Napa County Mosquito Abatement District

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Notice of Preparation (NOP) of a Draft Programmatic Environmental Impact Report for the Napa County Mosquito Abatement District Integrated Mosquito and Vector Management Program

Date: May 14, 2012

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

The Napa County Mosquito Abatement District (District) as Lead Agency under the California Environmental Quality Act (CEQA) will prepare a Programmatic Environmental Impact Report (PEIR) on its Integrated Mosquito and Vector Management Program (Project). The District needs 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

One public scoping meeting will be held June 5, 2012, to receive agency and public comment on the scope of analysis and PEIR content for the proposed Program in the Town of Yountville Community Center. The date, time and location are as follows:

Date: June 5th, 2012
Time: 7 PM to 9 PM
Location: Town of Yountville Community Center
Heritage Room
6516 Washington Street
Yountville, CA 94599

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: Wesley A. Maffei, CEQA Project Manager for Napa County Mosquito Abatement District, P.O. Box 10053, American Canyon, CA 94503, fax 707-553-9611, email: bugsydoc1@yahoo.com. Project files will be maintained at this location.

Iris Eckert for

May 14, 2012

Wesley A. Maffei,
Manager

Date

Integrated Mosquito and Vector Management Program (IMVMP) Project Description

Summary

The District undertakes activities through its Integrated Vector Management Program to manage the following vectors of disease and/or discomfort in the Service Area: mosquitoes, rats, yellowjackets, ticks, and invasive or noxious weeds. (A vector is defined as "any animal capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury…" (California Health and Safety Code, Section 2200(f)). The Napa County Mosquito Abatement District (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 and Vector Management Program (Control Program/Project). Since the mid 1980s, the District has taken an integrated systems approach to mosquito and other vector control, utilizing a suite of methodologies and tools that consist of surveillance, public education, physical control, biological control, vegetation management, and chemical controls. These Project tools or components are described below. The implementation of the Control Program is weighted heavily towards the surveillance, vegetation management and physical and biological control components, in part, to reduce the potential for environmental impacts. In order to realize effective and environmentally sound vector management, vector control must be based on several factors: carefully monitoring or surveying vector 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). This overall control program and its component activities will be evaluated for their potential environmental impacts in this PEIR.

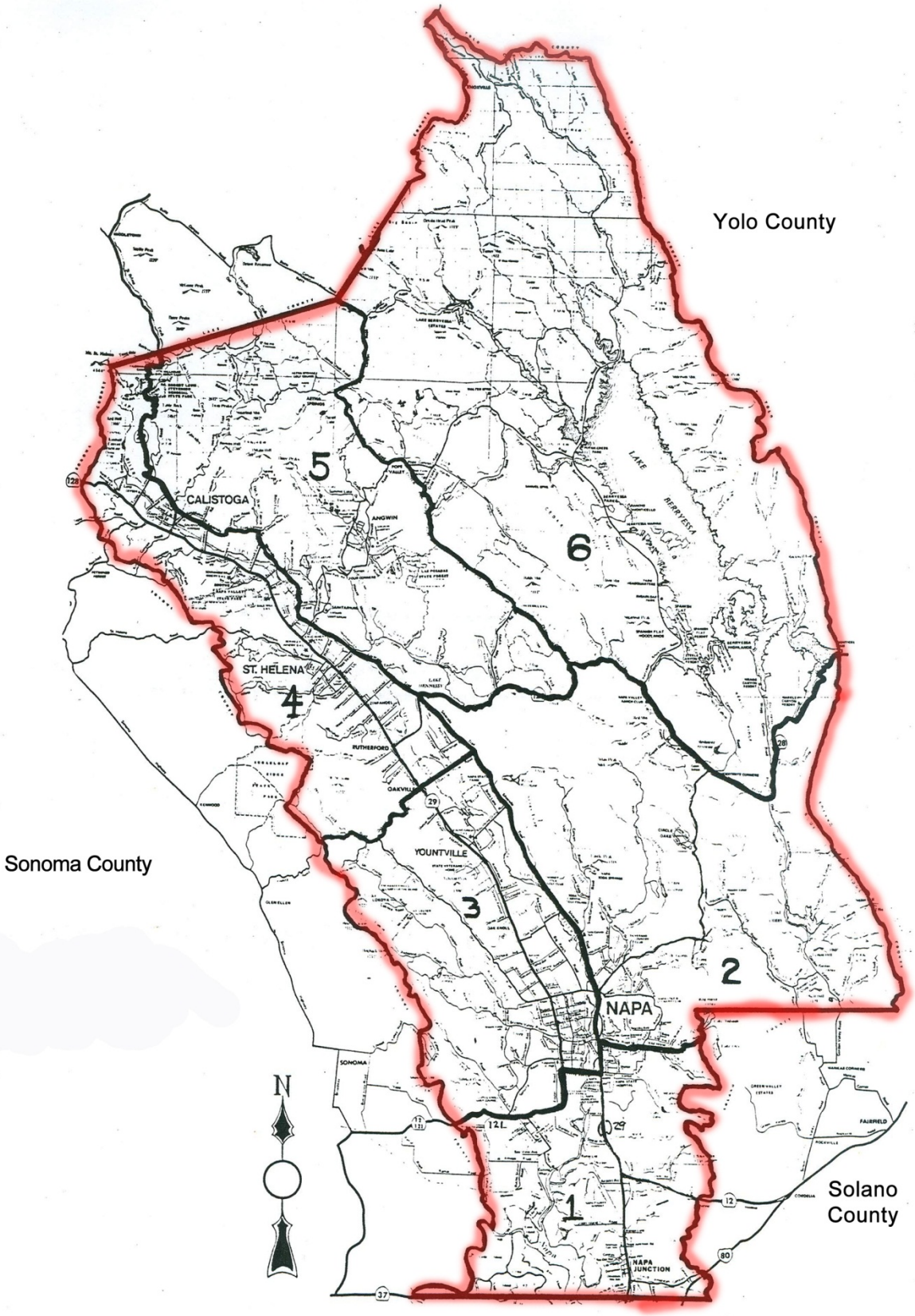
Project Location

The Integrated Mosquito and Vector Management Program's (Program) "Project Area" or Program Area consists of the District's "Service Area" boundaries, which generally includes all lands within the County of Napa. The Program Area is shown in the attached map, Napa County Mosquito Abatement District Program Area and Service Zones.

Background

The District was established to reduce the risk of vector-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 currently 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; leptospirosis, hantavirus pulmonary syndrome, arenavirus and plague associated with rats and other rodents; and Lyme disease, tularemia, babesiosis, rocky mountain spotted fever, and ehrlichiosis transmitted by ticks.

Most of the relevant vectors are quite mobile and cause the greatest hazard or discomfort at a distance from where they breed. Each potential vector has a unique life cycle and most of them occupy several habitats. In order to effectively control them, an integrated vector management program must be employed. District policy is to identify those species that are known vectors, to recommend techniques for their prevention and control, and to anticipate and minimize any new interactions between vectors and humans while also protecting sensitive environmental resources.



Napa County Mosquito Abatement District
Program Area & Service Zones

Proposed Project

The Integrated Mosquito and Vector Management Program (IMVMP) of the Napa County Mosquito Abatement District is an ongoing program of surveillance and control of mosquitoes and other vectors of human disease and discomfort. The District's IMVMP consists of six general types of coordinated and component activities:

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

Public Education to encourage and assist reduction and prevention of vector habitats on private and public property and thereby reduce pesticide use and other potential effects to sensitive habitats and receptors. While a critical element of the District's IMVMP, 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. The management of vector habitat or activities designed to reduce vector populations through changes in the physical environment which reduces habitat suitability for vectors, or which improves habitat or mobility of natural predators of vectors, are considered "Physical Control". Example activities include but are not limited to: removal of debris and food resources (where practicable), modification of suitable sites for vector development and harborage, and the maintenance or improvement of channels, tide gates, levees, and other water control facilities. Those activities related to the rearing or relocating of predators of vector organisms are discussed below as Biological Control. Activities, which impact vector habitat through manipulation of vegetation, are discussed below as Vegetation Management.

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 vectors 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 protein spores produced by the Bti bacterium. Because the potential environmental impacts of *Bacillus sphaericus* or Bti application are generally similar to those of chemical pesticide applications, these materials will be discussed under Chemical Control.

Vegetation Management. The District uses hand tools or other mechanical means of vegetation removal or thinning and sometimes applies herbicides (chemical pesticides with specific toxicity to plants) to improve surveillance, reduce vector habitats and manage non-native or invasive plant species (e.g. Pepperweed, Spartina and Arundo).

Chemical Control, consists of the application of non-persistent selective insecticides to directly reduce populations of larval or adult mosquitoes and other invertebrate threats to public health and comfort (e.g. yellowjackets); and also includes the use of rodenticides to control rats. The principle materials applied to control mosquitoes consist of but are not limited to *Bacillus thruringiensis israelensis* (Bti), *Bacillus sphaericus*, methoprene (an insect growth regulator), and surfactants such as BVA-2 which control the immature stages and prevent adult emergence. Adulticides containing natural pyrethrin are sometimes used, though to a *very*

limited degree, to help manage adult mosquito populations, primarily the Western Tree Hole Mosquito. Pyrethrin dust is the insecticide used to manage ground nesting yellowjackets.

While these program/project elements together encompass the District's IMVMP, 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: vector species that are active, their population size or density, age structure, location, time of year, local climate and weather, potential for vector-borne disease, potential for causing human discomfort, proximity to human populations, and any Endangered Species Recovery Plans, Habitat Conservation Plans, Natural Community Conservation Plans, and local community concerns. Other significant factors influencing the performance and effectiveness of the District's IMVMP activities include but are not limited to: a) proximity to sensitive receptors; b) access by District staff to vector habitat; c) abundance of natural predators; d) availability and cost of control materials and methods; e) effectiveness of previous control efforts at the site; f) potential for development of resistance in vector populations; g) number of vector breeding sites concurrently requiring some form of vector management activity; h) land-owner policies and/or concerns; and i) proximity to special status species. Therefore, the specific actions taken in response to current or potential vector activity at a specific place and time depends on factors of vector and pathogen biology, physical and biotic environments, human settlement patterns, local standards, available control methods, and institutional and legal constraints. While some consistent vector sources are exposed to repeated control activity, many areas with minor vector activity are not routinely treated, and most of the land within the District Service Area has never been directly treated for vectors.

The District's IMVMP, like any integrated pest management 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 vector organisms through evaluation of public service requests and field surveys of immature and adult vector populations; and then, if the populations exceed predetermined criteria, using the most efficient, effective, and environmentally sensitive means of control. For all mosquito and vector species, public education is an important control strategy. In some situations, water management or other physical control activities can be instituted to reduce breeding sites. The District also uses biological control such as the planting of mosquito fish to manage mosquito populations 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 and vector 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 (e.g. 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, and 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

A range of project alternatives, including the *No Project* alternative (equivalent to "No Action" or discontinuance of the control programs described above) will be developed by the Napa County Mosquito Abatement District, 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 Napa County Mosquito Abatement District'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 the District's website www.napamosquito.org and at the District's office located at: 15 Melvin Road, American Canyon, CA 94503.