Surface Water Ambient Monitoring Program
Status and Accomplishments

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State Water Resources Control Board

Aquatic Bioassessment Laboratory

RESOURCES AGENCY CALIFORNIA DEPARTMENT FISH&GAME

CALIFORNIA Water Boards

SWAMP Surface Water Ambient Monitoring Program

Overview and Accomplishments

- Statewide and Regional Monitoring and Assessments
- Program Coordination
- Infrastructure & Tools

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Surface Water Ambient Monitoring Program

Statewide Assessments

- Bioassessment Monitoring Program
- Stream Pollution Trends (SPoT) Monitoring Program
- Bioaccumulation Monitoring Program

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Water Body Type	Beneficial Uses			
	Aquatic Life	Fishable	Swimmable	Drinkable
Streams	SWAMP			California Department of Public Health CDPH
Rivers			CALIFORNIA WATER QUALITY MONITORING COUNCIL	
Lakes	United States Environmental Protection Agency	SWAMP		Department of Water Resources State of California
Coastal Waters	Water Boards			
Bays & Estuaries				
Wetlands	California Water Quality Monitoring Council			

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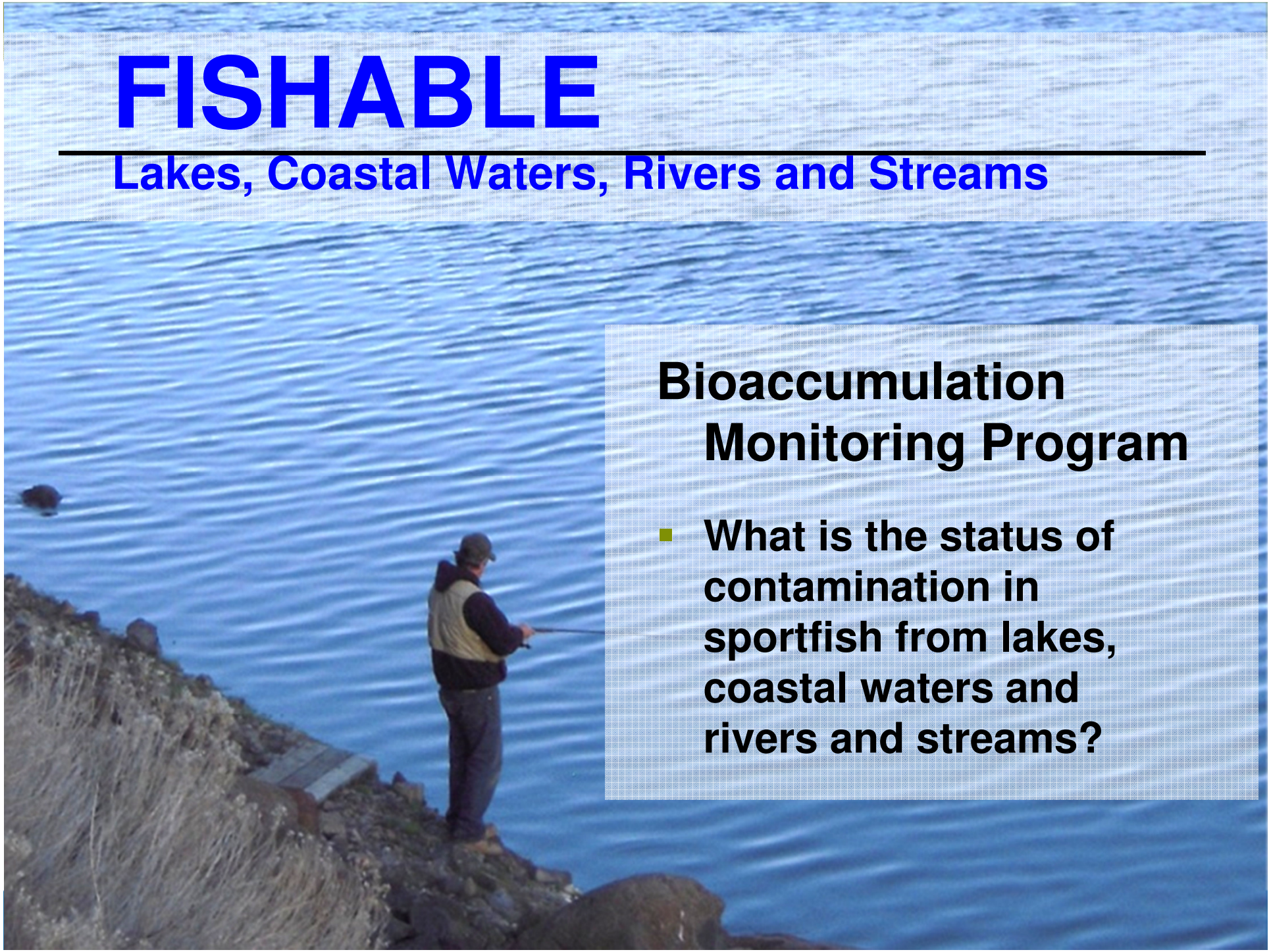
FISHABLE

Lakes, Coastal Waters, Rivers and Streams



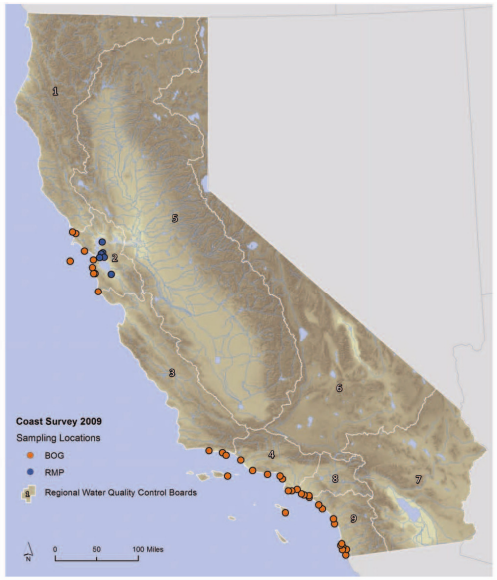
Bioaccumulation Monitoring Program

- What is the status of contamination in sportfish from lakes, coastal waters and rivers and streams?

Bioaccumulation Monitoring Group (BOG)

- Accomplishments
  - Statewide Coastal Study

    First Year of a Two Year Study



  - Rivers and Streams Monitoring

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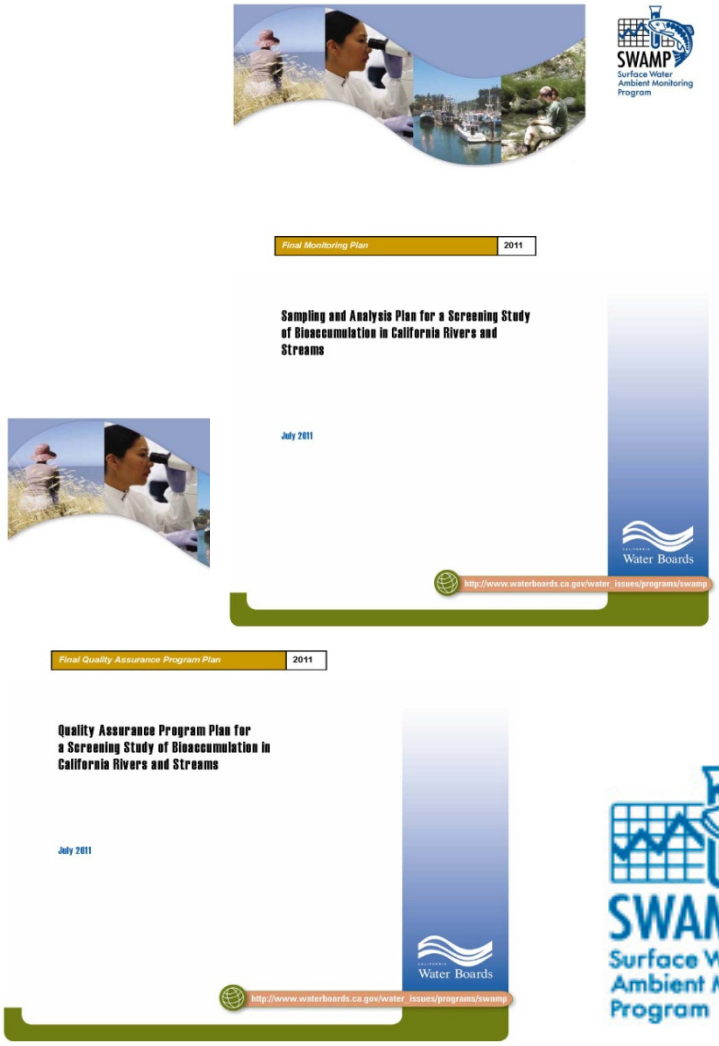
Bioaccumulation Monitoring Group (BOG)

- Work in Progress
  - Final Coast Sport-fish Report
    - Will be released in 2012
  - Rivers Sport-fish Report
    - Will be released in 2013
  - 5-Year Strategy Plan
    - Monitoring, Assessment, and Coordination



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- State & Regional Water Boards

SAFE TO EAT FISH LINKS

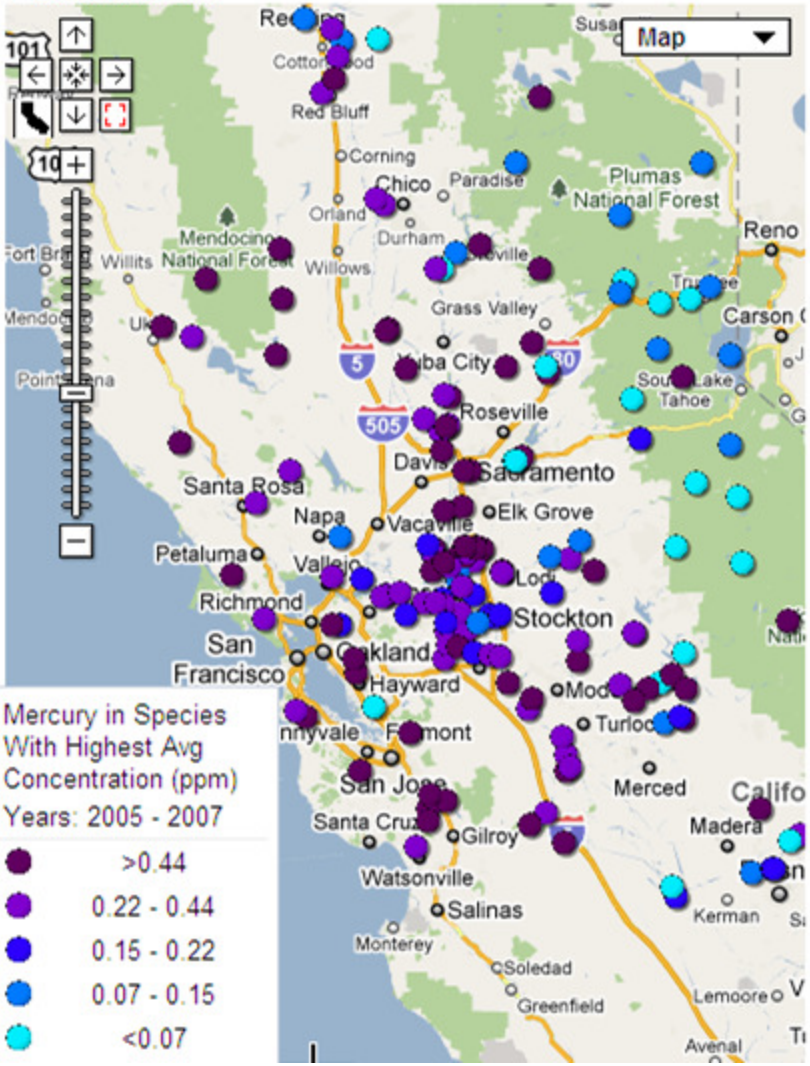
- Pollution Sources & Health Risks
- Laws, Regulations, Standards & Guidelines
- Assessment Thresholds
- Regulatory Activities
- Enforcement Actions
- Research
- Monitoring Programs, Data Sources & Reports
- Statewide Perspective
- National Perspective

What are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?

Select location from list.

Zoom to county:

Show counties



Contaminant Data

This interactive map allows you to explore fish contaminant data for your fishing locations.

- Select parameters of interest from the menus below and click on the "Go" button. The map will display average concentrations for the selected water bodies.
- To view data for all species at your water body, trends, or comparisons with nearby water bodies, click on a map location or select a water body from the menu above the map.
- Thresholds displayed on the map can be modified by clicking the Change Thresholds link in the map legend.

Select Species:

Species With Highest Avg Concentration

Select Contaminant:

Mercury

Select Start Date:

2005

Select End Date:

2007

Go Reset

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Aquatic Life in Streams

Bioassessment Monitoring Program

- Perennial Streams Assessment (PSA)
- Reference Condition Management Plan
- Biological Objectives

- Infrastructure development
- Monitoring programs
- Preparing for future enhancements

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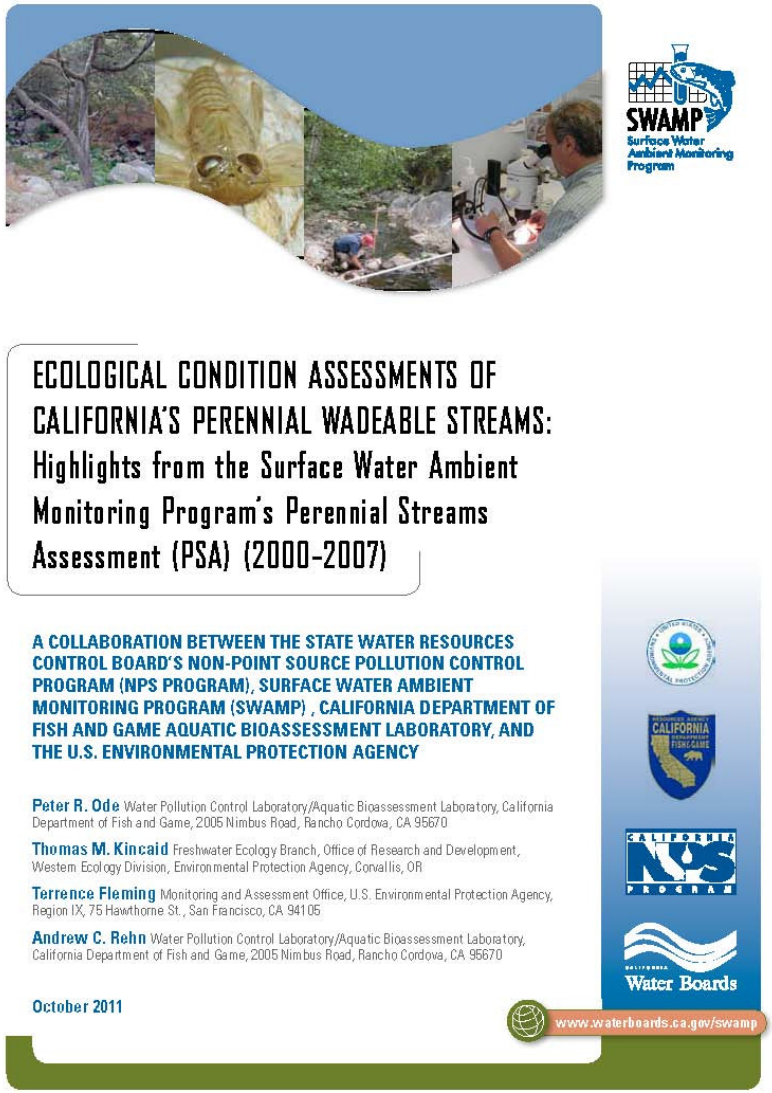
Perennial Streams Assessment



- ***Accomplishments***
  - **8 Year Report**
  - **4 Management Memos**

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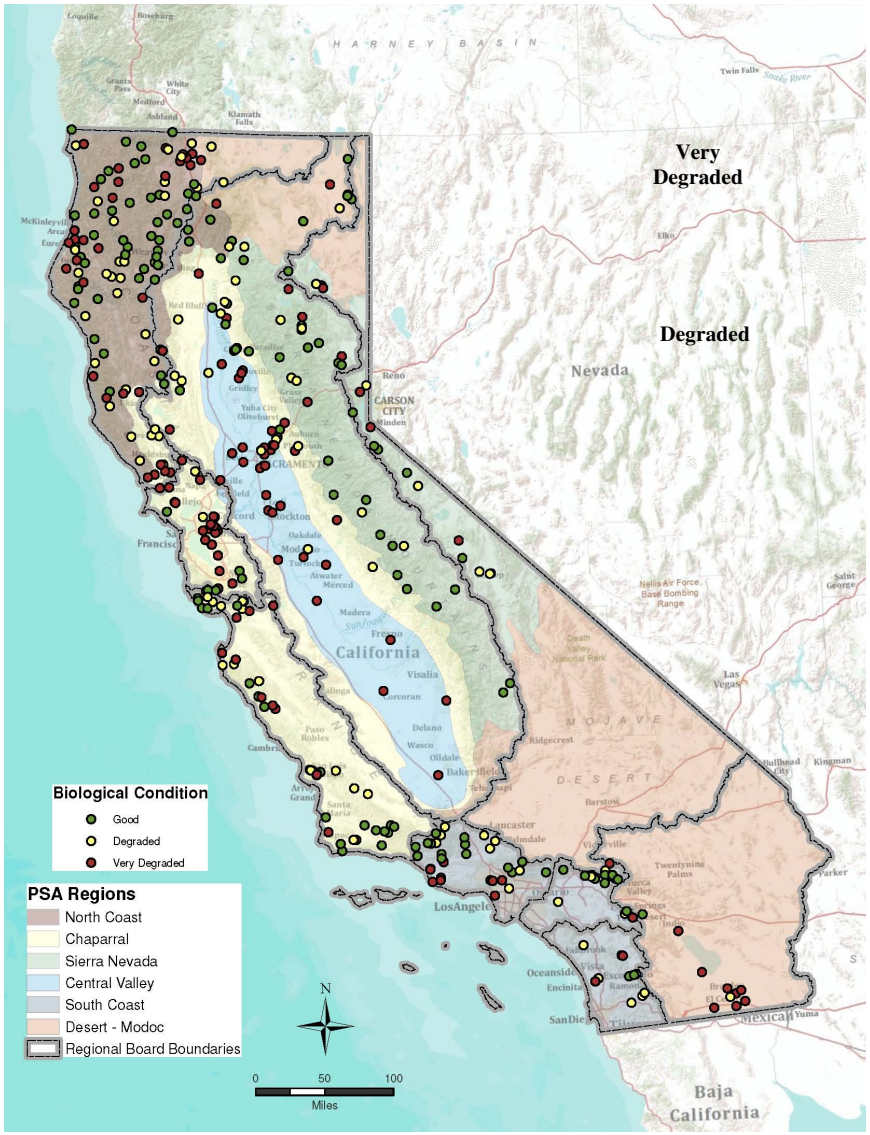
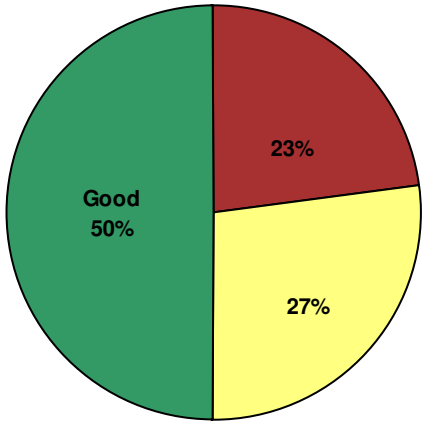
Aquatic Life in Streams



Bioassessment Monitoring Program- Perennial Streams Assessment



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Aquatic Life in Streams

- ***Perennial Streams Assessment***
  - Four Management Memos
    - Extent of California's Perennial and Non-Perennial Streams
    - Value of SWAMP's Statewide Monitoring Programs
    - Status of California's Wadeable Perennial Streams
    - Biology-based Stressor Thresholds

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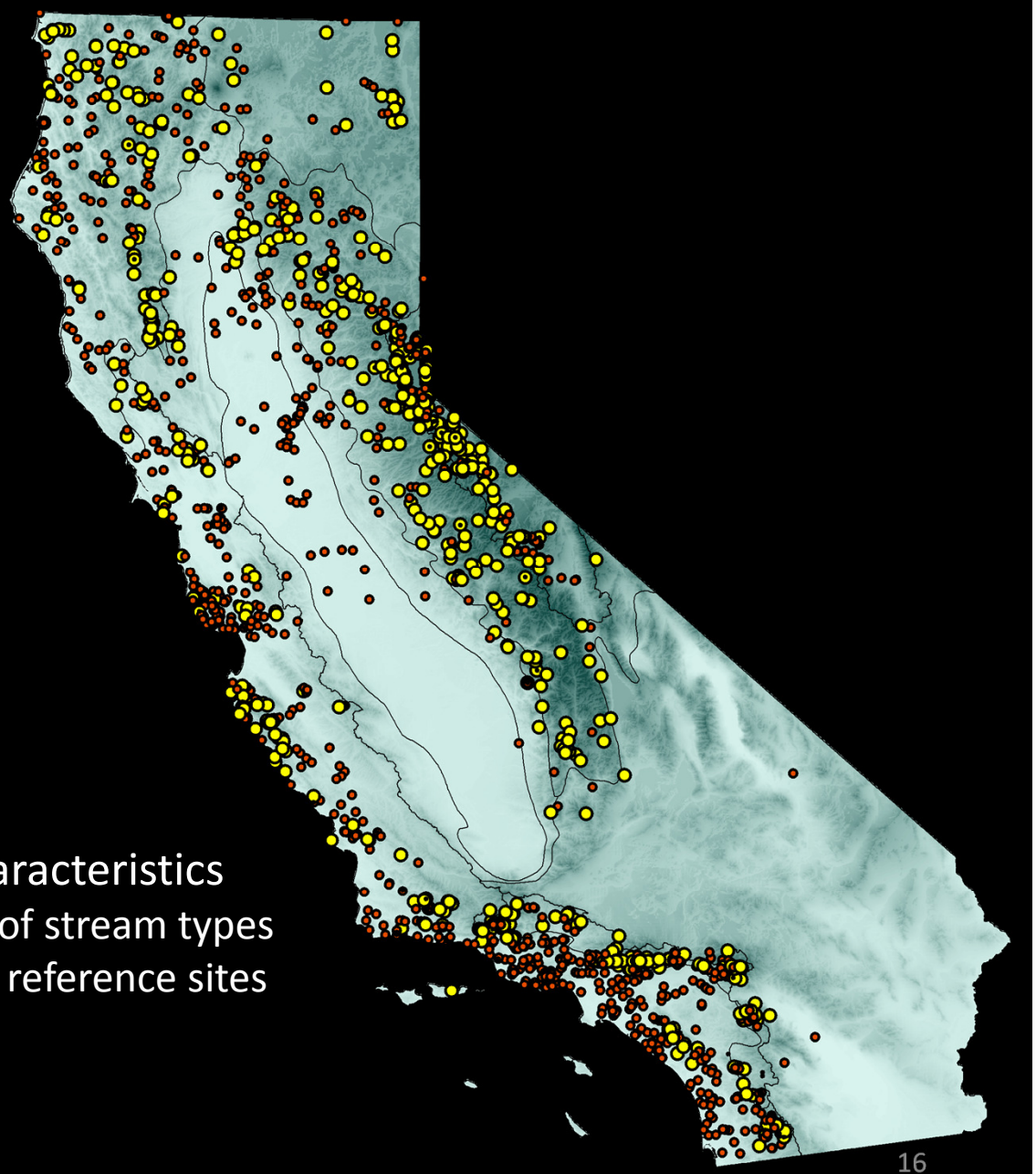
Reference Condition Management Plan

Reference condition is the foundation of bioassessment bio-objectives = **objective** basis for **uniform biological standards**

- Use natural condition (or something close to it) as the desired state whenever possible
- Expectations must accommodate CA's diverse ecological and landuse settings, but retain **consistent** meaning throughout the state

Reference Sites

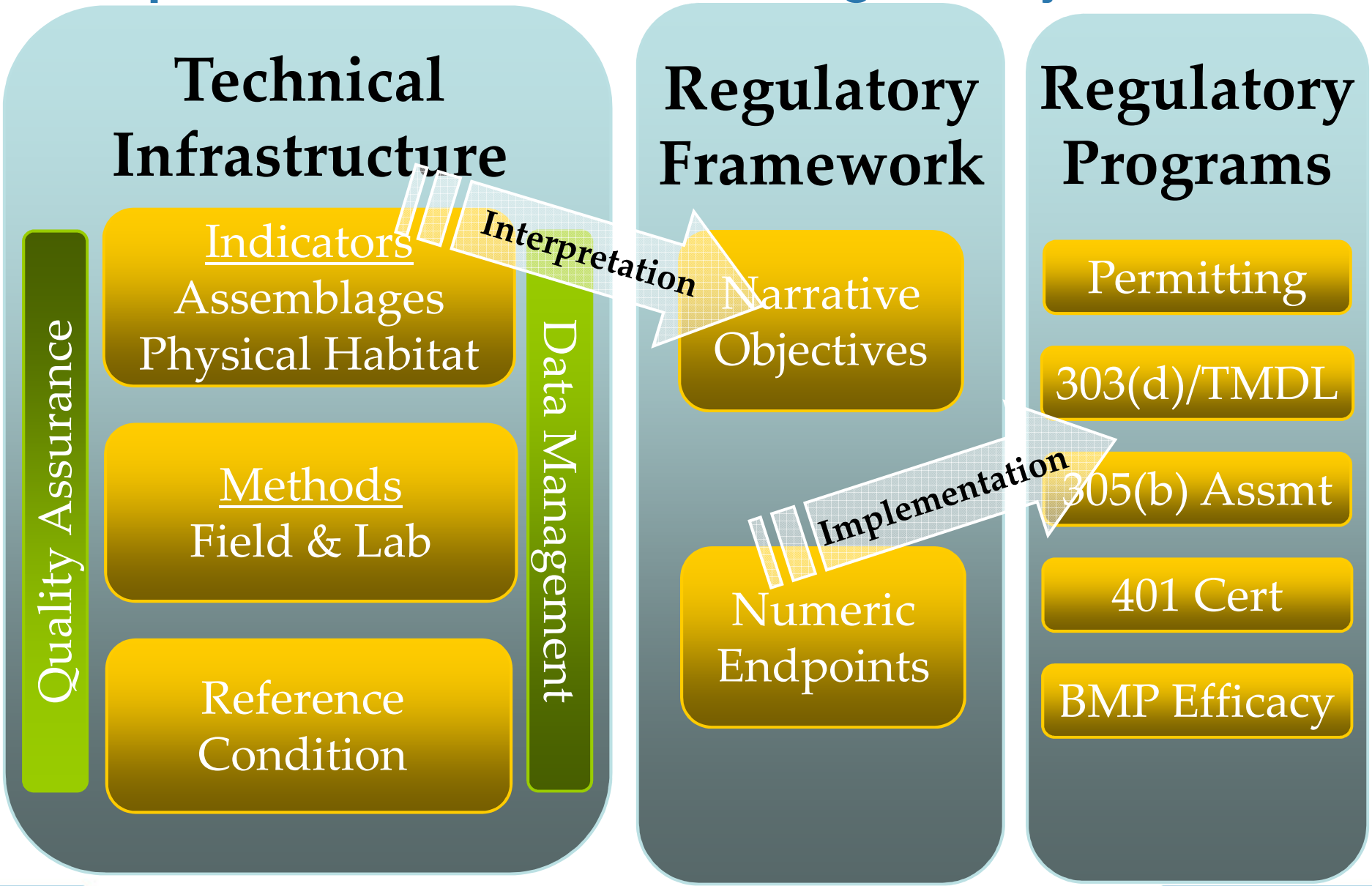
First step in establishing bio-objectives was to set criteria for acceptable reference sites



Goal: balance two desirable characteristics

1. Represent CA's diverse array of stream types
2. Ensure biological integrity at reference sites

Aquatic Life in Streams – Biological Objectives



Aquatic Life in Streams

- ***Biological Objectives Accomplishments***
  - Three Advisory Groups formed
  - Compilation of statewide data
  - Established statewide draft reference sites
  - Initial Pilot Study Completed
  - Formulating CEQA alternatives and implementation framework

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Stream Pollution Trends Monitoring Program

Aquatic Life in Streams and Large Rivers

- What is the status of stream contamination?
- What effect does land use and management actions have on stream contamination?

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Sediment Toxicity Measurements

- Fine sediment from depositional areas
- Pesticides, PCBs, PAHs, PBDEs
- Trace metals, TOC, grain size, total P
- Sediment toxicity

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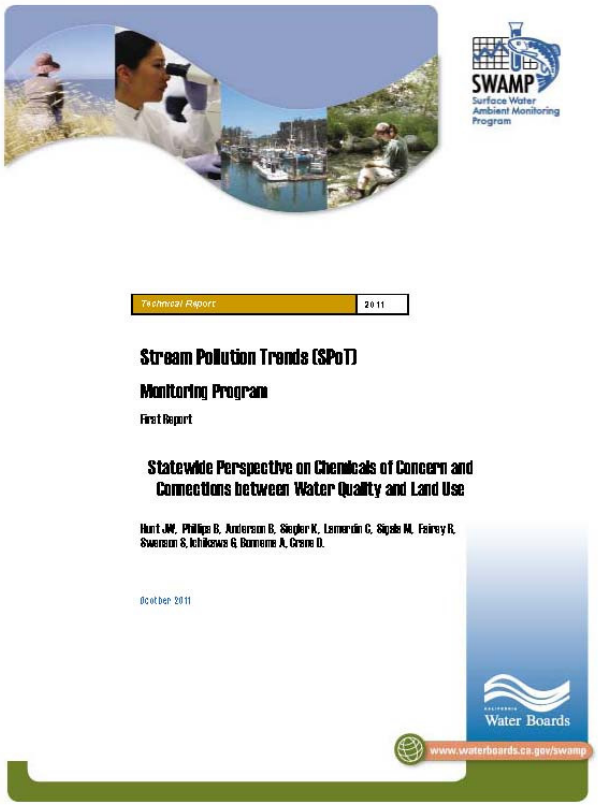
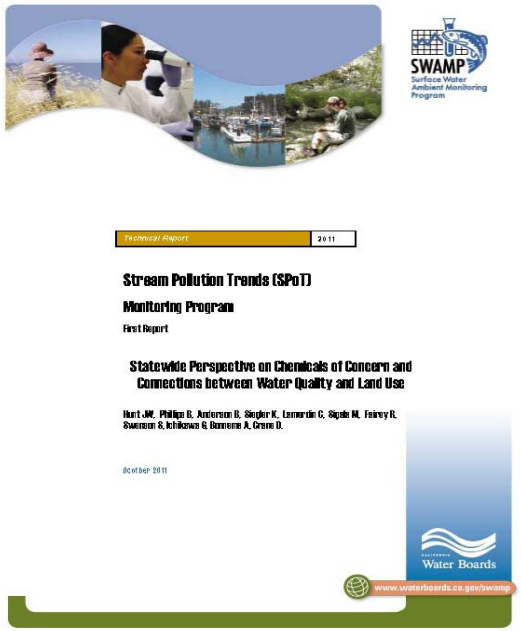
Accomplishment

- First report under peer review





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Aquatic Life - Streams

Bioassessment Program

Stream Pollution Trends Monitoring

Healthy Streams Partnership

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Regional Assessments

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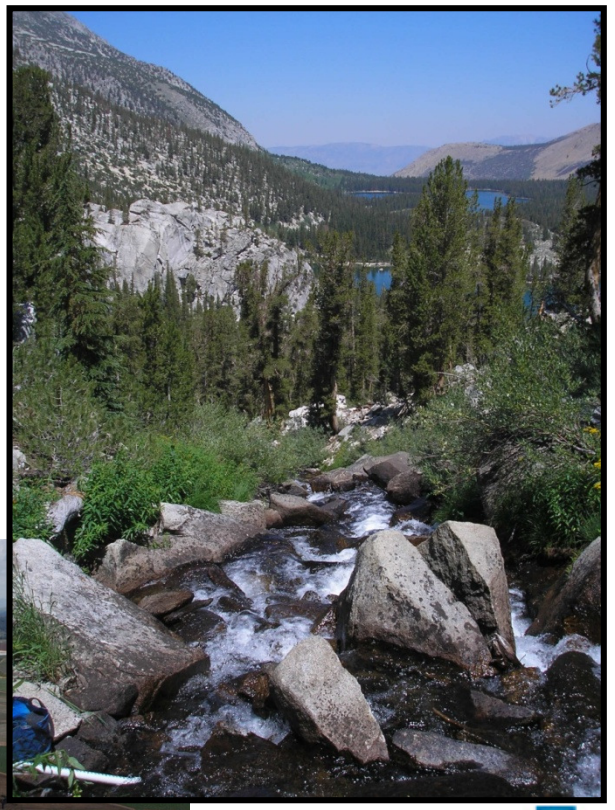
Our Nine Regions are Diverse



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Why is Regional Monitoring Critical?

- Targeting information gaps
- Responsive to regional and local concerns
- Higher spatial and temporal scale
- Scale matches management needs
- Measuring success and long-term trends
- Coordinating to leverage monitoring

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Regional Monitoring and Assessment Accomplishments

- Highlights of Regional Monitoring and Assessments Effort:
  - Over 2,000 site visits and almost 10,000 analyses to addressed numerous questions at Regional level:
    - Seasonal Trend Monitoring
    - TMDL Implementation
    - Initiated study of Pharmaceuticals and Personal Care Products
    - Implementation of the Statewide Algae Plan

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Program Coordination

- Technical and Scientific planning
- Coordination at Regional and State levels

- California Water Quality Monitoring Council
- Citizen Monitoring

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Infrastructure & Tools

Quality Assurance Program

- QA Program Plan
- QA Project Plan Template
- QA Advisor
- Help Desk

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Quality Assurance Program Plan

Version 1.0

September 1, 2008

Surface Water Ambient Monitoring Program

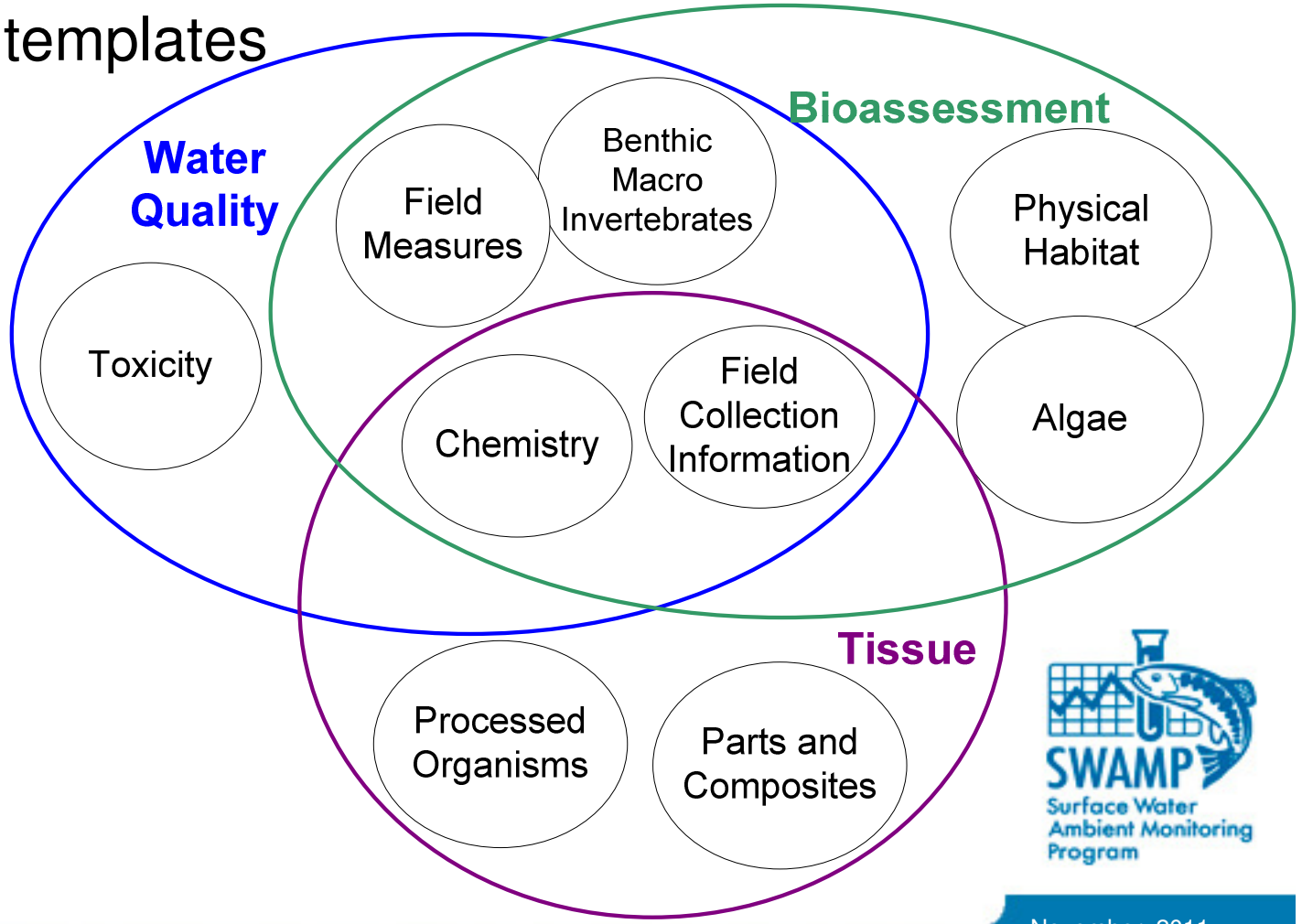
Water Boards

www.waterboards.ca.gov/swamp

Infrastructure & Tools

Data management

- SWAMP Database
- Data format templates
- Online data checkers
- Help desk



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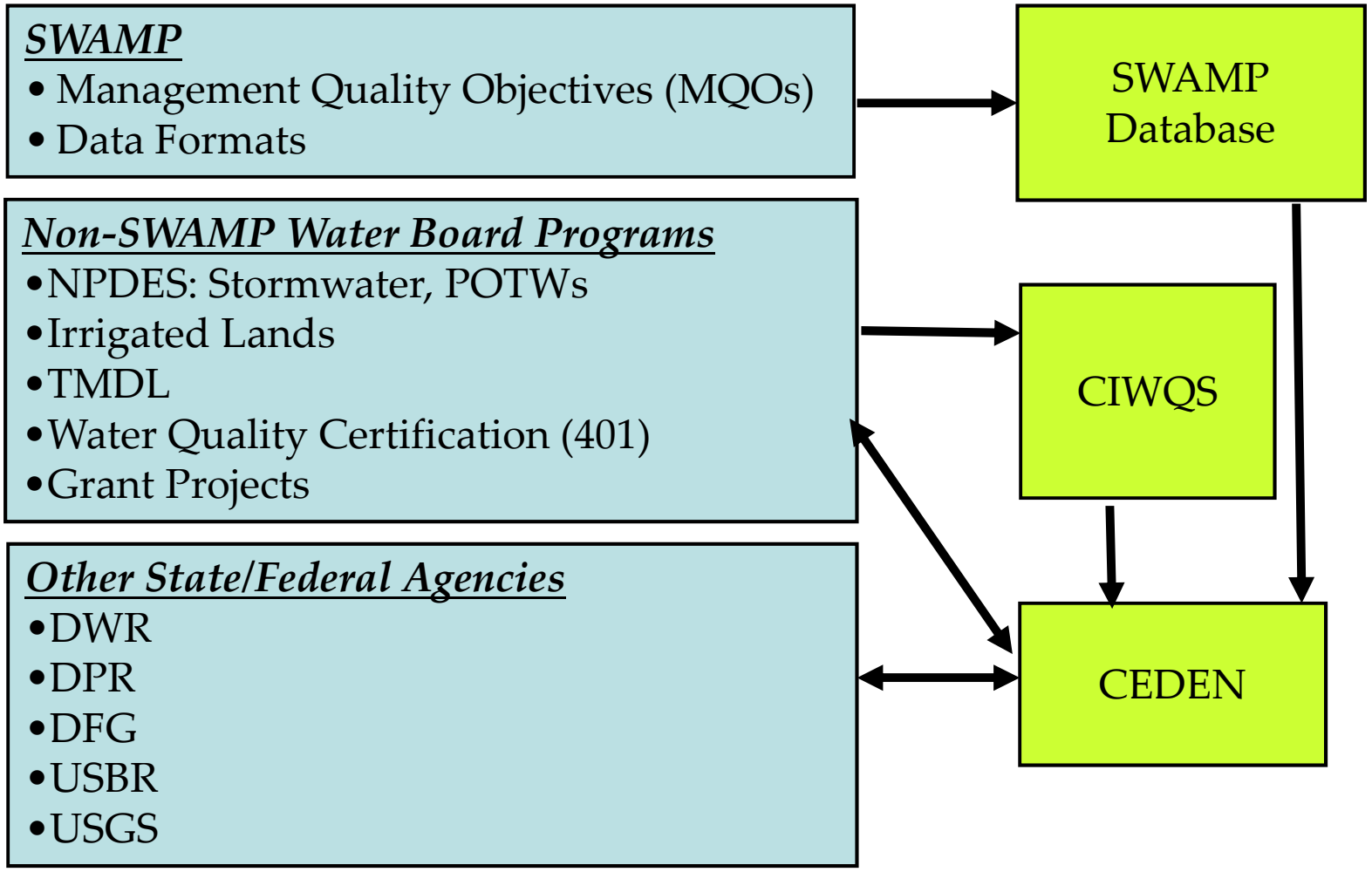
Water Boards
Minimum Quality Assurance and Reporting Requirements

- Quality Assurance for Field and Laboratory
- Minimum Data Elements

Water Boards Data Management



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Thank you…

www.waterboards.ca.gov/water_issues/programs/swamp/

Contact Information:

Shakoora Azimi-Gaylon
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(916) 341-5220

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Aspects of Bioassessment Monitoring

- Four aspects of bioassessment monitoring program will be presented by State Water Board staff:
  - Dawit Tadesse, dtadesse@waterboards.ca.gov (916) 341 5486
  - Jennifer Salisbury, jsalisbury@waterboards.ca.gov (916) 341 5553
  - Toni Marshall, tmarshall@waterboards.ca.gov (916) 322 2518
  - Susan Monheit, smonheit@waterboards.ca.gov (916) 341 5341

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