

Pesticide Spray Applications General Permit

**State Water Resources Control Board
November 2, 2010**



Federal Water Pollution Control Act Amendments - 1972

- **NPDES Program**

Began with the 1972 amendments to the FWPCA or Clean Water Act (CWA).

- **CWA Section 101(a) sets:**

- **Objective:**

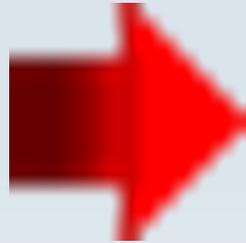
Restore and maintain the chemical, physical, and biological integrity of the nation's waters.

- **National Goals:**

- By 1983, achieve as an interim goal, fishable and swimmable waters;
- Eliminate the discharge of pollutants by 1985;
- Prohibits the discharge of toxic pollutants in toxic amounts.

NPDES Program Framework

- “Discharging pollutants”
- All “point” sources
- Into “waters of the US”



- Must obtain an NPDES permit from EPA or an authorized* State

*California was the first State to be authorized for NPDES permitting.

NPDES Permit Nuts and Bolts

Components of a Permit:

- Cover Page
- Effluent Limits
 - Technology Based Effluent Limits
 - 40 CFR 405-499
 - Water Quality Based Effluent Limits
 - WQ Criteria/Objectives (Beneficial Uses)
- Monitoring & Reporting Requirements
- Special Conditions
 - (BMPs, additional monitoring, special studies)
- Standard Conditions
 - Duty to Comply, Duty to Mitigate, Etc.





- **Why Regulate Pesticides?**

- 9th circuit court decisions in 2001 & 2005
- 6th circuit court decision in 2009
- Pesticides are #1 cause of impairment in California's surface waters
- Regulated agencies want coverage

- **Who will be covered?**

- CA Department of Food and Agriculture
- U.S. Forest Service

- **What does the permit cover?**

Residual pesticide discharges from *wide area* spray applications

Drafting of the Pesticide Spray Applications Permit

- **February 2010**

Staff met with California Department of Food and Agriculture (CDFA) representatives regarding their eradication programs and the need for an NPDES permit.

- **June 2010**

USEPA issued draft Pesticide General Permit covering:

- Aquatic Nuisance Animal Control
- Aquatic Weed and Algae Control
- Forest Canopy Pest Control
- Mosquito and Other Flying Insect Pest Control

- **June 2010**

Staff contacted U.S. Forest Service (USFS) to determine if its insect control activities needed coverage under the Spray Applications Permit.

Drafting of the Pesticide Spray Applications Permit

- **Preliminary Draft Permit**
Sent to CDFA, USFS, California Sportfishing Protection Alliance (CSPA), and Regional Water Boards
- **Comments**
 - Received from USFS and RB6
 - No comment from CSPA



Permit Requirements (Summary)

Similar to Vector Control Permit

- Prohibitions
- Narrative Effluent and Receiving Water Limitations
- Receiving Water Monitoring Triggers
- Pesticide Application Plan (PAP)
- Monitoring and Reporting Program

Permit Requirements

(Effluent and Receiving Water Limitations)

- **Narrative Effluent Limitations**
 - Cannot set limits on pesticide products since there is no effluent per se
 - Only residual pesticides constitute pollutants
 - When a pesticide becomes a residue is not easily determined
- **Narrative Receiving Water Limitations**

No information on residual pesticides in receiving water from spray applications to develop numeric receiving water limitations for active ingredients

Permit Requirements

(Receiving Water Monitoring Triggers)

- **Receiving Water Monitoring Triggers bases:**
 - Promulgated water quality criteria/objectives
 - USEPA's Recommended Ambient Water Quality Criteria
 - 1/10 of lowest LC50 values from USEPA Office of Pesticide *Ecotoxicity Database* (Central Valley Water Board Basin Plan approach)
- **Receiving Water Monitoring Triggers will be:**
 - compared with monitoring results;
 - used to initiate additional investigation if needed; or
 - used to develop numerical receiving water limitations as necessary.

Monitoring and Reporting Program

- **CWA Section 101(a) Objective:**
Restore and maintain the chemical, physical, and biological integrity of the nation's waters.
- **Water Boards' Water Quality Objectives:**
Must comply with CWA Section 101(a); consists of:
 - Chemical-specific numeric objectives
 - Narrative objective - "No toxics in toxic amounts"
- **Spray Applications Permit**
Monitoring and reporting program must show compliance with Water Boards' water quality objectives.



Monitoring and Reporting Program

- Permittees' monitoring and reporting program (MRP) must show compliance with Water Boards' water quality objectives.
- **MRP Objective:** provide data to ensure that water quality is protected and maintained.
- **Answer the following questions:**
 1. Does the pesticide residue from pesticide spray applications cause an exceedance of receiving water monitoring triggers?
 2. Does the pesticide residue, including active ingredients, inert ingredients, breakdown by-products, in any combination cause or contribute to an exceedance of the "no toxics in toxic amount" narrative toxicity objective?

Monitoring and Reporting Program

- **Chemical Monitoring**

- Evaluates compliance of individual ACTIVE INGREDIENTS with chemical-specific numeric objectives
- Answers Question 1

- **Toxicity Monitoring**

- Evaluates synergistic and additive effects of individual ACTIVE INGREDIENTS, INERTS, degradation by-products, and existing pesticides in all combination in receiving water
- Answers Question 2



Contact Information



Website: <http://www.waterboards.ca.gov/aquatic/index.html>

Marleigh Wood

Senior Staff Counsel
Office of Chief Counsel
State Water Board

Telephone: (916) 341-5169

Email: mwood@waterboards.ca.gov

Jenny Chen

NPDES Wastewater Unit
Division of Water Quality
State Water Board

Telephone: (916) 341-5570

Email: hjchen@waterboards.ca.gov

Philip Isorena

Chief of NPDES Wastewater Unit
Division of Water Quality
State Water Board

Telephone: (916) 341-5544

Email: pisorena@waterboards.ca.gov