**Notice of Availability (NOA) of a  
Draft Programmatic Environmental Impact Report for the  
Alameda County Mosquito Abatement District’s   
Integrated Mosquito Management Program**

**SCH# 2012052037**

July 16, 2015

To: State Clearinghouse, Responsible, Trustee, and Interested Agencies; and other Interested Parties and Individuals

**Draft PEIR:** Notice is hereby given that a Draft Programmatic Environmental Impact Report (Draft PEIR) has been prepared by the Alameda County Mosquito Abatement District (District or ACMAD) as Lead Agency under the California Environmental Quality Act (CEQA). The Draft PEIR addresses the potential environmental impacts that would result from implementation of a range of mosquito control alternatives that are components of the District’s Integrated Mosquito Management Program (Program). After consideration of public comments on the Draft PEIR, the Final PEIR, additional comments on the Final PEIR, and then certification, the District Board of Trustees will decide whether and how to approve and carry out the Proposed Program.

**Public Review and Hearing:** The Draft PEIR is available on the District’s website: [www.mosquitoes.org](http://www.mosquitoes.org), at the District’s office located at 23187 Connecticut St., Hayward, CA 94545, and at the following area libraries:

* Albany Library, 1247 Marin Ave., Albany, CA 94706, (510) 526-3720, <http://guides.aclibrary.org/Albany>
* Castro Valley Library, 3600 Norbridge Ave., Castro Valley, CA 94546, (510) 667-7900, <http://guides.aclibrary.org/CastroValley>
* Dublin Library, 200 Civic Plaza, Dublin, CA 94568, (925) 803-7252, <http://guides.aclibrary.org/Dublin>
* Fremont Main Library, 2400 Stevenson Blvd., Fremont, CA 94538, (510) 745-1400, <http://guides.aclibrary.org/Fremont>
* Livermore Public Library, 1188 S Livermore Ave., CA 94550, (925) 373-5500, [www.livermorelibrary.net](http://www.livermorelibrary.net)
* Newark Library, 6300 Civic Terrace Ave., Newark, CA 94560, (510) 795-2627, <http://guides.aclibrary.org/Newark>
* Oakland Main Library, 125 14th St., Oakland, CA 94612, (510) 238-3134, [www.oaklandlibrary.org](http://www.oaklandlibrary.org)
* Union City Library, 34007 Alvarado-Niles Rd., Union City, CA 94587, (510) 745-1464, <http://guides.aclibrary.org/UnionCity>

A public hearing to receive oral comments on the content of the PEIR will be held from 6-8pm on August 5, 2015 at the following location:

**San Leandro Marina Community Center**

**Thunderbolt Presentation Room**

**15301 Wicks Blvd.**

**San Leandro, CA 94579**

Due to the time limits mandated by State law, your written comments must be sent at the earliest possible date, but not later than 45 days after receipt of this notice by the State Clearinghouse or by 5pm on September 4, 2015. Please send your response to: Erika Castillo, CEQA Project Manager for Alameda County Mosquito Abatement District, 23187 Connecticut St., Hayward, CA 94545; or fax: 510-783-3903; or email: enspec@mosquitoes.org. Project files will be maintained at this location.

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Ryan Clausnitzer, District Manager Date

**Project Location and Description**

The Integrated Mosquito Management Program’s (IMMP or Program) “Project Area” or Program Area consists of the District’s “Service Area” boundaries, which generally includes all lands within Alameda County, and the four adjacent counties of Contra Costa, San Joaquin, Stanislaus, and Santa Clara where services could be provided upon request.

The Alameda County Mosquito Abatement District undertakes control activities through its Integrated Mosquito Management Program to control mosquitoes, vectors of disease and/or discomfort. A vector is defined as “any animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury…” (The California Health and Safety Code, Section 2200(f)). The District (Project Sponsor) has prepared a Programmatic Environmental Impact Report (PEIR) to evaluate the effects of the continued implementation of the control strategies and methods prescribed in its Program.

Since the 1980s, the District has taken an integrated systems approach to mosquito control, utilizing a suite of tools that consist of the following alternatives in addition to public education: surveillance, physical control, vegetation management, biological control, and chemical control. These five Program Alternatives are described and evaluated in the PEIR. In order to realize effective and environmentally sound mosquito management, mosquito control must be based on several factors: carefully monitoring or surveying mosquito abundance and/or potential contact with people; establishing treatment criteria (thresholds); and appropriately selecting from a wide range of control methodologies. This dynamic combination of surveillance, treatment criteria, and use of multiple control activities in a coordinated program is generally known as Integrated Pest Management (IPM). These Project tools or components are described below as Program Alternatives evaluated in the PEIR.

**Program Objectives and Purpose**

The District undertakes mosquito control activities through its Program to control mosquitoes, vectors of disease and/ or discomfort in the Program Area.

The Proposed Program’s specific objectives are as follows:

* Reduce the potential for human and animal disease caused by mosquitoes
* Reduce the potential for human and animal discomfort or injury from mosquitoes
* Accomplish effective and environmentally sound mosquito management by means of:
  + Surveying for mosquito abundance/human contact
  + Establishing treatment criteria
  + Appropriately selecting from a wide range of Program tools or components

Most of the relevant mosquito species are quite mobile and cause the greatest hazard or discomfort at a distance from where they breed. Each mosquito species has a unique life cycle, and most of them occupy several types of habitats. To effectively control them, an IMMP must be employed. District policy is to identify those species that are currently vectors, to recommend techniques for their prevention and control, and to anticipate and minimize any new interactions between mosquitoes and humans.

**Program Alternatives**

The PEIR evaluates the following five alternatives (and No Program). The Program anticipates using all of the chemical and nonchemical alternatives (and options) as part of an Integrated Pest Management Program. Should any one or more options under an alternative become infeasible for effectiveness, economic or environmental reasons, the other options under that alternative would be used.

***Surveillance***

Mosquito surveillance, which is an integral part of the District’s responsibility to protect public health and welfare, involves monitoring mosquito populations and habitat, their disease pathogens, and human-mosquito interactions. Mosquito surveillance provides the District with valuable information on what species are present or likely to occur, when they occur, where they occur, how many they are, and if they are carrying disease or otherwise affecting humans. Surveillance is critical to an IMMP because the information it provides is evaluated against treatment criteria to decide when and where to institute mosquito control measures. Information gained is used to help form action plans that can also assist in reducing the risk of contracting disease. Equally important is the use of surveillance in evaluating the efficacy, cost effectiveness, and environmental impacts of specific mosquito control actions.

***Physical Control***

Physical control is managing mosquito habitat to reduce mosquito production through “source control’ measures that are nonchemical or nonbiological techniques. In many cases, physical control activities involve restoration and enhancement of natural ecological functioning. For mosquitoes, these activities include, but are not limited to, water management and maintenance of channels, tide gates, levees, and other water control facilities to improve water circulation.

***Vegetation Management***

The species composition and density of vegetation are basic elements of the habitat value of any area for mosquitoes, for predators of mosquitoes, and for protected flora and fauna. District staff may undertake vegetation management activities as a tool to reduce the habitat value of sites for mosquitoes or to aid production or dispersal of mosquito predators, as well as to allow District staff’s access to mosquito habitat for surveillance and other control activities. Vegetation management generally consists of activities to reduce the mosquito habitat value of sites by improving water circulation or access by fish and other predators, or to allow District staff’s access to standing water for inspections and treatment. For vegetation management, the District primarily uses hand tools or but could use other mechanical means (i.e., heavy equipment) or apply herbicides (chemical pesticides with specific toxicity to plants) for vegetation removal or thinning to improve surveillance or reduce mosquito habitats. Vegetation removal or thinning primarily occurs in aquatic habitats to assist with the control of mosquitoes and in terrestrial habitats to help with access to mosquito breeding sites.

***Biological Control***

**Pathogens:** Mosquito pathogens are highly host-specific and usually infect mosquito larvae when they are ingested. Examples of bacteria pathogenic to mosquitoes are Bacillus sphaericus (Bs), the several strains of Bacillus thuringiensis israelensis (Bti), and Saacharopolyspora spinosa. Two bacteria, Bs and Bti, produce proteins that are toxic to most mosquito larvae, while Saacharopolyspora spinosa produces compounds known as spinosysns, which effectively control all larval mosquitoes. Bs can reproduce in natural settings for some time following release. Bti materials the District applies do not contain live organisms, but only spores made up of specific protein molecules.

**Predators:**Mosquito predators are represented by highly complex organisms, such as insects, fish, birds, and bats that consume larval or adult mosquitoes as prey. Predators are opportunistic in their feeding habits and typically forage on a variety of prey types, which allows them to build and maintain populations at levels sufficient to control mosquitoes, even when mosquitoes are scarce. Only mosquitofish are commercially available to use at present, while the District supports the presence of other predators as practical. The District’s rearing and stocking of mosquitofish in mosquito habitat (but only in artificial waterbodies) is the most commonly used biological control agent for mosquitoes in the world.

***Chemical Control***

Chemical control is a Program tool that consists of the application of nonpersistent insecticides to directly reduce populations of larval or adult mosquitoes. If and when inspections reveal that mosquito populations are present at levels that trigger the District’s criteria for chemical control – based on abundance, density, species composition, proximity to human settlements, water temperature, presence of predators, and other factors – District staff will apply pesticides to the site in strict accordance with the pesticide label instructions and other best management practices to minimize environmental impacts.

The vast majority of chemical control tools are used for mosquito abatement. The primary pesticides used can be divided between “larvicides,” which are specifically toxic to mosquito larvae, and “adulticides,” which are used to control adult mosquito populations. Larvicides are applied when the chemical control criteria for mosquito larvae are present and application rates vary according to time of year, water temperature, the level of organic content in the water, the type of mosquito species present, larval density, and other variables. Larvicide applications may be repeated at any site at recurrence intervals ranging from annually to weekly. In addition to chemical control of mosquito larvae, the District may use pesticides for control of adult mosquitoes when no other tools are available and if specific criteria are met, including species composition, population density (as measured by landing count or other quantitative method), proximity to human populations, and/or human disease risk. As with larvicides, adulticides are applied in strict conformance with label requirements. Adulticiding is the only known effective measure of reducing an adult mosquito population in a timely manner. All mosquito adulticiding activities follow reasonable guidelines to avoid affecting nontarget species including bees. Timing of applications (when mosquitoes are most active), avoiding sensitive areas, working and coordinating efforts with California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS), and following label instructions all result in effective mosquito control practices.

**Summary of Potentially Significant Impacts:**

The Draft PEIR has identified one potentially significant impact and one significant and unavoidable impact. The Chemical Control Alternative could subject people to objectionable odors. Impacts even with BMPs implemented could be potentially significant but mitigable. Air quality impacts can be mitigated to less-than-significant level by measures identified in the Draft PEIR. The use of the adulticide naled is significant and unavoidable.