

**Cal-IPC  
Symposium  
“Wildland  
Weeds and  
Water”**

Wednesday  
October 8, 2014

*Fix it if it is  
Broken: Why the  
New California  
NPDES Aquatic  
Pesticide Permit  
is Better*

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# *Today's Talk*

- The Problem
- Why a Permit?
- Why Change?
- Questions





**Problem #1:  
Weeds Get in the Way of Flow**



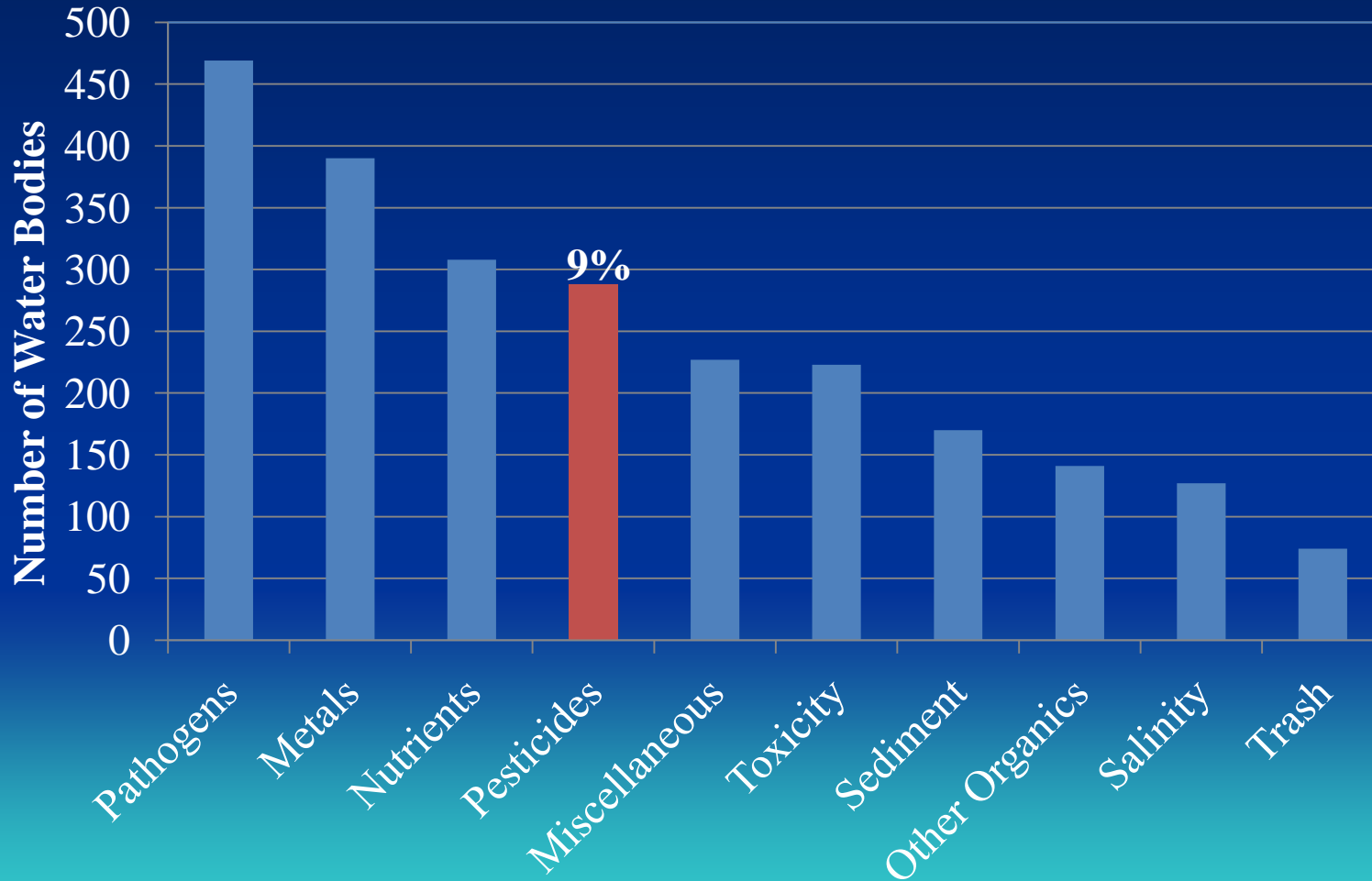
**Problem #2:  
Some Plants Just Don't  
Belong**

## ***Problem #3***

- **People don't like pesticides**
  - People really don't like pesticides in their water
  - Risk = Toxicity, right?
  - 1996 Talent Irrigation District
    - leaking gate releases acrolein-treated water; 92K steelhead die
  - On-going Clean Water Act 303(d) List



# 2010 303(d) List: California's 2,496 Impaired Surface Waterbodies





**“Point Source”  
“Discharge”**



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

**“Waters of the US”**



# ***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



# Approved Aquatic Herbicides

- Currently only 12 registered for Use in CA

- Acrolein \*
- Copper \*
- 2,4-D
- Diquat
- Endothall
- Fluridone
- Glyphosate
- Imazamox
- Imazapyr
- Penoxsulam
- Sodium Carbonate Peroxyhydrate
- Triclopyr



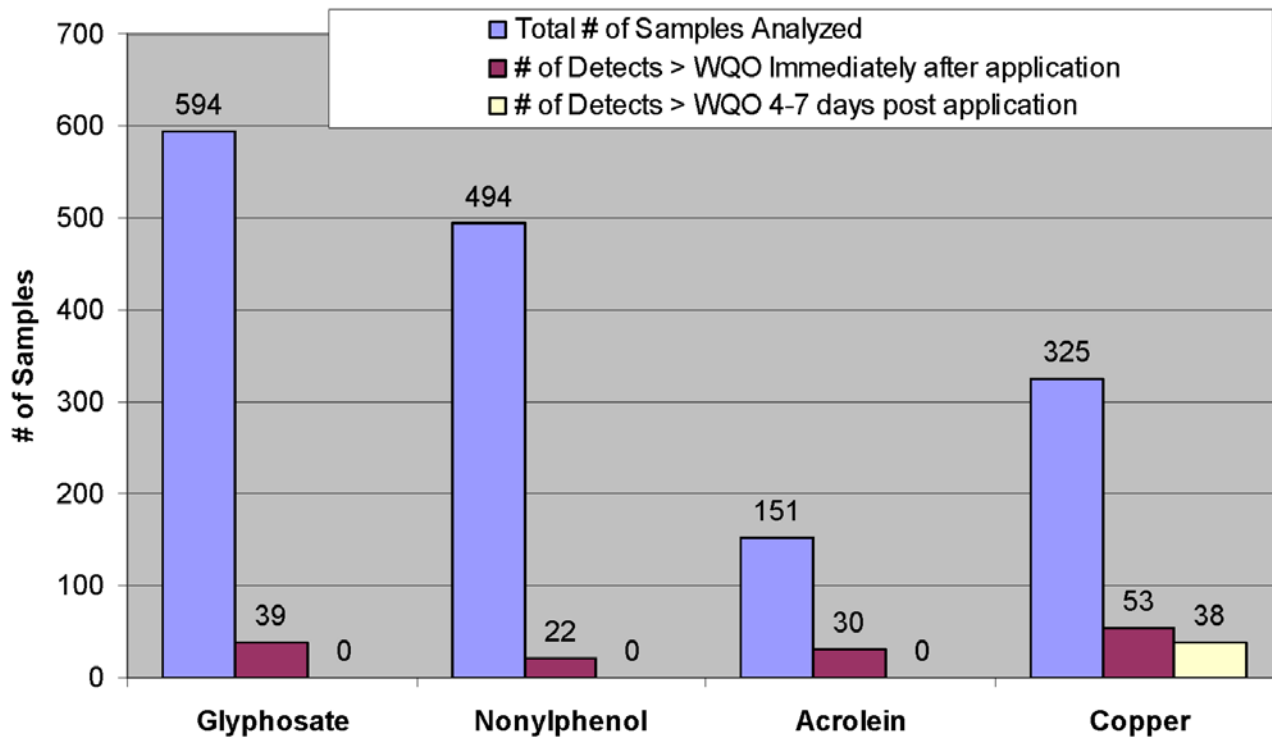
# *Old Permit Data Review*

- All Data
  - 100 Permittees
  - 11 Years
- Data “Snippet” Used:
  - 25 Permittees
  - 7 Years

# Old Permit Data Example

## Historic Data Example

### Aquatic Pesticide Sample Analysis 2002-2007



# *Old Permit Data Summary*

- **What does Historic Data suggest?**
  - 9% Exceeded WQO before 7 days
    - No adverse acute impact noted
    - “We applied it, we found it”
  - 2% Exceeded WQO after 7 days
    - Solely Due to Copper
    - No adverse chronic impact noted
    - Degradation consistent with literature
- **Bottomline:**
  - Follow the label = Acceptable water quality

# *Old Permit Data Summary*

- Ave Cost/Permittee/Year: \$6,500
- Total “Invested”: \$7,100,000

# ***Why the New Permit?***

- **The Old Permit Data Showed:**
  - **Costly**
  - **WQO Exceedence Rare**
  - **Acute/chronic impact not apparent**
  - **Consistent with literature**
- **Justification For Some Change**





# *The New and Improved Permit: Key Provisions*

- 3 samples, not 4
- Glyphosate “1 and Out” per setting
- All Others: “6 and Out” per setting
- Group Formation
- New Permit is submitted electronically\*



\*Currently applies only to the Central Valley

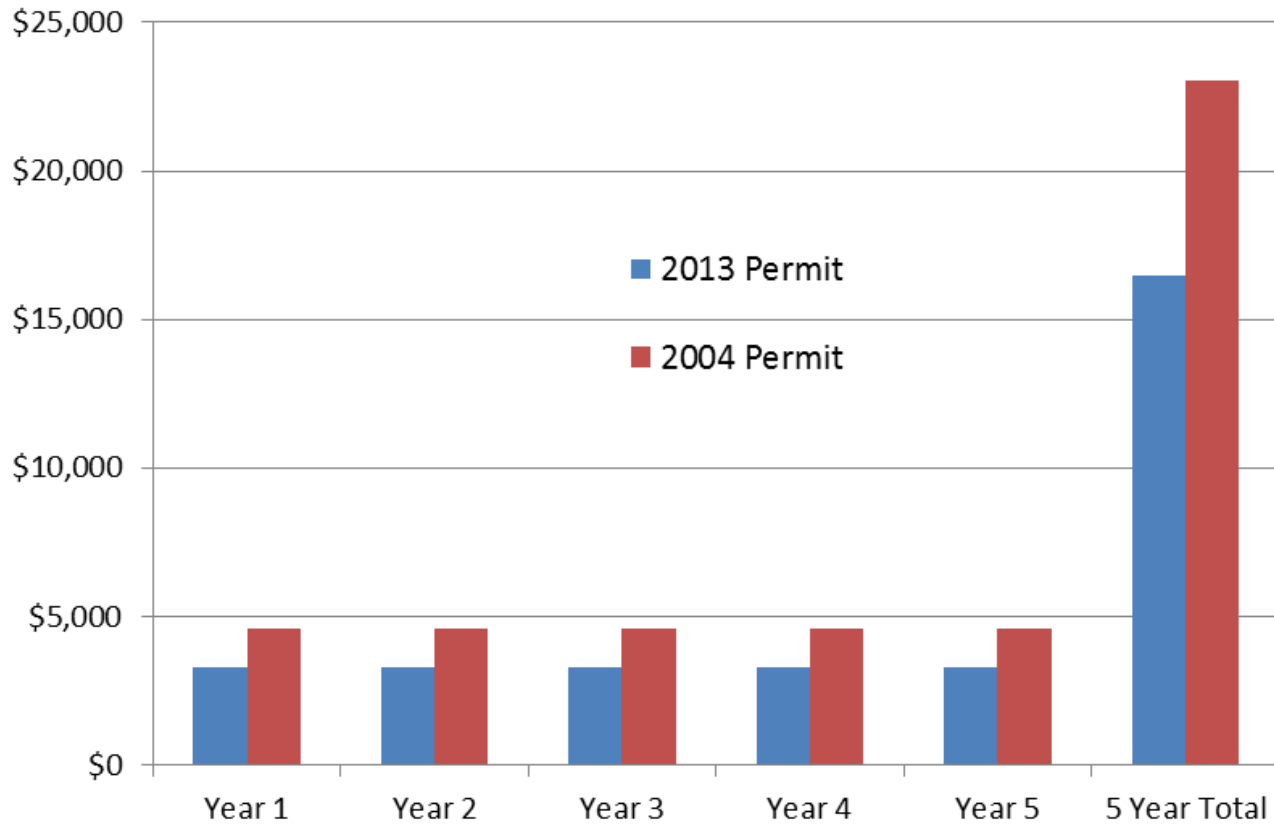
# Case Study

## Glyphosate

- *Example:* For an RCD making up to 24 glyphosate applications per year
- Sampling Requirements
  - Old Permit → 2 sample events/yr
    - The “10%” Rule
  - New Permit → 1 sample event
    - The “One and Done” Rule

# Case Study

## Glyphosate User Sampling & Analysis Cost



**Savings!** **~\$7,000**

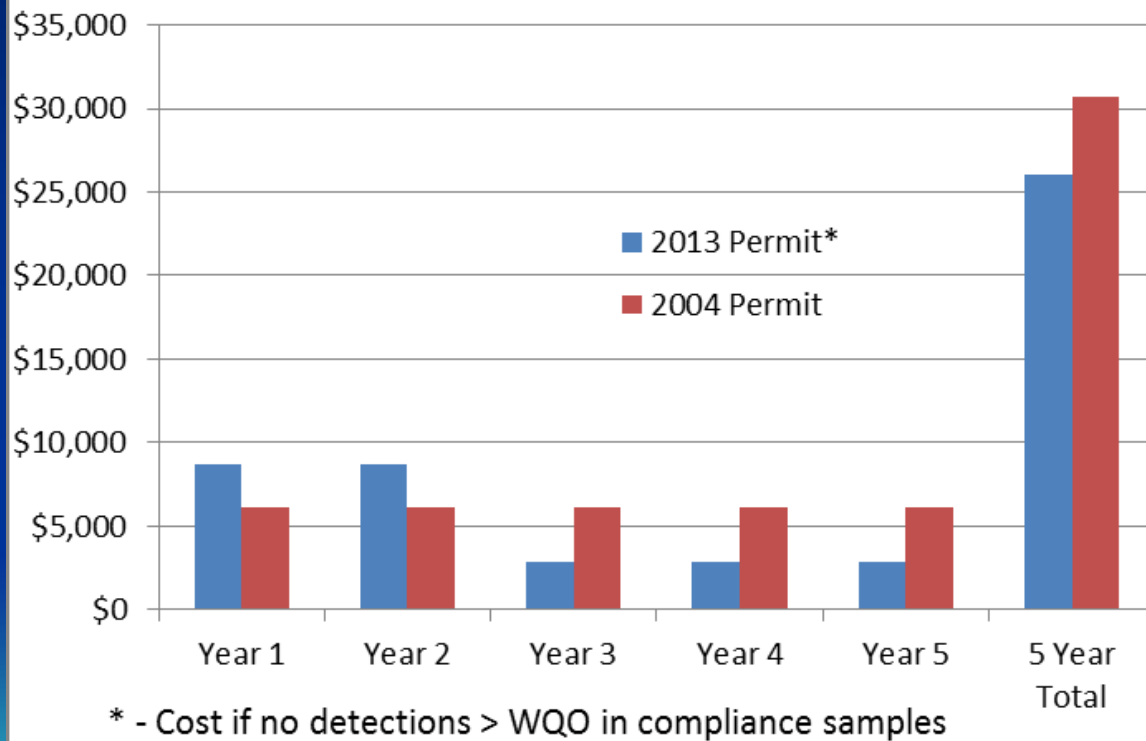
# Case Study

## Endothal

- *Example:* For an RCD making up to 3 endothal applications per year
- Sampling Requirements
  - Old Permit → 2 sample events/yr
    - The “10%” Rule (minimum 2)
  - New Permit → 1-3 sample events
    - 3 sample events first two years then 1 per year\*

# Case Study

## Endothall: 3 Applications/Year Sampling & Analysis Cost



Savings!

~\$5,000

# *The Bottomline*

- **Old Permit:** \$7,000,000
- **New Permit:** \$3,300,000
- **Savings:** \$3,700,000

# *Summary & Wrap-up*

- California Aquatic Pesticide Permit (“Weed Permit”)
  - [http://www.waterboards.ca.gov/water\\_issues/programs/npdes/aquatic.shtml](http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml)
- Join the Lyris Distribution list



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# *More Information*

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