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 **INTER**state waters and wetlands currently, formally or potentially used in interstate commerce;

- **Example:** Klamath, Truckee & Colorado Rivers
  - All other waters, including **INTRA**state 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

Source: CDFA
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

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<th>Chemicals</th>
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<td>Triclopyr</td>
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<td>Diquat Dibromide</td>
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<td>Glyphosate</td>
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<td>Na$_2$CO$_3$ Peroxyhydrate</td>
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<td>Non-Ionic Surfactants</td>
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<td>2,4-D</td>
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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:
  - Join the SWRCB “aquatic weed control” list serve:
    - [http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml](http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml)
More Information

Mike Blankinship  I  Blankinship & Associates
(530) 757-0941
mike@h2osci.com

Stephen Burkholder  I  Blankinship & Associates
(530) 757-0941
stephen@h2osci.com