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# 5B01NP00001

C. Change of ownership or responsibility: WDID# _____

D. Enrolled under Order 2011-0002-DWQ: WDID# _____

II. DISCHARGE INFORMATION

A. Name Alameda County Mosquito Abatement District

B. Mailing Address 23187 Connecticut St.

C. City Hayward

D. County Alameda

E. State CA

F. Zip Code 94545

G. Contact Person Ryan Clausnitzer

H. Email address ryan@mosquitoes.org

I. Title General Manager

J. Phone 510-783-7744

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 conveyance systems within Alameda County

3. Directly to river, lake, creek, stream, bay, ocean, etc.

   Name of water body: Various - See Attachment A and Attachment B

   *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 2

(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:

X Vector Larvae X Adult Vector

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

See table in Attachment C

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?*

X 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?

X Yes No

Have potentially affected governmental agencies been notified?

X 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 X 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: Ryan Clausnitzer

B. Signature: _____ Date: 5/1/23

C. Title: General Manager

X. FOR STATE WATER BOARD USE ONLY

WDID: _____ Date NOI Received: _____ Date NOI Processed: _____

GENERAL NPDES PERMIT FOR BIOLOGICAL AND RESIDUAL
PESTICIDE DISCHARGES FROM VECTOR CONTROL APPLICATIONS
ORDER 2016-0039-DWQ NPDES NO. CAG990004

Case Handler's Initial:_____Fee Amount Received: $ _____Check#:_____

Alameda County Mosquito Abatement District - Pesticide Application Plan (PAP) May 2023

1. Description of the target area and adjacent areas, if different from the water body of the target area;

The Alameda County Mosquito Abatement District (ACMAD or District) provides its services to the entire geographical area occupied by Alameda County. Specifically, ACMAD's territory is bordered by Contra Costa County to the north, San Francisco Bay to the west, Contra Costa County and San Joaquin County to the east, and Santa Clara County to the south. Please see attached map, Attachment A.

Any body of water left standing for 72 to 96 hours provides potential habitat for mosquito production and therefore may require treatment by ACMAD with larvicides. These waters may include mitigated wetlands, seasonal wetlands, tidal marshes, stormwater BMPs, ponds, lakes, creeks, rivers, flood control channels, low areas, road ditches, catch basins, etc. These sources may be either permanent or temporary, so providing an all-inclusive list is neither feasible nor practical. See Attachment B for a list of target areas.

2. Discussion of the factors influencing the decision to select pesticide applications for mosquito control;

For the most comprehensive understanding of these factors, please see the manual, "Best Management Practices for Mosquito Control in California." The control strategy favored by ACMAD is to target mosquitoes in the larval stage before they become adults. However, before any larvicides are applied, control may first be attained through environmental management - either source elimination (e.g., turning over containers holding water), source reduction (e.g., constructing or maintaining ditches to prevent standing water), or source maintenance (e.g., water management or vegetation management). In the event that environmental management is not possible, larvae may be controlled through the use of mosquitofish, *Gambusia affinis.* In an effort to limit the potential impact of these fish on endangered species, ACMAD's policy is to plant these fish only in target areas that are man-made and enclosed from natural bodies of water, e.g., domestic fish ponds, horse troughs, and unmaintained swimming pools. When mosquitofish are not appropriate to effect control, ACMAD will resort to biologically- based larvicides (often called "bio-rational" products). Bacteria-based larvicides function as a stomach or nerve toxin; others - insect growth regulators - are chemicals that interfere with mosquito development. If late instar (nonfeeding) larvae or pupae are present, surface agents (mineral oils or monomolecular films that prevent larvae from breathing) may be used. ACMAD does not use organophosphates for the control of larval mosquitoes.

In rare cases where a larvicide treatment failed or failed to occur, adulticides may be used. Adulticides are infrequently used by ACMAD, and are primarily pyrethrin or pyrethroid-based compounds. Adulticiding treatments may be made with truck-mounted ultra-low volume (ULV) foggers or a small, handheld portable ULV fogger. Adulticiding may be considered in the following scenarios:

1. Adult mosquitoes from a specific geographical area have tested positive for West Nile virus (or another mosquito-borne pathogen) putting human health at risk.
2. Adult floodwater mosquitoes *(Aedes* species) appear in significant concentrations near residential areas and cause high levels of annoyance to the public and complaints to the District.
3. Adults of an invasive mosquito species are found in an area.

The decision to treat an area for mosquito breeding is based on several factors, including:

1. Is the species a capable disease vector, or does it create an annoyance to humans?
2. Do the larvae occur in a high enough density to warrant a treatment?
3. Is the target area within the flight range of human habitation?
4. Are there any endangered species present in the target area?

If the answer to questions #1-3 is yes, a treatment may be performed. A yes answer to questions #1-3 and question #4 means that a treatment may be performed with special considerations (e.g., a restriction in equipment or material applied).

3. Pesticide products or types expected to be used and if known, 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 lists the approved active ingredients. All pesticide label instructions and restrictions will be followed for products containing the active ingredients listed below. In addition, pesticides that fall under the "minimum risk" category may be used. The minimum risk pesticides have been exempted from FIFRA requirements. Products may be applied by ground (hand, truck, ATV, backpack, etc.), watercraft, or air (drone, helicopter, or fixed-wing aircraft).

Active Ingredients:
Bacillus thuringiensis subsp. *israelensis (Bti)*
Bacillus sphaericus (Bs) (Lysinibacillus sphaericus)
Deltamethrin
Etofenprox
Malathion
Methoprene
Monomolecular Films
Naled
Permethrin
Petroleum Distillates
Piperonyl butoxide (PBO)
Prallethrin
Pyrethrin
Pyriproxyfen
Resmethrin
Spinosad
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 site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is ACMAD'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 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 variations in local environmental conditions. See attachments A & B which list the target areas within ACMAD's territory. The typical sources treated by this District include:

Agricultural	Natural	Domestic	Commercial
Stock Ponds	Creeks	Fish ponds	Catch basins
Duck Ponds	Creek potholes	Septic tanks	Storm drains
Agricultural drains	Marsh, tidal	Wells	Gravel pits
Watering troughs	Marsh, reclaimed	Swimming pools	Ditches
	Marsh, fresh	Spas	Sewer ponds
	Lakes	Bird baths	Utility vaults
	Ponds	Flooded basements	Cemetery urns
	Tree holes	Containers	Sumps
	Rain pools	Overwatering	Sewer lines
	Seepages	Storm water basins	Canals
			Used tires
			Broken pipes

5. Other control methods used (alternatives) and their limitations;
With any mosquito source, ACMAD'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 commonly used methods and their limitations are included in the "Best Management Practices for Mosquito Control in California." Specific methods used by the District include stocking mosquitofish *(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. Although mosquitofish are extremely useful, they are limited in their applicability. Typical limitations that may occur include: District policy is not to add mosquitofish to natural bodies of water, mosquitofish cannot tolerate polluted target areas, mosquitofish may become preyed upon, target areas may not support mosquitofish due to its size or water chemistry, etc. Educating residents is an important first measure, but once educated, the landowner still needs to take the appropriate actions to eliminate standing water. Removing standing water from a property is always the preferred solution. However, such measures often prove to be costly and or impractical. If a pesticide-free alternative does not adequately reduce the risk of mosquito production, pesticides are considered, beginning with those that have the least biological impact.

6. How much product is needed and how this amount was determined;
The need to apply product is determined by surveillance. Actual use varies annually depending on the mosquito activity. The pesticide amounts presented below were taken from the Alameda County Mosquito Abatement District's 2015 NPDES report of applications to Waters of the U.S. This data is provided as an example of the products and amounts used in one year. Other public health pesticides in addition to those listed here may be used as part of the District's best management practices.

Material	Amount Used
Methoprene 30 Day Briquets	12.3 lbs
Methoprene Liquid 20%	4.6 gal
Methoprene Pellets	127.6 lbs
Methoprene 150 Day Briquets	8.8 lbs
Petroleum Distillate	1642 gal
Bs/Bti 180 Day Briquets	.9 lbs
Spinosad 180 Day Tablet	28.8 lbs
Bti Liquid 11.6%	95.2 gal
Bti Granule	9431.8 lbs
Bs Granule	1240.3 lbs
Bs Water Dispersible Granule	123 lbs
Bs/Bti Granule	4822.4 lbs

7. Representative monitoring locations* and the justification for selecting these monitoring locations
Please see the Mosquito and Vector Control Association of California (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;
Alameda County Mosquito Abatement District strives to use the most environmentally low-impact control strategies possible, as discussed in items #2 and #5. The preferred sequence of mosquito control is: 1) education 2) physical control 3) biological control (i.e., mosquitofish) 4) larviciding with biorationals 5) larviciding/pupaciding with monomolecular films or surfactants 6) adulticiding. It is the goal of the ACMAD program to minimize any impact on water quality. For example, after educating the party responsible for creating a breeding source, and after rejecting physical and biological control as viable control measures, a technician's first choice is to use a biorational larvicide such as *Bacillus thuringensis israelensis* (Bti). This material is commercially available in many forms -liquids, granules, or pellets. It leaves no residues and is quickly biodegraded. At the application rates used for mosquito control, Bti is unlikely to have any measurable effect on water quality. Another bacterial product - spinosad -is a fermentation product of a naturally- occurring bacteria. It too leaves no residues and readily biodegrades. A third biorational larvicide is one containing the active ingredient methoprene. This chemical mimics mosquitoes' natural growth regulator and has no significant impact on

water quality. It is rapidly degraded in the environment and is not known to have persistent or toxic breakdown products. All ACMAD field technicians are trained to understand the importance of first choosing treatment strategies that minimize the impacts on water quality.

9. Description of the BMPs to be implemented. The BMPs shall include at a minimum:
The Alameda County Mosquito Abatement District's BMPs are described in item #2 above. Specific elements have been highlighted below under items a-f.

a. measures to prevent pesticide spill;
All pesticide applicators receive annual spill prevention and response training. District employees ensure daily that application equipment is in proper working order. Spill mitigation devices are placed 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 will be included in our pesticide applicator's annual pesticide application and safety training, and continuing education programs. Employees certified by CDPH must complete continuing education units to maintain their certification.

d. descriptions of specific BMPs for each application mode, e.g. aerial, truck, hand, etc.;
ACMAD calibrates truck-mounted, drone, and handheld larviciding equipment each year to meet application specifications. Supervisors review application records daily to ensure appropriate amounts of material are being used. ULV application equipment is calibrated for output and droplet size to meet label requirements. Helicopter and fixed-wing aircraft 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. Current pesticide labels can also be viewed on the District website at https://www.mosquitoes.org/labels-and-sds.

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

Please see Item #2. The Alameda County Mosquito Abatement District has three major environmental types -urban/suburban, marsh, and creek/woodland. In our urban setting, education of the homeowner is our number one priority. For example, "dump and drain" backyard containers, adding mosquitofish to fishponds and neglected swimming pools, and encouraging homeowners to prevent landscape water from running off into storm drains are typical strategies to limit mosquito breeding. ACMAD's education program is extensive and includes: an informative website, social media, participation in community events, school and service organization presentations, paid advertisements, and media outreach. In marsh environments, the District personnel perform vegetation removal to enhance tidal flow, thereby minimizing mosquito production. Frequent inspection of marsh areas is done during mosquito breeding seasons. This allows technicians to utilize bacterially-based larvicides or growth regulators before mosquitoes can reach the adult stage. Marsh areas are capable of producing large numbers of mosquitoes. ACMAD has participated in the planning of several marsh restoration projects, in an effort to minimize some of this mosquito breeding. In creek settings, creek beds are inspected after winter rains have subsided, water flow diminishes, and pockets of mosquito breeding are found along the creek's margins. Again, bio-rational pesticides are the first choice of larvicide used. Rarely, if ever, do entire creeks receive a treatment.

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;

ACMAD staff only apply 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;
See the Local Mosquitoes page of the Alameda County Mosquito Abatement District website https://www.mosquitoes.org/local-mosquitoes.

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 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 applications as described in item #2 above.

d. Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.
The District continually collects and monitors adult and larval mosquito surveillance data, dead bird reports, and regional mosquito-borne disease activity in humans, horses, birds, and/or other animals, and uses these data to guide mosquito control activities. ACMAD maintains a computerized database of mosquito breeding sources (target areas) within the County. This database contains historical information on the source's location, likely mosquito species present, and previous treatments used. Surveillance data is gathered on a daily, weekly, or biweekly basis of specific target areas and compared with historical averages, and remedial action is taken (or not) depending on surveillance results. Technicians continually sample standing water searching for new target areas. Aerial surveillance of neglected swimming pools has helped prevent the release of thousands of adult mosquitoes.

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.
ACMAD uses the principles and practices of integrated vector management (IVM) as described on pages 26 and 27 of "Best Management Practices for Mosquito Control in California." 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 upon a variety of factors including availability of agency resources, cooperation with stakeholders, coordination with regulatory agencies, and the 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 Alameda County Mosquito Abatement District follows an existing IVM program which includes practices described in item #2 above and #11a. More specific discussion can be found on the Alameda County Mosquito Abatement District website at https://www.mosquitoes.org/integrated-pest-management.

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 level 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 ACMAD and is required to comply with DPR's requirements and the terms of our 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.

www.mosquitoes.org

References:

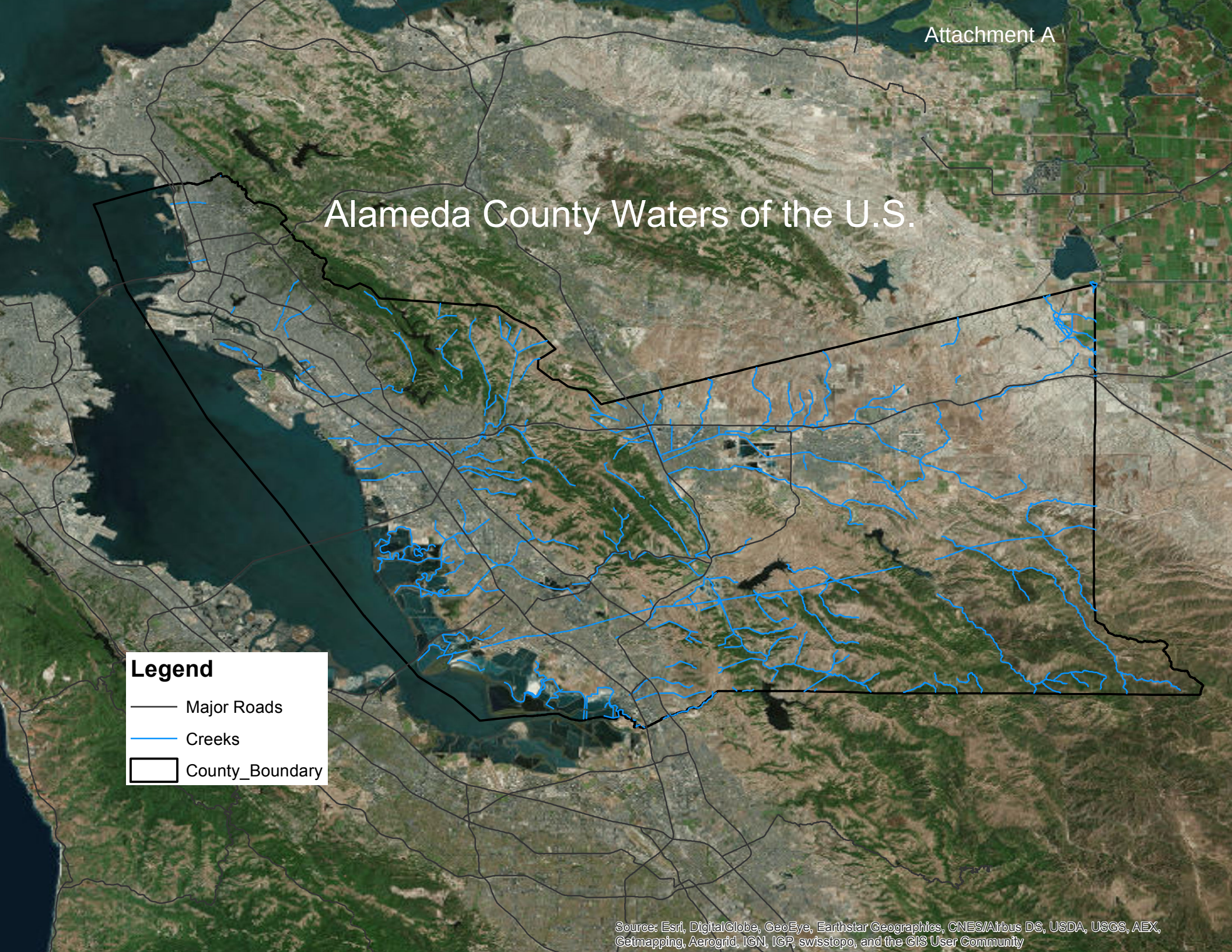
Best Management Practices for Mosquito Control in California. 2012. California Department of Public Health and Mosquito and Vector Control Association of California. Download from http://www.mosquitoes.org/environmental-documents/ or https://westnile.ca.gov/resources_reports?resource_category_id=2.

California Mosquito-borne Virus Surveillance and Response Plan. 2022. [Note: this document is updated annually by CDPH]. California Department of Public Health. Download from https://westnile.ca.gov/resources_reports?resource_category_id=9.

MVCAC NPDES Coalition Monitoring Plan. 2011. Mosquito and Vector Control Association of California.

Attachment A

Alameda County Waters of the U.S.



List of target areas. Although most creeks have commonly accepted names, this is not the case with tidal and seasonal marshes. ACMAD uses historical names for many of these areas that would be meaningless to others. Therefore, only generalized descriptions of their locations are given. Note that when a target area is treated, only that portion of the area that is breeding mosquitoes is treated, not the entire body of water.

A. Creeks, canals and underground culverts. Only those creeks and their tributaries with known names are listed. For detailed maps of creeks, see http://museumca.org/creeks/resc.html. Those creeks marked with an asterisk have been treated for mosquito breeding in the past.

Cerrito Creek (Berkeley)*	Mission Creek (Fremont)*
Blackberry Creek (Berkeley)	Laguna Creek (Fremont)*
Marin Creek/Village Creek (Berkeley)*	Washington Creek (Fremont)*
Cordonices Creek (Berkeley)*	Sabre Cat Creek (Fremont)*
Lincoln Creek/Schoolhouse Creek (Berkeley)	Canada de Aliso (Fremont)*
Strawberry Creek (Berkeley)*	Agua Caliente Creek (Fremont)*
Potter Creek (Berkeley)	Agua Fria Creek (Fremont)
Derby Creek (Berkeley)	Toroges Creek (Fremont)
Hardwood Claremont Creek (Oakland)*	Scott Creek (Fremont)*
Vicente Creek (Oakland)	Big Canyon Creek (Dublin)*
Temescal Creek (Oakland/Emeryville)*	Koopman Canyon Creek (Dublin)*
Glen Echo Creek (Oakland)*	Clark Canyon Creek (Dublin)*
Pleasant Valley Creek (Piedmont)*	Martin Creek (Dublin)*
Bushy Dell Creek (Piedmont)*	Dublin Creek (Dublin)*
Wildwood Creek (Piedmont/Oakland)*	Cottonwood Creek (Dublin)
Trestle Glen Creek (Piedmont/Oakland)*	Collier Canyon Creek (Dublin)*
Indian Gulch Creek (Oakland)*	Tassajara Creek (Dublin/Pleasanton)*
Shephard Creek (Oakland)*	Laurel Creek (Pleasanton)
Palo Seco Creek (Oakland)*	Gold Creek (Pleasanton)*
Sausal Creek (Oakland)*	Tehan Creek (Pleasanton)*
Peralta Creek (Oakland)*	Sin bad Creek (Pleasanton)*
Courtland Creek (Oakland)*	Alamo Creek (Dublin/Pleasanton/Sunol)*
54th Ave Creek (Oakland)*	Chabot Canal (Pleasanton)*
Seminary Creek (Oakland)*	Kottinger Creek (Pleasanton)*
Lion Creek (Oakland)*	Mission Creek (Pleasanton)*
Horseshoe Creek (Oakland)*	Sycamore Creek (Pleasanton)*
Chimes Creek (Oakland)*	Happy Valley Creek (Pleasanton)*
Arroyo Viejo Creek (Oakland)*	Stony Brook Creek (Pleasanton)
Elmhurst Creek (Oakland)*	Arroyo de la Laguna (Pleasanton)
Stonehurst Creek (Oakland)*	Arroyo Mocho (Pleasanton/Livermore)*
San Leandro Creek (Oakland)*	Arroyo Valle Creek (Pleasanton/Livermore)*

Estudillo Canal (San Leandro)*	Sheep Camp Creek (Sunol)
Bockman Canal (San Lorenzo)*	San Antonio Creek (Sunol)*
San Lorenzo Creek (San Lorenzo/Castro Valley)*	Vallecitos Creek (Sunol)
Bolinas Creek (Castro Valley)*	Sheridan Creek (Sunol)
Norris Creek (Castro Valley)*	Pirate Creek (Sunol)
Chabot Creek (Castro Valley)*	Indian Joe Creek (Sunol)
Valley Creek (Castro Valley)*	Leyden Creek (Sunol)
Castro Creek (Castro Valley)*	Calaveras Creek (Sunol)
Cull Creek (Castro Valley)*	Dry Creek (Livermore)*
Crow Creek (Castro Valley)*	Arroyo Seco Creek (Livermore)*
Palomares Creek (Castro Valley)*	Corral Hollow (Livermore)
Eden Creek (Castro Valley)*	Tunnel Creek (Livermore)
Hollis Creek (Castro Valley)*	Terraville Creek (Livermore)
Sulphur Creek (Castro Valley/Hayward)*	Trout Creek (Livermore)
Ward Creek (Hayward)*	Shafer Creek (Livermore)
Zeile Creek (Hayward)*	Valpe Creek (Livermore)
Dry Creek (Hayward)*	Whitlock Creek (Livermore)
Old Alameda Creek (Union City)*	Indian Creek (Livermore)
Patterson Creek (Fremont)*	La Costa Creek (Livermore)
Crandall Creek (Fremont)	Altamont Creek (Livermore)*
Ardenwood Creek (Fremont)	Brushy Creek (Livermore)*
Sanjon de los Alisos (Newark)	Cayetano Creek (Livermore)*
Alameda Creek (Fremont/Union City/Sunol)*	Arroyo Las Positas (Livermore)*
Morrison Creek (Fremont)	Mountain House Creek (Mountain House)*

B. Tidal Marshes

Includes areas west of Highway 80 near Emeryville, west Alameda ("Alameda Point"), Western Hayward (Hayward Regional Shoreline and "Hayward Landing"), Alameda Creek, and marshes immediately adjacent to the Bay in west Newark and Fremont (e.g., Mowry Slough and Albrae Slough), and the Don Edwards San Francisco Bay National Wildlife Refuge.

C. Seasonal Wetlands

Includes areas west of Highway 80 near Berkeley, west Alameda, areas in and around Oakland International Airport, marshy areas along the Hayward, Newark, and Fremont shorelines, Alameda Creek, Coyote Hills Regional Park, and the Springtown area of Livermore.

D. Lakes and Ponds

Includes areas in and/or around Lake Merritt (Oakland), Lake Chabot (Castro Valley), Lake Elizabeth (Fremont), Don Castro Regional Recreation Area (Hayward), Cull Canyon Reservoir (Castro Valley), Shadow Cliffs Regional Recreational Area (Pleasanton) and the commercial gravel pit ponds eastward.

Attachment C

23187 Connecticut Street
Hayward, CA 94545

T: (510) 783-7744
F: (510) 783-3903

acmad@mosquitoes.org

January 3, 2023

Notice of Intent to Apply Public Health Pesticides for Mosquito Control Purposes to Surface Waters and Waters of the U.S. Within Alameda County Under the General NPDES Permit for Vector Control Applications.

The Alameda Mosquito Abatement District (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 entities other than the District for vector control 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 Water of the United States from Vector Control Applications.

The following table list the active ingredients that may be used by the District in controlling mosquitoes:

Active Ingredients:	
Bacillus thuringiensis subsp. *israelensis (Bti)*	Petroleum Distillates
Bacillus sphaericus (Bs) (Lysinibacillus sphaericus)	Piperonyl butoxide (PBO)
Deltamethrin	Prallethrin
Etofenprox	Pyrethrin
Methoprene	Pyriproxyfen
Monomolecular Films	Resmethrin
Naled	Spinosad
Permethrin	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.	

The purpose for 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 January through December 2023. Locations of expected use will be constructed conveyances, surface waters and other waters of the U.S. located within Alameda County.

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

Please contact Ryan Clausnitzer at 510-925-1756 if you have any additional questions.

Sincerely,

Ryan Clausnitzer
General Manager

Attachment D

NPDES NOI Contact List for ACMAD

Agency	Mailing Address	
Alameda City Clerk	2263 Santa Clara Avenue, Rm 380	Alameda, CA 94501
Alameda County Ag Commissioner	224 W. Winton Ave. Room 184	Hayward, CA 94544
Alameda County Board of Supervisors Clerk	1221 Oak Street, Suite 536	Oakland, CA 94612
Alameda County Clerk-Recorder's Office	1106 Madison Street	Oakland, CA 94607
Alameda County Department of Environmental Health	1131 Harbor Bay Parkway	Alameda, CA 94502-6577
Alameda County Public Works Agency	399 Elmhurst Street	Hayward, CA 94544
Alameda County Water District	43885 South Grimmer Blvd.	Fremont, CA 94538
Alameda Countywide Clean Water Program	399 Elmhurst Street	Hayward, CA 94544
Berkeley City Clerk	2180 Milvia St.	Berkeley, CA 94704
CA Department of Fish and Wildlife	2825 Cordelia Rd., Suite 100	Fairfield, CA 94534
CA Department of Pesticide Regulation	P.O. Box 4015	Sacramento, Ca 95812
CA Department of Public Health	P.O. Box 997377, MS 0500	Sacramento, CA 95899-7377
CA Department of Transportation	P.O. Box 23660	Oakland, CA 94623-0660
CA Department of Water Resources	P.O. Box 942836	Sacramento, CA 94236
Castro Valley Sanitary District	21040 Marshall St.	Castro Valley, CA 94546
Don Edwards San Francisco Bay National Wildlife Refuge	1 Marshlands Rd	Fremont, CA 94555
Dublin City Clerk	100 Civic Plaza	Dublin, CA 94568
East Bay Municipal Utilities District	P.O. Box 24055	Oakland, CA 94623
East Bay Regional Park District	2950 Peralta Oaks Ct.	Oakland, CA 94605
Emeryville City Clerk	1333 Park Ave.	Emeryville, CA 94608
Fremont City Clerk	3300 Capitol Ave., Building A	Fremont, CA 94538
Hayward Area Recreation and Park District	1099 E Street	Hayward, CA 94541
Hayward City Clerk	777 B STREET	Hayward, CA 94541
Livermore Area Recreation and Park District	4444 East Ave	Livermore, CA 94550-5053
Livermore City Clerk	1052 S. Livermore Ave.	Livermore, CA 94550
Newark City Clerk	37101 Newark Boulevard	Newark, CA 94560
Oakland City Clerk	1 Frank H. Ogawa Plaza	Oakland, CA 94612
Oro Loma Sanitary District	2655 Grand Ave.	San Lorenzo, CA 94580
Piedmont City Clerk	120 Vista Avenue	Piedmont, CA 94611
Pleasanton City Clerk	123 Main Street	Pleasanton, CA 94566
San Leandro City Clerk	835 East 14th Street	San Leandro, CA 94577
SF Regional Water Quality Control Board	1515 Clay Street #1400	Oakland, Ca 94612
State Water Resources Control Board	P.O. Box 100	Sacramento, CA 95812-0100
Union City City Clerk	34009 Alvarado-Niles Road	Union City, CA 94587
Union Sanitary District	5072 Benson Rd.	Union City, CA 94587-2508
US Army Corps of Engineers	450 Golden Gate Ave., 4th Floor	San Francisco, CA 94102
Zone 7 Water Agency	100 North Canyons Parkway	Livermore, CA 94551
Albany City Clerk	1000 San Pablo Ave.	Albany, CA 94706