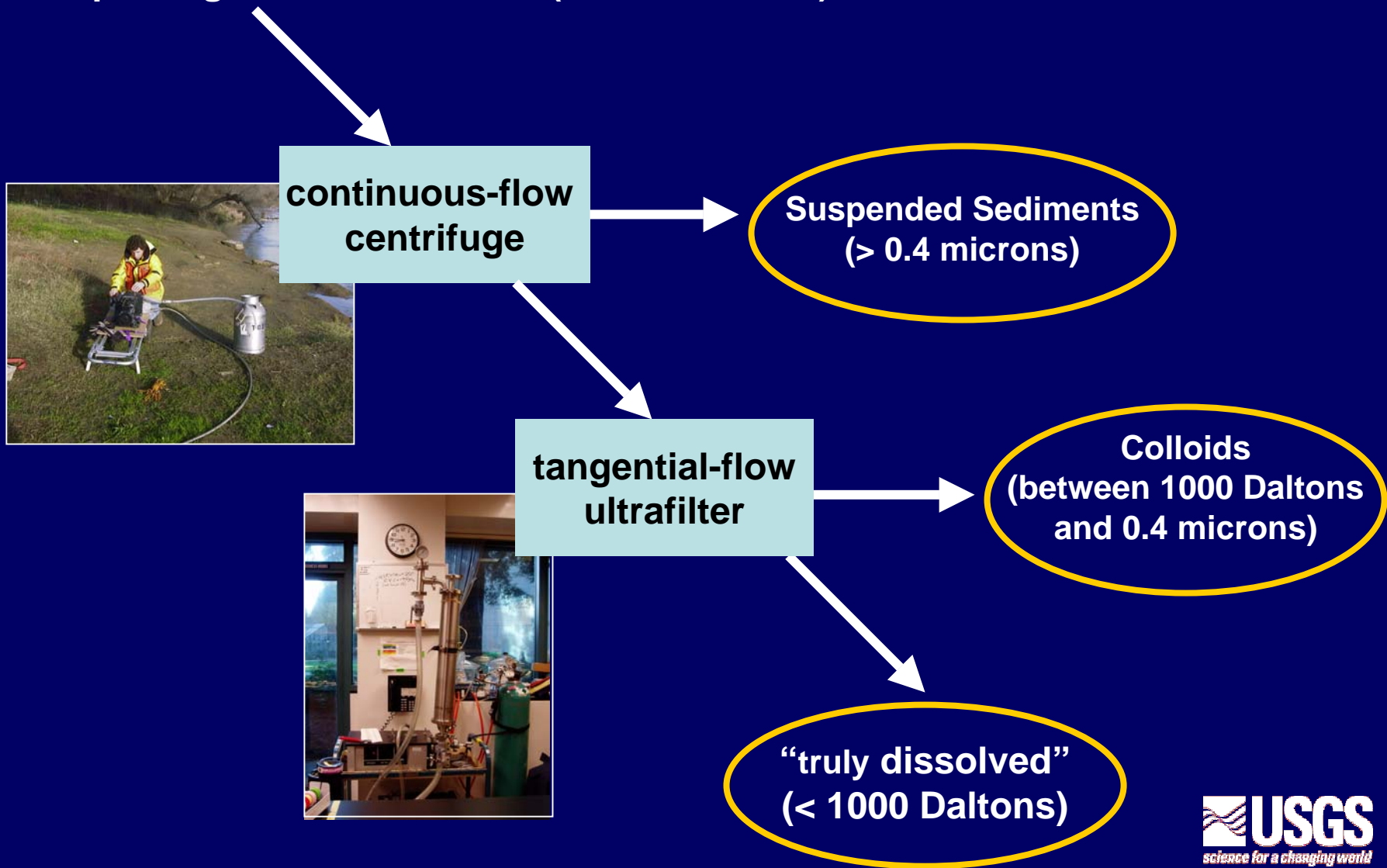


# Pyrethroids In California

**Michelle Hladik**  
**USGS California Water**  
**Science Center**

# Separating Sample into Different Compartments

Sample large volume of water (100-1000 liters)

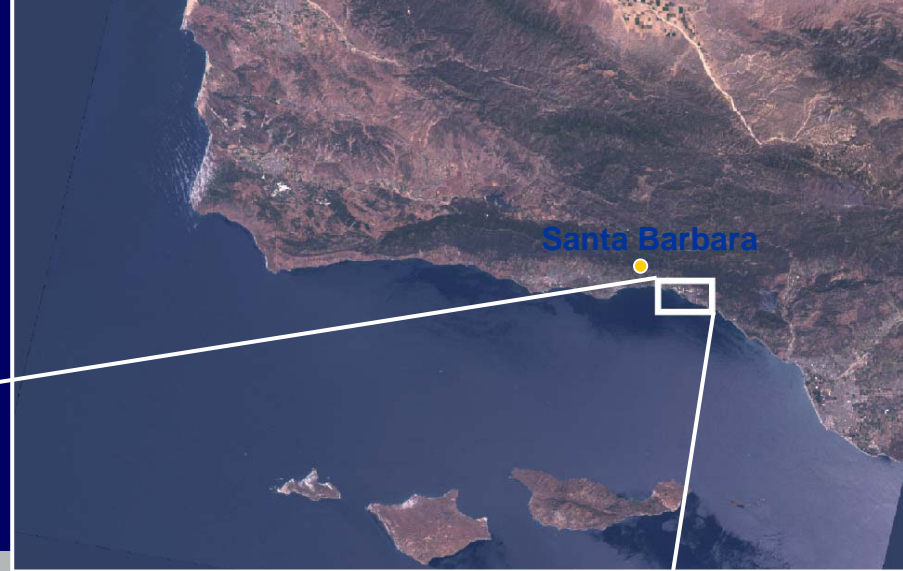


# Pesticide Studies in California

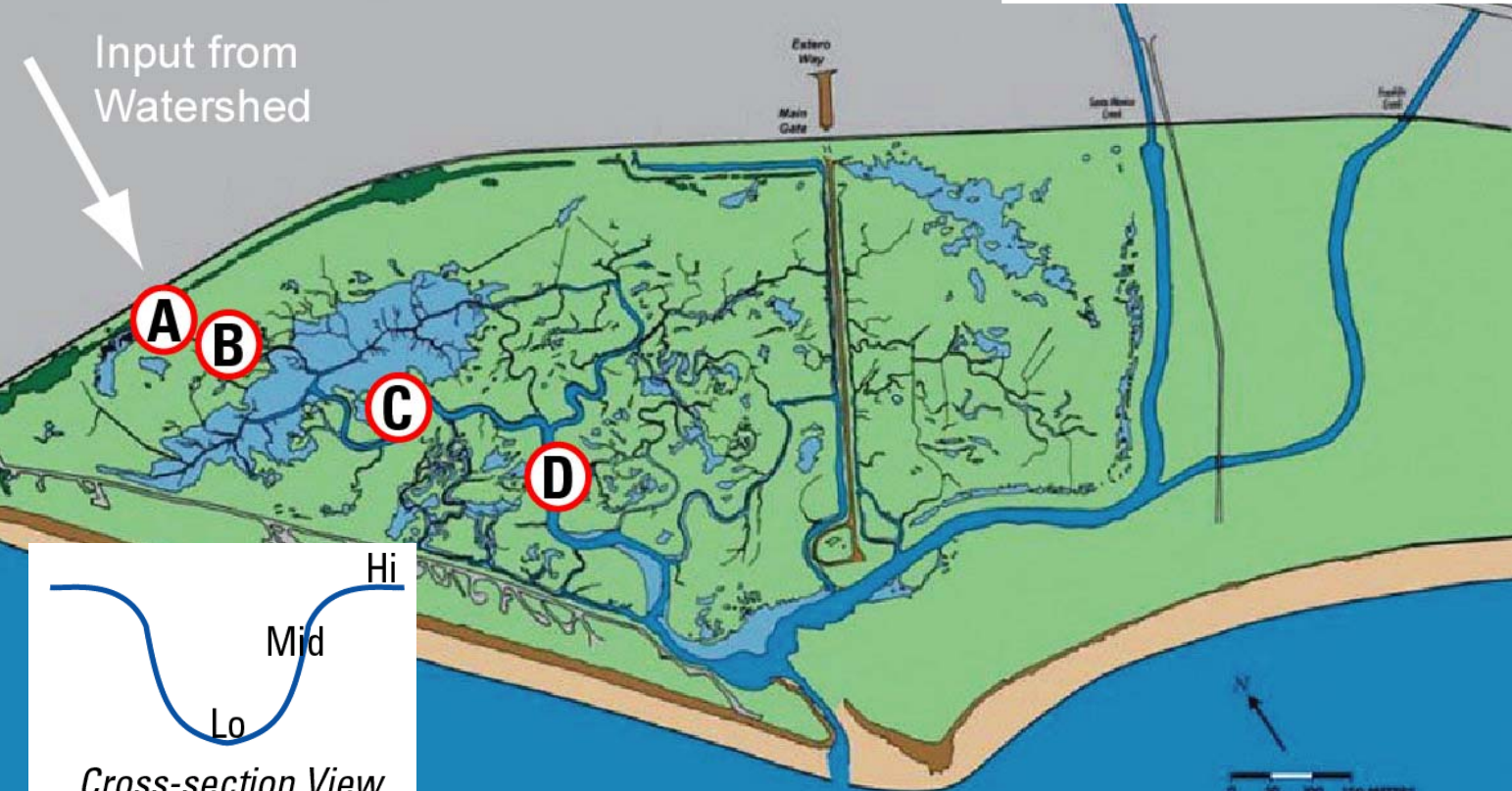
Carpinteria Marsh

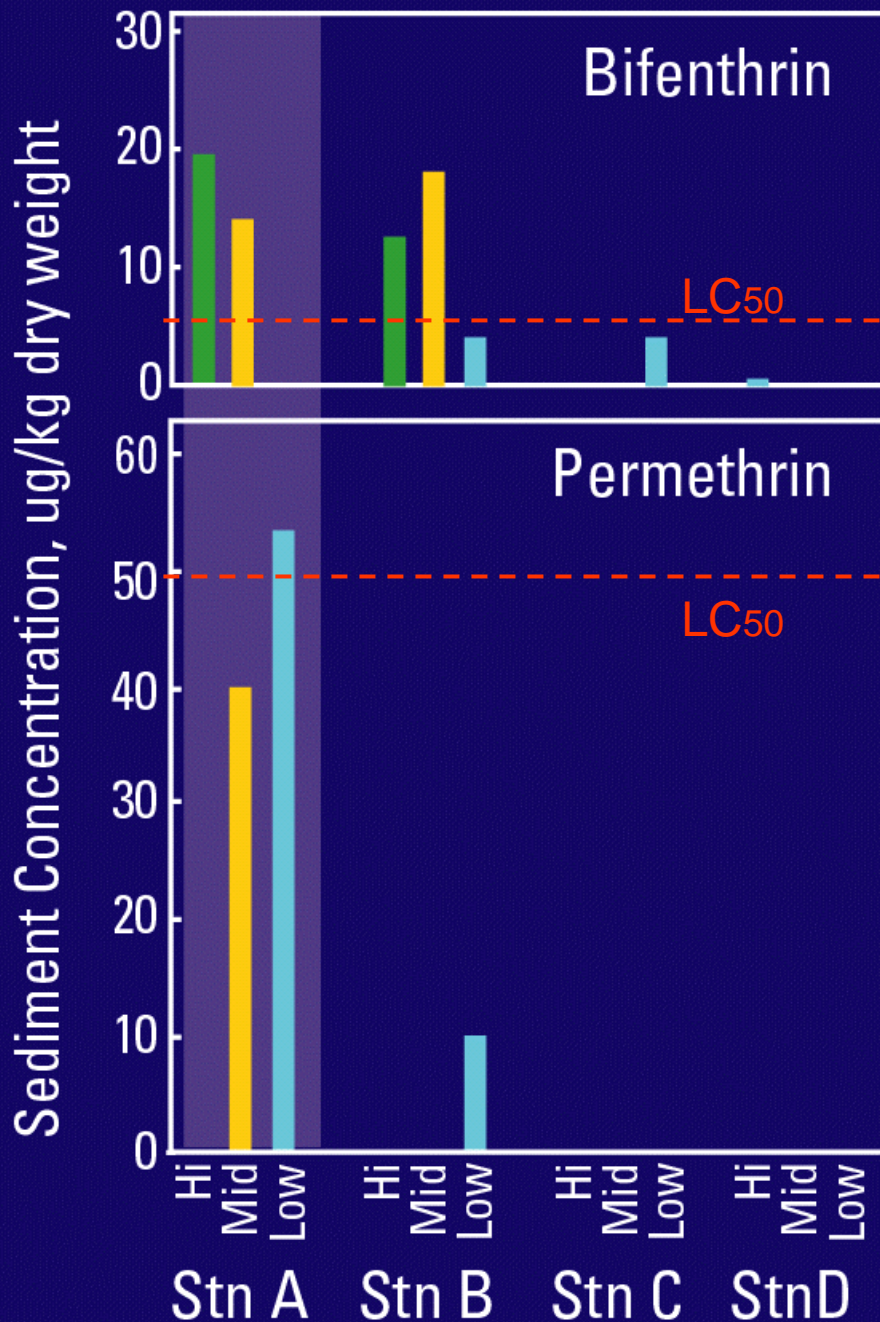


# Carpinteria Marsh



Input from Watershed





Data obtained in 2003

Stn A closest to input from the surrounding urban area where Bifenthrin and Permethrin are applied.

# Carpinteria Marsh

- Detected elevated concentrations of Chlorpyrifos, Bifenthrin and Permethrin in sediments.
- Station closest to input from the surrounding urban area (Stn A) had the highest concentrations.
- Bifenthrin and Permethrin are Na-channel blockers and are highly toxic to fish.
- Funding from EPA STAR grant (R-82867601), results are in preparation for publication

# Pesticide Studies in California

Yolo Bypass

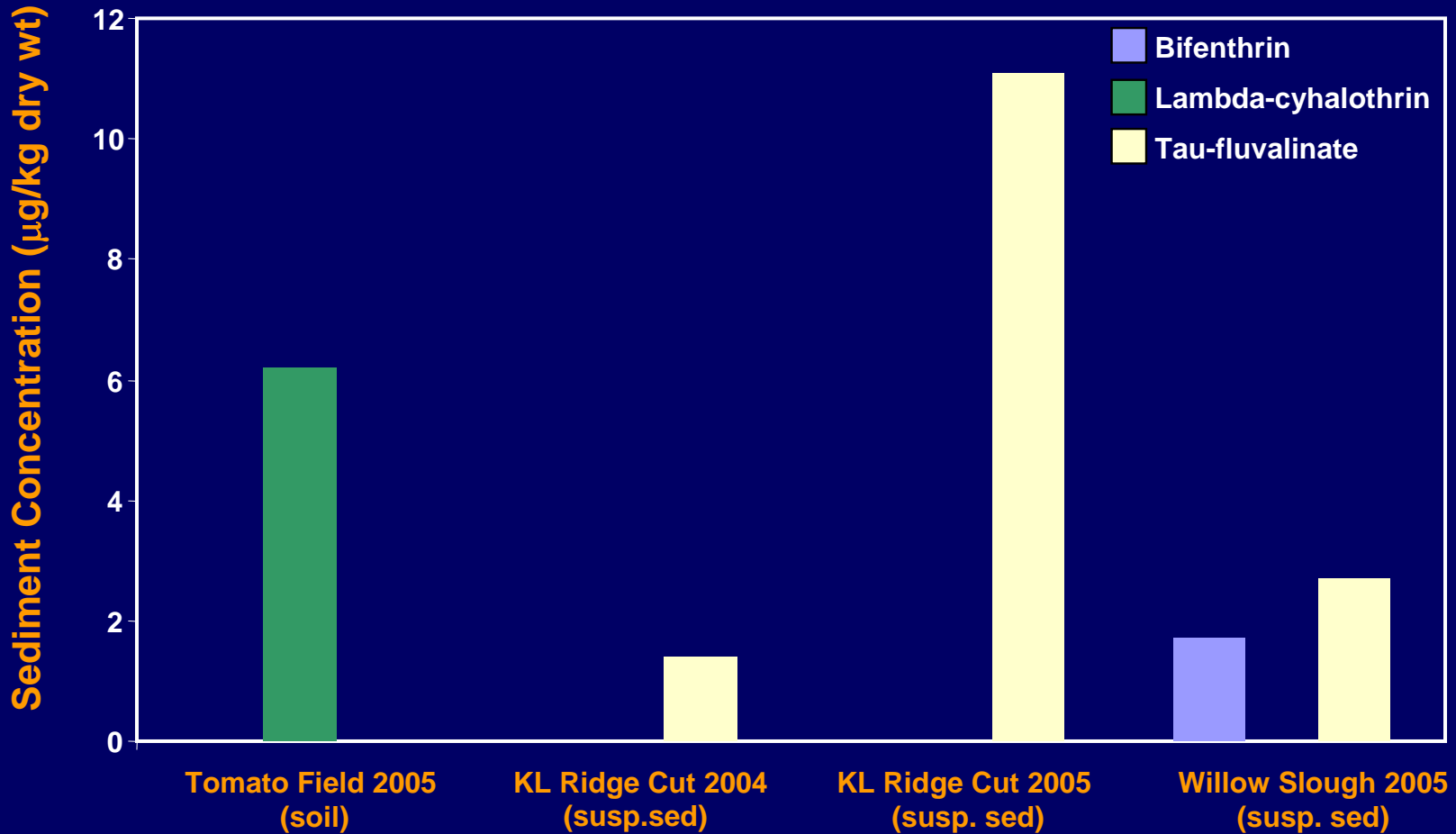


# Yolo Bypass Study Approach

- Dissolved pesticides during high flow event from 6 different sources
- Sediment-Associated pesticide concentration
  - Suspended sediments collected during high flow
  - Bed sediments collected during low flow
- Data can be found in Smalling et al., 2005, USGS Scientific Investigations Report 2005-5220



# Yolo Bypass, CA



Data and site locations can be found in the USGS SIR 2005-5220