

STATE WATER RESOURCES CONTROL BOARD
DRAFT ORDER 2014-XXXX-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR

WATER QUALITY ORDER 2011-0002-DWQ
GENERAL PERMIT NO. CAG 990004
(AS AMENDED BY ORDER 2012-0003-DWQ)

STATEWIDE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FOR BIOLOGICAL AND RESIDUAL PESTICIDE
DISCHARGES TO WATERS OF THE UNITED STATES
FROM VECTOR CONTROL APPLICATIONS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general National Pollutant Discharge Elimination System (NPDES) permits for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to the California Water Code section 13263(i).
2. On September 22, 1989, the U.S. Environmental Protection Agency (U.S. EPA) granted the State of California, through the State Water Board and the Regional Water Quality Control Boards, the authority to issue general NPDES permits pursuant to 40 Code of Federal Regulations (C.F.R.) parts 122 and 123.
3. Section 122.28 of 40 C.F.R. provides for issuance of general permits to regulate a category of point sources if the sources involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under a general order rather than individual permits.
4. On March 1, 2011, the State Water Board adopted Order 2011-0002-DWQ (later amended by Order 2012-0003-DWQ on April 3, 2012), Statewide NPDES Permit for Biological and Residual Pesticide Discharges to waters of the United States from Vector Control Applications (hereafter Vector Control Permit). The Vector Control Permit covers the point source discharge of biological and residual pesticides resulting from direct and indirect spray applications for vector control. The Vector Control Permit covers only pesticides that are approved by U.S. EPA and registered by the California Department of Pesticide Regulation for applications in accordance with specific application rates.
5. Sections IX.B.2 and IX.B.3 of the Vector Control Permit state the following, respectively:
 - B.2. The State Water Board Deputy Director of the Division of Water Quality (Deputy Director) may add monitoring and reporting requirements to the Monitoring and Reporting Program (MRP).
 - B.3. The Deputy Director may approve reductions in monitoring frequencies if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

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6. Section IV.A of the MRP also states, "Monitoring frequencies may be adjusted by the Deputy Director to a less frequent basis if the Discharger or Coalition makes a request and the request is backed by statistical trends of monitoring data submitted."
7. Section 122.44(i)(5) of 40 C.F.R. states, "Permits which do not require the submittal of monitoring result reports at least annually shall require that the permittee report all instances of noncompliance not reported under § 122.41(l) (1), (4), (5), and (6) at least annually."
8. The Vector Control Permit contains a receiving water limitation for malathion and receiving water monitoring triggers for temephos, naled, pyrethrin, permethrin, resmethrin, sumithrin, prallethrin, piperonyl butoxide, etofenprox, and N-octyl bicycloheptene dicarboximide or MGK-264. In lieu of water quality monitoring for these active ingredients, the amended MRP requires reporting of corresponding application rates and incidents of noncompliance. The rationale is explained further in the subsequent findings below.
9. The Vector Control Permit requires the State Water Board to fund a toxicity study to determine whether pesticide applications have the potential to cause toxicity in receiving waters. The University of California, Davis, Department of Environmental Toxicology (UCD-DET) conducted the toxicity study for the State Water Board in 2011 and 2012. UCD-DET submitted the Draft General Pesticide Permit Toxicity Study Report to the State Water Board in December 2012. The draft report provided the following conclusions:
 - 17 out of 106 (16 percent) samples were toxic, primarily due to dichlorvos which is a degradation by-product of the active ingredient naled;
 - Other toxic samples could be due to the presence of other pyrethroids not used in vector control applications and piperonyl butoxide, which synergized pyrethroids already in the water or sediments; and
 - Chemical monitoring can be used in lieu of toxicity testing to determine compliance with the permit.

Although the toxicity study showed some toxicity resulted from vector control applications, the incidence of toxicity is not significant.

10. The current MRP in Attachment C of the Vector Control Permit requires Dischargers to conduct visual, physical, and chemical monitoring. Page C-2 of the MRP encourages Dischargers to form monitoring coalitions with others doing similar applications within a given watershed or doing applications of similar environmental settings (agricultural, urban, and wetland). If the Discharger elects in its Pesticide Application Plan (PAP) to undertake monitoring and reporting through a Coalition, then the Coalition will prepare and implement a monitoring and reporting program (pursuant to this Attachment C) and act on behalf of the Discharger with respect to monitoring and reporting. Otherwise, the Discharger will prepare and implement an individual monitoring and reporting program.
11. While Order 2011-0002-DWQ (as amended by Order 2012-0003-DWQ) allows certain actions to be performed by a Coalition or Discharger, the amended MRP requires that specified monitoring be performed by all Dischargers applying pesticides as authorized by the permit. Certain provisions in the amended MRP continue to allow a Coalition to take action on behalf of a Discharger for reporting purposes.

12. The Mosquito Vector Control Association of California (MVCAC) represents 64 mosquito and vector control districts in California. Currently, there are 70 mosquito and vector control districts that are enrolled in the VCP.

On behalf of its member districts, MVCAC conducted chemical monitoring for adulticides at 61 locations in 2011 and 2012, and coordinated physical monitoring for 136 larvicide application events in 2012. In February 2013, MVCAC submitted the annual report for 2011-2012 with the following conclusions:

- 1 out of 136 visual observations showed a difference between background and post-event samples;
- 108 physical monitoring samples showed no difference between background and post-event samples; and
- 6 out of 112 samples exceeded the receiving water monitoring limitation or triggers.

The report indicated that there was no significant impact to beneficial uses of receiving waters due to application of vector control pesticides in accordance with approved application rates. This is consistent with the primary mandate for vector control districts of protecting public health by reducing vector-borne diseases from mosquitos and other vectors.

13. On May 22, 2013, MVCAC requested a reduction of the monitoring requirements and State Water Board consideration of requirements that complement the vector control districts' public safety mission and that do not interfere with the timing of their critical pesticide applications.
14. Based on discharger monitoring data, the Deputy Director finds that application of pesticides in accordance with approved application rates does not impact beneficial uses of receiving waters. The Deputy Director also finds that continuation of the existing monitoring requirements provides redundant information and is unnecessary.
15. State Water Board staff has worked closely with MVCAC to identify valuable information to assist the State Water Board in determining permit compliance and protecting the beneficial uses of receiving waters. Through review of existing water quality and toxicity data, the Draft General Pesticide Permit Toxicity Study Report, and MVCAC's 2011-2012 annual report, the Deputy Director finds that visual observations, monitoring and reporting of pesticide application rates, and reporting of non-compliant applications provide information that is equivalent to the existing monitoring and reporting requirements in determining compliance with the Vector Control Permit. Therefore, this amendment replaces the visual, physical, and chemical monitoring with reporting of visual observations, monitoring and reporting of application rates, and reporting of non-compliant applications.

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16. The amended MRP is shown as Attachment C of this Order to maintain the numbering of the original attachment to the Vector Control Permit.

IT IS HEREBY ORDERED THAT:

Based on the above findings, the MRP for the Vector Control Permit (Order 2011-0002-DWQ as amended by Order 2012-0003) is hereby amended as shown in Attachment C of this Order, and shall be effective on XXXX XX, 2014.

Dated:

Victoria A. Whitney, Deputy Director

ATTACHMENT C – MONITORING AND REPORTING PROGRAM

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ATTACHMENT C – MONITORING AND REPORTING PROGRAM

Title 40 of the Code of Federal Regulations (C.F.R.), §-section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the State Water Board and Regional Water Quality Control Board to require technical and monitoring reports. This Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements which implement federal and California laws and regulations.

~~This MRP is designed to address the two key questions shown below. It also encourages Dischargers to form monitoring allows coalitions with others of Dischargers doing similar applications within a given watershed or doing applications of similar environmental settings (agricultural, urban, and wetland)- to collectively report all required data and information to the State Water Board. The Coalition or Discharger may select sites representing worst case scenarios or high use areas for each active ingredient in each environmental setting.~~ If the Discharger elects in its Pesticide Application Plan (PAP) to undertake ~~monitoring and~~ reporting through a Coalition, then the Coalition will prepare and implement an MRP (pursuant to this Attachment C) and act on behalf of the Discharger with respect to ~~monitoring and~~ reporting. Otherwise, the Discharger will prepare and implement an individual MRP ~~and submit individual reports to the State Water Board.~~

Review of existing water quality and toxicity data, the Draft General Pesticide Permit Toxicity Study Report, and the Mosquito Vector Control Association of California's (MVCAC's) 2011-2012 annual report comprehensively indicate that visual observations, monitoring and reporting of pesticide application rates, and reporting of non-compliant applications will provide information necessary to determine compliance with the General NPDES Permit for Biological and Residual Pesticide Discharges from Vector Control Applications, NPDES No. CAG 990004 (Vector Control Permit).

~~**Question No. 1:** Does the biological or residual pesticide from applications cause an exceedance of receiving water limitations or monitoring triggers?~~

~~**Question No. 2:** Does the biological or residual pesticide, including active ingredients, inert ingredients, and degradation by products, in any combination cause or contribute to an exceedance of the "no toxics in toxic amount" narrative toxicity objective?~~

~~If the Discharger elects in its PAP to undertake monitoring and reporting through a Coalition, then the PAP should reference and attach the Coalition's monitoring plan.~~

I. GENERAL MONITORING PROVISIONS

A. Visual Monitoring Requirements During Pesticide Applications

During any pesticide application under the Vector Control Permit, all Dischargers must, when considerations for safety and feasibility allow, visually assess the area to and around where pesticides are applied for possible and observable adverse incidents, as defined in Section I.C below, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of

wildlife habitat, recreational or municipal water use.

In consideration of safety and feasibility, visual monitoring is not required during the course of pesticide application when that application is performed in darkness or other circumstances that deem it infeasible for the inspector to note adverse effects. Additional circumstances that may render visual observations during pesticide application infeasible include applications made from:

1. An aircraft;
2. A moving road vehicle when the Applicator is the driver;
3. A watercraft when the Applicator is the driver; and
4. A moving off-road wheeled or tracked vehicle when the Applicator is the driver.

B. Visual Monitoring Requirements After Pesticide Applications

During any Discharger post-application surveillance of any pesticide application with discharges authorized under the Vector Control Permit, all Dischargers must visually assess the area to and around where pesticides were applied for possible and observable adverse incidents, as defined in Section I.C below, caused by application of pesticides, including the unanticipated death or distress of non-target organisms and disruption of wildlife habitat, recreational or municipal water use.

C. Adverse Incident Definition

An adverse incident is defined as an unusual or unexpected incident that a Discharger has observed upon inspection or of which the Discharger otherwise has become aware, in which:

1. There is evidence that a person or non-target organism has likely been exposed to a pesticide residue from a discharge to the waters of the United States; and
2. The person or non-target organism suffered a toxic or adverse effect.

The phrase "toxic or adverse effects" includes effects that occur within waters of the United States on non-target plants, fish or wildlife that are unusual or unexpected (e.g., effects are to organisms not otherwise described on the pesticide product label or otherwise not expected to be present) as a result of exposure to a pesticide residue, and may include:

1. Distressed or dead juvenile and small fishes
2. Washed up or floating fish
3. Fish swimming abnormally or erratically
4. Fish lying lethargically at water surface or in shallow water
5. Fish that are listless or nonresponsive to disturbance

6. Stunting, wilting, or desiccation of non-target submerged or emergent aquatic plants

7. Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, invertebrates, etc.)

The phrase “toxic or adverse effects” also includes any adverse effects to humans (e.g., skin rashes) or domesticated animals that occur either from direct contact with or as a secondary effect from a discharge (e.g., sickness from consumption of plants or animals containing pesticides) to Waters of the United States that are temporally and spatially related to exposure to a pesticide residue (e.g., vomiting, lethargy).

- ~~A. Samples and measurements taken as required herein shall be representative of the nature of the monitored discharge. All samples shall be taken at the anticipated monitoring locations specified in the Discharger’s or Coalition’s PAP.~~
- ~~B. All laboratory analyses shall be conducted at a laboratory certified for such analyses by the Department of Public Health (CDPH, formerly Department of Health Services). Laboratories that perform sample analyses shall be identified in all monitoring reports. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by the State Water Board and the appropriate Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the State Water Board and the appropriate Regional Water Board.~~
- ~~C. All analyses shall be conducted in accordance with the latest edition of “Guidelines Establishing Test Procedures for Analysis of Pollutants” (Guidelines), promulgated by the U.S. EPA (40 C.F.R. Part 136). Any procedures to prevent the contamination of samples as described by the PAP shall be implemented.~~

D. Application Rate Monitoring

The Discharger or Coalition shall monitor the amount of adulticides and larvicides used during each application. Records of monitoring information shall include the following:

- ~~1. The date, exact place, and time of sampling or measurements;~~
- ~~2. The individuals who performed the sampling or measurements;~~
- ~~3. The dates analysis were performed;~~
- ~~4. The individuals who performed the analyses;~~
- ~~5. The analytical techniques or methods uses; and~~
- ~~6. The results of such analyses.~~

1. Name of discharger.
2. Date of application.
3. Location where application took place.
4. Number of acres treated.
5. Amount of material used for application.

6. Application Rate (amount/acre). The application rate must be within the range specified by the pesticide label. Application rate must be appropriate to the targeted species.
7. Pesticide name and U.S. Environmental Protection Agency registration number.
8. Pesticide active ingredient and percent of active ingredient.
9. Range of application rate as required by the pesticide label. Application rate must be appropriate to the targeted species.
10. Name of water bodies that could be affected or map of treated area.
11. Instances of noncompliance reported at intervals and in a manner consistent with this MRP.

- E. All monitoring instruments and devices used by the Discharger or Coalition to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their accuracy.
- F. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- G. ~~G. Laboratories analyzing monitoring samples shall be certified by CDPH, in accordance with the provision of California Water Code section 13176, and must include quality assurance/quality control data with their reports.~~

II. MONITORING LOCATIONS AND **SAMPLE** TYPES

A. Monitoring Locations

~~Each Discharger or Coalition shall establish monitoring locations specified in the Discharger's or Coalition's PAP, to demonstrate compliance with the receiving water limitations, discharge specifications, and other requirements in this General Permit. The number and location of samples shall be selected to answer the two key questions. A Coalition or Discharger may use representative monitoring locations to characterize water quality for all waters of the US within the Discharger's boundaries for each environmental setting (agriculture, urban, and wetland). However, the Coalition or Discharger must provide justification for the selection of the representative monitoring locations. To be considered "representative," at a minimum, a location must be similar in hydrology, pesticide use, and other factors that affect the discharge of biological and residual pesticides to surface waters as a result of applications to the areas being represented in that environmental setting. Each Coalition or Discharger must provide technical justification and identify which areas are to be considered representative.~~

Monitoring location information shall include a description of the treatment area, Geographic Positioning System (GPS) coordinates and map of treated area, and pesticides being applied.

B. Sample Monitoring Types

The Discharger or Coalition shall monitor application rates and visually assess the area to and around where pesticides are applied, in accordance with Section I.A through I.F, for possible and observable adverse incidents, as defined in Section I.C during application and during any post-application surveillance of any pesticide application with discharges authorized under the Vector Control Permit.

- ~~1. **Background Monitoring.** Background samples shall be collected in the application area or target area, just prior (up to 24 hours in advance of application) to the application event.~~
- ~~2. **Event Monitoring.** Event monitoring samples shall be collected in the application or target area for adulticide applications and downstream of the application or target area for larvicide applications immediately after the application event but shall not exceed 24 hours after the application event.~~
- ~~3. **Post-Event Monitoring.** Post-event samples shall be collected within the application area or the target area for larvicide applications within one week after project completion, as determined by the Coalition or Discharger.~~

III. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. General Monitoring Requirements

~~The PAP shall be designed to answer the two key questions stated above. The PAP shall describe the tasks and time schedule in which these two key questions will be addressed.~~ Monitoring shall take place at locations that are planned for pesticide applications or locations at which pesticides may be applied, as described in the Discharger's PAP.

The PAP must consider watershed specific attributes and waste constituents, based on the characteristics of applications within the ~~Coalition's or~~ Discharger's area, as well as the receiving water quality conditions. Developing the details of a monitoring design requires clearly defining several inputs to the design and then organizing these in a logical framework that supports effective decision making about indicators, application rates and visual monitoring locations, and monitoring frequency. The logical framework should describe:

1. The basic geographic and hydrographic features of the area, particularly application points and the pathways(s) of residue flows;
2. Pesticide application practices and how they are distributed in space and time;
3. Relevant knowledge about the transport, fates, and effects of pesticides, including best- and worst-case scenarios;
4. Description of the designated uses in each water body;
5. Relevant knowledge about the action of cumulative and indirect effects, and of other sources of impact;
6. Mechanisms through which pesticide applications could lead to designated use impacts, given the basic features of the area;

7. Known and potential impacts of pesticide applications on water quality, ranked in terms of relative risk, based on factors such as magnitude, frequency and duration; and
8. ~~Sufficient number of sampling areas~~ Other information necessary to assess the entire Discharger's ~~or Coalition's~~ area of influence.; and
9. ~~The approach, including a schedule, to sample monitoring areas.~~

~~In conducting the receiving water sampling, a~~ log shall be kept of the receiving water conditions throughout the water body reach bounded by the treatment area. Attention shall be given to the presence or absence of:

1. Floating or suspended matter;
2. Discoloration;
3. Bottom deposits;
4. Aquatic life;
5. Visible films, sheens, or coatings;
6. Fungi, slimes, or objectionable growths; and
7. Potential nuisance conditions.

Notes on receiving water conditions shall be summarized in the monitoring report.

~~B. Monitoring Requirements for Larvicides~~

~~Monitoring locations for larvicides must include frequent and routine monitoring on a pre-determined schedule, as summarized in the Table C-1. The active ingredient temephos is the only larvicide that requires chemical testing, including dissolved oxygen.~~

~~Table C-1. Monitoring Requirements for Larvicides~~

| Sample Type | Constituent/Parameter | Units | Sample Method | Minimum Sampling Frequency | Sample Type Requirement | Required Analytical Test Method |
|--------------------|--|----------------|----------------------|-----------------------------------|--|--|
| Visual | 1. Monitoring area description (pond, lake, open waterway, channel, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.) | Not applicable | Visual Observation | 4 | Background, Event, and Post-Event Monitoring | Not applicable |
| Physical | 1. Temperature ² | °F | Grab ⁴ | 5 | Background, Event, and Post-Event Monitoring | 6 |
| | 2. pH ³ | Number | | | | |
| | 3. Turbidity ³ | NTU | | | | |

| | | | | | | |
|----------|--|----------|-------------------|---|--|---|
| | 4. Electrical Conductivity ³ @ 25°C | µmhos/cm | | | | |
| Chemical | 1. Active Ingredient ⁷ | µg/L | Grab ⁴ | 5 | Background, Event, and Post-Event Monitoring | 6 |
| | 2. Dissolved Oxygen ³ | mg/L | | | | |

- ¹ All applications at 10% of all application areas or six application areas, whichever is greater, unless inappropriate. If applying to less than six application areas, monitor at all application areas, unless inappropriate.
- ² Field testing.
- ³ Field or laboratory testing.
- ⁴ Samples shall be collected at three feet below the surface, or mid-depth if water body is less than six feet deep.
- ⁵ If applying six or more times a year, collect six samples for each active ingredient in each environmental setting (urban, agricultural, or wetland). If applying less than six times a year, collect a sample during each application for each active ingredient in each environmental setting (urban, agricultural, or wetland).
- ⁶ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136.
- ⁷ Active ingredient required to be tested is temephos.

C. Monitoring Requirements for Adulticides

Monitoring locations for adulticides must include frequent and routine monitoring on a pre-determined schedule, as summarized in Table C-2 below:

Table C-2. Monitoring Requirements for Adulticides

| Sample Type | Constituent/Parameter | Units | Sample Method | Minimum Sampling Frequency | Sample Type Requirement | Required Analytical Test Method |
|-------------|---|----------------|--------------------|----------------------------|----------------------------------|---------------------------------|
| Visual | 1. Monitoring area description (pond, lake, open waterway, channel, etc.) 2. Appearance of waterway (sheen, color, clarity, etc.) 3. Weather conditions (fog, rain, wind, etc.) | Not applicable | Visual Observation | 4 | Background and Event Monitoring | Not applicable |
| Physical | 1. Temperature ² | °F | Grab ⁴ | 5 | Background and Event Monitoring | 6 |
| | 2. pH ³ | Number | | | | |
| | 3. Turbidity ³ | NTU | | | | |
| | 4. Electrical Conductivity ³ @ 25°C | µmhos/cm | | | | |
| Chemical | 1. Active Ingredient ⁷ | µg/L | Grab ⁴ | 5 | Background, and Event Monitoring | 6 |
| | 2. Dissolved Oxygen ³ | mg/L | | | | |

- ~~1 All applications at 10% of all application areas or six application areas, whichever is greater, unless inappropriate. If applying to less than six application areas, monitor at all application areas, unless inappropriate.~~
- ~~2 Field testing.~~
- ~~3 Field or laboratory testing.~~
- ~~4 Samples shall be collected at the surface of the water body.~~
- ~~5 If applying six or more times a year, collect six samples for each active ingredient in each environmental setting (agricultural, urban or wetland). If applying less than six times a year, collect a sample during each application for each active ingredient in each environmental setting (agricultural, urban, or wetland). The remaining samples required to meet the minimum of six shall be collected subsequently the following year(s).~~
- ~~6 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136. For pyrethrin and pyrethroids, the Coalition or Discharger may use alternative analytical methods in which analytical methods used must be capable of achieving the MDLs below the Receiving Water Monitoring Trigger for each active ingredient analyzed if the analytical methods described in 40 C.F.R. Part 136 are not capable of achieving these MDLs.~~
- ~~7 First year sampling shall include pyrethrin, permethrin, resmethrin, sumithrin, prallethrin, etofenprox, PBO, PBO (in PBO/Pyrethrin mixture), and PBO (in PBO/ Resmethrin mixture). Second year sampling shall include naled and malathion. Third year sampling shall include MGK-264. If applying six or more times a year, collect six samples for each environmental setting (agricultural, urban, or wetland). If applying less than six times a year, collect a sample during each application for each environmental setting (agricultural, urban, or wetland). The remaining samples required to meet the minimum of six shall be collected subsequently the following year(s).~~

IV. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger or Coalition shall inform the State Water Board and the appropriate Regional Water Board 24 hours before the start of its first application of the year or at the earliest feasible time.
2. The Discharger or Coalition shall comply with all Standard Provisions (Attachment B) related to monitoring, reporting, and recordkeeping.
3. Upon written request of the State Water Board or the appropriate Regional Water Board, the Discharger or Coalition shall submit a summary monitoring report.
4. The Discharger or Coalition shall report to the State Water Board ~~and appropriate Regional Water Board~~ any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986 (42 U.S.C. §11001 et. seq.)
5. Monitoring frequencies may be adjusted by the ~~State Water Board~~ Deputy Director of the Division of Water Quality (~~Deputy Director~~) to a less frequent basis if the Discharger or Coalition makes a request and the request is backed by statistical trends of monitoring data submitted.
6. Additional monitoring and reporting requirements may be added to the MRP by the Deputy Director.

B. Adverse Incident Reporting

1. Twenty-Four (24)-Hour Adverse Incident Notification

Except as provided for in Section IV.B.5, if a Discharger observes or is otherwise made aware of an adverse incident, as defined in Section I.C, which may have resulted from a discharge from a pesticide application, the Discharger must immediately notify the appropriate Regional Water Board. This notification must be made by telephone within 24 hours of the Discharger becoming aware of the adverse incident and must include at least the following information:

- a. The caller's name and telephone number;
- b. Discharger name and mailing address;
- c. The name and telephone number of a contact person, if different than the person providing the 24-hour notice;
- d. How and when the Discharger became aware of the adverse incident;
- e. Description of the location of the adverse incident;
- f. Description of the adverse incident identified and the pesticide product, including U.S. EPA pesticide registration number, for each product applied in the area of the adverse incident;
- g. Description of any steps the Discharger has taken or will take to correct, repair, remedy, clean up, or otherwise address any adverse effects; and
- h. If known, the identity of any other Dischargers authorized for coverage under this permit for discharges from the pesticide application activities that resulted in the adverse incident.

If a Discharger is unable to notify the appropriate Regional Water Board within 24 hours, the Discharger must do so as soon as possible and also provide an appropriate rationale for why the Discharger was unable to provide such notification within 24 hours.

The adverse incident notification and reporting requirements are in addition to what the registrant is required to submit under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 6(a)(2) and its implementing regulations at 40 CFR Part 159.

2. Adverse Incident Notification Not Required

Reporting of adverse incidents is not required under the Vector Control Permit in the following situations:

- a. A Discharger has been notified by the appropriate Regional Water Board or the State Water Board, and retains such notification, that the reporting requirement has been waived for this incident or category of incidents;
- b. A Discharger receives information of an adverse incident, but that information is clearly erroneous; or
- c. An adverse incident occurs to pests that are similar in-kind to potential target

pests identified on the FIFRA label.

3. Thirty (30)-Day Adverse Incident Written Report

Except as provided for in Section IV.B.5, within 30 days of a reportable adverse incident pursuant to in Section IV.B.1, the Discharger must provide a written report of the adverse incident to the appropriate Regional Water Board. The adverse incident report must include at least the following information:

- a. Information required to be provided in Section II.F.1IV.B.1;
- b. Date and time the Discharger contacted the appropriate Regional Water Board notifying them of the adverse incident, the person's name the Discharger spoke with at the appropriate Regional Water Board, and any instructions received from them;
- c. Location of incident, including the names of any waters affected and appearance of those waters (sheen, color, clarity, etc.);
- d. A description of the circumstances of the adverse incident including species affected, estimated number of individual and approximate size of dead or distressed organisms;
- e. Magnitude and scope of the affected area (e.g., aquatic square area or total stream distance affected);
- f. Pesticide application rate, intended use site (e.g., on the bank, above waters, or directly to water), method of application, and the name of pesticide product and U.S. EPA registration number;
- g. Description of the habitat and the circumstances under which the adverse incident occurred (including any available ambient water data for pesticides applied);
- h. If laboratory tests were performed, an indication of which test(s) were performed, and when; a summary of the test results must be provided within five days after they become available, if not available at the time of submission of the 30-day report;
- i. Description of actions to be taken to prevent recurrence of adverse incidents; and
- j. Signature, date, and certification in accordance with Section V.B of Attachment B of the Vector Control Permit.

4. Adverse Incident to Threatened or Endangered Species or Critical Habitat

Notwithstanding any of the other adverse incident notification requirements of this section, if a Discharger becomes aware of an adverse incident affecting a federally listed threatened or endangered species or its federally designated critical habitat which may have resulted from a discharge from the Discharger's pesticide application to the waters of the United States, the Discharger must immediately notify National Marine Fisheries Service (NMFS) Santa Rosa office by phone at (707) 575-6050 in the case of an anadromous or marine species, or the U.S. Fish and Wildlife Service (FWS) at (916) 414-6600 in the case of a

terrestrial or freshwater species. This notification must also be made by telephone to the appropriate Regional Water Board and the State Water Board, immediately upon the Discharger becoming aware of the adverse incident, and must include at least the following information:

- a. The caller's name and telephone number;
- b. Discharger name and mailing address;
- c. The name of the affected species;
- d. How and when the Discharger became aware of the adverse incident;
- e. Description of the location of the adverse incident;
- f. Description of the adverse incident and the pesticide product, including the U.S. EPA pesticide registration number, for each product applied in the area of the adverse incident; and
- g. Description of any steps the Discharger has taken or will take to alleviate the adverse impact to the species.

Additional information on federally-listed threatened or endangered species and federally-designated critical habitat is available from NMFS (www.nmfs.noaa.gov) for anadromous or marine species or FWS (www.fws.gov) for terrestrial or freshwater species.

5. Notification and Reporting for Adverse Incidents Involving Multiple Dischargers

Where multiple Dischargers are authorized for a discharge that results in an adverse incident, notification and reporting by any one of the Dischargers constitutes compliance for all of the Dischargers, provided a copy of the written report required in Section IV.B.3 is also provided to all of the other authorized Dischargers within 30 days of the reportable adverse incident.

B.C. Annual Reports

Each Coalition or Discharger, including members of a Coalition, shall submit an Annual Report. Dischargers, who are members of a Coalition, may reference monitoring information in the Coalition's Annual Report.

1. Annual reports shall contain the following information:
 - a. An Executive Summary discussing compliance or violation of this General Permit and the effectiveness of the PAP to reduce or prevent the discharge of biological and residual pesticides for vector control;
 - b. A summary of monitoring data, including the identification of water quality improvements or degradation, and recommendations for improvements to the PAP (including proposed BMPs) and monitoring program based on the monitoring results. ~~All receiving water monitoring data shall be compared to applicable water quality standards or Receiving Water Monitoring Triggers;~~
 - c. Identification of BMPs currently in use and a discussion of their effectiveness in meeting the requirements in this General Permit;

- d. A discussion of BMP modifications addressing violations of this General Permit;
 - e. A map showing the location of each application area and the target area;
 - f. Types and amounts of pesticides used at each application event during each application;
 - g. Information on surface area and/or volume of application and target areas and any other information used to calculate dosage, concentration, and quantity of each pesticide used;
 - ~~h. Sampling results shall indicate the name of the sampling agency or organization, detailed sampling location information (including latitude and longitude or township/range/section if available), detailed map or description of each sampling area (i.e., address, cross roads, etc.), collection date, name of constituent/parameter and its concentration detected, minimum levels, method detection limits for each constituent analysis, name or description of water body sampled, and a comparison with applicable water quality standards, description of analytical QA/quality control plan. Sampling results shall be tabulated so that they are readily discernible; and~~
 - ~~i.h.~~ Recommendations to improve the monitoring program, BMPs, and PAP to ascertain compliance with this General Permit; and;
 - ~~j.i.~~ Pesticide Application Log.
2. The Discharger or the Coalition shall include in the Annual Report any updated information regarding specific monitoring locations from its PAP.
 3. At any time during the term of this General Permit, the State Water Board or the appropriate Regional Water Board may notify Dischargers or Coalition of the requirement to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, each Coalition or Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
 4. The Discharger or Coalition shall report the results for all monitoring specified in this MRP in the SMR. The Discharger or Coalition shall submit annual SMRs including the results of all required monitoring, ~~using U.S. EPA-approved test methods or other test methods specified in this General Permit.~~ If a Discharger or Coalition monitors any pollutant more frequently than required by this General the Vector Control Permit, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

5. Monitoring reports shall be submitted to the State Water Board, to the attention of the Deputy Director of the Division of Water Quality, and the appropriate Regional Water Board Executive Officer in accordance with the following schedule:

Table C-31. Reporting Schedule

| Reporting Frequency | Reporting Period | Annual Report Due |
|---------------------|-------------------------------|-------------------|
| Annual | 1 January through 31 December | 1 March |

C.D. Reporting Protocols

~~The Discharger or Coalition shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. Part 136.~~

~~The Discharger or Coalition shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:~~

- ~~1. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).~~
- ~~2. Sample results less than the Reporting Limit (RL), but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.~~

~~For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (plus a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.~~

- ~~3. Sample results less than the laboratory's MDL shall be reported as "<" followed by the MDL.~~
- ~~4. Dischargers or Coalition are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger or Coalition to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.~~
- ~~5. Multiple Sample Data: If two or more sample results are available, each Discharger or Coalition shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger or Coalition shall compute the median in place of the arithmetic mean in accordance with the following procedure:~~

- ~~a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.~~
 - ~~b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.~~
- ~~6. Dischargers and Coalition shall submit the Annual Report in accordance with the following requirements:~~
- ~~a. To the extent feasible, the Discharger or Coalition shall arrange all reported data information in a tabular format. The data information shall be summarized to clearly illustrate whether the facility is operating in compliance with effluent and receiving water limitations. The Discharger or Coalition is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger or Coalition shall electronically submit the data in a tabular format as an attachment.~~
 - ~~b. Each Discharger or Coalition shall attach a cover letter to the Annual Report. The information contained in the cover letter shall clearly identify violations of the permit; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.~~

Annual Reports must be submitted to the State Water Board Deputy Director of the Division of Water Quality, signed and certified as required by the Standard Provisions (Attachment B).