

ATTACHMENT G – NOTICE OF INTENT

RECEIVED
JUN 13 2011

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

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 A. New Applicator B. Change of Information: WDID# _____
 C. Change of ownership or responsibility: WDID# _____

II. DISCHARGER INFORMATION

A. Name <i>Marin/Sonoma mosquito & Vector Control District</i>			
B. Mailing Address <i>595 Helman Lane</i>			
C. City <i>Cotati</i>	D. County <i>Sonoma</i>	E. State <i>CA</i>	F. Zip Code <i>94931</i>
G. Contact Person <i>Erik Hawk</i>	H. Email address <i>Erikhamsmosquito.com</i>	I. Title <i>Assistant manager</i>	J. Phone <i>(707) 285-2200</i>

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: n/a

2. Canals, ditches, or other constructed conveyance facilities owned and controlled by an entity other than the Discharger.
 Owner's name: Marin + Sonoma Flood Control facilities such as:
Name of the conveyance system: Rush Creek, Las Gallinas FCD, Marin
municipal Water District, Sonoma Creek, Miller Creek, Santa Rosa
Flood Control, Laguna de Santa Rosa & other municipal water

3. Directly to river, lake, creek, stream, bay, ocean, etc. conveyance structures in Marin + Sonoma Counties.
 Name of water body: Lake Sonoma, Spring Lake, Russian River,
Petaluma River, San Pablo Bay, Bolinas Bay, + Pacific Ocean =
* A map showing the affected areas for items 1 to 3 above may be included. (See attachment A)

B. Regional Water Quality Control Board(s) where application areas are located
(REGION 1, 2, 3, 4, 5, 6, 7, 8, or 9): Region 1 and 2
(List all regions where pesticide application is proposed.)

A map showing the locations of A1-A3 in each Regional Water Board shall be included. (See attachment B)

V. PESTICIDE APPLICATION INFORMATION

A. Target Organisms: Vector Larvae Adult Vector

B. Pesticides Used: List name, active ingredients and, if known, degradation by-products
(Full list is outlined as Attachment C)

C. Period of Application: Start Date Nov. 1, 2011 End Date Not anticipated at this time

D. Types of Adjuvants Added by the Discharger: n/a

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. (See attachment D)

B. Is the applicator familiar with its contents?

Yes No

VII. NOTIFICATION

Have potentially affected governmental agencies been notified?

Yes

No

Notification details are outlined through CEQA document filed 2004 and are available online through: www.ms-mosquito.com

* 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: Jim Wanderscheid

B. Signature: *[Handwritten Signature]*

Date: 6/8/11

C. Title: MANAGER

X. FOR STATE WATER BOARD USE ONLY

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

Examples of Receiving Water Bodies (Mosquito and Vector Control) in Regional Water Quality Control Boards One and Two in Marin and Sonoma Counties

Any water body (natural or artificial) that has standing water for 72 to 96 hours can potentially provide mosquito habitat and require mosquito control (i.e. mitigated wetlands, seasonal wetlands, tidal marshes, storm water BMP's, ponds, lakes, creeks, rivers, flood control channels, low areas, roadside conveyance channels, etc). It is important to note that some of these may be permanent or temporary; therefore it is not possible to provide an all inclusive list in both RWQCBs regions 1 and 2 for the Marin/Sonoma Mosquito and Vector Control service area (a map has been included as Attachment B which defines the District's service area). The list below includes examples of water bodies in RWQCB regions 1 and 2 that may be receiving waters relative to mosquito control applications and a detailed list is included as Attachment A.

Examples of water receiving bodies located in the service area for Region 1: North Coast RWQCB (map attached)

- Tidal Marshes - Immediately adjacent to San Pablo Bay, Petaluma River and surrounding marshland, Sonoma Creek, Tolay Creek and Bodega Bay.
- Seasonal Wetlands – Vernal pools in the Santa Rosa Plain and the Laguna de Santa Rosa watershed.
- Lake and Ponds – Spring Lake Recreational Area, Lake Sonoma, various agricultural ponds for dairy, farm/cropland and winery use.

Examples of water receiving bodies located in the service area for Region 2: San Francisco Bay RWQB (map attached)

- Tidal Marshes – Immediately adjacent to San Pablo Bay, Bel Marin Keys, Hamilton AFB, Drakes Bay, Bolinas Lagoon, Santa Venetia marsh, and McNears marsh.
- Seasonal Wetlands – Point Reyes National Seashore, Rush Creek marsh, Tomales Bay State Park and China Camp State Park.
- Lake and Ponds – Stafford Lake, Nicasio Reservoir, Marin Municipal Watershed lakes (Alpine, Lagunitas, Bon Tempe, etc.) and various agricultural ponds for dairy, farm/cropland and winery use.

**Attachment A: Detailed list of receiving water bodies within the
Marin/Sonoma Mosquito Control District boundaries under the
jurisdiction of Regional Water Quality Control Boards One and Two**

This **list of watercourses in the San Francisco Bay Area** groups rivers, creeks, sloughs, etc. according to the bodies of water they flow into. Tributaries are listed under the watercourses they feed, sorted by the elevation of the confluence so that tributaries entering nearest the sea appear first. Numbers in parentheses are Geographic Names Information System feature ids.

Watercourses which feed into the Pacific Ocean in Sonoma County north of Bodega Head, listed from north to south:¹¹¹

The Gualala River and its tributaries

- Gualala River (253221):
 - North Fork (229679) - flows from Mendocino County.
 - South Fork (235010):
 - Big Pepperwood Creek (219227) - flows from Mendocino County.
 - Rockpile Creek (231751) - flows from Mendocino County.
 - Buckeye Creek (220029):
 - Little Creek (227239)
 - North Fork Buckeye Creek (229647):
 - Osser Creek (230143)
 - Roy Creek (231987)
 - Soda Springs Creek (234853)
 - Wheatfield Fork (237594):
 - Fuller Creek (223983):
 - Sullivan Creek (235693)
 - Boyd Creek (219738)
 - North Fork Fuller Creek (229676)
 - South Fork Fuller Creek (235005)
 - Haupt Creek (225023)
 - Tobacco Creek (236406)
 - Elk Creek (223108)
 - House Creek (225688):
 - Soda Spring Creek (234845)
 - Allen Creek (218142)
 - Pepperwood Creek (230514):
 - Danfield Creek (222007):
 - Cow Creek (221691)
 - Jim Creek (226237)
 - Grasshopper Creek (224470)
 - Britain Creek (219851)
 - Cedar Creek (220760)
 - Wolf Creek (238086)
 - Tombs Creek (236448)
 - Marshall Creek (228139):
 - McKenzie Creek (228391)

Northern Sonoma Coast

Watercourses which feed into the Pacific Ocean in Sonoma County between the Gualala and Russian Rivers, numbered from north to south:

1. Deadman Gulch (222120)
 2. Cannon Gulch (220545)
 3. Chinese Gulch (221069)
 4. Phillips Gulch (230598)
 5. Miller Creek (228727)
 6. Warren Creek (237257)
 7. Wildcat Creek (237784)
 8. Stockhoff Creek (235498)
 9. Timber Cove Creek (236355)
 10. Kolmer Gulch (226673)
 11. Fort Ross Creek (223705)
 12. Russian Gulch Creek (1723332):
 - East Branch Russian Gulch (222861):
 - Middle Branch Russian Gulch (228574)
 - West Branch Russian Gulch (237436)
-
- Russian River (267200): - flows from Mendocino County.
 - Willow Creek (237879)
 - Sheephouse Creek (232916)
 - Orrs Creek (230114)
 - Freezeout Creek (223863)
 - Austin Creek (218466):
 - Kohute Gulch (226672)
 - Kidd Creek (226569)
 - East Austin Creek (222846):
 - Black Rock Creek (219403)
 - Gilliam Creek (224171):
 - Schoolhouse Creek (232673)
 - Thompson Creek (236259)
 - Gray Creek (224517):
 - Lawhead Creek (234146)
 - Devil Creek (222279)
 - Conshea Creek (221468):
 - Tiny Creek (236385)
 - Sulphur Creek (235703)

- Ward Creek (237225):
 - Big Oat Creek (219223)
 - Blue Jay Creek (219496)
 - Pole Mountain Creek (230900)
 - Bearpen Creek (218919)
 - Red Slide Creek (231390)
 - Dutch Bill Creek (222756):
 - Lancel Creek (226842):
 - North Fork Lancel Creek (229689)
 - Smith Creek (233315)
 - Hulbert Creek (253871):
 - Mission Creek (246001)
 - Livereau Creek (227433)
 - Fife Creek (223491):
 - Redwood Creek (231420)
 - Pocket Canyon (230836):
 - Mays Canyon (228268)
 - Hobson Creek (225380)
 - Green Valley Creek (224576):
 - Atascadero Creek (218443)
 - Purrington Creek (231100)
 - Mark West Creek (228118):
 - Windsor Creek (238013):
 - Pool Creek (230927)
 - Laguna de Santa Rosa (226766):
 - Santa Rosa Flood Control Channel (232565):
 - Abramson Creek
 - Piner Creek
 - Paulin Creek
 - Santa Rosa Creek (232563):
 - Matanzas Creek (228216):
 - Spring Creek (235241)
 - South Fork Matanzas Creek (235025)
 - Brush Creek
 - Salt Creek (232297)
 - Blucher Creek (219480)
 - Five Creek (223565)
 - Hinebaugh Creek (225359):
 - Crane Creek (221795)
 - Washoe Creek (237318):
 - Gossage Creek (224355)
 - Copeland Creek (221533)
 - Porter Creek (230952)
 - Humbug Creek (225753)
 - Van Buren Creek (236996)
- Porter Creek (230951):

- Press Creek (231039)
- Dry Creek (222623): - flows from Mendocino County.
 - West Slough:
 - Foss Creek (1657225):
 - Norton Slough (1657226)
 - Mill Creek (228686):
 - Felta Creek (223436)
 - Wallace Creek (237193)
 - Palmer Creek (230265)
 - Pine Ridge Canyon (230719)
 - Kelley Creek (226456)
 - Crane Creek (221794)
 - Grape Creek (224441):
 - Wine Creek (238037)
 - Peña Creek (230478):
 - Chapman Branch (220914)
 - Boyer Creek (219744)
 - Pechaco Creek (230457)
 - Redwood Log Creek (231443)
 - Dutcher Creek (222780)
 - Fall Creek (223368)
 - Schoolhouse Creek (232676)
 - Warm Springs Creek (237246):
 - Little Warm Springs Creek (227406)
 - Picnic Creek (230623)
 - Seven Oaks Creek (232821)
 - Bear Creek (218806)
 - Rancheria Creek (231215):
 - Little Rancheria Creek (234172)
 - Stawberry Creek (235583)
 - Little Strawberry Creek (227381)
 - Willow Springs Creek (237952)
 - Wild Cattle Creek (237748)
 - Bearpen Creek (218918)
 - Fall Creek (223365)
 - Brush Creek (219923)
 - Yorty Creek (238273)
 - Smith Creek (233325)
 - Cherry Creek (233660)
 - Galloway Creek (224021) - flows from Mendocino County.
 - Rail Creek (231170)
- Maacama Creek (227883):
 - Franz Creek (223840):
 - Bidwell Creek (219108)
 - Redwood Creek (231421):
 - Foote Creek (223653)

- Kellogg Creek (226462)
 - Yellowjacket Creek (238248)
- Briggs Creek (219834):
 - Little Briggs Creek (227202)
 - Coon Creek (221498)
- McDonnell Creek (228350)
- Sausal Creek (232603):
 - George Young Creek (224117)
 - Burns Creek (220208)
 - Grapevine Creek (224446)
- Gird Creek (224187)
- Miller Creek (228731)
- Gill Creek (224167)
- Crocker Creek (221835)
- Barrelli Creek (218695)
- Porterfield Creek (230956)
- Cloverdale Creek (221256)
- Big Sulphur Creek (254619):
 - Little Sulphur Creek (227384):
 - North Branch (229605)
 - Lovers Gulch Creek (227735)
 - Anna Belcher Creek (218287)
 - Frasier Creek (223845) - flows from Mendocino County.
 - Squaw Creek (235310):
 - Alder Creek (218097) - flows from Mendocino County.
 - Hummingbird Creek (225758) - flows from Mendocino County.
- Ash Creek (218427) - flows from Mendocino County.

Watercourses which feed into the Pacific Ocean in Sonoma County between the Gualala and Russian Rivers, numbered from north to south:

1. Deadman Gulch (222120)
2. Cannon Gulch (220545)
3. Chinese Gulch (221069)
4. Phillips Gulch (230598)
5. Miller Creek (228727)
6. Warren Creek (237257)
7. Wildcat Creek (237784)
8. Stockhoff Creek (235498)
9. Timber Cove Creek (236355)
10. Kolmer Gulch (226673)
11. Fort Ross Creek (223705)
12. Russian Gulch Creek (1723332):
 - East Branch Russian Gulch (222861):

- Middle Branch Russian Gulch (228574)
- West Branch Russian Gulch (237436)

Watercourses which feed into the Pacific Ocean in Sonoma County between Goat Rock Beach and Bodega Head, numbered from north to south:

1. Scotty Creek (232742):
 - Rough Creek (231923)
2. Salmon Creek (232281):
 - Finley Creek (223507)
 - Coleman Valley Creek (221373)
 - Fay Creek (223419)
 - Tannery Creek (236018)
 - Nolan Creek (229570)
 - Thurston Creek (236333)

Watercourses which feed into Bodega Bay, numbered clockwise from Bodega Head to Sand Point:

1. Cheney Gulch (220937)
2. Shorttail Gulch (233054)
3. Estero Americano (223257):
 - Ebabias Creek (253711)
 - Americano Creek (254563)
4. Estero de San Antonio (253212):
 - Stemple Creek (253932)

Watercourses which feed into the Pacific Ocean in Marin County south of Sand Point, listed from north to south:

Tomales Bay

Watercourses which feed into Tomales Bay, numbered clockwise from Sand Point to Tomales Point:

1. Walker Creek (255208):
 - Keys Creek (254852)
 - Chileno Creek (254740)
 - Frink Canyon (223952)
 - Verde Canyon (237053)
 - Salmon Creek (232280)
 - Arroyo Sausal (254577)
2. Millerton Gulch (228754)
3. Grand Canyon (224386)

4. Tomasini Canyon (236446)
5. Lagunitas Creek (255208):
 - o Olema Creek (234410)
 - o Nicasio Creek (229534):
 - Halleck Creek (224814):
 - Redwood Canyon (231415)
 - o San Geronimo Creek (232400)
 - o Big Carson Creek (219156)
 - o Cataract Creek (220721)
 - o East Fork Lagunitas Creek (222888)
6. White Gulch (237641)

Point Reyes Peninsula

Watercourses which feed into the Pacific Ocean between Tomales Point and Bolinas, numbered north to south.^[2]

1. Home Ranch Creek (225499)
2. Glennbrook Creek
3. Santa Maria Creek
4. Coast Creek (233695)
5. Alamere Creek (233404)
6. Arroyo Hondo

Bolinas Lagoon

Watercourses which feed into Bolinas Lagoon, numbered clockwise from Bolinas to Stinson Beach:

1. Pine Gulch Creek (234476):
 - o Copper Mine Gulch (221541)
2. Wilkins Gulch (237829)
3. Pike County Gulch (230651)
4. Audubon Canyon (218457)
5. Volunteer Canyon (1808968)
6. Morses Gulch (229094)
7. McKinnan Gulch (228412)
8. Stinson Gulch (235491)

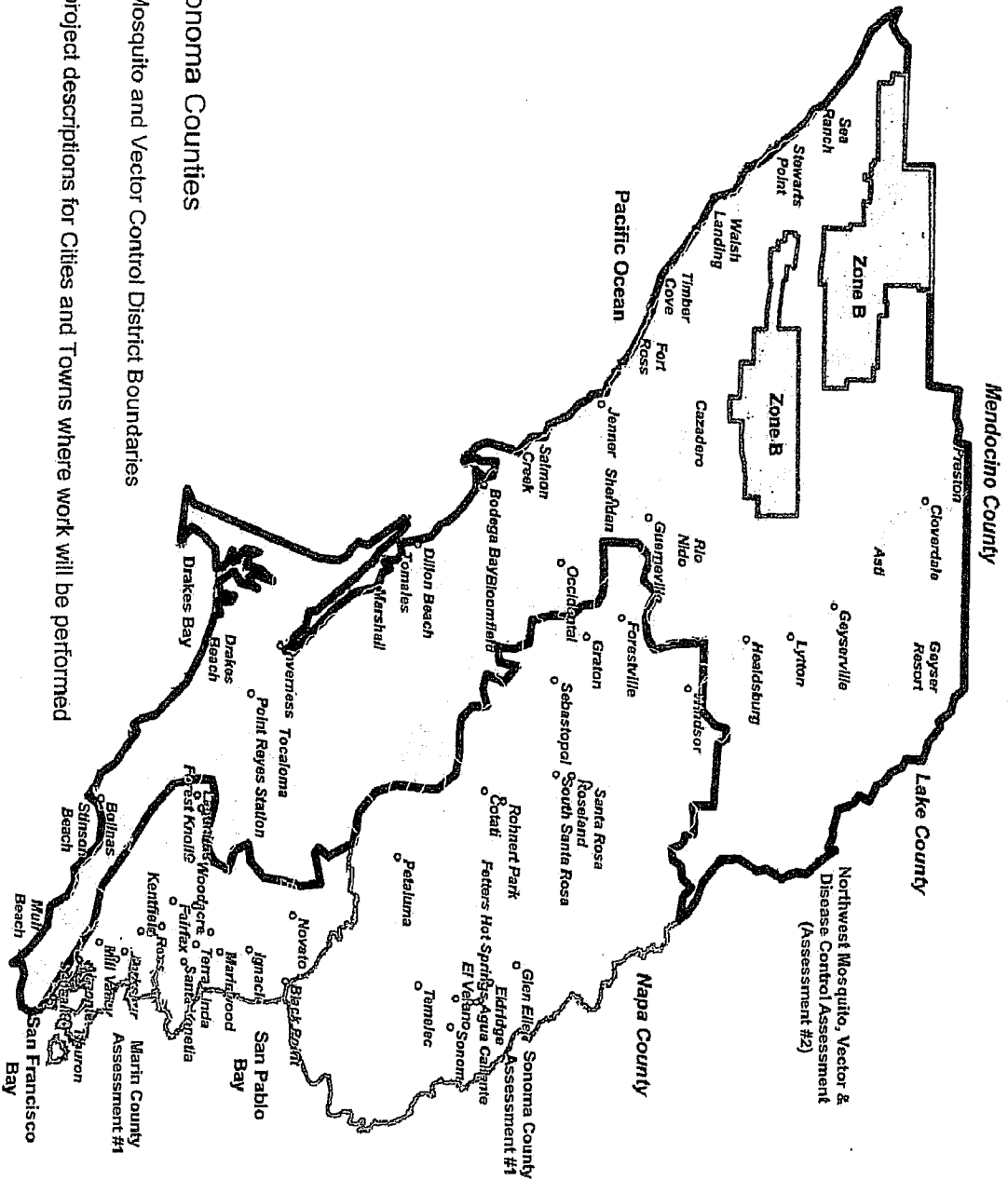
Southern Marin Coast

Watercourses which feed into the Pacific Ocean between Stinson Beach and the Golden Gate, numbered north to south:

1. Webb Creek (237375)
2. Lone Tree Creek (227525)
3. Cold Stream (221345)
4. Redwood Creek (231428)
 - o Fern Creek (223455)
5. Tennessee Valley (255127)

Source: http://en.wikipedia.org/wiki/List_of_watercourses_in_the_San_Francisco_Bay_Area

Attachment B: Map of Sonoma and Marin counties defining the Marin/Sonoma Mosquito and Vector Control District boundaries



Main and Sonoma Counties

Marin/Sonoma Mosquito and Vector Control District Boundaries

*See individual project descriptions for Cities and Towns where work will be performed

**Attachment C: List of Permitted Larvicides & Adulticides Used by
Marin/Sonoma Mosquito and Vector Control District**

Product Name: Larvicides	Registration Number
Vectolex CG Biological Larvicide	73049-20
Vectolex WDG Biological Larvicide	73049-57
Vectolex WSP Biological Larvicide	73049-20
Vectobac Technical Powder	73049-13
Vectobac 12AS	73049-38
Vectobac G (or GS) Biological Mosquito Larvicide Granules	73049-10
Vectobac WDG Biological Larvicide	73049-56
Vectomax CG Biological Larvicide	73049-429
Four Star Sustained Release 45-day Microbial Briquets	83362-3
Zoecon Altosid Pellets	2724-448
Zoecon Altosid Briquets	2724-375
Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator	2724-392
Zoecon Altosid XR Extended Residual Briquets	2724-421
Altosid Liquid Larvicide Concentrate	2724-446
Zoecon Altosid SBG Single Brood Granule	2724-489
BVA-2 Mosquito Larvicide Oil	70589-1
Agnique MMF Mosquito Larvicide & Pupicide	53263-28
Agnique MMF G	53263-30
Natular 2EC	8329-82
Natular G	8329-80
Natular XRG	8329-83
Natular XRT	8329-84

Product Name: Adulticides	Registration Number
MGK Pyroicide Mosquito Adulticiding Concentrate for ULV Fogging 7396	1021-1569
Anvil 10+10 ULV	1021-1688
Zenivex E20	2724-791
Zenivex E4	2724-807

Marin/Sonoma Mosquito and Vector Control District Pesticide Application Plan

General NPDES Permit For Residual Pesticide Discharges From Mosquito Control Applications Order NO. 2004-0008-DWQ

1. Description of the target area and adjacent areas, if different from the water body of the target area:

The Marin/Sonoma Mosquito and Vector Control District (MSMVCD) boundaries extend north to the Mendocino County Line (just north of the town of Cloverdale), to San Francisco County to the South (just south of Sausalito), Lake, Napa, and Solano Counties to the east, and the Pacific Ocean to the west. Please see attached map and map on page 21 Best Management Practices for Mosquito Control in California (California Department of Public Health, August 2010) and Draft Initial Study and Mitigated Negative Declaration, MSMVCD CEQA 2004 (CEQA 2004 available at www.msmosquito.com).

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 and CEQA 2004 (pgs.14-17, 33).

3. Pesticides 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 the Best Management Practices for Mosquito Control in California, attached Notice of Intent, and CEQA 2004 (pgs. 22-25).

4. Description of the application areas and the target areas in the system that are being planned to be applied to or may be applied.

Any site that holds water for more than 96 hours (4 days) can produce mosquitoes. Source reduction is MSMVCD's preferred solution, and whenever possible MSMVCD works with agencies and 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 California. Please see attached map and Notice of Intent. The typical sources treated by MSMVCD include:

Seasonal wetlands

Tidal marshes

Storm water treatment, hydro modification control, and conveyance systems

Agricultural and recycled water irrigation practices (fields/pastures)

Ponds (ornamental, wildlife, recycled water irrigation recovery, frost protection...)

Low area/seasonal depressions

Septic tanks

Standing water under buildings

Containers (livestock tanks, rain barrels, planters, etc...)

Oak woodlands with populations of tree hole mosquitoes

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

With any mosquito or other vector source, MSMVCD's first goal is to look for ways to eliminate the source, or, if that is not possible, for ways to reduce the vector potential. The most commonly used methods and their limitations are included in the Best Management Practices for Mosquito Control in California. Specific methods used by MSMVCD include educating the public regarding mosquito biology and encouraging residents to eliminate sources of standing water on their property, and working with property owners to find long-term water management strategies that meet their needs while minimizing the need for public health pesticide applications. Public relations methods utilized in this program include, newspaper articles, radio commercials, billboards, brochures, education booths (fairs, home shows, and other community events), and annual MSMVCD open house event. MSMVCD has an educational program that includes presentations at schools to educate students regarding mosquito biology, vector-borne diseases, and mosquito source reduction. MSMVCD also works collaboratively with municipalities and regulatory agencies in the design and review of projects with the intent of minimizing the potential of mosquito production and the need for repeated pesticide applications. For example, MSMVCD participates in the design and review processes for storm water conveyance, treatment, and control systems and is involved with the wetland community with regard to planning, design, and management of seasonal wetlands and tidal marshes. MSMVCD also stocks mosquito fish (*Gambusia affinis*) when and where appropriate as biological control tool.

6. How much product is needed and how these amounts are determined:

The need to apply product is determined by surveillance. Actual use varies annually depending on mosquito abundance. The pesticide amounts presented in the MSMVCD's attached 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 agency's best management practices.

7. Representative monitoring locations and the justification for selecting these monitoring locations:

Please see the Mosquito and Vector Control Association of California (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:

Please see the Best Management Practices for Mosquito Control in California and CEQA 2004 (e.g. pgs. 5-8, 14-20).

9. Description of the BMPs to be implemented. The BMPs shall include at a minimum: MSMVCD'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. Specific elements have been highlighted below under items a-f.

a. Measures to prevent pesticide spill;

All pesticide applicators receive annual spill prevention and response training. Agency 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.; MSMVCD calibrates vehicle-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 agency to ensure droplets meet label requirements. Airplanes used in urban ULV applications and the primary airplane used for rural ULV application is equipped with advanced guidance and drift management equipment to ensure the best available technology is being used to place product in the intended area. If a secondary airplane is used in rural ULV applications it will be equipped with an advanced guidance system.

- e. **Descriptions of specific BMPs for each pesticide product used;** Please see the Best Management Practices for Mosquito Control in California.

10. Identification of the problem. Prior to first pesticide application covered under the 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**

MSMVCD staff only applies 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 agency'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 and CEQA 2004.

c. Identify 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 MSMVCD's preferred solution, and whenever possible MSMVCD works with property owners to implement long-term solutions to reduce or eliminate the need for continued applications as described in Best Management Practices for Mosquito Control in California and CEQA 2004 (e.g. pages 16 and 17).

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, CEQA 2004, and the California Mosquito-borne Virus Surveillance and Response Plan. MSMVCD continually collects adult and larval mosquito surveillance data, 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. Examine of Alternatives. Dischargers shall continue to examine alternatives to pesticide use in order to reduced 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 source reduction 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.

MSMVCD uses the principles and practices of Integrated Vector Management (IVM). MSMVCD's IVM program includes the following:

- Education
- Source Reduction
- Biological Control (e.g. mosquitofish)
- Chemical Control
 - o Larval mosquito Control (including biological materials)
 - o Adult Mosquito Control

MSMVCD's IVM program is discussed in its CEQA document (CEQA 2004) and practices are also discussed in Best Management Practices for Mosquito Control in California (e.g. pages 26 and 27). 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.

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 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 or threat to public health.

MSMVCD follows an existing IVM program (see a. above and CEQA 2004) 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 "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 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

June 7, 2011

pesticide applications. Reasonable precautions include using the proper spraying techniques and equipment, taking account of weather conditions and the need to protect the environment.

This is an existing practice of MSMVCD, and is required to comply with the Department of Pesticide regulations (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. Each applicator receives forty hours of continuing education units (CEU) in a two year cycle.

13. If applicable, specify a website where public notices, required in Section VIII.B, may be found. www.msmosquito.com

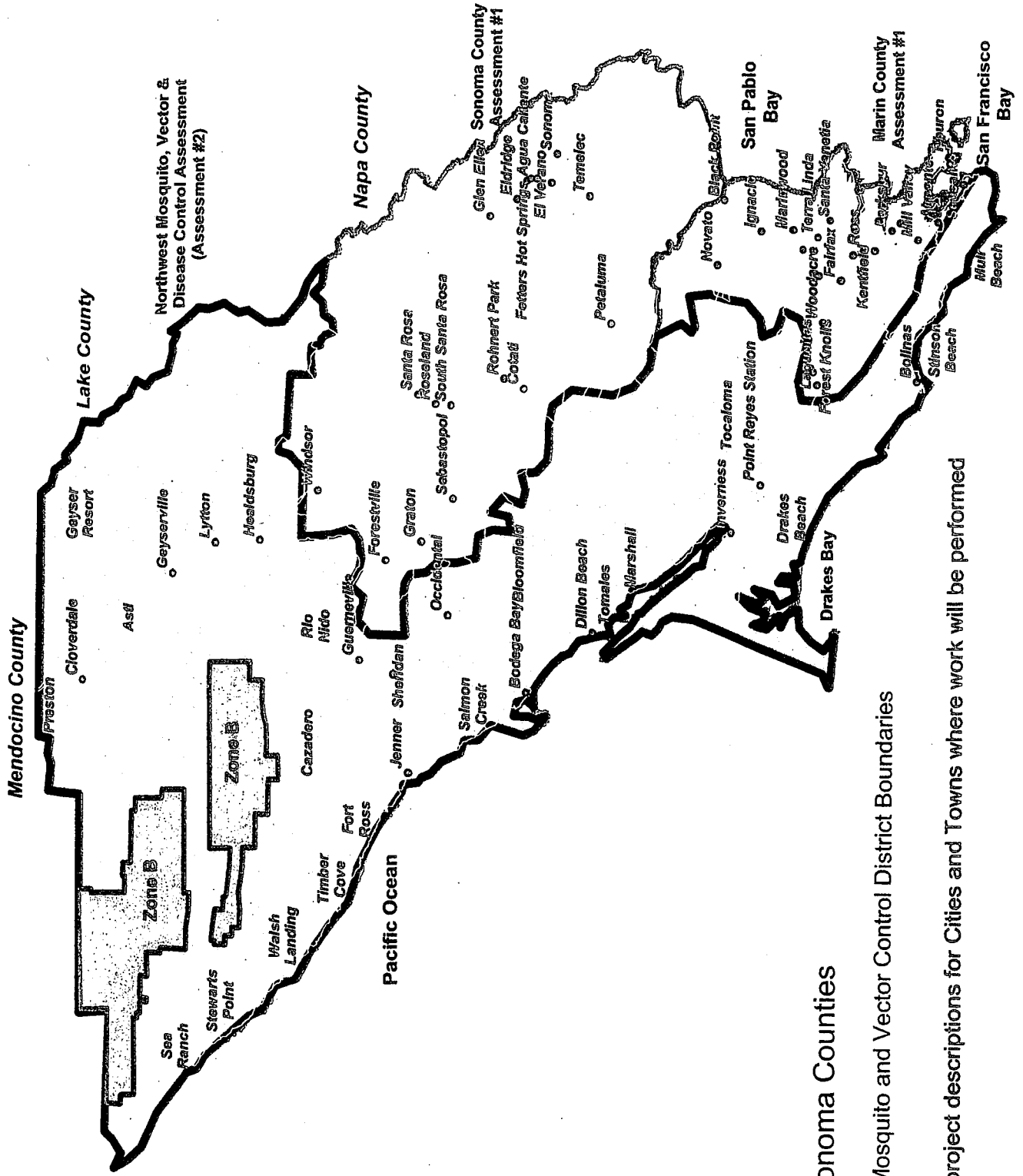
References:

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.cdph.ca.gov/HealthInfo/discond/Pages/MosquitoBorneDiseases.aspx> or <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 Marin/Sonoma Mosquito and Vector Control District at 800-231-3236.

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.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 Marin/Sonoma Mosquito and Vector Control District at 800-231-3236

Marin/Sonoma Mosquito and Vector Control District, California Environmental Quality Act (CEQA), Revised June 14, 2004. Available at www.msmosquito.com

MVCAC NPDES Coalition Monitoring Plan. 2011.



Marin and Sonoma Counties

Marin/Sonoma Mosquito and Vector Control District Boundaries

See individual project descriptions for Cities and Towns where work will be performed

PESTICIDE USE REPORT - All Products

From: 1/1/2010 To: 12/31/2010

Operator: Marin/Sonoma Mosquito and Vector Control District	Address: 595 Helman Lane	City: Cotati	Zip Code: 94931	Phone Number: 707-285-2200
County (where applied): Sonoma			Total Applications: 7359	

Description	Registration Number	Total Product Used	Unit Of Measure	Number of Applications	Acres Treated
Agnique MMF	53263-28	32.1215	GAL	696	47.9778
Altosid Pellets	2724-448	640.9569	LB	408	198.8470
Altosid Briquets (small)	2724-375	10.1019	LB	205	17.1631
Altosid Briquets XR	2724-421	467.8303	LB	1322	57.3445
Altosid Liquid Larvicide	2724-392	21.2265	GAL	183	554.2735
Altosid SBG	2724-489	257.3278	LB	30	37.9501
BVA2	70589-1	308.4175	GAL	373	65.4216
Deltadust (YJ)	432-772	6.4375	LB	77	30.4087
Drione Insecticide	432-992	12.6625	LB	167	84.3086
GB1111	8329-72	85.1467	GAL	118	17.8551
Mosquito Fish		14,237.0000	EA	1206	558.7735
Pyrocid 5% - GAL	1021-1569	71.6412	GAL	525	11,150.8985
Sand		68.8733	LB	19	5.8014
Vectobac 12AS	73049-38	415.7888	GAL	677	1,601.9421
Vectobac Corncob Granules - BTI	73049-10	478.6130	LB	68	33.6998
Vectobac Technical Powder	73049-13	3.0956	LB	20	5.8027
VectoBac WDG	73049-56	14.0000	LB	1	16.0000
Vectolex WSP	73049-20	14.6520	LB	188	35.0861
Vectolex CG	73049-20	8,095.9864	LB	557	718.1557
Vectolex WDG	73049-57	205.7940	LB	200	252.0645
Vectomax CG	73049-429	3,960.5302	LB	312	297.9854
Wasp Freeze	499-362	0.0789	GAL	5	0.3001
Zenivex	2724-791	0.9035	GAL	2	392.1400

PESTICIDE USE REPORT - All Products

From: 1/1/2010 To: 12/31/2010

Operator: Marin/Sonoma Mosquito and Vector Control District	Address: 595 Helman Lane	City: Cotati	Zip Code: 94931	Phone Number: 707-285-2200
County (where applied): Marin			Total Applications: 5407	

Description	RegistrationNumber	Total Product Used	Unit Of Measure	Number of Applications	Acres Treated
Agnique MMF	53263-28	17.4874	GAL	468	18.6937
Altosid Pellets	2724-448	427.3801	LB	391	134.8692
Altosid Briquets (small)	2724-375	2.6250	LB	79	500.0929
Altosid Briquets XR	2724-421	431.1841	LB	1658	459.9106
Altosid Liquid Larvicide	2724-392	28.9799	GAL	173	943.4417
Altosid Liquid Larvicide SR20	2724-446	0.1045	GAL	4	11.5344
Altosid SBG	2724-489	16.0000	LB	4	1.4900
BVA2	70589-1	378.9139	GAL	674	80.4643
Deltadust (YJ)	432-772	17.8440	LB	207	21.1085
Drione Insecticide	432-992	15.7000	LB	110	7.1150
GB111	8329-72	3.8553	GAL	81	0.9328
Mosquito Fish		6,159.0000	EA	389	18.9320
Pyrocid 5% - GAL	1021-1569	6.5060	GAL	165	1,012.2626
Sand		4.5113	LB	30	0.2972
Vectobac 12AS	73049-38	345.0753	GAL	325	1,467.9440
Vectobac Corncob Granules - BTI	73049-10	291.9650	LB	69	28.1565
Vectobac Technical Powder	73049-13	0.2027	LB	30	0.2972
Vectolex WSP	73049-20	9.3500	LB	181	12.3508
Vectolex CG	73049-20	2,808.3054	LB	238	223.9490
Vectolex WDG	73049-57	121.9055	LB	44	115.9441
Vectomax CG	73049-429	309.3455	LB	76	29.8020
Wasp Freeze	499-362	0.5234	GAL	11	13.0029



Arnold
Schwarzenegger
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Jan Boel
Acting Director

July 14, 2004

Ronald Keith
Marin/Sonoma Mosquito and Vector Control District
595 Helmian Lane
Cotati, CA 94931

Subject: The Integrated Vector Management Program
SCH#: 2004062067

Dear Ronald Keith:

The State Clearinghouse submitted the above-named Negative Declaration to selected state agencies for review. The review period closed on July 13, 2004, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Director, State Clearinghouse

2004 Revision



Gray Davis
GOVERNOR

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse

STREET ADDRESS: 1400 TENTH STREET ROOM 222 SACRAMENTO, CALIFORNIA 95814
MAILING ADDRESS: P.O. BOX 3044 SACRAMENTO, CA 95812-3044
916-445-0613 FAX 916-323-3018 www.opr.ca.gov/clearinghouse.html



Loretta Lynch
DIRECTOR

November 5, 1999

- original

Jim Wanderscheid
Marin / Sonoma Mosq. & Vector Control District
556 N. McDowell Blvd.
Petaluma, CA 94954

'99NOV 8 PM 1:15

Subject: Integrated Vector Management Program
SCH#: 99102022

Dear Jim Wanderscheid:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period closed on November 4, 1999, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the eight-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

RECEIPT

No. 336186

DATE 06/13/11

FROM MATTHEW FREESE - DWQ

\$ 136⁰⁰

CK# 7360007096 DOLLARS

FOR RENT
 FOR MARIN/SONOMA MOSQUITO & VECTOR

ACCT.	
PAID	
DUE	

- CASH
- CHECK
- MONEY ORDER
- CREDIT CARD

FROM _____ TO _____
BY *[Signature]*

A-2501
T-46820

RECEIPT

No. 336185

DATE 06/13/11

FROM Matthew Freese-DWQ

\$ 136⁰⁰

CK# ~~7360007096~~ 7360007097 DOLLARS

FOR RENT
 FOR MARIN/SONOMA MOSQUITO & VECTOR

ACCT.	
PAID	
DUE	

- CASH
- CHECK
- MONEY ORDER
- CREDIT CARD

FROM _____ TO _____
BY *[Signature]*

A-2501
T-46820