

Status of the Surface Water Ambient Monitoring Program (SWAMP)

& Recent Accomplishments



Jennifer Doherty

*State Water Resources
Control Board*



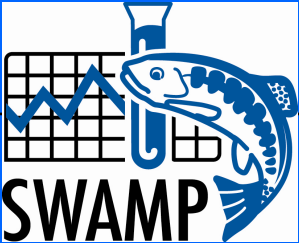


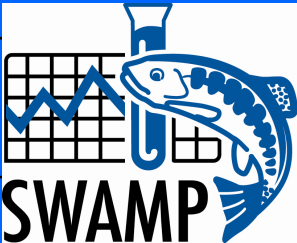




Overview

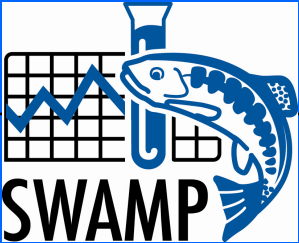


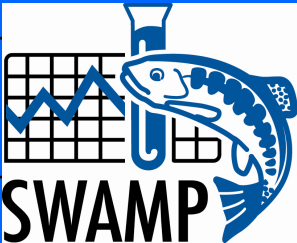




- Statewide Assessments
- Regional Assessments
- Infrastructure & Tools
- Recent Accomplishments



Statewide Assessments



Water Body Type	Beneficial Uses			
	Aquatic Life	Fishable	Swimmable	Drinkable
Streams				
Rivers				
Lakes				
Coastal Waters				
Bays & Estuaries				
Wetlands				

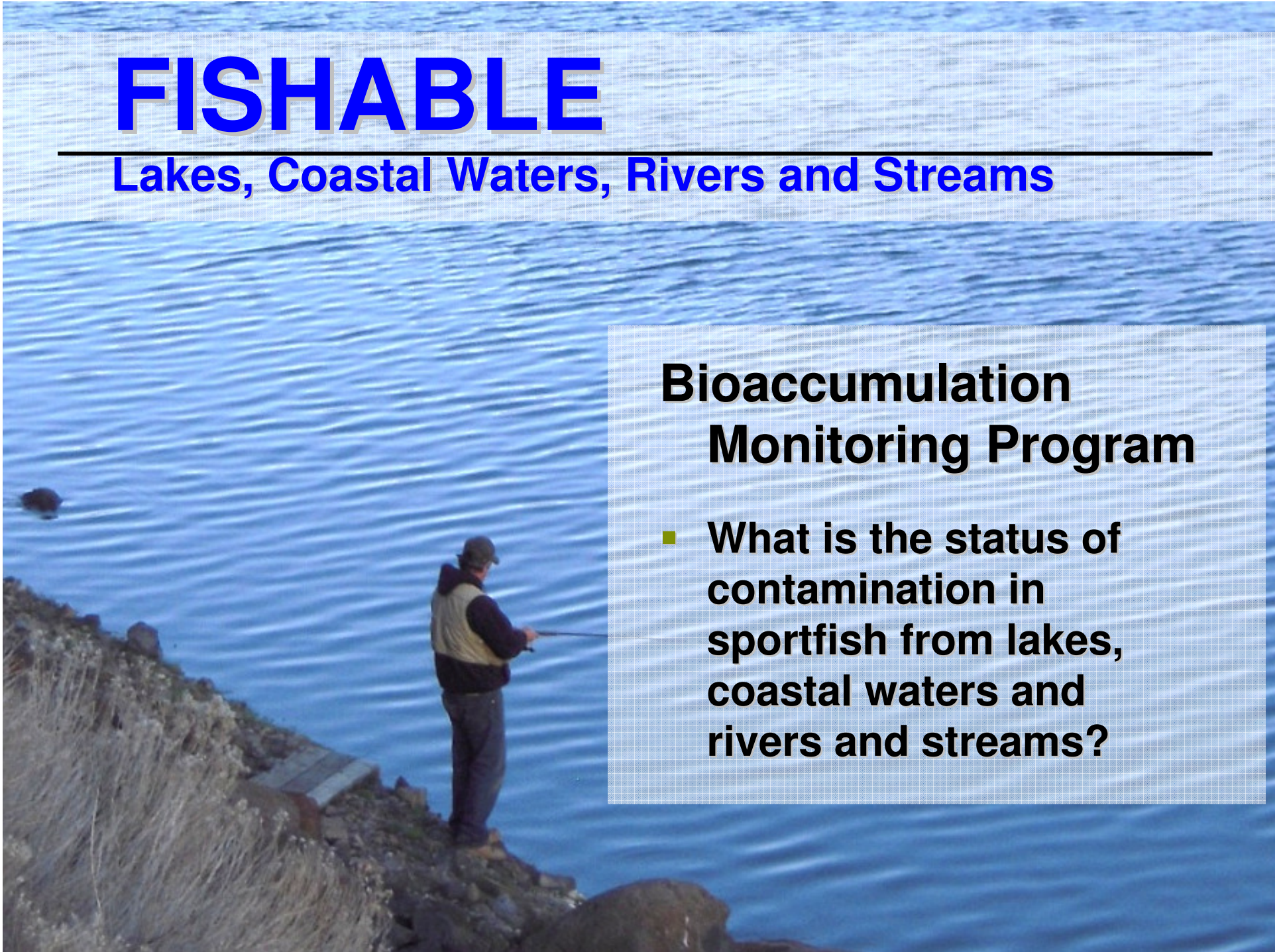
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FISHABLE

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?**





» 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

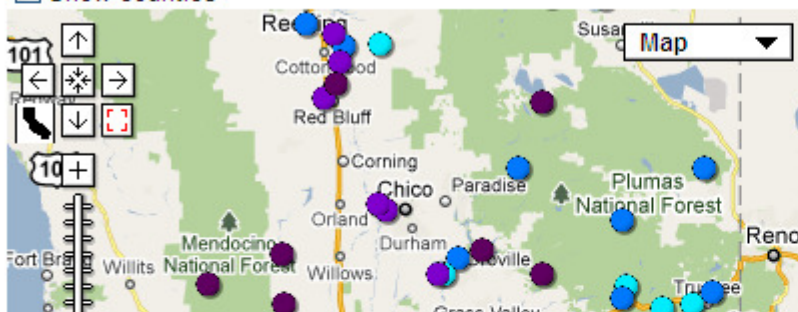
What are the Levels and Long-Term Trends in My Lake, Stream, or Ocean Location?



Select location from list.

Zoom to county:

☐ Show counties



Contaminant Data

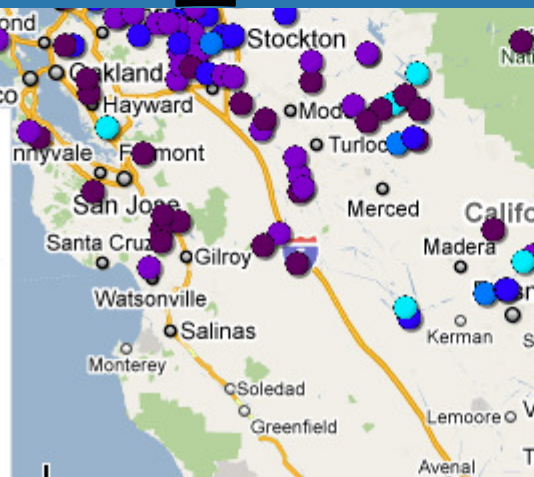
This interactive map allows you to explore fish contaminant data for your fishing locations.

- » 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.

cawaterquality.net

Mercury in Species
With Highest Avg
Concentration (ppm)
Years: 2005 - 2007

- >0.44
- 0.22 - 0.44
- 0.15 - 0.22
- 0.07 - 0.15
- <0.07



Mercury

Select Start Date:

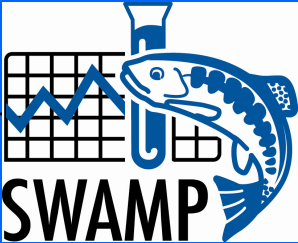
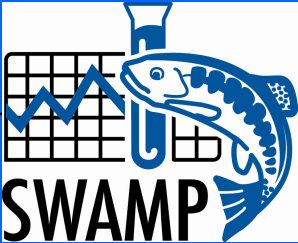


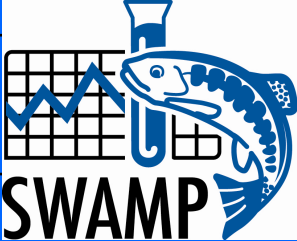



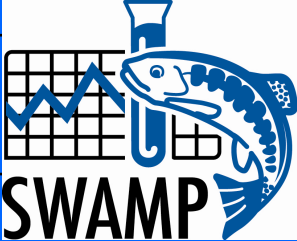

2005

Select End Date:

2007

Go

Reset

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Aquatic Life in Streams

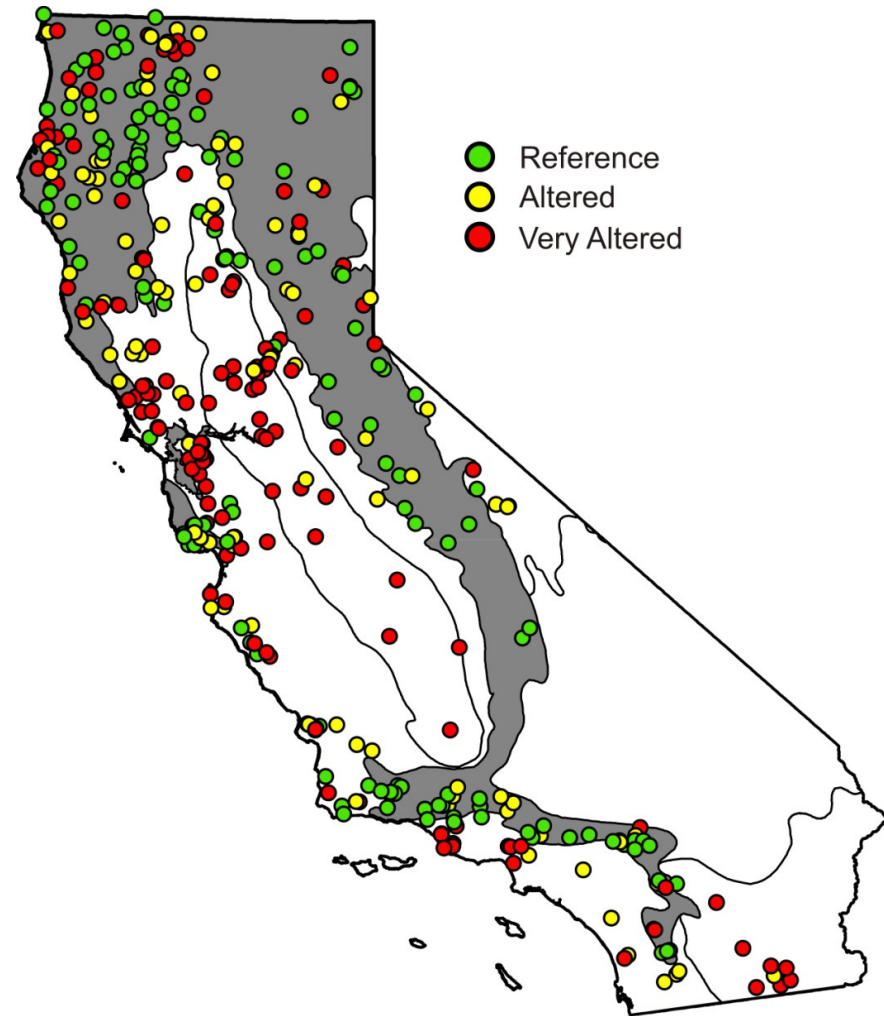
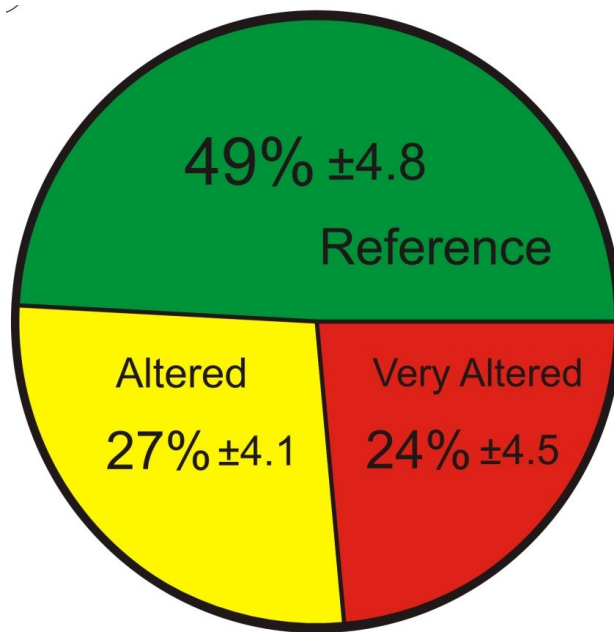
Bioassessment Monitoring Program

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



Aquatic Life in Streams

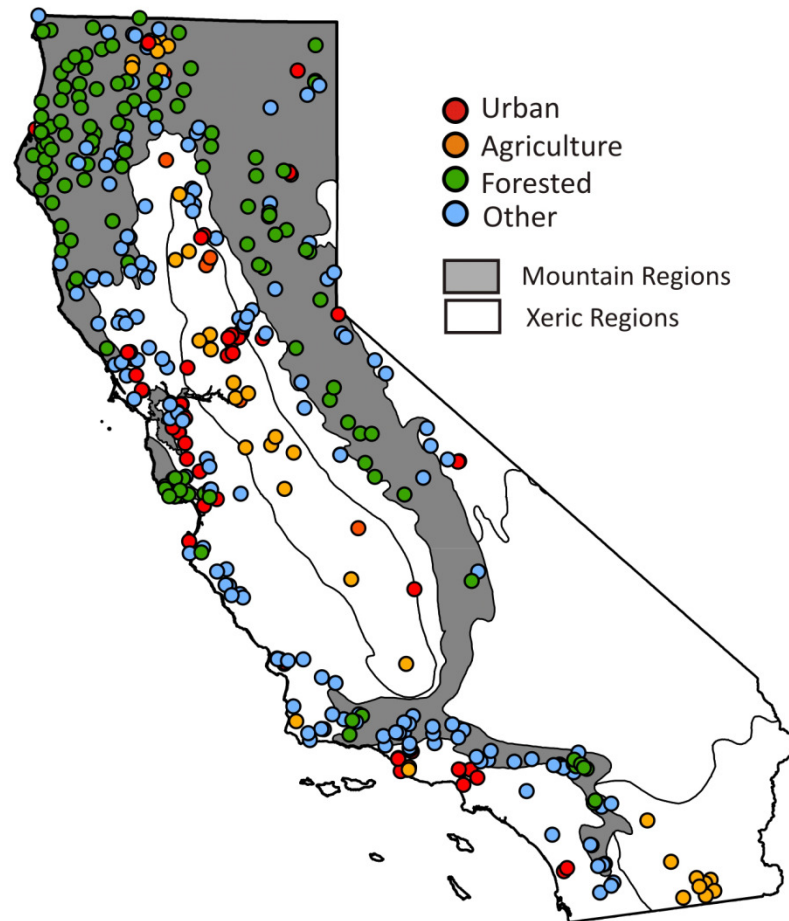
Bioassessment Monitoring Program – Perennial Streams Assessment



Aquatic Life in Streams

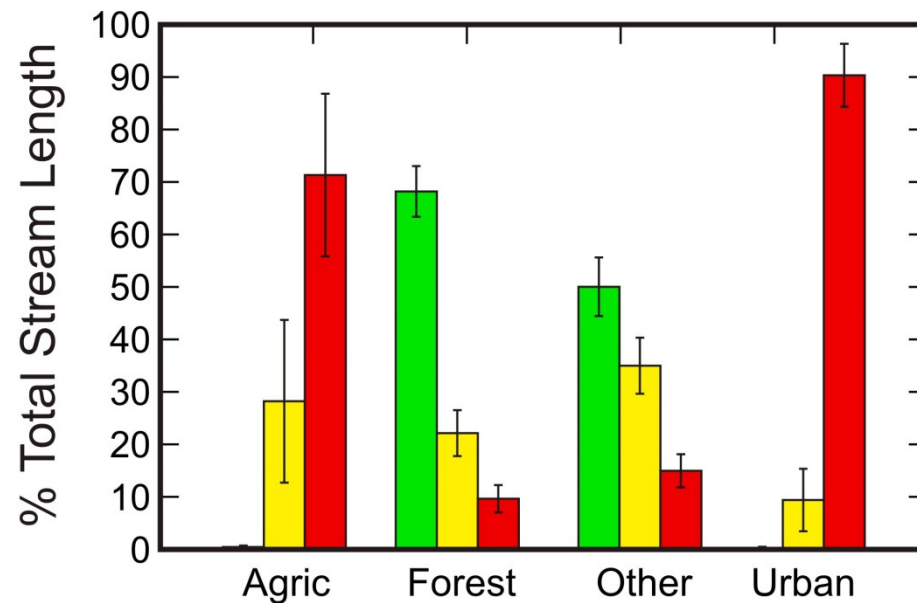
Bioassessment Monitoring Program

– Perennial Streams Assessment



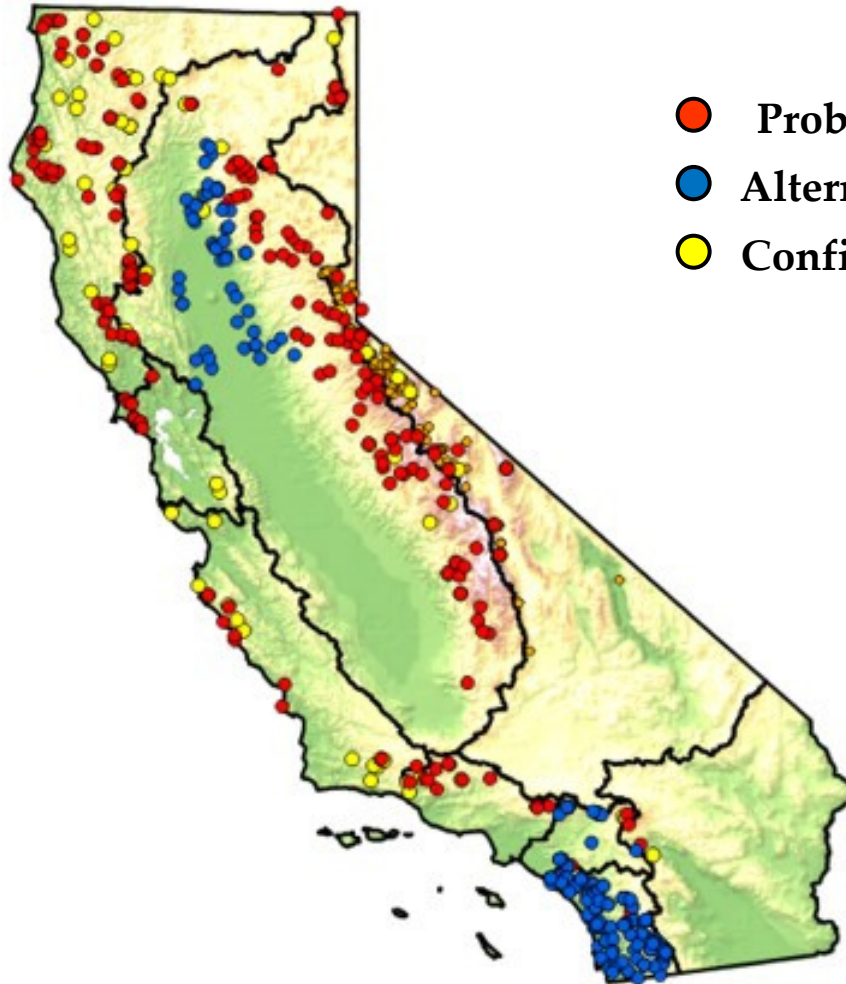
Aquatic Life in Streams

Bioassessment Monitoring Program – Perennial Streams Assessment



Aquatic Life in Streams

Bioassessment Monitoring Program – Reference Condition Management Plan



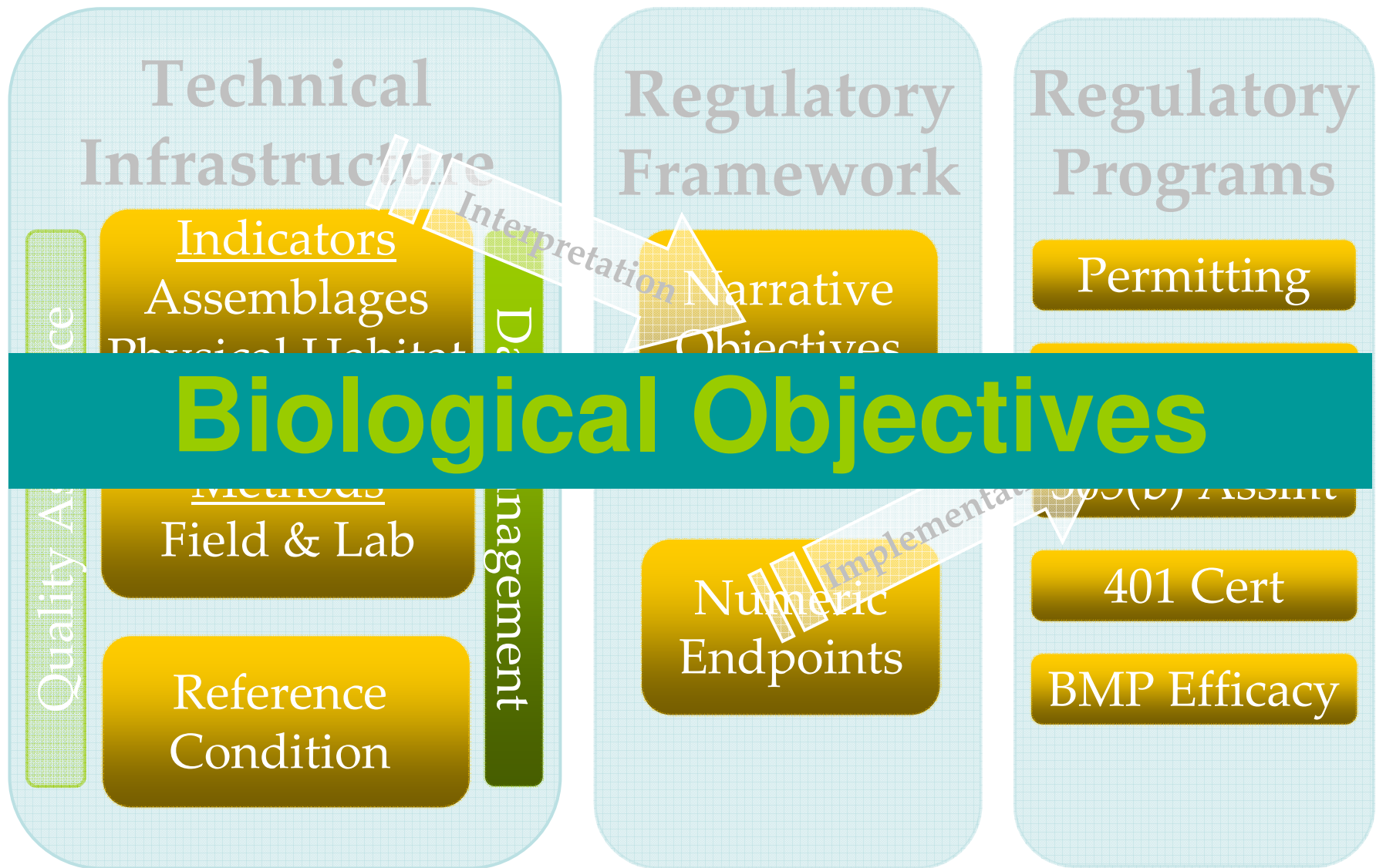
- Probable reference
- Alternate reference definition
- Confirmed reference

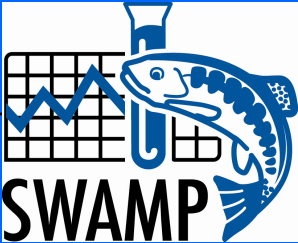
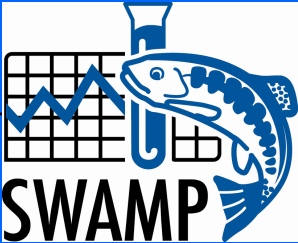


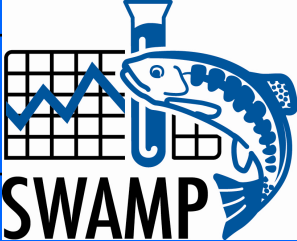



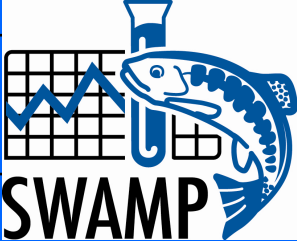


BIOASSESSMENT WEBINAR:

[www.waterboards.ca.gov/
water_issues/programs/
swamp/](http://www.waterboards.ca.gov/water_issues/programs/swamp/)



Aquatic Life in Streams – Biological Objectives



Waterbody Type	Beneficial Uses			
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Aquatic Life in Streams & Large Rivers

Stream Pollution Trends Monitoring Program

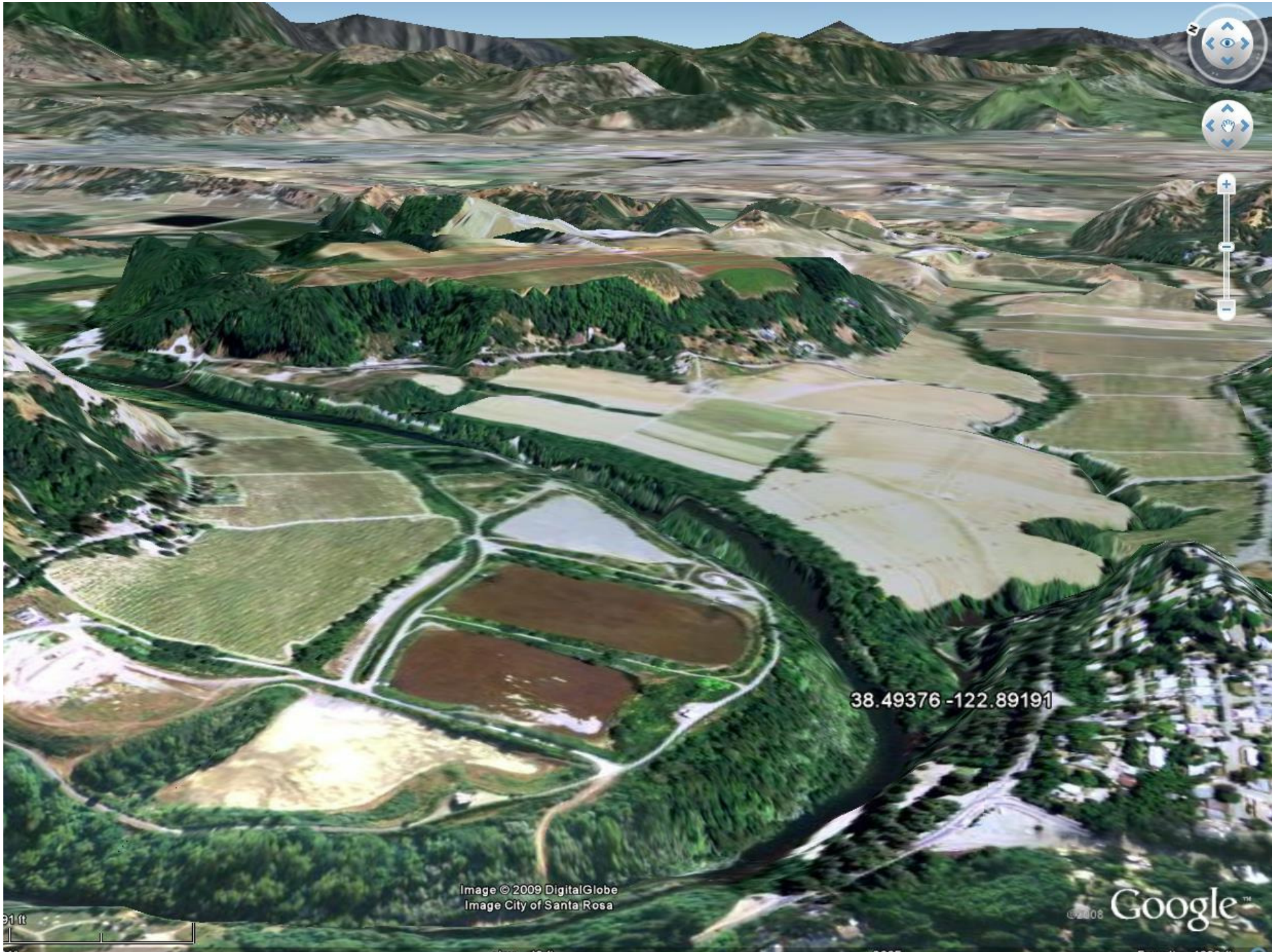
- What is the status of stream contamination and is it getting better or worse?
- What effect does land use and management actions have on stream contamination?





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





38.49376 -122.89191

Image © 2009 DigitalGlobe
Image City of Santa Rosa

©2008 Google™

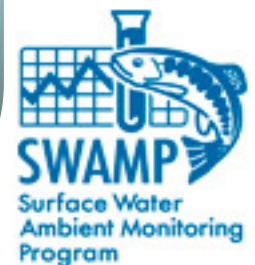


Aquatic Life - Streams

*Bioassessment
Program*

*Stream
Pollution
Trends
Monitoring*

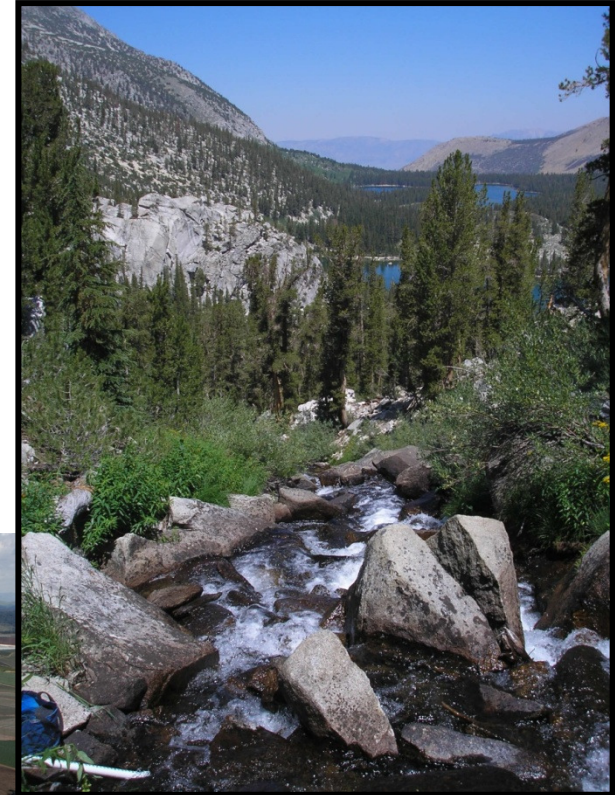
Healthy Streams Partnership



Regional Assessments



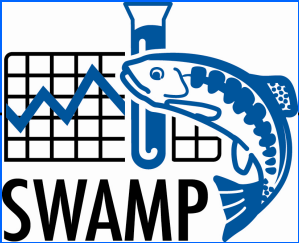


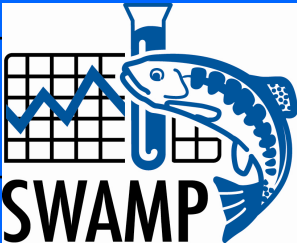




Our Nine Regions are Diverse

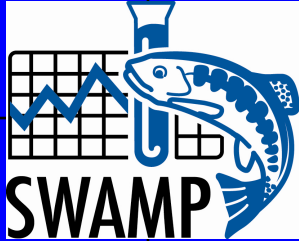
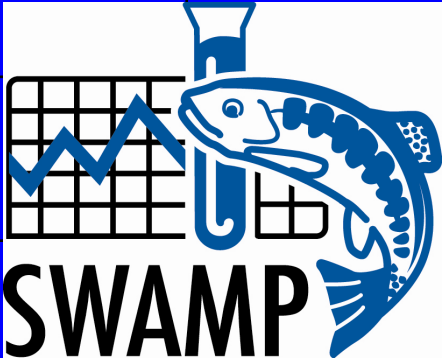


Why is Regional Monitoring Critical?

- Targeting information gaps
- Responsive to regional and local concerns
- Higher spatial and temporal scale
- Scale matches management needs
- Measuring success and long-term trends
- Integrating/Coordinating/Partnering/Leveraging
- Monitoring resources for “unleveraged” areas



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Infrastructure & Tools



Infrastructure & Tools

Quality Assurance Program

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



Final Technical Report 2008

Quality Assurance Program Plan
Version 1.0

September 1, 2008

Surface Water Ambient Monitoring Program



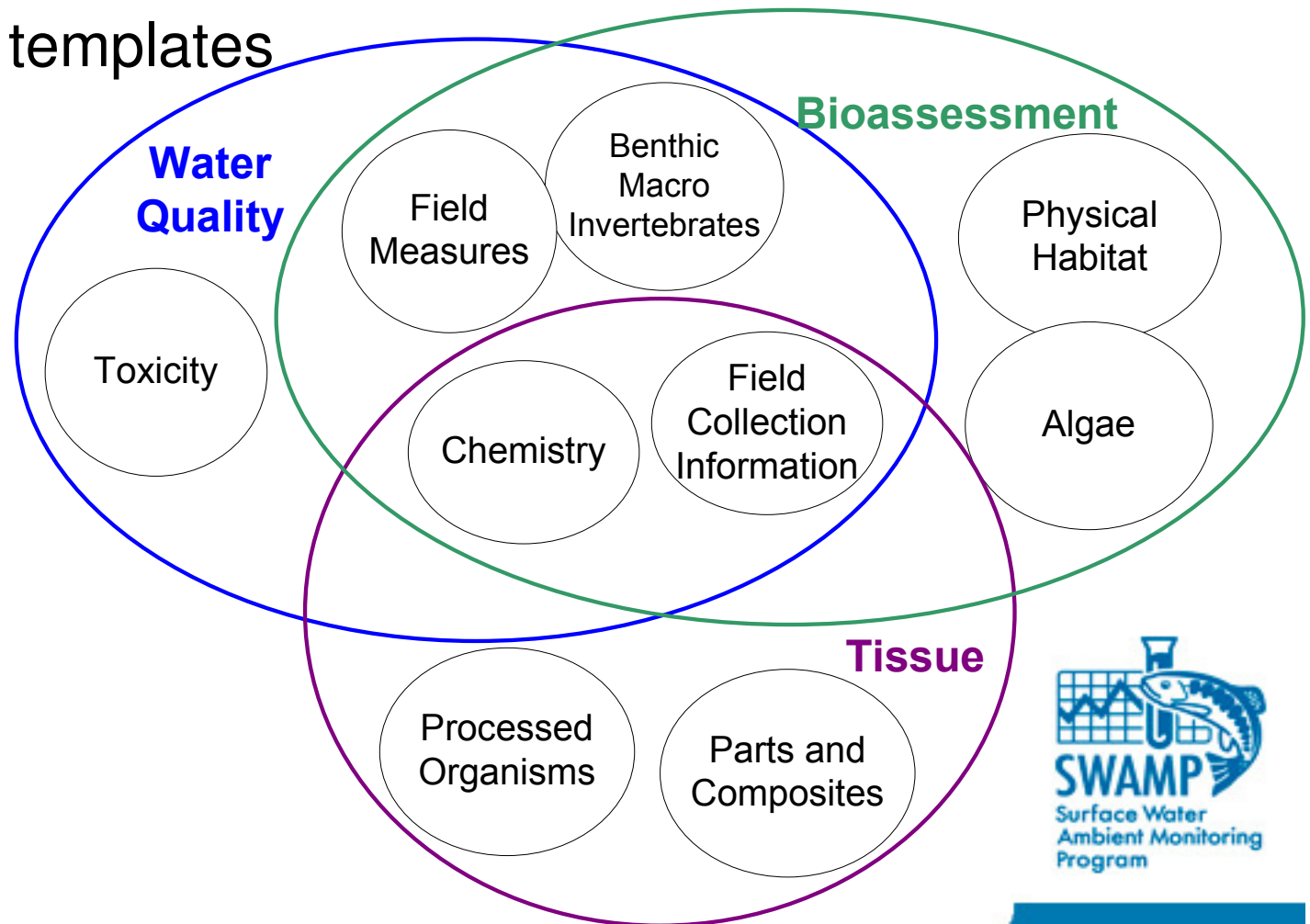
www.waterboards.ca.gov/swamp



Infrastructure & Tools

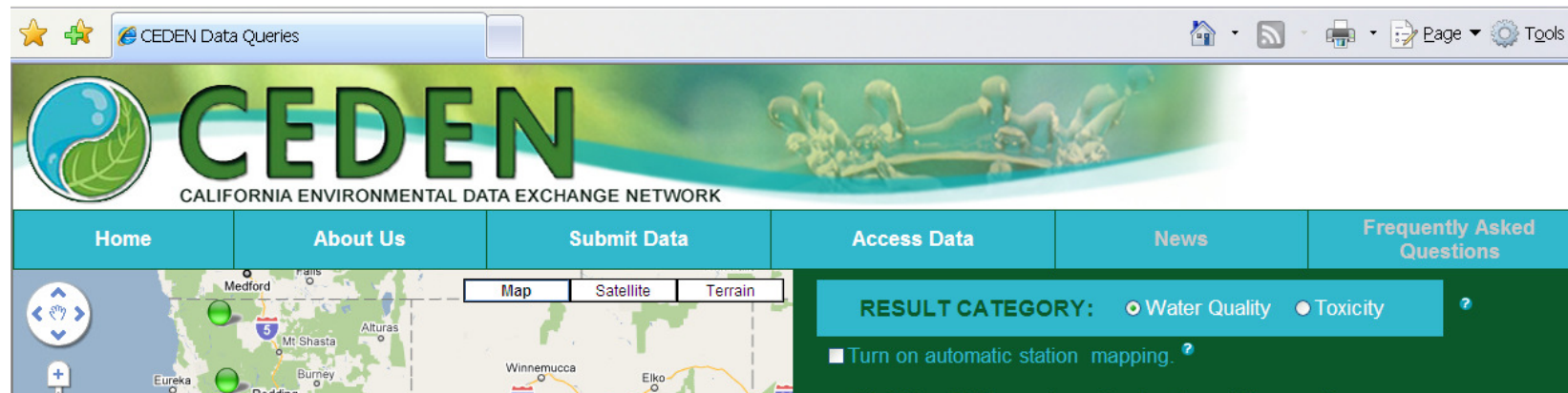
Data management

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

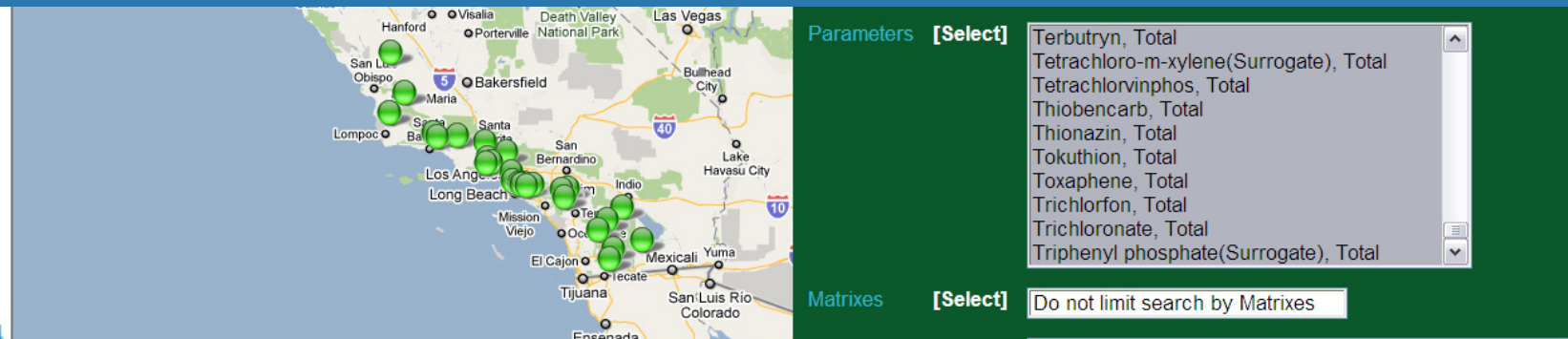


Infrastructure & Tools

California Environmental Data Exchange Network



www.ceden.org



Infrastructure & Tools

Comparability

SWAMP

- Management Quality Objectives (MQOs)
- Data Formats

Non-SWAMP Water Board Programs

- NPDES: Stormwater, POTWs
- Irrigated Lands
- TMDL
- Water Quality Certification (401)
- Grant Projects

Other State/Federal Agencies

- DWR
- DPR
- DFG
- USBR
- USGS

SWAMP
Database

CEDEN



Recent Accomplishments



Recent Accomplishments

- Bioaccumulation of fresh water sport fish in CA lake's study

[www.waterboards.ca.gov/
resources/](http://www.waterboards.ca.gov/resources/)

- Field Data Sheets
- Aquatic Invasive Species
- Webinars



Accomplishment Goals

- Coastal Bioaccumulation of Sport Fish Report
- Update SWAMP Strategy
- Toxicity Summary Report
- Stream Pollution Trends Monitoring Program (SPoT) Report
- Perennial Streams Assessment (PSA) Report



Thank you...

General Info:

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

QA:

<http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/quality-assurance>

Data Management:

<http://swamp.mpsl.mlml.calstate.edu/resources-and-downloads/database-management-systems>

