# ATTACHMENT G – NOTICE OF INTENT

## WATER QUALITY ORDER NO. 2011-0002-DWQ
## GENERAL PERMIT NO. CAG 990004

## 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# _____

☐ C. Change of ownership or responsibility: WDID# _____

### II. DISCHARGER INFORMATION

| | | | |
|---|---|---|---|
| A. Name: County of San Diego (Dept. of Environmental Health - Vector Control Program) | | | |
| B. Mailing Address: 5570 Overland Ave. Suite 102 | | | |
| C. City: San Diego | D. County: San Diego | E. State: CA | F. Zip Code: 92123 |
| G. Contact Person: Rebecca Lafreniere | H. Email address: Rebecca.lafreniere@sdcounty.ca.gov | I. Title: Chief | J. Phone: (858) 694-2888 |

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

| | | | |
|---|---|---|---|
| A. Name | | | |
| 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: County owned conveyances and in unincorporated areas.

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
☒ Owner's name: Unincorporated areas in San Diego County and CalTrans.
Name of the conveyance system: many - please see attached map

3. Directly to river, lake, creek, stream, bay, ocean, etc.
☒ Name of water body: Please see Attachment A.

* 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 & 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: X Vector Larvae X Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products

Please see Attachment B.

C. Period of Application: Start Date January 1 End Date December 31

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 PAP 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 General Permit, including developing and implementing a monitoring program, will be complied with."

**A. Printed Name:** Jack Miller

**B. Signature:** _____ **Date:** 6/14/11

**C. Title:** Director

**X. FOR STATE WATER BOARD USE ONLY**

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

**Attachment A**

IV. RECEIVING WATER INFORMATION

3. Directly to river, lake, creek, stream, bay, ocean, etc.

Name of water body:

Anza-Borrego Watershed (San Felipe Creek)
Clark Watershed
Imperial Watershed
West Salton Watershed
Whitewater Watershed

**Attachment B**

V. PESTICIDE APPLICATION INFORMATION

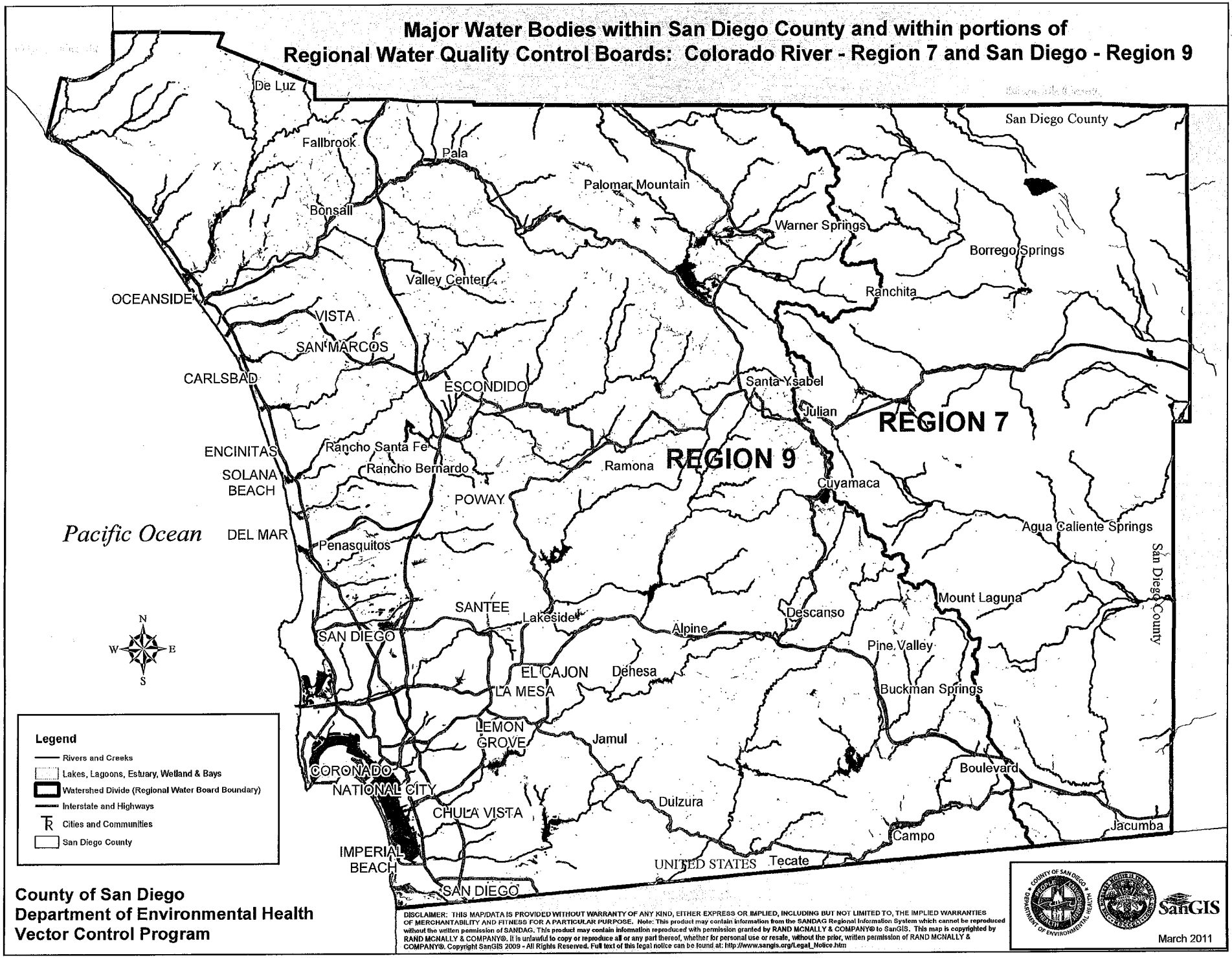
B. Pesticides Used: List name, active ingredient and, if known, degradation by-products

| Product Name | Active Ingredient |
|---|---|
| **Larvicides:** | |
| Aquabac 200G | *Bacillus thuringensis* subspecies *israelensis* |
| FourStar Briquets 45 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 90 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 180 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Mosquito Larvicide GB-1111 | mineral oil |
| Spheratax SPH (50 G) | *Bacillus sphaericus* |
| VectoLex CG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WDG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WSP Biological Larvicide | *Bacillus sphaericus* |
| VectoMax G Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| VectoMax WSP Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Zoecon Altosid Briquets | methoprene |
| Zoecon Altosid Pellets | methoprene |
| Zoecon Altosid XR Extended Residual Briquets | methoprene |
| Zoecon Altosid XR-G | methoprene |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| | |
|---|---|
| **Adulticides:** | |
| Pyrenone 25-5 | pyrethrins, piperonyl butoxide |
| Pyrocide | pyrethrins, piperonyl butoxide |
| Scourge 4/12 | resmithrin, piperonyl butoxide |

# Major Water Bodies within San Diego County and within portions of Regional Water Quality Control Boards: Colorado River - Region 7 and San Diego - Region 9




**County of San Diego**
**Department of Environmental Health**
**Vector Control Program**



SanGIS

March 2011

# County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
COMMUNITY HEALTH DIVISION
5570 OVERLAND AVENUE, SUITE 102 SAN DIEGO, CA 92123
(858) 694-2888 FAX (858) 571-4268
1-800-253-9933
www.SDVector.com

LIZ POZZEBON
ASSISTANT DIRECTOR

June 14, 2011

**NOTICE TO POTENTIALLY INTERESTED AGENCIES**

City of Carlsbad
City of Chula Vista
City of Coronado
City of Del Mar
City of El Cajon
City of Encinitas
City of Escondido
City of Imperial Beach
City of La Mesa
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego
City of San Marcos
City of Santee
City of Solana Beach
City of Vista
United States Army Corps of Engineers
CalTrans
California Department
State Department of Parks and Rec.
United States Fish and Wildlife Service
County of San Diego DPW & Parks and Rec

**County of San Diego (Department of Environmental Health - Vector Control Program) Notice of Intent to continue to apply Aquatic Larvicides for Vector Control as part of the Program's Integrated Vector Management approach.**

To Whom It May Concern:

On March 1, 2011, the State Water Resources Control Board adopted the National Pollutant Discharge Elimination System (NPDES) Permit (Order No. 2011-0002-DWQ) [NPDES NO. CAG 990004] with an implementation date of October 31, 2011. Pursuant to the provisions stated in the permit, notice is hereby given that the County of San Diego, Department of Environmental Health – Vector Control Program (VCP) intends to continue to perform larvicide applications as part of its Integrated Vector Management activities.

The VCP's activities are conducted year-round within all 18 cities and unincorporated areas of San Diego County. The areas that will be actually or potentially impacted by the VCP activities include the following: the incorporated cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach and Vista as well as unincorporated areas of San Diego County. Treated areas may be under the jurisdiction of the San Diego County Department of Public Works and Department of Parks and Recreation, CalTrans, United States Army Corps of Engineers, United States Fish and Wildlife Service, the California Department of Fish and Game and the California Department of Parks and Recreation.

Larvicide applications are made in an effort to protect the public's health from vector-borne diseases, are based on key vector and arbovirus surveillance indicators and in strict compliance with pesticide label requirements. The following materials may be used:

| Product Name | Active Ingredient |
|---|---|
| **Larvicides:** | |
| Aquabac 200G | *Bacillus thuringensis* subspecies *israelensis* |
| FourStar Briquets 45 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 90 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 180 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Mosquito Larvicide GB-1111 | mineral oil |
| Spheratax SPH (50 G) | *Bacillus sphaericus* |
| VectoLex CG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WDG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WSP Biological Larvicide | *Bacillus sphaericus* |
| VectoMax G Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| VectoMax WSP Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Zoecon Altosid Briquets | methoprene |
| Zoecon Altosid Pellets | methoprene |
| Zoecon Altosid XR Extended Residual Briquets | methoprene |
| Zoecon Altosid XR-G | methoprene |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| | |
|---|---|
| **Adulticides:** | |
| Pyrenone 25-5 | pyrethrins, piperonyl butoxide |
| Pyrocide | pyrethrins, piperonyl butoxide |
| Scourge 4/12 | resmithrin, piperonyl butoxide |

If you have any questions regarding this Notice of Intent, please contact the Vector Control Program at (858) 694-2888 or vector@sdcounty.ca.gov.

Sincerely,

Rebecca Lafreniere

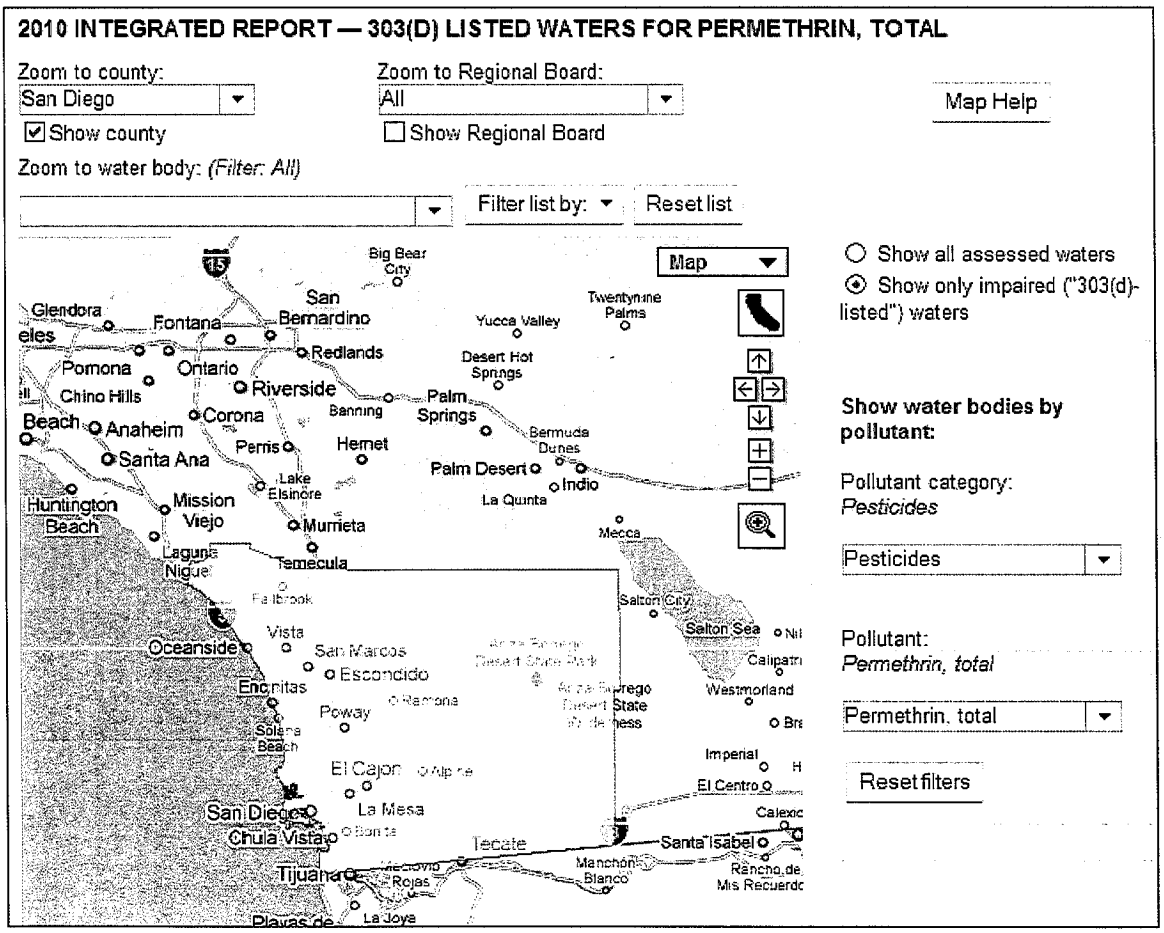
Rebecca Lafreniere, Chief
Community Health Division

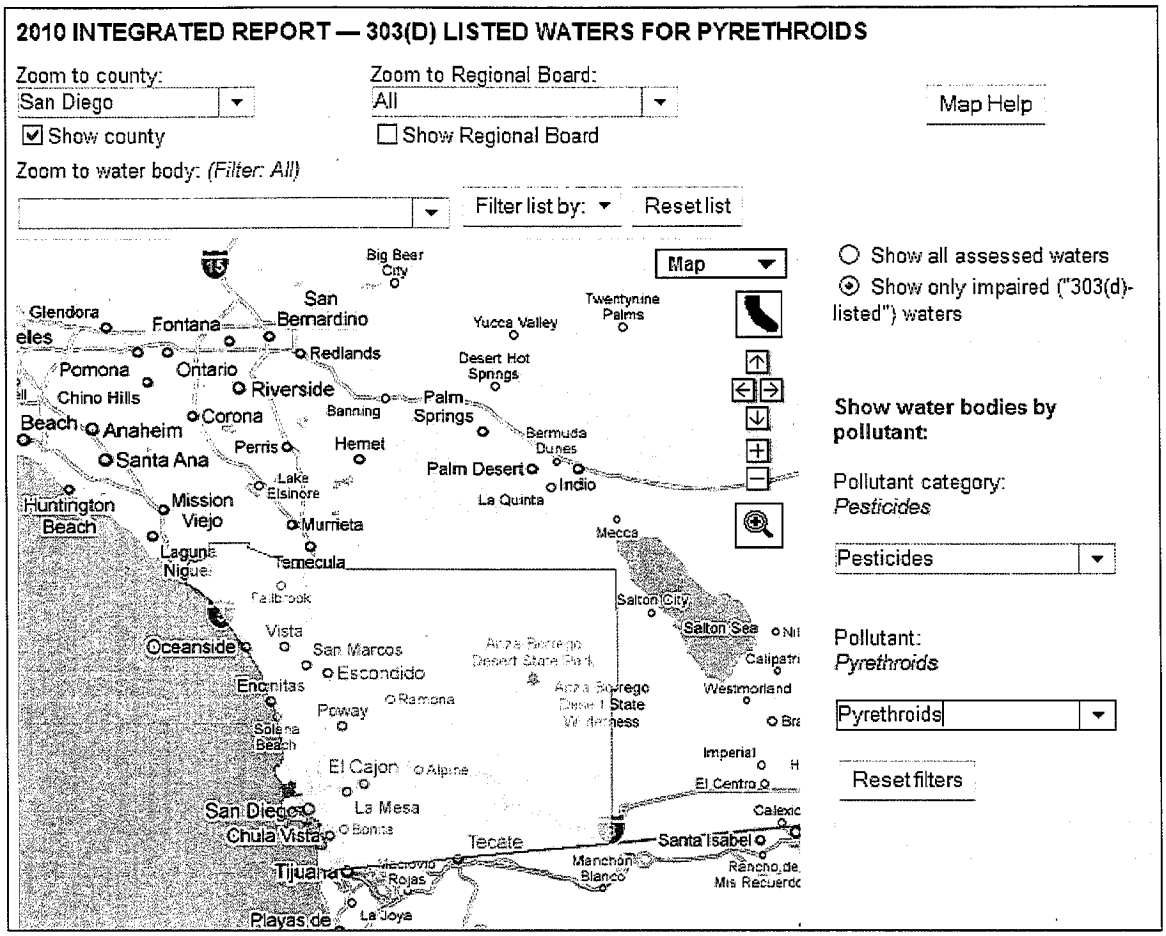
# County of San Diego
# Department of Environmental Health
# Vector Control Program
# Pesticides Application Plan (PAP)

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 or may be applied to control vectors. The description shall include adjacent areas, if different from the water body of the target areas;**

San Diego County is bounded by the US-Mexico International border on the south, by Imperial County on the east, by Orange County and Riverside County to the north, and by the Pacific Ocean on the west. Please see attached map for identified water bodies.

According to the State Water Resources Control Board, there are no 303(d) listed water bodies in San Diego County impaired for the pesticides that the San Diego County, Department of Environmental Health - Vector Control Program (VCP or program) applies. The following images show search results with no waters identified as impaired for resmithrin (Scourge) and pyrethrin (Pyrenone, Pyrocide) use. There were no search options available for the following aquatic pesticides that are currently in use, listed by active ingredient: *Bacillus thuringensis israelensis* (AquaBac, VectoMax), *Bacillus sphaericus* (VectoLex, VectoMax), methoprene (Altosid), and mineral oil (Mosquito Larvicide GB-111).






2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control;**
   Please see the Best Management Practices for Mosquito Control in California[1].

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;**
   Please see Attachments E and F within the NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the U.S. for Vector Control Applications. Products may be applied by hand, truck, backpack, hand can, helicopter, or airplane according to label directions.

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

[1] http://www.westnile.ca.gov/resources.php

California. The typical sources treated by this program include: creeks, channels (lined and unlined), ponds, basins/sumps, BMPs, marshes (salt and fresh), drains, lagoons, lakes, pools, rivers, estuaries, canyons, and others. Please see the attached map.

5. **Other control methods used (alternatives) and their limitations;**
With any source of mosquitoes or other vectors, the VCP's first goal is to look for ways to eliminate the source, or if that is not possible, for ways to reduce the potential for vectors. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California.

Specific alternative control measures used by the VCP include:

- stocking mosquito fish (*Gambusia affinis*) at distribution centers throughout the county for businesses and the public use, free of charge
- utilizing mosquito fish in green pools and ornamental water features
- creating and funding a Vector Habitat Remediation Program to empower communities to ameliorate chronic mosquito breeding sites
- environmental modifications to drain standing water sources
- extensive public education outreach for preventing vector-borne diseases that includes presentations, participation in public health fairs, a text message campaign, public service announcements, videos, web-based content, and school curricula

6. **How much product is needed and how this amount was determined;**
The need to apply product is determined by surveillance. Actual use varies annually depending on mosquito abundance. The pesticide amounts presented below were taken from the VCP's 2010 PUR as an estimate of pesticide use in 2011. Other public health pesticides in addition to those listed below may be used as part of the program's best management practices.

Summary of Pesticide Applications for 2010

| Product Name | Manufacturer Name | EPA Reg # | Amount | Units |
|---|---|---|---|---|
| Aquabac 200G Mosquito Larvicide | Beker Microbial Products | 62637-3 | 16649.6 | lb |
| GB-1111 | Clarke Mosquito | 8329-72 | 585.9 | gal |
| Vectolex CG | Valent BioScience Corp | 73049-20 | 28443.1 | lb |
| Vectolex WSP | Valent BioScience Corp | 73049-20 | 24.5 | lb |
| VectoMax | Valent BioScience Corp | 73049-429 | 18175 | lb |
| Zoecon Altosid Pellets | Wellmark International | 2724-448 | 1123.7 | lb |
| Zoecon Altosid XR Extended Residual Briquets | Wellmark International | 2724-421 | 32.4 | lb |
| Zoecon Altosid Briquets | Wellmark International | 2724-375 | 30.9 | lb |

The VCP is in possession of the following pesticides, although they were not applied in 2010.

| Product Name | Manufacturer Name | EPA Reg # |
|---|---|---|
| FourStar Briquets 45 | FourStar Microbials LLC | 83362-3 |
| FourStar Briquets 80 | FourStar Microbials LLC | 83362-3 |
| FourStar Briquets 190 | FourStar Microbials LLC | 83362-3 |
| Spheratax SPH (50 G) | Advanced Microbiologics LLC | 84268-2 |
| VectoLex WDG | Valent BioScience Corp | 73049-57 |
| Zoecon Altosid XR-G | Wellmark International | 2724-451 |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| Product Name | Manufacturer Name | EPA Reg # |
|---|---|---|
| Pyrenone 25-5 | Bayer Environmental Science | 432-1050 |
| Pyrocide | McLaughlin Gormley King Co. | 1021-1569 |
| Scourge 4/12 | Bayer Environmental Science | 432-716 |

7. **Representative monitoring locations* and the justification for selecting these monitoring 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; and**
   Please see the Best Management Practices for Mosquito Control in California.

9. **Description of the BMPs to be implemented. The BMPs shall include at a minimum:**
   The VCP's BMPs are described in the Best Management Practices for Mosquito Control in California and in the California Mosquito-borne Virus Surveillance and Response Plan[2]. Specific elements have been highlighted below under items a-f.
   a. **measures to prevent pesticide spill;**

[2] http://www.westnile.ca.gov/resources.php

All pesticide applicators receive annual spill prevention and response training. Program employees ensure daily that application equipment is in proper working order. Spill mitigation devices are placed in all vehicles and pesticide storage areas.

b. **measures to ensure that only a minimum and consistent amount is used**
Application equipment is calibrated at least annually as required by the Department of Pesticide Regulations (DPR) and the terms of a cooperative agreement with the California Department of Public Health (CDPH).

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 will be included in our pesticide applicators annual pesticide application and safety training, continuing education programs, and/or regional NPDES Permit training programs.

d. **descriptions of specific BMPs for each application mode, e.g. aerial, truck, hand, etc.;**
The VCP 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. Ultra-low volume (ULV) application equipment is calibrated for output and droplet size to meet label requirements. Aerial larviciding equipment is calibrated by the Contractor. Aerial adulticide equipment is calibrated regularly and droplet size will be monitored by the program to ensure droplets meet label requirements.

e. **descriptions of specific BMPs for each pesticide product used; and**
Please see the Best Management Practices for Mosquito Control in California for general pesticide application BMPs, and the current approved pesticide labels for application BMPs for specific products.

f. **descriptions of specific BMPs for each type of environmental setting (agricultural, urban, and wetland).**
Please see the Best Management Practices for Mosquito Control in California.

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

    The VCP staff only apply pesticides to sources of mosquitoes that represent imminent threats to public health or quality of life. The presence of any mosquito

may necessitate treatment, however higher thresholds may be applied depending on the program's resources, disease activity, surveillance data, 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/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats.

b. **Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;** Please see the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan.

c. **Identify known breeding areas for source reduction, larval control program, and habitat management; and**
Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the program's preferred solution, and whenever possible the program works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as described in the Best Management Practices for Mosquito Control in California.

d. **Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.**
This is included in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that the program uses. The VCP 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, and uses these data to guide mosquito control activities.

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.**

The VCP uses an integrated approach consistent with the principles and practices of Integrated Vector Management (IVM) as described on pages 26 and 27 of the Best Management Practices for Mosquito Control in California. As stated in item #10 above, 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 mosquitoes are listed on pages 4-19 of the Best Management Practices for Mosquito Control in California.

In addition, in 2009 the VCP developed the Vector Habitat Remediation Program (VHRP) for long-term solutions to historically chronic mosquito breeding sites. Under this program, grant funding is offered to landowners and managers, including public sector entities, to physically alter chronic mosquito breeding sites. In order to reduce disease transmission the VHRP controls mosquito populations by physically altering habitat which reduces mosquito breeding throughout San Diego County. The remediation of water bodies by reduction of overgrown vegetation and accumulated sediment enhances and restores water flow providing for the long-term reduction of mosquito breeding. The VHRP funds project that reduce and/or eliminate mosquito breeding grounds in established wetlands, flood control facilities and stormwater treatment facilities. The VHRP takes into consideration the biological and hydrological values of wetlands and the need to protect human populations and animals from mosquito-borne diseases.

Implementing preferred alternatives depends on a variety of factors including availability of program 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 to public health, pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

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

The VCP follows an existing IVM program which includes practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California.

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 part of a decision to apply pesticides to areas covered under this permit. As summarized in the 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 our IVM program.

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 VCP, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our 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 public notices, required in Section VIII.B, may be found.**
http://www.SDVector.com

**References:**

Best Management Practices for Mosquito Control in California. 2010. Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading *Mosquito Control and Repellent Information*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the County of San Diego Vector Control Program at (858) 694-2888.

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [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.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 County of San Diego Vector Control Program at (858) 694-2888.

MVCAC NPDES Coalition Monitoring Plan. 2011. [In development at the time of this draft]

## ATTACHMENT G – NOTICE OF INTENT

### WATER QUALITY ORDER NO. 2011-0002-DWQ
### GENERAL PERMIT NO. CAG 990004

### 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# _____

☐ C. Change of ownership or responsibility: WDID# _____

**II. DISCHARGER INFORMATION**

| A. Name | | | |
|---|---|---|---|
| County of San Diego (Dept. of Environmental Health - Vector Control Program) | | | |
| B. Mailing Address | | | |
| 5570 Overland Ave., Suite 102 | | | |
| C. City | D. County | E. State | F. Zip Code |
| San Diego | San Diego | CA | 92123 |
| G. Contact Person | H. Email address | I. Title | J. Phone |
| Rebecca Lafreniere | Rebecca.Lafreniere@sdcounty.ca.gov | Chief | (858)694-2888 |

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

| A. Name | | | |
|---|---|---|---|
| | | | |
| 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: County owned conveyances and in unincorporated areas.

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
☒ Owner's name: Please see Attachment A.
Name of the conveyance system: many - please see attached map

3. Directly to river, lake, creek, stream, bay, ocean, etc.
☒ Name of water body: Please see 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 7 + 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: X Vector Larvae X Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products
Please see Attachment C.

C. Period of Application: Start Date January 1 End Date December 31

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 PAP 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 General Permit, including developing and implementing a monitoring program, will be complied with."

**A. Printed Name:** Jack Miller

**B. Signature:** _____ **Date:** 6/14/11

**C. Title:** Director

**X. FOR STATE WATER BOARD USE ONLY**

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

**Attachment A**

IV. RECEIVING WATER INFORMATION

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.

Owner's name: CalTrans
City of Carlsbad
City of Chula Vista
City of Coronado
City of Del Mar
City of El Cajon
City of Encinitas
City of Escondido
City of Imperial Beach
City of La Mesa
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego
City of San Marcos
City of Santee
City of Solana Beach
City of Vista
unincorporated areas in San Diego County

**Attachment B**

IV. RECEIVING WATER INFORMATION

3. Directly to river, lake, creek, stream, bay, ocean, etc.

Name of water body:

San Juan Watershed (San Mateo Creek, San Onofre Creek, Las Flores Creek)
Santa Margarita Watershed (Santa Margarita River, Temecula Creek, Murrieta Creek, Santa Margarita Lagoon, Vail Lake, Skinner Reservoir, and Diamond Valley Lake Reserve)
San Luis Rey River Watershed (San Luis Rey River and Lake Henshaw)
Carlsbad Watershed (Loma Alta Creek, Buena Vista Creek, Buena Vista Lagoon, Agua Hedionda Creek, Agua Hedionda Lagoon, San Marcos Creek, Batiquitos Lagoon, Escondido Creek, San Elijo Lagoon, and Lake Wolhford)
San Dieguito Watershed (San Dieguito River, San Dieguito Lagoon, and Lake Hodges)
Peñasquitos Watershed (Los Peñasquitos Creek, Los Peñasquitos Lagoon, Rose Creek, Tecolote Creek, Mission Bay, Miramar Reservoir)
San Diego River Watershed (San Diego River, El Capitan Reservoir, San Vincente Reservoir, Lake Murray, Boulder Creek, Santee Lakes)
Pueblo Watershed (Chollas Creek, Paleta Creek, and San Diego Bay)
Sweetwater Watershed (Sweetwater River, Sweetwater Reservoir, Loveland Reservoir, and San Diego Bay)
Otay Watershed (Upper and Lower Otay Reservoirs, Otay River, San Diego Bay)
Tijuana Watershed (Tijuana Estuary, Tijuana River, Cottonwood Creek, Pine Valley, Campo Creek, Barrett Lake, Lake Moreno).

**Attachment C**

V. PESTICIDE APPLICATION INFORMATION

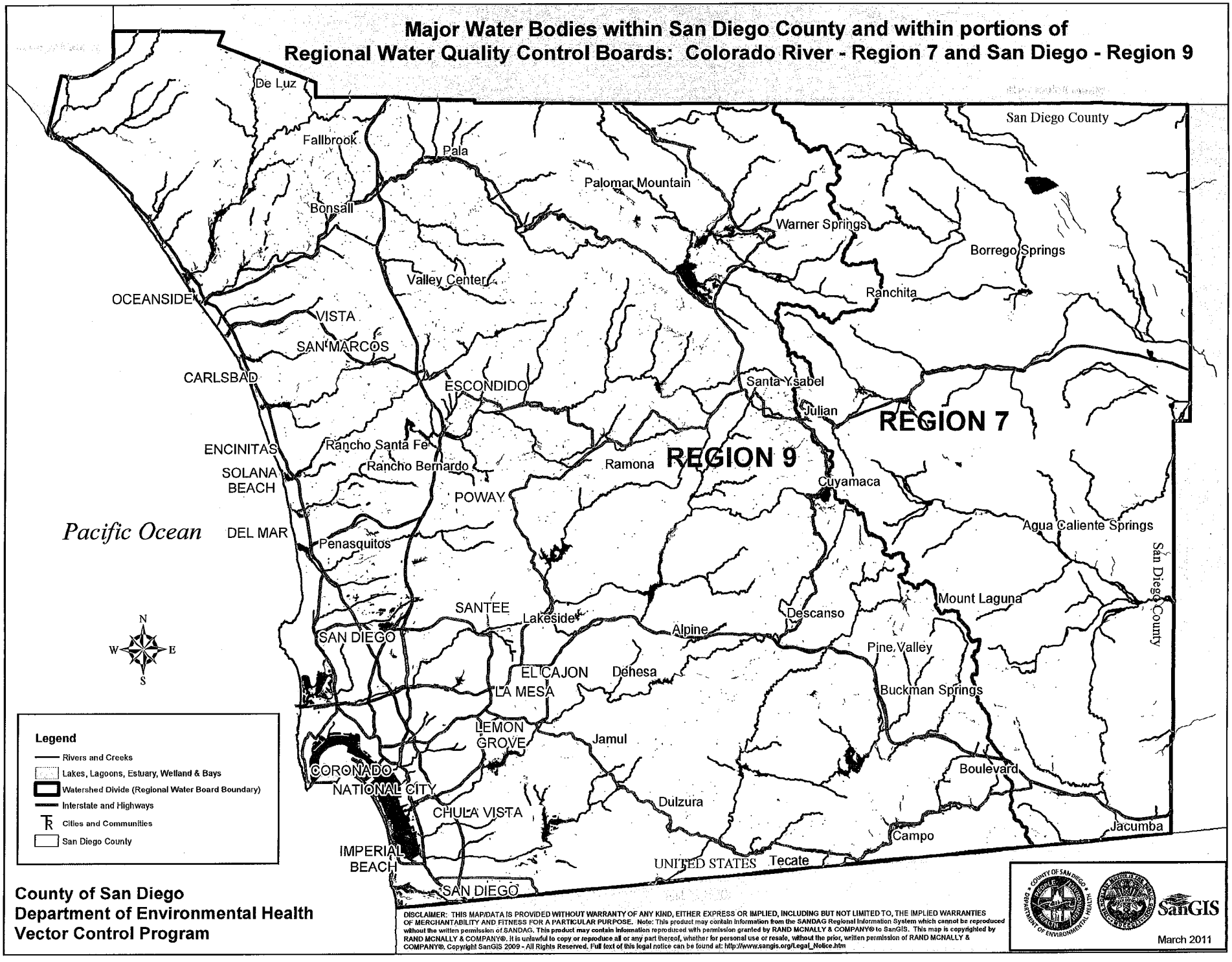
B. Pesticides Used: List name, active ingredient and, if known, degradation by-products

| Product Name | Active Ingredient |
|---|---|
| **Larvicides:** | |
| Aquabac 200G | *Bacillus thuringensis* subspecies *israelensis* |
| FourStar Briquets 45 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 90 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 180 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Mosquito Larvicide GB-1111 | mineral oil |
| Spheratax SPH (50 G) | *Bacillus sphaericus* |
| VectoLex CG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WDG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WSP Biological Larvicide | *Bacillus sphaericus* |
| VectoMax G Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| VectoMax WSP Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Zoecon Altosid Briquets | methoprene |
| Zoecon Altosid Pellets | methoprene |
| Zoecon Altosid XR Extended Residual Briquets | methoprene |
| Zoecon Altosid XR-G | methoprene |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| | |
|---|---|
| **Adulticides:** | |
| Pyrenone 25-5 | pyrethrins, piperonyl butoxide |
| Pyrocide | pyrethrins, piperonyl butoxide |
| Scourge 4/12 | resmithrin, piperonyl butoxide |

# Major Water Bodies within San Diego County and within portions of Regional Water Quality Control Boards: Colorado River - Region 7 and San Diego - Region 9




**County of San Diego**
**Department of Environmental Health**
**Vector Control Program**



SanGIS

March 2011

# County of San Diego

JACK MILLER
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
COMMUNITY HEALTH DIVISION
5570 OVERLAND AVENUE, SUITE 102 SAN DIEGO, CA 92123
(858) 694-2888 FAX (858) 571-4268
1-800-253-9933
www.SDVector.com

LIZ POZZEBON
ASSISTANT DIRECTOR

June 14, 2011

**NOTICE TO POTENTIALLY INTERESTED AGENCIES**

City of Carlsbad
City of Chula Vista
City of Coronado
City of Del Mar
City of El Cajon
City of Encinitas
City of Escondido
City of Imperial Beach
City of La Mesa
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego
City of San Marcos
City of Santee
City of Solana Beach
City of Vista
United States Army Corps of Engineers
CalTrans
California Department
State Department of Parks and Rec.
United States Fish and Wildlife Service
County of San Diego DPW & Parks and Rec

**County of San Diego (Department of Environmental Health - Vector Control Program) Notice of Intent to continue to apply Aquatic Larvicides for Vector Control as part of the Program's Integrated Vector Management approach.**

To Whom It May Concern:

On March 1, 2011, the State Water Resources Control Board adopted the National Pollutant Discharge Elimination System (NPDES) Permit (Order No. 2011-0002-DWQ) [NPDES NO. CAG 990004] with an implementation date of October 31, 2011. Pursuant to the provisions stated in the permit, notice is hereby given that the County of San Diego, Department of Environmental Health – Vector Control Program (VCP) intends to continue to perform larvicide applications as part of its Integrated Vector Management activities.

The VCP's activities are conducted year-round within all 18 cities and unincorporated areas of San Diego County. The areas that will be actually or potentially impacted by the VCP activities include the following: the incorporated cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach and Vista as well as unincorporated areas of San Diego County. Treated areas may be under the jurisdiction of the San Diego County Department of Public Works and Department of Parks and Recreation, CalTrans, United States Army Corps of Engineers, United States Fish and Wildlife Service, the California Department of Fish and Game and the California Department of Parks and Recreation.

Larvicide applications are made in an effort to protect the public's health from vector-borne diseases, are based on key vector and arbovirus surveillance indicators and in strict compliance with pesticide label requirements. The following materials may be used:

| Product Name | Active Ingredient |
|---|---|
| **Larvicides:** | |
| Aquabac 200G | *Bacillus thuringensis* subspecies *israelensis* |
| FourStar Briquets 45 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 90 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| FourStar Briquets 180 | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Mosquito Larvicide GB-1111 | mineral oil |
| Spheratax SPH (50 G) | *Bacillus sphaericus* |
| VectoLex CG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WDG Biological Larvicide | *Bacillus sphaericus* |
| VectoLex WSP Biological Larvicide | *Bacillus sphaericus* |
| VectoMax G Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| VectoMax WSP Biological Larvicide | *Bacillus thuringensis* subspecies *israelensis*, *Bacillus sphaericus* |
| Zoecon Altosid Briquets | methoprene |
| Zoecon Altosid Pellets | methoprene |
| Zoecon Altosid XR Extended Residual Briquets | methoprene |
| Zoecon Altosid XR-G | methoprene |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| | |
|---|---|
| **Adulticides:** | |
| Pyrenone 25-5 | pyrethrins, piperonyl butoxide |
| Pyrocide | pyrethrins, piperonyl butoxide |
| Scourge 4/12 | resmithrin, piperonyl butoxide |

If you have any questions regarding this Notice of Intent, please contact the Vector Control Program at (858) 694-2888 or vector@sdcounty.ca.gov.

Sincerely,

Rebecca Lafreniere

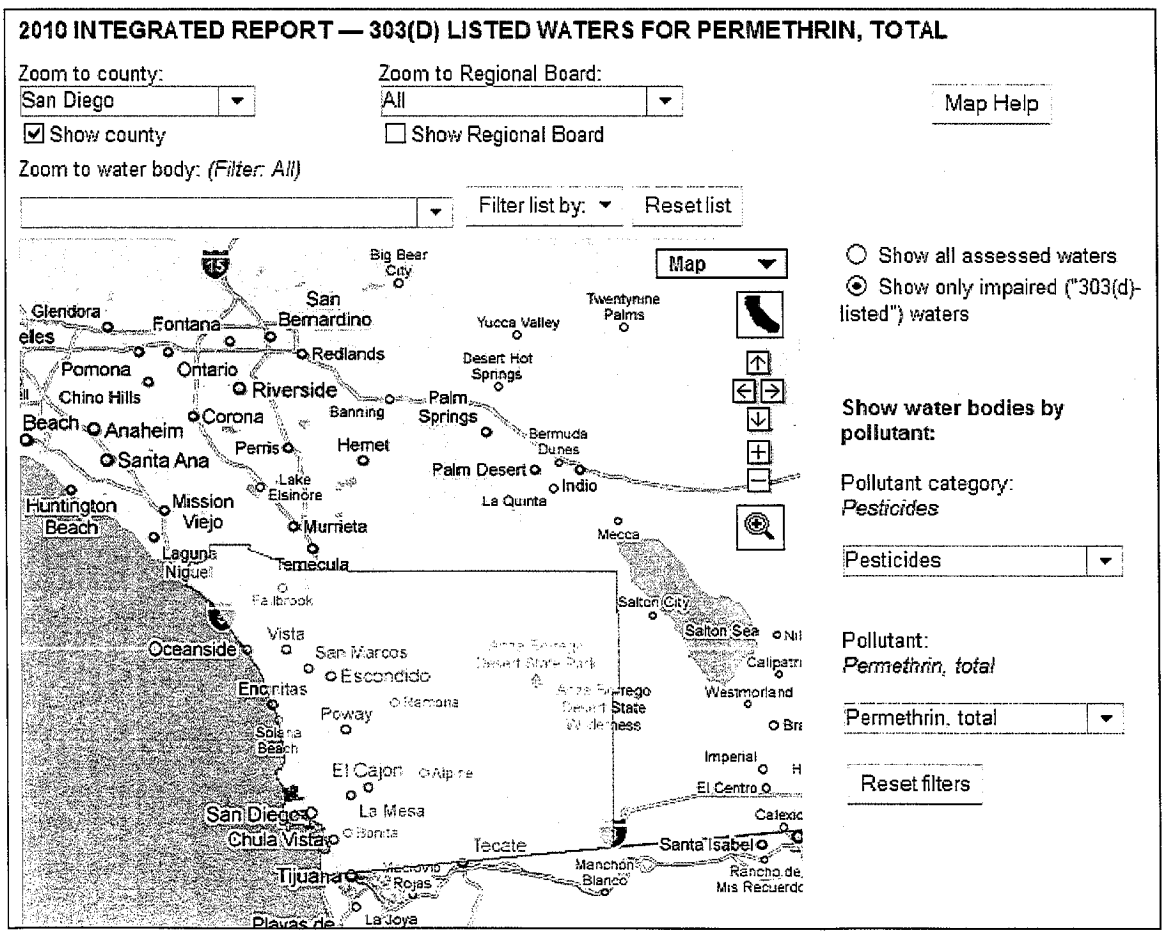
Rebecca Lafreniere, Chief
Community Health Division

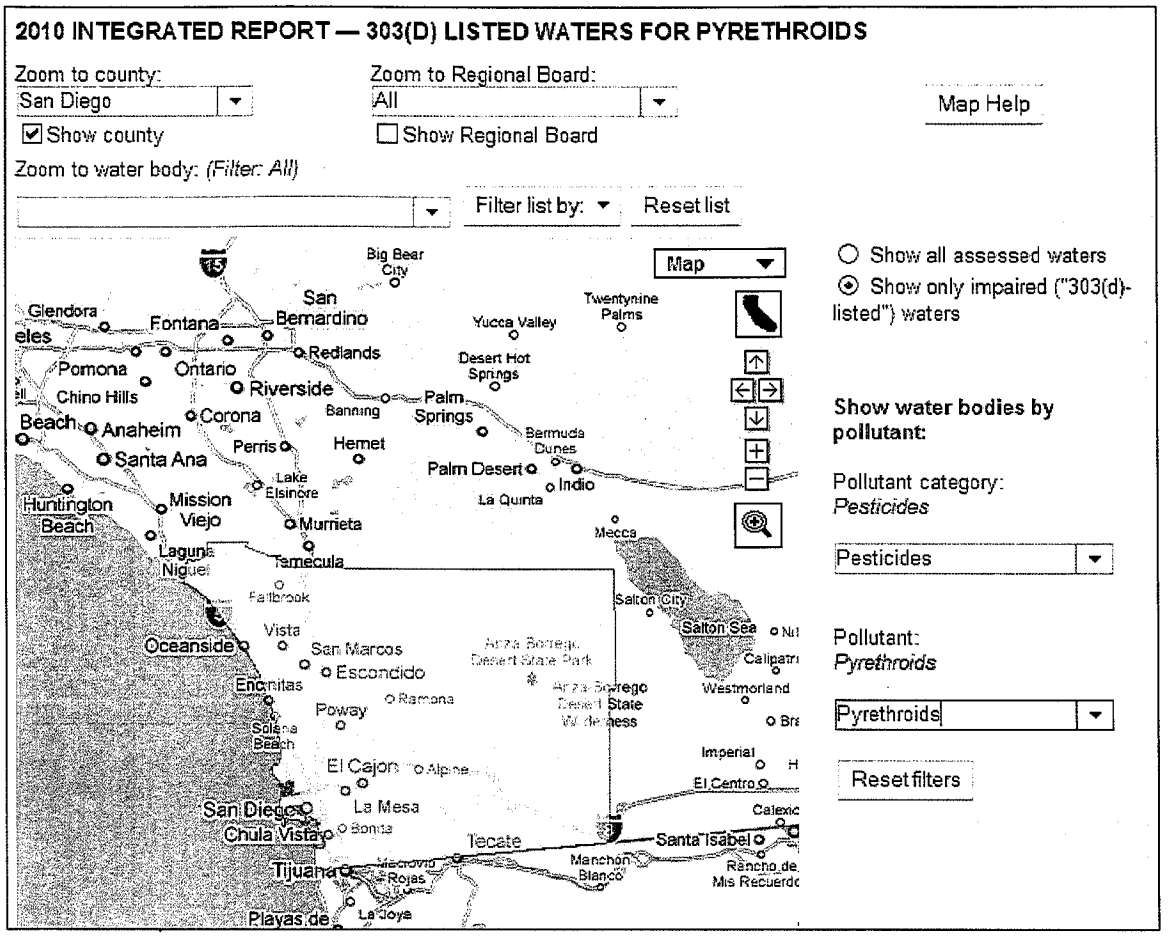
# County of San Diego
# Department of Environmental Health
# Vector Control Program
# Pesticides Application Plan (PAP)

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 or may be applied to control vectors. The description shall include adjacent areas, if different from the water body of the target areas;**

San Diego County is bounded by the US-Mexico International border on the south, by Imperial County on the east, by Orange County and Riverside County to the north, and by the Pacific Ocean on the west. Please see attached map for identified water bodies.

According to the State Water Resources Control Board, there are no 303(d) listed water bodies in San Diego County impaired for the pesticides that the San Diego County, Department of Environmental Health - Vector Control Program (VCP or program) applies. The following images show search results with no waters identified as impaired for resmithrin (Scourge) and pyrethrin (Pyrenone, Pyrocide) use. There were no search options available for the following aquatic pesticides that are currently in use, listed by active ingredient: *Bacillus thuringensis israelensis* (AquaBac, VectoMax), *Bacillus sphaericus* (VectoLex, VectoMax), methoprene (Altosid), and mineral oil (Mosquito Larvicide GB-111).






2. **Discussion of the factors influencing the decision to select pesticide applications for mosquito control;**
   Please see the Best Management Practices for Mosquito Control in California[1].

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;**
   Please see Attachments E and F within the NPDES Permit for Biological and Residual Pesticide Discharges to Waters of the U.S. for Vector Control Applications. Products may be applied by hand, truck, backpack, hand can, helicopter, or airplane according to label directions.

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

[1] http://www.westnile.ca.gov/resources.php

California. The typical sources treated by this program include: creeks, channels (lined and unlined), ponds, basins/sumps, BMPs, marshes (salt and fresh), drains, lagoons, lakes, pools, rivers, estuaries, canyons, and others. Please see the attached map.

5. **Other control methods used (alternatives) and their limitations;**
With any source of mosquitoes or other vectors, the VCP's first goal is to look for ways to eliminate the source, or if that is not possible, for ways to reduce the potential for vectors. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California.

Specific alternative control measures used by the VCP include:

- stocking mosquito fish (*Gambusia affinis*) at distribution centers throughout the county for businesses and the public use, free of charge
- utilizing mosquito fish in green pools and ornamental water features
- creating and funding a Vector Habitat Remediation Program to empower communities to ameliorate chronic mosquito breeding sites
- environmental modifications to drain standing water sources
- extensive public education outreach for preventing vector-borne diseases that includes presentations, participation in public health fairs, a text message campaign, public service announcements, videos, web-based content, and school curricula

6. **How much product is needed and how this amount was determined;**
The need to apply product is determined by surveillance. Actual use varies annually depending on mosquito abundance. The pesticide amounts presented below were taken from the VCP's 2010 PUR as an estimate of pesticide use in 2011. Other public health pesticides in addition to those listed below may be used as part of the program's best management practices.

Summary of Pesticide Applications for 2010

| Product Name | Manufacturer Name | EPA Reg # | Amount | Units |
|---|---|---|---|---|
| Aquabac 200G Mosquito Larvicide | Beker Microbial Products | 62637-3 | 16649.6 | lb |
| GB-1111 | Clarke Mosquito | 8329-72 | 585.9 | gal |
| Vectolex CG | Valent BioScience Corp | 73049-20 | 28443.1 | lb |
| Vectolex WSP | Valent BioScience Corp | 73049-20 | 24.5 | lb |
| VectoMax | Valent BioScience Corp | 73049-429 | 18175 | lb |
| Zoecon Altosid Pellets | Wellmark International | 2724-448 | 1123.7 | lb |
| Zoecon Altosid XR Extended Residual Briquets | Wellmark International | 2724-421 | 32.4 | lb |
| Zoecon Altosid Briquets | Wellmark International | 2724-375 | 30.9 | lb |

The VCP is in possession of the following pesticides, although they were not applied in 2010.

| Product Name | Manufacturer Name | EPA Reg # |
|---|---|---|
| FourStar Briquets 45 | FourStar Microbials LLC | 83362-3 |
| FourStar Briquets 80 | FourStar Microbials LLC | 83362-3 |
| FourStar Briquets 190 | FourStar Microbials LLC | 83362-3 |
| Spheratax SPH (50 G) | Advanced Microbiologics LLC | 84268-2 |
| VectoLex WDG | Valent BioScience Corp | 73049-57 |
| Zoecon Altosid XR-G | Wellmark International | 2724-451 |

In addition to these pesticides, the VCP is in possession of the following pesticides to be used in an emergency public health situation where adulticiding is necessary:

| Product Name | Manufacturer Name | EPA Reg # |
|---|---|---|
| Pyrenone 25-5 | Bayer Environmental Science | 432-1050 |
| Pyrocide | McLaughlin Gormley King Co. | 1021-1569 |
| Scourge 4/12 | Bayer Environmental Science | 432-716 |

7. **Representative monitoring locations* and the justification for selecting these monitoring 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; and**
   Please see the Best Management Practices for Mosquito Control in California.

9. **Description of the BMPs to be implemented. The BMPs shall include at a minimum:**
   The VCP's BMPs are described in the Best Management Practices for Mosquito Control in California and in the California Mosquito-borne Virus Surveillance and Response Plan[2]. Specific elements have been highlighted below under items a-f.
   a. **measures to prevent pesticide spill;**

[2] http://www.westnile.ca.gov/resources.php

All pesticide applicators receive annual spill prevention and response training. Program employees ensure daily that application equipment is in proper working order. Spill mitigation devices are placed in all vehicles and pesticide storage areas.

b. **measures to ensure that only a minimum and consistent amount is used**
Application equipment is calibrated at least annually as required by the Department of Pesticide Regulations (DPR) and the terms of a cooperative agreement with the California Department of Public Health (CDPH).

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 will be included in our pesticide applicators annual pesticide application and safety training, continuing education programs, and/or regional NPDES Permit training programs.

d. **descriptions of specific BMPs for each application mode, e.g. aerial, truck, hand, etc.;**
The VCP 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. Ultra-low volume (ULV) application equipment is calibrated for output and droplet size to meet label requirements. Aerial larviciding equipment is calibrated by the Contractor. Aerial adulticide equipment is calibrated regularly and droplet size will be monitored by the program to ensure droplets meet label requirements.

e. **descriptions of specific BMPs for each pesticide product used; and**
Please see the Best Management Practices for Mosquito Control in California for general pesticide application BMPs, and the current approved pesticide labels for application BMPs for specific products.

f. **descriptions of specific BMPs for each type of environmental setting (agricultural, urban, and wetland).**
Please see the Best Management Practices for Mosquito Control in California.

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

    The VCP staff only apply pesticides to sources of mosquitoes that represent imminent threats to public health or quality of life. The presence of any mosquito

may necessitate treatment, however higher thresholds may be applied depending on the program's resources, disease activity, surveillance data, 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/absence of natural enemies or predators
- Presence of sensitive/endangered species or habitats.

b. **Identify target vector species to develop species-specific pest management strategies based on developmental and behavioral considerations for each species;** Please see the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan.

c. **Identify known breeding areas for source reduction, larval control program, and habitat management; and**
Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is the program's preferred solution, and whenever possible the program works with property owners to implement long-term solutions to reduce or eliminate the need for continued pesticide applications as described in the Best Management Practices for Mosquito Control in California.

d. **Analyze existing surveillance data to identify new or unidentified sources of vector problems as well as areas that have recurring vector problems.**
This is included in the Best Management Practices for Mosquito Control in California and the California Mosquito-borne Virus Surveillance and Response Plan that the program uses. The VCP 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, and uses these data to guide mosquito control activities.

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.**

The VCP uses an integrated approach consistent with the principles and practices of Integrated Vector Management (IVM) as described on pages 26 and 27 of the Best Management Practices for Mosquito Control in California. As stated in item #10 above, 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 mosquitoes are listed on pages 4-19 of the Best Management Practices for Mosquito Control in California.

In addition, in 2009 the VCP developed the Vector Habitat Remediation Program (VHRP) for long-term solutions to historically chronic mosquito breeding sites. Under this program, grant funding is offered to landowners and managers, including public sector entities, to physically alter chronic mosquito breeding sites. In order to reduce disease transmission the VHRP controls mosquito populations by physically altering habitat which reduces mosquito breeding throughout San Diego County. The remediation of water bodies by reduction of overgrown vegetation and accumulated sediment enhances and restores water flow providing for the long-term reduction of mosquito breeding. The VHRP funds project that reduce and/or eliminate mosquito breeding grounds in established wetlands, flood control facilities and stormwater treatment facilities. The VHRP takes into consideration the biological and hydrological values of wetlands and the need to protect human populations and animals from mosquito-borne diseases.

Implementing preferred alternatives depends on a variety of factors including availability of program 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 to public health, pesticides are considered, beginning with the least amount necessary to effectively control the target vector.

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

The VCP follows an existing IVM program which includes practices described in the California Mosquito-borne Virus Surveillance and Response Plan and Best Management Practices for Mosquito Control in California.

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 part of a decision to apply pesticides to areas covered under this permit. As summarized in the 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 our IVM program.

**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 VCP, and is required to comply with the Department of Pesticide Regulation's (DPR) requirements and the terms of our 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 public notices, required in Section VIII.B, may be found.**

http://www.SDVector.com

**References:**

Best Management Practices for Mosquito Control in California. 2010. Available by download from the California Department of Public Health—Vector-Borne Disease Section at http://www.westnile.ca.gov/resources.php under the heading *Mosquito Control and Repellent Information*. Copies may be also requested by calling the California Department of Public Health—Vector-Borne Disease Section at (916) 552-9730 or the County of San Diego Vector Control Program at (858) 694-2888.

California Mosquito-borne Virus Surveillance and Response Plan. 2010. [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.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 County of San Diego Vector Control Program at (858) 694-2888.

MVCAC NPDES Coalition Monitoring Plan. 2011. [In development at the time of this draft]

**RECEIPT** DATE 7.11.11 NO. 243013

RECEIVED FROM Gil DWQ

ADDRESS

$ 272.00

FOR County of San Diego Ck#3449970

| ACCOUNT | | |
|---|---|---|
| AMT. OF ACCOUNT | | |
| AMT. PAID | | |
| BALANCE DUE | | |

○ CASH

① ~~CHECK~~

○ MONEY ORDER

BY PJ