

1. Annual Report

a. Executive Summary

Tehama County Mosquito & Vector Control District (District) complied with the applicable components of the General NPDES Permit for Biological and Residual Pesticide Discharges from Vector Control Applications (General Permit). The District is a member of the MVCAC NPDES Permit Coalition and the Coalition conducted all required chemical and physical monitoring. The results of the Coalition's monitoring will be included in the Coalition Annual Report that will be sent separately to the SWRCB and Regional Boards.

The District made 35 applications to waters of the U.S. during the 2012 calendar year. The log of these applications can be found in Attachment B. The District performed Visual Monitoring of less than 10% of individual application sites identified as "Waters of the US" until July 2012. The visual monitoring completed by the District in the first half of the year found that there is no observable change in water quality between the background, event, and post event time periods-see monitoring log sheets. The SWRCB notified the permit holders in a letter to MVCAC dated July 13, 2012 that because the visual monitoring requirements were "interfering with the need for maximal efficient application to adequately protect human health from vector-borne diseases like West Nile Virus," that the visual monitoring was no longer required by individual Districts. The District continued to follow the guidelines of its Pesticide Application Plan (PAP).

b. Summary of Monitoring Data

The District began the year by complying with the visual monitoring requirements of the permit. See Footnote 1 of Tables C-1 and C-2 in Amended Water Quality Control Order No. 2011-0002-DWQ, General Permit No. CAG990004. These requirements required a tremendous amount of time to monitor including a number of revisits to specific sites to gather the necessary information. Most critically, time spent revisiting old sites caused delay in getting to new sites. Given the short lifecycle of the mosquito, this greatly exacerbated the task of looking for and treating mosquito breeding sites early in their lifecycle when treatment is more concentrated and effective. Recognizing the need of mosquito control districts to quickly find and treat mosquito breeding sites to prevent the spread of disease, such as West Nile virus, the SWRCB issued a letter to MVCAC dated July 13, 2012 that indicated the visual monitoring requirement would no longer be required of individual Districts.

Per the instructions in the letter, the Coalition will provide information on the incidence of West Nile Virus and other similar public health threats in the Coalition's annual report

For the reasons stated above, the District will no longer be collecting visual monitoring data.

Physical and chemical monitoring was conducted as part of the MVCAC Monitoring Coalition. All measurements made by URS, the organization hired by MVCAC to coordinate and report physical and chemical monitoring, is contained within the MVCAC NPDES Monitoring Report (Attachment A).

- c. Identification of Current BMPs
The District uses the BMPs outlined in the District's PAP. These include: training employees to prevent and respond to spills; keeping pesticides in secure locations; calibrating spray equipment; maintaining certification of staff as State Certified Public Health Vector Control Technicians; and use of biological and physical methods of control mosquitoes when appropriate.
- d. Violation Discussion
No violations of the General Permit were observed.
- e. Map of Applications
See Attachment C.
- f. Log of Applications made to Waters of the U.S.
Attachment B includes monthly reports of all application data on the covered application areas.
- g. General Information on Applications.
Attachment B includes information on location, pesticide used, concentration of each pesticide used which are derived from the individual pesticide labels.
- h. Visual Monitoring Data
Visual Monitoring Data has been submitted to the State Water Board in the provided Monitoring Database Form -Attachment A
- i. Monitoring Program, BMPs and PAP Recommendations
No recommendations are being proposed to improve the current BMP's, PAP, or monitoring plan. Any changes to the Coalition Monitoring Plan will be highlighted in the Coalition Monitoring Annual Report.
- j. Pesticide Application Log
See attachment B

2. **Updated PAP Components**

N/A.

3. **Self-Monitoring Reports**

The District was not asked to submit any self-monitoring reports by the State Water Board.

4. **Monitoring Reports**

The District is a member of the Mosquito and Vector Control Association of California's Monitoring and Reporting Coalition. The MVCAC Coalition is responsible for the physical and chemical monitoring requirements of the Vector Control permit.

Agency:		Tehama County MVCD					
Application Info Attachment A TCMVCD							
Date of Application	Applicator	Location	Name of Water Body	Type of Water Body	Description	Type of pesticide	Product Name
05/09/2012	John Iarzabal	Weston rd	Thomes creek	Open waterway		Adulticide	Kontrol 4-4
05/09/2012	John Iarzabal	Weston rd	Thomes creek	Open waterway		Adulticide	Kontrol 4-4
05/09/2012	John Iarzabal	Weston rd	Thomes creek	Open waterway		Adulticide	Kontrol 4-4
05/31/2012	Danny Rice	Rancho Tehama	Elder Creek	Open waterway		Adulticide	Master Kontrol
05/31/2012	Danny Rice	Rancho Tehama	Elder Creek	Open waterway		Adulticide	Master Kontrol
05/31/2012	Danny Rice	Rancho Tehama	Elder Creek	Open waterway		Adulticide	Master Kontrol
05/09/2012	Danny Rice	Bend RV Park	Sacramento River	Open waterway		Adulticide	Master Kontrol
05/09/2012	Danny Rice	Bend RV Park	Sacramento River	Open waterway		Adulticide	Master Kontrol
05/09/2012	Danny Rice	Bend RV Park	Sacramento River	Open waterway		Adulticide	Master Kontrol

Monitoring Log Sheet

Agency:	Tehama County MVCD	Location	Bend RV Park
Applicator Name:	Danny Rice	Water Body:	Sacramento River Open waterway
Date of Application:	05/09/2012	Description:	
Pesticide	Adulticide Master Kontrol 4 + 4		

Visual Observation

	Background Monitoring			Event Monitoring			Post-Event Monitoring		
Date of Monitoring	05/09/2012	Time:	7:50 pm	05/09/2012	Time:	8:00 pm	06/15/2012	Time:	3:00 pm
Monitors:	Danny Rice			Danny Rice			Danny Rice		
Current Weather:	Clear/sunny			Clear/sunny			Clear/sunny		
Water Color & Clarity:	Colorless/Clear			Colorless/Clear			/Clear		
Floating or Suspended Matter:	Not Observed	Bottom Deposits:	Not Observed	Not Observed	Bottom Deposits:	Not Observed	Not Observed	Bottom Deposits:	Not Observed
Aquatic Life:	Not Observed	Surface Oil:		Not Observed	Surface Oil:		Not Observed	Surface Oil:	
Fungi, Slimes or Objectionable Growths:	Not Observed			Not Observed			Not Observed		
Other Potential Nuisance:	None			None			None		

Field Measurement

Water temperature:					
Method	Field Inst.		Field Inst.		Field Inst.
Electrical Conductivity:					
Method					
Dissolved oxygen:					
Method					
pH:					
Method					
Turbidity:					
Method					

Attachment B 2012	Attachment B			Tehama County MVCD Log of Applications to WOTUS								
Employee	Date	Start Time	End Time	Location	Water Body	Area in Acres	Material in Gals/Oz/ LBS	Application Rate Per Acre	Water Flow Rate	Material Used	Material Type	
Danny Rice	5/9/2012	7:25 PM	8:25 PM	Bend	Sacramento River	178	203.5 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Danny Rice	5/31/2012	7:50 PM	10:15 PM	Rancho Tehama	Elder Creek	410	430 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Danny Rice	8/1/2012	7:40 PM	9:05 PM	Antelope Creek	Antlope Creek	342.4	373.44 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Danny Rice	8/1/2012	8:21 PM	8:22 PM	Cone Grove Road	Antelope Slough	0.27	0.26 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Danny Rice	8/1/2012	8:23 PM	8:24 PM	Cone Grove Road	Antelope Creek	0.27	0.26 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Danny Rice	8/7/2012	12:15 PM	12:45 PM	Doyle Ranch	Doyle Ditch	1.25	10 Oz.	8 Oz.	N/A	Vectobac	Laravacide	
Danny Rice	8/9/2012	12:15 PM	12:45 PM	Doyle Ranch	Doyle Ditch	1.25	10 Oz.	8 Oz.	N/A	Vectobac	Laravacide	
Willie Church	6/7/2012	1:40 PM	1:50 PM	Edwards Ranch	Antelope Creek	1	56 Oz.	56 Oz.	N/A	Altosid Pellets	Laravacide	
Willie Church	6/12/2012	8:35 AM	8:40 AM	Edwards Ranch	Antelope Creek	0.1	8 Oz.	8 Oz.	N/A	Vectobac	Laravacide	
Willie Church	7/19/2012	10:10 AM	10:20 AM	Edwards Ranch	Antelope Creek	0.5	4 Oz.	8 Oz.	N/A	Vectobac	Laravacide	
Willie Church	7/26/2012	9:40 AM	9:50 AM	Edwards Ranch	Antelope Creek	0.75	384 Oz.	512 Oz.	N/A	GB1111	Laravacide	
Willie Church	8/20/2012	9:25 AM	9:30 AM	Edwards Ranch	Antelope Creek	0.2	1.6 Oz.	8 Oz.	N/A	Vectobac	Laravacide	
Willie Church	9/12/2012	9:15 AM	9:30 AM	Edwards Ranch	Antelope Creek	0.1	51 Oz.	512 Oz.	N/A	GB1111	Laravacide	
Willie Church	7/11/2012	8:20 PM	9:10 PM	Antelope Creek	Antelope Creek	723	697 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/1/2013	8:17 PM	9:56 PM	Toomes Creek	Toomes Creek	724	712 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/1/2012	8:17 PM	9:56 PM	Mill Creek	Mill Creek	724	712 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/1/2012	8:17 PM	9:56 PM	Dye Creek	Dye Creek	724	712 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/15/2012	8:05 PM	10:02 PM	Antelope Creek	Antelope Creek	984	971 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/15/2012	8:05 PM	10:02 PM	Dye Creek	Dye Creek	984	971 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	8/23/2012	8:10 PM	9:40 PM	Dye Creek	Dye Creek	705	701 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	9/5/2012	7:30 PM	9:45 PM	Dye Creek	Dye Creek	855	794 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Willie Church	9/5/2012	7:30 PM	9:45 PM	Antelope Creek	Antelope Creek	855	794 Oz.	.99 Oz.	N/A	Kontrol 4 +4	Adulticide	
Eric Junge	9/19/2012	1:18 PM	1:45 PM	Walch Ave - Capay	Unnamed slough	0.3	116 Oz.	512 Oz.	N/A	GB1111	Laravacide	
Mike Robinson	8/28/2012	7:00 PM	10:00 PM	Sacramento River	Sacramento River	358.3	2.0 Gals	.66 Oz.	N/A	MGK	Adulticide	
Mike Robinson	8/28/2012	7:00 PM	10:00 PM	Sacramento River	Sacramento River	481.5	3.77 Gals	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Mike Robinson	7/10/2012	7:00 PM	11:00 PM	Sacramento River	Sacramento River	669	5.0 Gals	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Mike Robinson	9/5/2012	7:00 PM	9:30 PM	Red Bank Creek	Red Bank Creek	646.4	4.09 Gals	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
Mike Robinson	4/29/2012	5:30 PM	8:30 PM	Reeds Creek	Reeds Creek	647	3.82 Gals	.66 Oz.	N/A	Anvil 10 + 10	Adulticide	
John Larzabal	5/8/2012	7:20 PM	7:55 PM	Woodson Park	Sacramento River	362	242 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	5/9/2012	7:10 PM	8:15 PM	Paskenta	Thomes Creek	441	404 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	6/20/2012	7:55 PM	9:30 PM	Richfield	Thomes Creek	727	695 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	7/31/2012	8:05 PM	9:30 PM	Richfield	Thomes Creek	640	634 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	8/9/2012	8:04 PM	9:10 PM	Richfield	Thomes Creek	527	518 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	9/6/2012	7:10 PM	8:30 PM	Richfield	Thomes Creek	608	602 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	
John Larzabal	9/19/2012	7:05 PM	8:50 PM	Richfield	Thomes Creek	869	858 Oz.	.99 Oz.	N/A	Kontrol 4 + 4	Adulticide	

Attachment C

Tehama County Mosquito and Vector Control District

