

Insecticide Impairment of Urban Water Bodies:

Pesticide regulations are the key to solving the problem



**Dave Tamayo
Environmental Specialist**

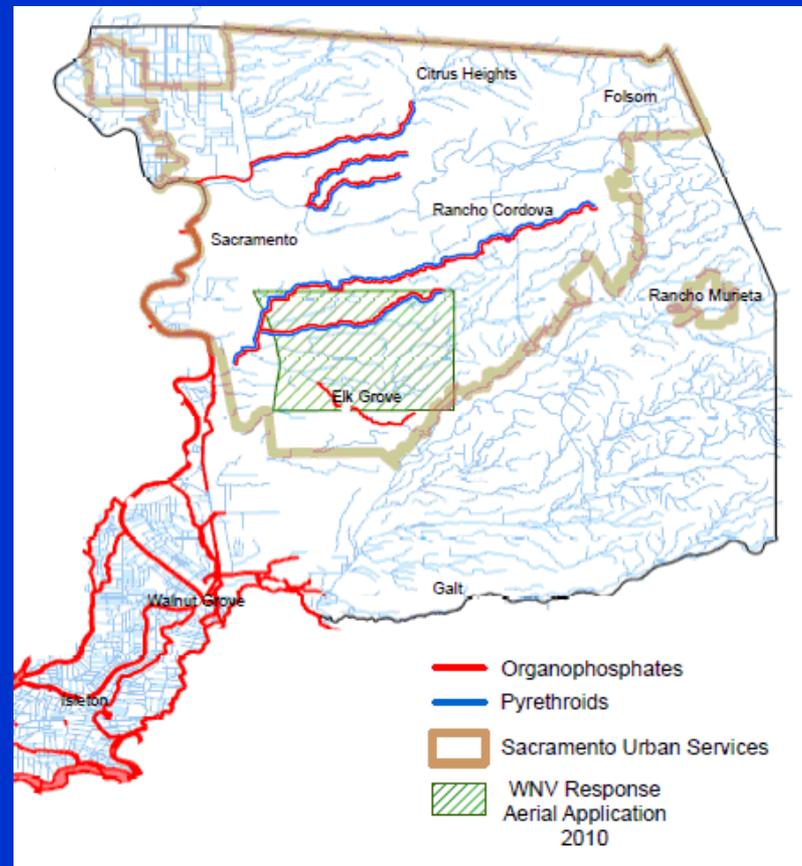
**Sacramento County Stormwater Program
California Stormwater Quality Association**

**SWRCB Vector Control Permit Hearing
CalEPA HQ, Sacramento, CA**

April 3, 2012

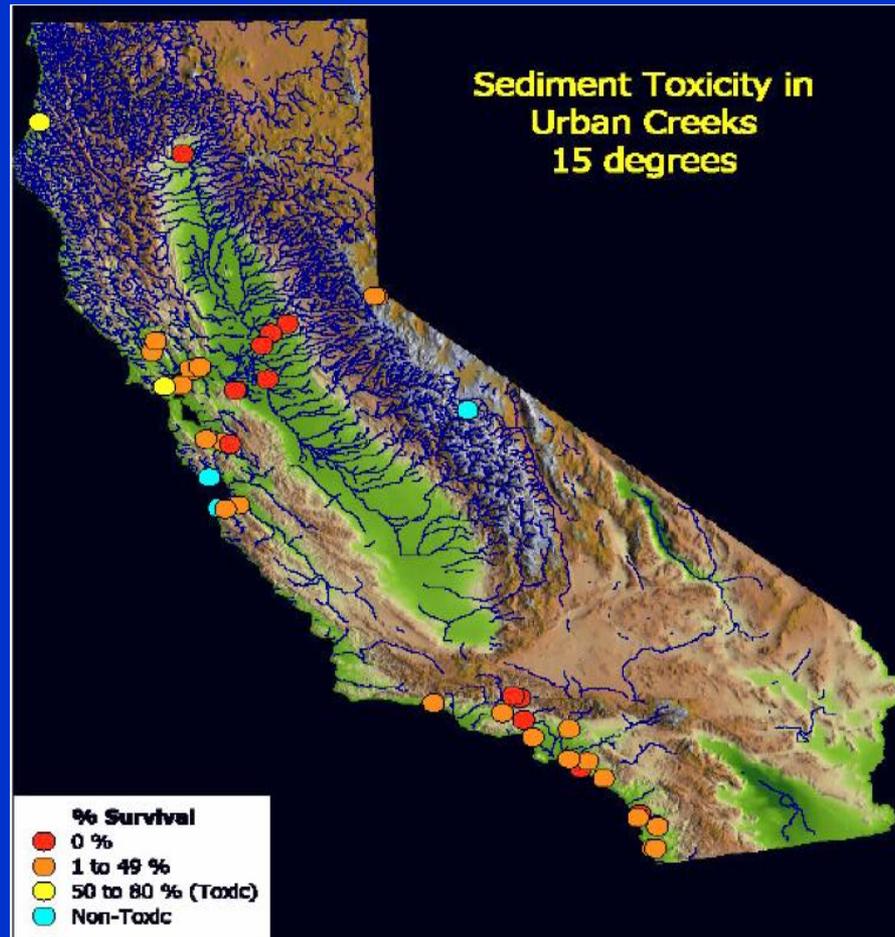


Insecticide impairments limit mosquito control applications.



Source: SYMVCD, SWRCB

Pyrethroid toxicity is statewide



Surface Water
Ambient
Monitoring
Program

Holmes, 2008

Cause: structural pesticide applications

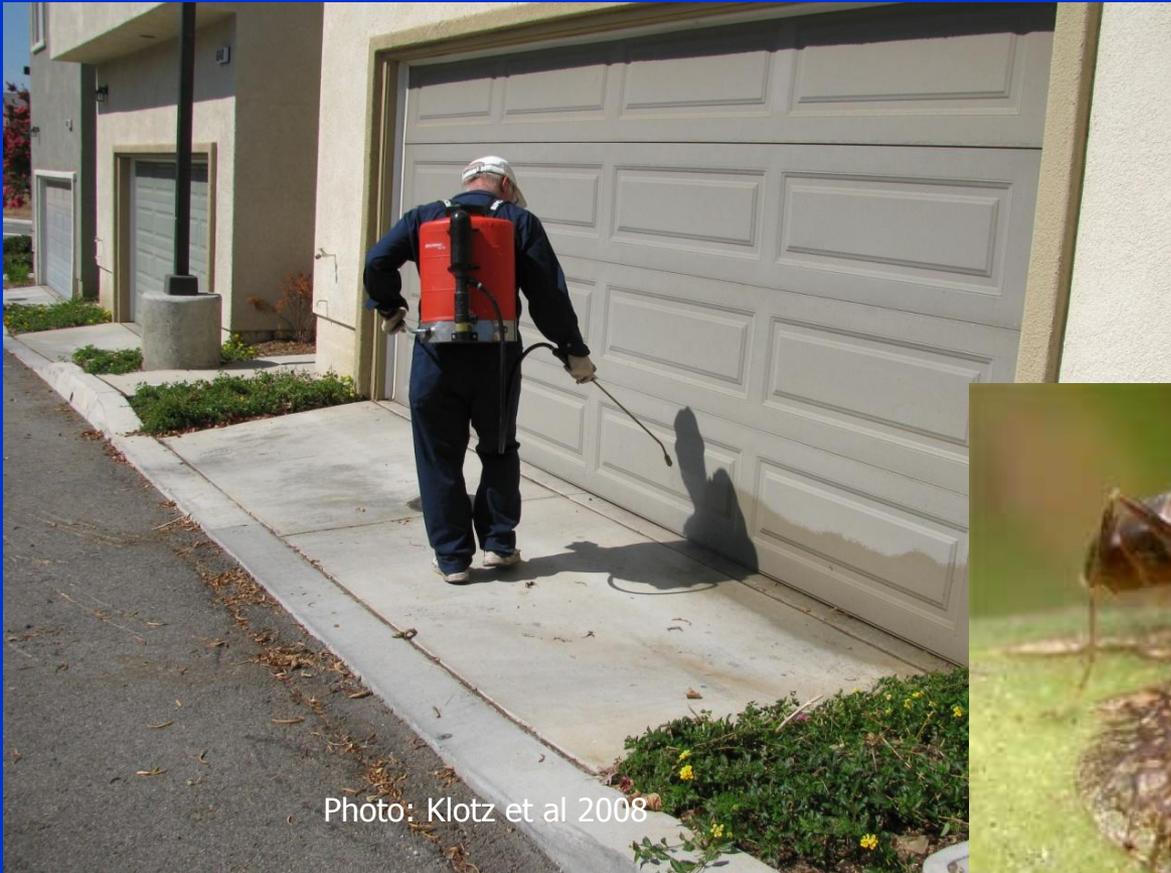


Photo: Klotz et al 2008



Photo: Alex Wild

**Clean Water Act alone
won't solve these impairments.**

Solution:

**Effective pesticide regulation
can prevent urban WQ
impairments**

Focus on Nuts and Bolts of pesticide regulation

- California Water Quality Agencies
 - Stormwater Agencies (CASQA)
 - POTWs (TriTac)
 - RWQCBs
 - SWRCB
- US EPA Region 9
- US EPA Office of Pesticide Programs
- Calif. Dept of Pesticide Regulation

DPR Achievements

– Surface Water Protection Regulations

- Active ingredient screening mechanisms WQ
- Pyrethroid re-evaluation
- Surface water monitoring program
- IPM research and dissemination

US EPA Office of Pesticide Programs

Achievements

- **Bifenthrin label changes**
- Pyrethroid registration review frontloaded
- “Harmonize” CWA/FIFRA WQ effects analysis
- Urban pathway analysis

Pesticide regulations can *prevent and solve* water quality problems.

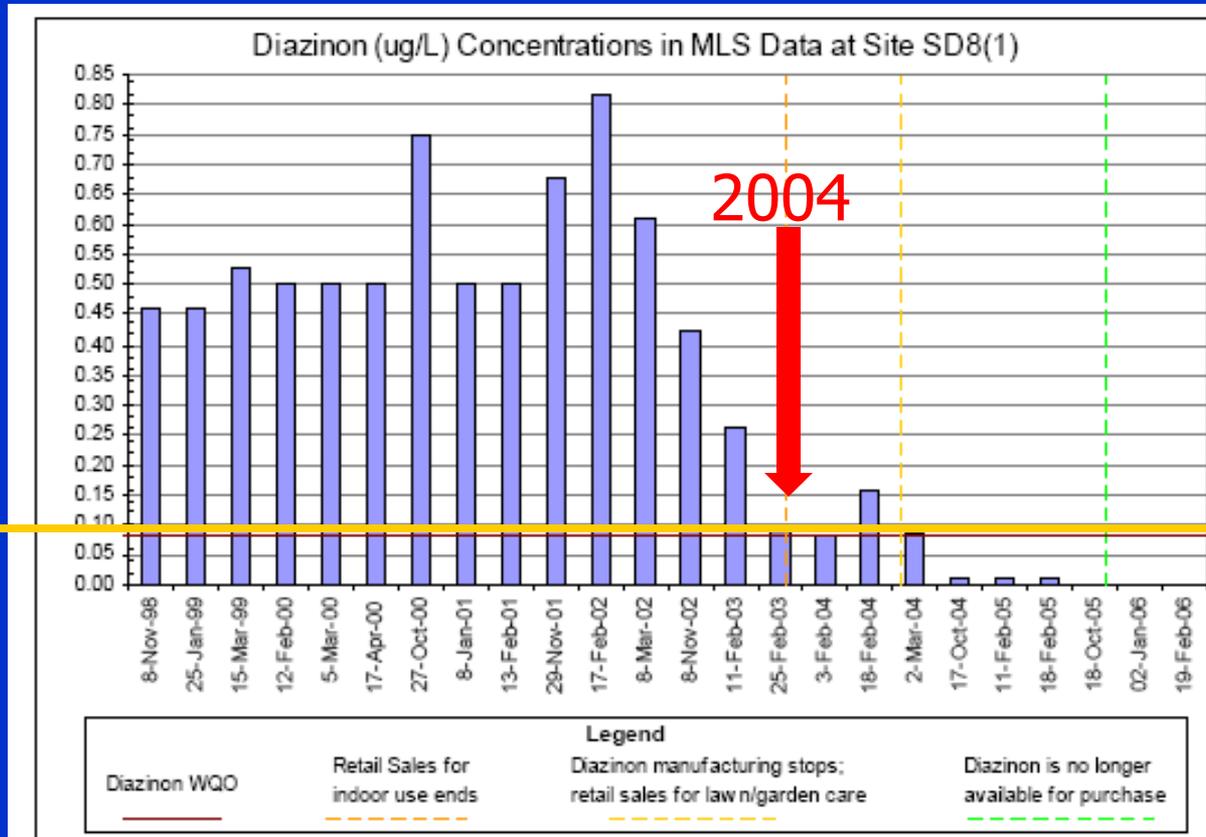
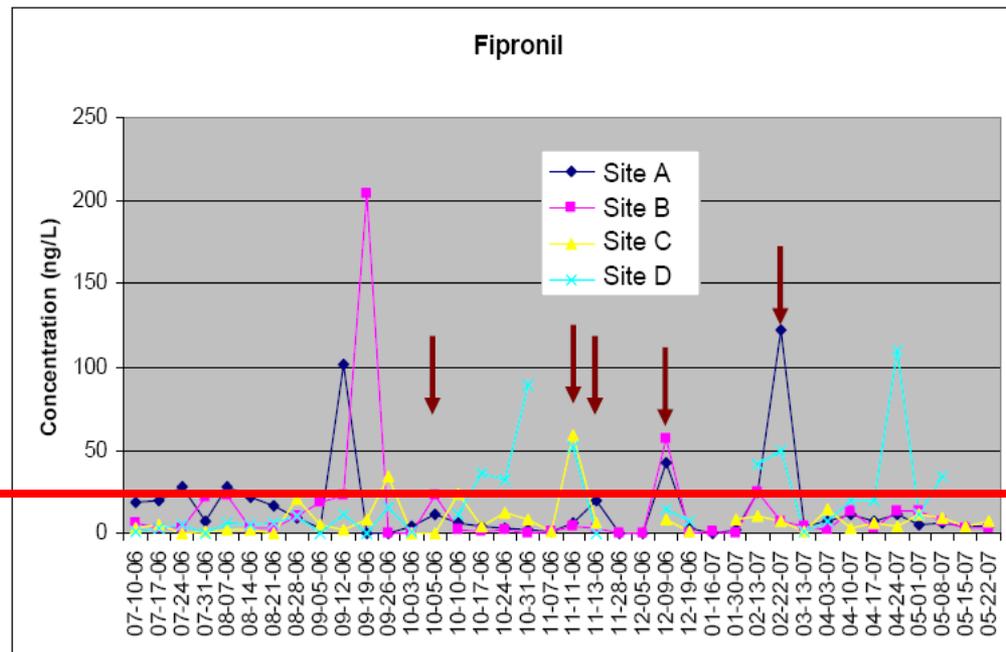


Figure 1-2. Diazinon Concentrations at Chollas Creek MLS Site SD8(1)

Diazinon
WQO

Fipronil : the next source of urban WQ impairment.

Fipronil in North CA Runoff

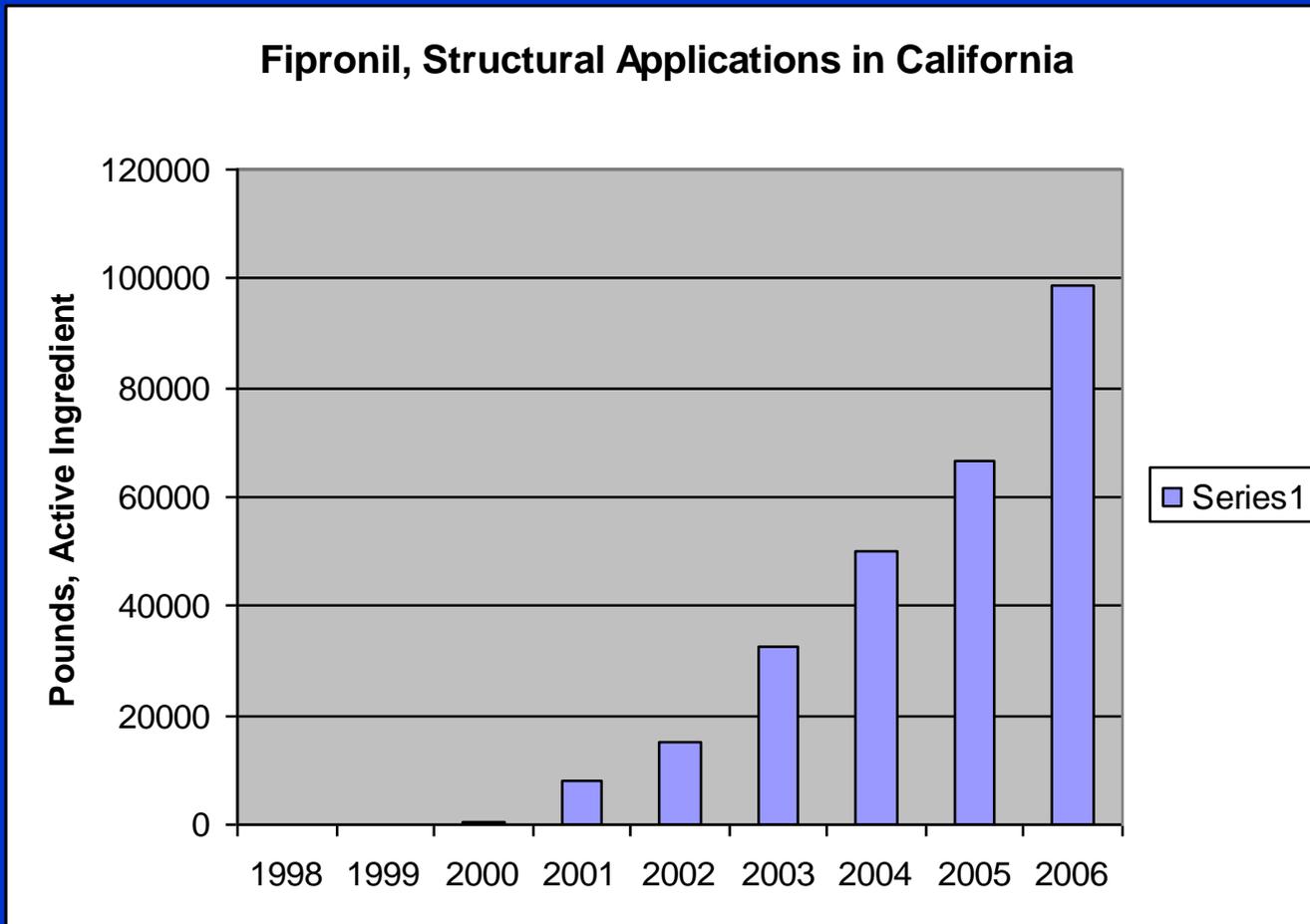


LC 50
18 ppb

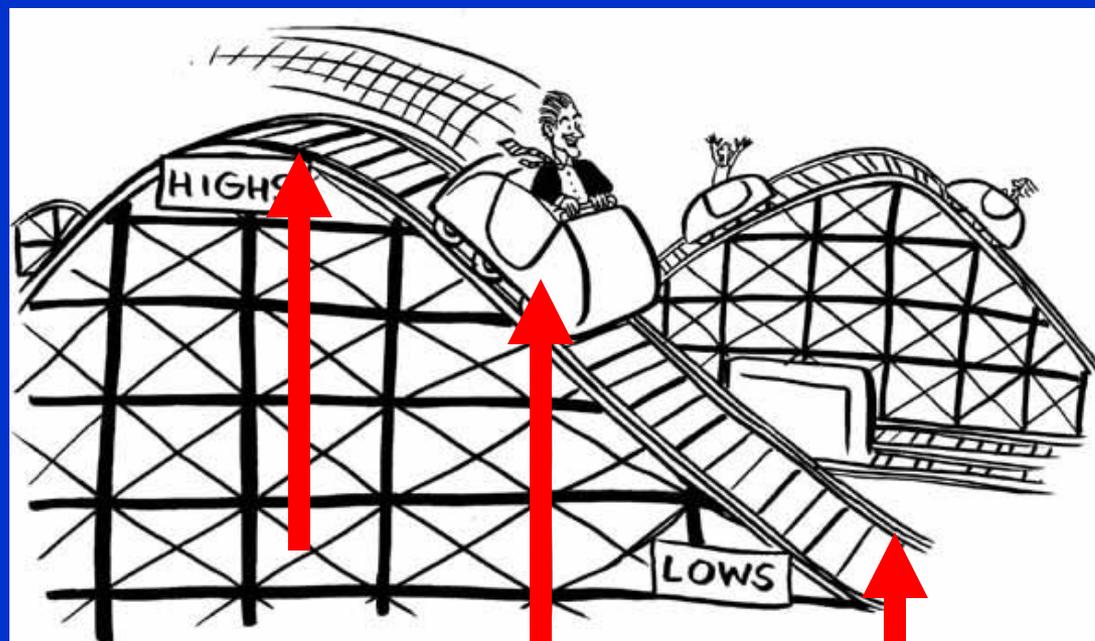
$C. dubia$ LC₅₀ = 18 ppb

Data and graphic by J. Gan

Fipronil on the upswing...



**Proactive
pesticide
regulation will
get us off the
pesticide roller
coaster...**



Fipronil
2010s

Pyrethroids
2000s

Diazinon
1990s

**Active participation and support
by SWRCB is crucial.**

Questions?

Dave Tamayo

916 874-8024

tamayod@saccounty.net

