

RECEIVED

APR 04 2016

ATTACHMENT E – NOTICE OF INTENT

WATER QUALITY ORDER 2016-XXXX-DWQ
GENERAL PERMIT CAG990004

DIVISION OF WATER QUALITY

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	<input type="checkbox"/> A. New Applicator	<input type="checkbox"/> B. Change of Information: WDID# _____
	<input type="checkbox"/> C. Change of ownership or responsibility: WDID# _____	
	<input checked="" type="checkbox"/> D. Enrolled under Order 2011-0002-DWQ: WDID# 833AP00011	

II. DISCHARGER INFORMATION

A. Name Riverside County Vector Control Program			
B. Mailing Address 4065 County Circle Dr. Rm. 104			
C. City Riverside	D. County Riverside	E. State CA	F. Zip Code 92503
G. Contact Person Dottie Merki	H. Email address dellisme@rivcocha.org	I. Title Program Chief II	J. Phone 951-358-5172

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

A. Name N/A			
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: Riv. Co. Flood Control, EMWD, MWD, CDFW
Name of the conveyance system: flood control channels, retention basins, wetlands

3. Directly to river, lake, creek, stream, bay, ocean, etc.
Name of water body: _____

* 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 7, 8, 9
(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. Pesticides Used: List name, active ingredients and, if known, degradation by-products

See attached list

C. Period of Application: Start Date January End Date December
Peak periods are March - October

D. Types of Adjuvants Added by the Discharger: None

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

VII. NOTIFICATION

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: Keith Jones

B. Signature: *Keith Jones*

Date: 3-15-16

C. Title: Deputy Director

X. FOR STATE WATER BOARD USE ONLY

WDID:	Date NOI Received:	Date NOI Processed:
Case Handler's Initial:	Fee Amount Received: \$	Check #:



County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH

P.O. BOX 7909 • RIVERSIDE, CA 92513-7909

STEVE VAN STOCKUM, DIRECTOR

**Riverside County Department of Environmental Health, Vector Control Program,
Pesticide Application Plan (PAP) 2016**

Riverside County's Vector Control Program is an integral part of the County's Department of Environmental Health whose responsibilities are to reduce the risk of disease transmission by mosquitoes and other vectors, for the residents and visitors of the County. In meeting our responsibilities, it is our mission to utilize the most effective and efficient Best Management Practices (BMPs) to reduce mosquito breeding sources and to minimize the use of pesticides which may have an effect on the environment and waters of the United States.

Description of Target and Adjacent Areas

The service area includes Central, Southern, and Eastern portions of Riverside County. Main Waters of the United States include: the San Jacinto River, the Santa Ana River, the Colorado River, Tocalota Creek, Salt Creek, Warm Springs Creek, Murrieta Creek, Temecula Creek, Lake Skinner, and Diamond Valley Reservoir. Please refer to Attachment A for a map of all target and application areas.

Factors Influencing the Decision to Utilize Pesticides for Mosquito Control

Riverside County is demographically diverse; comprised of urban, suburban, agricultural, and wetland environments. Due to this diversity, there are a multitude of factors that have to be considered prior to the application of pesticides for mosquito control purposes; such as location and type of breeding source with regards to populated areas, biology and species of mosquito competent in vectoring mosquito-borne viruses to incidental hosts, larval densities and their respective developmental stages, and the analysis and risk assessment of surveillance data as outlined in the California Department of Public Health Mosquito-Borne Virus Surveillance and Response Plan. For example: if vegetation is dense, granular larvicide applications may have to be considered to penetrate the canopy.

Types of Pesticides Used and Their Respective Adjuvants and Surfactants

Please refer to the Attachment B for the list of pesticides.



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Description of the Types and Locations of Pesticide Application Areas

Urban Areas

- Abandoned swimming pools/spas
- Residential development storm water BMP's
- Street storm drains
- Flood control channels and basins
- Sewage treatment facilities with tertiary treated holding ponds
- Seasonal creeks and streambeds

Suburban Areas

- Seasonal pools of standing water
- Depressions holding water in fields for agricultural purposes
- Drainage ditches along roadways
- Irrigation and return channels
- Dairy ponds
- Seasonal creeks and streambeds
- DFW operated wetlands

Please refer to Attachment A for a map of all target and application areas.

Alternative Control Methods Used in Mosquito Control and Their Limitations

With any mosquito or other vector source, our Vector Control Program's first goal is to look for ways to eliminate the source; or if that is not possible, 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.

The most critical and important alternative method is the education of residents and public entities on how mosquitoes develop, their influence on public health, and practices to utilize in the removal of/or management of water and vegetation to establish a long term solution that will meet their needs and reduce the need for public health pesticide applications. A major limitation of the educational approach is the level of willingness of the public to realize the severity of the problem and whether or not they have the sincere desire to abate or incorporate water and vegetation management practices.



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The County's Vector Control Program has a strong affinity towards the use of predacious fish (*Gambusia affinis*) in the control of mosquito larva in residential applications (ornamental ponds, abandoned swimming pools), and contained breeding sources in rural and urban environments where propagation of the species will enhance their biological control capabilities. However, evaluation of the breeding source in vegetation density, and water influx for fish survivability must be considered for maximizing their control capabilities. If vegetation is dense or if the source may dry up, then biorational larvicide applications may have to be considered.

Approximate Amount of Annual Pesticide Use

(Amounts were determined based on product used in 2015.)

<u>Product</u>	<u>Ounces</u>
Altosid 30 day Briquettes	129
Altosid Pellets	1,052
Altosid XR Briquettes	1,902
Altosid XRG Granules	7,338
Aqualuer 20-20	191
Aqua Reslin	2,371
BVA 2 Oil	22,220
Scourge	1,367
Vectobac G	10,246
Vectolex FG	9,603
Vectolex WSP	114
Teknar SC	666

The amount of product needed at each application is determined by things like larval densities, amount of vegetation present at the source, etc. Only the minimum amount of pesticide needed to effectively control the mosquito population is used.

Representative Monitoring Locations and the Justification for Selecting These Locations

Please refer to the MVCAC NPDES Coalition Monitoring Plan.



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Evaluation of Available BMPs to Determine Feasible Alternatives to the Pesticide Application Site that could Reduce Potential Water Quality Impacts

The Riverside County Vector Control Program shall continue to examine the possibility of alternatives to reduce the need for applying larvicide and adulticide agents. 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 (by the property owner)
 - Cultural methods
 - Biological control agents
 - Pesticides
- b. Applying pesticides only when vectors are present at a level that will constitute a nuisance
- c. Using the least intrusive method of pesticide application
- d. Public education efforts to reduce potential vector breeding habitat
- e. Applying a decision matrix concept to the choice of the most appropriate formulation

These actions describe our Vector Control Program's existing Integrated Vector Management (IVM) Program, as well as the practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California. Locations where vectors may exist are assessed, and the potential for using alternatives to pesticides are 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 in the Best Management Practices for Mosquito Control in California.



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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 a pesticide-free alternative does not sufficiently reduce the risk of public health, pesticides are considered.

BMPs and their Elements Utilized by the Riverside County Vector Control Program

The County's Vector Control Program BMPs are described in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus and Surveillance and Response Plan. These BMPs incorporate the following:

- a. Spill Prevention – As per our Departmental policy, all pesticide leaks and spills are considered an emergency. We take steps to prevent spillage by storing all pesticides in a secured lockbox and stored within that lockbox in an upright and covered position to prevent any spillage. Our policy also covers the details of what to do if there is a spill.
- b. Minimal Pesticide Usage – When it has been determined that pesticide needs to be used we take measures to assure that we are only applying the amount of product allowed by the label that will yield the best results. We don't agree with the notion that 'more is better'; in fact we prefer to use the least amount of product that is still effective and legal to apply keeping in mind the negative consequences of over treating and under treating.
- c. Adverse Effects Plan – We have trained staff about the adverse effects of the Waters of the U.S. and will continue to remind staff about these effects on an annual basis.
- d. BMPs for Each Mode of Application – We have six different modes of pesticide application (by hand, hand sprayer, truck-mounted sprayers, backpack sprayer, handheld ULV fogger, and truck-mounted ULV fogger).
 - a. By Hand - All products that are applied by hand are either briquettes or granular larvicides. When applying these products we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).



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- b. Hand Sprayers and Truck-Mounted Sprayers – Both types of sprayers are used for applying liquid larvicides. These sprayers are calibrated annually for their output (i.e. how many ounces per minute they can apply). When applying these products we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- c. Backpack Sprayers – The backpack sprayers can apply either a granular larvicide to water or a liquid adulticide to vegetation. These sprayers are calibrated annually for their output (i.e. how many ounces per minute they can apply). When applying these products we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- d. ULV Foggers (truck-mounted and handheld) – Both of these pieces of equipment apply liquid adulticide to the area where adult mosquitoes fly and rest amongst vegetation. These sprayers are calibrated annually for their output (i.e. how many ounces per minute they can apply as well as the size of the droplets applied). When applying these products we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- e. BMPs For Each Product Used – We use a combination of several larvicides and adulticides to control vectors within the Waters of the U.S. Below is a detailed account of each.
 - a. Altosid 30 Day briquettes – These are larvicidal briquettes that are applied by hand and are used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the product is ingested by mosquito larvae and causes growth irregularities preventing the formation of a fully functional adult mosquito. Additional applications of this product might be made to the same area no sooner than 30 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product



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- per a specific target area, all personal protection equipment required, etc.).
- b. Altosid XR briquettes - These are larvicidal briquettes that are applied by hand and are used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the product is ingested by mosquito larvae and causes growth irregularities preventing the formation of a fully functional adult mosquito. Additional applications of this product might be made to the same area no sooner than 90 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
 - c. Altosid Pellets - These are larvicidal pellets that are applied either by hand or by backpack sprayer and used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the product is ingested by mosquito larvae and causes growth irregularities preventing the formation of a fully functional adult mosquito. Additional applications of this product might be made to the same area no sooner than 30 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
 - d. Altosid XR Granular – This is a granular larvicide that is applied either by hand or by backpack sprayer and used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the product is ingested by mosquito larvae and causes growth irregularities preventing the formation of a fully functional adult mosquito. Additional applications of this product might be made to the same area no sooner than 21 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product



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- per a specific target area, all personal protection equipment required, etc.).
- e. BVA 2 Larvicide Oil – This is a liquid larvicide that is applied to the surface of the water with a hand sprayer or a truck-mounted sprayer where there is suspected or confirmed mosquito breeding. The larvicidal action occurs when the product covers the breathing tube of the mosquito larvae and pupae which prevents them from effectively breathing, causing death. Additional applications of this product might be made to the same area no sooner than 14 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
 - f. Teknar SC – This is a liquid larvicide that is applied to the water with a hand sprayer or a truck-mounted sprayer where there is suspected or confirmed mosquito breeding. The larvicidal action occurs when the larvae ingests the product and crystalizes in the gut of the larva, causing death. Additional applications of this product might be made to the same area no sooner than 14 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
 - g. VectoLex FG - This is a granular larvicide and is applied either by hand or by backpack sprayer and used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the larvae ingests the product which crystalizes in the gut of the larva, causing death. Additional applications of this product might be made to the same area no sooner than 14 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and



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- maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- h. VectoLex WSP - This is a granular larvicide within water soluble packaging and is applied either by hand and used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the packet dissolves in water and the larvae ingest the product which crystalizes in the gut of the larva, causing death. Additional applications of this product might be made to the same area no sooner than 14 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- i. VectoBac G - This is a granular larvicide and is applied either by hand or by backpack sprayer and used as per the label in areas where there is confirmed or suspected mosquito breeding. The larvicidal action occurs when the larvae ingests the product which crystalizes in the gut of the larva, causing death. Additional applications of this product might be made to the same area no sooner than 14 days from the original application only if there continues to be confirmed or suspected mosquito breeding. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, etc.).
- j. Aqualuer 20-20 – This is a liquid adulticide that is applied as a mist to the vegetation within the target area where adult mosquitoes have been found. The adulticidal action occurs when the adult mosquito comes in contact with the product whether they are flying in the target area during application or they are resting on vegetation shortly after the application. Additional applications of this product might be made to the same area no sooner than 3 days from the original application only if there continues to be an excessive amount of mosquitoes able to transmit mosquito-borne viruses. When applying this product we make sure that we are following all label requirements (including the minimum and



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- maximum amount of product per a specific target area, all personal protection equipment required, maximum wind speed, etc.).
- k. Aqua Reslin – This is a liquid adulticide that is applied as a mist to the vegetation within the target area where adult mosquitoes have been found. The adulticidal action occurs when the adult mosquito comes in contact with the product whether they are flying in the target area during application or they are resting on vegetation shortly after the application. Additional applications of this product might be made to the same area no sooner than 3 days from the original application only if there continues to be an excessive amount of mosquitoes able to transmit mosquito-borne viruses. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, maximum wind speed, etc.).
- l. Scourge - This is a liquid adulticide that is applied as a fog to the target area where adult mosquitoes have been found. The adulticidal action occurs when the adult mosquito comes in contact with the product when mosquitoes are flying in the target area during application. Additional applications of this product might be made only if there continues to be an excessive amount of mosquitoes able to transmit mosquito-borne viruses. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, maximum wind speed, etc.).
- m. Zenivex - This is a liquid adulticide that is applied as a fog to the target area where adult mosquitoes have been found. The adulticidal action occurs when the adult mosquito comes in contact with the product when mosquitoes are flying in the target area during application. Additional applications of this product might be made only if there continues to be an excessive amount of mosquitoes able to transmit mosquito-borne viruses. When applying this product we make sure that we are following all label requirements (including the minimum and maximum amount of product per a specific target area, all personal protection equipment required, maximum wind speed, etc.).



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- f. Descriptions of specific BMPs for each type of environmental setting (agriculture, urban, and wetlands) - The Vector Control Program field staff will educate the landowner as to the proper ways of creating an unfavorable infrastructure to mosquito breeding for each type of environment. For agricultural areas, land manipulation by the landowner (i.e. the raising and lowering of standing water levels or grading fields to have an appropriate runoff to curtail mosquito breeding) is the most utilized and most effective tool. Urban settings are less available to land manipulation and in the past few years have included an exponential increase in abandoned swimming pools. These pools are either drained by the city or bank that is handling their eventual sale, or minimum amounts of pesticides are applied on a regular basis to maintain control of any mosquito breeding. Mosquito fish can also be utilized in some urban settings where the water will exist for an extended amount of time, such as ornamental ponds. When dealing with wetland environments, the Department of Fish and Wildlife is consulted for the different types of approved mosquito abatement methods. These methods include: the raising and lowering of the water levels, the use of mosquito fish in closed areas, Bti based larvicides, and application of pesticides for adult mosquitoes as a last resort.

Identifying the Problem

Prior to the first pesticide application covered under this General Permit that will result in a discharge of 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 Riverside County Vector Control Program will do the following for each vector management area:

- a. Establishing densities for larval and adult vector populations to serve as action threshold(s) for implementing pest management strategies.

Only those mosquito sources that Vector Control Staff determine to represent imminent threats to public health or quality of life are treated. The presence of any mosquito may necessitate treatment; however,



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higher thresholds may be applied depending on the Vector Control Program's resources, disease activity, 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 or absence of natural enemies or predators
- Presence of sensitive or endangered species.

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

The target vectors within our jurisdiction are as follows: *Culex tarsalis*, *Culex quinquefasciatus*, *Culex erythrothorax*, *Culex stigmatosoma*, *Aedes aegypti*, *Aedes vexans*, *Anopheles hermsi*, *Anopheles franciscanus*. We utilize our IVM universally for all species of mosquito we encounter within our jurisdiction.

- c. Identifying known breeding areas for source reduction, larval control program, and habitat management.

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the Vector Control Program's preferred solution, and whenever possible the Vector Control Program works with property owners to effect long-term solutions to reduce or eliminate the need for continued pesticide applications as described in Best Management Practices for Mosquito Control in California.

- d. Analyzing existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.



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The Riverside County Vector Control Program is an active participant in the California Vector-Borne Disease Surveillance Gateway System. This system has been designed to assist all districts and health agencies throughout California in the interpretation of surveillance results to determine the potential of epizootic events in viral transmission. Provided data is utilized by field staff members in the interpretation of existing BMP source reduction efforts as well as discovering new or potential mosquito breeding areas. The Vector Control Program continually collects adult and larval mosquito surveillance data, dead bird reports, and sentinel chicken test results, and monitors regional mosquito-borne disease activity detected in humans, horses, birds, and /or other animals. This data is used to guide mosquito control activities.

Examining the Possibility of Alternatives

The Riverside County Vector Control Program continues to examine the possibility of alternatives to reduce the need for applying larvicide and adulticide agents. 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 (by the property owner)
 - Biological control agents
 - Pesticides

- b. Applying pesticides only when vectors are present at a level that will constitute a nuisance. The Riverside County Vector Control Program follows an existing IVM program which includes practices previously described in this document.

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 number of vectors may pose a substantial threat to public health and quality of life. In practice, the definition of a 'nuisance' is generally only a part of a decision to apply pesticides to areas covered under this permit. As summarized in the California



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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.

Correct Use of Pesticides

When using pesticides the Vector Control Program's staff ensures that all reasonable precautions are taken to minimize unintended impacts caused by pesticide applications. Reasonable precautions include the right application techniques and equipment, taking into account weather conditions, and the need to protect the environment. Measures are taken to ensure that only the minimum amount of pesticide needed to effectively control the mosquito population is used. All pesticide application equipment is calibrated annually and Program staff is trained annually in the proper use and storage of pesticides. The program supervisor reviews daily treatment records to ensure appropriate amounts of material is being used.

Public Notices

As required from NPDES General Permit Section VIII(B.), public notices can be found at: http://www.rivcoeh.org/opencms/rivcoeh/ProgServices/Food_Program/Vector.html.

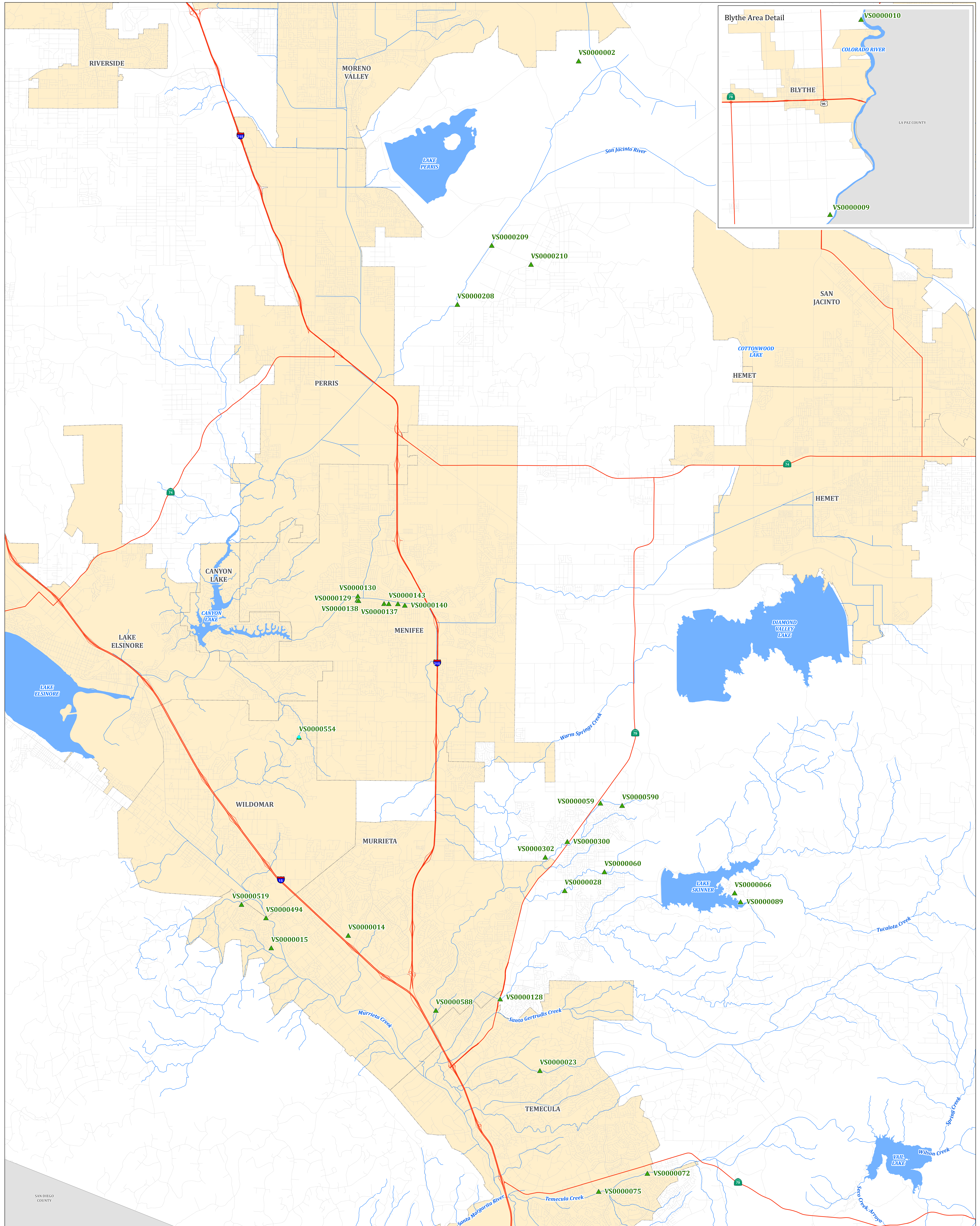
References:

Best Management Practices for Mosquito Control in California. Available by download from the California Department of Public Health—Vector-Borne Disease Section at: <http://www.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx> or <http://www.westnile.ca.gov/resources.php> under the heading Mosquito Control and Repellent Information.

California Mosquito-borne Virus Surveillance and Response Plan.

[Note: this document is updated annually by CDPH]. Available by download from the California Department of Public Health—Vector-Borne Disease Section at: <http://www.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx> or <http://www.westnile.ca.gov/resources.php> under the heading Response Plans and Guidelines. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the Riverside County Department of Environmental Health, Vector Control Program at 951-766-9454

MVCAC NPDES Coalition Monitoring Plan.



- ▲ NPDES Locations
- Waters of the U.S.
- Roads
- Water Bodies
- Cities

APRIL 25, 2016
 J. CLARK



RIVERSIDE COUNTY VECTOR CONTROL

NPDES / WOTUS Locations

**PESTICIDES USED FOR ADULT MOSQUITO CONTROL IN RIVERSIDE COUNTY
RIVERSIDE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
ADULTICIDES**

Active Ingredient	Trade Name	EPA Registration Number	Manufacturer	Treatment Type and Application Method	Adjuvant	Pesticide Classification	Application
Permethrin	Aqualuer 20-20	769-985	All Pro	Handheld or truck mounted ULV, backpack	PBo	Pyrethroid	Adult mosquitoes
Permethrin	Aqua Reslin	432-796	Bayer Environmental Science	Handheld or truck mounted ULV, backpack misting	PBo	Pyrethroid	Adult Mosquitoes
Resmethrin	Scourge	432-716	Bayer Environmental Science	Handheld or truck mounted ULV	PBo	Pyrethroid	Adult Mosquitoes
Etofenprox	Zenivex E4 RTU	2724-087	Wellmark International	Handheld or truck mounted ULV	none	Pyrethroid	Adult Mosquitoes

LARVICIDES

Active Ingredient	Trade Name	EPA Registration Number	Manufacturer	Treatment Type and Application Method	Adjuvant	Pesticide Classification	Application
S-Methoprene	Altosid 30 Day Briquet	2724-375	Wellmark International	Stagnant or Flowing Water, Applied by hand	Inert Ingredient	IGR	Mosquito Larvae
S-Methoprene	Altosid XR Briquet	2724-421	Wellmark International	Stagnant or Flowing Water, Applied by hand	Inert Ingredient	IGR	Mosquito Larvae
S-Methoprene	Altosid Pellets	2724-448	Wellmark International	Stagnant Water, Applied by hand or backpack	Inert Ingredient	IGR	Mosquito Larvae
S-Methoprene	Altosid XR Granular	2724-448	Wellmark International	Stagnant Water, Applied by hand or backpack blower	Inert Ingredient	IGR	Mosquito Larvae
Mineral oil	BVA 2 Larvicide Oil	70589-1	BVA Oils	Surface Water, truck mounted or hand held spray tank	Inert Ingredient	Surface Film	Mosquito Larvae and Pupae
Bacillus thuringiensis, subsp. israelensis strain SA3A	Teknar SC	73049-435	Valent Biosciences	Stagnant or Flowing Water, Applied by truck mounted or hand held spray tank	Inert Ingredient	Biorational	Mosquito Larvae
Bacillus thuringiensis, subsp. israelensis strain AM 65-52	VectoBac G	73049-10	Valent Biosciences	Stagnant Water, Applied by hand or backpack blower	Inert Ingredient	Biorational	Mosquito Larvae
<i>Bacillus sphaericus</i> 2362, Serotype H5a5b, strain ABTS 1743	VectoLex FG and WSP	73049-20	Valent Biosciences	Stagnant Water, Applied by hand or backpack blower	Inert Ingredient	Biorational	Mosquito Larvae