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# _____

II. DISCHARGER INFORMATION

A. Name: Pine Grove Mosquito Abatement District			
B. Mailing Address: P.O. Box 328			
C. City: McArthur	D. County: Shasta	E. State: CA	F. Zip Code: 96056
G. Contact Person: Scott Heringer	H. Email address: pinegrovemad@hotmail.com	I. Title: Manager	J. Phone: (530)336-5740

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: Applications may be made To various conveyances Systems within Shasta Co.

☑ 3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: Various - see Attachment A. Applications have historically been made To Various areas of The Fall River, Pitt River, Eastman Lake and McArthur Canal
* 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 Jan 1 2016 End Date Dec 31 2016

D. Types of Adjuvants Added by the Discharger: None

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. See Attachment C

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."

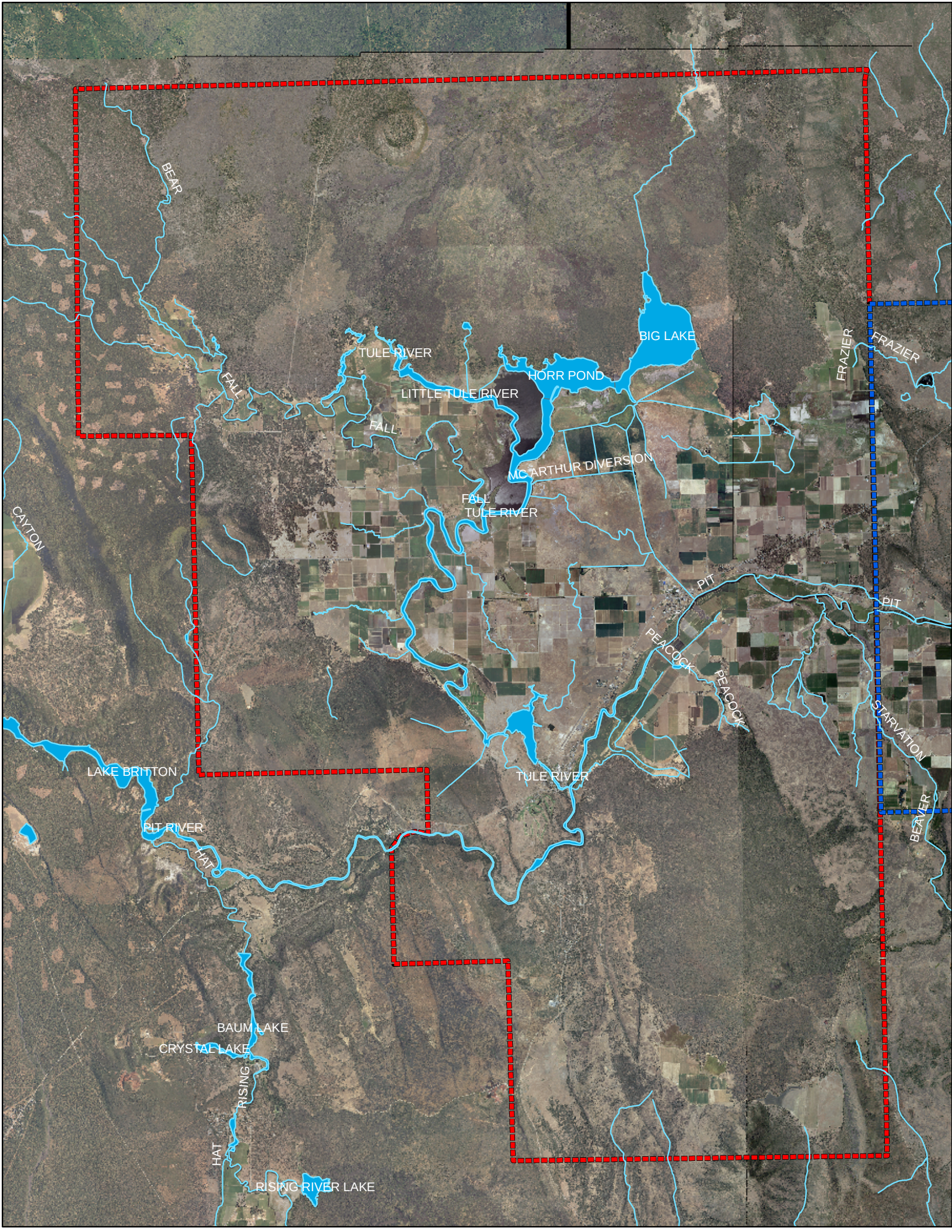
A. Printed Name: Scott Heringer

B. Signature: Scott Heringer **Date:** 5-20-2016

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 #:**


BEAR
FALL
TULE RIVER
LITTLE TULE RIVER
FALL
HORR POND
BIG LAKE
FRAZIER
FRAZIER
MC ARTHUR DIVERSION
FALL
TULE RIVER
CAYTON
PIT
PIT
PEACOCK
PEACOCK
STARVATION
LAKE BRITTON
TULE RIVER
PIT RIVER
HAT
BEAVER
BAUM LAKE
CRYSTAL LAKE
RISING
HAT
RISING RIVER LAKE

PINE GROVE MOSQUITO ABATEMENT DISTRICT NOI

Attachment B
V. Pesticide Application Information
List of Active Ingredients that may be used under NPDES Permit

Active Ingredient
Bacillus thuringienses var. israelensis
Bacillus sphaericus (Lysinibacillus sphaericus)
Deltamethrin
Etofenprox
Lambda-Cyhalothrin
Malathion
Methoprene
Monomolecular Films
Naled
N-octyl Bicycloheptene Dicarboximide (MGK-264
Petroleum Distillates
Permethrin
Piperonyl butoxide
Prallethrin
Pyrethrin
Resmethrin
Spinosad
Sumithrin
Temephos
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.

PINE GROVE MOSQUITO ABATEMENT DISTRICT

44352 HWY 299E, PO Box 328 McArthur, CA 96056 Phone # 530-336-5740

VII. Notification
Attachment C

Shasta County
1450 Court Street, Suite 308A
Redding, CA. 96001

Department of Fish and Game
601 Locust Street
Redding, CA. 96001

PINE GROVE MOSQUITO ABATEMENT DISTRICT

44352 HWY 299E, P.O. Box 328 McArthur, CA 96056 Phone # 530-336-5740

The NPDES Permit requires a Pesticide Application Plan (PAP) that contains the following elements:

1. **Description of the target area and adjacent areas, if different from the water body of the target are:**
   The Pine Grove Mosquito Abatement District covers and is responsible for surveillance and control on 205 square miles in Eastern Shasta County. The main waters of the U.S. within the District Boundaries are The Fall River, Fall River lake, Big Lake, Eastman Lake, Tule River, Pit River, and Spring Creek. The District may apply public health pesticides for the control of immature mosquitoes to any site that holds water for more than 96 hours or where larvae are present and may apply adulticides to any location where adult mosquito populations meet treatment thresholds. Attached is a District area map.

2. **Discussion of factors influencing the decision to select pesticide applications for vector control:**
   Larval control: Many areas within the District are not suitable to using fish as they are only flooded for short periods of time. The District does not have the resources for water management in most areas, although source reduction is an ongoing project in the District. Adult control: The District uses trap counts, service requests and direct communication with residents to establish the need for action.

3. **Type(s) of pesticide used the method in which they are applied, and if applicable, the adjuvents and surfactants used:**
   Please see the Best Management Practices for Mosquito Control in California.

4. **Description of the types and location of the anticipated application area, and the target area to be treated by the Discharger, recognizing that, with vector control, the precise location may not be known until after surveillance:**
   Any site that holds water more than 96 hours (4 days) can produce mosquitoes. Source reduction is the Pine Grove Mosquito Abatement Districts' preferred solution, and whenever possible the District works with property owners to effect long-term solutions to reduce or eliminate the need for pesticide applications as described in item 2 above. Mosquito breeding sources and areas that require adult mosquito control are difficult to predict from year to year based on the weather and local environmental conditions. The typical mosquito sources within the District are described below.

   ***** 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)
   * Basins

* Wildlife areas * Managed Wetlands
* **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 mosquito or other vector source, 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 vector potential. The most common used methods and their limitations are included in the Best Management Practice for Mosquito Control in California.

Specific methods used by the District include public education and outreach to encourage residents to safeguard their properties from being potential mosquito- breeding sites and working with landowners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. The District uses source reduction and fish planting in areas where these can be successful. Source reduction includes improving drainage in flood irrigated fields, vegetation removal in drain ditches and removal of vegetation on the rice levees. The removal of vegetation from roadside ditches is also a function of the District and contributes to the source reduction goals that we have. The goal of the District is to provide effective mosquito control throughout the area of service and to use the least amount of public health pesticides as possible.

6. Approximately how much product is anticipated to be used and how that was determined.

Pesticide	EPA Reg #	Amount
Vectobac G	73049-10	800 lbs
Vectobac 12as	73049-38	20 gal
Kontrol 30-30	73748-5	30 gal
Vectobac GS	73049-10	600 lbs
Pyrocide 25-5	1021-1569	10 gal
Zenivex E20	2724-791	10 gal
Aquabac 200g	626373-3	120 lbs

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 Shasta County Agricultural Commissioner's Office, the California Department of Public Health in Redding, Ca. and the Regional Water Quality Control Board in Redding, Ca. The above data was taken from the District's PUR for 2010. Other public health pesticides in addition to those listed above may be used as part of the Districts integrated vector management program and best management practices.
Amounts may fluctuate annually due to mosquito abundance and mosquito thresholds throughout the year.

7. **Representative monitoring locations and the justification for selecting these monitoring locations.**
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 BMP's shall include, at the minimum;**

a. Measures to prevent pesticide spills:
All District employees are annually trained on spill prevention, countermeasure and controls. In addition, application equipment is monitored daily to ensure that the equipment is in proper working order. Spill mitigation devices are placed in all spray vehicles and pesticide storage areas to respond to spills.

b. Measures to ensure that only a minimum and consistent amount is used;
The spray equipment is droplet tested each year prior to the start of spray operations. The same equipment is calibrated for flow rate prior to the start of spray operations and then several times thereafter during the spray season. A daily reconciliation of the amount sprayed and the area covered supports the calibration and will alert the District employees of any changes or problems. The District spray program always works within the Product Label guidelines and we use the least amount of chemical that will give the necessary results. These measures are consistent with the cooperative agreement with the California Department of Public Health.

c. A plan to educate Dischargers' staff and pesticide applicators on any potential adverse effects from the pesticide application;
All district employees receive annual pesticide training where application, effects, modes of action and other such things are covered. Records are maintained at the district office,

d. Descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc;
The District calibrates all application equipment prior to beginning operations each year and then as needed throughout the season to ensure that application specifications are met. Spray records are reviewed daily to ensure appropriate amounts of public health pesticides are being applied. ULV equipment is calibrated for flow and droplet size to meet label requirements. The District does not engage in any aerial applications at this time.

e. Descriptions of specific BMPs for each pesticide product used;
All employees receive annual pesticide training. All pesticides are applied according to label requirements. The District uses the lowest application rate of public health pesticides that will achieve satisfactory results. Records are kept on all applications as per the cooperative agreement with the California Department of Public Health.

f. Descriptions of specific BMPs for each type of environmental setting; (agricultural, urban, and wetlands)
Please see the Best Management Practices for Mosquito Control in California.

10. Identify the Problem
Prior to first pesticide application covered under this general permit that will result in a discharge of 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.
Only those mosquito sources that District staff determines to represent imminent threats to public health and quality of life are treated. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the District's resources, disease activity, 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 base on development and behavior consideration for each species;
Please see the Best Management Practices for Mosquito Control in California the California mosquito-borne Virus Surveillance Plan.

c. Identify known breeding areas for source reduction, larval control program, and habitat management; and
Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the Districts preferred solution, and the District works with property owners to implement long term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California.

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 and the California Mosquito-borne Surveillance and Response Plan that the District uses. The District uses adult and larval mosquito surveillance data and dead bird tests and reports to use as a guide for mosquito control activities.

11. **Examine the Possibility of Alternatives to Treatment. Dischargers should continue to examine the possibility of alternatives to reduce the need for applying larvacides that contain temephos and for spraying adulticides. Such methods include:**

a. Evaluating management and treatment options that may impact water quality, non-target organisms, vector resistance, feasibility, and cost effectiveness, such as:

- **o No action**
- **o Source prevention**
- **o Mechanical or physical source reduction methods**
- **o Cultural methods**
- **o Biological control agents**
- **o Pesticides**

b. Applying pesticides only when vectors are present at a level that will constitute a nuisance or threat to public health.

c. Using the least intrusive method of pesticide application.

d. Public education efforts to reduce potential vector breading habitat.

e. Applying a decision matrix concept to the choice of the most appropriate formulation.

This describes the District's existing integrated vector management (IVM) program, as well as the practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California that are used by this Agency.

12. **Correct Use of Pesticides**

Users of pesticides must ensure that all reasonable precautions are taken to minimize the impacts caused by pesticide applications. Reasonable precautions include using the proper spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.

a. All errors in application and spills are reported to the proper authority.

b. Staff training in the proper application of pesticide and handling of spills.

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. Specify a website where public notices, required in sectionV11.B, may be found;

Refer to the State Water Quality Control Boards' website.

14. PAP Processing, Approval, and Modifications;

Upon receipt of a PAP, staff will post it on the State Water Board website for a 30-day public comment period. If no comments are received and staff deems the APAP

complete, the Deputy Director will issue an NOA within three (3) working days following the closure of the comment period. If comments are received, staff will try to address the comments as expeditiously as possible to allow the Deputy Director to issue an NOA within ten (10) working days. Major changes to the PAP shall be submitted to the Deputy Director for approval. Examples of major changes include using a different product other than what is specified in the PAP, changing an application method that may result in different amounts of pesticides being applied, or adding or deleting BMPs. Since the PAP shall include ALL the water bodies or water systems in which pesticides are being planned to be applied or may be applied to control vectors and ALL the application areas and the target areas in the system that are being planned to be applied or may be applied, changes in monitoring locations are not considered major changes. However, these changes need to be reported in the annual report.

15. **Pesticide Application Log. The discharger shall maintain a log for each pesticide application. The application log shall contain, at a minimum, the following information, when practical, for larvacide or adulticide applications:**
    1. **Date of application**
    2. **Location of application and target areas (e.g., address, cross road, or map coordinates);**
    3. **Name of applicator.**
    4. **The names of the water bodies treated if known/named (i.e., canal, creek, lake, etc.)**
    5. **Application details, such as when the application started and stopped, pesticide application rate and concentration, water flow rate of the target area, surface water area, pesticide (s) and adjuvants used by the Discharger, and volume or mass of each component discharged.;**

    This is an existing District policy to comply with DPR regulations and our CDPH Cooperative Agreement requirements.

References:

Best Management Practices for Mosquito Control in California 2010. Available from California Department of Public Health- Vector-Borne Disease Section, (916) 552-9730 or by download from **http://www.westnile.ca.gov/resources.php** or call Pine Grove Mosquito Abatement District at (530)336-5740.

California Mosquito-borne Virus Surveillance and Response Plan. 2010 [Note: This document is updated annually by CDPH] Available from the California Department of Public Health – Vector-Borne Disease Section, (916)552-9730 or by download from **http.//www.westnile.ca.gov//resource.php** under the heading Response Plans and Guideline. **You may also call the Pine Grove Mosquito Abatement District at (530)336-5740**

MVCAC NPDES Coalition Monitoring Plan.

PINE GROVE MOSQUITO ABATEMENT DISTRICT

44352 HWY 299E, PO Box 328 McArthur, CA 96056 Phone # 530-336-5740

Dear Agency,
The Pine Grove Mosquito Abatement District may be making larvacide and or adulticide applications to waters of the US under your jurisdiction for mosquito reduction purposes. The District is required to notify all Government Agencies that may be affected by these applications under the requirements of 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.

Please contact Scott Heringer at (530)336-5740 if You have additional questions.

Sincerely,

Scott Heringer
Manager
Pine Grove mosquito Abatement District