RECEIVED
MAR 14 2016
DIVISION OF WATER QUALITY

ATTACHMENT G – NOTICE OF INTENT

WATER QUALITY ORDER NO. 2016-xxxx-DWQ
GENERAL PERMIT NO. CAG 990004

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR BIOLOGICAL AND RESIDUAL PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM VECTOR CONTROL APPLICATIONS

I. NOTICE OF INTENT STATUS (see Instructions)

Mark only one item ☒ A. New Applicator ☐ B. Change of Information: WDID# _____

☐ C. Change of ownership or responsibility: WDID# _____

II. DISCHARGER INFORMATION

A. Name			
Colusa Mosquito Abatement District			
B. Mailing Address			
P.O. Box 208			
C. City	D. County	E. State	F. Zip Code
Colusa	Colusa	CA.	95932
G. Contact Person	H. Email address	I. Title	J. Phone
David B. Whitesell	colmade frontier net. NET	Manager	(530) 458-4966

III. BILLING ADDRESS (Enter Information *only* if different from Section II above)

A. Name			
B. Mailing Address			
C. City	D. County	E. State	F. Zip Code
G. Email address	H. Title	I. Phone	

IV. RECEIVING WATER INFORMATION

A. Biological and residual pesticides discharge to (check all that apply)*:

1. Canals, ditches, or other constructed conveyance facilities owned and controlled by Discharger.
☐ Name of the conveyance system: _____

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
☒ Owner's name: Various See Attachment A
Name of the conveyance system: Various Conveyance Systems in Colusa & Sutter Co.

3. Directly to river, lake, creek, stream, bay, ocean, etc.
☒ Name of water body: Various - See Attachement A (Map)

* A map showing the affected areas for items 1 to 3 above may be included.

B. Regional Water Quality Control Board(s) where application areas are located (REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 5
(List all regions where pesticide application is proposed.)

A map showing the locations of A1-A3 in each Regional Water Board shall be included.

V. PESTICIDE APPLICATION INFORMATION

A. Target Organisms: ☒ Vector Larvae ☒ Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products

See Attachment B

C. Period of Application: Start Date January 1 End Date December 31

D. Types of Adjuvants Added by the Discharger:

VI. PESTICIDES APPLICATION PLAN

A. Has a Pesticides Application Plan been prepared?*
☒ Yes ☐ No

If not, when will it be prepared? _____

* A copy of the PAP shall be included with the NOI.

B. Is the applicator familiar with its contents?

☒ Yes ☐ No

VII. NOTIFICATION

Have potentially affected governmental agencies been notified?

☒ Yes ☐ No See Attachment G

* If yes, a copy of the notifications shall be attached to the NOI.

VIII. FEE

Have you included payment of the filing fee (for first-time enrollees only) with this submittal?

☒ Yes ☐ NO ☐ NA

IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I certify that the provisions of the General Permit, including developing and implementing a monitoring program, will be complied with."

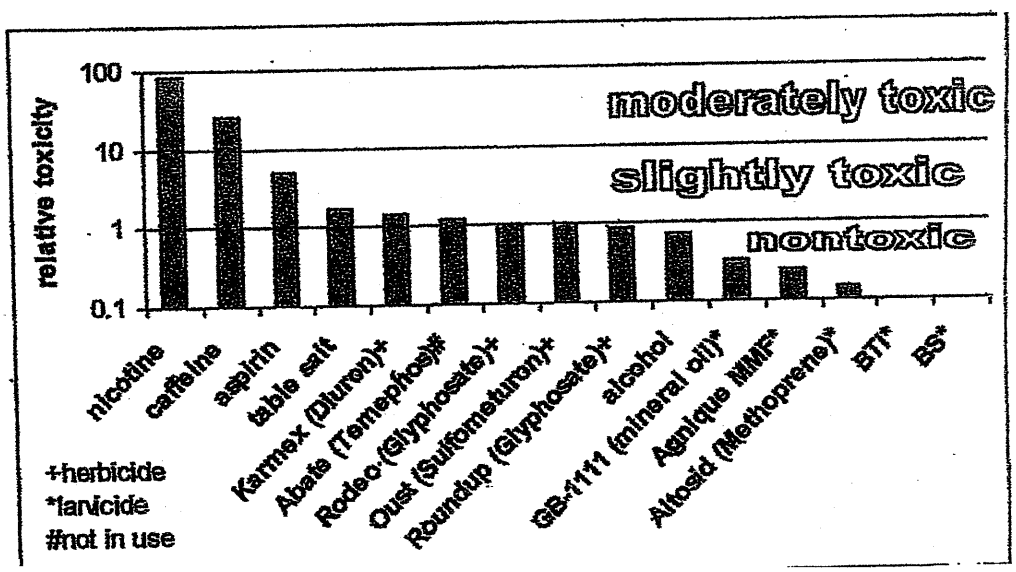
A. Printed Name: David B. Whitesell

B. Signature: David B. Whitesell **Date:** 3/9/16

C. Title: Manager

X. FOR STATE WATER BOARD USE ONLY

WDID:	**Date NOI Received:**	**Date NOI Processed:**
Case Handler's Initial:	**Fee Amount Received:** **$**	**Check #:**


relative toxicity
100
10
1
0.1
moderately toxic
slightly toxic
nontoxic
nicotine
caffeine
aspirin
table salt
Karmex (Diuron)+
Abate (Temephos)#
Rodeo (Glyphosate)+
Oust (Sulfometuron)*
Roundup (Glyphosate)+
alcohol
GB-1111 (mineral oil)*
Agnique MMF*
Altosid (Methoprene)*
BTI*
BS*
+herbicide
*larvicide
#not in use

Colusa Mosquito Abatement District
District PAP

The Discharger shall develop a Pesticides Application Plan (PAP) that contains the following elements:

1. **Description of ALL target areas, if different from the water body of the target area, in to which larvicides and adulticides are being planned to be applied or may be applied to control vectors. The description shall include adjacent areas, if different from the water body of the target areas;**
   The Colusa Mosquito District's boundaries include 140 square miles in Colusa County and 20 square miles in the Sutter County Area of the Butte Sink. The District may control mosquitoes outside the boundaries if the mosquito threshold is affecting the District boundaries. Please refer to the District Boundary Map (Map attached on back page)

2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control;**
   Please see the Best Management Practices for Mosquito Control in California and the Colusa Mosquito Abatement District's BMP Plan (Enclosed).

3. **Pesticide products or types expected to be used and if known, their degradation by-products, the method in which they are applied, and if applicable, the adjuvants and surfactants used;**
   Please see Attachments E and F within NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the U.S. for Vector Control Applications. Products may be applied by hand, truck, backpack, hand can, helicopter, or airplane according to label directions.

4. **Description of ALL the application areas* and the target areas in the system that are being planned to be applied or may be applied. Provide a map showing these areas;**
   Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to affect long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California. The typical sources treated by this District include:

   - Rice fields
   - Wetlands (Duck Clubs)
   - Irrigated Crops
   - Catch Basins
   - Ponds and Pools
   - Pastures (Irrigated and Non-Irrigated)
   - Sumps and Drains
   - Wooded Areas (Riparian Areas)
   - Roadside Ditches (Sweat Ditched)
   - Potentially Any Aquatic Site That Has Water Standing for 96 Hours or More

   *** Potentially any aquatic site that holds water for more than 96 hours or more.**

5. **Other control methods used (alternatives) and their limitations;**

With any source of mosquitoes or other vectors, the District's first goal is to look for ways to eliminate the source, or if that is not possible, for ways to reduce the potential for vectors. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California and the Colusa Mosquito Abatement District's BMP Plan.
Specific methods used by the District include stocking mosquito fish (*Gambusia affinis*), educating residents that mosquitoes develop in standing water and encouraging them to remove sources of standing water on their property, and working with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications.

6. **How much product is needed and how this amounts was determined;**
The need to apply product is determined by surveillance. Actual use varies annually depending on mosquito abundance. The pesticide amounts presented below were taken from the District's 2015 PUR as an estimate of pesticide use in 2016. Other public health pesticides in addition to those listed below may be used as part of the District's best management practices.

Pesticide	EPA Reg #	Amount
MGK, Evergreen EC 60-6	1021-1770	41.2 Gal
AMVAC, Trumpet EC	5481-481	336.9 Gal
Clarke Mosquito Control, Duet	1021-1795-8329	3.5 Gal
Chemivova, Fyfanon ULV	67760-34	255.4 Gal
Prentiss LLC, Perm X UL-31-66	655-812	10.5 Gal
Wellmark, Int.,Zenovex E 20	2724-791	15.8 Gal

The District records all applications by zone, time and amount used per application and submits amounts by way of a monthly Pesticide Use Reports (PUR) to the University Gateway system who forward this usage to Cal Ag Reporting system. Also weather is monitored each application and put on file with the application sheet. The above data was taken from the District's PUR for 2015. Amount varies annually due to mosquito abundance and mosquito thresholds throughout the year.

7. **Representative monitoring locations* and the justification for selecting these monitoring locations**
Please see the MVCAC NPDES Coalition Monitoring Plan

8. **Evaluation of available BMPs to determine if there are feasible alternatives to the selected pesticide application project that could reduce potential water quality impacts; and**
   Please see the Best Management Practices for Mosquito Control in California

9. **Description of the BMPs to be implemented. The BMPs shall include at a minimum:**
   The District's BMPs are described in the Best Management Practices for Mosquito Control in California, the California Mosquito-borne Virus Surveillance and Response Plan, and the Colusa Mosquito Abatement District's BMP Plan. Additionally, specific elements have been highlighted below under items a-f.

   a. **measures to prevent pesticide spill;**
      District staff monitors application equipment on a daily basis to ensure it remains in proper working order. Spill mitigation devices are placed in all spray vehicles and pesticide storage areas with spill maps in each vehicle. Employees are trained on spill prevention and response annually. .

   b. **measures to ensure that only a minimum and consistent amount is used**
      Application equipment is calibrated at least annually as required by the Department of Pesticide Regulations (DPR) and the terms of a cooperative agreement with the California Department of Public Health (CDPH).

   c. **a plan to educate Coalition's or Discharger's staff and pesticide applicator on any potential adverse effects to waters of the U.S. from the pesticide application;**
      This will be included in our pesticide applicators annual pesticide application and safety training, continuing education programs, and/or regional NPDES Permit training programs.

   d. **descriptions of specific BMPs for each application mode, e.g. aerial, truck, hand, etc.;**
      The District calibrates truck-mounted and handheld larviciding equipment each year to meet application specifications. Supervisors review application records daily to ensure appropriate amounts of material are being used. Ultra-low volume (ULV) application equipment is calibrated for output and droplet size to meet label requirements. Aerial larviciding equipment is calibrated by the Contractor. Aerial adulticide equipment is calibrated regularly and droplet size will be monitored by the District to ensure droplets meet label requirements. Airplanes used in urban ULV applications and the primary airplane used for rural ULV application is equipped with advanced guidance and drift management equipment to ensure the best available technology is being used to place product in the intended area. If a secondary airplane is used in rural ULV applications it will be equipped with an advanced guidance system.

   e. **descriptions of specific BMPs for each pesticide product used; and**
      Please see the Best Management Practices for Mosquito Control in California for general pesticide application BMPs, and the current approved pesticide labels for

application BMPs for specific products. Also see the Colusa Mosquito Abatement District's BMP Plan (Enclosed).

f. **descriptions of specific BMPs for each type of environmental setting (agricultural, urban, and wetland).**
Please see the Best Management Practices for Mosquito Control in California and the Colusa Mosquito Abatement District's BMP Plan.

10. **Identification of the problem. Prior to first pesticide application covered under this General Permit that will result in a discharge of biological and residual pesticides to waters of the US, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, the Discharger must do the following for each vector management area:**

a. **If applicable, establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies;**

The District's staff only applies pesticides to sources of mosquitoes that represent imminent threats to public health or quality of life. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the District's resources, disease activity, surveillance data, or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

- Mosquito species present
- Mosquito stage of development
- Pest, nuisance, or disease potential
- Disease activity
- Mosquito abundance
- Flight range
- Proximity to populated areas
- Size of source
- Presence/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats.

b. **Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;**
Please see the Best Management Practices for Mosquito Control in California, the California Mosquito-borne Virus Surveillance and Response Plan, and the Colusa Mosquito Abatement District's BMP Plan.

c. **Identify known breeding areas for source reduction, larval control program, and habitat management; and**
The District has a very active surveillance program, and is constantly looking for new mosquito sources. Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District's preferred solution, and whenever possible the District works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as

described in the Best Management Practices for Mosquito Control in California and the Colusa Mosquito Abatement's BMP Plan.

d. **Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.** This is included in the Best Management Practices for Mosquito Control in California, the California Mosquito-borne Virus Surveillance and Response Plan, and the Colusa Mosquito Abatement's BMP Plan. The District continually collects adult and larval mosquito surveillance data, dead bird reports, and sentinel chicken test results, and monitors regional mosquito-borne disease activity detected in humans, horses, birds, and/or other animals, and uses these data to guide mosquito control activities.

11. **Examination of Alternatives. Dischargers shall continue to examine alternatives to pesticide use in order to reduce the need for applying larvicides that contain temephos and for spraying adulticides. Such methods include:**
    a. **Evaluating the following management options, in which the impact to water quality, impact to non-target organisms, vector resistance, feasibility, and cost effectiveness should be considered:**
        - **No action**
        - **Prevention**
        - **Mechanical or physical methods**
        - **Cultural methods**
        - **Biological control agents**
        - **Pesticides**

    If there are no alternatives to pesticides, dischargers shall use the least amount of pesticide necessary to effectively control the target pest.

    The District uses the principles and practices of Integrated Vector Management (IVM) as described on pages 26 and 27 of the Best Management Practices for Mosquito Control in California and in the Colusa Mosquito Abatement's BMP Plan.. As stated in item #10 above, locations where vectors may exist are assessed, and the potential for using alternatives to pesticides is determined on a case-by-case basis. Commonly considered alternatives include: 1) Eliminate artificial sources of standing water; 2) Ensure temporary sources of surface water drain within four days (96 hours) to prevent adult mosquitoes from developing; 3) Control plant growth in ponds, ditches, and shallow wetlands; 4) Design facilities and water conveyance and/or holding structures to minimize the potential for producing mosquitoes; and 5) Use appropriate biological control methods that are available. Additional alternatives to using pesticides for managing mosquitoes are listed on pages 4-19 of the Best Management Practices for Mosquito Control in California.

    Implementing preferred alternatives depends on a variety of factors including availability of District resources, cooperation with stakeholders, coordination with other regulatory agencies, and the anticipated efficacy of the alternative. If a pesticide-free alternative does not sufficiently reduce the risk to public health,

pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

b. Applying pesticides only when vectors are present at a level that will constitute a nuisance.

The District follows an existing IVM program which includes practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California.

A "nuisance" is specifically defined in California Health and Safety Code (HSC) §2002(j). This definition allows vector control agencies to address situations where even a low number of vectors may pose a substantial threat to public health and quality of life. In practice, the definition of a "nuisance" is generally only part of a decision to apply pesticides to areas covered under this permit. As summarized in the California Mosquito-borne Virus Surveillance and Response Plan, the overall risk to the public when vectors and/or vector-borne disease are present is used to select an available and appropriate material, rate, and application method to address that risk in the context of our IVM program.

12. Correct Use of Pesticides

Coalition's or Discharger's use of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the right spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.

This is an existing practice of the District, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our California Department of Public Health (CDPH) Cooperative Agreement. All pesticide applicators receive annual safety and spill training in addition to their regular continuing education.

13. If applicable, specify a website where public notices, required in Section VIII.B, may be found.

The District's public notices will be available on the District's website at http://colusamosquitoabatementdistrict.com/.

References:

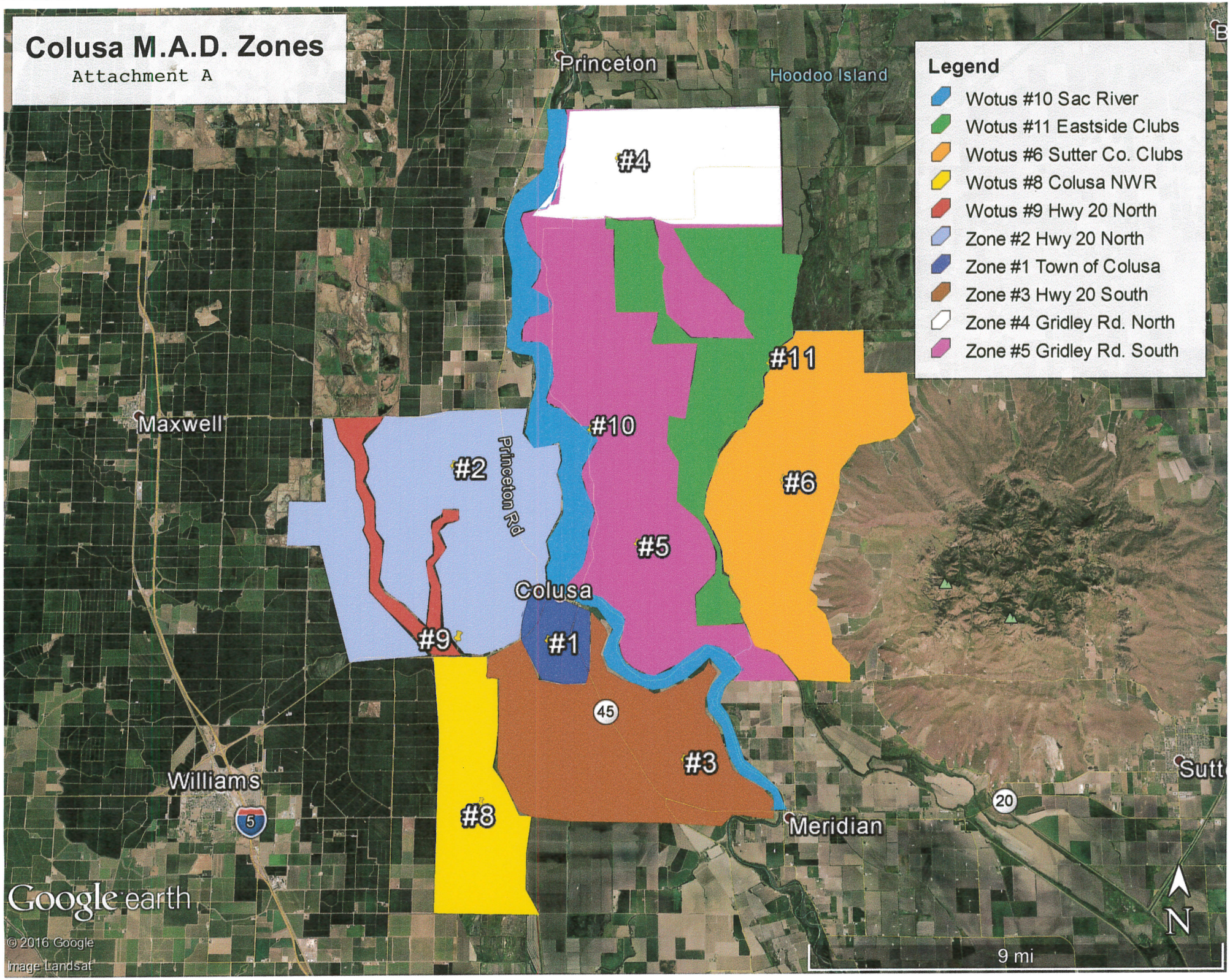
Best Management Practices for Mosquito Control in California. 2010. Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading *Mosquito Control and Repellent Information*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Colusa Mosquito Abatement District at (530) 458-4966.

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [Note: this document is updated annually by CDPH]. . Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php

under the heading *Response Plans and Guidelines*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Colusa Mosquito Abatement District at (530) 458-4966.

Colusa Mosquito Abatement District Best Management Practices Plan. 2010. Available upon request from the Colusa Mosquito Abatement District at (530) 458-4966.

MVCAC NPDES Coalition Monitoring Plan. 2011. [In development at the time of this draft]


Colusa M.A.D. Zones
Attachment A
Legend
Wotus #10 Sac River
Wotus #11 Eastside Clubs
Wotus #6 Sutter Co. Clubs
Wotus #8 Colusa NWR
Wotus #9 Hwy 20 North
Zone #2 Hwy 20 North
Zone #1 Town of Colusa
Zone #3 Hwy 20 South
Zone #4 Gridley Rd. North
Zone #5 Gridley Rd. South
Princeton
Hoodoo Island
Maxwell
Princeton Rd
Colusa
Williams
Meridian
#1
#2
#3
#4
#5
#6
#8
#9
#10
#11
45
5
20
N
9 mi
Google earth
© 2016 Google
Image Landsat

February 24, 2016

Attachment B

Notice of Intent to Apply Public Health Pesticides for Vector Control Purposes to Surface Waters and Waters of the U.S. Within Colusa and Sutter Counties.

- The Colusa Mosquito Abatement District intends to make public health pesticide applications to, over and adjacent to constructed conveyances, surface waters and other waters of the U.S. owned and controlled by an entity other than the District for vector control purposes per the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges for Vector Control Applications.

- The NPDES Permit requirements for listing of the Public Health Pesticides anticipated to be used were modified from the previous permit, to the new permit which will be issued in 2016. The newer requirements specify that any pesticide product can be used that contains approved active ingredients, provided all pesticide label restrictions and instructions are followed. In addition, pesticides which fall under the "minimum risk" category can be used. The minimum risk pesticides have been exempted from FIFRA requirements. The following tables list the active ingredients approved for the FIFRA regulated pesticides.

Active Ingredients for larval mosquito control:

Bacillus thuringiensis subsp. *israelensis (Bti)*
Bacillus sphaericus (Bs)
Methoprene
Monomolecular Films
Petroleum Distillates
Spinosad
Temephos

Active Ingredients for adult mosquito control:

Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin

- The purpose of the use of larvacide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

- The general time period for the application of the pesticides is January through December, 2016. Locations of expected use will be constructed conveyances, surface waters and other waters of the U.S. located within Colusa and Sutter Counties.

- There are no known water use restrictions or precautions during treatment.

- Interested persons may contact the District at (530) 458-4966 for additional information.

David B. Whitesell, Manager
Colusa Mosquito Abatement District
P.O. Box 208
Colusa, CA. 95932

Attachment C

Public Info.

Services We Provide

The District implements an Integrated Pest Management program which includes both a ULV spray and larvaciding programs, using only EPA registered products. The control program will take place in the town of Colusa and outlying areas within the district boundaries.

Notification

EPA Registered Materials used:

To the public, and Governmental Agencies within the Colusa Mosquito Abatement District boundries, this is a notice of intent to apply public health pesticides for vector control purposes to surface waters and waters of the U.S. within Colusa and Sutter counties.

- The Colusa Mosquito Abatement District intends to make public health pesticide applications to, over and adjacent to constructed conveyances, surface waters and other waters of the U.S. owned and controlled by an entity other than the District for vector control purposes per the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges for Vector Control Applications.

- The NPDES Permit requirements for listing of the Public Health Pesticides anticipated to be used were modified from the previous permit, to the new permit which will be issued in 2016. The newer requirements specify that any pesticide product can be used that contains approved active ingredients, provided all pesticide label restrictions and instructions are followed. In addition, pesticides which fall under the "minimum risk" category can be used. The minimum risk pesticides have been exempted from FIFRA requirements. The following tables list the active ingredients approved for the FIFRA regulated pesticides.

Active Ingredients for larval mosquito control:

Bacillus thuringiensis subsp. israelensis (Bti)
Bacillus sphaericus (Bs)
Methoprene
Monomolecular Films
Petroleum Distillates
Spinosad
Temephos

Active Ingredients for adult mosquito control:

Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin

- The purpose of the use of larvicide and adulticide pesticides containing these active ingredients is for the control of larval and adult mosquitoes to minimize the threat of mosquito-borne diseases and biting annoyances.

- The general time period for the application of the pesticides is March through November. Locations of expected use will be constructed conveyances, surface waters and other waters of the U.S. located within Colusa and Sutter Counties.

- There are no known water use restrictions or precautions during treatment.

- Interested persons may contact the District at (530) 458-4966 or go to the website at colusamosquitoabatementdistrict.com for additional information.

David B. Whitesell, Manager
Colusa Mosquito Abatement District
713 D. Street / East Webster
P.O. Box 208
Colusa, CA. 95932

pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

b. Applying pesticides only when vectors are present at a level that will constitute a nuisance.

The District follows an existing IVM program which includes practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California.

A "nuisance" is specifically defined in California Health and Safety Code (HSC) §2002(j). This definition allows vector control agencies to address situations where even a low number of vectors may pose a substantial threat to public health and quality of life. In practice, the definition of a "nuisance" is generally only part of a decision to apply pesticides to areas covered under this permit. As summarized in the California Mosquito-borne Virus Surveillance and Response Plan, the overall risk to the public when vectors and/or vector-borne disease are present is used to select an available and appropriate material, rate, and application method to address that risk in the context of our IVM program.

12. Correct Use of Pesticides

Coalition's or Discharger's use of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the right spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.

This is an existing practice of the District, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our California Department of Public Health (CDPH) Cooperative Agreement. All pesticide applicators receive annual safety and spill training in addition to their regular continuing education.

13. If applicable, specify a website where public notices, required in Section VIII.B, may be found.

The District's public notices will be available on the District's website at http://colusamosquitoabatementdistrict.com/.

References:

Best Management Practices for Mosquito Control in California. 2010. Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading *Mosquito Control and Repellent Information*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Colusa Mosquito Abatement District at (530) 458-4966.

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [Note: this document is updated annually by CDPH]. . Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php