

1. Annual Report

a. Executive Summary

East Side Mosquito Abatement District (District) complied with the applicable components of the National Pollutant Discharge Elimination System (NPDES) Permit for Biological and Residual Pesticide Discharges from Vector Control Applications. The District is a member of the Mosquito and Vector Control Association of California (MVCAC) NPDES Permit Coalition (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 State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards. The District operates in the Central Valley Regional Water Quality Control Board (Region 5).

The District made 50 applications to waters of the U.S. during the 2012 calendar year. The annual log of these applications can be found in Attachment B. The District complied with the instructions on the pesticide labels and continued to follow the guidelines of its Pesticide Application Plan (PAP). The District performed Visual Monitoring of 10% of individual application sites identified as "Waters of the US" from January 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. The visual monitoring report can be found in Attachment C. 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.

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

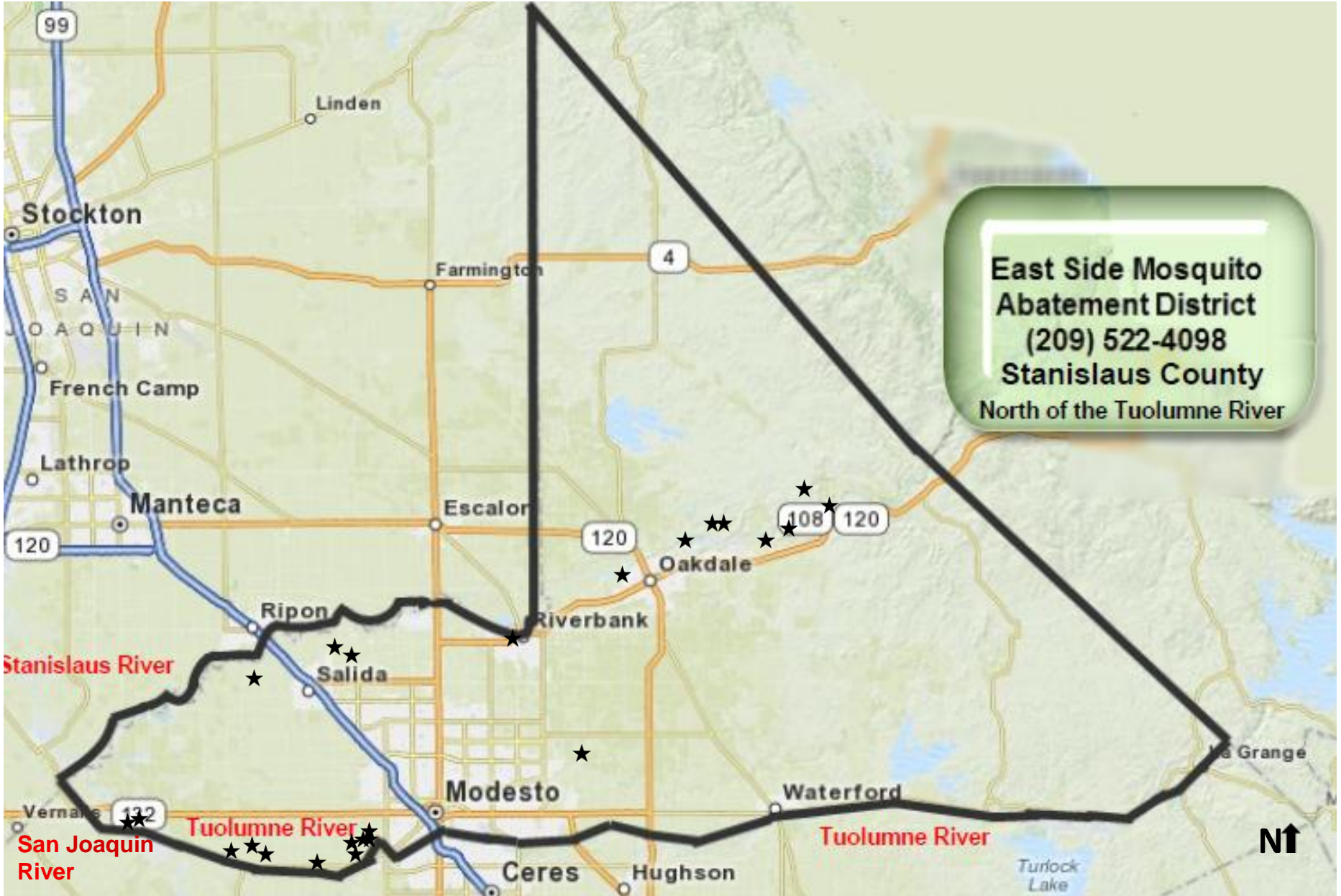
- c. BMP Identification
BMP's utilized by the District are outlined in the District's PAP. These include: emphasis on reducing mosquito breeding habitat through non-chemical means; maintaining certification of staff as State Certified Public Health Vector Control Technicians; training employees to respond to spill prevention and applying appropriate amount of chemical in each treatment area; calibrating application equipment and use of biological and physical methods of mosquito control when appropriate.
 - d. Violation Discussion
No violations of the General Permit were observed.
 - e. Map of Applications
See ESMAD District Map with sites that are labeled as waters of the U.S. (Attachment A).
 - f. Log of Applications made to Waters of the U.S.
See Annual Pesticide Log (Attachment B).
 - g. General Information on Applications
See Annual Pesticide Log (Attachment B). Dosage, concentration and quantity of each pesticide used are derived from District recommended rates based upon biological research and are within pesticide labels rates.
 - h. Visual Monitoring Data
See Visual Monitoring form (Attachment C).
 - i. BMP, PAP, Monitoring Program 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 made to Waters of the U.S.
See 1f.
2. **Updated PAP Components**
N/A
 3. **Self Monitoring Reports**
N/A
 4. **Monitoring Reports**
The District is a member of MVCAC Monitoring and Reporting Coalition. The Coalition is responsible for the physical and chemical monitoring requirements of the permit. The Coalition Monitoring Annual Report will summarize all physical measurements and chemical monitoring done for 2012.

ATTACHMENT A

ESMAD District Map

2012

★ -Application Site



ATTACHMENT B

ESMAD Pesticide Application Log for "Waters of the US"

Area #	Date/Time	Material	Ac. Treated	Mat. Amt.	Unit	LATITUDE	LONGITUDE
10	04/20/2012 07:15	Anvil 10+10	5.0	3.100	ounce	37 47.331	-120 45.754
2	04/27/2012 08:08	Kontrol 4-4	2.0	2.600	ounce	37 36.199	-121 03.434
10	04/27/2012 05:30	Kontrol 4-4	30.0	39.000	ounce	37 49.179	-120 40.001
10	05/10/2012 10:00	Kontrol 4-4	5.0	6.500	ounce	37 47.331	-120 45.754
2	05/15/2012 05:52	Kontrol 4-4	5.0	6.500	ounce	37 38.285	-121. 11.548
6	05/15/2012 05:32	Kontrol 4-4	0.5	0.650	ounce	37.741942	-120.939538
3	05/18/2012 08:30	Kontrol 4-4	0.5	0.650	ounce	37.656305	-120.930119
10	06/04/2012 09:00	Altosid Pellets	5.0	22.000	pound	37.826972	-120.681682
10	06/08/2012 10:00	Anvil 10+10	5.0	3.100	ounce	37.784775	-120.753264
5	06/11/2012 06:00	Anvil 10+10	50.0	31.000	ounce	37 46.521	-120 51.750
2	06/15/2012 07:12	Kontrol 4-4	8.0	10.400	ounce	37 36.107	-121 03.466
2	06/15/2012 07:50	Kontrol 4-4	8.0	10.400	ounce	37 38.151	-121 11.469
2	06/20/2012 07:40	Kontrol 4-4	8.0	10.400	ounce	37 38.151	-121 11.469
2	06/22/2012 07:30	Kontrol 4-4	2.0	2.600	ounce	37 35.779	-121 06.951
2	06/26/2012 10:30	Kontrol 4-4	6.0	7.800	ounce	37.596263	-121.066825
2	07/03/2012 07:20	Kontrol 4-4	3.0	3.900	ounce	37.601788	-121.056976
2	07/11/2012 08:20	Kontrol 4-4	2.0	2.600	ounce	37 36.854	-121 02.222
2	07/11/2012 05:55	Kontrol 4-4	8.0	10.400	ounce	37.601193	-121.056354
2	07/13/2012 07:30	Kontrol 4-4	3.0	3.900	ounce	37 35 42.9	-121 6 57.9
2	07/13/2012 08:50	Kontrol 4-4	8.0	10.400	ounce	37 38 16.9	-121 11 33.8
3	07/17/2012 04:30	Evergreen EC 60-6	4480.0	21.000	gallon	37.723954	-121.06307
3	07/17/2012 04:30	Evergreen EC 60-6	4266.0	20.000	gallon	37.718149	-121.032643
2	07/18/2012 14:00	Kontrol 4-4	8.00	10.400	ounce	37.637735	-121.191924
2	07/20/2012 07:28	Kontrol 4-4	6.0	7.800	ounce	37 38 16.8	-121 11 33.3
2	07/27/2012 05:00	Kontrol 4-4	1900.0	19.00	gallon	37 35 42.9	-121 6 58.2

2	07/28/2012 13:40	Kontrol 4-4	8.0	10.400	ounce	37 38 16.8	-121 11 33.3
2	08/01/2012 07:32	Kontrol 4-4	6.0	7.800	ounce	37 35 41.5	-121 4 0.2
2	08/03/2012 07:25	Kontrol 4-4	10.0	13.00	ounce	37 36 5.9	-121 3 28.0
2	08/09/2012 07:30	Kontrol 4-4	1.0	1.30	ounce	37.60886	-121.052277
2	08/10/2012 05:10	Kontrol 4-4	1.0	1.30	ounce	37 35 41.3	-121 4 0.8
2	08/14/2012 07:20	Kontrol 4-4	6.0	7.80	ounce	37 38 16.8	-121 11 33.1
1	08/24/2012 05:30	Kontrol 4-4	2198.0	22.32	gallon	37.718149	-121.032643
2	08/24/2012 06:59	Kontrol 4-4	3.0	3.90	ounce	37.589547	-121.118624
10	08/24/2012 07:00	Anvil 10+10	10.0	6.20	ounce	37.8068	-120.720434
10	08/30/2012 06:30	Kontrol 4-4	250.0	325.00	ounce	37.796526	-120.815234
10	08/30/2012 06:30	Aquabac XT	30.0	480.00	ounce	37.796526	-120.815234
2	08/31/2012 08:18	Kontrol 4-4	8.0	10.40	ounce	37 38 16.9	-121 11 33.8
2	09/05/2012 07:33	Kontrol 4-4	1.0	1.30	ounce	37.60886	-121.052277
2	09/07/2012 07:30	Kontrol 4-4	8.0	10.40	ounce	37 36 6.6	-121 3 24.9
2	09/07/2012 07:37	Kontrol 4-4	15.0	19.50	ounce	37.60886	-121.052277
2	09/07/2012 07:59	Kontrol 4-4	6.0	7.80	ounce	37 35 40.8	-121 3 59.9
2	09/07/2012 08:35	Kontrol 4-4	6.0	7.80	ounce	37 38 16.7	-121 11 33.1
10	09/14/2012 14:00	Anvil 10+10	10.0	6.20	ounce	37.785249	-120.802853
2	09/19/2012 07:58	Kontrol 4-4	1.0	1.30	ounce	37 36 7.2	-121 3.72 33.2
2	09/21/2012 08:08	Kontrol 4-4	6.0	7.80	ounce	37 38 16.7	-121 11 33.1
2	09/27/2012 08:45	Kontrol 4-4	8.0	10.40	ounce	37 36 6.3	-121 3 27.2
2	09/28/2012 09:28	Kontrol 4-4	6.0	7.80	ounce	37 38 16.7	-121 11 33.1
2	10/12/2012 08:20	Kontrol 4-4	3.0	3.90	ounce	37 38 16.7	-121 11 33.1
2	10/19/2012 07:30	Kontrol 4-4	5.0	6.50	ounce	37 38 16.7	-121 11 33.1
2	10/19/2012 09:08	Kontrol 4-4	6.0	7.80	ounce	37 36 6.3	-121 3 27.2
2	10/26/2012 07:26	Kontrol 4-4	5.0	6.50	ounce	37 38 16.8	-121 11 33.3

Adjacent Water Bodies
Stanislaus River
Tuolumne River
Stanislaus River
Stanislaus River
San Joaquin River
Stanislaus River
Dry Creek
Little John Creek
Stanislaus River
Stanislaus River
Tuolumne River
San Joaquin River
San Joaquin River
Tuolumne River
Tuolumne River
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San Joaquin River

Agency: East Side Mosquito Abatement District

Attachment C

ESMAD Visual Monitoring

Application Info						
Date of Application	Applicator	Location	Name of Water Body	Type of Water Body	Description	Type of pesticide
04/20/2012	Richard Amarante	37 47.331, -120	Stanislaus River	Open waterway	Orangeblossom road along	Adulticide
04/20/2012	Richard Amarante	37 47.331, -120	Stanislaus River	Open waterway	Orangeblossom road along	Adulticide
04/20/2012	Richard Amarante	37 47.331, -120	Stanislaus River	Open waterway	Orangeblossom road along	Adulticide
05/16/2012	John Richey	37.741942,-120.	Stanislaus River	Open waterway	7060 Burneyville Rd. Propri	Adulticide
05/16/2012	John Richey	37.741942,-120.	Stanislaus River	Open waterway	7060 Burneyville Rd. Propri	Adulticide
05/16/2012	John Richey	37.741942,-120.	Stanislaus River	Open waterway	7060 Burneyville Rd. Propri	Adulticide
05/18/2012	Eddie Stewart	37.656305,-120.	Dry Creek	Channel	3540 Wycliff Way Modestc	Adulticide
05/18/2012	Eddie Stewart	37.656305,-120.	Dry Creek	Channel	3540 Wycliff Way Modestc	Adulticide
05/18/2012	Eddie Stewart	37.656305,-120.	Dry Creek	Channel	3540 Wycliff Way Modestc	Adulticide
06/11/2012	Gary Patterson	37 46.521, -120	Stanislaus River	Open waterway	Park by Oakdale Sewer PI	Adulticide
06/11/2012	Gary Patterson	37 46.521, -120	Stanislaus River	Open waterway	Park by Oakdale Sewer PI	Adulticide
06/11/2012	Gary Patterson	37 46.521, -120	Stanislaus River	Open waterway	Park by Oakdale Sewer PI	Adulticide
07/03/2012	Bill Shorter	37.601788, -121	Tuolumne River	Open waterway	2734 Michigan Ave. Mode:	Adulticide
07/03/2012	Bill Shorter	37.601788, -121	Tuolumne River	Open waterway	2734 Michigan Ave. Mode:	Adulticide
07/03/2012	Bill Shorter	37.601788, -121	Tuolumne River	Open waterway	2734 Michigan Ave. Mode:	Adulticide

Product Name	MONITORING Information				Weather Condi	
	Time of monitoring	Monitoring Date	Time	Name(s) of personnel	Overhead Conditions	Precipitation
Anvil 10+10	Background	04/20/2012	07:15	Richard Amarante	Partly cloudy	None
Anvil 10+10	Event					
Anvil 10+10	Post-Event	04/20/2012	10:00	Richard Amarante	Partly cloudy	None
Kontrol 4-4	Background	05/16/2012	05:32	John Richey	Clear/sunny	None
Kontrol 4-4	Event					
Kontrol 4-4	Post-Event	05/16/2012	05:38	John Richey	Clear/sunny	None
Kontrol 4-4	Background	05/18/2012	08:30	Eddie Stewart	Clear/sunny	None
Kontrol 4-4	Event					
Kontrol 4-4	Post-Event	05/18/2012	08:34	Eddie Stewart	Clear/sunny	None
Anvil 10+10	Background	06/11/2012	06:00	Gary Patterson	Clear/sunny	None
Anvil 10+10	Event					
Anvil 10+10	Post-Event	06/11/2012	07:00	Gary Patterson	Clear/sunny	None
Kontrol 4-4	Background	07/03/2012	07:20	Bill Shorter	Clear/sunny	None
Kontrol 4-4	Event					
Kontrol 4-4	Post-Event	07/03/2012	07:50	Bill Shorter	Clear/sunny	None

ions		Visual Observation					
Wind	Air Temperature	Water Color	Water Clarity	Floating/Suspended Matter	Bottom Deposits	Aquatic Life	Water Surface Oils
Calm	Cool	Colorless	Clear	Not Observed	Not Observed	Observed	None
				Not Observed	Not Observed	Not Observed	
Light breeze	Cool	Colorless	Clear	Not Observed	Not Observed	Observed	None
Calm	Cool	Colorless	Clear	Not Observed	Not Observed	Not Observed	None
				Not Observed	Not Observed	Not Observed	
Calm	Cool	Colorless	Clear	Not Observed	Not Observed	Not Observed	None
Light breeze	Cool	Colorless	Clear	Not Observed	Not Observed	Not Observed	None
				Not Observed	Not Observed	Not Observed	
Light breeze	Cool	Colorless	Clear	Not Observed	Not Observed	Not Observed	None
Calm	Warm/mild	Green	Clear	Not Observed	Not Observed	Not Observed	None
				Not Observed	Not Observed	Not Observed	
Calm	Warm/mild	Green	Clear	Not Observed	Not Observed	Not Observed	None
Light breeze	Cool	Green	Clear	Not Observed	Not Observed	Not Observed	None
				Not Observed	Not Observed	Not Observed	
Light breeze	Cool	Green	Clear	Not Observed	Not Observed	Observed	None

