

ATTACHMENT 1 WATER QUALITY ORDER 2022-0077-EXEC

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

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# 5A28NP00001
- C. Change of ownership or responsibility: WDID# _____
- D. Enrolled under Order 2011-0002-DWQ: WDID# _____

II. DISCHARGE INFORMATION

- A. Name Napa County Mosquito Abatement District
- B. Mailing Address P.O. Box 10053
- C. City American Canyon
- D. County Napa
- E. State CA
- F. Zip Code 94503
- G. Contact Person Wesley A. Maffei
- H. Email address wesley.maffei@napamosquito.org
- I. Title Manager
- J. Phone 707-553-9610

III. BILLING ADDRESS (Enter information only if different from Section II above)

- A. Name _____
- B. Mailing Address _____
- C. City _____
- D. County _____
- E. State _____

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- 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 Napa 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 and 5
(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. 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

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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

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: Wesley A. Maffei

B. Signature: Wesley A. Maffei Date: 1/30/2024

C. Title: Manager

X. FOR STATE WATER BOARD USE ONLY

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

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Case Handler's Initial: _____ Fee Amount Received: \$ _____ Check#: _____

Napa County Mosquito Abatement District Pesticide Application Plan (PAP)

The Discharger shall develop a Pesticide Application Plan (PAP) that contains the following elements:

- 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 to control vectors. The description shall include adjacent areas, if different from the water body of the target areas.**

Please see attached map (Attachment A). The District is responsible for all potential mosquito and vector breeding sources within the boundaries of Napa County. Typical and historically treated sites will include most if not all water bodies including but not limited to tidal marshes, lakes, ponds, creeks (both year-round and intermittent), storm water systems, waste water systems, flood control channels, and agricultural ditches.

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

Decisions to use pesticides, including what type of pesticide, for control of mosquitoes and other vector organisms include, but are not limited to, growth stage, habitat and conditions that may affect efficacy of certain pesticides, inability to implement BMPs (such as management of water) in a timely fashion to prevent emergence, vector population density and/or vector-borne disease activity that require widespread applications (e.g. ultra low volume applications for adult mosquitoes), potential presence or proximity of species of concern and other sensitive receptors, dispersal behavior of adult vectors and proximity to residential and/or recreational areas, etc.....

Details of these factors can be found in the Napa County MAD 2015 Programmatic Environmental Impact Report; Appendices E and F,
<https://www.napamosquito.org/environmental-documents>

See also the following documents:

- a) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (see: <https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- b) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan (see: <https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)
- c) CDPH 2013 Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks (see: [https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))
- d) MVCAC 2003 Integrated Mosquito Surveillance Program Guidelines for California

submitted as a part of the NOI, dated 27 May 2011, and can be found on the State Water Board website at:
http://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/archives.shtml

- e) CDPH 2023 Guidance for Surveillance of and Response to Invasive Aedes Mosquitoes and Dengue, Chikungunya, and Zika in California. (see: [https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/InvasiveAedesSurveillanceand ResponseinCA.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/InvasiveAedesSurveillanceandResponseinCA.pdf))

All of these documents are a key part of the District's program reviews and overall decision making process.

3. Pesticide products or types expected to be used and if known, their degradation by-products, 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 approved active ingredients rather than having specific products named (State Water Resources Control Board letter dated 12 August 2014 from Deputy Director Victoria Whitney). 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, truck, ATV, backpack, hand can, ULV, helicopter, airplane, or drone according to label instructions.

Active Ingredients

<i>Bacillus thuringiensis</i> subsp. <i>israelensis</i> (Bti)
<i>Bacillus sphaericus</i> (Bs) (<i>Lysinibacillus sphaericus</i>)
Methoprene
Pyriproxyfen
Monomolecular Films
Petroleum Distillates
Spinosad
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.

See also the District's October 2015 Programmatic Environmental Impact Report <https://www.napamosquito.org/environmental-documents>

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;

There are potentially thousands of mosquito and vector breeding sites within the boundaries of Napa County ranging in size from a few square feet to thousands of acres. The number and size of these sites varies from season to season due to a number of factors including but not limited to water use, land use activity, frequency and amount of precipitation, hydroperiod, wind, temperature, density and type of vegetative cover, etc. Therefore, 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 effect long-term solutions to reduce or eliminate the need for continued applications as described in the District's October 2015 Programmatic Environmental Impact Report and its statement of Best Management Practices. The typical sources treated by this District include:

1) Larviciding:

Tidal marsh, freshwater marsh, reclaimed marsh, seasonal wetlands, freshwater seeps, creeks, streams, diked marsh, canals, flood control channels, ditches, storm water detention basins, storm drains, waste water ponds, rainwater gutters, water troughs, water gardens, and various manmade water containers.

2) Adulticiding:

Riparian corridors, oak woodland, tidal marsh, freshwater marsh, reclaimed marsh, seasonal wetland, and diked marsh.

For map of area please see attachment A and response provided to question 1 above.

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

With any mosquito or other vector source, the District'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 discussed in detail in the

District's October 2015 Programmatic Environmental Impact Report (located at: <https://www.napamosquito.org/environmental-documents>).

Examples of specific methods used by the District include the use of mosquito fish (*Gambusia affinis*), providing educational materials to residents on mosquito development in standing water and encouraging removal of sources on their property, working with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. The District also works closely with other agencies that operate within the County in order to promote best management practices amongst those who manage water resources and can have a direct impact on the reduction of mosquito breeding without the use of pesticides.

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

The need to apply pesticides is determined by surveillance. Actual use varies annually depending on mosquito activity. The pesticide amounts presented below were taken from the NCMAD's 2015 Pesticide Use Reports (PUR) submitted to the Napa County Agricultural Commissioner and the District's 2015 NPDES annual report submitted to the State Water Quality Control Board. The data reported is by amount of product used followed by amount of actual active ingredient. This data is provided as an example of the amounts of active ingredients used in one year. Projected future usage may vary depending on weather pattern (precipitation, wind, ambient temperatures, etc.) and management of water and vegetation by landowners. Other public health pesticides in addition to those listed here may also be used as part of the District's best management practices.

Material	Total Inerts + AI	Pounds AI	Gallons AI
Methoprene 5%	4053.9 oz	-----	1.58
Methoprene Pellets	15024 oz	56.34	-----
Methoprene Briquet 30 day	844 ea	0.86	-----
Bti Liquid	16659.7 oz	-----	7.29
Bti Granule	3278 oz	4.52	-----
Bs Granule	801 oz	3.75	-----
Bti + Bs Packet	373 ea	0.37 Bti 0.22 Bs	-----
Petroleum Distillate	12326 oz	-----	93.41
5% Pyrethrin	1 oz	-----	< 0.01

The District identifies vector breeding sites throughout the District and works with property owners and land managers to incorporate District BMPs to reduce or eliminate

vector breeding habitat. Sites where BMPs have been applied include, but are not limited to, flood control channels, ditches, agricultural drains, tidal marshes, duck club habitat, and vegetation management that improves water circulation. These practices have been used where appropriate and efficacious to control mosquitoes.

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 District reviews pre- and post BMP implementation source pesticide use data to determine efficacy and compliance of BMP treatment. For example, the hand ditching work, removal of wood refuse, and vegetation management (including removal of invasive pepperweed) significantly improved water flows and pickleweed vigor within a large tidal marsh between Skaggs Island and Highway 37. The improved water flows have resulted in a 95% reduction in the use of methoprene and Bti products for the control of immature mosquitoes for the last three years.

Please see the District's October 2015 Programmatic Environmental Impact Report for a more detailed discussion of the other BMPs used by the District.
<https://www.napamosquito.org/environmental-documents>

Other documents and BMPs that are a key part of the District's program reviews and overall decision making process include:

- a) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (see: <https://westnile.ca.gov/pdfs/BMPMosquito.pdf>)
- b) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan (see: <https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)
- c) CDPH Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks June 2013 (see: [https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))

9. Description of the BMPs to be implemented. The BMPs shall include, at the minimum:

The District's BMPs are described in its October 2015 Programmatic Environmental Impact Report, MVCAC/CDPH Best Management Practices for Mosquito Control in California, MVCAC/CDPH California Mosquito-borne Virus Surveillance and Response Plan, and the CDPH Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks. Specific Elements have been highlighted below under items a-f.

a. Measures to prevent pesticide spill:

All pesticide applicators receive quarterly spill prevention and response training. District staff monitors application equipment on a daily basis to ensure it remains in proper working order. All vehicles and pesticide storage areas are equipped with spill mitigation and cleanup equipment.

b. Measures to ensure that only a minimum and consistent amount is used:

District application equipment is calibrated each year and is part of the MOU with CDPH. Equipment calibration and pesticide application records are reviewed annually by CDPH (also part of the MOU). However, the pesticide label and associated registration by USEPA and CDPR are the authority of how much product can be legally applied to control the target vector.

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 part of NCMAD's pesticide applicators quarterly pesticide application and safety training and continuing education programs. The District also conducts monthly safety meetings to remind District staff of the potential environmental effects of the various pesticides used. Records are kept of these training sessions for review by the local Agricultural Commissioner and CDPH. Employees certified by the CDPH must annually perform at least 20 hours of CDPH approved Continuing Education units to maintain their certifications.

d. Descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc.:

NCMAD calibrates truck-mounted and handheld larviciding equipment each year to meet application specifications. Supervisors review application records daily to ensure appropriate amounts of material are being used and properly applied. Ultra-low volume (ULV) application equipment is calibrated for output and droplet size to meet label requirements. Aerial larviciding and adulticiding equipment is calibrated by the Contractor to ensure all label requirements are met. Potential drift is closely monitored to ensure applications remain within the target area and adhere to the District's guidelines of minimizing non-target effects.

e. Description of specific BMPs for each pesticide product used:

Please see the District's October 2015 Programmatic Environmental Impact Report as well as the following additional documents:

- a) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- b) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan (<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)
- c) CDPH 2013 Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks ([https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))

The District's October 2015 Programmatic Environmental Impact Report and pesticide labels can be viewed on the District website at <https://www.napamosquito.org>

f. Descriptions of specific BMPs for each type of environmental setting (agriculture, urban, and wetlands).

Please see the District's October 2015 Programmatic Environmental Impact Report, which can be viewed on the District website (<https://www.napamosquito.org/environmental-documents>) as well as the following additional documents:

- a) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- b) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan (<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)
- c) CDPH 2013 Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks ([https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))

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 U.S., 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;

The District's BMPs are described in chapter 2 of its October 2015 Programmatic Environmental Impact Report (PEIR). District thresholds, treatment criteria, equipment use guidelines, and additional information concerning the vector

management decision process can be found in Appendix F of the 2015 PEIR.
<https://www.napamosquito.org/environmental-documents>

NCMAD staff only applies pesticides to sources of mosquitoes and other vectors that represent imminent threats to public and animal health, and quality of life. The presence of any vector may necessitate treatment, however higher thresholds may be applied depending on the District's resources, disease activity, or local needs. Treatment thresholds are based on a combination of one or more of the following criteria:

- Mosquito/vector species present
- Mosquito/vector stage of development
- Health risk or disease potential
- Disease activity
- Mosquito/vector abundance
- Flight range
- Proximity to populated areas
- Size of vector source
- Presence/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats

a. If applicable, establish densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies;

Please see the October 2015 Programmatic Environmental Impact Report, Appendix F. This document can be found on the District's website at:
<https://www.napamosquito.org/environmental-documents>

b. Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;

Please see the following documents:

- a) District's October 2015 Programmatic Environmental Impact Report
<https://www.napamosquito.org/environmental-documents>
- b) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<http://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- c) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan
(<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)

d) CDPH 2013 Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks ([https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))

c. Identify known breeding areas for source reduction, larval control program, and habitat management: and

There are potentially thousands of mosquito and vector breeding sites within the boundaries of Napa County ranging in size from a few square feet to thousands of acres. The number and size of these sites varies from season to season due to a number of factors including, but not limited to, water use, land use activity, frequency and amount of precipitation, hydroperiod, wind, temperature, density and type of vegetative cover, etc. Particularly significant is the fact that any site which 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 affect long-term solutions to reduce or eliminate the need for continued applications. This information is discussed further in the following documents:

- a) District's October 2015 Programmatic Environmental Impact Report
<https://www.napamosquito.org/environmental-documents>
- b) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)

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 utilizes a proactive approach to monitor mosquito/vector presence and activity. Mosquito surveillance traps, dip sampling, mosquito bite counts, public feedback and requests for service, dead bird reports, and visits to known vector producing sites on a weekly basis are but a few of the methods used to obtain appropriate vector abundance and disease activity data that guide control decisions. This information is discussed further in the following documents:

- a) District's October 2015 Programmatic Environmental Impact Report
<https://www.napamosquito.org/environmental-documents>
- b) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- c) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan
(<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)

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 pesticide-free alternatives do not sufficiently reduce the risk to public health, pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

NCMAD uses the principles and practices of integrated vector management (IVM) as described in its October 2015 Programmatic Environmental Impact Report (PEIR). 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 vectors can be found in the District's October 2015 PEIR.

<https://www.napamosquito.org/environmental-documents>

b. Applying pesticides only when vectors are present at a level that will constitute a nuisance.

The NCMAD follows an existing integrated vector management (IVM) program which includes practices described in the Districts October 2015 PEIR, 2023 MVCAC/CDPH Best Management Practices for Mosquito Control in California, and 2023 MVCAC/CDPH California Mosquito-borne Virus Surveillance and Response Plan.

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. 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 2023 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 the District's IVM program.

Please see the following documents:

- a) District's October 2015 Programmatic Environmental Impact Report
<https://www.napamosquito.org/environmental-documents>
- b) CDPH and MVCAC 2023 Best Management Practices for Mosquito Control in Calif. (<https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>)
- c) CDPH and MVCAC 2023 California Mosquito-borne Virus Surveillance and Response Plan
(<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>)
- d) CDPH 2013 Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks ([https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf))

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 the NCMAD and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of the District's California Department of Public Health (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 applicable notices, required in section VIII.B, may be found.

<http://www.napamosquito.org>

References:

Napa County Mosquito Abatement District Programmatic Environmental Impact Report. 2015. Downloaded from:
<http://www.napamosquito.org/environmental-documents>

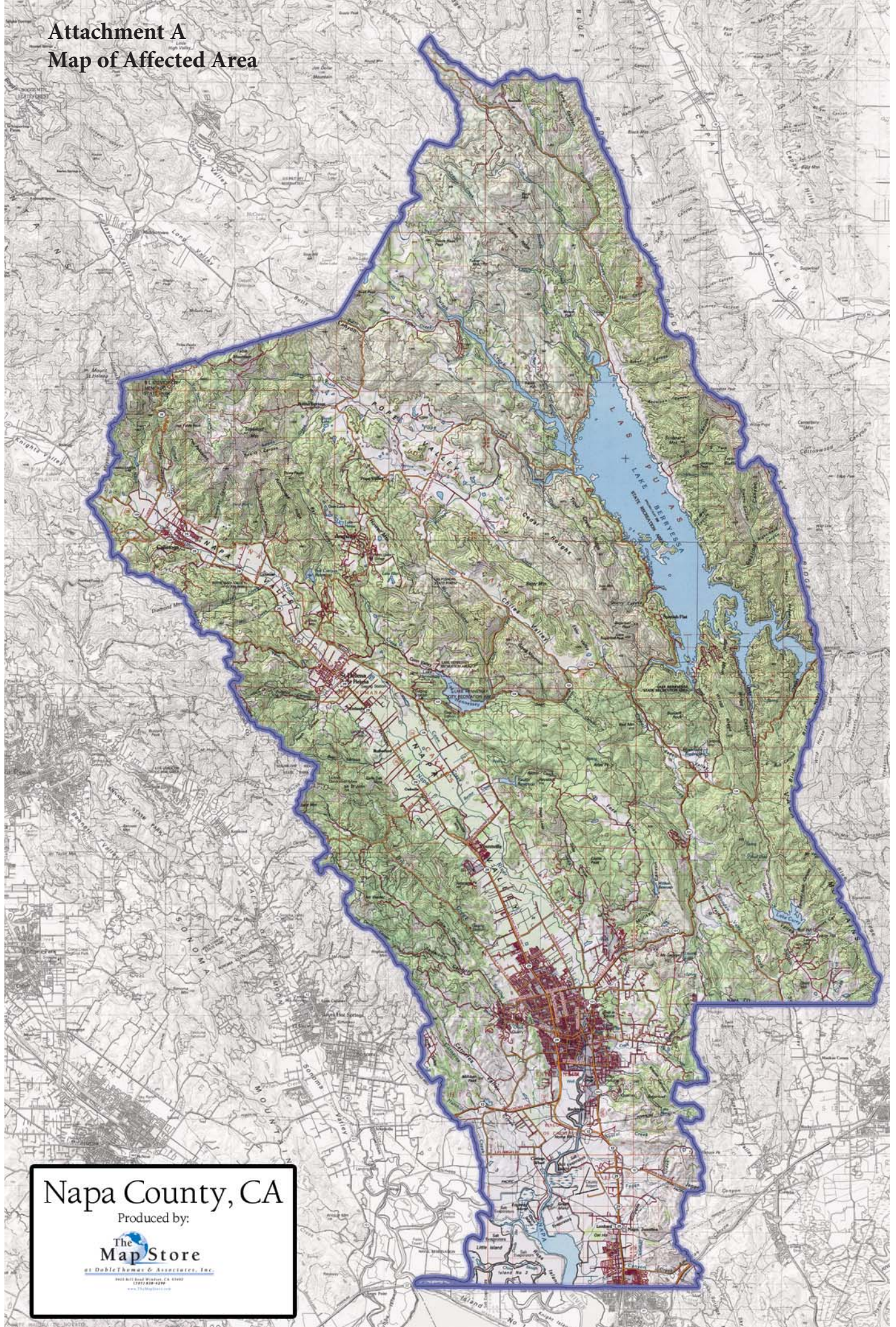
Best Management Practices for Mosquito Control in California. 2023. CDPH and MVCAC
Downloaded from: <https://westnile.ca.gov/pdfs/BMPMosquitoControl.pdf>

California Mosquito-borne Virus Surveillance and Response Plan. 2023. CDPH and MVCAC
Downloaded from:
<https://westnile.ca.gov/pdfs/CAMosquitoSurveillanceResponsePlan.pdf>

Operational Plan for Emergency Response to Mosquito-borne Disease Outbreaks. 2013.
Downloaded from: [https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH Document Library/OperationalPlanMosquitoDisEmergency.pdf](https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/OperationalPlanMosquitoDisEmergency.pdf)

MVCAC 2003 Integrated Mosquito Surveillance Program Guidelines for California
submitted as a part of the NOI, dated 27 May 2011, and can be found on the State
Water Board website at:
http://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/archives.shtml

Attachment A Map of Affected Area



Napa County, CA
Produced by:
The Map Store
a Division of DoubleThomas & Associates, Inc.
1000 Hill Road, Windsor, CA 94590
925.836.1474
www.TheMapStore.com

Attachment B List of Target Areas

Most creeks in Napa County have commonly accepted names. Unfortunately, this is not always the case for tidal, seasonal, and managed marshes. NCMAD has historic names it uses for these wetlands for convenience in coordinating work effort by staff that would otherwise be of little meaning or use to others. Therefore, only generalized descriptions of their locations are given. *It is important to note that when a target area is treated, only that portion of the area that is breeding vectors (e.g. mosquitoes, yellowjackets, etc.) is treated, not the entire body of water.*

A. Creeks and Rivers. Only those Rivers, creeks, and their tributaries with known names are listed. Those creeks and rivers marked with an asterisk have been treated for mosquito breeding in the past.

B. Tidal and Seasonal Wetlands. California Department of Fish and Wildlife Napa Sonoma Marshes (e.g. Sonoma Creek West End Unit and Little Island Farms NRU which is east of HWY 37, American Canyon Unit which is just west of American Canyon, Green Island Unit off of Green Island Rd, Fagan Ecological Reserve which is southwest of Napa Airport, and Huichica Creek Unit south of Duhig Rd). There is also the south Stanly Ranch area managed by CDFW which is both seasonal and tidal and is just south of the HWY 29 Napa River bridge. Napa County Flood Control and Water Conservation District South Wetlands Opportunity Area which is both seasonal and tidal and is just west of Napa and at the end of South Jefferson St.

C. Lakes and Ponds. Limited treatments for mosquitoes occur near most lakes and ponds and then only in very small, limited areas where mosquito breeding has been found. Most of such water bodies are not treated as the wave action of the water is sufficient to prevent mosquito breeding. Areas with dense emergent or marginal vegetation with limited access to fish are where mosquito breeding and treatments occurs.

D. There are numerous storm water detention systems throughout Napa County. These are not listed. These sites are generally treated with larvicides to prevent adult mosquito emergence. The larvicides currently used are usually Bti, *Bacillus sphaericus*, methoprene and Spinosad. Petroleum distillates and other larvicidal products are rarely used.

E. There are numerous winery irrigation and waste water ponds throughout Napa County. These are not listed as they are not known to connect to or drain into waters of the United States.

F. Waste water ponds for American Canyon, Calistoga, Napa, St. Helena, and Yountville are treated with larvicides. The same larvicides and conditions apply as in Item D above.

See list on next page.

LIST OF TARGET AREAS

Creek/River	Creek/River <i>cont.</i>	Lake/Reservoir
Adams Creek	Napa Creek *	Bell Canyon Reservoir
Bale Slough	Napa River *	Deer Lake
Bear Canyon Creek	Nash Creek	Duvall Lake
Biter Creek	Oat Hill Creek	Friesen Lakes
Blossom Creek	Pickle Creek	Kimball Reservoir
Browns Valley Creek *	Pope Creek *	Lake Berryessa
Canon Creek	Putah Creek *	Lake Curry
Capell Creek *	Rector Creek *	Lake Ellen
Carneros Creek *	Redwood Creek *	Lake Hennessey
Cedar Creek	Ritchey Creek	Lake Madigan
Chiles Creek	Routan Creek	Milliken Reservoir
Clear Creek	Sage Creek	Moskowite Reservoir
Congress Valley Creek	Salvador Creek *	Mud Lake
Conn Creek *	Sarco Creek	Rector Reservoir
Cyrus Creek	Sheehy Creek *	Upper Bohn Lake
Diamond Mountain Creek	Soda Creek *	Weeks Lake
Dry Creek *	South Creek	
Dutch Henry Creek	Spencer Creek	
Dyer Creek	Spring Creek	
Eticuera Creek	Sulphur Creek *	
Fagan Creek *	Suscol Creek *	
Foley Creek	Trout Creek	
Garnett Creek	Tulocay Creek *	
Hardin Creek	Van Ness Creek	
Hinman Creek	Vine Hill Creek	
Hirsch Creek	Wing Creek	
Hopper Creek *	Witweather Creek	
Horns Creek	Wooden Valley Creek *	
Horsemans Creek	York Creek *	
Huichica Creek *	Zim Creek	
Knoxville Creek		
Kreuse Creek		
James Creek		
Mill Creek		
Milliken Creek *		
Montgomery Creek		
Moore Creek		
Murphy Creek		

Napa County Mosquito Abatement District

P.O. Box 10053, American Canyon, CA 94503

Napa County Mosquito Abatement District, established in 1925, serves the citizens of Napa County using cost-effective, environmentally responsible integrated vector management practices to abate mosquitoes, other vectors and vector-borne diseases.

3 January 2024

Notice of Intent to Apply Public Health Pesticides for Vector Control Purposes to Surface Waters and Waters of the United States Within Napa Co.

1. The Napa County Mosquito Abatement District intends to make public health pesticide applications to, over, and adjacent to constructed conveyances, surface waters and other waters of the United States, owned and controlled by an entity other than the District for vector control purposes per the requirements of the General NPDES Permit for Biological and Residual Pesticide Discharges for Vector Control Applications.
2. The tables below list the active ingredients (AI's) contained in Public Health Pesticides that have been approved for the Federal Insecticide Fungicide Rodenticide Act (FIFRA) regulated pesticides. Public Health Pesticides allowed that have the potential to be used are:

Active Ingredients for Immature (Larval) Mosquito Control:

Bacillus thuringiensis var. israelensis
Bacillus sphaericus
Methoprene
Pyriproxyfen
Spinosad
Monomolecular Films
Petroleum Distillates

Active Ingredients for Adult Vector Control

Allethrin
Deltamethrin
Esfenvalerate
Etofenprox
Permethrin
Phenothrin
Piperonyl butoxide
Prallethrin
Pyrethrin
Sumithrin

BOARD OF TRUSTEES

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3. The purpose of the use of the listed pesticides is for the control of immature and adult mosquitoes and yellowjackets to reduce annoyance and minimize the threat of mosquito-borne disease.
4. The general time period for the application of pesticides is January 1 through December 31, 2024. The locations of expected use will be surface waters and waters of the United States, and adjacent areas, within Napa County where yellowjackets and immature and adult mosquitoes are found at treatment thresholds.
5. There are no known water use restrictions or precautions during treatment.
6. Interested persons may contact the District at 707-553-9610 to obtain additional information.

Respectfully,



Wesley A. Maffei, Manager
Napa County Mosquito Abatement District

Attachment D		
NPDES Organization Contact List		
Organization	Contact Person	Address
American Canyon Fire Protection District	Geoff Balyea, Fire Chief, District Manager	911 Donaldson Way East, American Canyon, CA 94503
Cal Fire Sonoma Lake, Napa	Mike Marcucci, Chief	1199 Big Tree Road, St. Helena, CA 94574
California Department of Fish and Wildlife, Yountville	Erin Chappell, Region Manager	2825 Cordelia Rd., Unit 100, Fairfield, CA 94534
Calistoga Joint Unified School District	Audra Pittman, Superintendent	1520 Lake Street, Calistoga, CA 94515
Circle Oaks County Water District	Paul Quarneri, District Manager	380 Circle Oaks Drive, Napa, CA 94558-6607
City of American Canyon	Jason Holley, City Manager	jholley@cityofamericancanyon.org
City of Calistoga	Laura Snideman, City Manager	lsnideman@ci.calistoga.ca.us
City of Napa	Steve Potter, City Manager	955 School Street, Napa, CA 94559
City of St. Helena	Anil Comelo, City Manager	1088 College Ave., St. Helena 94574
Congress Valley Water District	Richard Nominni, President	PO Box 3023, Napa, CA 94558
County of Napa	Ryan Alsop, County Executive Officer	1195 Third Street, Napa, CA 94559
County Service Area No. 3	Michael Karath, Staff Services Analyst II	michael.karath@countyofnapa.org
County Service Area No. 4	Alex Carrasco, Staff Services Analyst II	alex.carrasco@countyofnapa.org
Lake Berryessa Resort Improvement District	Steven Lederer, Public Works Director	1195 Third Street, Room 101, Napa, CA 94559
Los Carneros Water District	Jim Lincoln, President	1515 Soscol Ferry Road, Napa, CA 94558
Monticello Public Cemetary District	Steven Lederer, District Manager	1195 Third Street, Room 101, Napa, CA 94559
Napa County Flood Control and Water Conservation District	Richard Thomasser, District Manager	804 First Street, Napa, CA 94559
Napa County Regional Park and Open Space District	Chris Cahill, General Manager	1195 Third Street, Room 210, Napa, CA 94559
Napa County Resource Conservation District	Lucas Patzek, Executive Director	1303 Jefferson Street, Suite 500B, Napa, CA 94559
Napa River Reclamation District #2109	Penny Wilson, District Manager	pennyrrd@msn.com
Napa Sanitation District	Andrew Damron, General Manager	1515 Soscol Ferry Road, Napa, CA 94558
Napa Valley College	Dr. Torence Powell, Superintendent/President	2277 Napa Vallejo Hwy, Napa, CA 94558
Napa Valley Unified School District	Rosanna Mucetti, ED. D., Superintendent	2425 Jefferson Street, Napa, CA 94558
Napa-Berryessa Resort Improvement District	Steven Lederer, Director	1195 Third Street, Room 201, Napa, CA 94559
Pope Valley Cemetery District	Brad Kirkpatrick, President	PO Box 22, Pope Valley, CA 94567
San Pablo Bay National Wildlife Refuge	Melisa Amato, Refuge Manager	2100 CA-37, Petaluma, CA 94954
Silverado Community Services District	Steven Lederer, Director	1195 Third Street, Room 101, Napa, CA 94559
Spanish Flat Water District	Paul Quarneri, General Manager	4340 Spanish Flat Loop Road, Napa, CA 94558
St. Helena Unified School District	Scot Stockwell, Superintendent	465 Main Street, St. Helena, CA 94574
Town of Yountville	Brad Raulston, Town Manager	braulston@yville.com
U.S. Dept. of Interior, Bureau of Reclamation	Ernest Conant, Regional Director	Mid Pacific Regional Office, Federal Building 2800 Cottage Way, Sacramento, CA 95825-1898