

**ATTACHMENT E – NOTICE OF INTENT**

**WATER QUALITY ORDER 2016-0039-DWQ  
GENERAL PERMIT CAG990004**

**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# \_\_\_\_\_  
 D. Enrolled under Order 2011-0002-DWQ: WDID# 510APO0036

**II. DISCHARGER INFORMATION**

A. Name <u>FRESNO MOSQUITO AND VECTOR CONTROL DISTRICT</u>			
B. Mailing Address <u>2338 E MCKINLEY AVE</u>			
C. City <u>FRESNO</u>	D. County <u>FRESNO</u>	E. State <u>CA</u>	F. Zip Code <u>93703</u>
G. Contact Person <u>TIM PHILLIPS</u>	H. Email address <u>TIM@fresno mosquito.org</u>	I. Title <u>DISTRICT MANAGER</u>	J. Phone <u>559 268 6565</u>

**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. FRESNO IRRIGATION DISTRICT  
Owner's name: FRESNO METROPOLITAN FLOOD CONTROL DISTRICT  
Name of the conveyance system: \_\_\_\_\_

3. Directly to river, lake, creek, stream, bay, ocean, etc.  
Name of water body: SAN JOAQUIN RIVER

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

B. Regional Water Quality Control Board(s) where application areas are located  
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region \_\_\_\_\_  
(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 2

C. Period of Application: Start Date Jan 1      End Date ~~Jan~~ Dec 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 Pesticides Application Plan 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

\* 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 Order, including developing and implementing a monitoring program, will be complied with."

A. Printed Name: TIM PHILLIPS

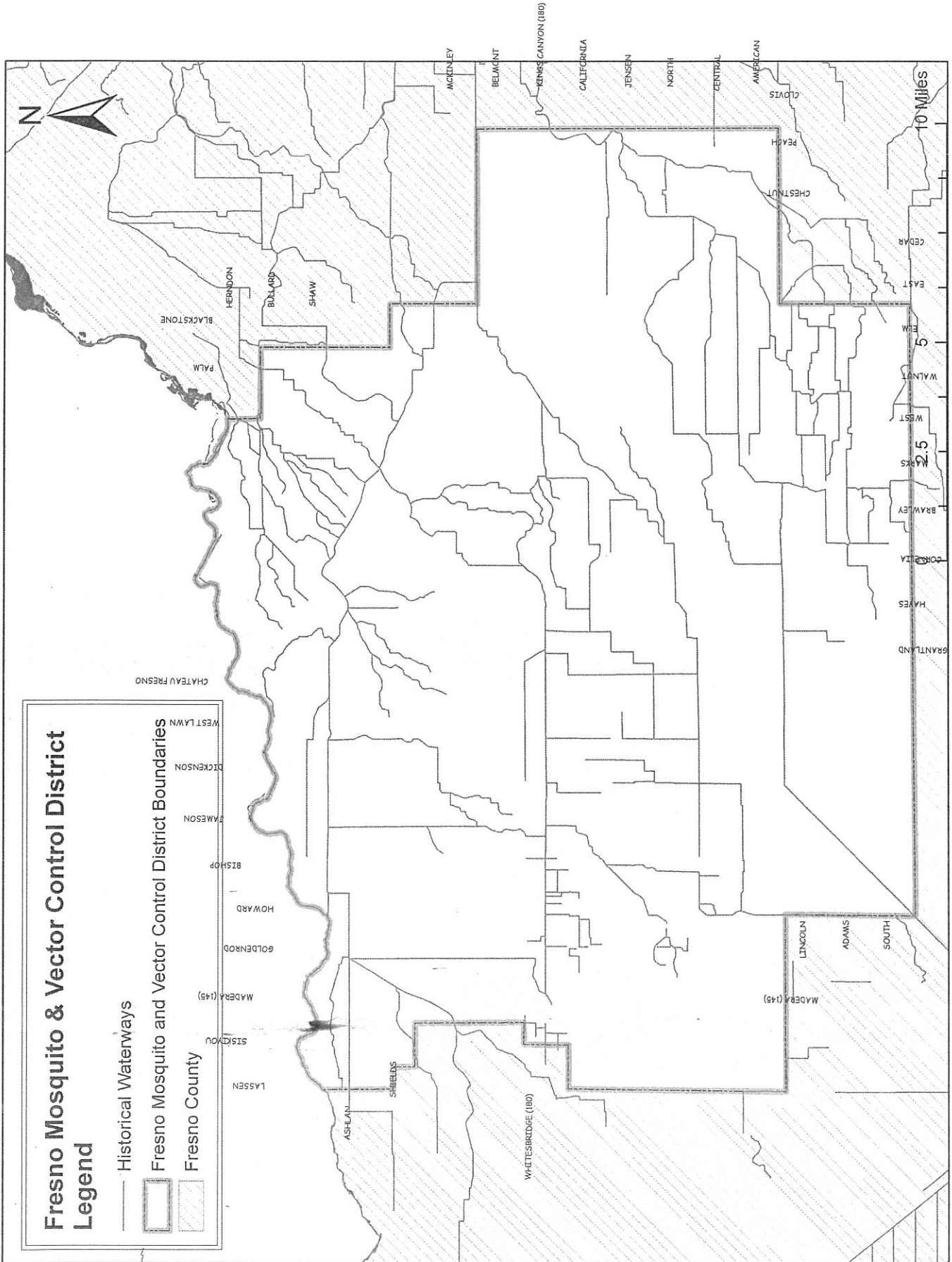
B. Signature: *Tim Phillips*

Date: 5/12/2016

C. Title: DISTRICT MANAGER

**X. FOR STATE WATER BOARD USE ONLY**

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



## ATTACHMENT 2

2016 PAP

Section 6. PRODUCT NEEDED

Total Use Waters of the U.S. 2015			
Material	Amount	Units	
Bti Granule	102	pounds	
Bti Liquid	772	ounces	
Bs Granule	15	pounds	
Spinosad Granule	46	pounds	
Spinosad Extended Granule	138	pounds	
Spinosad Liquid	150	ounces	
Spinosad Tablets	11	each	

Fresno Mosquito and Vector Control District

2338 E. McKinley Ave

Fresno CA 93703

[www.fresnomosquito.org](http://www.fresnomosquito.org)

Phone (559) 268-6565

Fax (559) 268-8918

Pesticide Application Plan

(PAP)

MAY 2016

## FRESNO MOSQUITO & VECTOR CONTROL DISTRICT

### PESTICIDE APPLICATION PLAN (PAP)

- 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 Fresno Mosquito and Vector Control District (FMVCD or District) is responsible for controlling mosquito activity in the central section of Fresno County. The San Joaquin River serves as the northern boundary of the District and is the principal water of the U.S. where larvicides or adulticides may be applied.

Please see Attachment 1 for map of District.

- 2. Discussion of the factors influencing the decision to select pesticide applications for vector control;**

FMVCD implements an Integrated Vector Management (IVM) Program to determine if, and when, a pesticide application is appropriate. Surveillance is the first procedure used to determine if a vector species is present and the population thereof. If it is found that a population of a species that can cause a nuisance or threat to human health is present, then control measures will begin. The first option is to eliminate or reduce the breeding source's ability to produce vector activity. If, source elimination is not possible then biological control methods are explored. Finally, chemical options are considered when the previous options are proven non-effective.

- 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;**

The NPDES Permit for Biological and Residual Pesticide Discharges to Water of the U.S. from Vector Control Applications was amended to list the approved active ingredients rather than having specific products named. All pesticide label restrictions and instructions will be followed for pesticides which contain the active ingredients listed below. In addition, pesticides which fall under the "minimum risk" category may be used. The minimum risk pesticides have been exempted from FIFRA requirements. All

of these products are used according to label directions and may be applied by ground (hand, truck, ATV, backpack, etc...) or by air (helicopter or fixed wing aircraft).

**Active Ingredients**

Active Ingredients
<i>Bacillus thuringiensis</i> subsp. <i>Israelensis</i> (Bti)
<i>Bacillus sphaericus</i> (Bs) ( <i>Lysinibacillus sphaericus</i> )
Methoprene
Monomolecular Films
Petroleum Distillates
Spinosad
Temephos
Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin
Any minimum risk category pesticides that are FIFRA exempt and registered for use in California and used in a manner specified in 40 C.F.R. section 152.25

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 water source that is stagnant for 96 hours (4 days) or more can potentially become a breeding site that requires treatment. Typical types of breeding sources that are treated by the District each year are: irrigated agricultural crops, swimming pools and ornamental ponds, agricultural waste-water ponds, storm drains and river seepage.

Please see Attachment 1 for map of District.

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



FMVCD is continually working with home owners to find viable ways of reducing, if not eliminating, mosquito activity on their property. However, those efforts may be limited due to financial cost or feasibility of the project. The District also has a public education program to inform the citizens in the area on the importance of mosquito control, and how they can eliminate sources around their residences. Resources such as local media, local fair, schools, and town hall meetings are used to reach the community. The public education program is limited to those who receive the information and are willing to apply the lessons in their daily life. Mosquito fish (*Gambusia affinis*) are another control method that the FMVCD utilizes extensively. Unfortunately, the use of mosquito fish is limited due to environmental issues, water quality and availability of mosquito fish.

**6. How much product is needed and how is this amount determined;**

The totals below represent pesticide applications within the District boundaries to Waters of the U.S. for 2015. These amounts will change from year to year due to annual variability in required pesticide applications for mosquito control. This data is provided as an example of the products and amounts used in one year.

Total Use Waters of the U.S. 2015			
Material	Amount	Units	
Bti Granule	102	pounds	
Bti Liquid	772	ounces	
Bs Granule	15	pounds	
Spinosad Granule	46	pounds	
Spinosad Extended Granule	138	pounds	
Spinosad Liquid	150	ounces	
Spinosad Tablets	11	each	

**7. Representative monitoring locations\* and the justifications for selecting these 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**

Extensive surveillance is part of the review process including larval counts and adult trapping. Pesticide selection is based on the results of the inspection and compatibility with environmental conditions. Please also 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:**

**a. measures to prevent pesticide spill;**

All District field personnel receive spill prevention and response training each year. Personnel have access to spill kits at all times. District employees ensure daily that application equipment is in proper working order by checking for leaks and potential hazards.

**b. measures to ensure that only a minimum and consistent amount used;**

District spray equipment is calibrated each year and District supervisors review treatment data every day, checking for proper application rates.

**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;**

Field personnel are given pesticide training each year, water quality issues will be included.

**d. descriptions of specific BMPs for each application mode, e.g. aerial spray, truck spray, hand spray, etc.;**

FMVCD calibrates truck mounted and handheld spray equipment each year. Ultra-low volume (ULV) equipment is also calibrated for flow rate and droplet analysis each year. Supervisors review treatment data daily to ensure proper application rates are followed. Aerial applications are calibrated by the contractor.

**e. descriptions of specific BMPs for each pesticide used; and**

All District field personnel are trained to follow the label requirements of each product. Please see the *Best Management Practices for Mosquito Control in*

*California* for general pesticide application BMPs and current approved pesticide labels for application BMPs for specific products.

**f. descriptions of specific BMPs for each type of environmental setting (agricultural, urban, and wetland).**

With both agricultural and urban sources the first BMP option is source reduction. In an agricultural setting BMPs such as removing vegetation from a waste water lagoon or reducing the number of days irrigation water remains in a field can diminish the amount of pesticide use.

In an urban setting source reduction and public education programs are very successful. Once homeowners are aware of the importance of mosquito control and that simply removing the water from typical backyard sources (e.g. bird baths, fountains, unmaintained pools, etc.) will eliminate mosquito activity. Alternatively, they can call a district to assist them, minimal pesticide use is required.

In wetland sources, source reduction may not be an option due to ecological limits. However, the second option, biological control, may be a viable alternative. If conditions are positive mosquito fish can control mosquito activity and dramatically reduce the amount of pesticide required.

**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 U.S., 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 vector populations to serve as action threshold(s) for implementing pest management strategies;**

Due to the many variables that influence a technician's decision to treat a source, it is difficult to assign a numerical value to take action. The following is a list of criteria considered before action is taken:

- Mosquito species present
- Mosquito stage of development
- Nuisance or disease potential
- Disease activity
- Mosquito abundance

- Flight range
- Proximity to populated area
- Size of source
- Presence/absence of natural 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;**

The target species for the FMVCD are *Aedes* sp., *Anopheles* sp., *Culex* sp., and *Culiseta* sp. For further information please see the *Best Management Practices for Mosquito Control in California* (pp. 31-34) and the *California Mosquito-borne Virus Surveillance and Response Plan* (pp. 8-10).

**c. Identify known breeding areas for source reduction, larval control program, and habitat management; and**

There are numerous breeding sites throughout the District and the methods of IVM are utilized at each site. Please see description in **item 2** above.

**d. Analyze existing surveillance data to identify new or unidentified sources of vector control problems as well as areas that have recurring vector problems.**

The FMVCD has an extensive surveillance program to gather data on both larval and adult populations. The District utilizes multiple trap types, including, but not limited to; New Jersey light traps, gravid traps, and CO2 baited traps to analyze adult activity. In order to monitor mosquito-borne disease activity effectively the District examines report results on dead birds/squirrels and horse and human infection cases. The District also incorporates GIS technology and aerial photography to survey new and existing sources.

**11. Examination of Alternatives. Discharges 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 methods**
- **Pesticides**

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

The FMVCD only takes action at those sources that can potentially cause a nuisance or health threat to the human or animal population. If it is found that a source does not support a population or species that could cause a nuisance or health concern, the District believes that “no action” is a viable rotational tool to combat pesticide resistance. The District’s public outreach is the best option to prevent potential mosquito activity. Individuals who have received information from the program are able to implement the lessons around their homes and neighborhoods. Simple acts, such as removing water from a container or vegetation surrounding a pond and stocking it with mosquito fish would alleviate the need of pesticide use. When pesticide use is required, products are selected that will achieve control at proper label rates and have the least potential of compromising water quality.

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

As stated in **item 11a**, FMVCD only takes action at those sources where it is determined that vector activity has the potential to either create a nuisance, or health threat to humans or animals.

## **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.**

FMVCD follows all the laws and regulations of the Department of Pesticide Regulation’s (DPR), California Department of Public Health (CDPH) Cooperative Agreement, and the pesticide product label. All field personnel are given proper application techniques as part of their pesticide training annually. Also, subjects such as drift and target area are included in the training.

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

[www.fresnomosquito.org](http://www.fresnomosquito.org)

**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 Fresno Mosquito and Vector Control District at (559) 268-6565.

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 Fresno Mosquito and Vector Control District at (559) 268-6565.

Monitoring Plan for Mosquito Larvicides and Adulticides (MVCAC NPDES Coalition Monitoring Plan). 2011. Copies may be requested by calling the Mosquito and Vector control Association of California [MVCAC] at (916) 440-0826 or the Fresno Mosquito and Vector Control District at (559) 268-6565.

FRESNO MOSQUITO AND VECTOR CONTROL DISTRICT  
NOTICE OF INTENT 2016  
MAILING LIST OF NOTIFIED GOVERNMENT AGENCIES

CA DEPARTMENT OF FISH AND GAME REGION 4

CAL TRANS DISTRICT 6

CITY OF FRESNO CITY MANAGER

CITY OF KERMAN CITY MANAGER

SAN JOAQUIN RIVER CONSERVANCY

FRESNO AGRICULTURAL COMMISSIONER

FRESNO COUNTY BOARD OF SUPERVISORS CHAIRMAN

FRESNO COUNTY RESOURCES DIVISION PARKS

FRESNO COUNTY SPECIAL DISTRICTS ADMINISTRATOR

FRESNO IRRIGATION DISTRICT MANAGER

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT MANAGER

US ARMY CORP OF ENGINEERS SACRAMENTO DISTRICT

US BUREAU OF RECLAMATION S-C CAL AREA OFFICE



# Fresno Mosquito & Vector Control District

2338 E. McKinley Ave. Fresno, California 93703

Telephone: (559) 268-6565 | Fax: (559) 268-8918

Website: [www.fresnomosquito.org](http://www.fresnomosquito.org)

**Tim Phillips**

District Manager

**Gary Byde**

Assistant Manager

**Julia Escott**

Office Manager

**Chenoa De Freece**

Biologist

**MAY 11, 2016**

**NOTICE OF INTENT TO APPLY PUBLIC HEALTH PESTICIDES FOR VECTOR CONTROL PURPOSES TO SURFACE WATERS AND WATERS OF THE USA WITHIN THE FRESNO MOSQUITO AND VECTOR CONTROL DISTRICT**

The Fresno Mosquito and Vector Control District (FMVCD) is a public health agency that protects Fresno County residents and visitors within its borders from mosquitoes and mosquito-borne diseases. FMVCD is an independent special district that operates under the California Health and Safety Code §§2000-2093. We conduct ongoing surveillance of mosquitoes in order to determine the threat of disease transmission and to direct our control activities. FMVCD practices a program of integrated vector management (IVM) which includes surveillance for mosquitoes, source reduction, biological control, larviciding and adulticiding as indicated by surveillance, resistance monitoring, disease surveillance in vectors and reservoirs of mosquito-borne pathogens, and public education.

Certified vector control technicians may control mosquitoes by using public health pesticides that are registered for use by the California Environmental Protection Agency (Cal EPA) and the United States Environmental Protection Agency (EPA).

FMVCD is now required to obtain a Statewide General National Pollutant Discharge Elimination System (NPDES) permit to apply public health pesticides due to a recent decision by the Sixth Circuit Court of Appeals. In its January 2009 ruling on National Cotton Council, et al. vs. EPA, the Court (1) vacated the EPA's 2006 rule that said NPDES permits were not required for applications of pesticides in, over and near waters of the USA when in compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) label and (2) determined that pesticides are pollutants. Consequently, point source discharges to waters of the USA from the application of pesticides will require NPDES permits in accordance with the Court's mandate effective on October 31, 2011.

The NPDES permit requires that we notify potentially affected government agencies before the first application of aquatic pesticides each calendar year. This is the notification letter





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Assistant Manager

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Office Manager

**Chenoa De Freece**

Biologist

advising you that public health pesticides will be used to control mosquitoes within the FMVCD boundaries during 2016.

The following includes the Active ingredients in pesticides that FMVCD may apply:

## Active Ingredients

<i>Bacillus thuringiensis</i> subsp. <i>Israelensis</i> (Bti)
<i>Bacillus sphaericus</i> (Bs) ( <i>Lysinibacillus sphaericus</i> )
Methoprene
Monomolecular Films
Petroleum Distillates
Spinosad
Temephos
Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Naled
N-octyl bicycloheptene dicarboximide (MGK-264)
Piperonyl butoxide (PBO)
Permethrin
Prallethrin
Pyrethrin
Resmethrin
Sumithrin
Any minimum risk category pesticides that are FIFRA exempt and registered for use in California and used in a manner specified in 40 C.F.R. section 152.25

In addition, the FMVCD may use any product listed in Appendix E or Appendix F of the Statewide National Pollutant Discharge



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Elimination System (NPDES) Permit for Biological and Residual Discharges to Waters of the United States from Vector Control Applications (General Permit no. CAG 990004) as listed on the State Water Resources Control Board website.

These pesticides are used to protect public health by controlling the development and populations of mosquitoes. Applications will be made within FMVCD boundaries from January 1 through December 31, 2016. There are no known water use restrictions or precautions during treatment.

Interested persons may contact Tim Phillips at (559) 268-6565 for additional information. This notification shall be posted on the FMVCD website: [www.fresnomosquito.org](http://www.fresnomosquito.org).

Sincerely,

A handwritten signature in cursive script that reads "Tim Phillips".

Tim Phillips,

District Manager

Fresno Mosquito and Vector Control District

[Admin@fresnomosquito.org](mailto:Admin@fresnomosquito.org)