

# Urban Pesticide Monitoring in Northern and Southern California



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April 21, 2010

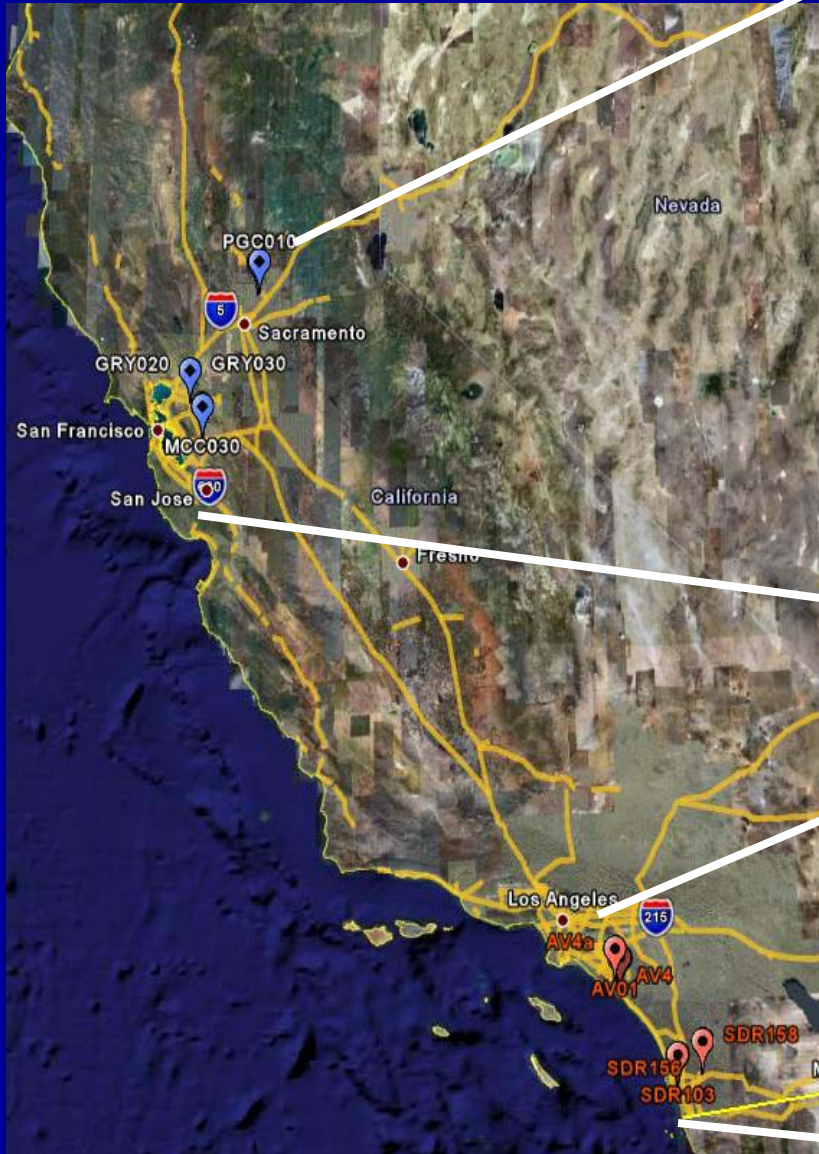
# Objectives

1. What pesticides are present in urban surface waters?
  - Determine the effect of water body type
  - Determine the influence of rainfall on
  - Multiyear study
2. Compare to aquatic benchmarks
3. Mitigation effects of constructed wetland (So Cal study 265)

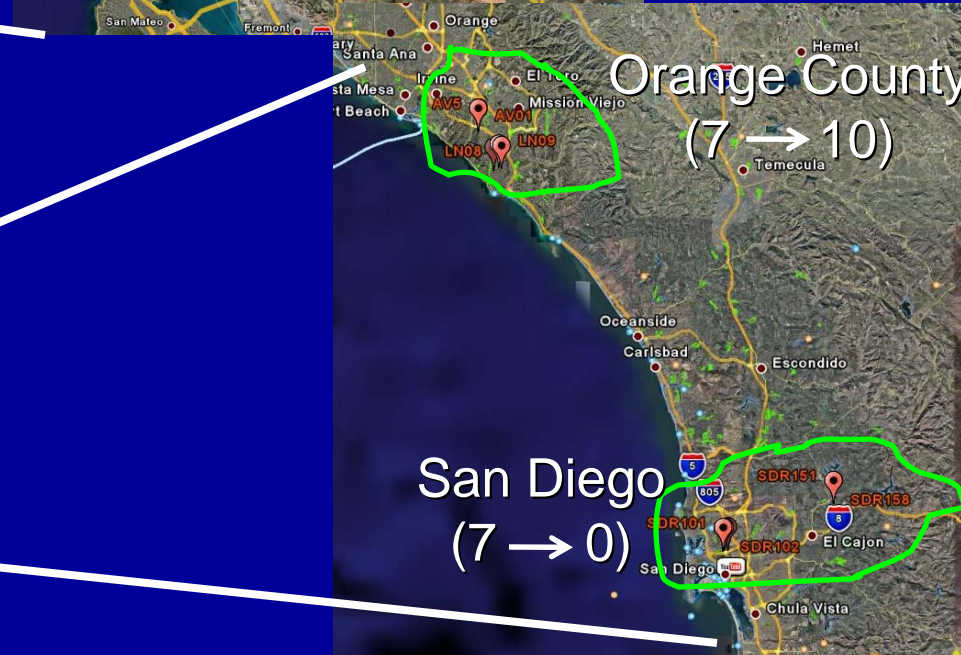
Additional information (Studies 249, 264, 265):

<http://www.cdpr.ca.gov/docs/emon/surfwtr/protocol.htm>

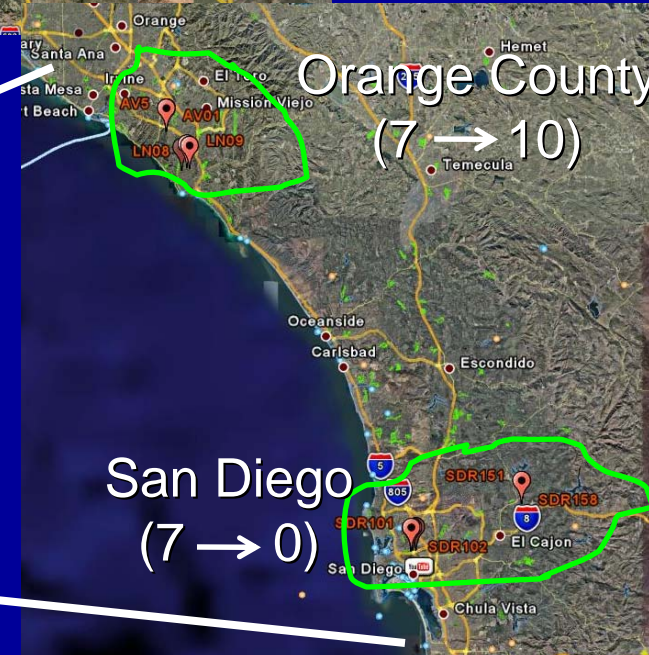
# Monitoring Areas



Sacramento  
(4 → 9)



Bay Area  
(7 → 4)



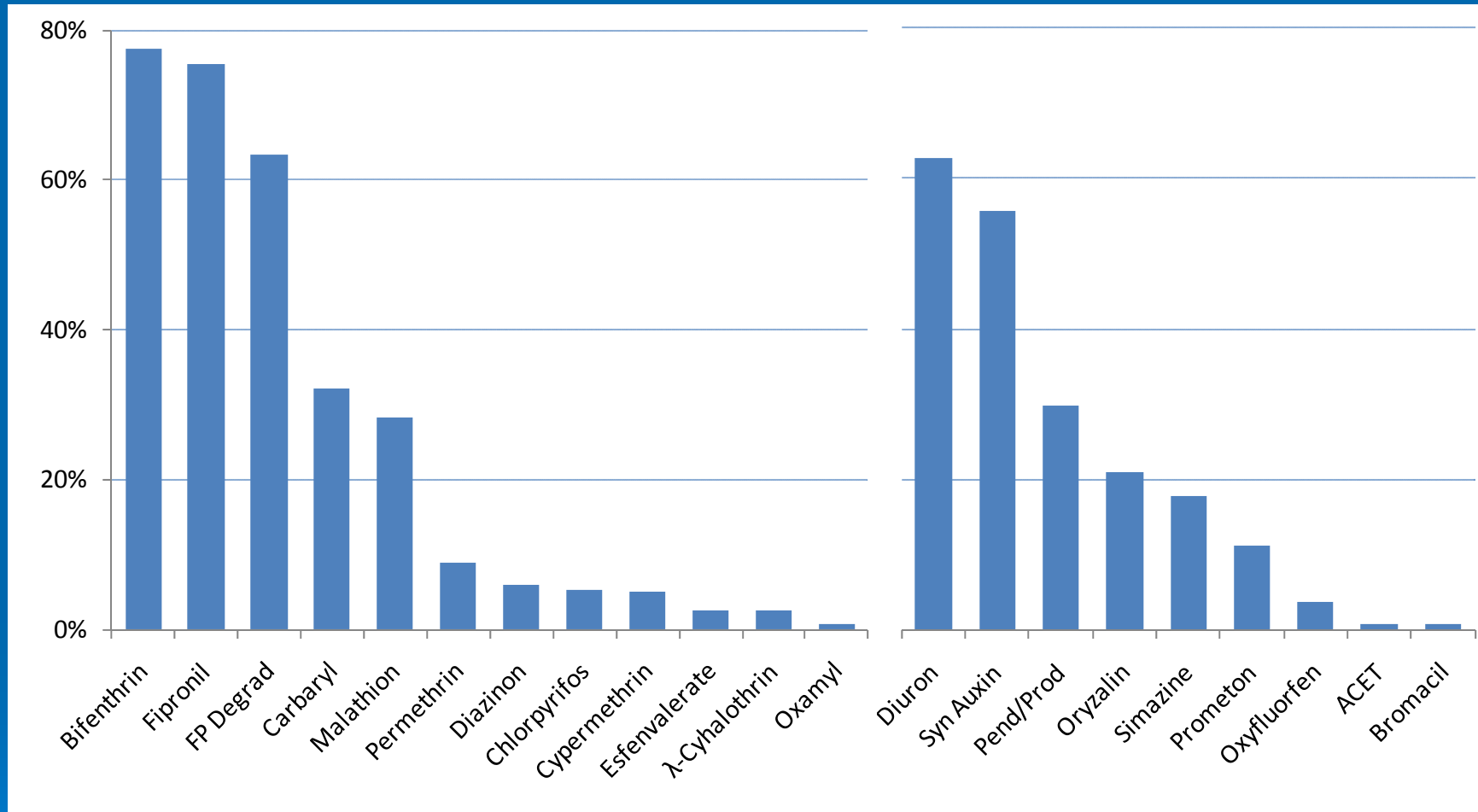
Orange County  
(7 → 10)

San Diego  
(7 → 0)

# Pesticide Analysis

Pesticide Type	Analyte Group	No. Pesticides/ Degradates	Sample Matrix
Insecticide	Carbamate	9	Water
	Fipronil(s)	6	Water
	OPs	15	Water/Sediment
	Pyrethroids	11	Water/Sediment
Herbicide	PS II Inhibitors	11	Water
	Dinitroanilines	6	Water
	Synthetic Auxins	4	Water
	Membrane Disr/Bleachers	2	Water
Total		64	

# Pesticide Detections - Water

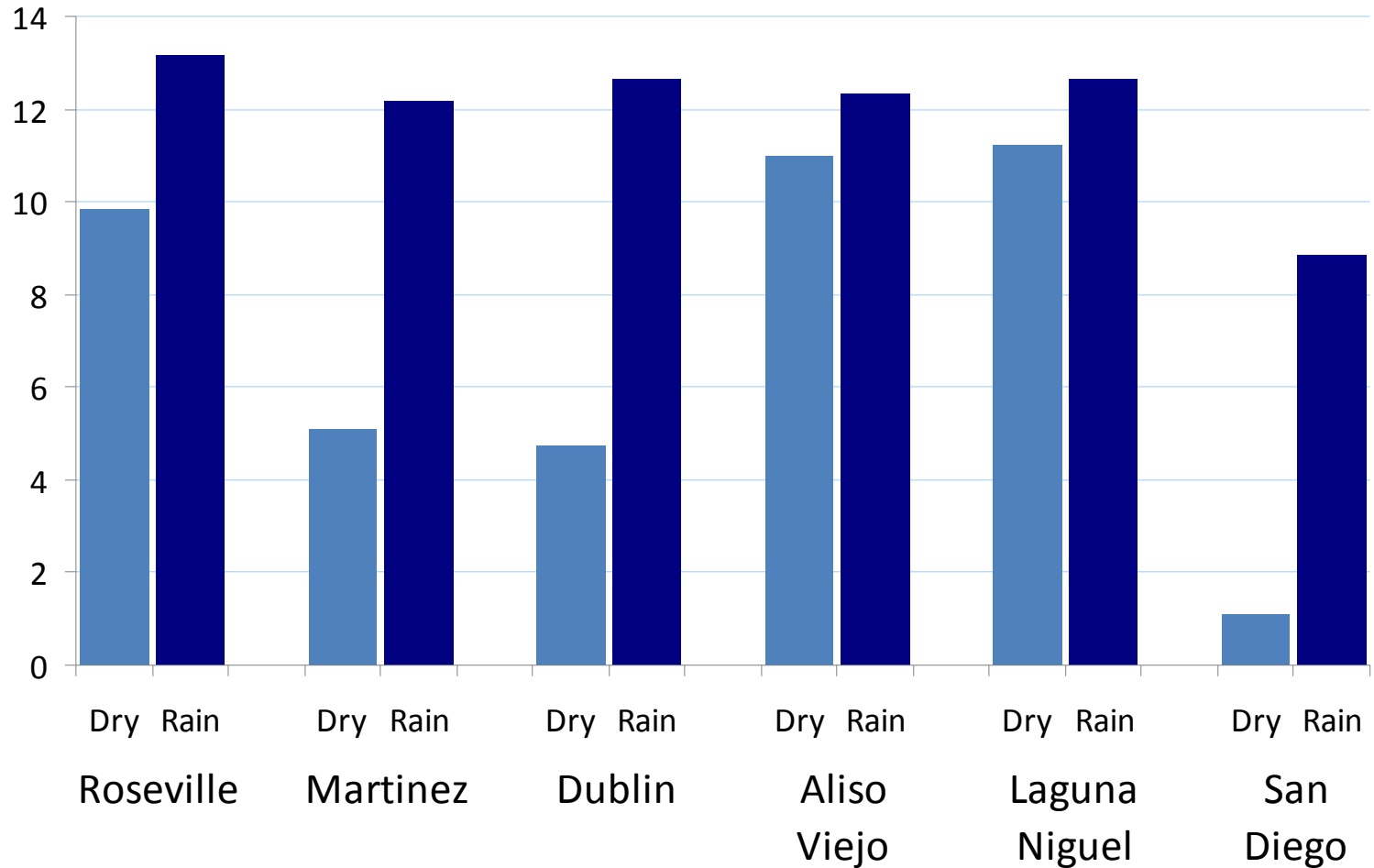


➤ Insecticides: Bifenthrin, Fipronil

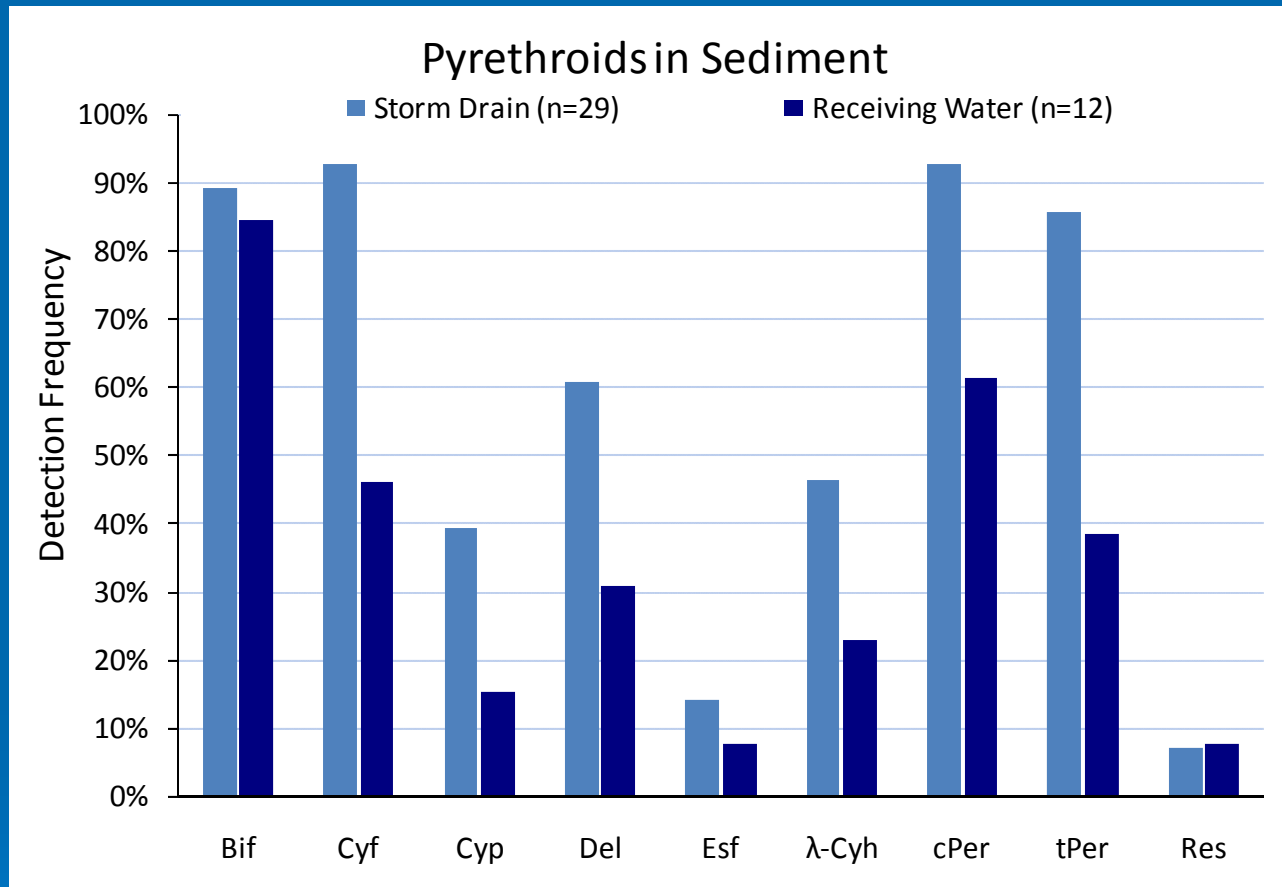
➤ Herbicides: Synthetic Auxins, Diuron

# Pesticide Detections - Water

Number of Pesticides Found in Urban Creeks and Storm Drains



# Pyrethroid Detections - Sediment



- 40 of 41 sediments contained pyrethroids
- Over half > 4 pyrethroids

A photograph of a two-story house with a driveway, a yellow fire hydrant, and a sidewalk. The house is light-colored with a tiled roof and a balcony. The driveway is paved and leads to a two-car garage. A yellow fire hydrant is located on the sidewalk near the driveway. The sidewalk is made of concrete slabs. The house is surrounded by landscaping, including a large green palm tree in the foreground, a bush with pink flowers, and a small tree on the right. The sky is blue with some clouds.

# Questions?

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