Turlock Mosquito Abatement District 2012 NPDES Annual Report

Order # 2011-0002-DWQ NPDES# CAG 990004

### 1. Annual Report

### a. Executive Summary

The Turlock Mosquito Abatement 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 operates within the Central Valley Regional Water Quality Control Board (Region 5). The District operates under the Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Biological and Residual Pesticide Discharges to Waters of the United States from Vector Control Applications (Water Quality Order No. 2011-0002-DWQ as amended by Water Quality Order No. 2012-0003-DWQ) since it became effective on November 1, 2011. 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 170 applications to waters of the U.S. during the 2012 calendar year. The log of these applications can be found in the 2012 Pesticide Application Log file. The District performed Visual Monitoring of >10% of individual application sites identified as "Waters of the US" until July 2012. 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 visual monitoring completed by the District in the first half of the year found that there was no observable change in water quality between the background, event, and post event time periods (see Monitoring Log files for May, June, & July 2012). 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.

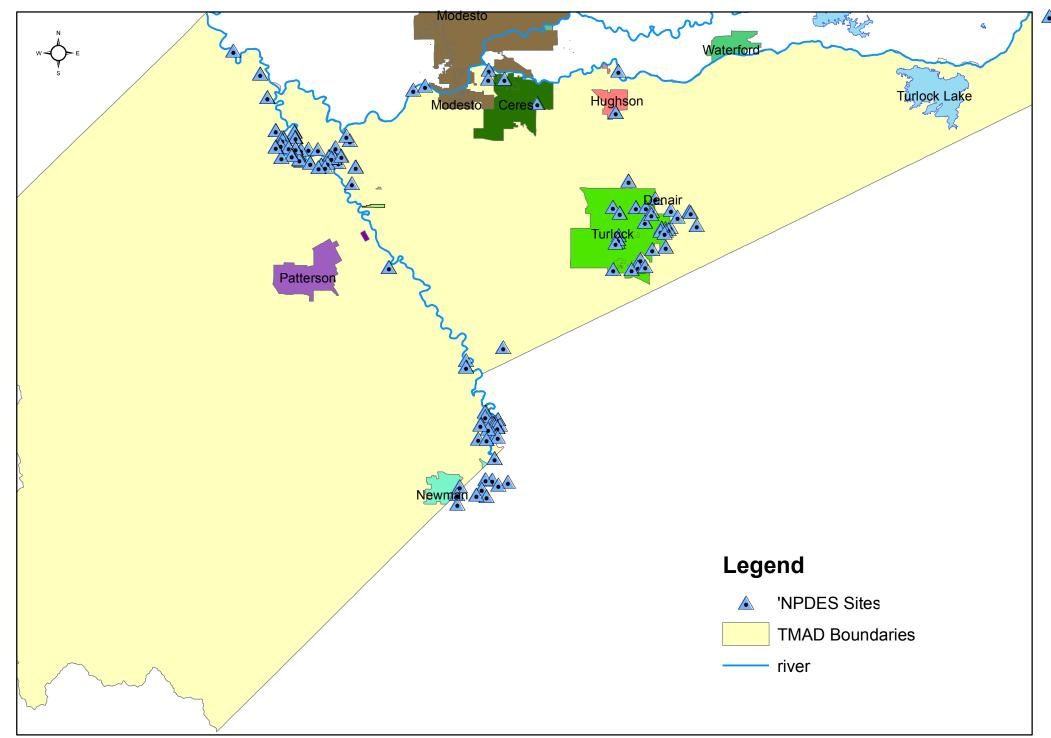
c. <u>BMP Identification</u>

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, training employees to prevent spills and applying appropriate amount of chemical in each treatment area, calibrate application equipment and use a biology based assessment for determining treatment thresholds.

- d. <u>Violation Discussion</u> No violations of the General Permit by the District were observed.
- e. <u>Map of Applications</u> See 2012 Turlock Mosquito Abatement NPDES Sites
- 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. <u>General Information on Applications</u> Attachment B includes information on dosage, concentration and quantity of each pesticide used which are derived from the individual pesticide labels.
- <u>Visual Monitoring Data</u> Visual Monitoring Data has been submitted to the State Water Board in the provided Monitoring Database Form -Attachment C.
- i. <u>BMP, PAP, Monitoring Program Recommendations</u> 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. <u>Pesticide Application Log made to Waters of the U.S.</u> A representation of the pesticide application log is contained in the attached 2012 Pesticide Application Log file.
- 2. Updated PAP Components N/A
- 3. Self Monitoring Reports N/A
- 4. Monitoring Reports

The Coalition Monitoring Annual Report will summarize all physical measurements and chemical monitoring done for 2011 and 2012.

# 2012 Turlock Mosquito Abatement NPDES Sites



Dates: 1/1/2012 to 10/31/ Date Of Application		Name of Applicato	r Source Description	Acreage Treated	Material	Unit of Measure	Quantity Used	Application Rate	Latitude	Longitude
06/25/2012	1,5,10,01,10,A	PINNEY	STORM BASIN	0.20	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.52962	-120.82657
06/06/2012	1,5,10,02,12,A	PINNEY	STORM BASIN	0.25	BVA 2	GALLONS	1.00	4 GAL./1 ACRE	37.54278	-120.85111
04/23/2012	1,5,10,02,12,A	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.54278	-120.85111
04/27/2012	1,5,10,02,25,A	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.52333	-120.84417
06/06/2012	1,5,10,02,25,A	PINNEY	STORM BASIN	0.50	BVA 2	GALLONS	2.00	4 GAL./1 ACRE	37.52333	-120.84417
06/25/2012	1,5,10,02,31,B	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.52339	-120.83504
06/25/2012	1,5,10,03,26,A	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.52348	-120.86557
05/16/2012	1,5,10,10,06,A	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.51889	-120.85944
06/25/2012	1,5,10,10,06,A	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.51889	-120.85944
06/25/2012	1,5,10,11,01,Z	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.52056	-120.82944
06/06/2012	1,5,10,11,20,A	PINNEY	STORM BASIN	0.01	AQNIQUE MMF	OUNCE	0.03	1-3 OZ./1,000 SQ.FT.	37.51250	-120.83583
06/25/2012	1,5,10,11,20,A	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.51250	-120.83583
09/07/2012	1,5,10,12,01,	PINNEY	RESIDENTIAL	687.00	AQUAHALT	OUNCE	378.00	.55 OZ./1 ACRE	37.52130	-120.81216
10/05/2012	1,5,10,12,09,Z	PINNEY	RESIDENTIAL	322.00	AQUAHALT	OUNCE	177.00	.55 OZ./1 ACRE	37.51780	-120.83009
06/25/2012	1,5,10,12,30,A	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.50763	-120.81692
06/06/2012	1,5,10,12,30,B	PINNEY	STORM BASIN	0.13	BVA 2	GALLONS	0.52	4 GAL./1 ACRE	37.50806	-120.82056
06/25/2012	1,5,10,12,30,B	PINNEY	STORM BASIN	1.00	ALTOSID XR BRIQUETS	EACH	10.00	1 BRIQ/.1 ACRE	37.50806	-120.82056
06/25/2012	1,5,10,12,32,B	PINNEY	STORM BASIN	0.40	ALTOSID XR BRIQUETS	EACH	4.00	1 BRIQ/.1 ACRE	37.50833	-120.81222
09/07/2012	1,5,10,13,01,	PINNEY	RESIDENTIAL	545.50	AQUAHALT	OUNCE	300.00	.55 OZ./1 ACRE	37.50692	-120.81416
10/05/2012	1,5,10,13,02,Z	PINNEY	RESIDENTIAL	451.00	AQUAHALT	OUNCE	248.00	.55 OZ./1 ACRE	37.50557	-120.81676
06/25/2012	1,5,10,13,03,A	PINNEY	STORM BASIN	0.30	ALTOSID XR BRIQUETS	EACH	3.00	1 BRIQ/.1 ACRE	37.50556	-120.82139
06/25/2012	1,5,10,13,03,B	PINNEY	STORM BASIN	0.30	ALTOSID XR BRIQUETS	EACH	3.00	1 BRIQ/.1 ACRE	37.50417	-120.81778
06/25/2012	1,5,10,13,29,A	PINNEY	STORM BASIN	0.60	ALTOSID XR BRIQUETS	EACH	6.00	1 BRIQ/.1 ACRE	37.49417	-120.81667
06/06/2012	1,5,10,13,29,A	PINNEY	STORM BASIN	0.05	BVA 2	GALLONS	0.20	4 GAL./1 ACRE	37.49417	-120.81667
06/25/2012	1,5,10,15,07,A	PINNEY	STORM BASIN	1.33	ALTOSID XR BRIQUETS	EACH	11.00	1 BRIQ/.1 ACRE	37.50250	-120.86028
06/25/2012	1,5,10,15,21,A	PINNEY	STORM BASIN	0.20	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.49707	-120.86099
06/25/2012	1,5,10,15,22,A	PINNEY	STORM BASIN	0.10	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.49944	-120.86083
06/06/2012	1,5,10,15,22,A	PINNEY	STORM BASIN	0.05	BVA 2	GALLONS	0.20	4 GAL./1 ACRE	37.49944	-120.86083
06/25/2012	1,5,10,22,09,A	PINNEY	STORM BASIN	0.20	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.49694	-120.86306
06/07/2012	1,5,10,23,20,B	PINNEY	STORM BASIN	0.01	AQNIQUE MMF	OUNCE	0.03	1-3 OZ./1,000 SQ.FT.	37.48493	-120.83993
06/07/2012	1,5,10,23,27,A	PINNEY	STORM BASIN	0.01	AQNIQUE MMF	OUNCE	0.03	1-3 OZ./1,000 SQ.FT.	37.47914	-120.84218
05/30/2012	1,5,10,23,32,A	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.47969	-120.83555
09/07/2012	1,5,10,24,07,Z	PINNEY	RESIDENTIAL	130.00	AQUAHALT	OUNCE	71.00	.55 OZ./1 ACRE	37.49197	-120.82910
05/11/2012	1,5,10,26,08,B	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.47741	-120.84817
06/11/2012	1,5,10,27,08,D	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.51	4 GAL./1 ACRE	37.47734	-120.86493
07/18/2012	1,5,11,07,01,Z	PINNEY	RESIDENTIAL	0.58	PYROCIDE 12%	OUNCE	0.75	1.28 OZ/1ACRE	37.52030	-120.79498
04/23/2012	1,5,11,07,11,A	PINNEY	STORM BASIN	0.10	BVA 2	GALLONS	0.30	4 GAL./1 ACRE	37.51599	-120.80584
07/18/2012	1,5,11,08,08,Z	PINNEY	RESIDENTIAL	0.31	PYROCIDE 12%	OUNCE	0.40	1.28 OZ/1ACRE	37.51941	-120.79368
05/17/2012	1,5,11,08,26,C	PINNEY	DRAIN DITCH	0.25	BVA 2	GALLONS	1.00	4 GAL./1 ACRE	37.51006	-120.78819
06/07/2012	2,5,08,22,31,A	BRAZIL	POND	1.67	BVA 2	GALLONS	5.00	4 GAL./1 ACRE	37.47802	-121.07235
06/28/2012	2,5,08,22,31,A	BRAZIL	POND	5.33	BVA 2	GALLONS	16.00	4 GAL./1 ACRE	37.47802	-121.07235
07/20/2012	2,6,09,17,30,A	BRAZIL	SLOUGH	1.00	BVA 2	GALLONS	3.00	4 GAL./1 ACRE	37.4057_	-121.00103
06/15/2012	2,6,09,17,30,Z	BRAZIL	SLOUGH	2.00	ALTOSID PELLETS	POUNDS	5.00	2.5 LBS./1 ACRE	37.40982	-121.00051
07/20/2012	2,6,09,20,02,A	BRAZIL	SLOUGH	0.33	BVA 2	GALLONS	1.00	4 GAL./1 ACRE	37.40516	-121.00061
06/15/2012	2,6,09,20,02,A	BRAZIL	SLOUGH	3.00	ALTOSID PELLETS	POUNDS	7.50	2.5 LBS./1 ACRE	37.40516	-121.00061

07/11/2012	2,6,09,33,03,Z	BRAZIL	SLOUGH	2.50	DIMILIN 25W	GALLONS	25.00	.325 OZ./1 ACRE	37.37174	-120.98193
07/11/2012	2,6,09,33,14,Z	BRAZIL	SLOUGH	2.50	DIMILIN 25W	GALLONS	25.00	.325 OZ./1 ACRE	37.37199	-120.98273
08/03/2012	2,6,09,33,19,Z	BRAZIL	SLOUGH	49.30	PYROCIDE 12%	OUNCE	64.00	1.28 OZ/1ACRE	37.36885	-120.98260
06/29/2012	2,6,09,33,29,Z	BRAZIL	POND	25.00	PYROCIDE 12%	OUNCE	32.00	1.28 OZ/1ACRE	37.36287	-120.98616
06/15/2012	2,6,09,33,29,Z	BRAZIL	SLOUGH	57.00	PYROCIDE 12%	OUNCE	75.00	1.28 OZ/1ACRE	37.36287	-120.98616
07/31/2012	2,6,09,34,21,Z	BRAZIL	SLOUGH	98.50	PYROCIDE 12%	OUNCE	128.00	1.28 OZ/1ACRE	37.36650	-120.97081
06/29/2012	2,6,09,34,21,Z	BRAZIL	SLOUGH	74.00	PYROCIDE 12%	OUNCE	96.00	1.28 OZ/1ACRE	37.36650	-120.97081
08/10/2012	2,6,09,34,22,A	BRAZIL	SLOUGH	1.67	BVA 2	GALLONS	5.00	4 GAL./1 ACRE	37.36477	-120.97381
06/15/2012	2,6,09,34,25,Z	BRAZIL	SLOUGH	24.00	PYROCIDE 12%	OUNCE	32.00	1.28 OZ/1ACRE	37.36314	-120.97758
06/04/2012	2,6,09,34,26,A	BRAZIL	SLOUGH	3.00	DIMILIN 25W	OUNCE	30.00	.325 OZ./1 ACRE	37.36332	-120.97486
07/18/2012	2,6,09,34,26,A	BRAZIL	SLOUGH	2.00	DIMILIN 25W	OUNCE	20.00	.325 OZ./1 ACRE	37.36332	-120.97486
07/18/2012	2,6,09,34,26,B	BRAZIL	SLOUGH	2.00	DIMILIN 25W	OUNCE	20.00	.325 OZ./1 ACRE	37.36258	-120.97410
06/04/2012	2,6,09,34,26,B	BRAZIL	SLOUGH	2.00	DIMILIN 25W	OUNCE	20.00	.325 OZ./1 ACRE	37.36258	-120.97410
07/31/2012	2,7,09,03,04,A	BRAZIL	SLOUGH	5.00	DIMILIN 25W	OUNCE	50.00	.325 OZ./1 ACRE	37.36210	-120.96893
06/06/2012	2,7,09,03,06,A	BRAZIL	DRAIN DITCH	2.50	DIMILIN 25W	OUNCE	25.00	.325 OZ./1 ACRE	37.36128	-120.97321
07/18/2012	2,7,09,03,06,A	BRAZIL	DRAIN DITCH	1.00	DIMILIN 25W	OUNCE	10.00	.325 OZ./1 ACRE	37.36128	-120.97321
06/29/2012	2,7,09,03,06,Z	BRAZIL	SLOUGH	124.00	PYROCIDE 12%	OUNCE	160.00	1.28 OZ/1ACRE	37.36060	-120.97138
06/15/2012	2,7,09,03,06,Z	BRAZIL	SLOUGH	172.00	PYROCIDE 12%	OUNCE	224.00	1.28 OZ/1ACRE	37.36060	-120.97138
07/31/2012	2,7,09,03,06,Z	BRAZIL	SLOUGH	101.60	PYROCIDE 12%	OUNCE	132.00	1.28 OZ/1ACRE	37.36060	-120.97138
07/23/2012	2,7,09,03,10,A	BRAZIL	SLOUGH	4.00	DIMILIN 25W	OUNCE	40.00	.325 OZ./1 ACRE	37.35649	-120.97574
07/23/2012	2,7,09,03,23,A	BRAZIL	SLOUGH	0.40	DIMILIN 25W	OUNCE	40.00	.325 OZ./1 ACRE	37.35389	-120.97344
07/23/2012	2,7,09,03,28,A	BRAZIL	POND	2.00	DIMILIN 25W	OUNCE	20.00	.325 OZ./1 ACRE	37.35343	-120.97100
08/03/2012	2,7,09,04,01,Z	BRAZIL	SLOUGH	147.70	PYROCIDE 12%	OUNCE	192.00	1.28 OZ/1ACRE	37.35940	-120.97995
06/29/2012	2,7,09,04,04,Z	BRAZIL	SLOUGH	74.00	PYROCIDE 12%	OUNCE	96.00	1.28 OZ/1ACRE	37.36246	-120.98702
05/21/2012	2,7,09,04,22,A	BRAZIL	SLOUGH	1.33	BVA 2	GALLONS	4.00	4 GAL./1 ACRE	37.35203	-120.98899
06/15/2012	2,7,09,04,29,Z	BRAZIL	RESIDENTIAL	77.00	PYROCIDE 12%	OUNCE	101.00	1.28 OZ/1ACRE	37.35163	-120.98130
06/27/2012	2,7,09,10,23,P	BRAZIL	MAN MADE WETLANDS	12.00	ALTOSID XR-G	POUNDS	60.00	5 LBS./1 ACRE	37.33745	-120.97366
06/27/2012	2,7,09,15,23,P	BRAZIL	MAN MADE WETLANDS	12.00	ALTOSID XR-G	POUNDS	60.00	5 LBS./1 ACRE	37.33745	-120.97366
08/02/2012	2,7,09,15,24,	BRAZIL	MAN MADE WETLANDS	40.00	ALTOSID XR-G	POUNDS	200.00	5 LBS./1 ACRE	37.32183	-120.97565
08/02/2012	2,7,09,15,25,P	BRAZIL	MAN MADE WETLANDS	24.00	ALTOSID XR-G	POUNDS	120.00	5 LBS./1 ACRE	37.32037	-120.96122
06/15/2012	2,7,09,16,29,Z	BRAZIL	MAN MADE WETLANDS	24.00	PYROCIDE 12%	OUNCE	32.00	1.28 OZ/1ACRE	37.32204	-120.98198
06/15/2012	2,7,09,20,06,Z	BRAZIL	RESIDENTIAL	117.00	PYROCIDE 12%	OUNCE	153.00	1.28 OZ/1ACRE	37.31685	-121.00583
06/01/2012	2,7,09,20,27,A	BRAZIL	PASTURE	11.33	ALTOSID ALL	GALLONS	34.00	3.9 OZ./1 ACRE	37.30386	-121.00781
08/01/2012	2,7,09,20,27,B	BRAZIL	PASTURE	4.33	ALTOSID ALL	GALLONS	13.00	3.9 OZ./1 ACRE	37.31090	-121.00828
08/09/2012	2,7,09,21,04,P	BRAZIL	MAN MADE WETLANDS	24.00	ALTOSID XR-G	POUNDS	120.00	5 LBS./1 ACRE	37.31532	-120.98545
06/25/2012	2,7,09,21,05,P	BRAZIL	MAN MADE WETLANDS	10.00	ALTOSID ALL	GALLONS	30.00	3.9 OZ./1 ACRE	37.30953	-120.98107
06/15/2012	2,7,09,21,05,Z	BRAZIL	MAN MADE WETLANDS	172.00	PYROCIDE 12%	OUNCE	224.00	1.28 OZ/1ACRE	37.31074	-120.99055
06/15/2012	2,7,09,22,05,Z	BRAZIL	MAN MADE WETLANDS	24.00	PYROCIDE 12%	OUNCE	32.00	1.28 OZ/1ACRE	37.31794	-120.97003
06/01/2012	3,3,14,19,01,Z	RUSH	RESIDENTIAL	49.30	PYROCIDE 12%	OUNCE	64.00	1.28 OZ/1ACRE	37.66389	-120.46207
06/25/2012	6,4,09,03,12,A	REFORMA	STORM BASIN	0.20	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.61679	-120.96630
06/25/2012	6,4,09,04,03,A	REFORMA	STORM BASIN	0.30	ALTOSID XR BRIQUETS	EACH	1.00	1 BRIQ/.1 ACRE	37.62347	-120.98106
06/25/2012	6,4,09,04,14,Z	REFORMA	SUMP PUMP	0.20	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.61692	-120.98144
07/20/2012	6,4,09,11,28,A	REFORMA	STORM BASIN	0.02	BVA 2	GALLONS	0.08	4 GAL./1 ACRE	31.59839	-120.94883
10/05/2012	6,4,09,12,26,A	REFORMA	STORM BASIN	0.67	VECTOBAC 12AS/VECTOLEX WDG	GALLONS	2.00	80Z./.25LBS./1 ACRE	37.59870	-120.93583
07/13/2012	6,4,10,03,06,Z	REFORMA	RESIDENTIAL	82.00	AQUAHALT	OUNCE	45.00	.55 OZ./1 ACRE	37.62320	-120.86099
05/22/2012	6,4,10,15,08,Z	REFORMA	SUMP PUMP	0.40	NATULAR 30 T30	EACH	4.00	1 INGOT/.1 ACRE	37.59276	-120.86327
06/22/2012	6,4,10,15,08,Z	REFORMA	SUMP PUMP	2.00	ALTOSID XR BRIQUETS	EACH	2.00	1 BRIQ/.1 ACRE	37.59276	-120.86327

06/08/2012	8,4,07,26,23,C	HAILE	MAN MADE WETLANDS	4.00	VECTOBAC 12AS/VECTOLEX WDG	GALLONS	12.00	80Z./.25LBS./1 ACRE	37.55807	-121.17226
08/22/2012	8,4,07,26,14,A	HAILE	MAN MADE WETLANDS	2.00	ALTOSID ALL	GALLONS	6.00	3.9 OZ./1 ACRE	37.55923	-121.16283
08/01/2012	8,4,07,26,14,A	HAILE	MAN MADE WETLANDS	6.00	BVA 2	GALLONS	18.00	4 GAL./1 ACRE	37.55923	-121.16283
08/01/2012	8,4,07,26,14,A	HAILE	MAN MADE WETLANDS	1.00	BVA 2	GALLONS	3.00	4 GAL./1 ACRE	37.55923	-121.16283
08/22/2012	8,4,07,26,14,A	HAILE	MAN MADE WETLANDS	8.00	ALTOSID ALL	GALLONS	24.00	3.9 OZ./1 ACRE	37.55923	-121.16283
08/22/2012	8,4,07,26,04,A	HAILE	MAN MADE WETLANDS	0.90	BVA 2	GALLONS	2.70	4 GAL./1 ACRE	37.56517	-121.16546
09/13/2012	8,4,07,26,01,	HAILE	MAN MADE WETLANDS	30.00	PYROCIDE 12%	OUNCE	39.00	1.28 OZ/1ACRE	37.56460	-121.15927
08/03/2012	8,4,07,26,01,	HAILE	MAN MADE WETLANDS	40.00	PYROCIDE 12%	OUNCE	52.00	1.28 OZ/1ACRE	37.56460	-121.15927
08/15/2012	8,4,07,26,01,	HAILE	MAN MADE WETLANDS	185.00	PYROCIDE 12%	OUNCE	240.50	1.28 OZ/1ACRE	37.56460	-121.15927
05/03/2012	8,4,07,25,30,A	HAILE	MAN MADE WETLANDS	5.00	FISH	POUNDS	2.50	1 LBS/1 ACRE	37.55425	-121.14568
08/20/2012	8,4,07,25,30,A	HAILE	MAN MADE WETLANDS	4.30	VECTOBAC 12 AS	GALLONS	12.90	.25 GAL./1 ACRE	37.55425	-121.14568
07/26/2012	8,4,07,25,30,A	HAILE	MAN MADE WETLANDS	1.20	VECTOBAC 12 AS	GALLONS	3.60	.25 GAL./1 ACRE	37.55425	-121.14568
08/01/2012	8,4,07,25,23,C	HAILE	MAN MADE WETLANDS	4.00	ALTOSID ALL	GALLONS	12.00	3.9 OZ./1 ACRE	37.55673	-121.15551
06/05/2012	8,4,07,25,23,B	HAILE	MAN MADE WETLANDS	4.00	VECTOBAC 12 AS	GALLONS	12.00	.125 GAL./1 ACRE	37.55642	-121.15541
06/04/2012	8,4,07,25,23,A	HAILE	MAN MADE WETLANDS	4.00	VECTOBAC 12 AS	GALLONS	12.00	.25 GAL./1 ACRE	37.55557	-121.15360
08/20/2012	8,4,07,25,23,A	HAILE	MAN MADE WETLANDS	3.80	BVA 2	GALLONS	11.40	4 GAL./1 ACRE	37.55557	-121.15360
08/01/2012	8,4,07,25,23,A	HAILE	MAN MADE WETLANDS	4.00	VECTOBAC 12 AS	GALLONS	12.00	.25 GAL./1 ACRE	37.55557	-121.15360
09/07/2012	8,4,07,25,07,Z	HAILE	DAIRY	30.00	PYROCIDE 12%	OUNCE	39.00	1.28 OZ/1ACRE	37.56359	-121.15415
05/31/2012	8,4,07,25,01,Z	HAILE	RESIDENTIAL	30.00	PYROCIDE 12%	OUNCE	39.00	1.28 OZ/1ACRE	37.56428	-121.17298
08/01/2012	8,4,07,23,22,A 8,4,07,23,27,A	HAILE	MAN MADE WETLANDS	2.00	VECTOBAC 12 AS	GALLONS	6.00	.25 GAL./1 ACRE	37.57085	-121.17145
05/30/2012 05/29/2012		HAILE	MAN MADE WETLANDS MAN MADE WETLANDS	4.66	BVA 2 BVA 2	GALLONS GALLONS	24.00 14.00	4 GAL./1 ACRE 4 GAL./1 ACRE	37.57131 37.57085	-121.16926
05/29/2012	8,4,07,23,20,A 8,4,07,23,21,A	HAILE	MAN MADE WETLANDS	6.00 8.00	BVA 2	GALLONS	18.00	4 GAL./1 ACRE	37.57249	-121.17057 -121.16926
06/18/2012	8,4,07,23,17,B	HAILE	MAN MADE WETLANDS	4.00		GALLONS	12.00	3.9 OZ./1 ACRE	37.57272	-121.15948
06/18/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	8.00	VECTOBAC 12 AS	GALLONS	2.40	.25 GAL./1 ACRE	37.57294	-121.15981
07/31/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	4.00	VECTOBAC 12AS/VECTOLEX WDG	GALLONS	12.00	80Z./.25LBS./1 ACRE	37.57294	-121.15981
05/01/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	0.50			2.50	1 LBS/1 ACRE	37.57294	-121.15981
06/12/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	9.00	BVA 2	GALLONS	27.00	4 GAL./1 ACRE	37.57294	-121.15981
09/05/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	5.00	VECTOBAC 12 AS	GALLONS	15.00	.25 GAL./1 ACRE	37.57294	-121.15981
05/23/2012	8,4,07,23,17,A	HAILE	MAN MADE WETLANDS	6.00	ALTOSID XR-G	POUNDS	40.00	5 LBS./1 ACRE	37.57294	-121.15981
05/29/2012	8,4,07,23,10,A	HAILE	MAN MADE WETLANDS	3.33	BVA 2	GALLONS	10.00	4 GAL./1 ACRE	37.57262	-121.17203
07/06/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	54.60	PYROCIDE 12%	OUNCE	71.00	1.28 OZ/1ACRE	37.57690	-121.16012
08/17/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	140.00	PYROCIDE 12%	OUNCE	182.00	1.28 OZ/1ACRE	37.57690	-121.16012
09/14/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	170.00	PYROCIDE 12%	OUNCE	221.00	1.28 OZ/1ACRE	37.57690	-121.16012
05/31/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	290.00	PYROCIDE 12%	OUNCE	377.00	1.28 OZ/1ACRE	37.57690	-121.16012
07/20/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	400.00	PYROCIDE 12%	OUNCE	520.00	1.28 OZ/1ACRE	37.57690	-121.16012
09/28/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	250.00	PYROCIDE 12%	OUNCE	325.00	1.28 OZ/1ACRE	37.57690	-121.16012
09/07/2012	8,4,07,23,01,Z	HAILE	MAN MADE WETLANDS	100.00	PYROCIDE 12%	OUNCE	130.00	1.28 OZ/1ACRE	37.57690	-121.16012
07/20/2012	8,4,07,22,01,Z	HAILE	MAN MADE WETLANDS	120.00	PYROCIDE 12%	OUNCE	156.00	1.28 OZ/1ACRE	37.57792	-121.17772
05/31/2012	8,4,07,22,01,Z	HAILE	TOWN OF GRAYSON	40.00	PYROCIDE 12%	OUNCE	52.00	1.28 OZ/1ACRE	37.57792	-121.17772
09/14/2012	8,4,07,22,01,Z	HAILE	TOWN OF GRAYSON	40.00	PYROCIDE 12%	OUNCE	52.00	1.28 OZ/1ACRE	37.57792	-121.17772
10/08/2012	8,4,07,16,01,	HAILE	AG LAND	175.00	PYROCIDE 12%	OUNCE	227.50	1.28 OZ/1ACRE	37.60198	-121.18555
09/19/2012	8,4,07,16,01,	HAILE	AG LAND	200.00	PYROCIDE 12%	OUNCE	260.00	1.28 OZ/1ACRE	37.60198	-121.18555
09/14/2012	8,4,07,04,01,Z	HAILE	AG LAND	100.00	PYROCIDE 12%	OUNCE	130.00	1.28 OZ/1ACRE	37.61943	-121.19222
09/07/2012	8,4,07,04,01,Z	HAILE	AG LAND	70.00	PYROCIDE 12%	OUNCE	91.00	1.28 OZ/1ACRE	37.61943	-121.19222
	8,3,07,32,01,Z	HAILE	AG LAND	110.00	PYROCIDE 12%	OUNCE	143.00	1.28 OZ/1ACRE	37.63622	-121.21729
09/14/2012										1

05/31/2012	8,4,07,27,01,Z	HAILE	TOWN OF GRAYSON	50.00	PYROCIDE 12%	OUNCE	65.00	1.28 OZ/1ACRE	37.56559	-121.17770
09/14/2012	8,4,07,27,01,Z	HAILE	TOWN OF GRAYSON	120.00	PYROCIDE 12%	OUNCE	156.00	1.28 OZ/1ACRE	37.56559	-121.17770
10/12/2012	8,4,07,27,01,Z	HAILE	TOWN OF GRAYSON	140.00	PYROCIDE 12%	OUNCE	182.00	1.28 OZ/1ACRE	37.56559	-121.17770
09/17/2012	8,4,08,01,01,Z	HAILE	RESIDENTIAL	80.00	PYROCIDE 12%	OUNCE	104.00	1.28 OZ/1ACRE	37.61125	-121.03973
09/17/2012	8,4,08,11,01,Z	HAILE	RESIDENTIAL	110.00	PYROCIDE 12%	OUNCE	143.00	1.28 OZ/1ACRE	37.60812	-121.05063
10/12/2012	8,4,08,20,19,Z	HAILE	RESIDENTIAL	20.00	PYROCIDE 12%	OUNCE	26.00	1.28 OZ/1ACRE	37.57061	-121.10910
10/08/2012	8,4,08,20,20,Z	HAILE	RESIDENTIAL	60.00	PYROCIDE 12%	OUNCE	78.00	1.28 OZ/1ACRE	37.57398	-121.11234
10/10/2012	8,4,08,29,01,Z	HAILE	MAN MADE WETLANDS	140.00	PYROCIDE 12%	OUNCE	182.00	1.28 OZ/1ACRE	37.55930	-121.11787
07/06/2012	8,4,08,29,01,Z	HAILE	MAN MADE WETLANDS	76.90	PYROCIDE 12%	OUNCE	100.00	1.28 OZ/1ACRE	37.55930	-121.11787
05/31/2012	8,4,08,29,25,A	HAILE	MAN MADE WETLANDS	2.00	VECTOBAC 12 AS	GALLONS	6.00	.25 GAL./1 ACRE	37.55449	-121.11960
10/10/2012	8,4,08,30,01,	HAILE	MAN MADE WETLANDS	100.00	PYROCIDE 12%	OUNCE	130.00	1.28 OZ/1ACRE	37.56574	-121.12218
05/14/2012	8,4,08,30,08,Z	HAILE	MAN MADE WETLANDS	5.00	VECTOBAC 12 AS	GALLONS	15.00	.125 GAL./1 ACRE	37.56384	-121.13859
07/25/2012	8,4,08,30,14,A	HAILE	MAN MADE WETLANDS	2.00	VECTOBAC 12 AS	GALLONS	6.00	.25 GAL./1 ACRE	37.55894	-121.12808
06/07/2012	8,4,08,30,14,A	HAILE	MAN MADE WETLANDS	12.00	ALTOSID XR-G	POUNDS	60.00	5 LBS./1 ACRE	37.55894	-121.12808
06/07/2012	8,4,08,30,14,C	HAILE	MAN MADE WETLANDS	16.00	ALTOSID XR-G	POUNDS	80.00	5 LBS./1 ACRE	37.55834	-121.12808
07/25/2012	8,4,08,30,14,C	HAILE	MAN MADE WETLANDS	2.00	VECTOBAC 12 AS	GALLONS	6.00	.25 GAL./1 ACRE	37.55834	-121.12808
06/07/2012	8,4,08,30,15,A	HAILE	MAN MADE WETLANDS	12.00	ALTOSID XR-G	POUNDS	60.00	5 LBS./1 ACRE	37.55834	-121.12365
06/11/2012	8,4,08,30,17,A	HAILE	MAN MADE WETLANDS	2.00	BVA 2	GALLONS	6.00	4 GAL./1 ACRE	37.55751	-121.12307
07/25/2012	8,4,08,30,17,A	HAILE	MAN MADE WETLANDS	0.70	VECTOBAC 12 AS	GALLONS	2.10	.25 GAL./1 ACRE	37.55751	-121.12307
06/07/2012	8,4,08,30,18,A	HAILE	MAN MADE WETLANDS	8.00	VECTOBAC 12 AS	GALLONS	24.00	.125 GAL./1 ACRE	37.55773	-121.12603
05/16/2012	8,4,08,30,27,C	HAILE	MAN MADE WETLANDS	5.00	FISH	POUNDS	2.50	1 LBS/1 ACRE	37.55243	-121.13557
05/30/2012	8,4,08,30,27,C	HAILE	MAN MADE WETLANDS	4.00	BVA 2	GALLONS	12.00	4 GAL./1 ACRE	37.55243	-121.13557
06/21/2012	8,4,08,30,27,C	HAILE	MAN MADE WETLANDS	3.66	VECTOBAC 12 AS	GALLONS	11.00	.25 GAL./1 ACRE	37.55243	-121.13557
06/12/2012	8,4,08,30,29,A	HAILE	MAN MADE WETLANDS	5.00	VECTOBAC 12 AS	GALLONS	15.00	.125 GAL./1 ACRE	37.55401	-121.12958
06/21/2012	8,4,08,31,05,A	HAILE	MAN MADE WETLANDS	4.00	BVA 2	GALLONS	12.00	4 GAL./1 ACRE	37.55111	-121.13196
06/21/2012	8,4,08,31,08,A	HAILE	MAN MADE WETLANDS	2.00	VECTOBAC 12AS/VECTOLEX WDG	GALLONS	6.00	80Z./.25LBS./1 ACRE	37.55077	-121.13791
07/06/2012	8,4,08,32,01,	HAILE	MAN MADE WETLANDS	57.70	PYROCIDE 12%	OUNCE	75.00	1.28 OZ/1ACRE	37.55133	-121.10344
10/10/2012	8,4,08,32,01,	HAILE	MAN MADE WETLANDS	100.00	PYROCIDE 12%	OUNCE	130.00	1.28 OZ/1ACRE	37.55133	-121.10344
08/15/2012	8,4,08,32,01,	HAILE	MAN MADE WETLANDS	100.00	PYROCIDE 12%	OUNCE	130.00	1.28 OZ/1ACRE	37.55133	-121.10344
04/24/2012	8,4,08,32,31,Z	HAILE	NATURAL WETLANDS	1.50	BVA 2	GALLONS	4.50	4 GAL./1 ACRE	37.53889	-121.10706
08/15/2012	8,4,09,29,01,Z	HAILE	MAN MADE WETLANDS	250.00	PYROCIDE 12%	OUNCE	325.00	1.28 OZ/1ACRE	37.55920	-121.11706

## Monitoring Log Sheet

Agency:	Turl	ock Mosquito Abatement District	Location	8,4,08,32,06,Z			
Applicator Name:		Alan Haile	Water Body:	Wetland, man made Open waterwa			
Date of Appilcation:	07/06/2012		Description				
Pesticide	Adulticide MGK 12%		Description:				

			V	isual Obser	vation					
	Background Monitoring Event Monitoring				Pos	Post-Event Monitoring				
Date of Monitoring	07/06/2012 <b>Time:</b> 4:25 am				Time:		7/11/2012	Time:	1:25 pm	
Monitors:		Haile				-	Haile			
Current Weather:	Clear/sunny/None/Calm/Cool			///			Clear/sunny/None/Light breeze/Hot			
Water Color & Clarity:		Colorless/Clea	ar	/				Colorless/Clear		
Floating or Suspended	Not	Bottom			Bottom			Bottom		
Matter:	Observed	Deposits:	Not Observed	Not Observed	Deposits:	Not Observed	Not Observed	Deposits:	Not Observed	
Aquatic Life:	Not Observed	Surface Oil:		Not Observed	Surface Oil:		Not Observed	Surface Oil:		
Fungi, Slimes or										
Objectionable Growths:		Not Observe	b	Not Observed Not Observed					d	
Other Potential Nuisance:		None None weeds								

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

### Monitoring Log Sheet

Agency:		Turlock MAD	Location	5-8-55-31-A
Applicator Name:		Tim Brazil	Water Body:	Pond
Date of Appilcation:		6/28/2012		
Pesticide	Larvicide BVA2		Description:	

			V	isual Obser	vation					
	Background Monitoring Event Monitoring Post-Event Monit						toring			
Date of Monitoring	6/28/2012	Time:	8:30 am	6/28/2012	Time:	10:20 am	7/3/2012	Time:	7:40 am	
Monitors:		Tim Brazil		Tim Brazil			Tim Brazil			
Current Weather:	Clear/sun	ny/None/Calm	/Warm/mild	Clear/sunny/None/Calm/Warm/mild			Clear/sunny/None/Calm/Cool			
Water Color & Clarity:		Colorless/Cle	ar	Colorless/Clear			Colorless/Clear			
Floating or Suspended	Not	Bottom		Bottom				Bottom		
Matter:	Observed	Deposits:	Not Observed	Not Observed	Deposits:	Not Observed	Observed	Deposits:	Not Observed	
Aquatic Life:	Observed	Surface Oil:	none	Observed	Surface Oil:	Sheen	Observed	Surface Oil:	none	
Fungi, Slimes or										
Objectionable Growths:	Observed Observed 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											

## Monitoring Log Sheet

Agency:		TURLOCK MAD	Location	4-10-10-06-Z				
Applicator Name:		RON REFORMA	Water Body:	DISCHARGE POINT Open waterway				
Date of Appilcation:		5/22/2012	Description					
Pesticide	Larvicide	NT30	Description:	SUMP PUMP TREATMENT 4	-10-15-08-Z			

	Visual Observation											
	Back	kground Moni	itoring		Event Monitorir	ng	Post-Event Monitoring					
Date of Monitoring	5/22/2012	Time:	2:07 PM PM	5/22/2012	Time:	2:30 PM	6/15/2012	Time:	9:50 AM			
Monitors:		RON REFORM	ЛА	RON REFORMA				RON REFORMA				
Current Weather:	Clear/sunny/N	None/Light bre	eze/Warm/mild	Clear/sunny/None/Light breeze/Warm/mild			Clear/sunny/None/Light breeze/Warm/mild					
Water Color & Clarity:		Green/Murky	/	Green/Murky				Green/Murky				
Floating or Suspended	Not	Bottom		Bottom				Bottom				
Matter:	Observed	Deposits:	Not Observed	Not Observed	Deposits:	Not Observed	Not Observed	Deposits:	Not Observed			
Aquatic Life:	Not Observed	Surface Oil:	NONE	Not Observed	Surface Oil:	NONE	Not Observed	Surface Oil:	NONE			
Fungi, Slimes or	ngi, Slimes or											
<b>Objectionable Growths:</b>		Observed Observed 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						