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**Notice of Preparation (NOP) of a  
Draft Programmatic Environmental Impact Report for the  
Alameda County Mosquito Abatement District's Integrated Mosquito  
Management Program**

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MAY 17 2012

Date: May 11, 2012

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

ALAMEDA COUNTY  
MOSQ. ABAT DIST

The Alameda County Mosquito Abatement District (ACMAD) as Lead Agency under the California Environmental Quality Act (CEQA) will prepare a Programmatic Environmental Impact Report (PEIR) on its Integrated Mosquito Management Program (Project). We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed Project. Your agency may need to use the PEIR prepared by the District when considering any necessary permit or other approval for the Project. Interested parties and individuals are also invited to comment on alternatives to, concerns with, and environmental issues or potential effects of the Project.

**Public Scoping Meetings**

The ACMAD and the Alameda County Vector Control Service District are going through an identical vector control program PEIR process. Our districts will thus be convening a single public scoping meeting to be held June 6, 2012 to receive agency and public comment on the scope of analysis and PEIR content for the proposed Program in Alameda, California. Date/time and location are as follows:

**Wednesday, June 6, 2012 from 5:30pm-7:30pm**  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, Rm 106  
Alameda, CA 94502

Due to the time limits mandated by State law, your written response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. Please send your response to: Erika Castillo, CEQA Project Manager for ACMAD, 23187 Connecticut St., Hayward, CA 94545, fax: (510)783-3903; or email [erika@mosquitoes.org](mailto:erika@mosquitoes.org). Project files will be maintained at this location.



John Rusmiser, Manager

May 11, 2012

Date



# **Integrated Mosquito Management Program (IMMP) Project Description**

## **Summary**

The District undertakes activities through its Integrated Mosquito Management Program to control mosquitoes which are vectors of disease and/ or discomfort in the Service Area. (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 Alameda County Mosquito Abatement District (ACMAD) (Project Sponsor) is preparing a Programmatic EIR (PEIR) to evaluate the effects of the continued implementation of the control strategies and methods prescribed in its Integrated Mosquito Management Program (Control Program/Project). Since the mid 1980s, the District has taken an integrated systems approach to mosquito control, utilizing a suite of tools that consist of surveillance, vegetation management, and physical, biological, and chemical controls. These Project tools or components are described below. The implementation of the Control Program is weighted heavily towards the physical and biological control and vegetation management components, in part, to reduce the potential for environmental impacts. In order to realize effective and environmentally sound mosquito management, their control must be based on several factors: carefully monitoring or surveying their abundance and/or potential contact with people; establishing treatment criteria (thresholds); and appropriately selecting from a wide range of control methods. 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). This overall control program and its component activities will be evaluated for their potential environmental impacts in this PEIR.

## **Project Location**

The Integrated Mosquito Management Program’s (Program) “Project Area” or Program Area consists of the ACMAD’s “Service Area” boundaries, which generally includes all lands within the County of Alameda except the city of Albany. The Program Area is shown in Figure 1, Alameda County Mosquito Abatement District’s Program Area.

## **Background**

The District was established to reduce the risk of mosquito-borne disease and discomfort to the residents of its Service Area. In addition to being nuisances by disrupting human activities and enjoyment of public and private areas, certain vectors *can* transmit a number of diseases. The diseases of most concern in the Program Service Area are West Nile virus, (WNV), western equine encephalomyelitis (WEE), St. Louis encephalitis (SLE), dog heartworm, and malaria, which are transmitted by mosquitoes.

Most of the relevant mosquitoes 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 habitats. In order to effectively control them, an integrated mosquito management program must be employed. District policy is to identify those species that are currently disease vectors, to recommend techniques for their prevention and control, and to anticipate and minimize any new interactions between mosquitoes and humans.



Source: Census CDPs, 2010



INTEGRATED MOSQUITO MANAGEMENT PROGRAM PEIR  
**Alameda County Mosquito Abatement District**  
 Figure 1 - Program Area

## **Proposed Project**

The Integrated Mosquito Management Program (IMMP) of the ACMAD is an ongoing program of surveillance and control of mosquitoes that are vectors of human disease and discomfort. The District's Integrated Mosquito Management Program consists of six general types of coordinated and component activities:

**Surveillance** for mosquito populations and habitats, disease pathogens, and public distress associated with mosquitoes. Mosquito surveillance activities include field counting, and trapping, along with the laboratory analysis of mosquitoes, their hosts, and pathogens to evaluate populations and disease threats; field inspection of known or suspected habitats where mosquitoes live; maintenance of paths and the use of all-terrain vehicles to access mosquito habitat; analysis of public service requests and surveys; and other methods of data collection.

**Public Education** to encourage and assist reduction and prevention of mosquito habitats on private and public property. While a critical element of the District's IMMP, public education activities are categorically exempt from CEQA review [CEQA Guidelines Sec. 15322] based on a finding by the State Secretary of Resources that these activities do not have a significant effect on the environment. Therefore, these activities will not be further reviewed in this document.

**Physical Control.** Management of mosquito habitat, especially through water control and maintenance or improvement of channels, tide gates, levees, and other water control facilities, etc., is known as "Physical Control". Activities designed to reduce mosquito populations through changes in the physical environment which reduce its habitat suitability for mosquitoes, or which improve habitat or mobility of natural predators of mosquitoes, are considered Physical Control; activities related to rearing or relocating these predators are discussed below as Biological Control. Activities, which impact mosquito habitat through manipulation of vegetation, are discussed below as Vegetation Management.

**Vegetation Management.** The District uses hand tools or other mechanical means of vegetation removal or thinning to improve water circulation to reduce mosquito habitats.

**Biological Control.** Rearing, stocking, and providing "mosquito fish" *Gambusia affinis* and applying the bacterium, *Bacillus sphaericus*, and the potential use of other predators or pathogens of mosquitoes is known as "Biological Control." *Gambusia affinis* and *Bacillus sphaericus* reproduce in natural settings, for at least some time, after release. *Bacillus thuringiensis israelensis* (Bti) materials applied by the District do not contain live organisms, but only spores made up of specific protein molecules. Because the potential environmental impacts of *Bacillus sphaericus* or Bti application are generally similar to those of chemical pesticide applications, these materials are evaluated below under Chemical Control.

**Chemical Control,** consisting of the application of non-persistent selective insecticides to directly reduce populations of larval or adult mosquitoes.

While these program/project elements together encompass the District's Integrated Mosquito Management Program, it is important to note that the specific activities performed by District staff vary from day to day, and from site to site, in response to the mosquito species that are active, their population size or density, age structure, location, time of year, local climate and weather, potential for mosquito-borne disease, proximity to human populations, including: a) proximity to sensitive receptors; b) access by District staff to mosquito habitat; c) abundance of natural predators; d) availability and cost of control methods; g) effectiveness of previous control efforts at the site; h) potential for development of resistance in mosquito populations; i) land-owner policies or concerns; j) proximity to special status species; and Endangered Species

Recovery Plans, Habitat Conservation Plans, Natural Community Conservation Plans, and local community concerns, among other variables. Therefore, the specific actions taken in response to current or potential mosquito activity at a specific place and time depends on factors of mosquito and pathogen biology, physical and biotic environment, human settlement patterns, local standards, available control methods, and institutional and legal constraints. While some consistent mosquito sources are exposed to repeated control activity, many areas with minor mosquito activity are not routinely treated, and most of the land within the District Service Area has never been directly treated for mosquitoes.

The District's IMMP, like any integrated pest management (IPM) program, by definition, seeks to use procedures that will minimize potential environmental impacts. The District's Project employs IPM principles by first determining the species and abundance of mosquitoes through evaluation of public service requests and field surveys of immature and adult mosquito populations; and then, if the populations exceed predetermined criteria, using the most efficient, effective, and environmentally sensitive means of control. For all mosquito species, public education is an important control strategy. In some situations, water management or other physical control activities can be instituted to reduce mosquito-breeding sites. The District also uses biological control such as the planting of mosquito fish in some settings. When these approaches are not effective, or are otherwise deemed inappropriate, then pesticides are used to treat specific pest-producing or pest-harboring areas.

Mosquito control activities are conducted at a wide variety of locations or "sites" throughout the District's Project area. These sites can be roughly divided into those where activities may have an effect on the natural environment either directly or indirectly (through drainage), and sites where the potential environmental impacts are negligible ("Non-Environmental Sites"). Examples of "Environmental Sites" in the Project area include tidal marshes, duck clubs, other diked marshes, lakes and ponds, rivers and streams, vernal pools and other seasonal wetlands, storm water detention basins, flood control channels, spreading grounds, street drains and gutters, wash drains, irrigated pastures, or agricultural ditches. Examples of "Non-Environmental Sites" include animal troughs, artificial containers, tire piles, fountains, ornamental fishponds, swimming pools, liquid waste detention ponds, and non-natural harborage (such as covered wood piles, residential and commercial landscape, trash receptacles, etc.).

### **Scope of the PEIR Analysis**

The *No Project* alternative would be equivalent to "No Action" or to discontinue the control programs described above.

A range of project alternatives will be developed by the ACMAD partially as result of input from the scoping process, and these alternatives and others will be described and evaluated in a technical report for the PEIR. These existing alternatives include specific physical control, biological control, vegetation management, and chemical control (approved insecticides) that are existing components of the ACMAD's overall Control Program. Based on current information, the Proposed Program alternatives for evaluation in the PEIR are those six component controls previously described.

The PEIR will evaluate potential environmental impacts (direct, indirect, and cumulative) and focus on the following environmental resources and concerns: human health, ecological health, agricultural economics and land use, non-agricultural land uses, public services/hazard response, water quality (surface and ground waters), air quality, climate change (greenhouse gas production), noise, and biological resources. The human and ecological health risk

evaluations are expected to be technical appendices to the PEIR with important results summarized in the appropriate sections of the PEIR.

Issues that are raised during public scoping on the proposed alternatives (or other alternatives) and the potential for impacts to the environment will be incorporated into a public scoping report and made available to the public and preparers of the Draft PEIR. These concerns will be addressed, as needed, in studies and reports that are being prepared to support the PEIR process. These include human and ecological health risk analyses or toxicological studies, as well as air quality, noise, and biological resource technical studies. The potential for risk to human and ecological health from chemical treatments will be evaluated based in large part on pesticide-specific toxicological studies. The findings of all the toxicological and technical studies will be incorporated into the environmental impact analyses prepared for the PEIR.

**For More Information**

Additional information can be found at [www.mosquitoes.org](http://www.mosquitoes.org) and at the District's office located at: 23187 Connecticut St., Hayward, CA 94545.