

**Cal-IPC
2010
Symposium**

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*Rules to Follow
for the Use of
Aquatic
Herbicides*

Michael Blankinship

**Blankinship & Associates Inc.
Agricultural & Environmental Consultants**



Today's Talk



- What Are the Rules?
- What is NPDES?
- Do I Need an NPDES Permit?
- Injunction Dysfunction
- Are the Rules Changing?
- The Future

What Are the Rules?

Laboratory Rules:

- When you don't know what you're doing, do it neatly
- First draw your curves, then plot your data
- Experience is directly proportional to equipment ruined
- To do a lab really well, have your report done well in advance
- Team work is essential, it allows you to blame someone else

Meeting Rules:

- Never arrive on time, or you will be stamped a beginner
- Don't say anything until the meeting is half over; this stamps you as being wise
- “It is better to be thought a fool than to open one's mouth and remove all doubt.” (Benjamin Franklin)

What Are the Rules?

The First Wave

- The Federal: **FIFRA**
- State: **DPR**
- Local: **COCs and County Ordinances**

The Second Wave

- The Federal: **NPDES**
- State: **NPDES**
- Local: **Injunctions**



What is NPDES?

- National Pollutant Discharge Elimination System
- Part of the Federal Clean Water Act
- Typical Uses: stormwater, construction, industrial discharges
- Benefits:
 - Protect water quality
 - Allows discharge
 - Provides legal protection



Do I Need an NPDES Permit?

- You “discharge” a “pollutant” to “Waters of U.S.”
- Your pesticide application leaves a “residue”
- Your applications are to, over or near water
- Perceived CWA Violations and Subsequent Citizen Lawsuits Concern You



**“Point Source”
“Discharge”**



**Excess/Residue
= “Waste”
“Pollutant”**

“Waters of the US”

Waters of the US

“WOUS”

- All interstate waters and wetlands currently, formally or potentially used in interstate commerce;
- All other waters, including intrastate waters the use, degradation or destruction of which could affect interstate or foreign commerce
- Waters which are or could be used:
 - by interstate or foreign travelers for recreational or other purposes;
 - for industrial purposes by industries in interstate commerce
 - to take fish or shellfish and sold in interstate or foreign commerce; or

“Waters of the US”

- Adjacent Wetlands and Ponds
- Tributaries
- Seasonally intermittent streams ultimately emptying into a WOUS

“Waters of the US”

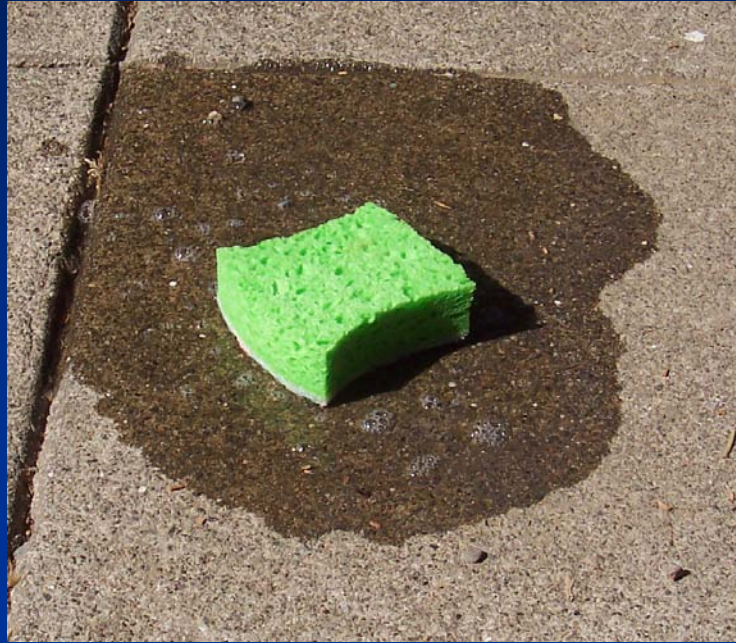
Excludes:

- Pre-1985 converted cropland
- Waste treatment ponds
- Artificial lakes/ponds created by excavating/diking dry land to collect/retain water used exclusively for stock watering, irrigation, settling basins, or rice growing
- Above the “ordinary high water mark”

“Waters of the US”

- All INTERstate waters and wetlands currently, formally or potentially used in interstate commerce;
- **Example: Klamath, Truckee & Colorado Rivers**
- All other waters, including INTRAstate waters the use, degradation or destruction of which COULD affect interstate or foreign commerce including waters:
- Waters which are or COULD be used:
 - by interstate or foreign travelers for recreational or other purposes;
 - for industrial purposes by industries in interstate commerce
 - to take fish or shellfish and sold in interstate or foreign commerce; or
- **Example: The Delta**
- TRIBUTARIES to WOUS
- Seasonally intermittent streams that ultimately empty into a WOUS
- Ponds adjacent to WOUS
- **Example**

“Waters of the U.S.”



Ask: Could I Be Connected?”

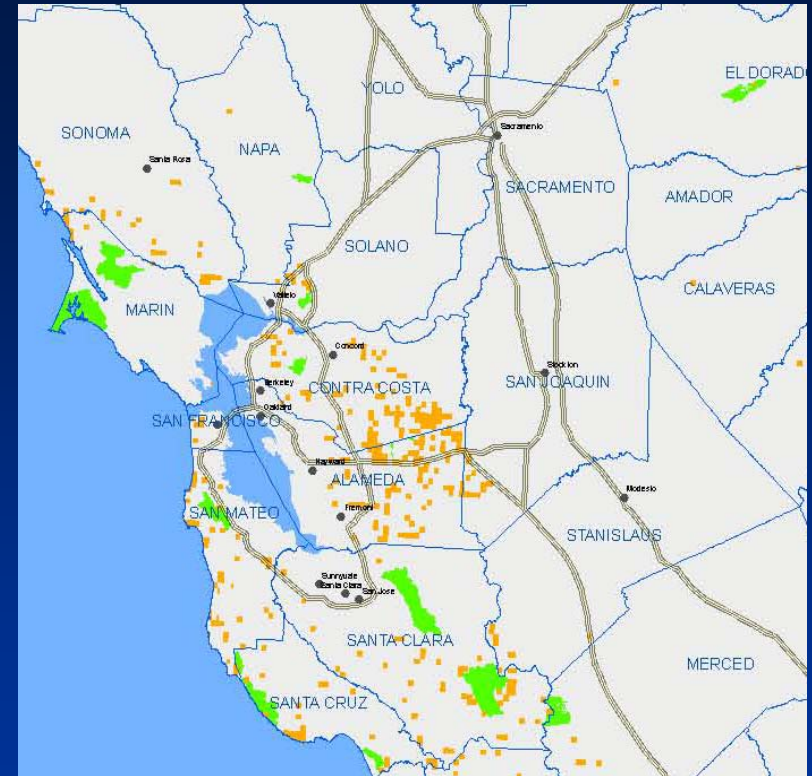
“Interstate Commerce”: California’s Irrigated Ag Economy

- #1 food and agricultural producer in the US for >50 consecutive years
- > 95% of almonds, artichokes, dates, figs, kiwifruit, olives, persimmons, pistachios, prunes, raisins, clovers, and walnuts in the US
- > 80% of strawberries in the US
- > 75% of all ripe olives in US
- > 50% of fruit, nuts, and vegetables in US

Injunction Dysfunction

- Salmon/Steelhead-bearing Streams
- Red-legged Frog
- Goby 11

- Bottomline:
 - Buffer Zones
 - Exceptions for Invasive & Noxious Species Control



Red Legged Frog

- 4 aquatic pesticides on list:
 - Imazapyr
 - 2,4-D
 - Glyphosate
 - Triclopyr
- ~40K Ac & 33 Counties



“Goby 11”

- 3 Aquatic Pesticides

- 2,4-D
- Acrolein
- Diquat

- 8 Counties

- Alameda
- Contra Costa
- Marin
- Napa

- San Mateo
- Santa Clara
- Solano
- Sonoma



“Current” California Permit Requirements

- Submit Notice of Intent (NOI)
- Prepare and Execute an Aquatic Pesticide Application Plan (APAP)
- Report Annually

Chemical Control

- Currently only 10 registered for Use in CA



Chemicals

Triclopyr

Diquat Dibromide

Glyphosate

Fluridone

Na_2CO_3 Peroxyhydrate

Non-Ionic Surfactants

2,4-D

Imazapyr

Endothall

Acrolein *

Copper *

Are The Rules Changing?

The Draft EPA Permit

- Likely will not apply in CA (We are currently more stringent)



Are the Rules Changing?

The “New” CA Weed Permit

- **SWRCB Re-writing Aquatic Pesticide Permits**
 - Vectors
 - Invasive Animals
 - Aerial Applications
 - **Aquatic Weeds**



The Future

- **Jan 2011:** Draft Aquatic Weed Permit Out
 - May Mirror Other Permits
 - Toxicity testing?
 - Group Monitoring?
 - Restrictions on copper?
- **Mar 2011:** CA Finalizes permits
- **Apr 2011:** New permit ready to go



Rules for Aquatic Pesticide Use

- Know the Rules
- Understand Permit Criteria
- Get Permit(s)
- Understand Injunction Limitations



The Future: Stay Informed



- California
 - SWRCB:
http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml
 - Join the SWRCB “aquatic weed control” list serve:
http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml

More Information

Mike Blankinship | Blankinship & Associates

(530) 757-0941

mike@h2osci.com

Stephen Burkholder | Blankinship & Associates

(530) 757-0941

stephen@h2osci.com

