

## 1. **Annual Report**

### a. Executive Summary

The Oroville Mosquito Abatement District (hereafter, the District) is an independent special district accountable to the citizens of Oroville, CA, charged with the protection of public health through the control of mosquitoes and mosquito-vectored diseases within its boundaries. The District is in compliance with applicable sections of the General NPDES Permit for Biological and Residual Pesticide Discharges from Vector Control Applications. Monitoring requirements were met by being a member of the MVCAC NPDES Permit Coalition, which conducted all required chemical, physical, and visual 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 did not make apply any larvicide to Waters of the U.S. in 2012. The District completed 64 adulticide application in zones that contain waters of the U.S. during 2012. Adulticides are never applied directly to water; however the applications are reported because they may have resulted in deposition of pesticide into a water of the US. Hereafter these will be called permitted applications. Throughout 2012, The District followed the guidelines of its Pesticide Application Plan (PAP) and complied with all instructions on pesticide labels.

In accordance with SWRCB notification on July 13, 2012, the District did not conduct independent visual monitoring. On that date, SWRCB notified the permit holders in a letter to MVCAC 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 not required by individual Districts. While the District did not conduct formal visual monitoring, staff did not note any significant impacts to water quality after permitted applications.

The PAP prepared by the District was a continuation of the integrated management approach that has been used at the District for many years. Pesticide applications vary annually. The number and extent of applications that may have entered a Water of the United States during 2012 was similar to the 2011 season. Generally, pesticide use by the District has been minimized through implementation of various Best Management Practices for many years. NPDES permitting requirements are not expected to alter management strategy or reduce pesticide use.

### b. Summary of Monitoring Data

For the reasons stated above the District will not be reporting individual visual monitoring data. Physical and chemical monitoring was conducted as part of the MVCAC Monitoring Coalition. All measurements made by District staff or by URS, the organization hired by MVCAC to coordinate and report physical and chemical monitoring, is contained within the MVCAC NPDES Monitoring Report (previously submitted by the MVCAC Monitoring Coalition). The District also took part in the Granite Canyon Laboratory Pilot Toxicity Study, and information on those samples may be found in their Report (previously submitted by the MVCAC Monitoring Coalition).

The Coalition will provide information on the incidence of West Nile Virus and other similar public health threats in the Coalition's annual report.

c. Identification of Current BMPs

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, calibrating application equipment, and using a biologically based assessment to determine treatment thresholds.

d. Violation Discussion

This report completes requirements for the NPDES permit for 2012. While requirements for the permit have been met without violation, this report was not submitted by March 1 as required in the permit.

e. Map of Applications

See Attachment C. The map shows all waters of the U.S. included within District boundaries.

f. Log of Applications made to Waters of the U.S.

See Pesticide Application Log (Attachment D).

g. General Information on Applications.

Only applications directly to Waters of the United States, or applications that could reasonably be expected to result in deposition of pesticide into a water of the U.S. are included in this report.

The District does apply larvicides, however very few of the larval sites treated could be considered a water of the U.S. The District did not apply any larvicide to a site that would be considered a water of the US during 2012.

For simplification in reporting and to ensure completeness in this report, adulticide applications are included if any part of the zone treated is within ¼ mile of a water of the U.S. The District treats only those areas of a spray zone that have high mosquito populations as a standard Best Management Practice, however the areas treated are typically close to riparian habitats that harbor

mosquitoes, therefore the District is confident in the accuracy of this report. Often multiple zones; or portions thereof are included in a single spray route. For purposes of this report, the District has recorded separate applications for each zone included on a given date, regardless of whether the application was made by a single vehicle or multiple vehicles. Jeff Cahn, manager of the District was either the sole applicator or working in coordination with the other District employee Hugo Landaverde during ULV applications. Therefore, Jeff Cahn will be recorded as the applicator for every ULV application.

Both ULV spray machines used by the district are calibrated to the same application rate. The District used the same product is for every ULV application during 2012. The District calibrates its ULV sprayers near the center of the allowable application rate listed on the product label.

Pesticide used for ULV adulticide applications:

Evoluer 4-4 ULV US EPA registration number for the product is 769-982.

Calibrated flow rate and driving speed for ULV sprayers is:

7.0 fluid oz / minute at 10 MPH driving speed.

Application rate is 0.00263 Lbs permethrin / acre.

Weather conditions during ULV applications:

The District does not own a weather station, and weather conditions frequently vary during any given spray event. Therefore, weather conditions have been recorded only in general terms – consistent with District policy and with pesticide labels. District policy is to conduct ULV applicaitons only under the following conditions:

No precipitation falling or predicted during the next 2 hours

Air temperature between 65 and 90 degrees Fahrenheit

Wind speed < 5 miles per hour

Applications may only be done between sunset and sunrise

h. Visual Monitoring Data

See MVCAC Monitoring Coalition report.

i. Monitoring Program, BMPs and PAP Recommendations

The District is examining Coalition monitoring results for exceedance of receiving water standards. In the event receiving water standards have not been met, the District will compare product used and application rates that resulted in the exceedance with those used by the District. The District will alter product choice and/ or reduce application rates as necessary to ensure receiving water standards are met within District boundaries.

j. Pesticide Application Log

See Attachment D.

2. **Updated Monitoring Locations**

The District is part of the MVCAC Coalition. Any changes to monitoring locations will be stipulated in the Coalition report.

3. **Self-Monitoring Reports**

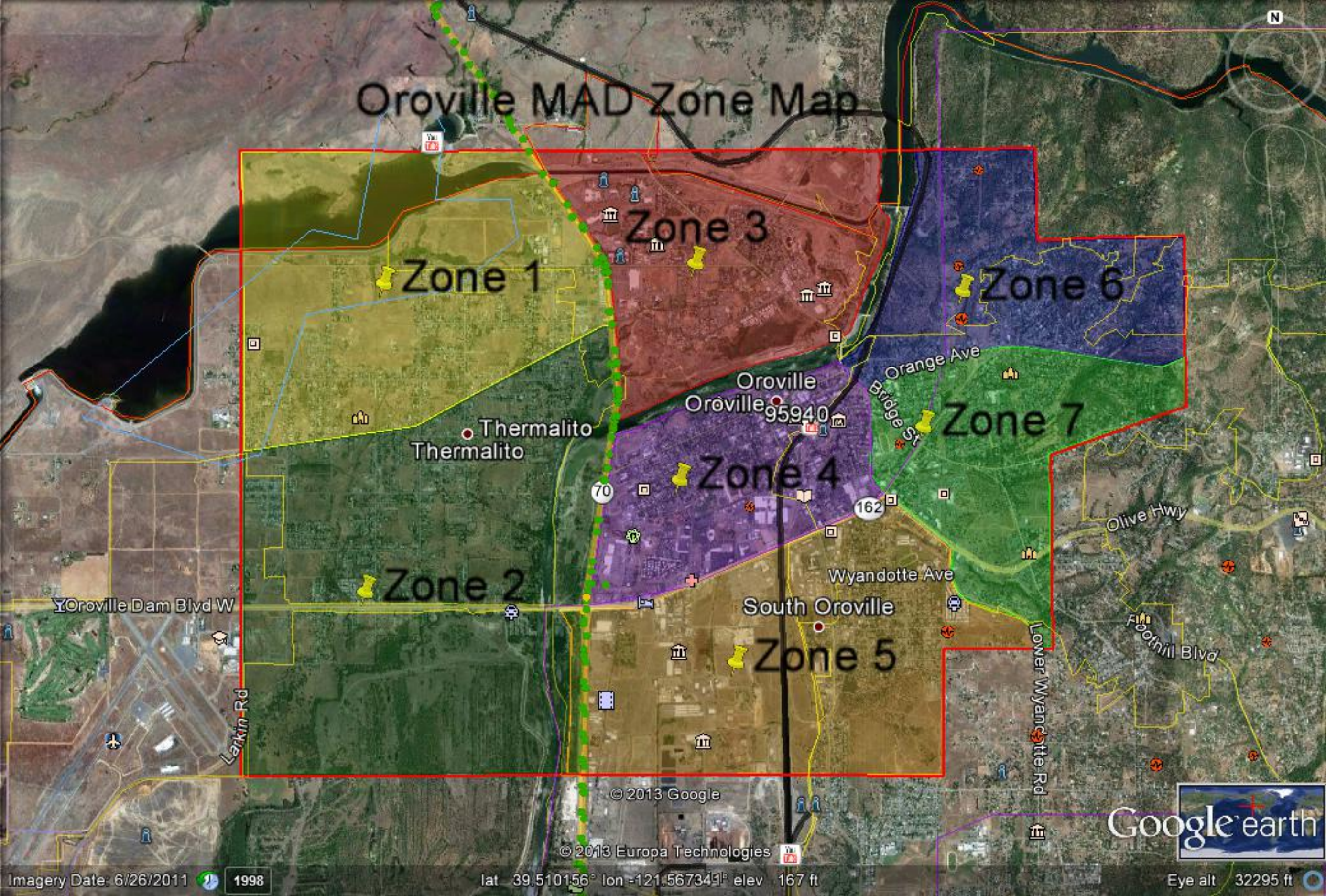
The District was not asked to submit any self-monitoring reports by the State Water Board or by the Central Valley Regional Water Quality Control Board.

4. **Monitoring Reports**

The District is a member of the Mosquito and Vector Control Association of California's Monitoring and Reporting Coalition. The Coalition Monitoring Annual Report will summarize all physical measurements and chemical monitoring done for 2011 and 2012.



# Oroville MAD Zone Map



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**Zone #**

1

2

3

4

5

6

7

## Streets

Nelson Ave, 20th St.

5th St. - 7th St. and cross streets from Oroville Dam Road to Grand Avenue

Oroview Dr., Bluffs Dr., Rancho Vists Dr., Flying Clod Dr., Eavenswood Cir., Windward Way, Cameron Dr., La Calina Dr., La Cressenta Dr., Mira Loma Dr., Riverview Terrace, and parts of Cherokee Rd., Table Mtn. Rd., and Grand Ave.

Bird, Montgomery, Saffort, Broderick Streets and cross streets from Hwy 70 to Washington Ave

Hwy 70, Oroville Dam Rd., Feather Blvd.

Lakeland Blvd., Reyman St., Bonite St.

None

<b>Length</b>	<b>Maximum Oz Applied</b>	<b>Name of Water</b>
2.35 mi	98.7 oz	Thermolito Forebay
3.7 mi	155.4 oz	Feather River,
3.6 mi	151.2 oz.	Thermolito Diversion Pool, Thermolito Forebay Canal, Thermolito Forebay, Feather River
4.6 mi	193.2 oz	Feather River
1.5 mi	63 oz	Feather River
.9 mi	38 oz	Feather River, Thermolito Diversion Pool
NA	NA	None