

Pharmaceuticals and Personal Care Products

In the Environment Symposium

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Cal/EPA Byron Sher Auditorium

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Interest of the

State Water Resources Control Board

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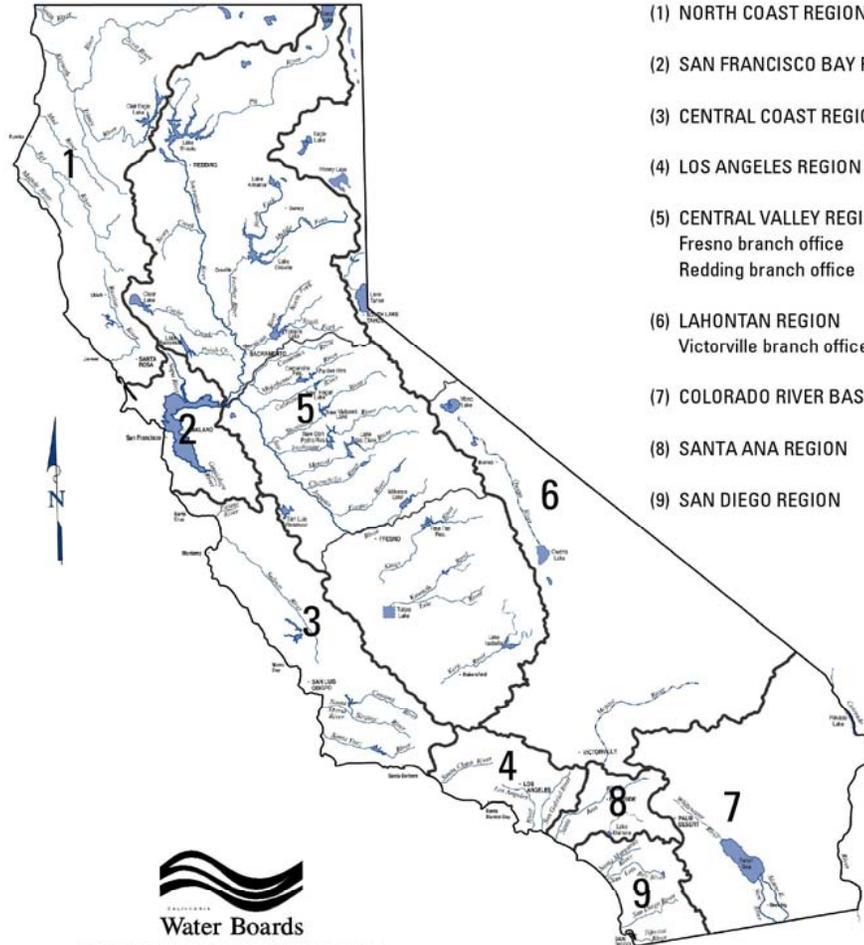
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# Mission Statement

“The State Water Board’s mission is to preserve, enhance and restore the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.”

# California Regional Water Quality Control Boards



- (1) NORTH COAST REGION
- (2) SAN FRANCISCO BAY REGION
- (3) CENTRAL COAST REGION
- (4) LOS ANGELES REGION
- (5) CENTRAL VALLEY REGION  
Fresno branch office  
Redding branch office
- (6) LAHONTAN REGION  
Victorville branch office
- (7) COLORADO RIVER BASIN REGION
- (8) SANTA ANA REGION
- (9) SAN DIEGO REGION



STATE WATER RESOURCES CONTROL BOARD  
REGIONAL WATER QUALITY CONTROL BOARDS

- Under water quality laws, the State Water Board promulgates water quality standards to protect “beneficial uses” designated by Regional Water Boards, such as municipal water supply and aquatic life protection.
- Water quality standards for surface waters currently focus on specific chemicals: the USEPA-designated 129 “priority pollutants.”
- Emerging contaminants were unrecognized as potential threats to water quality when the “priority pollutant” list was established 30 years ago.

# Emerging Contaminants: Developing Project SCCWRP/State Water Board

## A. Identification and Measurement of Endocrine-Disrupting Compounds in Municipal Wastewater Effluent.

Biological effects in local offshore southern California flatfish show evidence of endocrine disruption. Are discharges of municipal wastewater contributing to observed effects ?

- Southern California Coastal Water Research Project (SCCWRP)/State Water Board research contract.

# Potential Future Area of Investigation

- B.** Occurrence and Effects of Contaminants of Emerging Concern in Effluent-Dominated Southern California Rivers.
- Treated wastewater effluent comprises as much as 95 percent of the dry weather flow in many of the river systems in Southern California.
  - Do effluent-dominated waters contain potentially toxic concentrations of emerging pollutants?

# Potential Future Area of Investigation

## C. Occurrence and Effects of Current Use Pesticides in Southern California

- Some pesticides, approved for sale, including synthetic pyrethroids and Fipronil, are widely used by homeowners.
  - May run off to receiving waters from thousands of square miles of impervious landscape.
  - No State Water Board regulatory limit for their aquatic effects.
  - Project:
    - Develop ultra-sensitive methods for their detection in water and sediments of freshwater and coastal ecosystems.
    - Evaluate findings in context of toxicity information.

# Emerging Contaminant Challenge Facing Water Boards

- Waste water contains emerging contaminants that may threaten water quality
- Waste water treatment effectiveness varies. Concentrations of some emerging contaminants can be reduced considerably, but not others. Even advanced treatment may not remove all emerging contaminants
- An alternative to treatment is to seek source control (pollution prevention approach)
- The challenge facing the State Water Board and its Cal/EPA sister agencies is where to place the emphasis to minimize the effects of these chemicals.
- Possible opportunities to join with other regulatory agencies to develop and implement an integrated “emerging” chemicals waste reduction strategy.

# A New Regulatory Paradigm To Protect Water Quality

Traditionally, for the 129 Priority Pollutants and Others,

- Criteria and standards development: chemical by chemical.
- Analytical methods development: Chemical by chemical or by chemical class.

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- Traditional model will no longer work for the much larger number of emerging contaminants.
  - New paradigm needed.
  - Success of the paradigm will depend considerably on keeping chemicals out of waste stream and surface and ground water.