

PROPOSED CHANGES TO THE DRAFT STATEWIDE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR BIOLOGICAL AND RESIDUAL PESTICIDE DISCHARGES TO WATERS OF THE UNITED STATES FROM VECTOR CONTROL APPLICATIONS (VECTOR CONTROL PERMIT)

This Change Sheet covers revisions to the Vector Control General Permit, posted on the State Water Board website:

http://www.waterboards.ca.gov/board_info/agendas/2011/mar/030111_6.pdf

Changes in red underline: additional language proposed after February 4, 2011.

Changes in ~~red strikeout~~: language proposed to be removed after February 4, 2011.

Vector Control Permit

Limitations and Discharge Requirements

Section II.D. Fees, page 6

The ~~annual~~ fee for enrollment under this General Permit shall be based on Category 3 in ~~Section 2200(b)(68)~~ of Title 23, California Code of Regulations (CCR). ~~This category is appropriate because pesticide applications incorporate best management practices (BMPs) to control potential impacts to beneficial uses, and this General Permit prohibits the discharge of biological and residual pesticides causing exceedance of water quality objectives. The annual fee associated with this rating can be found in section 2200(b)(8) of Title 23, CCR,~~ which is available at http://www.waterboards.ca.gov/resources/fees/docs/fy10_11_fee_schedule.pdf ~~http://www.w.waterboards.ca.gov/resources/fees/~~ and is payable to the State Water Board.

Note: This change was also added to Attachment D, Section II.B and Attachment G, Section VIII – Fee.

Section III.L. Antidegradation Policy, page 13

Given the nature of a General Permit and the broad range of beneficial uses to be protected across the state, data analysis of specific water bodies is infeasible. While surface waters may be temporarily degraded, water quality standards and objectives will not be exceeded. The nature of pesticides is to be toxic in order to protect human health. However, compliance with receiving water limitations and other permit requirements ~~is required. will ensure that degradation of the State's waters will be temporary and that the waters will be returned to pre-application conditions after project completion.~~ Therefore, this General Permit is consistent with State and federal antidegradation policies.

Note: This change was also added to Attachment D, Section IV.C.4.

Section VIII.B. Public Notice Requirements, page 17

Every calendar year, prior to the first application of pesticides, the Discharger shall notify potentially affected governmental agencies and, if the Discharger has a website, post the notification at its website.

Section VIII.C. Pesticide Application Plan (PAP), pages 18 - 19

~~8. If applicable, list the gates or control structures and inspection schedule of those gates or control structures to ensure that they are not leaking;~~

~~10.~~ 9. Description of the BMPs to be implemented. The BMPs shall include, at the minimum:

- 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;
- d. descriptions of specific BMPs for each spray mode, e.g. aerial spray, truck spray, hand spray, etc.; ~~cease and desist order~~

~~12.~~ 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.

a.

If there are no alternatives to pesticides, dischargers shall use the least ~~toxic amount of~~ pesticide necessary to effectively control the target pest.

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

~~14.~~ 13. If applicable, Sspecify a website where public notices, required in Section VIII.B, may be found.

Section VIII.D. PAP Processing, Approval, and Modifications, page 19

If no comments are received and staff deems the ~~A~~PAP complete, the Deputy Director will issue an NOA within three (3) working days following closure of the comment period.

Section VIII.E. Pesticide Application Log, page 20

5. Application details, such as application started and stopped, pesticide application rate ~~and or~~ concentration, pesticide(s) and adjuvants used by the Discharger, and volume or mass of each component discharged. For larvicides, application details shall also include flow rate of the target area, surface water area, and volume of water treated, ~~pesticide(s) and adjuvants used by the Discharger, and volume or mass of each component discharged~~;
6. Visual monitoring assessment for larvicide applications and adulticide applications, unless inappropriate; and

Section IX.A. Standard Provisions, page 20

2. This General Permit does not authorize the discharge of biological and residual pesticides or their degradation by-products to waters of the US that are impaired by the same pesticide active ingredients or any pesticide in the same chemical family included in permitted larvicides and adulticides listed in Attachments E and F.

Note: This change was also added to Attachment D, Section IV.D and Attachment G, Section 303(d) List.

Section IX.C.1.d. Receiving Water Limitations, page 23

If monitoring data for residual pesticides show exceedance of monitoring triggers, the Discharger or Coalition shall conduct additional investigations to determine the cause of exceedance.

Attachment A – Definitions

Biological Pesticides

A chemical which is derived from plants, fungi, bacteria, or other non-man-made synthesis and which can be used for pest control.

Residual Pesticides

Residual pesticides are those portions of the pesticides that remain in the water after the application and its intended purpose (elimination of targeted pests) have been completed. Residual pesticides include also include excess amounts of pesticides during and after application.

Self Monitoring

Sampling and analyses performed by a permittee to determine compliance with a permit or other regulatory requirements. All analyses must be conducted by a laboratory certified by the Department of Health Services.

Attachment C – Monitoring and Reporting Program

Section I.A. General Monitoring Provisions, page C-3

All samples shall be taken at the anticipated monitoring locations specified in the Discharger's or Coalition's PAP, ~~unless otherwise specified.~~

Section II.A. Monitoring Locations, page C-4

The word "coalition" was inserted wherever "discharger" appears.

Section II.B. Sample Types, page C-4

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.

Section III.D. Toxicity Testing, pages C-7 through C-8

1. Monitoring Frequency

Larvicides-

For the first application, the Coalition or Discharger shall collect one Background sample and one Post-Event sample in the application area for toxicity testing. If the Background sample result shows no toxicity, the Coalition or Discharger shall continue taking only Post-Event samples until a total of six consecutive Post-Event sample results show no toxicity in the receiving water. Thereafter, no further testing for toxicity will be required for the active ingredient used at that representative site. When the Background sample shows toxicity, the Coalition or Discharger must collect paired Background and Post-Event samples to determine whether the application is causing or adding toxicity to the Background receiving water.

Adulticides-

For the first application, the Coalition or Discharger shall collect one Background sample and one Event sample in the application area for toxicity testing. If the Background sample result shows no toxicity, the Coalition or Discharger shall continue taking only Event samples until a total of six consecutive Event sample results show no toxicity in the receiving water. Thereafter, no further testing for toxicity will be required for the active ingredient used at that representative site. When the Background sample shows toxicity, the Coalition or Discharger must collect paired Background and Event samples to determine whether the application is causing or adding toxicity to the Background receiving water.

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STAFF CHANGE #1 (CIRCULATED 2/28/11)**

Section IV.B. Monitoring Requirements for Larvicides, pages C-13 through C-14

The active ingredient temephos is the only larvicide that requires chemical testing, including dissolved oxygen, and toxicity testing.

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	1 All applications at all application areas	Background, Event, and Post-Event Monitoring	Not applicable
Physical	1. Temperature ²	°F	Grab ⁴	15	Background, Event, and Post-Event Monitoring	56
	2. pH ³	Number				
	3. Turbidity ³	NTU				
	4. Electrical Conductivity ³ @ 25°C	µmhos/cm				
Chemical	1. Active Ingredient ^{6Z}	µg/L	Grab ⁴	15	Background, Event, and Post-Event Monitoring	56
	2. Dissolved Oxygen ³	mg/L				
Toxicity	Toxicity	Pass/Fail	Grab ⁴	See Section III.A.1	See Section III.A.1	56

¹ ~~All applications at 10% of all application areas or six application areas, whichever is greater. If applying to less than six application areas, monitor all application areas. If applying six or more times a year, collect six samples for each environmental setting (urban, agricultural, or wetlands). If applying less than six times a year, collect a sample during each application for each environmental setting (urban, agricultural, or wetlands).~~

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 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).~~

⁶ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136.

⁷⁶ Active ingredient required to be tested is temephos.

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Section IV.C. Monitoring Requirements for Adulcicides, pages C-15 through C-16

Table C-2. Monitoring Requirements for Adulcicides

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	¹ All applications at all application areas	Background and Event Monitoring	Not applicable
Physical	1. Temperature ²	°F	Grab ⁴	⁴⁵	Background and Event Monitoring	⁵⁶
	2. pH ³	Number				
	3. Turbidity ³	NTU				
	4. Electrical Conductivity ³ @ 25°C	µmhos/cm				
Chemical	1. Active Ingredient ^{6Z}	µg/L	Grab ⁴	⁴⁵	Background, and Event Monitoring	⁵⁶
	2. Dissolved Oxygen ³	mg/L				
Toxicity	Toxicity	Pass/Fail	Grab ⁴	See Section III.A.1	See Section III.A.1	⁵⁶

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 all application areas unless inappropriate. If applying six or more times a year, collect six samples for each environmental setting (agricultural, urban or wetlands). 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).~~

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~~

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Sample Type	Constituent/Parameter	Units	Sample Method	Minimum Sampling Frequency	Sample Type Requirement	Required Analytical Test Method
<p>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.</p> <p>^{6Z} 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 wetlands). If applying less than six times a year, collect a sample during each application for each environmental setting (agricultural, urban, or wetlands). The remaining samples required to meet the minimum of six shall be collected subsequently the following year(s).</p>						

Attachment D – Fact Sheet

Section VI.B. Surface Water, page D-30

Using one-tenth of the lowest LC50 ~~for freshwater vertebrates~~ as the receiving water monitoring trigger is consistent with the Central Valley Regional Water Board’s Basin Plan approach when developing the Daily Maximum limitation for pesticides that do not have water quality criteria.

Attachment F – List of Larvicide Products

Product Name	Registration Number
<u>FourStar Briquets</u>	<u>83362-3</u>
<u>FourStar SBG</u>	<u>85685-1</u>
<u>Aquabac xt</u>	<u>62637-1</u>
<u>Spheratax SPH (50 G) WSP</u>	<u>84268-2</u>
<u>Spheratax SPH (50 G)</u>	<u>84268-2</u>