

ATTACHMENT E – NOTICE OF INTENT

**WATER QUALITY ORDER 2016-XXXX-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	<input type="checkbox"/> A. New Applicator	<input type="checkbox"/> B. Change of Information: WDID# _____
	<input type="checkbox"/> C. Change of ownership or responsibility: WDID# _____	
	<input checked="" type="checkbox"/> D. Enrolled under Order 2011-0002-DWQ: WDID# <u>5A09AP00003 & 6A091004005</u>	

II. DISCHARGER INFORMATION

A. Name County of El Dorado and Vector Control CSA 3			
B. Mailing Address 2850 Fairlane Court, Building "C"			
C. City Placerville	D. County El Dorado	E. State CA	F. Zip Code 95667
G. Contact Person Karen Bender	H. Email address karen.bender@edcgov.us	I. Title Supervising EHS	J. Phone 530-573-3453

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: Cal Trans, USFS, City of South Lake Tahoe
Name of the conveyance system: Drainage ditches, Stormwater BMPs

3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: All waters in District 5 & 6 are potentially affected

* 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 & 6
(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 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: Karen Bender

B. Signature: *Karen Bender* Date: 04-20-2016

C. Title: Supervising Environmental Health Specialist

X. FOR STATE WATER BOARD USE ONLY

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

INSTRUCTIONS FOR COMPLETING THE NOTICE OF INTENT

**WATER QUALITY ORDER 2016-XXXX-DWQ
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FOR BIOLOGICAL AND RESIDUAL PESTICIDE DISCHARGES
TO WATERS OF THE UNITED STATES
FROM VECTOR CONTROL APPLICATIONS**

These instructions are intended to help you, the Discharger, to complete the Notice of Intent (NOI) form for the Statewide General National Pollutant Discharge Elimination System (NPDES) permit. **Please type or print clearly when completing the NOI form.** For any field, if more space is needed, submit a supplemental letter with the NOI.

Send the completed and signed form along with the filing fee and supporting documentation to the State Water Resources Control Board (State Water Board).

Section I – Notice of Intent Status

Indicate whether this request is for the first time coverage under this Order or a change of information for the discharge already covered under this Order. For a change of information or ownership, please supply the eleven-digit Waste Discharge Identification (WDID) number for the discharge.

Section II – Discharger Information

- A. Enter the name of the Discharger.
- B. Enter the street number and street name where correspondence should be sent (P.O. Box is acceptable).
- C. Enter the city that applies to the mailing address given.
- D. Enter the county that applies to the mailing address given.
- E. Enter the state that applies to the mailing address given.
- F. Enter the zip code that applies to the mailing address given.
- G. Enter the name (first and last) of the contact person.
- H. Enter the email address of the contact person.
- I. Enter the contact person's title.
- J. Enter the daytime telephone number of the contact person.

Section III – Billing Address

Enter the information **only** if it is different from Section II above.

- A. Enter the name (first and last) of the person who will be responsible for the billing.
- B. Enter the street number and street name where the billing should be sent (P.O. Box is acceptable).
- C. Enter the city that applies to the billing address.
- D. Enter the county that applies to the billing address.

- E. Enter the state that applies to the billing address.
- F. Enter the zip code that applies to the billing address.
- G. Enter the email address of the person responsible for billing.
- H. Enter the title of the person responsible for billing.
- I. Enter the daytime telephone number of the person responsible for billing.

Section IV – Receiving Water Information

- A. Check all boxes that apply. At least one box must be checked.
 - 1. Check this box if the application area is a canal, ditch, or other constructed conveyance system owned and controlled by the Discharger. Print the name of the conveyance system.
 - 2. Check this box if the application area is a canal, ditch, or other constructed conveyance system owned and controlled by an entity other than the Discharger. Print the name of the owner and the name of the conveyance system..
 - 3. Check this box if the application area is to the river, lake, creek, stream, bay, ocean, etc. Print the name of the water body.
- B. List all Regional Water Board numbers where pesticide application is proposed. Regional Water Board boundaries are defined in section 13200 of the California Water Code. The boundaries can also be found on our website at http://www.waterboards.ca.gov/waterboards_map.shtml. The numbers with corresponding Regional Water Board names are given below:

Regional Water Board Numbers	Regional Water Board Names
1	North Coast
2	San Francisco Bay
3	Central Coast
4	Los Angeles
5	Central Valley (Includes Sacramento, Fresno, Redding Offices)
6	Lahontan (South Lake Tahoe, Victorville offices)
7	Colorado River Basin
8	Santa Ana
9	San Diego

Section V – Pesticide Application Information

- A. Check the appropriate target organism.
- B. List the name and active ingredients of each pesticide to be used.
- C. List the start and end date of proposed pesticide application event.
- D. List the name(s) and type(s) of adjuvants added by the Discharger.

Section VI – Pesticides Application Plan

The Discharger must prepare and complete a Pesticides Application Plan (PAP). The minimum contents of PAP are specified in the permit under item VIII.C of the Order. The Discharger must ensure that its applicator is familiar with the PAP contents before pesticide application.

If a PAP is not complete at the time of application, enter the date by which it will be completed.

Section VII – Notification

Have you notified potentially affected governmental agencies, as required under item VIII.B of the Order?

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

Section VIII – Fee

The amount of fee shall be based on section 2200(b)(6) of title 23, California Code of Regulations. Fee information can be found at <http://www.waterboards.ca.gov/resources/fees/ - npdes>. Check the YES box if you have included payment of the fee. Check the NO box if you have not included this payment.

Section IX– Certification

- A. Print the name of the appropriate official. For a municipality, State, federal, or other public agency, this would be a principal executive officer, ranking elected official, or duly authorized representative. The principal executive officer of a federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of U.S. EPA).
- B. The person whose name is printed above must sign and date the NOI.
- C. Enter the title of the person signing the NOI.

Endangered Species Act

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 et seq.) or the Federal Endangered Species Act (16 U.S.C. sections 1531 et seq.). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

Additional information on federally-listed threatened or endangered species and federally-designated critical habitat is available from the National Marine Fisheries Service (www.nmfs.noaa.gov) for anadromous or marine species or the U.S. Fish and Wildlife Service (www.fws.gov) for terrestrial or freshwater species.

Section 303(d) List

This Order does not authorize the discharge of biological and residual pesticides or their breakdown by-products to waters of the U.S. that are impaired by the same pesticide active ingredient. Impaired waters are those waters not meeting quality standards pursuant to section 303(d) of the CWA. California impaired waters, as approved by the State Water Board, are listed on

http://gispublic.waterboards.ca.gov/webmap/303d_2012/files/2012_USEPA_approv_303d_List_Final_20150807.xlsx

County of El Dorado Vector Control
Pesticide Application Plan (PAP)

The District's service area encompasses 195 square miles from the crest of the Sierra Nevada mountain range near Echo Summit to the shore of Lake Tahoe in both the City of South Lake Tahoe and the unincorporated area of El Dorado County in Region 6. Treatment based on service requests occurs on the western slope of the County by Community Development Agency, Environmental Management Division (EMD) Staff in region 5. **(See Maps at end of this document).**

El Dorado County implements Best Management Practices (BMP) based on integrated pest management (IPM). The basic components of the programs are: surveillance of pest populations, determination of treatment thresholds, selection from a variety of control options including physical, cultural, biological and chemical techniques, training and certification of applicators and public education.

- 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:**

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the District and County's preferred solution, and whenever possible the District works with property owners to effect 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:

Snow melt pools
Irrigated Farm Land
Riparian Areas
Wetlands
Roadside Ditches
Abandoned Swimming pools
Ornamental Ponds
Pastures
Catch Basins
Detention Basins/Retention Basins

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

Surveillance of pest populations is essential for assessing the necessity, location, timing and choice of appropriate control measures. It reduces the areal extent and duration of pesticide use, by restricting treatments to areas where mosquito populations exceed established thresholds. The 54 mosquito species known in California differ in their biology, nuisance and disease potential and susceptibility to larvicides. Information on the species, density, and stages present is used to select an appropriate control strategy from integrated pest management alternatives.

Only those mosquito sources that staff determines to represent imminent threats to public health or quality of life are treated. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the available 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.

A. Larval Mosquito Surveillance

Surveillance of immature mosquitoes is conducted by certified vector technicians assigned to zones. These technicians maintain a list of known mosquito developmental sites and visit them on a regular basis. When a site is surveyed, water is sampled with a 1 pint dipper to check for the presence of mosquitoes. Samples are examined in the field or laboratory to determine the abundance, species, and life-stage of mosquitoes present. This information is compared to historical records and used as a basis for treatment decisions.

B. Adult Mosquito Surveillance

Although larval mosquito control is preferred, it is not possible to identify all larval sources. Therefore, adult mosquito surveillance is needed to pinpoint problem areas and locate previously unrecognized or new larval developmental sites. Adult mosquitoes are sampled using standardized trapping techniques (i.e., New Jersey light traps, carbon dioxide-baited traps and oviposition traps).

Mosquitoes collected by these techniques are counted and identified to species. The spatial and seasonal abundance of adult mosquitoes is monitored on a regular basis and compared to historical data.

Species of mosquitoes found within El Dorado County: *Aedes cataphylla*, *Aedes dorsalis*, *Aedes fitchi*, *Aedes hemiteus*, *Aedes hexodontus*, *Aedes increpitus*, *Aedes sierrensis*, *Aedes tahoensis*, *Aedes vexans*, *Aedes ventrovittis*, *Anopheles franciscanus*, *Anopheles freeborni*, *Anopheles punctipennis*, *Culex apicaltis*, *Culex boharti*, *Culex pipiens*, *Culex quinquefasciatus*, *Culex stigmatosoma*, *Culex tarsalis*, *Culex territans*, *Culex thriambus*, *Culiseta incidens*, *Culiseta inornata*, *Culiseta impatiens*, *Culiseta particeps*, *Coquillettidia perturbans*.

C. Service Requests

Information on adult mosquito abundance from traps is augmented by tracking mosquito complaints from residents. Analysis of service requests allows County staff to gauge the success of control efforts and locate undetected sources of mosquito development. The County conducts public outreach programs and encourages local residents to contact the County to request services. When such requests are received, technicians visit the area, interview residents and search for sources that may have been missed. Residents are asked to provide a sample of the insect causing the problem if possible. Identification of these samples provides information on the species present and can be helpful in locating the source of the complaint.

3. Pesticide products or types expected to be used and if known, their degradation byproducts, 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 Waters 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. Products will be applied by hand, backpack units, and when needed by ATV or truck.

Active Ingredients:

Bacillus Thuringiensis Subsp. Israelensis (Bti)
Bacillus sphaericus (Bs) (Lysinibacillus sphaericus)
Methoprene
Monomolecular Film
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: (see maps at the end of this report)

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

With any mosquito or other vector source, the County’s first goal is to look for ways to eliminate the source or reduce the potential for vector problems. The most commonly used methods and their limitations are described in the *Best Management Practices for Mosquito Control in California*.

6. How much product is needed and how this amount was determined:

The need to apply pesticide product is determined by many factors including, but not limited to: mosquito abundance, disease surveillance, risk to the public, life stage of the mosquito, mosquito species, time of the year, and environmental condition. The application amounts used are within that which is allowed on the pesticide label. The pesticide amounts presented below were the amounts reported on the County’s 2015 Pesticide Use Report. The amounts will change from year to year due to annual variability to perform mosquito control. This data is provided as an example of the products and amounts used in one year.

Pesticides Used in 2015	South Lake Tahoe CSA3	Placerville EMD	Total amounts used
Altosid 30 day	7.62 oz	182.63 oz.	190.25 oz.

Altosid XR	137.71 oz.	92.68 oz.	230.39 oz.
Altosid pellets	0	165.22 oz.	165.22 oz.
Aquabac	112.11 lbs.	0	112.11 lbs.
AllPro Sustain	43.3 lbs.	0	43.3 lbs.
CocoBear	2.18 gal.	10 gal.	12.18 gal.
Vectolex WSP	20.4 oz.	0	20.4 oz.
Suspend polyzone	3 oz.	0	3 oz.
Goldenbear 1111	5 oz.	0	5 oz.

7. **Representative monitoring locations* and the justification 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:** The County evaluates specific mosquito development areas for management through non-chemical means according to the *Best Management Practices for Mosquito Control in California*.

9. **Description of the BMPs to be implemented. The BMPs shall include, at the minimum**
 - a. **Measures to prevent pesticide spill** – All pesticide applicators receive annual spill prevention and response training. Agency employees ensure daily that application equipment is in proper working order. Spill mitigation kits are available in all vehicles and pesticide storage areas.

 - 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 is included in our pesticide applicator’s annual pesticide application and safety training, continuing education programs, and/or regional NPDES permit training programs.

- d. Descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc.** – El Dorado County calibrates hand-held larviciding equipment annually 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 annually for output and droplet size to meet label requirements.
- e. Descriptions of specific BMPs for each pesticide product used** – Please see the *Best Management Practices for Mosquito Control in California*.
- 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*.

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;** -- Vector technicians apply pesticides to mosquito sources that may threaten public health or quality of life. The presence of any mosquito may necessitate treatment, however higher thresholds may be applied depending on the agency’s resources, disease activity, surveillance data, or local needs. Treatment thresholds are based on a combination of factors, such as type of species present, mosquito stage of development, pest/nuisance/disease potential, disease activity, mosquito abundance, flight range, proximity to populated areas, size of the source, presence/absence of natural enemies or predators, and 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 *Best Management Practices for Mosquito Control in California*, and the *California Mosquito-borne Virus Surveillance and Response Plan*.

c. Identify known breeding areas for source reduction, larval control program, and habitat management; and -- Any site that holds water for more than 72-96 hours (3-4 days) can produce mosquitoes depending on weather and other environmental factors. Source reduction is the agency's preferred solution, and whenever possible, the County works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications.

d. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems – The County provides surveillance of the known breeding sources every 2 weeks and submits WNV test information to CDPH. The County monitors dead bird reports and mosquito-borne disease activity detected in humans, horses, birds, and/or other animals, and uses this data to help 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.

Implementing preferred alternatives depends on a variety of factors including availability of agency 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.

A “nuisance” is specifically defined in California Health and Safety Code (HSC) section 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.** – El Dorado County complies with the DPR requirements and the terms of the CDPH Cooperative Agreement. All pesticide applicators receive annual training in addition to their regular continuing education to maintain Vector Control Technician certification.

- 13. If applicable, specify a website where public notices, required in Section VIII.B, may be found – www.edcgov.us/VectorControl**

REFERENCES

Best Management Practices for Mosquito Control in California. 2012.
California Mosquito-borne Virus Surveillance and Response Plan. 2015.

These references are available by download from the California Department of Public Health—Vector-Borne Disease Section at:

<http://www.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx>
or <http://www.westnile.ca.gov/resources.php> under the heading Resources.

MVCAC NPDES Coalition Monitoring Plan.



