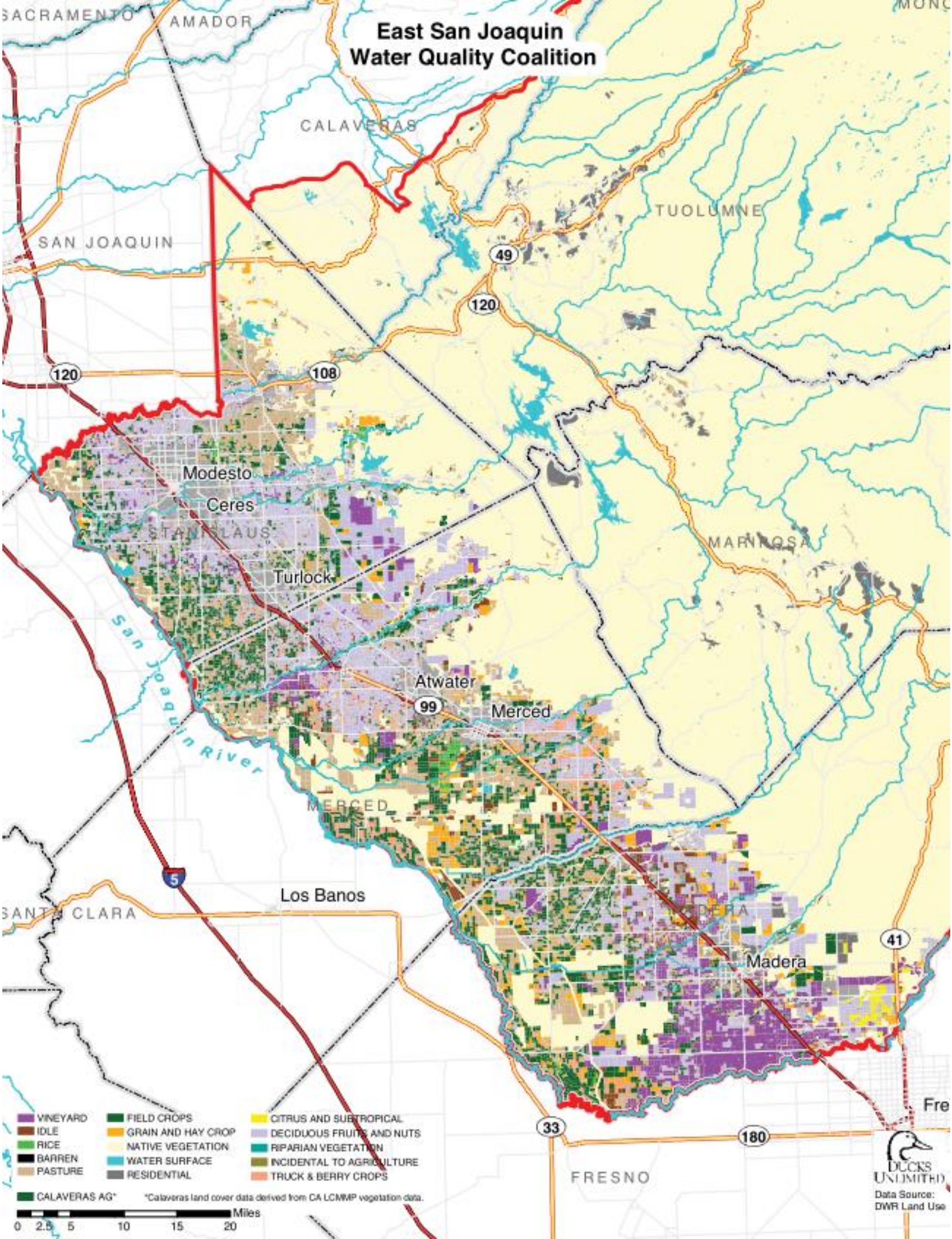
COALITION
2010
CONTINUED SUCCESS

2010 SUMMARY ANNUAL REPORT

East San Joaquin Water Quality Coalition

Map

2010 Coalition Continued Success


East San Joaquin
Water Quality Coalition
SACRAMENTO
AMADOR
CALAVERAS
TUOLUMNE
SAN JOAQUIN
STANISLAUS
MARIPOSA
MERCED
SANTA CLARA
FRESNO
49
120
108
99
5
41
33
180
Modesto
Ceres
Turlock
Atwater
Merced
Los Banos
Madera
San Joaquin River
VINEYARD
IDLE
RICE
BARREN
PASTURE
FIELD CROPS
GRAIN AND HAY CROP
NATIVE VEGETATION
WATER SURFACE
RESIDENTIAL
CITRUS AND SUBTROPICAL
DECIDUOUS FRUITS AND NUTS
RIPARIAN VEGETATION
INCIDENTAL TO AGRICULTURE
TRUCK & BERRY CROPS
CALAVERAS AG*
*Calaveras land cover data derived from CA LCMMP vegetation data.
Miles
0 2.5 5 10 15 20
DUCKS UNLIMITED
Data Source:
DWR Land Use

East San Joaquin
Water Quality Coalition

Summary Annual Report
2010

This report is available at
East San Joaquin
Water Quality Coalition
1201 L Street
Modesto, CA 95354
(209)522-7278

www.ESJCoalition.org
Members Only Password: ESJWATER

SUMMARY ANNUAL REPORT
2010

COALITION 2010 CONTINUED SUCCESS

2010 SUMMARY ANNUAL REPORT

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Continued Success

Seven Priority Waterways Show Only Two Pesticide Exceedances in Two Years

Two years and more than 115 individual grower visits later, the intensive outreach effort initiated by the ESJWQC to solve water quality problems appears to be paying off. Seven waterways in the coalition region where frequent exceedances of water quality standards were recorded between 2004 and 2008 are now showing very few to no exceedances at all since 2009.

Management plans written to address these multiple exceedances of water quality standards for pesticides and metals include the commitment for ESJWQC representatives to contact landowners who farm along the waterways to discuss the problems and potential solutions. Members are first contacted by mail then a meeting is scheduled at the field. Basic information on irrigation and farming practices is gathered in a survey that is subsequently compiled into a report specific to the entire watershed (see following pages).

As the monitoring results shown in the last half of this publication attest, there are exceedances of pH, EC and other parameters that are arguably not influenced by normal farming practices in the San Joaquin Valley. However, when insecticides such as chlorpyrifos and diazinon and herbicides such as diuron or simazine are found at high levels, use on farms near the waterways is the likely source. Growers who use these products are advised to take extra precautions to ensure that no spray drift leaves fields adjacent to the waterways or that irrigation runoff after applications is held in ponds or diverted to other fields.

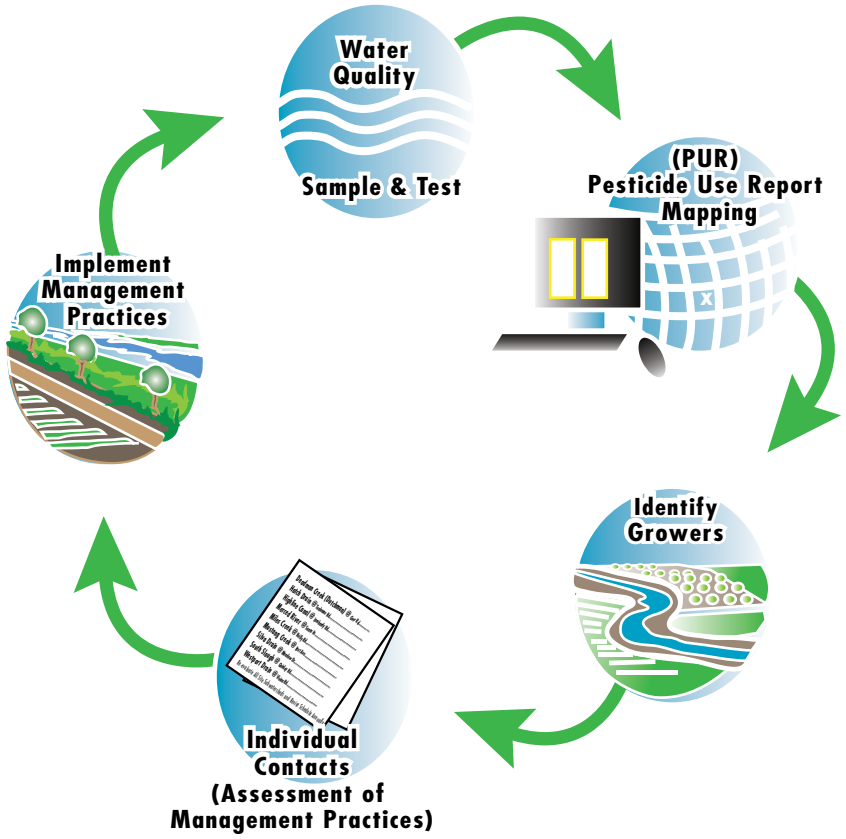
Of the seven priority waterways where this effort was focused, only Dry Creek in eastern Stanislaus County has shown exceedances of chlorpyrifos standards after the follow up meetings. Preliminary information indicates the insecticide may have been used by non coalition members unaware of the problem. The other six waterways have had no exceedances of pesticide standards. Follow-up calls made in 2010 to landowners in the first three priority watersheds indicate that growers are making changes in practices as a result of the visits.

Work will continue to address water quality problems found in the ESJWQC sampling program. Our continued success will depend on cooperation of members in the next set of priority watersheds (see next page) along with adherence to good farming practices by those in watersheds already contacted. To date, member cooperation has been excellent, reinforcing the belief held by the ESJWQC board of directors that when farmers put their minds to solving problems, they can accomplish that goal!

Steps of a Management Plan

The ESJWQC Management Plans follow a consistent strategy:

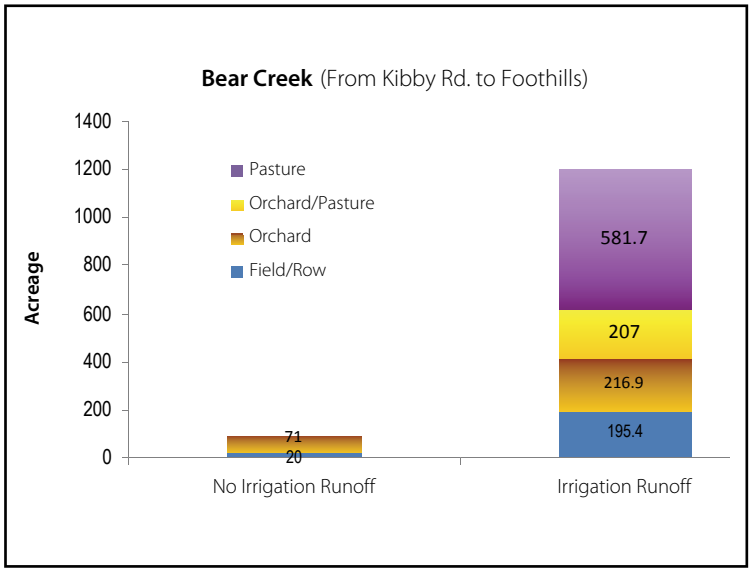
1. Evaluate water quality information (monitoring results);
2. Source potential causes of water quality impairments (pesticide use reports and mapping of parcels/ waterway);
3. Identify members with potential drainage or direct drainage to the waterbody who might contribute to water quality impairments;
4. Conduct individual meetings to assess current practices and recommend practices if needed;
5. Implement additional management practices if necessary; and
6. Assess water quality; associate to upstream management practices.

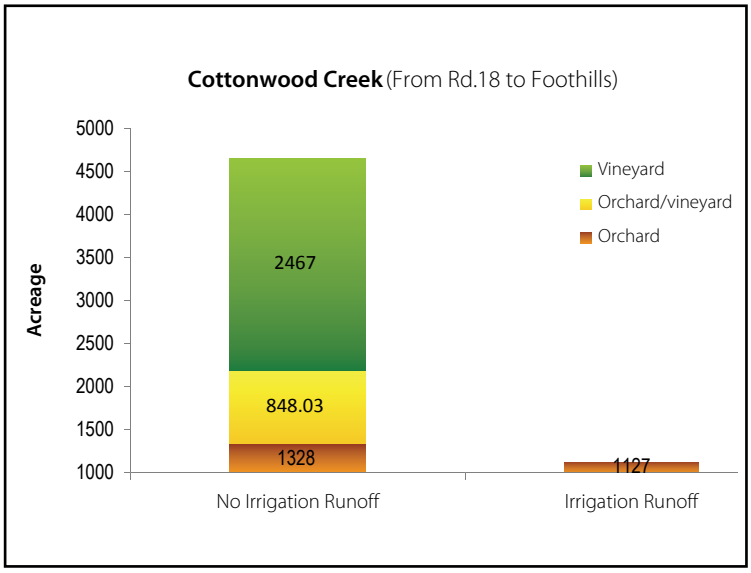


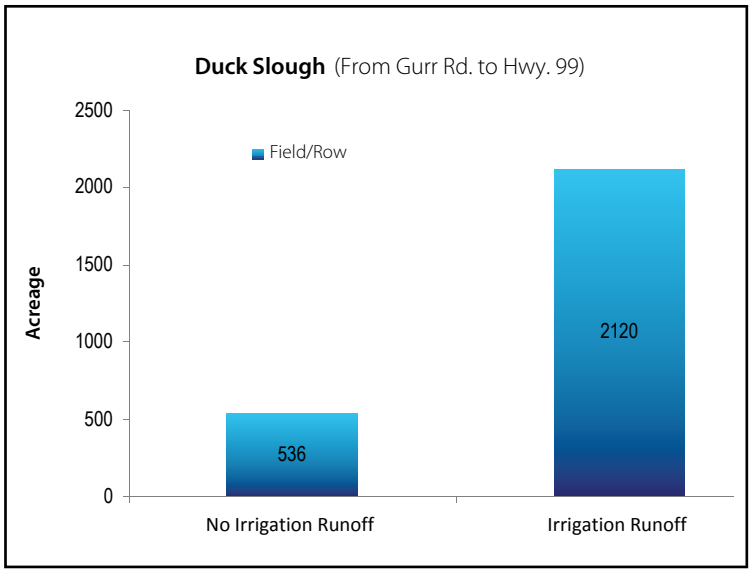
Site Subwatershed Name / Timeframe for Coalition Visits

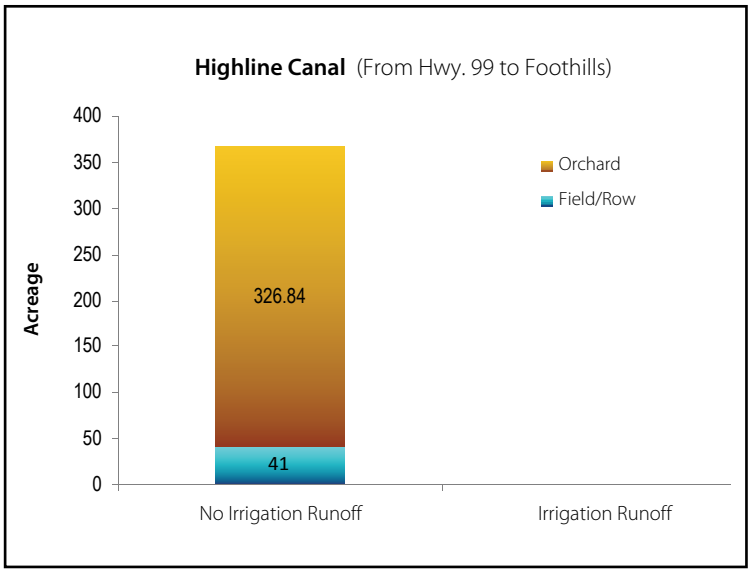
Cottonwood Creek @ Rd 20 2010-2012
Duck Slough @ Gurr Rd 2010-2012
Highline Canal @ Hwy 99 2010-2012
Bear Creek @ Kibby Rd 2010-2012
Lateral 2 ½ @ Keyes Rd 2011-2013
Berenda Slough along Ave 18 ½ 2011-2013
Dry Creek @ Rd 18 2011-2013
Livingston Drain @ Robin Ave 2011-2013
Hilmar Drain @ Central Ave 2012-2014
Black Rascal Creek @ Yosemite Rd 2012-2014
Deadman Creek @ Hwy 59 2012-2014
Deadman Creek (Dutchman) @ Gurr Rd. 2012-2014
Hatch Drain @ Tuolumne Rd 2013-2015
Highline Canal @ Lombardy Rd 2013-2015
Merced River @ Santa Fe 2013-2015
Miles Creek @ Reilly Rd. 2013-2015
Mustang Creek @ East Ave. 2014-2016
Silva Drain @ Meadow Dr 2014-2016
Westport Drain @ Vivian Rd. 2014-2016
Ash Slough @ Ave 21 2015-2017
Mootz Drain downstream of Langworth Pond 2015-2017
Re-evaluate All Site Subwatersheds and Revise Schedule ..... Annually

Priority Watershed Acreage Irrigation Runoff and Crop Type



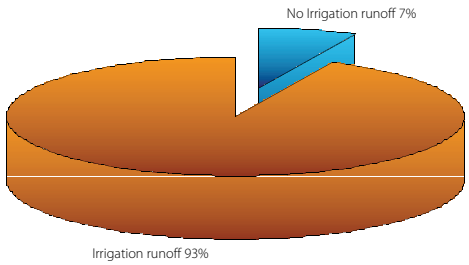




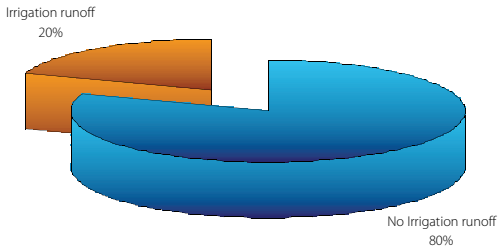


Irrigation Runoff Acreage for Subwatershed Priority Members

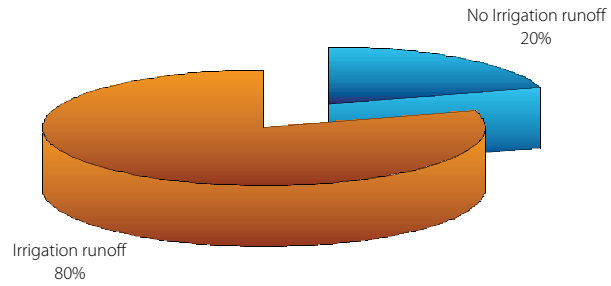
Bear Creek (From Kibby Rd. to Foothills)



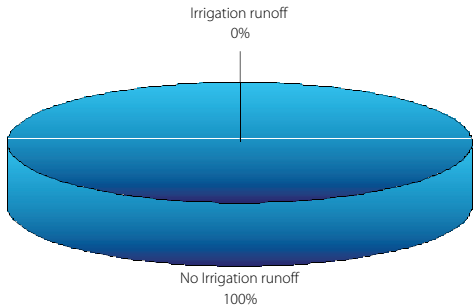
Cottonwood Creek (From Rd.18 to Foothills)



Duck Slough (From Gurr Rd. to Hwy. 99)

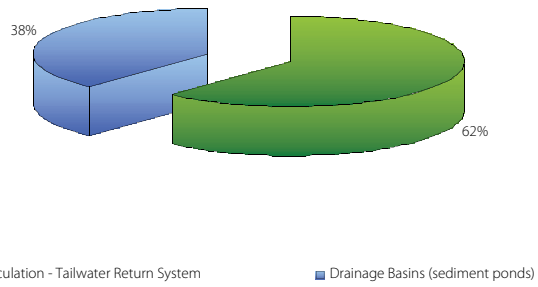


Highline Canal (From Hwy. 99 to Foothills)

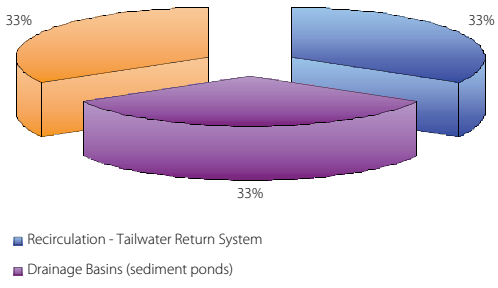


Priority Acreage with Recommended Practices

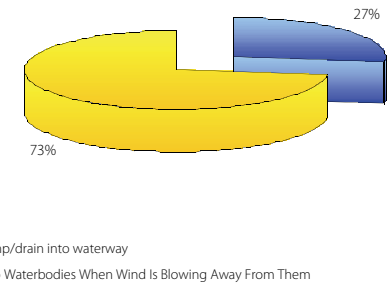
Bear Creek (From Kibby Rd. to Foothills)
(1,014.4 Acres)



Duck Slough (From Gurr Rd. to Hwy. 99)
(2,433 Acres)



Cottonwood Creek (From Rd.18 to Foothills)
(1,107 Acres)



East San Joaquin Water Quality Coalition

Adopted 2004

As a member of the Coalition in good standing, irrigated acres that you own or manage are now legally covered under the requirements described for watershed coalitions in the Irrigated Lands Regulatory Program (ILRP), Central Valley Regional Water Quality Control Board Resolution No. R5-2003-0105.

Member Responsibilities

As a member of the East San Joaquin Water Quality Coalition (Coalition), you agree to:

1. Respond to requests for information by ESJWQC that enable the Coalition to remain in compliance with requirements of the ILRP.
2. Cooperate with the ESJWQC to take corrective action should water quality problems be tracked back to your farming operation.
3. Implement management practices that minimize or eliminate fertilizer, pesticide and sediment runoff.

ESJWQC Responsibilities

1. Perform activities that enable Coalition members to be in compliance with the ILRP.
2. File required reports with the Central Valley Regional Water Quality Control Board to maintain ILRP coverage for Coalition members.
3. Implement an economical and scientifically valid water monitoring program for waterways within the Coalition boundaries.
4. Spread costs equitably among Coalition members.
5. Communicate to Coalition members where water or sediment monitoring indicates problems in a watershed related to farming practices and facilitate efforts to solve those problems.

Membership
As of July 31, 2010, the Coalition membership stood at 2,294 landowner/operators and 546,134 irrigated acres.

Boundaries
The Coalition includes Madera County and portions of Stanislaus, Merced, Tuolumne, Mariposa and Calaveras counties. Coalition borders are the crest of the Sierra Nevada on the east and the San Joaquin River on the west and south, and the Stanislaus River on the north. There are four major tributaries in the watershed: Chowchilla River, Merced River, Tuolumne River and Stanislaus River. (Note: a limited number of landowners have opted to join adjacent water quality coalitions to obtain ILRP coverage.)

Structure
The Coalition was formed in 2003 in compliance with the ILRP implemented by the Central Valley Regional Water Quality Control Board. A volunteer Board of Directors agreed to structure the organization as a public benefit, non-profit entity to perform tasks required under the ILRP. In November 2005, the Coalition was granted non-profit status as a 501 c5 organization by the Internal Revenue Service. The Coalition is managed by a Board of Directors.

Board Officers
- Parry Klassen, (**Board Chairman, Executive Director);** Executive Director of Coalition for Urban/Rural Environmental Stewardship (CURES); fruit grower
- Wayne Zipser, Stanislaus County Farm Bureau **(Vice-Chairman);** almond grower
- Bill McKinney, **(Secretary/Treasurer),** almond grower

Board Members
- Julia Berry, Madera County Farm Bureau
- All Brizard, Retired Farmer, Groveland
- Amanda Carvajal, Merced County Farm Bureau
- John Eisenhut, Hilltop Ranch, Callico; almonds
- Brian Franzia, West Coast Grape Farming, Ceres; grapes
- Richard Gemperle, Gemperle Enterprises, Turlock; almonds
- Alan Reynolds, Gallo Vineyards, Inc.; Livingston; grapes
- Jim Wagner, Wilbur-Ellis Company, Hughson

Ex-officio Board Members
- Gary Caseri, Stanislaus County Agricultural Commissioner
- Diana Waller, District Conservationist, USDA-NRCS-Modesto Field Office
- David Robinson, Merced County Agricultural Commissioner
- Bob Rolan, Madera County Agricultural Commissioner

Goals

- To operate an efficient, economical program that enables members to comply with the Irrigated Lands Regulatory Program (ILRP).
- File required reports with the Central Valley Regional Water Quality Control Board to maintain ILRP coverage for Coalition members.
- Implement an economical and scientifically valid water monitoring program for area rivers and agricultural drains (as required by the ILRP).
- Spread costs equitably among owners/operators who are Coalition members.
- Communicate to landowners where water monitoring indicates problems and work to solve those problems.

Fees Assessed by the State Water Resources Control Board

In 2010, the Coalition paid the 12 cent per acre fee for its members to cover State Water Resources Control Board cost for implementing the ILRP. The State established the following three-tiered annual fee structure for landowners seeking coverage by ILRP:

- Member of water coalition w*ith* fee collected by coalition = $100 per coalition + 12 cents per irrigated acre
- Member of water coalition but coalition does not collect fee = $100 per landowner + 20 cents per irrigated acre
- Not member of coalition = $100 per farm + 30 cents per irrigated acre

The 12 cent per acre fee is included as part of Coalition membership dues. By paying the state fee for members, the Coalition collectively saved member growers more than $250,000.

Member Outreach and Best Management Practices

The Coalition is continuing its efforts to work with landowners in watersheds where monitoring indicates problems. Central to this effort will be promoting Best Management Practices (BMPs) with the best potential for solving the problem. When a problem is identified, the Coalition will:

- Contact landowners upstream of the monitoring site and inform them of the constituent(s) identified.
- Distribute BMP information through mailings and individual visits and local grower and crop advisor meetings.
- Give educational presentations on monitoring results and potential BMPs at commodity and farm group meetings in the coalition region.

Monitoring Program Objectives

- Characterize discharge from irrigated agriculture in the Coalition region
- Identify locations where water quality objectives are violated
- Identify potential source(s) of the exceedances
- Promote to landowners the implementation of management practices to eliminate water quality problems.

Monitoring Program Management

- Michael L. Johnson LLC, Davis, CA
  Staff: Mike Johnson – President
  Francisca Johnson – Vice President
  Melissa Turner – Vice President

Analytical Laboratories

- AQUA-Science, Davis, CA (water toxicity)
- APPL Inc., Fresno, CA (pesticide analysis)
- North Coast Laboratories Ltd., Arcata, CA (glyphosate analysis)
- Caltest Analytical Laboratory, Napa, CA (water analysis; metals, bacteria, nutrients and physical parameters)
- Nautilus Environmental, San Diego, CA (sediment toxicity)

Monitoring Site Selection Criteria

- Characterizes agricultural drainage of the area
- Drains irrigated lands
- Minimal or no urban influence on flows

Sampling Frequency

Water column

- Monthly
- In watersheds with Management Plans, twice monthly in months with previous exceedances

Sediment

- Twice annually (spring, late summer)

Questions, Comments, Changes in Membership

Members are welcome to contact the coaliton Board of Directors or management with questions or to update membership information. The most efficient way to contact us is through the Coalition's website www.esjcoalition.org. Go to "Contact Us."

Outreach meeting dates and locations will be posted on the Coalition website and periodic announcements mailed to members.

Changes in membership information can be submitted to: ESJWQC
1201 L Street
Modesto, CA 95354

Or call: 209-522-7278

Be sure to use your membership number in any correspondence.

Statement of Financial Activities

EAST SAN JOAQUIN WATER QUALITY COALITION (ESJWQC)
November 2009 thru October 2010 vs Budget

	ACTUAL* 2009/10 $ K, (Thousands)	BUDGET 2009/10 $ K, (Thousands)	DESCRIPTION
INCOME			
TOTAL INCOME	1,218	1,226	Membership dues plus interest on bank accounts for November 2009 thru October 2010.
EXPENSES			
Organizational	138	177	Executive director, legal, accounting, management of membership records & related communications, and miscellaneous business costs.
Program	889	1,060	Program manager, site monitoring/special studies, quality control/assurance, data management, BMP assessments, RWQCB fees, communications with Coalition members regarding monitoring results, and reports to RWQCB.
Travel and Meeting	16	24	Expenses for executive director, program manager and contractors doing work for the Coalition.
TOTAL EXPENSES	1,043	1,261	
NET INCOME	175**	(35)	Difference between TOTAL INCOME and TOTAL EXPENSES.

* At the end of October balances in checking and savings accounts totaled $935 K.

** The primary variance between Actual and Budget is in Program expenses. The lower than anticipated Program costs are due to the lack of toxicity exceedences and costs associated with determining their nature/origin.

2010 Monitoring Reporting Program Plan (MRPP)
A requirement for each Central Valley watershed coalition under the Irrigated Lands Regulatory Program (ILRP) is to provide the Regional Water Quality Control Board with a Monitoring and Reporting Program Plan (MRPP). This plan describes monitoring locations, timing of sampling, the rationale for site selection, and the constituents to be sampled among other technical information.

In October 2008, the ESJWQC initiated a new MRPP. Key to this new plan is the approach of dividing the Coalition into six "zones." These zones are based on hydrology, crop types, land use, soil types and rainfall. Each of the six zones in the Coalition region (see map on the following page) encompass numerous smaller watersheds. Each zone is named after its Core Monitoring location, which are:

1. **Dry Creek** @ Wellsford Zone
2. **Prairie Flower Drain** @ Crows Landing Zone
3. **Highline Canal** @ Hwy 99 Zone
4. **Merced River** @ Santa Fe Zone
5. **Duck Slough** @ Gurr Rd Zone
6. **Cottonwood Creek** @ Rd 20 Zone

Within each zone, three types of water and sediment sampling occur:

- **Assessment Monitoring**
- **Core Monitoring**
- **Management Plan Monitoring**

Assessment monitoring involves testing for:

- numerous pesticides
- metals
- nutrients
- parameters such as hardness and organic carbon.

Table 1. Monitoring locations and constituents to be monitored for at Core and Assessment Monitoring sites from January to December 2010 (modified in May 2009).

Zone	Monitoring Type	Monitoring Location	Core / Assessment Monitoring Constituent Groups									Additional Monitoring			
			Physical Parameters	Nutrients*	Pathogens	Carbamates	Organophosphates	Herbicides**	Metals (total and dissolved)***	Water Column Toxicity	Sediment Toxicity/ Chemistry	Simazine/ cyanazine	Carbofuran	Copper	Lead
1	C	Dry Creek @ Wellsford Rd	x	x	x										**x**
1	A	Mootz Drain @ Langworth Rd	x	x	x	x	x	x	x	x	x				
2	C	Prairie Flower Drain @ Crows Landing	x	x	x										
2	A	Lateral 2 ½ near Keyes Rd	x	x	x	x	x	x	x	x	x				
3	C	Highline Canal @ Hwy 99	x	x	x										
3	A	Mustang Creek @ East Ave	x	x	x	x	x	x	x	x	x				
4	C	Merced River @ Santa Fe Rd	x	x	x									**x**	**x**
4	A	Howard Lateral @ Hwy 140	x	x	x	x	x	x	x	x	x				
5	C	Duck Slough @ Gurr Rd	x	x	x								**x**		
5	A	Deadman Creek @ Gurr Rd	x	x	x	x	x	x	x	x	x				
6	C	Cottonwood Creek @ Rd 20	x	x	x					**x†**	**x**	**x**			
6	A	Ash Slough @ Ave 21	x	x	x	x	x	x	x	x	x				

†Pimephales promelas and Selenastrum capricornutum only. Bolded Xs are for additional constituents at Core Monitoring locations due to one exceedance during previous monitoring (see Table 21 for specifics).

Core monitoring involves a smaller number of constituents that are a subset of the Assessment monitoring constituents.

Each zone contains one Core monitoring location and one Assessment monitoring location. Assessment monitoring sites rotate to Core monitoring sites every two years.

Starting in January 2011, all Core monitoring locations will begin Assessment Monitoring which will include analysis of all constituents. In addition, the Assessment monitoring locations listed in Table 1 (Monitoring Type = A) will be rotated out and new locations will be sampled from 2011 through 2013.

In Assessment monitoring, water samples are collected monthly and analyzed for the constituents listed in Table 1. Sediment samples are collected twice per year and tested for toxicity to Hyalella, total organic carbon and grain size. If a sediment sample is toxic, the samples are analyzed for pyrethroid and chlorpyrifos (Lorsban, Govern, Lock-On) insecticides.

The ESJWQC MRPP is posted on the Coalition website in the Members Only section.

San Joaquin River Chlorpyrifos and Diazinon Total Maximum Daily Load (TMDL)

As a representative of agricultural dischargers, the ESJWQC is required to comply with Total Maximum Daily Loads (TMDLs) that are established in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan). The Basin Plans are State law and are developed to ensure the protection of beneficial uses of water which include drinking water supplies, maintaining aquatic life, and supporting recreation activities.

It is the Coalition's responsibility to maintain compliance with any TMDLs that apply to discharge from irrigated agriculture into the San Joaquin River. In 2005, a TMDL was established for chlorpyrifos and diazinon runoff into the San Joaquin River. Beginning in 2010, the Coalition was responsible for ensuring compliance with the chlorpyrifos and diazinon water quality objectives (WQO) and loading capacity at compliance points within the San Joaquin River.

Water Quality Objectives (WQOs):

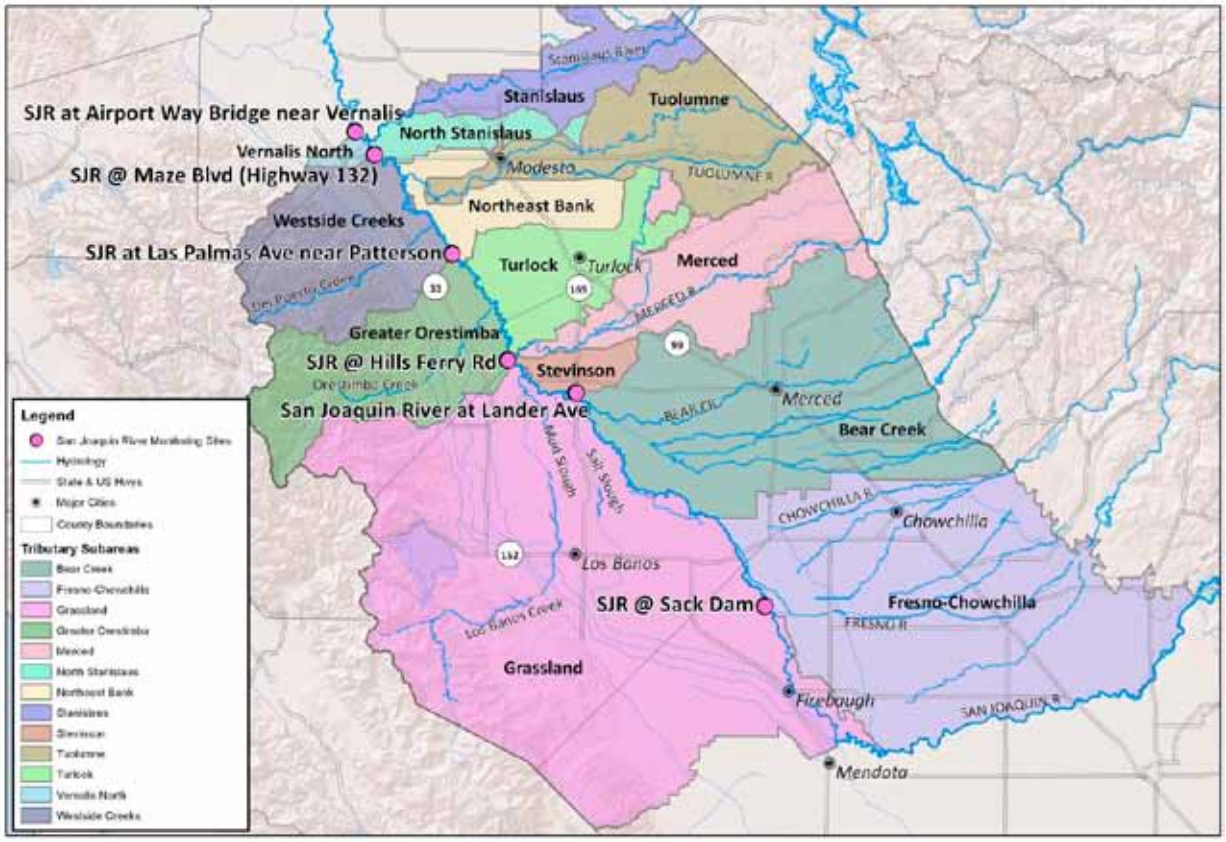
- Chlorpyrifos 0.015 ppm
- Diazinon 0.10 ppm

Loading capacities:

$$\frac{\text{Concentration of chlorpyrifos}}{0.015 \text{ ppm}} + \frac{\text{Concentration of diazinon}}{0.1 \text{ ppm}} \leq 1.0$$

ppm – parts per million

Figure 1. San Joaquin River monitoring locations for compliance with the chlorpyrifos and diazinon TMDL.



In 2010, the ESJWQC and the Westside San Joaquin River Watershed Coalition (Westside Coalition) jointly developed a monitoring plan for assessing compliance of the Lower San Joaquin River concentration-based loads at six compliance points identified in the Basin Plan Amendment. The six compliance points are listed below; the Coalition conducting the monitoring is in parenthesis:

1. **San Joaquin River at Sack Dam (Westside Coalition),**
2. **San Joaquin River at Lander Ave (Westside Coalition),**
3. **San Joaquin River at Hills Ferry (ESJWQC),**
4. **San Joaquin River at Las Palmas Avenue (Westside),**
5. **San Joaquin River at Maze Boulevard (ESJWQC), and**
6. **San Joaquin River at Airport Way (ESJWQC).**

Monitoring is required on a quarterly basis by both Coalitions with at least one sample taken after a winter storm event (December through February) when dormant orchard sprays with either insecticides are typically made. In 2010, monitoring was conducted in March, May, July and October. Results are reported to the Regional Board based on a water year (October through September) and the 2010 report was submitted on October 31, 2010.

The Coalition must determine on a yearly basis the following:

- Compliance with the established WQOs within the San Joaquin River and the upstream tributaries to the River,
- Assess what management practices have been implemented to reduce off-site movement of chlorpyrifos and diazinon,
- Determine the effectiveness of management practices implemented,
- Determine if product alternatives are impacting water quality,
- Determine whether or not products used as alternatives to chlorpyrifos and diazinon are causing or contributing to toxicity, and
- Demonstrate that management practices are achieving the lowest pesticide levels technically and economically achievable.

As of December 1, 2010 the direct or indirect discharge of diazinon or chlorpyrifos into the San Joaquin River is prohibited if there were exceedances of the loading capacity or the WQO occurred during the previous year. This prohibition applies to:

1. Dischargers who discharge chlorpyrifos or diazinon, whichever is contributing to the exceedance of the WQO
2. Dischargers located in those subareas not meeting their load allocations.

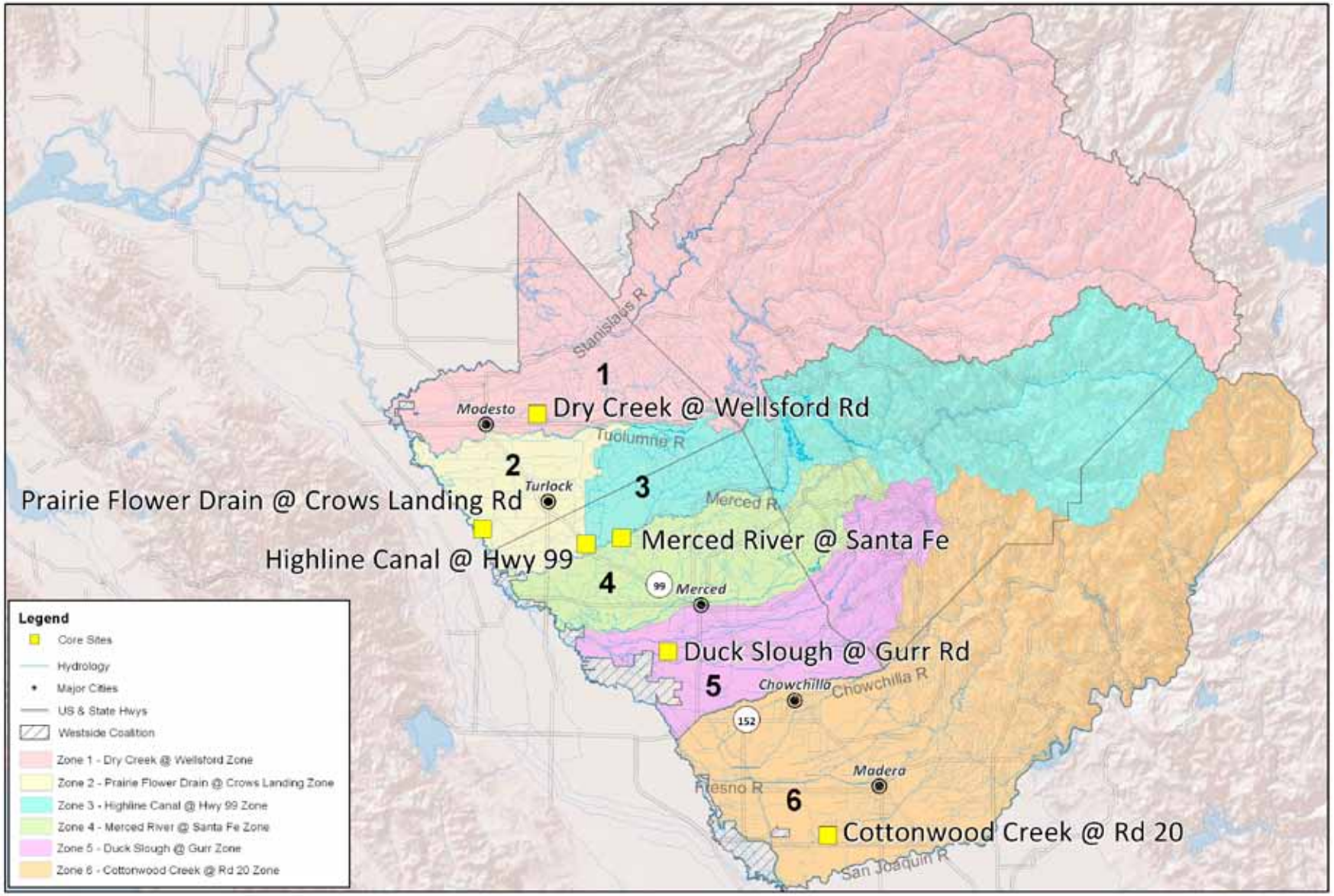
The ESJWQC has sent notices to its members with parcels adjacent to all main tributaries to the San Joaquin River notifying them of this prohibition of discharge and reminding them about the importance of minimizing spray drift and irrigation or storm runoff after applying chlorpyrifos or diazinon.

The ESJWQC will evaluate the results of the compliance monitoring in relation to upstream monitoring conducted in 2010 in its Management Plan Update Report which will be completed on April 1, 2011. The Coalition will use results obtained from management practice surveys to determine implementation and effectiveness of management practices implemented by Coalition members.

Figure 1. San Joaquin River monitoring locations for compliance with the chlorpyrifos and diazinon TMDL.

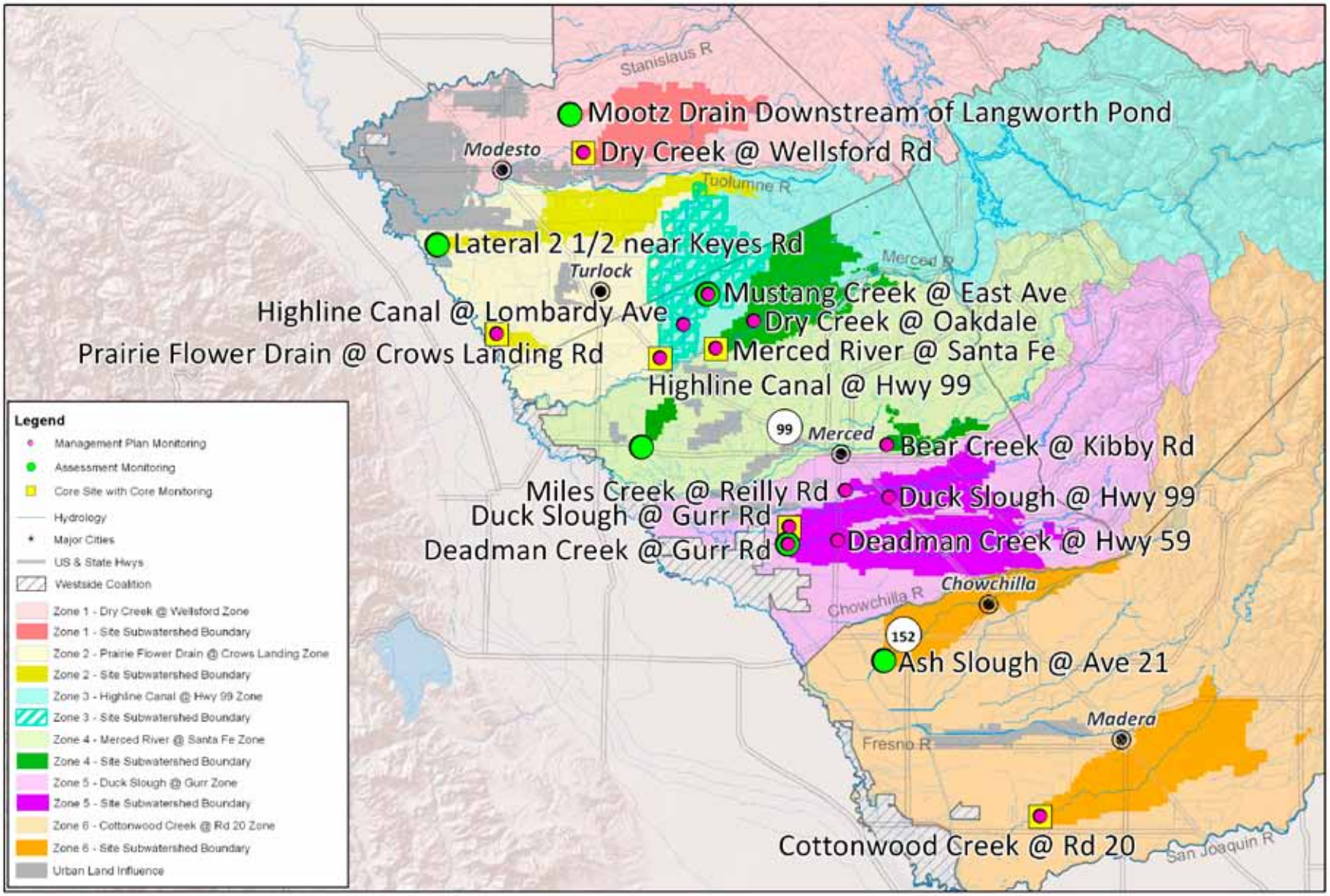
Subwatershed Zone Map

Figure 1. Zone and site subwatershed delineations.
Only one Assessment Monitoring location will be monitored in each zone and rotated every two years.



ESJWQC January - December 2010 Monitoring Sites

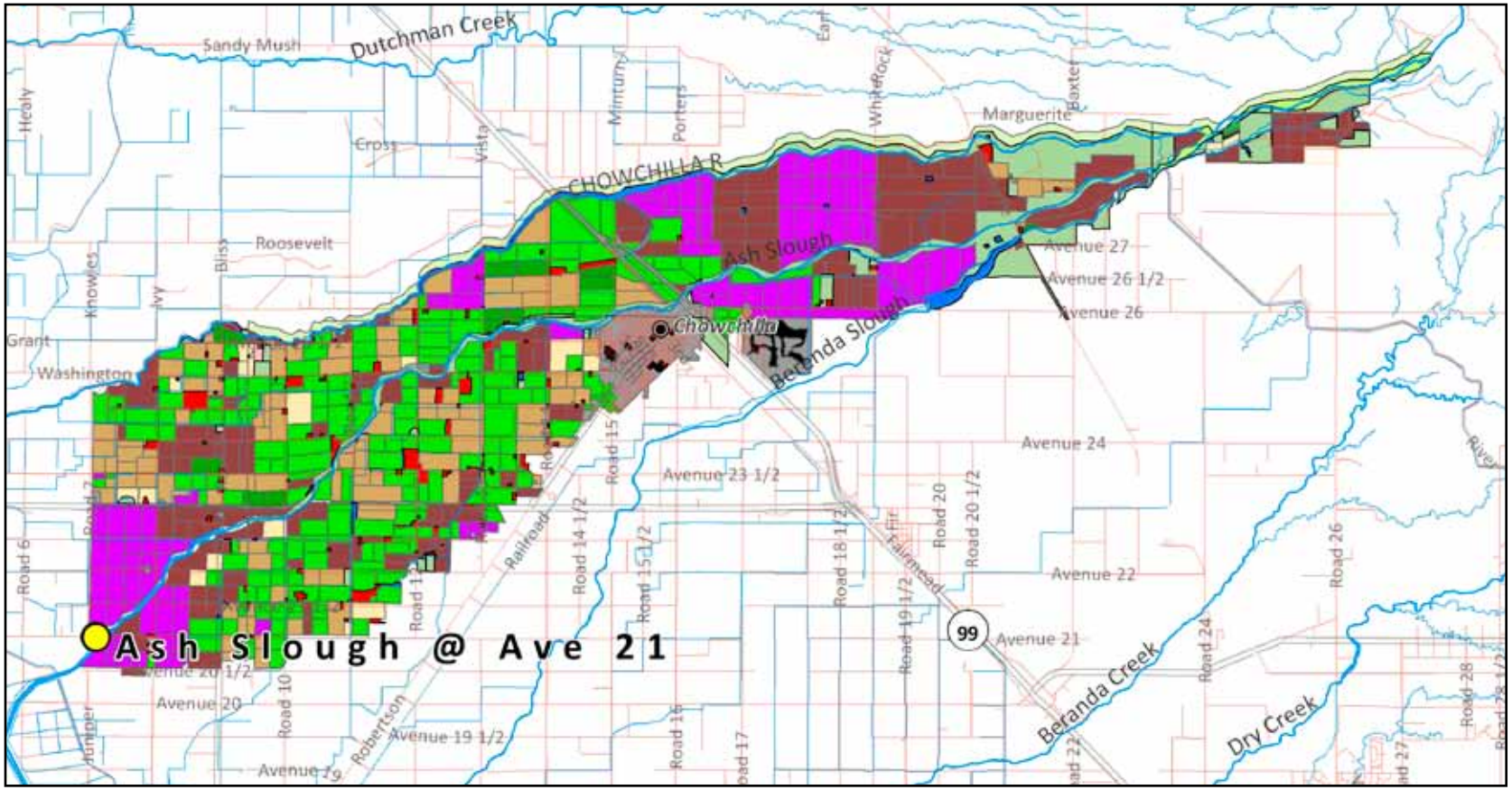
Figure 2. ESJWQC Monitoring locations (Core, Assessment and Management Plan) for 2010.



East San Joaquin Water Quality Coalition – Monitoring Sites

Italics — Additional Management Plan monitoring site.

Ash Slough at Avenue 21



Land Use

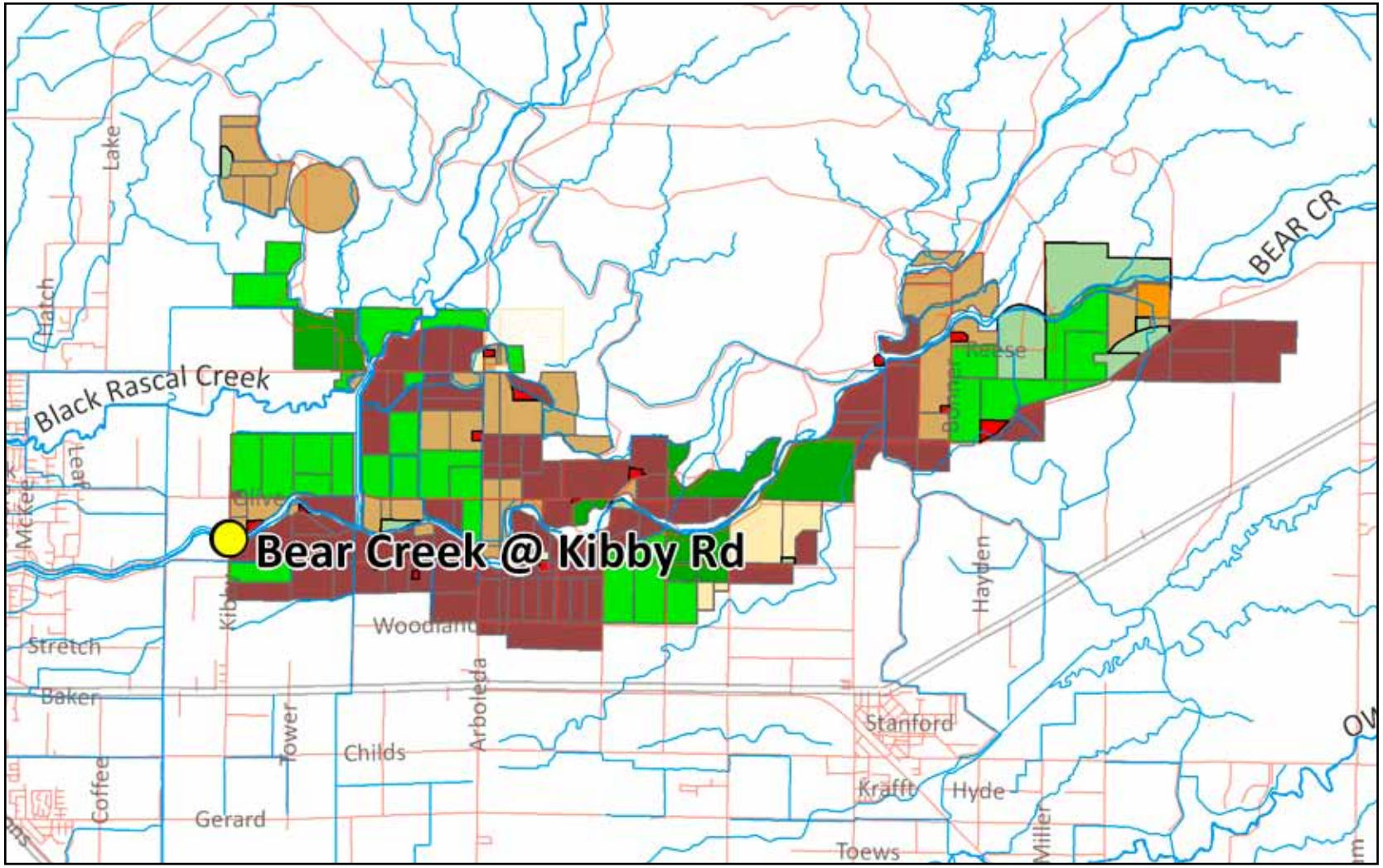
- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Ash Slough @ Ave 21						
Date Sampled	Oxygen, Dissolved	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Algae toxicity
	7 mg/L	235 MPN /100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	Based on growth
7/12/2005		500			0.018	
8/16/2005					0.046	
2/28/2006		500			0.016	toxic
3/15/2006					0.029	
5/16/2006			4.8 (2.6)	0.68 (0.46)		
6/13/2006		770	17 (3.3)	1.6 (0.69)		
7/11/2006			6.7 (4.1)			
8/8/2006			6.3 (3.1)			
9/12/2006			9.3 (3.3)			
5/19/2009	6.99		3.0 (2.2)			
4/20/2010			3.2 (1.67)			

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Bear Creek at Kibby Road



Land Use

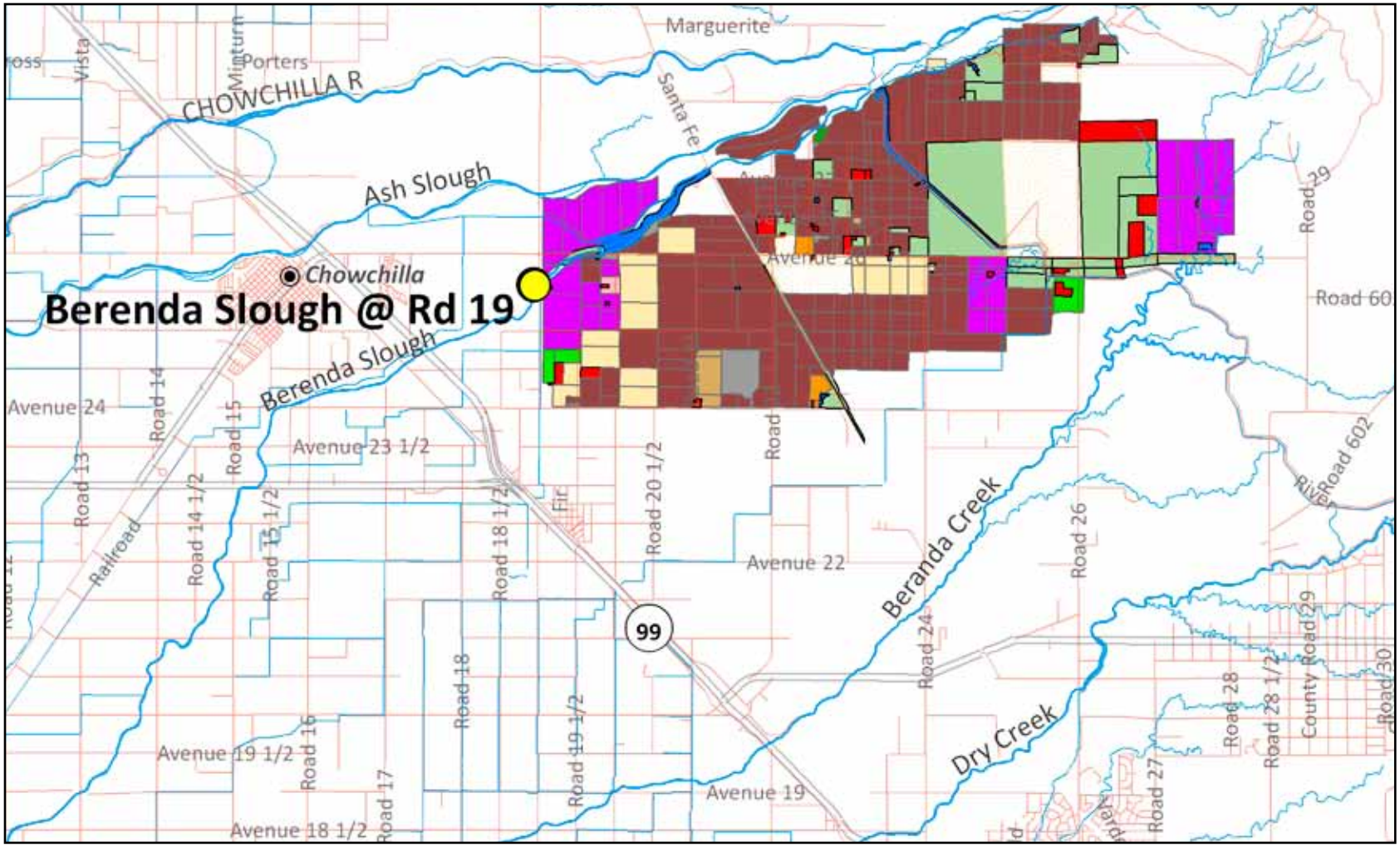
- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Bear Creek @ Kibby Road										
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Arsenic	Copper[1]	Chlorpyrifos	DDT	Water flea toxicity	Algae toxicity	Sediment toxicity
	7 mg/L	6.5 – 8.5 units	235 MPN/100 mL	10 µg/L	µg/L (variable)	0.015 µg/L	0.00059 µg/L	Based on survival	Based on growth	Based on survival
3/21/2005	4.4		1600							
5/10/2005			280					toxic		
3/15/2006			1600							
5/17/2006						0.52		toxic		
6/13/2006	6.99	8.69								
2/12/2007			2400		12 (9.3)		0.0091			
3/1/2007			1300							
7/24/2007						0.049		toxic		
8/21/2007		8.69								
1/24/2008			2400		8.6 (7.7)					
2/25/2008			>2400		7.2 (6.4)					
3/4/2008		8.72								
4/29/2008									toxic	
5/7/2008									toxic	
6/24/2008				17						
8/26/2008					7.1 (2.4)					
8/28/2008										toxic
10/2/2008										toxic

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Berenda Slough along Avenue 18 ½ (Road 19)



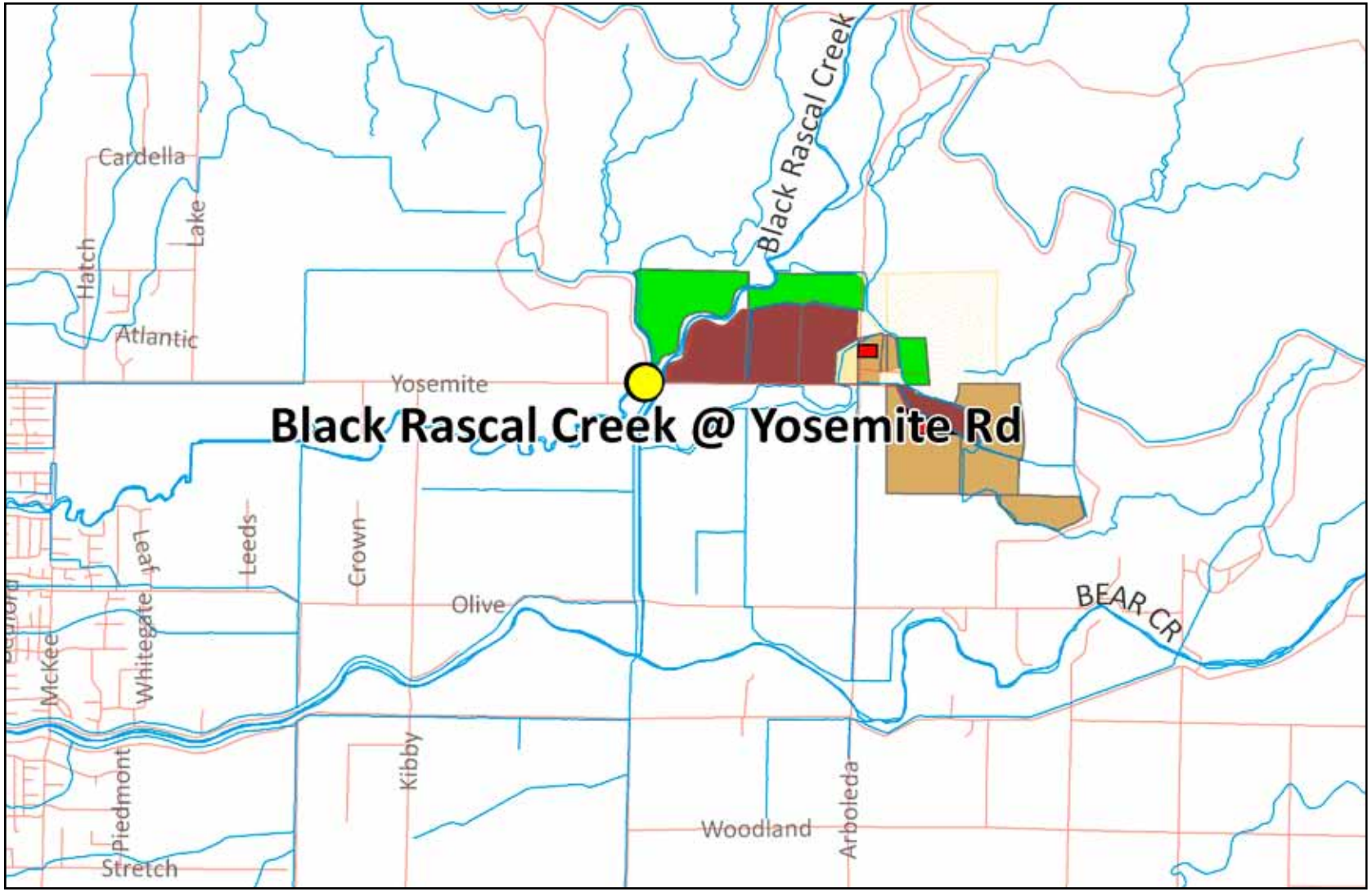
Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Berenda Slough along Avenue 18 ½ (*Road 19*)							
Site Name	Date Sampled	Oxygen, Dissolved	*E. coli*	Chlorpyrifos	Diuron	Water flea toxicity	Algae toxicity
		7 mg/L	235 MPN/100 mL	0.015 µg/L	2 µg/L	Based on survival	Based on growth
Along Ave 18 1/2	6/13/2006	5.49	460				
Along Ave 18 1/2	7/11/2006	6.54		0.043			
Along Ave 18 1/2	9/12/2006			0.14		toxic	
Along Ave 18 1/2	5/29/2007	1.75			3.4		toxic
Along Ave 18 1/2	6/5/2007	3.07					
Along Ave 18 1/2	6/26/2007	5.2	390				
Along Ave 18 1/2	7/24/2007	6.37		0.028			toxic
Along Ave 18 1/2	7/31/2007	4.72					toxic
Along Ave 18 1/2	8/21/2007	6.13					
@ Rd 19	*7/29/2008*	*1.1*					

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org
Italics – Additional Management Plan monitoring site.

Black Rascal Creek at Yosemite Road

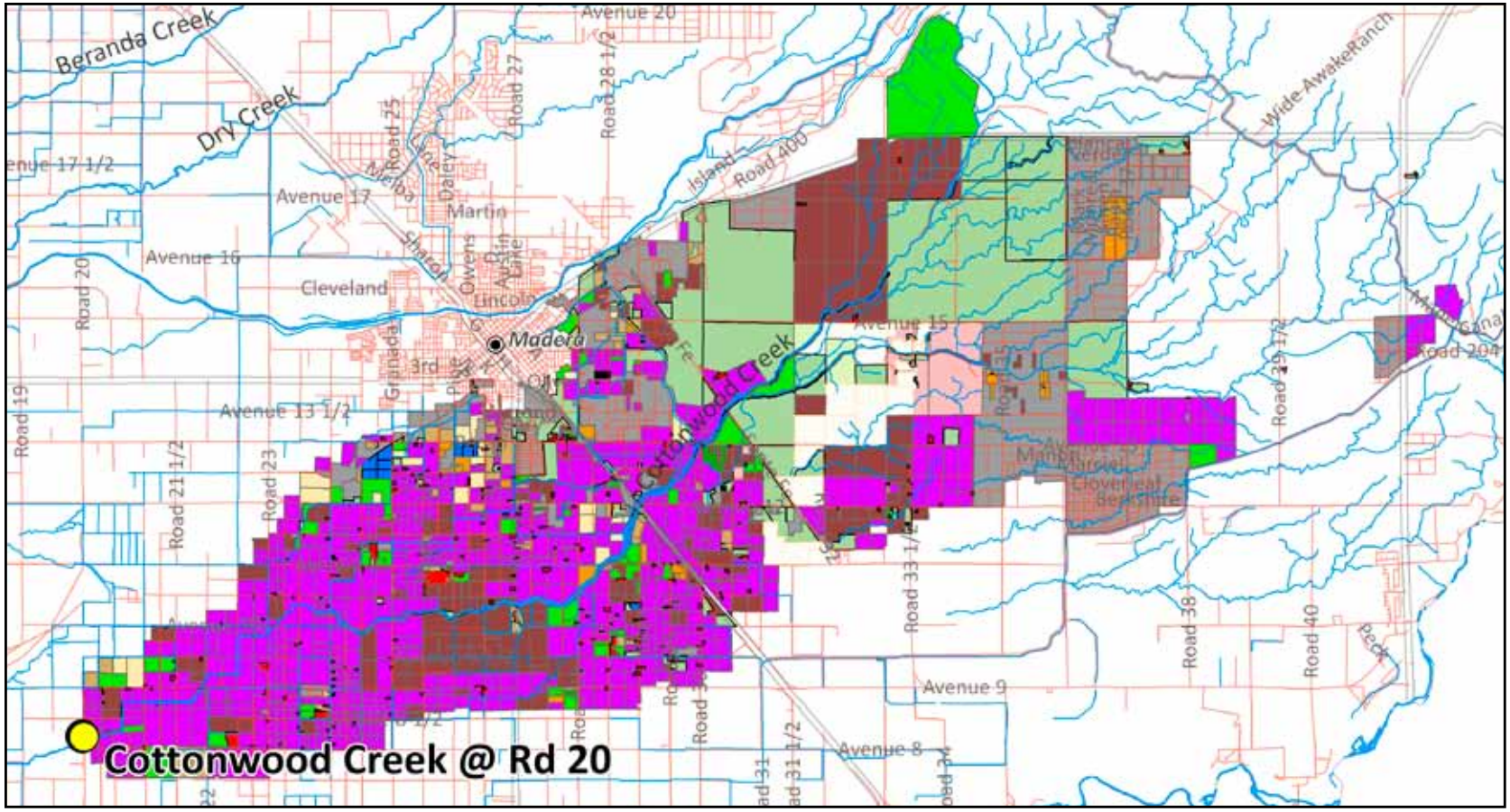


Black Rascal Creek @ Yosemite Road									
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Water flea toxicity	Algae toxicity	Sediment toxicity
	7 mg/L	6.5 – 8.5 units	235 MPN/100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	Based on survival	Based on growth	Based on survival
5/18/2006	5.41		2400			0.033			
6/14/2006			490						
7/12/2006	5.53								
8/9/2006	5.65								
9/12/2006	5.56								
2/12/2007			2400						
3/1/2007			2400						
5/29/2007	3.93		770				toxic		
6/26/2007	6.95								
7/24/2007			580			3.7	toxic		
7/31/2007							toxic		
8/21/2007	6.42					0.12	toxic		
8/23/2007	5.69								
8/28/2007	6.18						toxic		
9/18/2007						0.031			
1/24/2008			>2400						
2/25/2008			>2400					toxic	
4/29/2008		8.75	770	8 (7.7)	2.4 (2.39)				
5/27/2008			920						
6/24/2008			490						
7/8/2008	2.3								
7/29/2008	4.49								
8/5/2008	5.58								
8/26/2008	2.58								
8/28/2008	2.26								toxic
9/9/2008	4.18								
9/30/2008		5.02			1.3 (0.75)				
10/2/2008	5.05								

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Cottonwood Creek at Road 20



Land Use

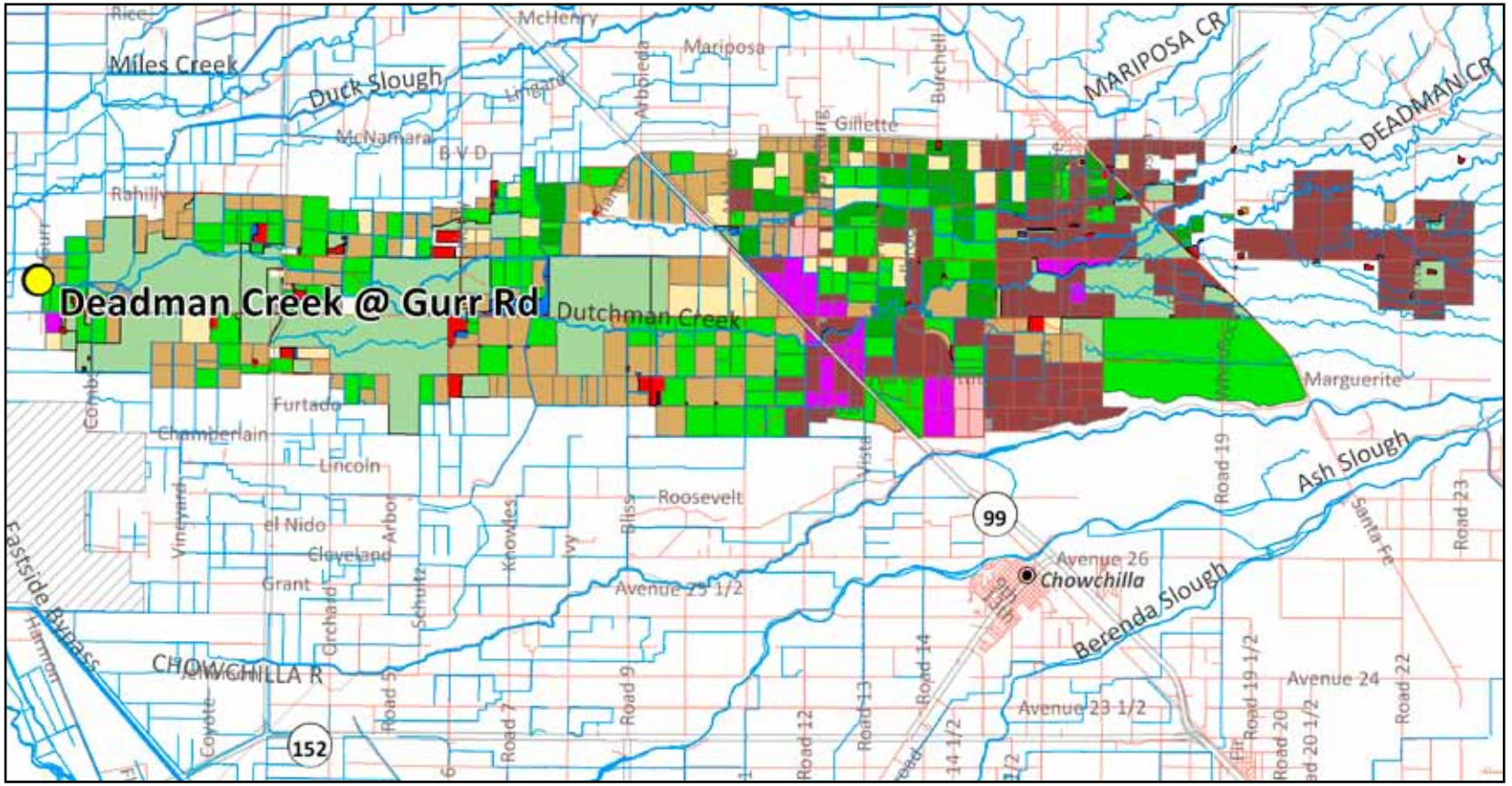
- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Cottonwood Creek @ Road 20													
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Cyanazine	Diazinon	Diuron	Simazine	Fathead minnow toxicity	Algae toxicity	Sediment toxicity
	7 mg/L	6.5–8.5 units	235 MPN /100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	1.0 µg/L	0.1 µg/L	2 µg/L	4.0 µg/L	Based on survival	Based on growth	Based on survival
2/28/2006			300										
3/15/2006			1600										
5/16/2006	5.71			4.4 (3.5)									
6/13/2006	6.9			8 (3.1)	0.73 (0.63)								
7/11/2006	6.51												
8/8/2006	6.95												
9/12/2006	6.11			5.5 (4.4)									
5/29/2007	6.55			6.7 (5.5)									
6/19/2007				6.7 (4.4)									
6/26/2007				4.3 (4.1)									
7/24/2007		9.04		5.4 (4.6)									
8/21/2007	6.81			5.2 (4.6)									
8/23/2007	3.95												
1/25/2008			1200	24 (3.0)	5.4 (0.57)	0.019			68		toxic		
2/25/2008				21 (6.5)	1.9 (1.87)	0.040		0.2	65	5.1			
3/4/2008													toxic
4/29/2008			580	8 (6.9)								toxic	
5/7/2008												toxic	
5/27/2008			250				1.1						
6/24/2008			1300	39 (5.5)									
7/29/2008			1000										
8/26/2008	6.83		390	4.4 (3.7)									
2/7/2009			>2400										
5/19/2009	6.72												
11/17/2009			770										
1/19/2010						0.210							
4/20/2010	6.36			3.1 (2.17)									
5/18/2010				3.6 (2.36)									
6/15/2010			2000										
7/20/2010	6.80												
8/17/2010	6.04			5.3 (4.9)									
9/14/2010	6.44												

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Deadman Creek at Gurr Road



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Deadman Creek @ Gurr Road

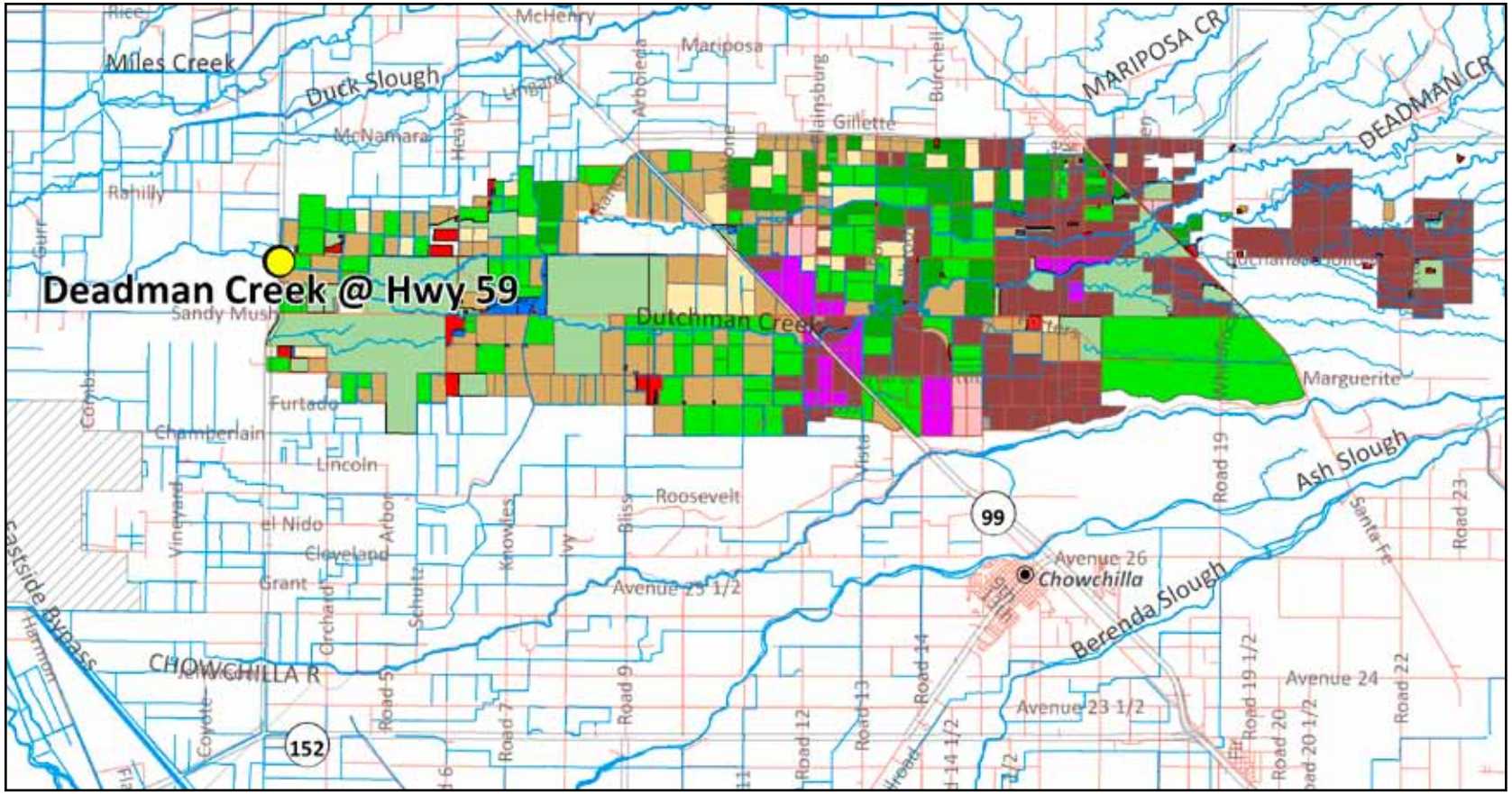
Date Sampled	Oxygen, Dissolved	pH	Specific Conductivity	*E. coli*	Total Dissolved Solids	Ammonia	Arsenic	Copper[1]	Chlorpyrifos	DDT	Dieldrin	Malathion[2]	Fathead minnow toxicity	Algae toxicity	Water Flea toxicity
	7 mg/L	6.5–8.5 units	700 µmhos/cm	235 MPN/100mL	450 mg/L	1.5 mg/L	10 µg/L	µg/L (variable)	0.015 µg/L	0.00059 µg/L	0.00014 µg/L	0 µg/L	Based on survival	Based on growth	Based on survival
1/25/2008				870			15	19 (11.7)		0.0073					
2/25/2008		8.51		550			13							toxic	
4/29/2008				>2400			18				0.03				
5/27/2008			801		520										
6/24/2008	4.85														
7/29/2008	6.87														
8/26/2008	5.21			330											
8/28/2008	5.9														
9/30/2008	5.46			330											
10/21/2008				1400			12								
11/11/2008				370			14								
12/16/2008				1400											
1/20/2009	5.61		762	>2400	470	5.5	18						toxic		
2/7/2009	1.01		1802	>2400	1100	50	30						toxic	toxic	toxic
3/17/2009				1600			14								toxic
5/19/2009				490											
6/16/2009				730											
7/21/2009	6.04			460											
8/18/2009	6.94														
9/22/2009															
10/20/2009	6.08			490											
11/17/2009				2000											
12/15/2009	5.02		995	>2400	610	15							toxic		
1/19/2010				>2400											
2/23/2010				370											
3/23/2010	0.20		4023	>2400	2100	155.4			0.140				toxic		toxic
4/20/2010				280					0.018						
5/18/2010				240											
6/15/2010	4.56			370											
7/20/2010	6.60			580											
8/17/2010	6.77								0.024						
9/14/2010	6.82			360											

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

[2] Malathion is a prohibited discharge pesticide and any detection of the constituent in a water body is considered an exceedance.

Deadman Creek at Highway 59



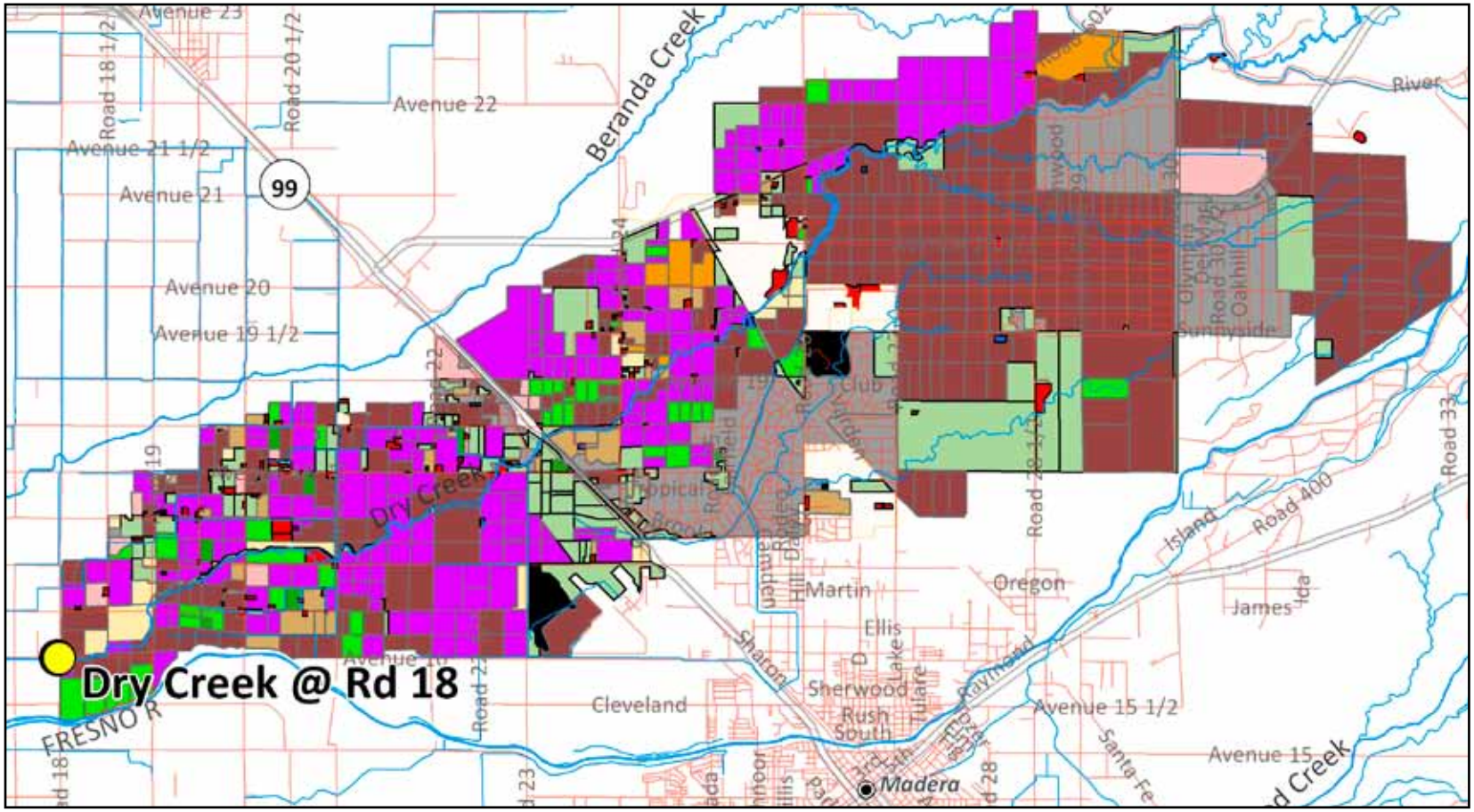
Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Deadman Creek @ Highway 59										
Date Sampled	Oxygen, Dissolved	*E. coli*	Arsenic	Chlorpyrifos	DDD	DDT	Diuron	Simazine	Algae toxicity	Sediment toxicity
	7 mg/L	235 MPN/100mL	10 µg/L	0.015 µg/L	0.00083 µg/L	0.00059 µg/L	2 µg/L	4.0 µg/L	Based on growth	Based on survival
6/13/2006	5.65				0.0053	0.05				
8/8/2006	6.55									
9/12/2006	6.53			0.059						
2/11/2007		400								
2/28/2007		490								
4/24/2007		310								
5/29/2007	6.13	490								
6/26/2007	6.78	610								
7/24/2007	4.31									
8/21/2007	4.47			0.038						
8/23/2007	2.65									
9/18/2007	5.43	330								
1/25/2008		>2400					6.2	25	toxic	
2/25/2008		1200								
4/29/2008		610	16						toxic	
5/7/2008									toxic	
5/27/2008		610	12							
6/24/2008	3.78	310	17							
7/29/2008	3.08	490								
8/5/2008	4.51			0.14						
8/26/2008	1.78		11							
8/28/2008	1.05									toxic
9/9/2008	3.37			0.069						
9/30/2008	4.45		13							
10/2/2008	4.22									

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

Dry Creek at Road 18 (Road 22 and 28 ½)



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

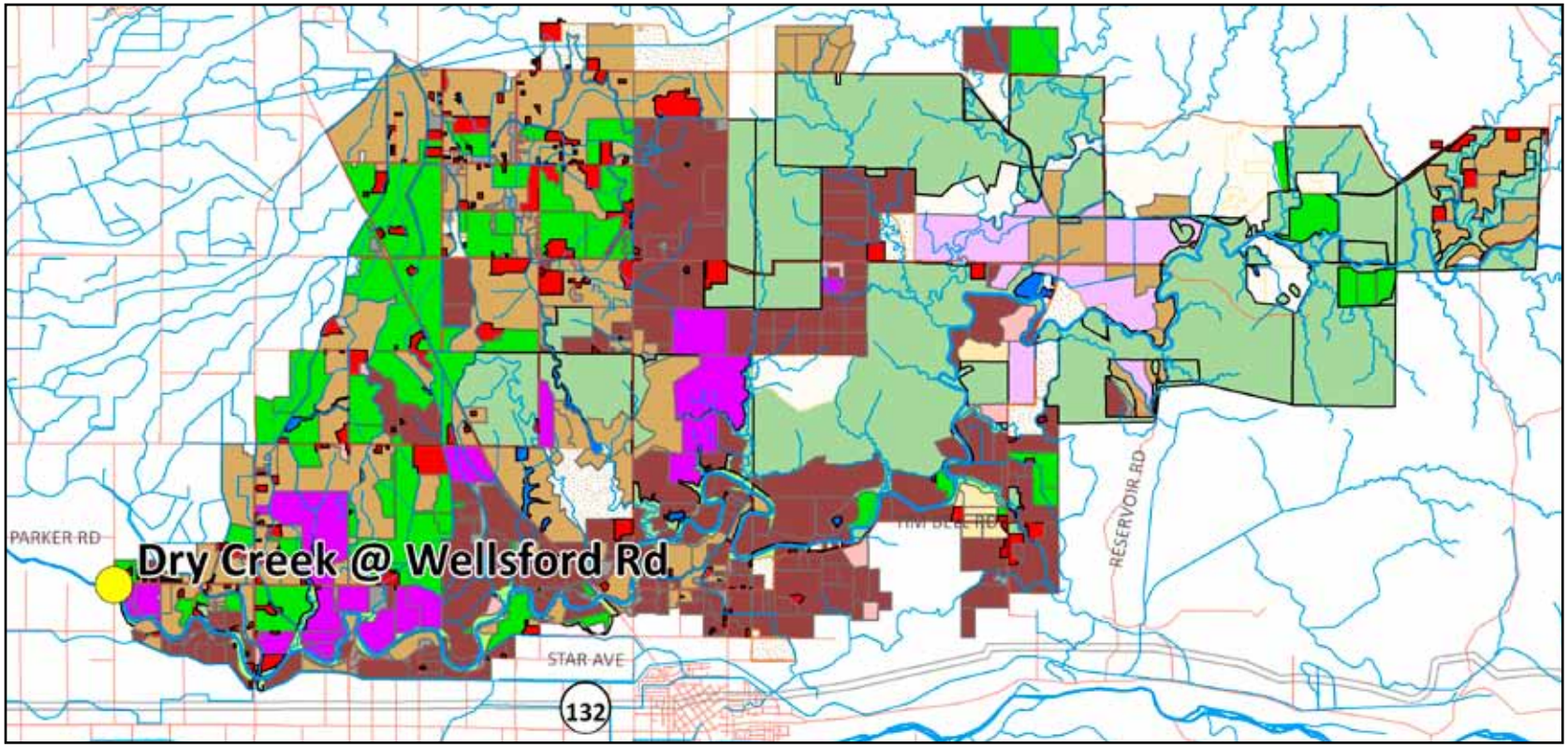
Dry Creek @ Road 18 (*Rd 22 and 28 ½*)													
Site Name	Date Sampled	Oxygen, Dissolved	pH	*E .coli*	Copper[1]	Lead[1]	Zinc[1]	Chlorpyrifos	Diazinon	Diuron	Water flea Toxicity	Algae toxicity	Sediment toxicity
		7 mg/L	6.5 – 8.5 units	235 MPN/100 mL	µg/L (variable)	µg/L (variable)	µg/L (variable)	0.015 µg/L	0.1 µg/L	2 µg/L	Based on survival	Based on growth	Based on survival
Rd 18	8/16/2005		6.48										
Rd 18	9/20/2005			500									
Rd 18	5/3/2006												toxic
Rd 18	5/16/2006			1600	4.3 (1.9)	0.36 (0.31)							
Rd 18	6/13/2006				6.3 (1.5)	0.27 (0.21)					toxic		
Rd 18	7/11/2006				4.1 (2.4)			0.077					
Rd 18	8/8/2006				4.6 (2.2)								
Rd 18	9/12/2006	5.61			6.1 (1.1)	0.31 (0.13)	18 (14.1)						
Rd 18	2/11/2007				14 (3.9)				0.13				
Rd 18	4/24/2007			1400	17 (15.4)			0.017					
Rd 18	5/29/2007				4.7 (2.4)							toxic	
Rd 18	6/19/2007				4.9 (1.5)								
Rd 18	6/26/2007				3.6 (1.9)								
Rd 18	7/24/2007				5.6 (2.2)								
Rd 18	7/31/2007				4.5 (1.5)								
Rd 18	8/21/2007				5.5 (1.9)	0.34 (0.31)							
Rd 18	8/28/2007		8.53		4.3 (1.9)								
Rd 18	1/25/2008			>2400	20 (5.9)				0.13	21		toxic	
Rd 18	2/25/2008				33 (5.5)			0.034	0.24	2.1		toxic	
Rd 18	3/4/2008											toxic	
Rd 18	4/29/2008				6.8 (3.0)								
Rd 22	*4/29/2008*		*8.8*		*5.2 (3.0)*								
Rd 18	5/27/2008				5 (3.5)								
Rd 22	*5/27/2008*				*5.7 (4.1)*								
Rd 18	6/24/2008				4 (2.6)								
Rd 22	*6/24/2008*				*6.5 (2.6)*								
Rd 18	7/29/2008				5.9 (1.5)								
Rd 22	*7/29/2008*				*7 (2.4)*								
Rd 28 1/2	*7/29/2008*				*5.3 (1.7)*								
Rd 18	8/26/2008	5.82			5.1 (1.3)	0.36 (0.17)							
Rd 22	*8/26/2008*				*6.5 (1.5)*								
Rd 18	8/28/2008	5.62											toxic
Rd 22	*9/30/2008*	*3.97*			*36 (8.2)*								

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Italics – Additional Management Plan monitoring site.

Dry Creek at Wellsford Road (Waterford Road)



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Dry Creek @ Wellsford Road (*Waterford Rd*)													
Site Name	Date Sampled	DO	pH	SC	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Diuron	Thiobencarb[2]	Water flea toxicity	Algae toxicity	Sediment toxicity
		7 mg/L	6.5–8.5 units	700 µS/cm	235 MPN/100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	2 µg/L	0 µg/L	Based on survival	Based on growth	Based on survival
Wellsford Rd	1/24/2008				>2400								
Wellsford Rd	2/26/2008				>2400	11 (6.0)	1.8 (1.7)					toxic	
Wellsford Rd	3/4/2008												toxic
Wellsford Rd	4/22/2008				>2400								
Wellsford Rd	5/20/2008	5.67			330								
Wellsford Rd	6/17/2008	6.31			>2400								
Waterford Rd	*7/22/2008*	*6.08*						*0.02*					
Wellsford Rd	7/22/2008	6.67			>2400			0.03					
Waterford Rd	*8/19/2008*	*5.93*						*0.023*					
Wellsford Rd	8/19/2008	6.85			580								
Wellsford Rd	8/28/2008	6.64											toxic
Wellsford Rd	9/23/2008				290								
Wellsford Rd	10/2/2008	5.83											
Wellsford Rd	10/21/2008	4.91			550								
Wellsford Rd	12/16/2008	2.77	8.68										
Wellsford Rd	1/20/2009	5.10		707									
Wellsford Rd	3/17/2009				250								
Wellsford Rd	5/19/2009	6.24			260								
Wellsford Rd	6/16/2009				1600								
Wellsford Rd	7/21/2009	5.90			270								
Waterford Rd	*7/21/2009*	*6.89*											
Wellsford Rd	8/18/2009				410			0.027					
Wellsford Rd	10/20/2009	4.04			490								
Wellsford Rd	11/17/2009	3.04			730								
Wellsford Rd	12/15/2009	6.65			820								
Wellsford Rd	1/19/2010	2.05											
Wellsford Rd	4/20/2010	6.99			2000								
Wellsford Rd	5/18/2010				370								
Wellsford Rd	6/15/2010	5.77											
Wellsford Rd	7/20/2010	6.30			490			0.067					
Wellsford Rd	8/17/2010	6.91			490								

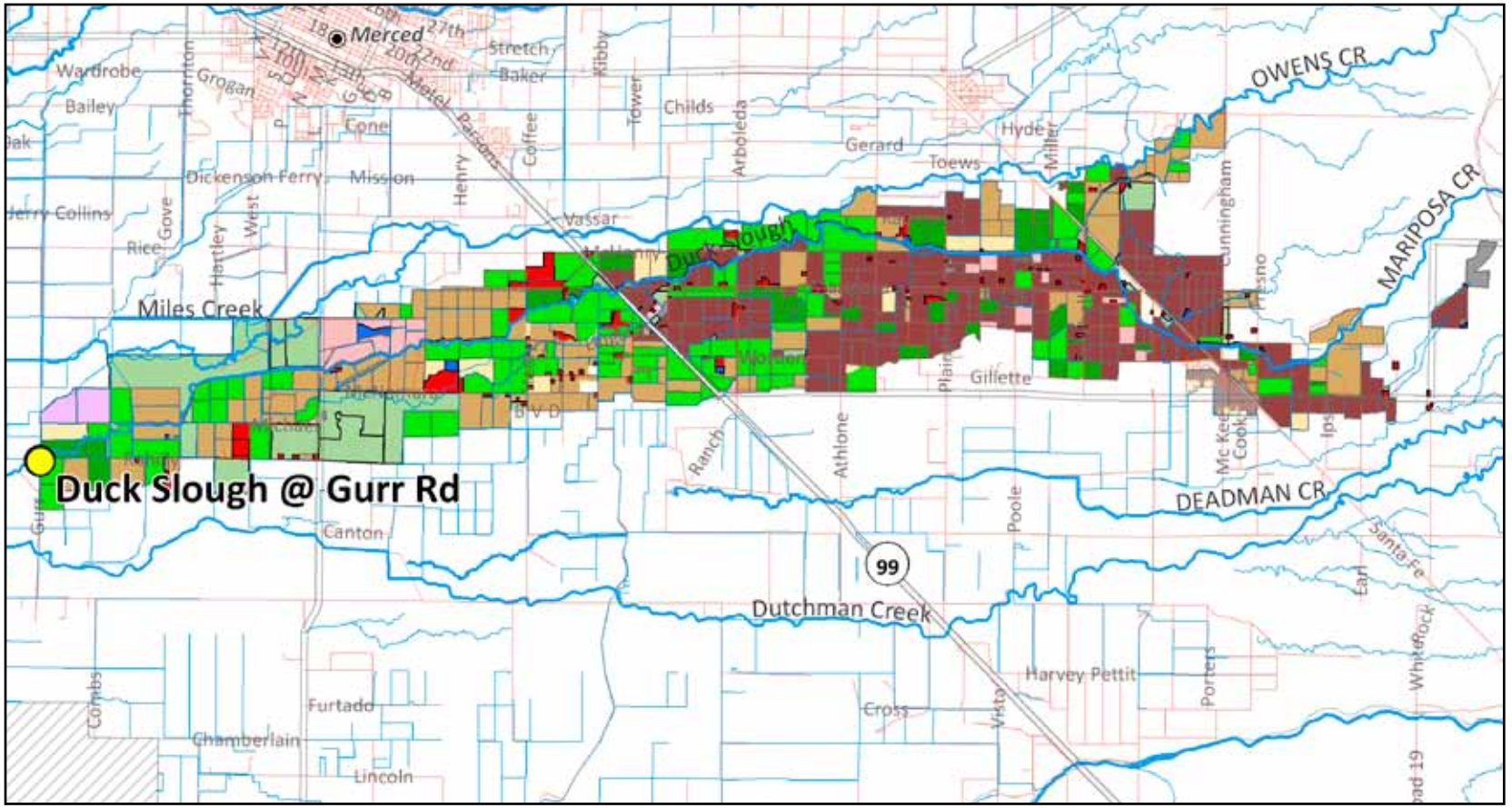
* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

[2] Thiobencarb is a prohibited discharge pesticide and any detection of the constituent in a water body is considered an exceedance.

Italics – Additional Management Plan monitoring site.

Duck Slough at Gurr Road (Highway 59 and Highway 99)



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Duck Slough @ Gurr Road (*Highway 59*)

Site Name	Date Sampled	Oxygen, Dissolved	pH	Specific Conductivity	*E. coli*	Total Dissolved Solids	Nitrate as N	Copper[1]	Lead[1]	Carbofuran[2]	Chlorpyrifos	Thiobencarb[2]	Water flea toxicity	Algae toxicity	Sediment toxicity
		7 mg/L	6.5 – 8.5 units	700 µmhos/cm	235 MPN/ 100 mL	450 mg/L	10 mg/L	µg/L (variable)	µg/L (variable)	0 µg/L	0.015 µg/L	0 µg/L	Based on survival	Based on growth	Based on survival
Gurr	2/7/2009						13								
Gurr	3/17/2009		9.7												
Gurr	5/19/2009				>2400			7.3 (6.2)							
Gurr	9/22/2009		9.03												
Gurr	11/17/2009			1215	340										
Gurr	12/15/2009				>2400										
Gurr	7/20/2010		5.41												
Gurr	9/14/2010														toxic

Duck Slough @ Hwy 99 (*Whealan Rd*)

Site Name	Date Sampled	Oxygen, Dissolved	pH	Specific Conductivity	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Water flea toxicity	Algae toxicity	Sediment toxicity
		7 mg/L	6.5 – 8.5 units	700 µmhos/cm	235 MPN/ 100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	Based on survival	Based on growth	Based on survival
Hwy 99	1/25/2008				>2400						
Hwy 99	2/25/2008				>2400	9.9 (8.0)					
Hwy 99	3/4/2008		8.65								
Hwy 99	4/29/2008				280					toxic	
Hwy 99	5/7/2008									toxic	
Whealan Rd	*6/24/2008*					*73 (5.0)*					
Hwy 99	7/29/2008					2.7 (2.6)	0.69 (0.5)				
Hwy 99	8/26/2008						0.72 (0.69)				
Hwy 99	8/28/2008										toxic
Whealan Rd	*8/28/2008*					*3.4 (1.9)*					
Hwy 99	9/30/2008							0.034			
Whealan Rd	*9/30/2008*	*3.33*				*3.7 (1.3)*					
Hwy 99	10/2/2008										toxic
Hwy 99	6/16/2009	6.78									

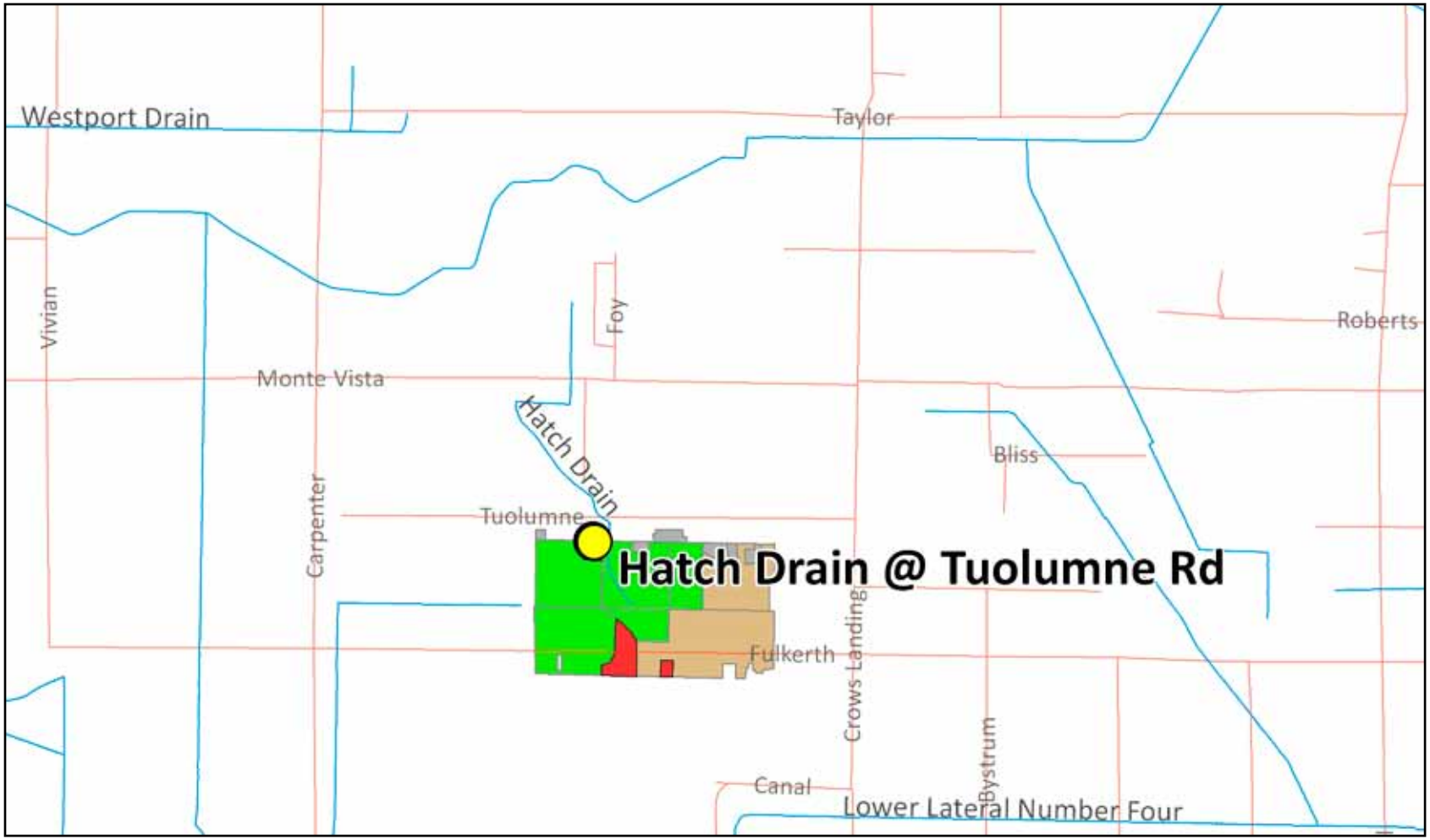
* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

[2] Thiobencarb and carbofuran are prohibited discharge pesticides and any detection of either constituent in a water body is considered an exceedance.

Italics – Additional Management Plan monitoring site.

Hatch Drain at Toulumne Road



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
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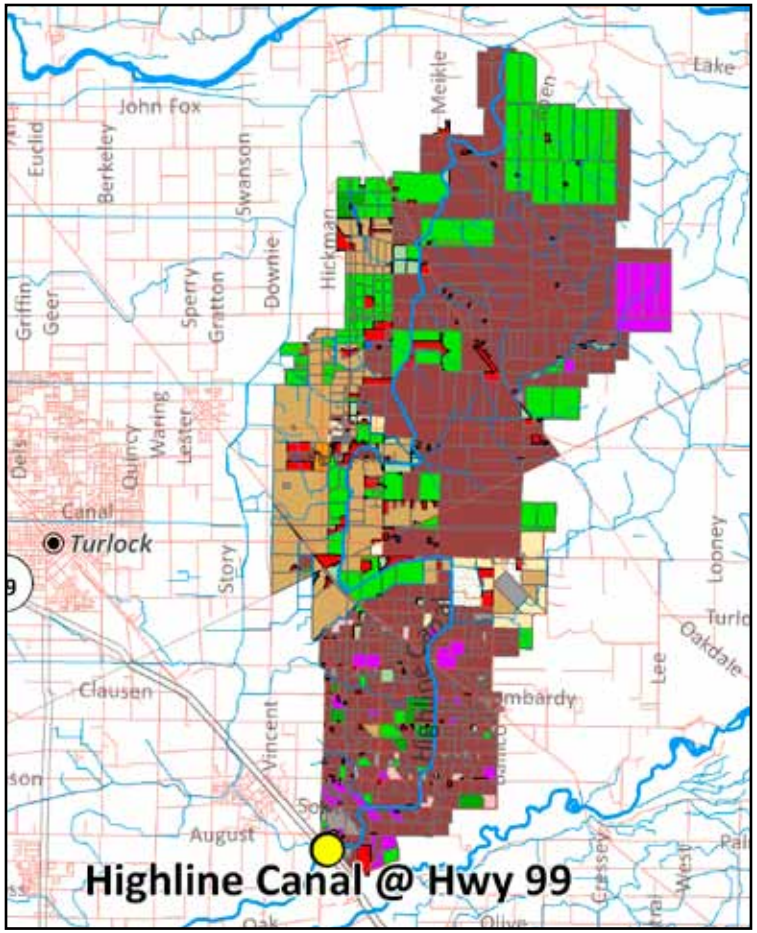
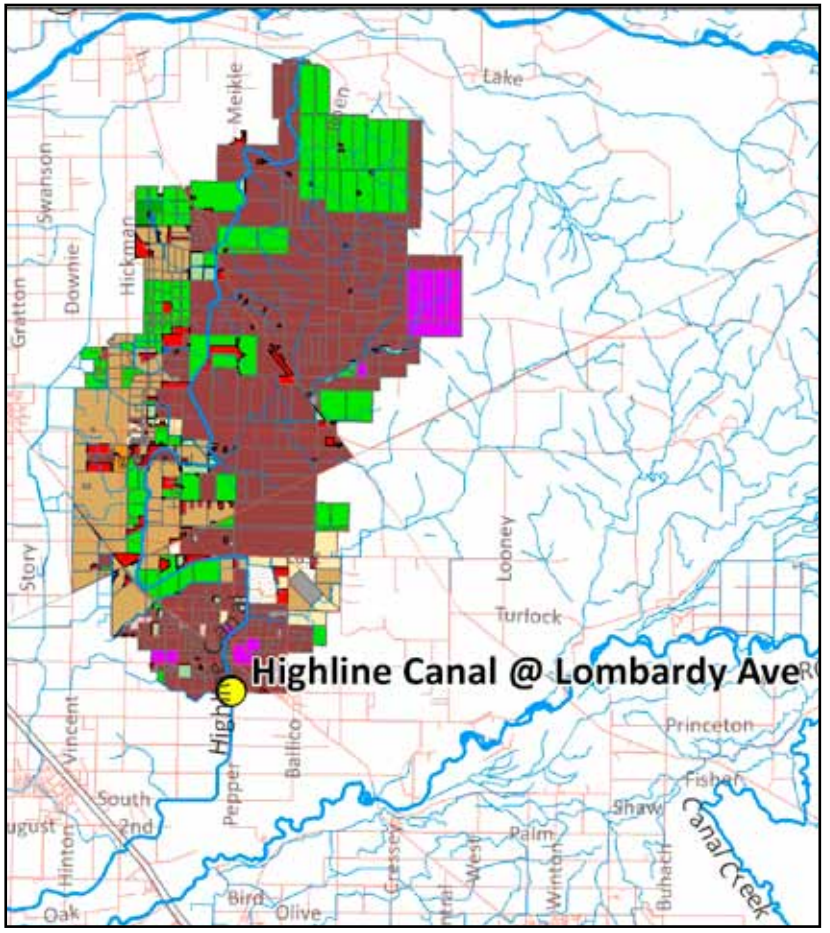
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Hatch Drain @ Tuolumne Road													
Date Sampled	Oxygen, Dissolved	Specific Conductivity	Total Dissolved Solids	*E. coli*	Ammonia as N	Nitrate as N	Nitrite as N	Arsenic	DDT	Dimethoate	Methoxychlor	Algae toxicity	Sediment toxicity
	7 mg/L	700 µmhos/cm	450 mg/L	235 MPN /100 mL	1.5 mg/L	10 mg/L	1.0 mg/L	10 µg/L	0.00059 µg/L	1.0 µg/L	0.03 µg/L	Based on growth	Based on survival
5/15/2007	6.46	1105	700	2400		13	2.2	12					
6/19/2007	5.54	1014	800	770		23		29					
7/17/2007	3.05	1111	720	260		44		18					
8/14/2007	4.22			2400	4.7	18				2.1			
8/16/2007	5.85	1280											toxic
9/11/2007	3.53	1817	1300	1600		24		18			0.035		toxic
1/24/2008	4.67	1199	820	410		24		15				toxic	
2/26/2008	1.9	1298	900	920		24		16				toxic	
3/4/2008	2.12	1271										toxic	toxic
3/28/2008	5.22	1373											toxic
4/22/2008	2.14	1274	880	1300		20		17	0.023			toxic	
4/29/2008	0.82	1323										toxic	
5/20/2008	1.67	1325	960	2400		18		18				toxic	
5/27/2008	0.73	1197											
6/17/2008	0.99	1292	930	390		18		17					
7/22/2008	0.67	1326	900	650		27		19				toxic	
7/29/2008	0.9	1301										toxic	
8/19/2008	1.4	1330	900	1400		15		17				toxic	
8/26/2008	1.1	1493										toxic	
8/28/2008	1.31	1391											toxic
9/23/2008	1.69	1295	920			17		15					
10/2/2008	2.14	1455											toxic

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

Highline Canal at Highway 99 and at Lombardy Avenue





Land Use

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- Pasture, NI
- Rice, I
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- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Highline Canal @ Highway 99

Date Sampled	pH	Specific Conductivity	Total Dissolved Solids	*E. coli*	Ammonia as N	Copper[1]	Chlorpyrifos	Algae toxicity	Sediment toxicity
	6.5–8.5 units	700 µmhos/cm	450 mg/L	235 MPN /100 mL	1.5 mg/L	µg/L (variable)	0.015 µg/L	Based on growth	Based on survival
2/26/2008		747	520	>2400	8.3	81 (16.1)		toxic	
3/4/2008	9.32								toxic
4/22/2008								toxic	
5/7/2008	8.69								
5/20/2008				240				toxic	
6/3/2008	8.54								
7/22/2008							0.021		
8/19/2008	9.24								
8/28/2008									toxic
9/9/2008	8.73								
10/2/2008									toxic
2/7/2009	8.86								
5/19/2009				340					
6/16/2009	8.95								
7/21/2009							0.093		
8/18/2009	9.03								
9/22/2009	8.61								
12/15/2009	8.61								
1/19/2010				1700					
2/23/2010				790					

Highline Canal @ Lombardy Avenue

Date Sampled	pH	SC	Copper[1]	Lead[1]	Chlorpyrifos	DDE	DDT	Malathion[2]	Methyl parathion[2]	Sediment toxicity
	6.5–8.5 units	700 µmhos/cm	µg/L (variable)	µg/L (variable)	0.015 µg/L	0.00059 µg/L	0.00059 µg/L	0 µg/L	0 µg/L	Based on survival
8/19/2008	8.65		3.3 (1.9)	0.27 (0.26)	0.03	0.0089	0.018	0.14	0.18	
8/28/2008										toxic
10/2/2008										toxic
4/21/2009		904								
1/19/2010					0.016					
2/23/2010	9.36		16 (14.10)							

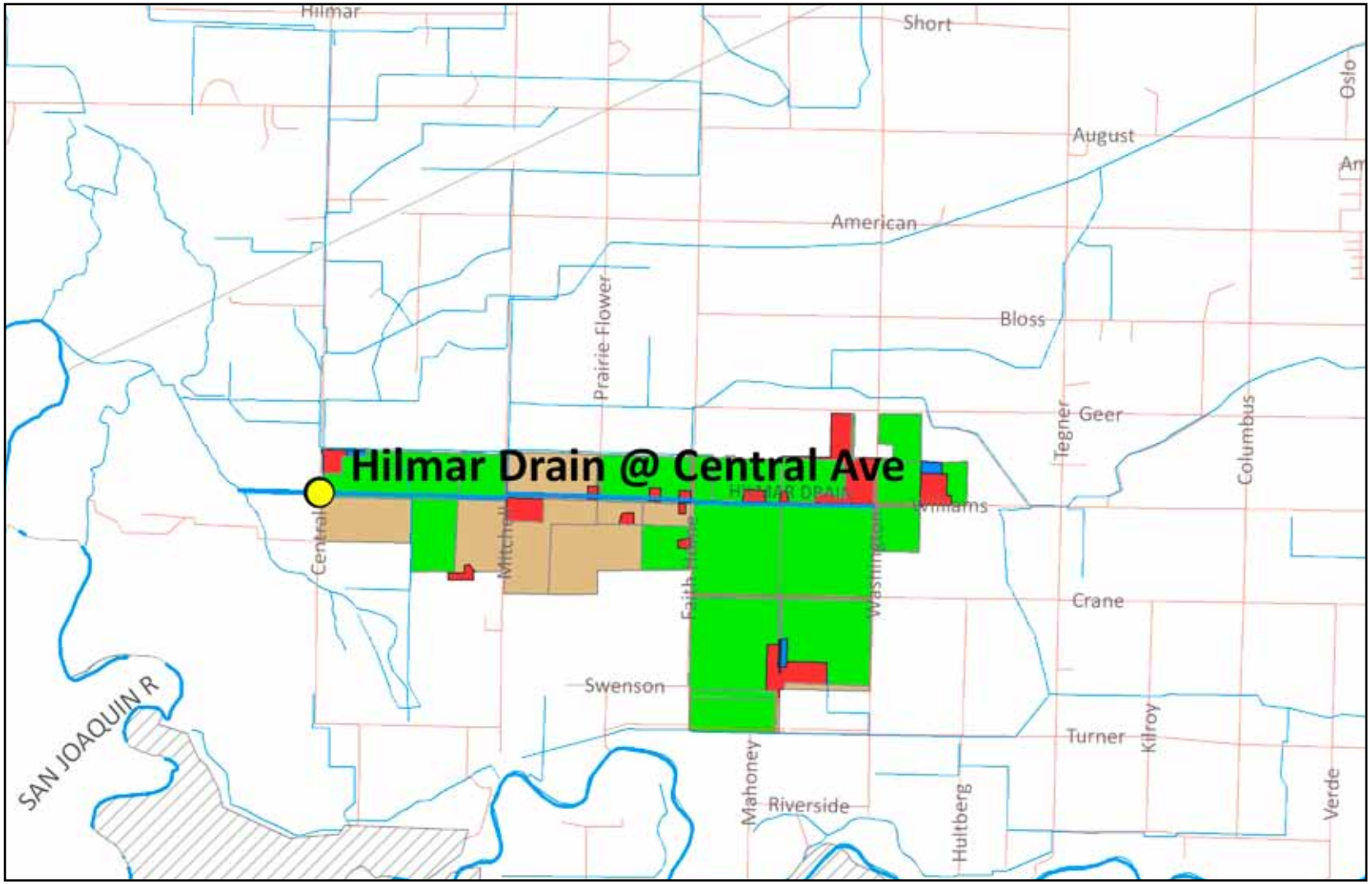
* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

[2] Malathion and methyl parathion are prohibited discharge pesticides and any detection of either constituent in a water body is considered an exceedance.

DO-Dissolved Oxygen

Hilmar Drain at Central Avenue



Land Use

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- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Hilmar Drain @ Central Avenue (*Tuolumne Rd, Mitchell Rd, Reclamation Drain @ Williams Ave*)						
Site Name	Date Sampled	Oxygen, Dissolved	Specific Conductivity	Total Dissolved Solids	*E. coli*	Nitrate as N
		7 mg/L	700 µmhos/cm	450 mg/L	235 MPN /100 mL	10 mg/L
Central Ave	3/4/2008		1429			
Central Ave	3/28/2008	6.3	1111			
Central Ave	4/22/2008		1482	960	390	
Central Ave	4/29/2008	4.48	809			
Central Ave	5/20/2008		963	680	440	20
Central Ave	6/17/2008		1060	650	1000	
Central Ave	7/22/2008		1074	710	270	21
Mitchell Rd	*7/22/2008*	*6.93*	*995*			*28*
Reclamation Drain @ Williams Ave	*7/22/2008*		*1558*			
Mitchell Rd	*7/29/2008*	*1.81*	*770*			
Central Ave	8/19/2008		1590	1000		
Central Ave	8/28/2008	6.32	1172			
Central Ave	9/23/2008		943	640		26
Central Ave	9/30/2008		733			
Central Ave	10/2/2008		1241			
Central Ave	4/21/2009		904			
Central Ave	9/22/2009		934			

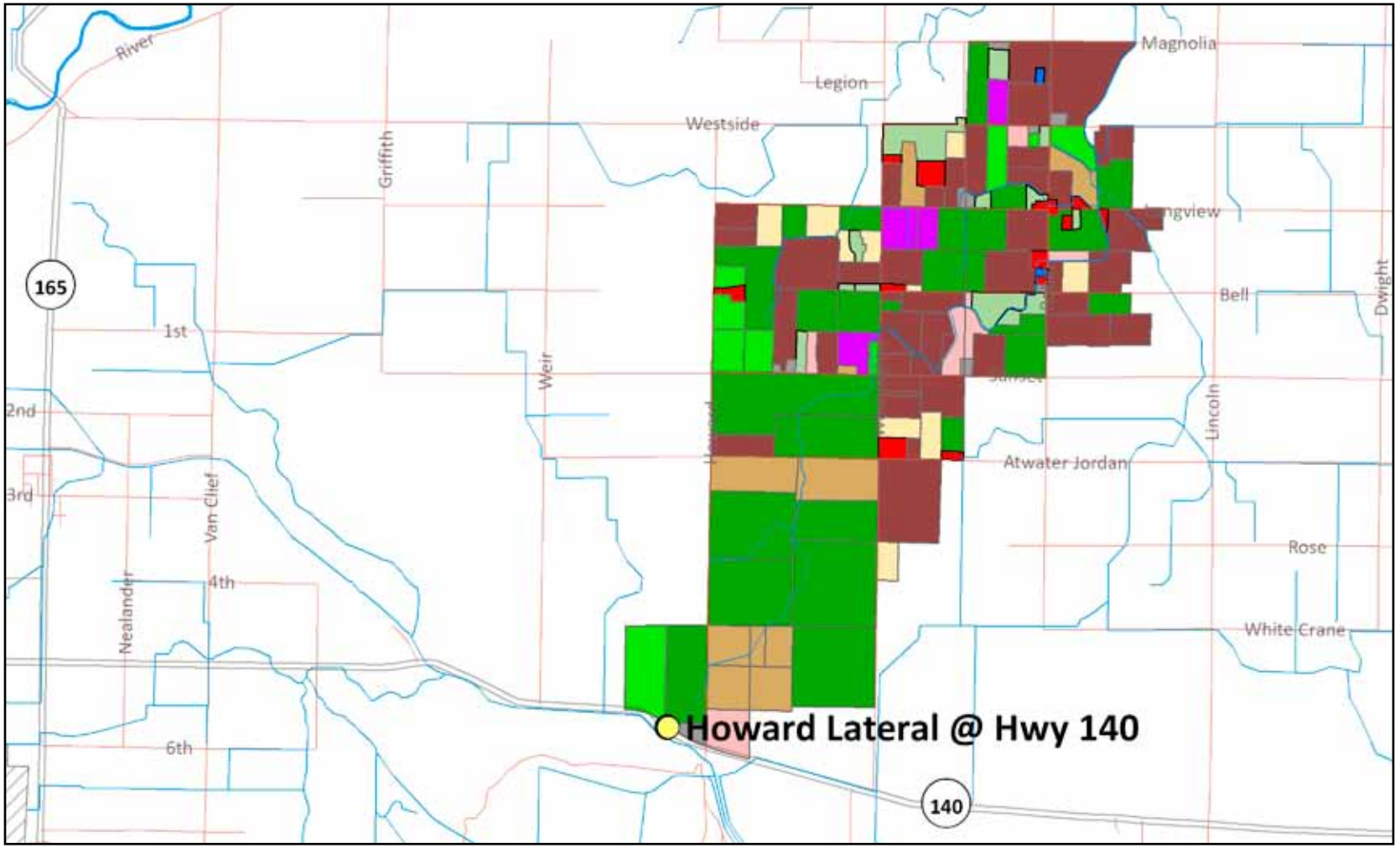
Hilmar Drain @ Central Avenue (*Mitchell Rd*)					
Site Name	Date Sampled	DDE	Diuron	Algae toxicity	Sediment toxicity
		0.00059 µg/L	2 µg/L	Based on growth	Based on survival
Central Ave	3/4/2008				toxic
Central Ave	4/22/2008			toxic	
Central Ave	4/29/2008		3.43	toxic	
Mitchell Rd	*7/22/2008*			*toxic*	
Mitchell Rd	*7/29/2008*			*toxic*	
Central Ave	8/19/2008	0.0056			
Central Ave	8/28/2008				toxic
Central Ave	9/23/2008			toxic	
Central Ave	9/30/2008			toxic	
Central Ave	10/2/2008				toxic

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Italics – Additional Management Plan monitoring site.

Howard Lateral at Highway 140



Land Use

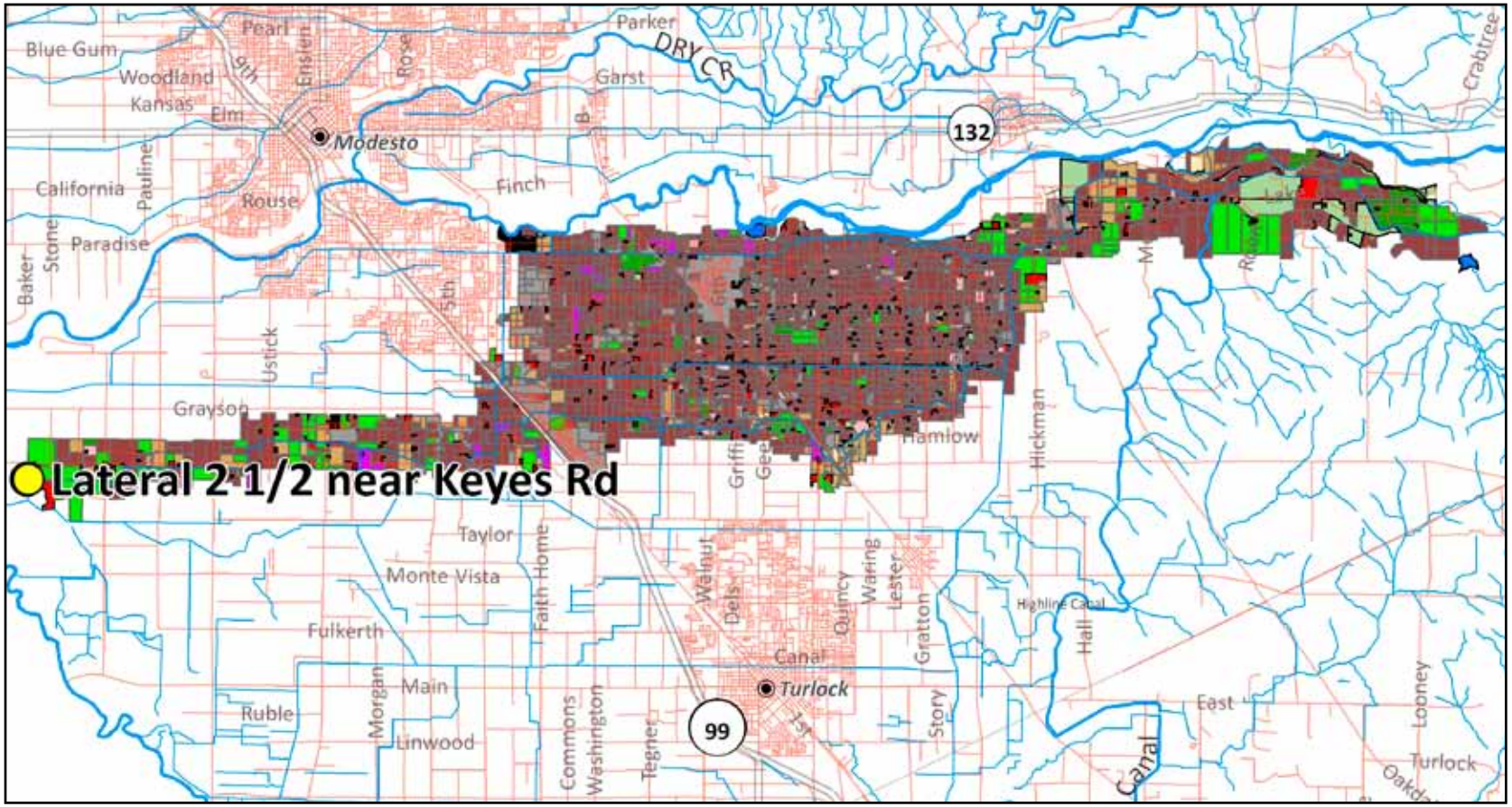
- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Howard Lateral @ Hwy 140									
Date Sampled	Oxygen, Dissolved	pH	Specific Conductivity	E. coli	Total Dissolved Solids	Nitrate as N	Chlorpyrifos	Copper[1]	Algae toxicity
	7 mg/L	6.5–8.5 units	700 µmhos/cm	235 MPN/100 mL	450 mg/L	10 mg/L	0.015 µg/L	µg/L (variable)	Based on growth
4/21/2009	1.55								
5/19/2009			810		530	13			toxic
7/21/2009		8.88							
8/18/2009		9.14							
9/22/2009		9.15		330					
10/20/2009				240				3.3 (1.57)	
4/20/2010								3.7 (2.65)	
6/15/2010							0.022		
7/20/2010		8.93						3.1 (2.5)	
8/17/2010		9.05							
9/14/2010		9.28							

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Lateral 2 ½ near Keyes Road



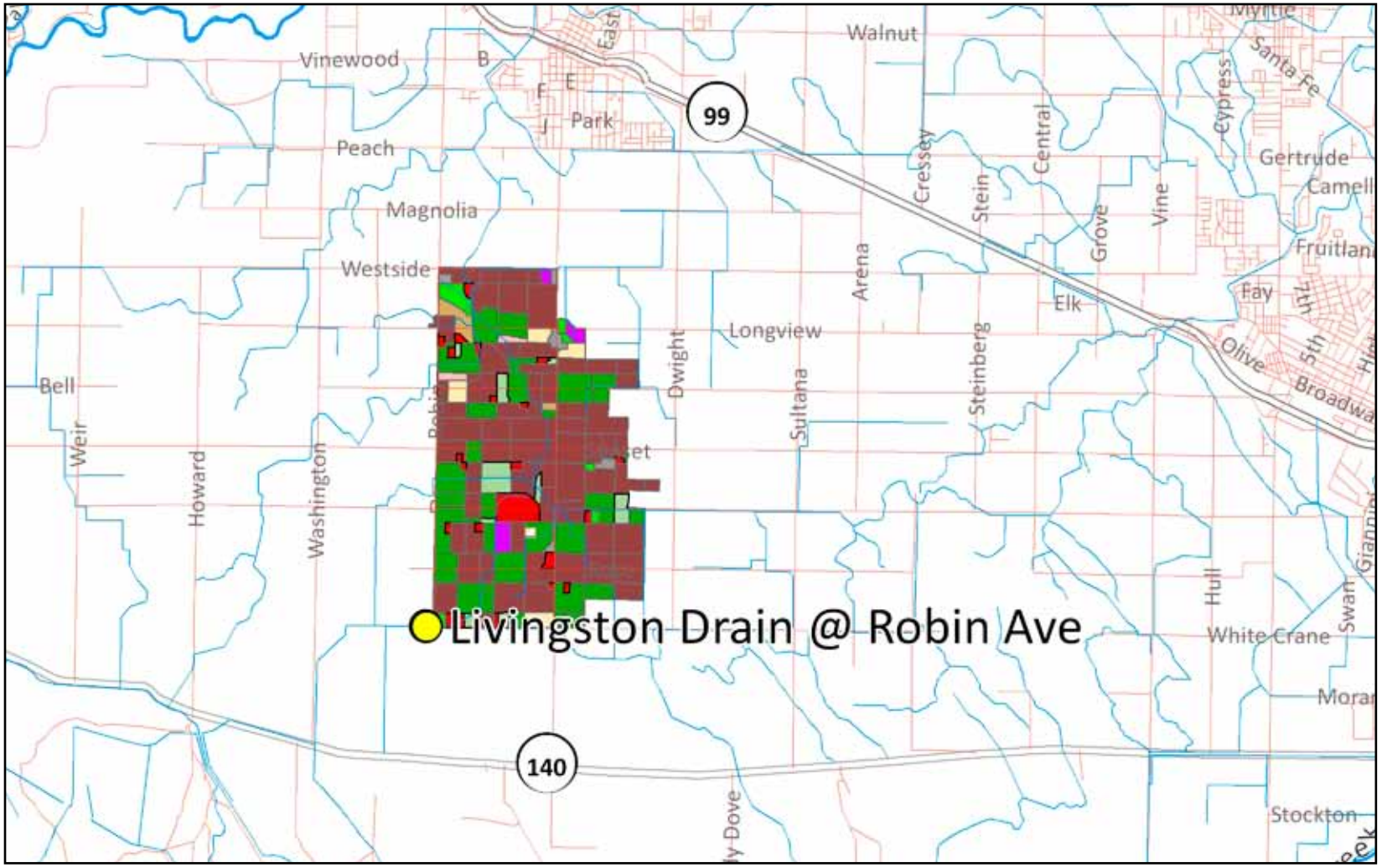
Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Lateral 2 ½ near Keyes Rd								
Date Sampled	pH	*E. coli*	Ammonia	Nitrate as N	Chlorpyrifos	Hexachlorocyclohexane	Algae toxicity	Sediment toxicity
	6.5–8.5 units	235 MPN/100 mL	1.5 mg/L	10 mg/L	0.015 µg/L	0.0039 µg/L	Based on growth	Based on survival
10/21/2008	9.57	280						
11/11/2008	9.09	370	0.65 (0.57)			0.013		
4/21/2009	9.20							toxic
5/19/2009							toxic	
7/21/2009					0.049			
8/18/2009				15				
10/20/2009	8.68							
4/20/2010					0.076			
7/20/2010					0.061			

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

Livingston Drain at Robin Avenue



Land Use

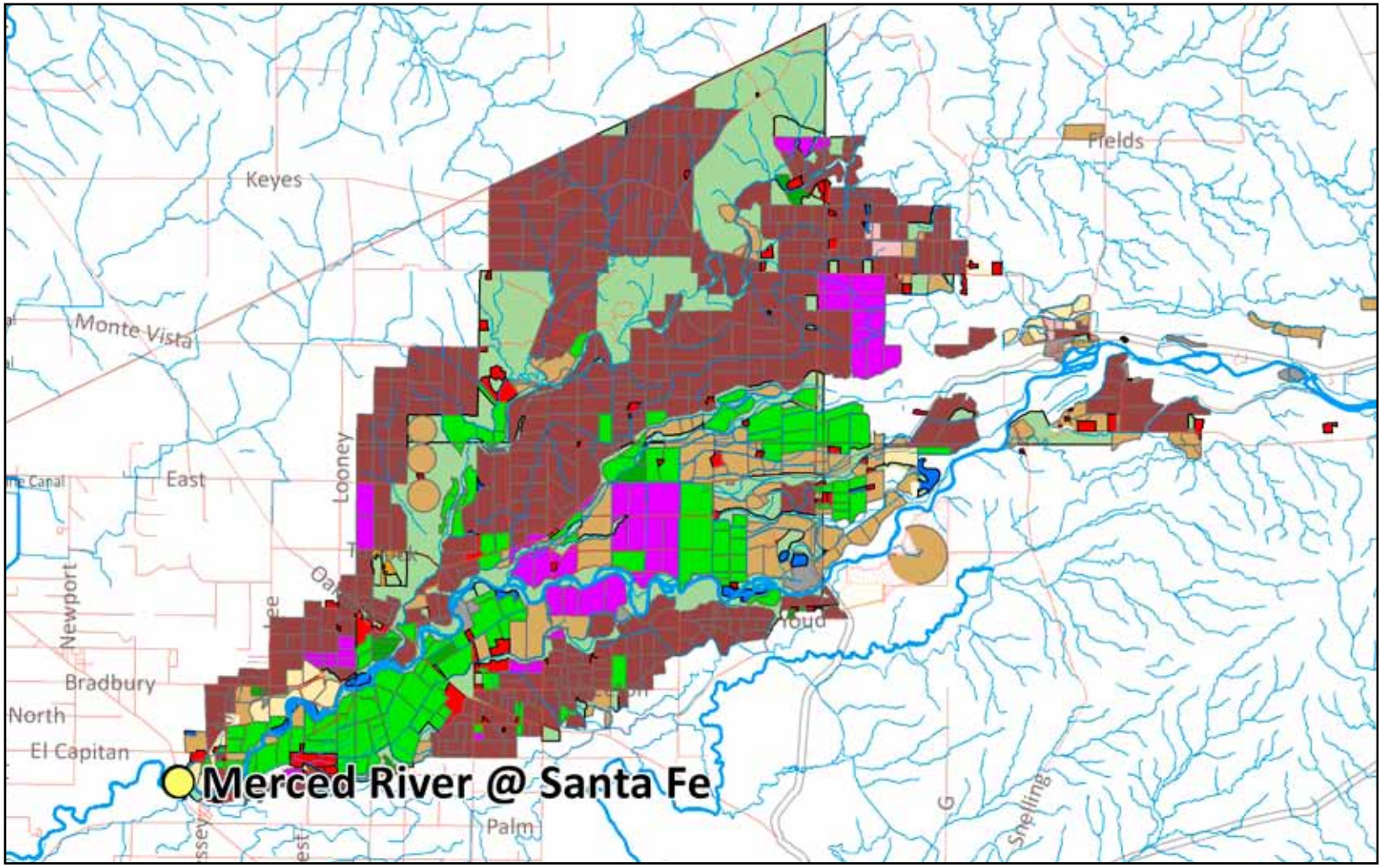
- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Livingston Drain @ Robin Avenue								
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Nitrate as N	Copper[1]	Lead[1]	Chlorpyrifos	Algae toxicity
	7 mg/L	6.5 – 8.5 units	235 MPN /100 mL	10 mg/L	µg/L (variable)	µg/L (variable)	0.015 µg/L	Based on growth
5/15/2007		8.95			18 (13.2)			
6/19/2007					16 (4.4)			
7/17/2007		8.82			7.8 (5.3)			
8/14/2007							0.016	
9/11/2007		8.57			14 (6.4)			
1/24/2008			1700		6.7 (3.1)	2.4 (0.63)	0.02	
2/26/2008	5.68				15 (4.1)	1.1 (0.93)		toxic
4/22/2008								toxic
4/29/2008								toxic
5/20/2008		8.79						toxic
5/27/2008		8.68						
6/3/2008		8.61						
6/17/2008		8.97		11	45 (13)		0.23	
7/8/2008		8.97			110 (5.7)			
7/22/2008			440		17 (16.9)			
8/28/2008		8.67						
9/9/2008		8.72						
9/23/2008		9.02						

* Water Quality Trigger Limits (WQTLs) are indicated below the column headers. WQTLs for all constituents sampled can be found on the ESJWQC website; www.esjcoalition.org

[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Merced River at Santa Fe



Land Use

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- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
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- City Boundaries
- Monitoring Site

Merced River @ Santa Fe									
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Hexachlorocyclohexane	Water flea toxicity	Algae toxicity
	7 mg/L	6.5 – 8.5 units	235 MPN /100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	0.0039 µg/L	Based on survival	Based on growth
7/31/2004								toxic	
8/31/2004								toxic	
3/21/2005									toxic
8/17/2005		6.38							
3/1/2006			1600						
3/16/2006								toxic	
6/14/2006	6.4								
2/12/2007					0.82 (0.63)				
7/17/2007						0.018			
1/24/2008				22 (4.4)	5.6 (1.05)	0.59		toxic	
1/30/2008								toxic	
4/22/2008	6.06								
11/11/2008						0.10	0.051		
7/21/2009	6.12								
10/20/2009	4.82								
1/19/2010			>2400						
4/20/2010			440						

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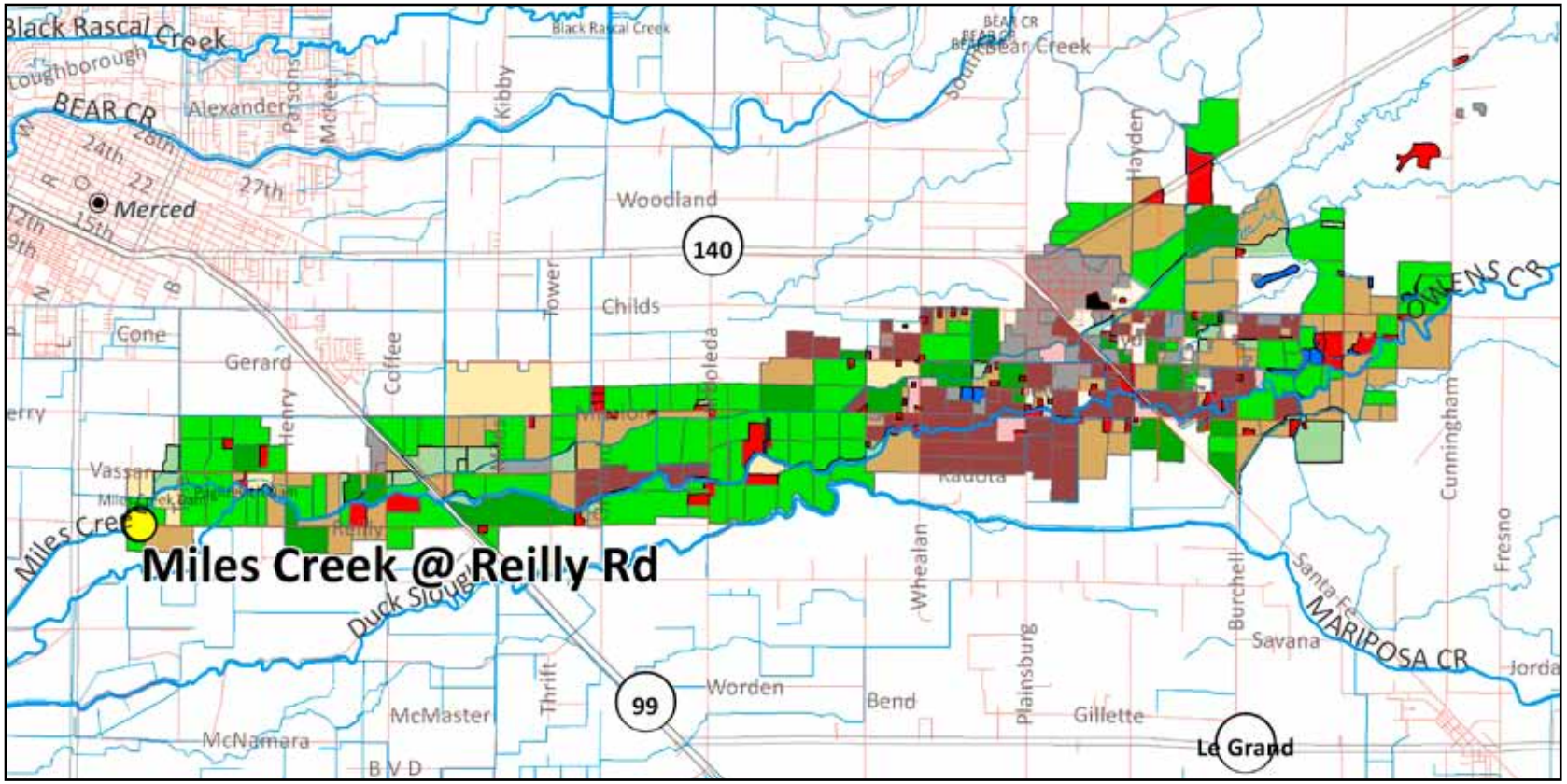
Miles Creek at Reilly Road



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Miles Creek @ Reilly Road										
Date Sampled	Oxygen, Dissolved	*E. coli*	Copper[1]	Lead[1]	Chlorpyrifos	Methidathion	Aldicarb	Water flea toxicity	Algae toxicity	Sediment toxicity
	7 mg/L	235 MPN /100 mL	µg/L (variable)	µg/L (variable)	0.015 µg/L	0.7 µg/L	3 µg/L	Based on survival	Based on growth	Based on survival
5/29/2007		290	4.3 (3.5)							
6/26/2007		310	5.8 (4.3)	1 (0.99)			5.4		toxic	
7/24/2007		340								
8/21/2007			5.2 (4.4)							
8/23/2007										toxic
9/18/2007					0.03			toxic		
1/25/2008		>2400	15 (6.2)	3.2 (1.7)		2.3		toxic		
1/30/2008								toxic		
2/25/2008		2000	34 (8.0)	7.7 (2.5)						
4/29/2008									toxic	
5/7/2008									toxic	
5/27/2008		>2400								
6/24/2008	4.76									
7/29/2008	5.34	250	7.5 (4.6)	1.7 (1.1)	0.021					
8/5/2008	6.93									
8/26/2008	5.86		7.5 (6.7)	2 (1.95)	0.042					
8/28/2008	5.33									toxic
9/30/2008	6.34									
10/2/2008										toxic
4/21/2009	6.30									
7/21/2009	6.45				0.028					
8/18/2009	6.58									
9/22/2009	6.35									

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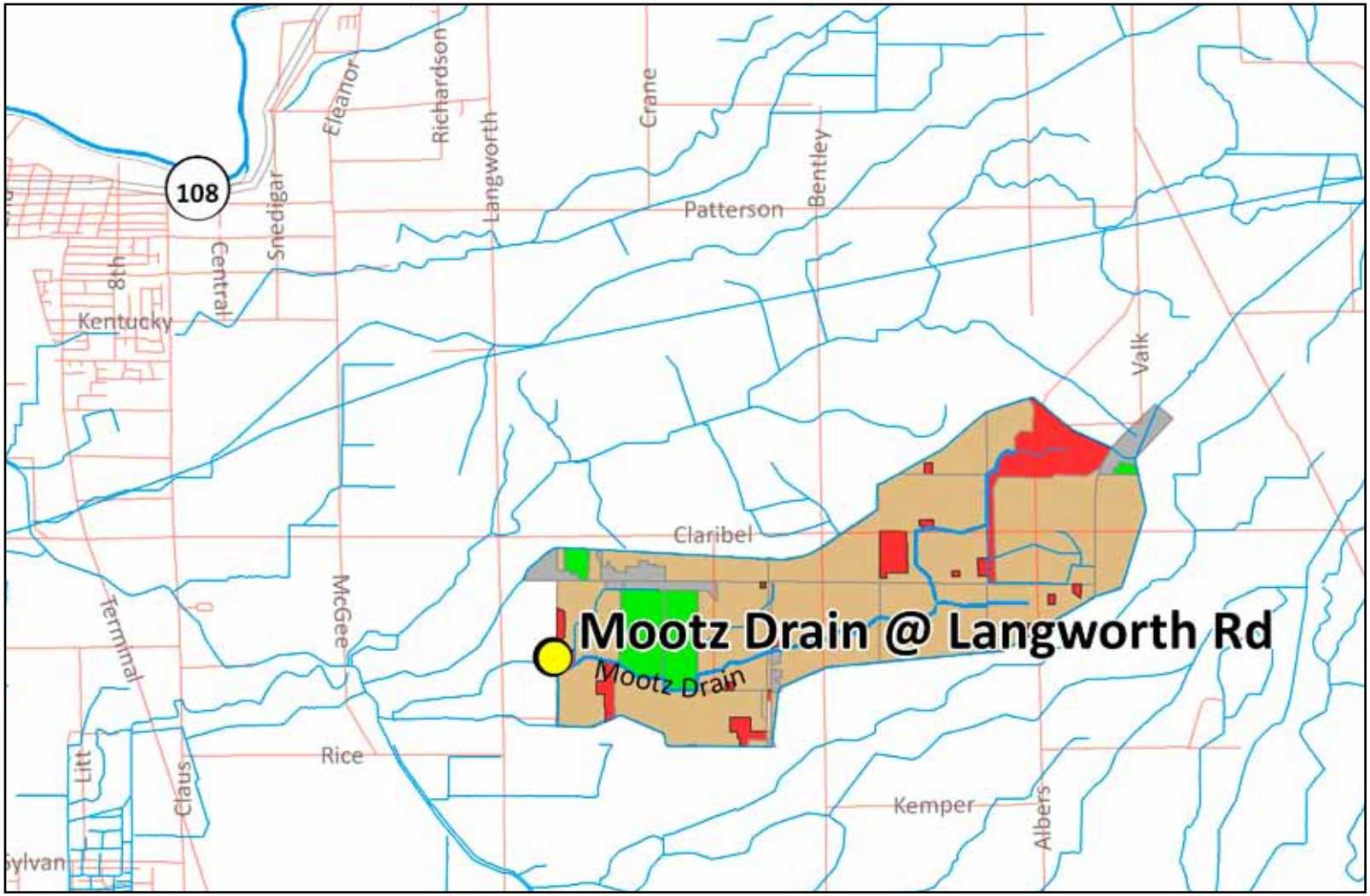
Mootz Drain at Langworth Road



Land Use

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- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Mootz Drain @ Langworth Rd							
Date Sampled	DO	pH	*E. coli*	Ammonia	Chlorpyrifos	Diuron	Algae toxicity
	7 mg/L	6.5–8.5 units	235 MPN/100 mL	1.5 mg/L	0.015 µg/L	2 µg/L	Based on growth
11/11/2008	3.55	4.32					
12/16/2008			>2400		0.017		
2/7/2009						2.10	toxic
3/17/2009	4.01						
4/21/2009	3.14		>2400				
5/19/2009	4.59		>2400				
6/16/2009	5.40		390		0.033		
7/21/2009	2.18		2000				
8/18/2009	4.90		>2400				
9/22/2009	5.62		1700				
10/20/2009	6.35		240				
11/17/2009	4.98		>2400	2.1			

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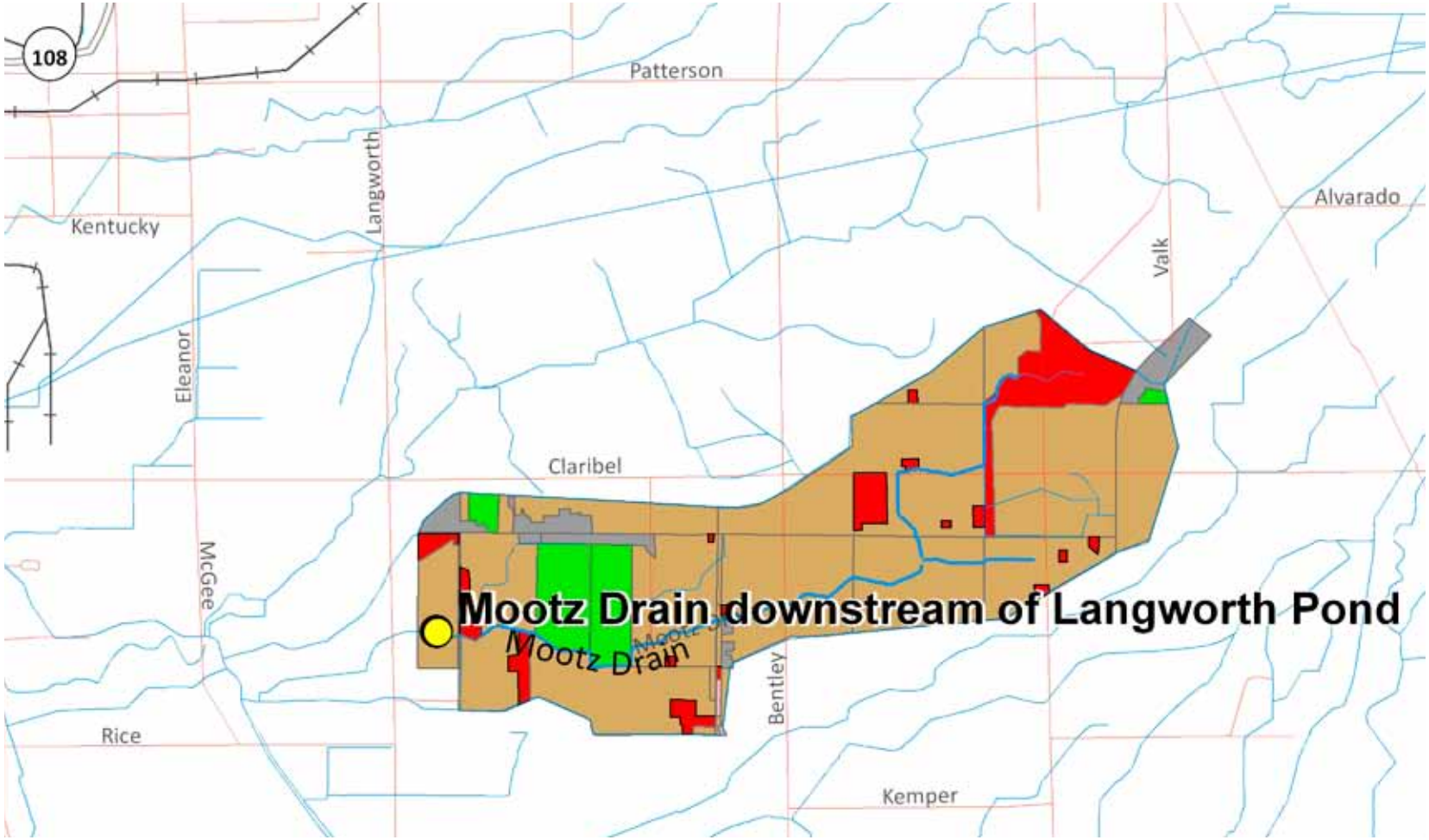
Mootz Drain downstream of Langworth Pond



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
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- Monitoring Site

Mootz Drain downstream of Langworth Pond		
Date Sampled	DO	*E. coli*
	7 mg/L	235 MPN/100 mL
12/15/2009	5.51	>2400
1/19/2010		>2400
2/23/2010		980
3/23/2010	5.94	520
4/20/2010	6.54	1200
5/18/2010	6.30	>2400
6/15/2010	3.80	>2400
7/20/2010	4.24	>2400
8/17/2010	3.35	820
9/14/2010	4.68	>2400

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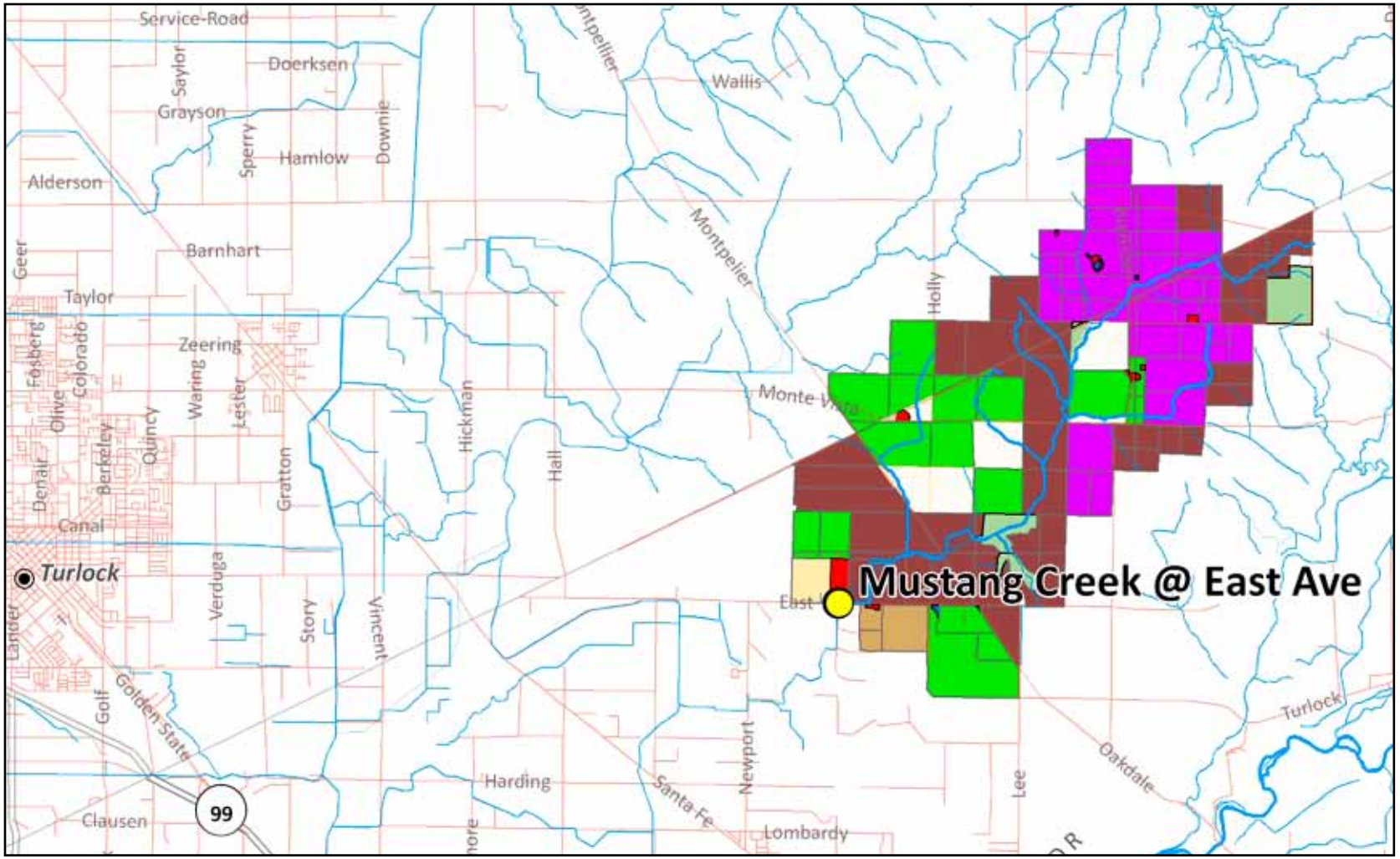
Mustang Creek at East Avenue



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
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- Wild Vegetation, NI
- Water Surface, NI
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- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Mustang Creek @ East Avenue													
Date Sampled	Oxygen, Dissolved	Specific Conductivity	Total Dissolved Solids	*E. coli*	Ammonia	Copper[1]	Nitrate as N	Chlorpyrifos	DDE	Simazine	Water flea toxicity	Algae toxicity	Sediment toxicity
	7 mg/L	700 µmhos/cm	450 mg/L	235 MPN /100 mL	1.5 mg/L	µg/L (variable)	10 mg/L	0.015 µg/L	0.00059 µg/L	4.0 µg/L	Based on survival	Based on growth	Based on survival
5/18/2006	5.82			2400									
6/15/2006	5			2400									
8/10/2006	2.61			980									
2/28/2007		760	460						0.0064				
5/15/2007	1.16			1600									
6/19/2007	4.3			410					0.0073				
1/24/2008				460				0.067		4.2	toxic		
1/30/2008											toxic		
2/26/2008	4.06							0.028		17		toxic	
3/4/2008	2.44												toxic
3/28/2008	4.1	1467											
2/7/2009		704	560			25	12						
3/17/2009		1042	710				33						
4/21/2009	0.98	1433											
9/22/2009													
10/20/2009	2.95	870	670	250	2.3	44 (24.20)							
12/15/2009		892				25 (22.9)			0.022				
1/19/2010	5.22	856	570	1000									
2/23/2010				360		20 (17.57)							
3/23/2010	3.87	877	580										
4/20/2010				>2400									

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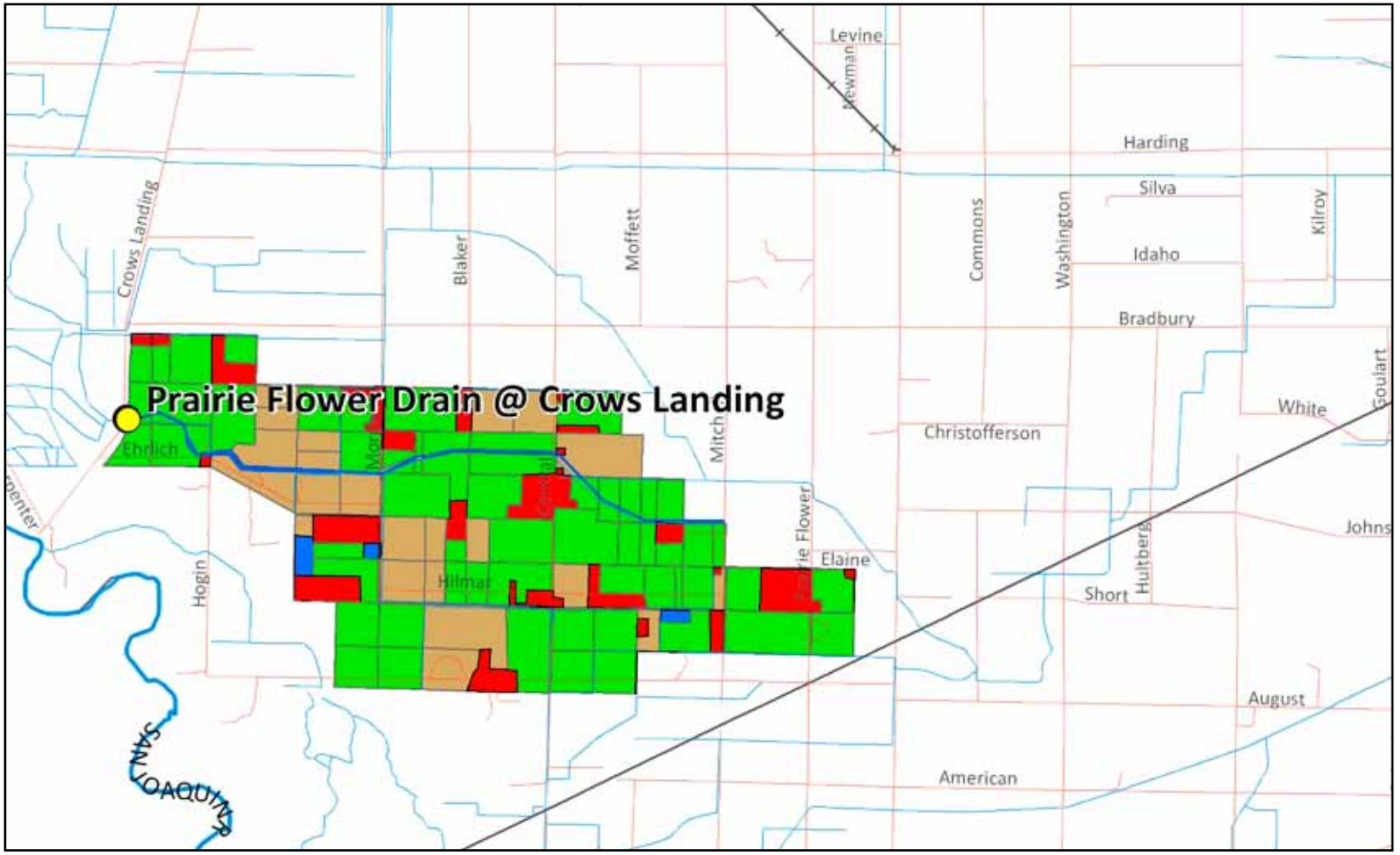
[1] WQTL is based on hardness measured in each water sample and is indicated in parenthesis.

Prairie Flower Drain at Crows Landing Road (Morgan Road)



Land Use

- Citrus, I
- Deciduous Fruit, Nut, I
- Deciduous Fruit, Nut, NI
- Field Crops, I
- Grains, Hay, I
- Grains, Hay, NI
- Idle, I
- Idle, NI
- Pasture, I
- Pasture, NI
- Rice, I
- Truck, Nursery, Berry, I
- Vineyard, I
- Vineyard, NI
- Barren Wasteland, NI
- Riparian Vegetation, NI
- Wild Vegetation, NI
- Water Surface, NI
- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Prairie Flower Drain @ Crows Landing Rd (*Morgan Rd*)												
Station Name	Sample Date	DO	pH	SC	*E. coli*	Total Dissolved Solids	Ammonia	Nitrate as N	Chlorpyrifos	Malathion	Algae toxicity	Sediment toxicity
		7 mg/L	6.5 – 8.5 units	700 µS/cm	235 MPN/100 mL	450 mg/L	1.5 mg/L	10 mg/L	0.015 µg/L	0 µg/L	Based on Growth	Based on Survival
Crows Landing Rd	8/19/2008	4.93		956	440	610		13	0.024	0.12		
Morgan Rd	*8/19/2008*	*3.63*		*1300*				*20*				
Crows Landing Rd	8/28/2008			1114								toxic
Crows Landing Rd	9/23/2008			2525		1800		33				
Morgan Rd	*9/23/2008*	*3.3*		*2675*				*29*				
Crows Landing Rd	10/2/2008			2449								toxic
Crows Landing Rd	10/21/2008			1742	370	1100		27				
Crows Landing Rd	11/11/2008			2151		1500		39				
Crows Landing Rd	12/16/2008			2298	1300	2900		40				
Crows Landing Rd	1/20/2009			2414		1500		43				
Crows Landing Rd	2/7/2009			2255		1300		31				
Crows Landing Rd	3/17/2009		8.74	2394		1400		34				
Crows Landing Rd	4/21/2009			2223	410	1400		24				
Crows Landing Rd	5/19/2009	4.78		2066	>2400	1200	3.2	20			toxic	
Crows Landing Rd	6/16/2009			2417		1400	1.3 (1.21)[1]	22				
Crows Landing Rd	7/21/2009			1366		820	1.8 (1.11)	14				
Crows Landing Rd	8/18/2009			1984		1200		22				
Crows Landing Rd	9/22/2009			2171	1300	1400		35				
Crows Landing Rd	10/20/2009			2459	1300	1400		25				
Crows Landing Rd	11/17/2009			2415	>2400	1500	8.8	36				
Crows Landing Rd	12/15/2009			2695	2000	1600		36				
Crows Landing Rd	1/19/2010			1837	2400	1300		43			toxic	
Crows Landing Rd	2/23/2010			2833	440	1700		32				
Crows Landing Rd	3/23/2010			2833	1400	1700		31				
Crows Landing Rd	4/20/2010			2399	1300	1500		33				
Crows Landing Rd	5/18/2010			2428	460	1500		35				
Crows Landing Rd	6/15/2010	4.25		2703	820	1600		29				
Crows Landing Rd	7/20/2010			2556	260	1500		26				
Crows Landing Rd	8/17/2010			2776	870	1700		24				
Crows Landing Rd	9/14/2010							12				

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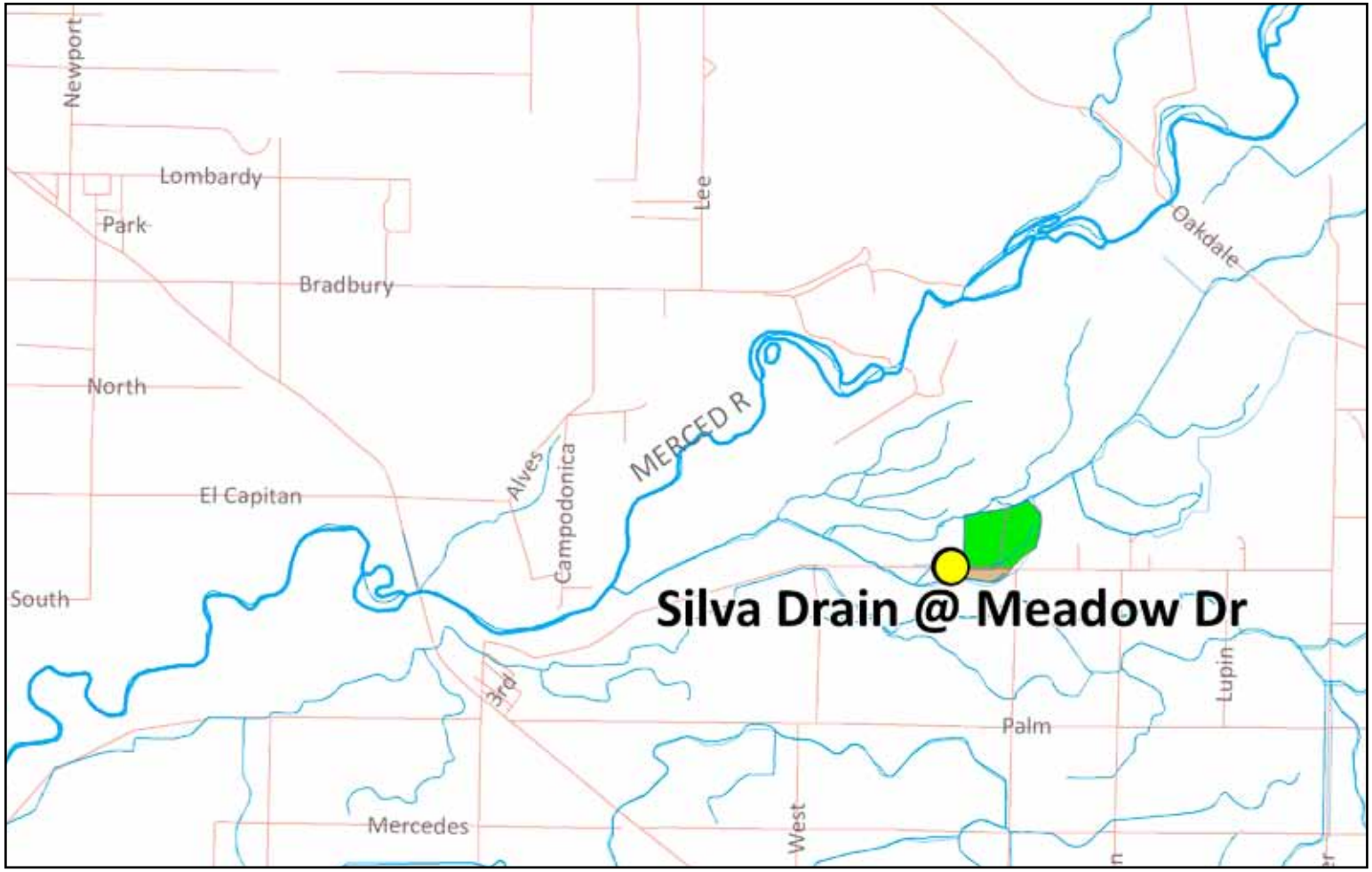
Italics – Additional Management Plan monitoring site.

Silva Drain at Meadow Drive



Land Use

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- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Silva Drain @ Meadow Drive										
Date Sampled	Oxygen, Dissolved	pH	*E. coli*	Ammonia as N	Copper[1]	Lead[1]	Chlorpyrifos	Water flea toxicity	Fathead minnow toxicity	Sediment toxicity
	7 mg/L	6.5–8.5 units	235 MPN /100 mL	1.5 mg/L	µg/L (variable)	µg/L (variable)	0.015 µg/L	Based on survival	Based on survival	Based on survival
5/18/2006			1300							
7/13/2006	5.75		690							
8/9/2006			460				0.14	toxic		toxic
9/5/2006										toxic
9/13/2006	5.99		320							
4/17/2007			420							
5/15/2007			1400							
6/19/2007	4.2		1000							
7/17/2007	4.71		520				0.031			
7/31/2007	6.1									
8/14/2007			410							
8/16/2007	6.43									
8/28/2007							0.055			
9/11/2007	6.12									
4/22/2008	5.02			4.1						
5/20/2008	0.7									
6/17/2008			>2400	13	68 (27)				toxic	
7/8/2008	1.38									
7/22/2008	2.1		410				0.43	toxic		
7/29/2008	5.96							toxic		
8/5/2008	3.37						0.021			
8/19/2008	3.73		1400		20 (6.9)	3 (2.02)	0.023			
8/28/2008	3.32									toxic
9/23/2008	6.19		310	3	15 (4.4)					
10/2/2008	6.11	8.51								toxic

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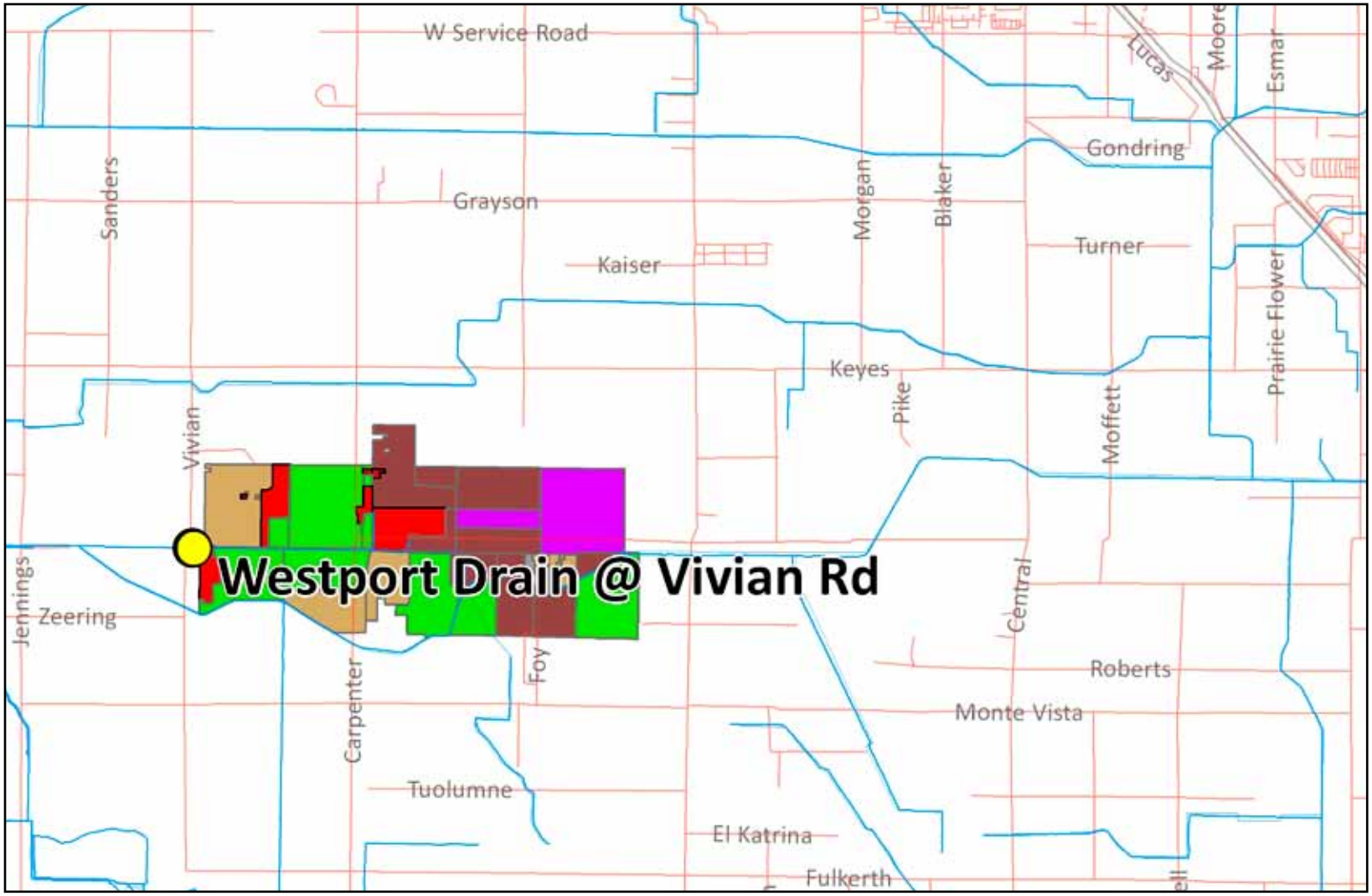
Westport Drain at Vivian Road



Land Use

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- Feedlot, Dairy, Farmstead, NI
- Urban, NI
- Golfcourse, Cemetery, Landscape, NI
- Major Drainage
- Minor Drainage
- US & State Highways
- Westside Coalition
- City Boundaries
- Monitoring Site

Westport Drain @ Vivian Road								
Date Sampled	Oxygen, Dissolved	Specific Conductivity	Total Dissolved Solids	*E. coli*	Nitrate as N	Chlorpyrifos	Algae toxicity	Sediment toxicity
	7 mg/L	700 µmhos/cm	450 mg/L	235 MPN /100 mL	10 mg/L	0.015 µg/L	Based on growth	Based on survival
5/15/2007		1054	660		24		toxic	
5/23/2007		1081						
6/19/2007		991	660		27			
7/17/2007		1025	680	330	68	0.018		
8/14/2007		1129	760		32			
8/16/2007		1147						
9/11/2007		1106	740	330	30			
1/24/2008		1086	740	290	28			
2/26/2008	5.7	1104	730		26		toxic	
3/4/2008		1096					toxic	
4/22/2008	4.44	1079	750	1000	23		toxic	
4/29/2008	4.76	1106						
5/20/2008	6.95	1084	720		23			
6/17/2008	5.43	1107	750	260	25			
7/22/2008	5.02	1079	760	1000	25	0.016		
8/19/2008	3.59	1088	760	290	25			
8/28/2008		1100						toxic
9/23/2008		1097	750		27			
10/2/2008		1093						

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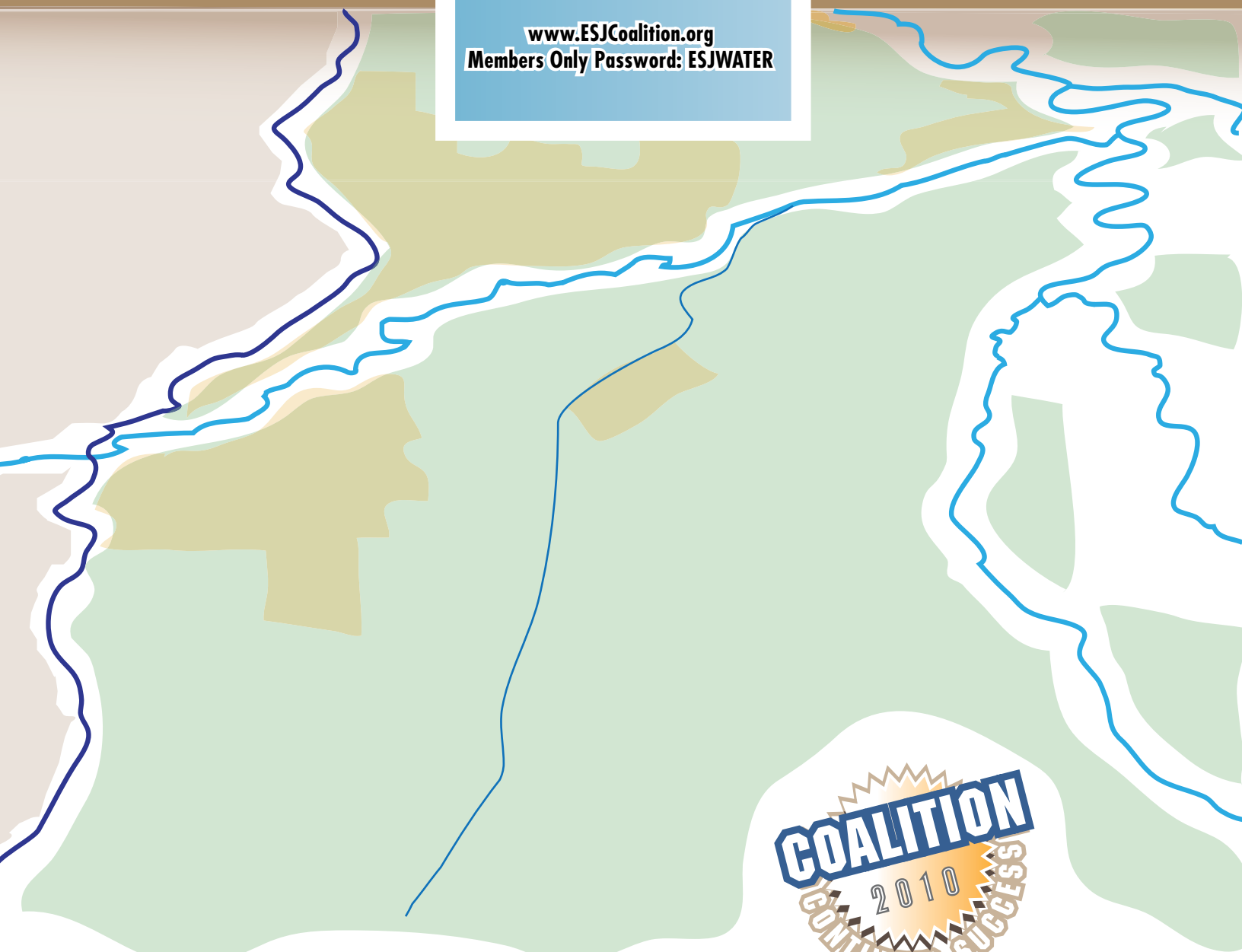
East San Joaquin
Water Quality Coalition

Summary Annual Report 2010

This report is available at
East San Joaquin
Water Quality Coalition
1201 L Street
Modesto, CA 95354
(209)522-7278

www.ESJCoalition.org
Members Only Password: ESJWATER



COALITION 2010 CONTINUED SUCCESS

2010 SUMMARY ANNUAL REPORT