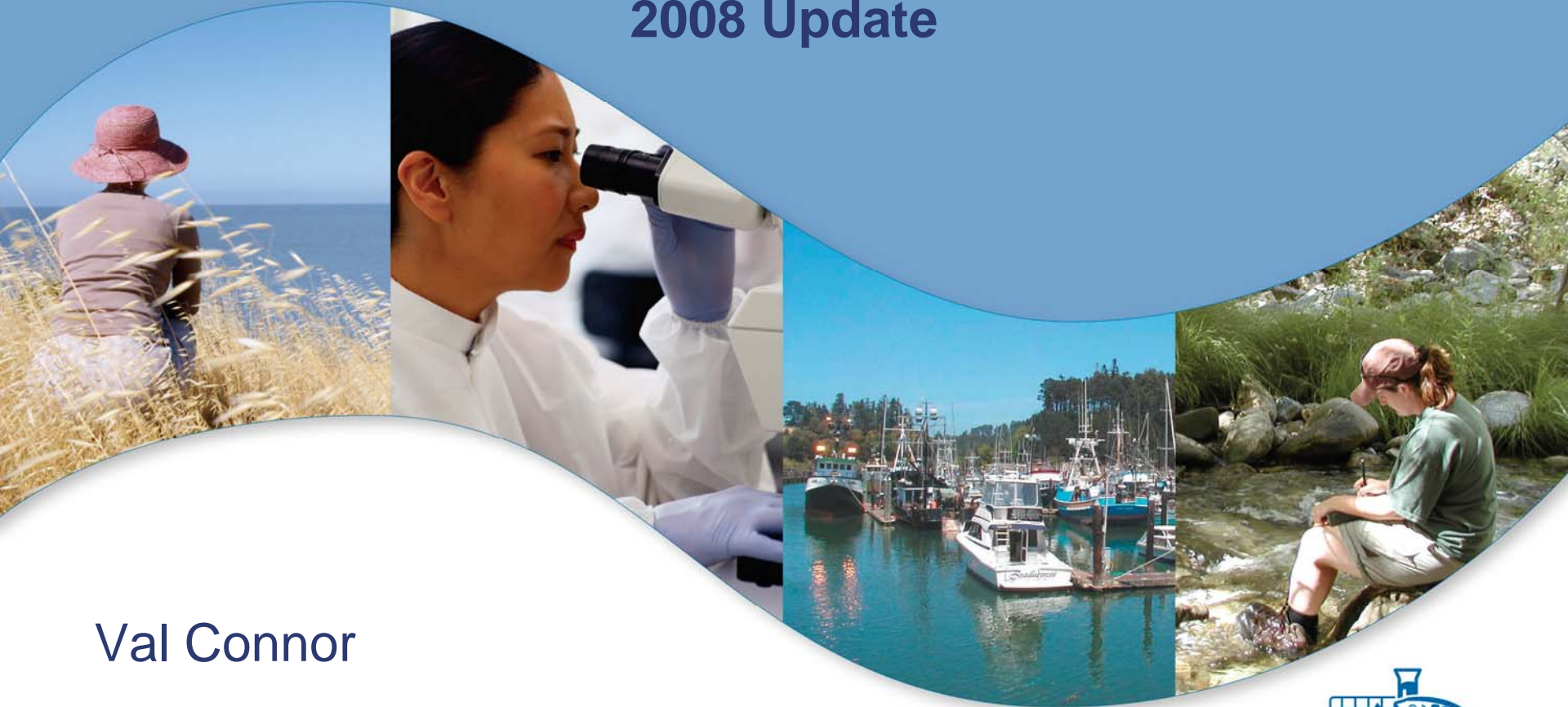


# Surface Water Ambient Monitoring Program

## 2008 Update



Val Connor

Office of Information Management  
and Analysis







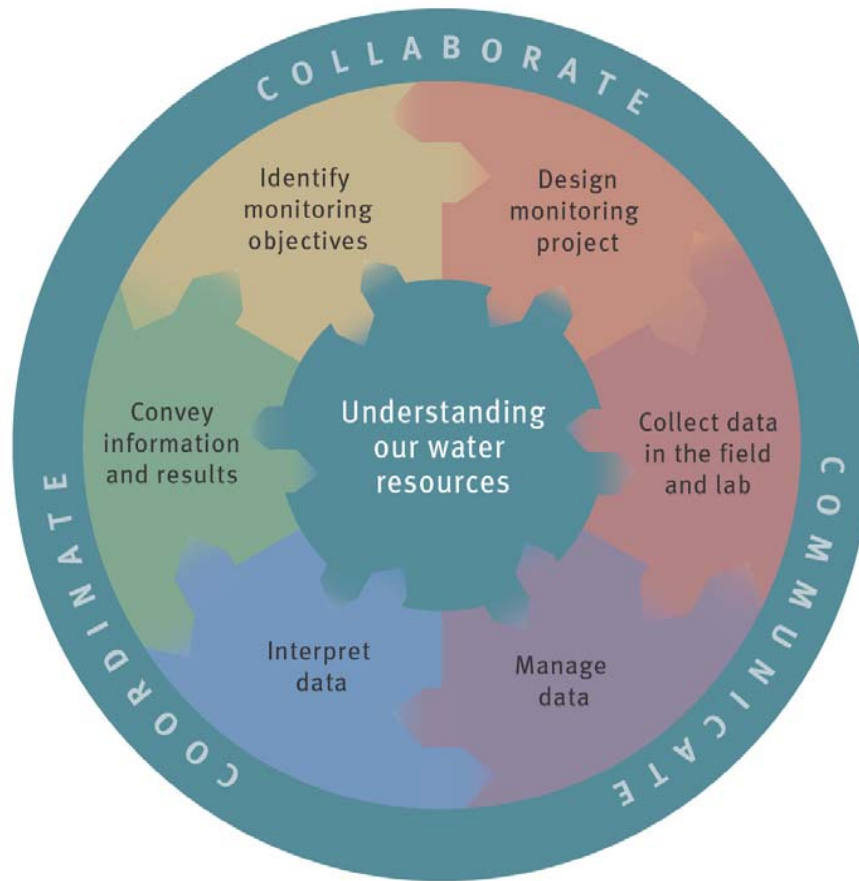
## SWAMP: Required by AB 982

- Comprehensive state program (surface water)
- Coordinate all Board ambient water quality monitoring Programs/projects
- High Quality Data (Quality Assurance)
- Comparable data
- Accessible





# Monitoring Framework



- National Water Quality Monitoring Network

# Implementation Strategy

- Monitoring Program Strategy
- Monitoring Objectives
- Monitoring Design
- Core Indicators of Water Quality
- Quality Assurance
- Data Management
- Data Analysis/Assessment (CALM)
- Reporting
- Programmatic Evaluation
- General Support and Infrastructure





# Building “Comparability”

- SWAMP is a state framework to coordinate consistent and scientifically defensible methods and strategies for improving water quality monitoring, assessment, and reporting.
- Common Indicators
- Comparable Methods
- Quality Assurance Program
- Database w/ metadata
- Information Exchange Network
- Tool Box and Training





# State & Regional Monitoring Components

- Vary in scale of questions, objectives and design
- State program:
  - Asks broad questions:
    - What % of state's waterbodies are healthy ?
  - Uses of program
    - EPIC (Environmental Protection Indicators for Calif.)
    - 305b report CA Water Quality Assessment
    - Legislative reports
- Regional program's objectives and design are more specific
  - Are specific waterbodies meeting WQ standards?
    - 303d list
  - Are specific management/restoration efforts successful ?





# Two Levels of Monitoring

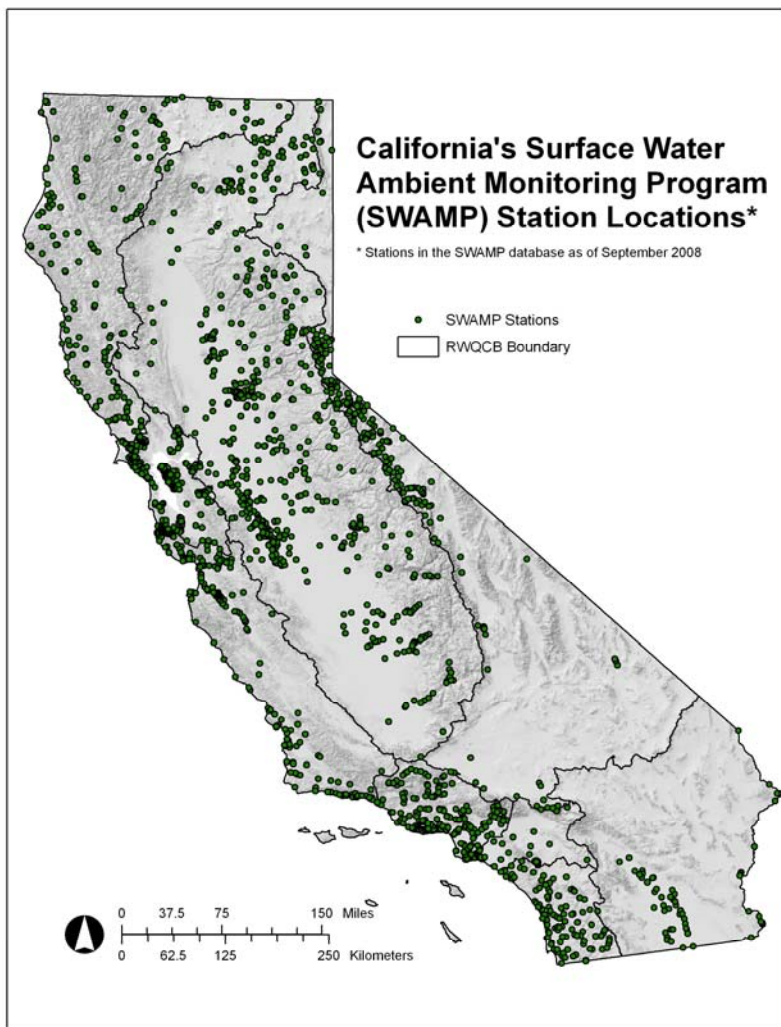
- Regional Boards - conduct targeted monitoring and assessment
  
- Statewide programs –
  - Perennial Streams Assessment (PSA)
  - Reference Sites
  - Bioaccumulation Oversight Group (BOG)
  - Integrator Sites







# SWAMP Monitoring Sites



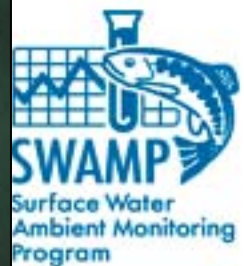
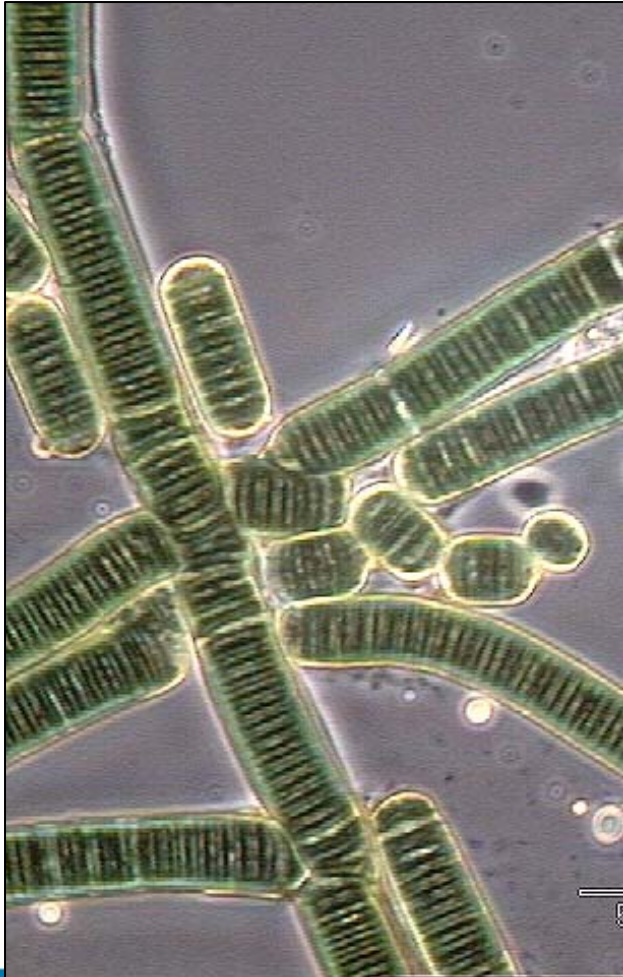
## SWAMP statistics (SWAMP database)

Watersheds assessed (CalWater HUC )	150
Stations Sampled	1,835
Station Visits	34,440
Field Measures taken	75,700
Chem. analyses	564,900
Toxicity. tests	81,500
Organism Collected	4,520
Tissue Results	8,500
Biological Assessments	1788

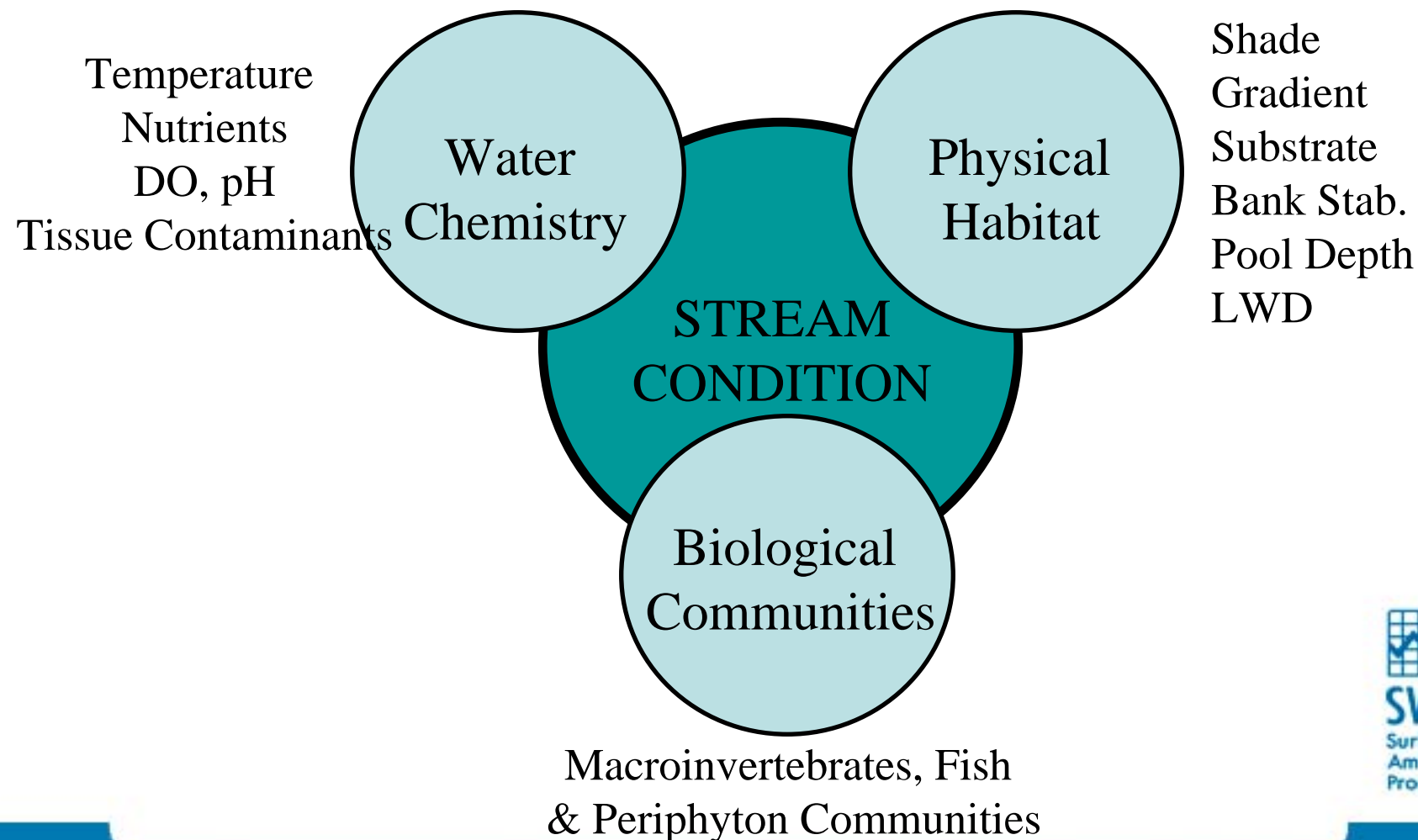




# SWAMP Bioassessment Program (est. 2001)



## COMPONENTS OF FULLY INTEGRATED ECOLOGICAL ASSESSMENT



## Three Main Areas of Focus

Developing technical infrastructure for measuring biotic integrity

Developing a research program for establishing a scientifically defensible framework

Developing regulatory infrastructure to integrate biological data into WQ programs





# SWAMP Bioassessment Program

- Peer review, Michael Barbour, TT
- Workplan to address peer review
- Conducted Methods Comparison
- Adopted consistent method for wadeable streams
- Conducted methods comparison for low gradient streams

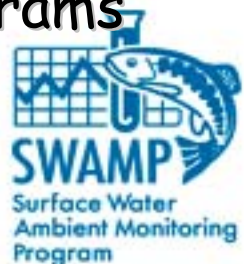






# SWAMP Bioassessment Program (cont'd)

- Comparable physical habitat measurements
- External Review (SPARC)
- Interagency coordination (methods, SOPs, taxonomy, Q)
- IBIs
  
- SWAMP comparable QA, data formats and standards (CaEDAS)
  
- Intra-agency coordination:
  - ❖ Incorporating bioassessment into regulatory programs



# Application of Bioassessment Data

## Regulatory Infrastructure Goals:

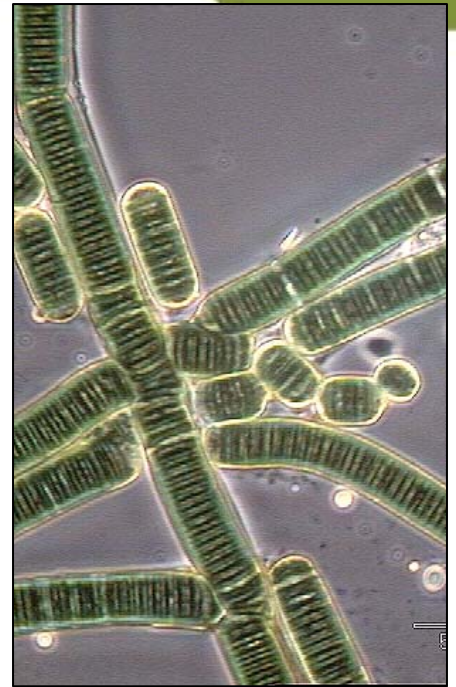
- Biotic integrity fully integrated into WQ management programs
- Fully implemented biocriteria
- Tiered aquatic life use (TALU) ??

External peer review "Critical Elements"

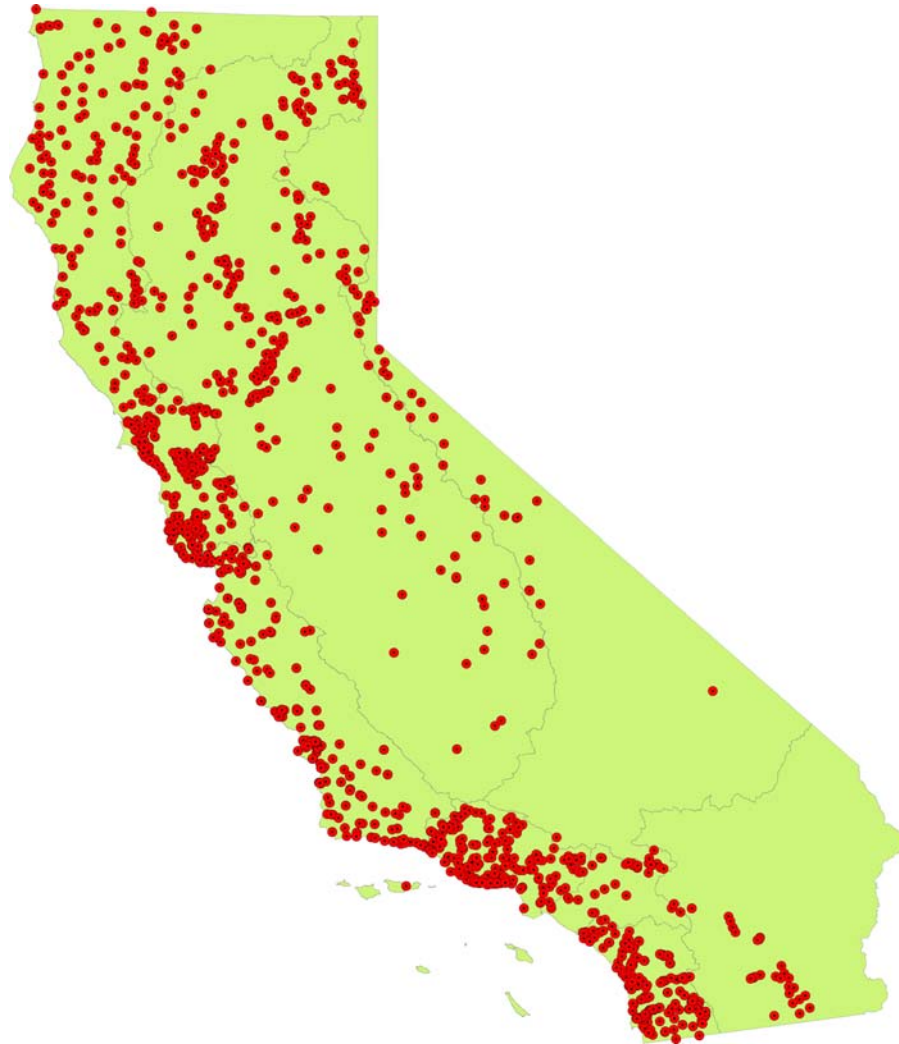


# Programs:

- SWAMP
- Stormwater
- NPDES
- WDRs / 401
- NPS
- NPDES
- TMDLs
- other



# Bioassessment Sites - 1788



# Summary

- We're getting there!





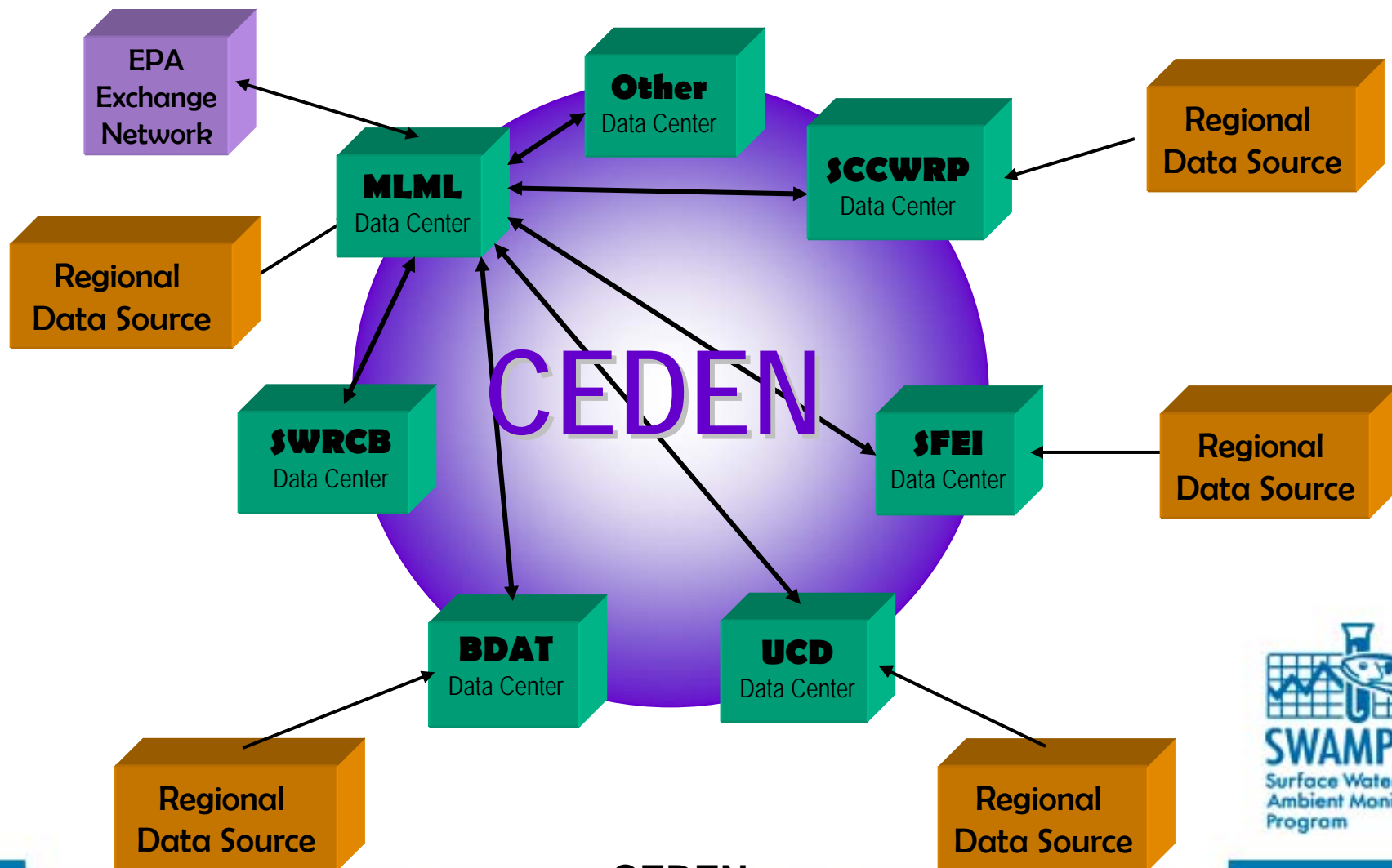
Switch gears:

New for 2008 to SWAMP & the State Board

- 2008 Quality Assurance Program Plan
- Office of Information Management and Analysis (OIMA)
- California Environmental Data Exchange Network (CEDEN)
- California Water Quality Monitoring Council



# California Environmental Data Exchange Network (CEDEN)



[www.CEDEN.org](http://www.CEDEN.org)





# Initial Council Actions

- Data and assessment information availability
- Develop theme-based statewide water quality web portal
  - Organize water quality information into portal element themes:
    - ✓ Is our water safe to drink?
    - ✓ Is it safe to swim in our waters?
    - ✓ Is it safe to eat fish and shellfish from our waters?
    - ✓ Are our aquatic ecosystems healthy?
    - ✓ What stressors and processes affect our water quality?
  - Initial focus = safe to swim



# Questions?

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