



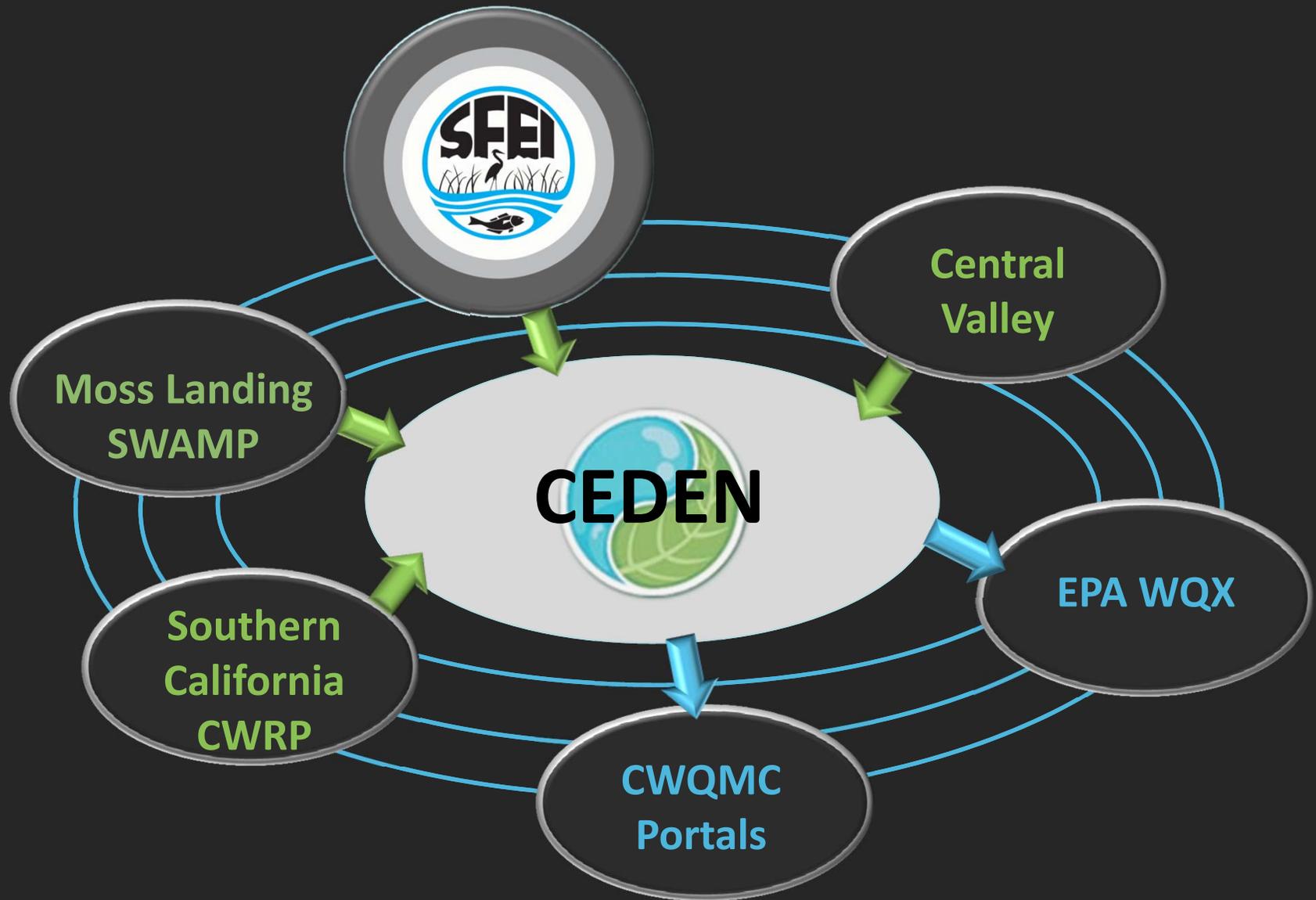
# Tackling Data Comparability for Multiple Uses

May 3, 2012

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San Francisco Estuary Institute

# Regional Data Centers



# Regional Data Center Services





# Range of data types

## → Clean Water

- long-term water quality monitoring

## → Wetlands Science

- project information, monitoring reports
- habitat and condition data

## → Historical Ecology

- spatial data
- photos, maps



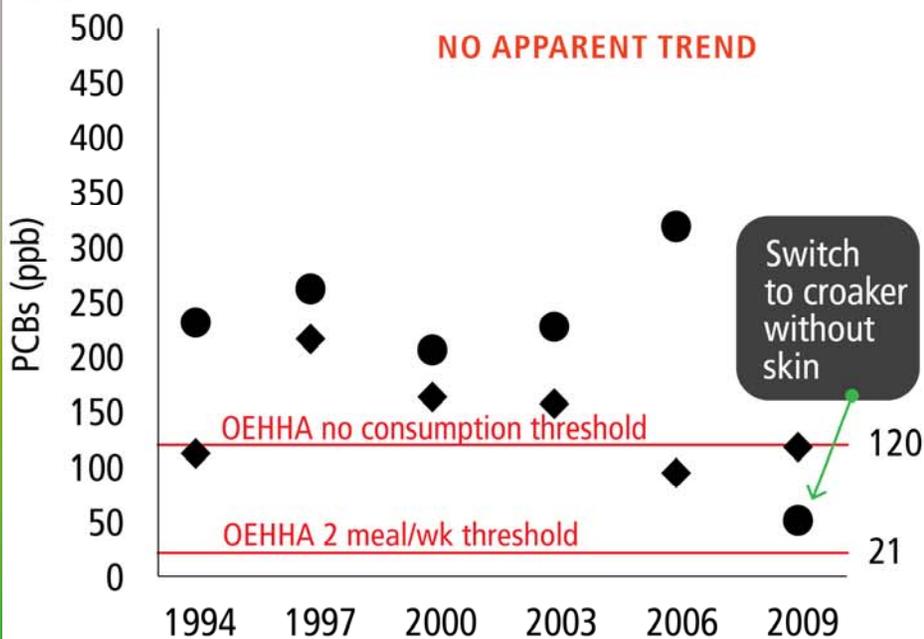
# Why standardize?

- Facilitate data analysis and comparisons
- Enable display of long-term data
  - Report on trends
  - Develop scorecards
- Assist in TMDLs and Integrated Report

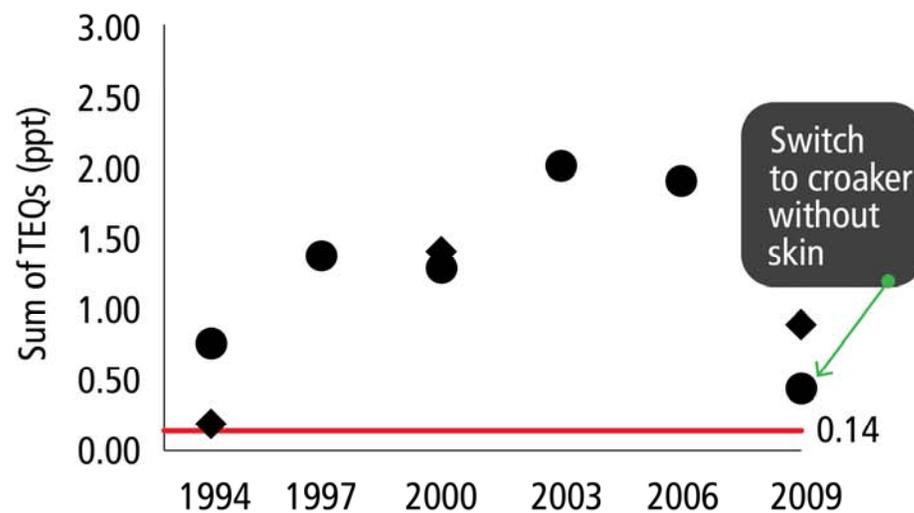
# Water Quality Trends



## 2 PCBs IN SPORT FISH



## 3 DIOXINS IN SPORT FISH



# 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) — Statewide

2010 Integrated Report

Map

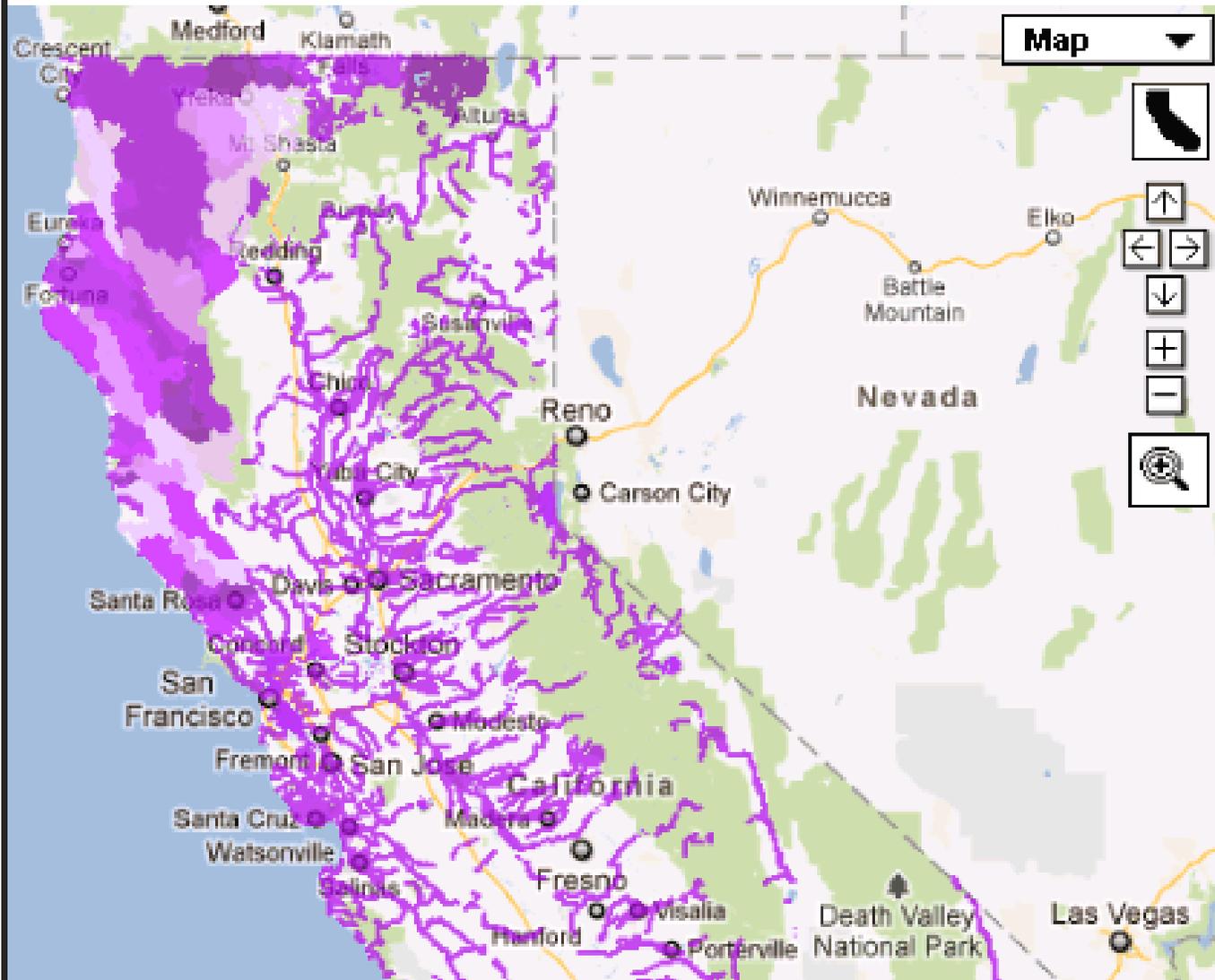
Admin. Record

Data Download

Past Reports

Contact Us

## 2010 INTEGRATED REPORT — ALL ASSESSED WATERS



- Show all assessed waters
- Show only impaired ("303(d)-listed") waters

Show water bodies by pollutant

Pollutant category:

All

All

Pollutant:

All

All

Reset filters



# Why not to standardize?

- Increases level of effort
- Increases costs
- Impedes timely availability of data
- Orphans smaller datasets



# What are some options?

- Data portals
- Metadata to direct users to datasets
- File repository accepts different formats
- Data integration tool



GOVERNOR  
SCHWARZENEGGER



Visit his Website

- Cal/EPA
- The Resources Agency
- About the California Water Quality Monitoring Council
- State & Regional Water Boards
  - Performance Report
- Web Portal Partners
- Monitoring & Assessment Programs, Data Sources & Reports
- Water Quality Standards, Plans and Policies
- Regulatory Activities
- Enforcement Actions
- Research
  
- About SWAMP
- SWAMP Tools



## Welcome to My Water Quality

This web portal, supported by a wide variety of public and private organizations, presents California water quality monitoring data and assessment information that may be viewed across space and time. Initial web portal development concentrates on four theme areas, with web portals to be released one at a time. Click the [Contact Us](#) tab for more information.

The Monitoring Council seeks to provide multiple perspectives on water quality information and to highlight existing data gaps and inconsistencies in data collection and interpretation, thereby identifying areas for needed improvement in order to better address the public's questions. Questions and comments should be addressed through the [Contact Us](#) tab.



### IS OUR WATER SAFE TO DRINK?

Safe drinking water depends on a variety of chemical and biological factors regulated by a number of local, state, and federal agencies. [More>>](#)



### IS IT SAFE TO SWIM IN OUR WATERS?

Swimming safety of our waters is linked to the levels of pathogens that have the potential to cause disease. [More >>](#)



### IS IT SAFE TO EAT FISH AND SHELLFISH FROM OUR WATERS?

Aquatic organisms are able to accumulate certain pollutants from the water in which they live, sometimes reaching levels that could harm consumers. [More>>](#)



### ARE OUR AQUATIC ECOSYSTEMS HEALTHY?

The health of fish and other aquatic organisms and communities depends on the chemical, physical, and biological quality of the waters in which they live. [More>>](#)



### WHAT STRESSORS AND PROCESSES AFFECT OUR WATER QUALITY?

Beneficial uses of our waters are affected by emerging contaminants, invasive species, trash, global warming, acidification, pollutant loads, and flow. [More>>](#)

# Safe To Eat Portal

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

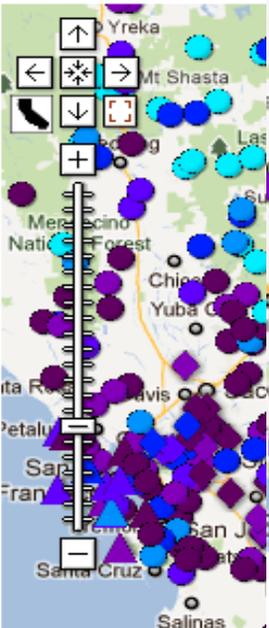
Select location from list.

### Contaminant Data

This interactive map allows you to explore fish contaminant data and from other studies. Data from 2007-2009 are shown by default.

Zoom to county:

Show counties



### San Pablo Bay (5)

[View Safe Eating Guidelines for this water body.](#)

Data

Trends

Nearby Locations

### What are the most recent data for my location?

#### Contaminant Data For 2007 - 2009

Species	MERCURY (ppm)	Sample Year	Prep Code	Sample Type
California Halibut	0.18	2009	Skin off	Average of Composites
Jacksmelt	0.1	2009	Skin off	Average of Composites
Leopard shark	1.49	2009	Skin off	Average of Individuals
Shiner Surfperch	0.08	2009	Skin On, Scales Off	Average of Composites
Striped Bass	0.47	2009	Skin off	Average of Individuals



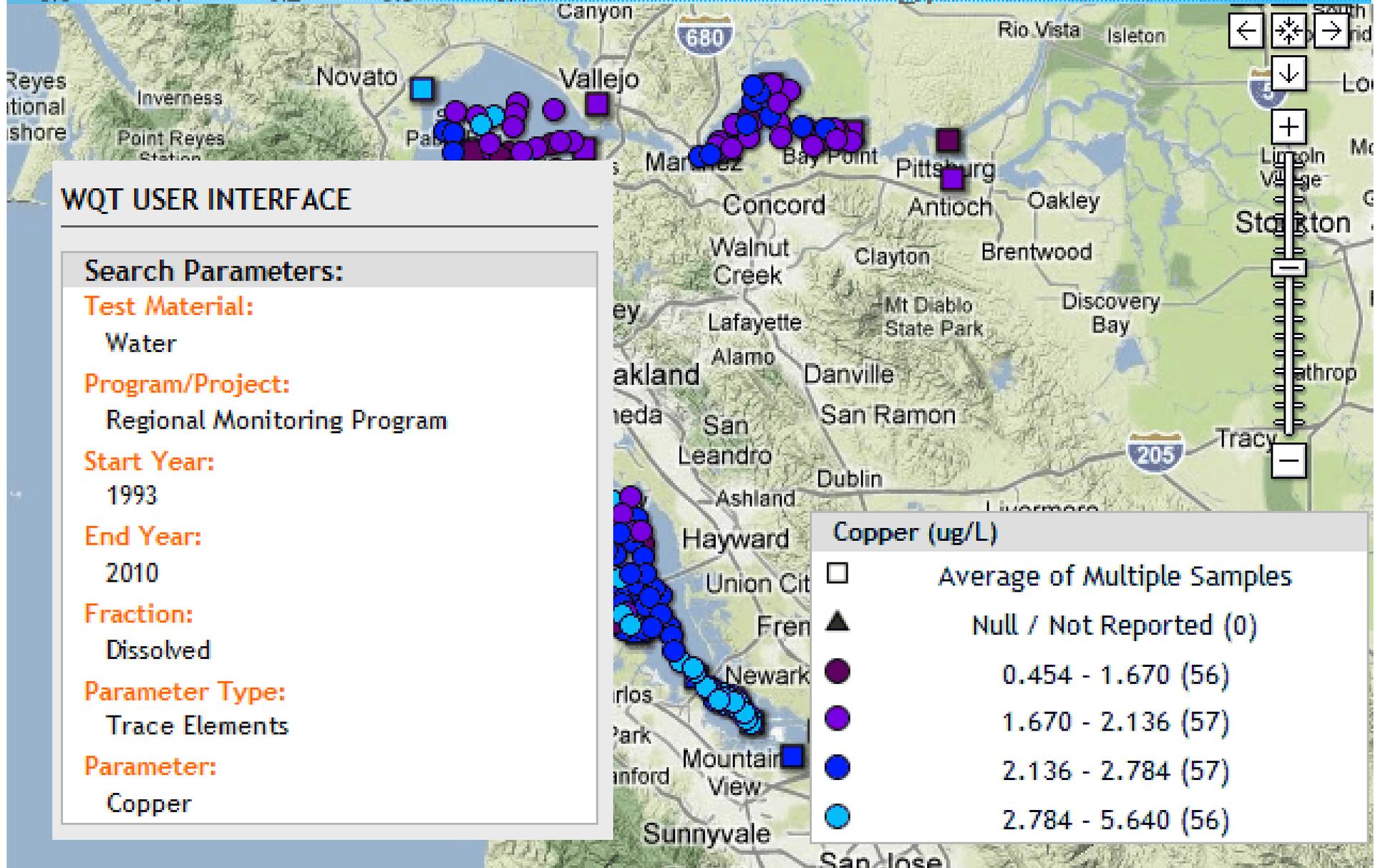
Go Reset

[Download Map Data](#)

# CD3

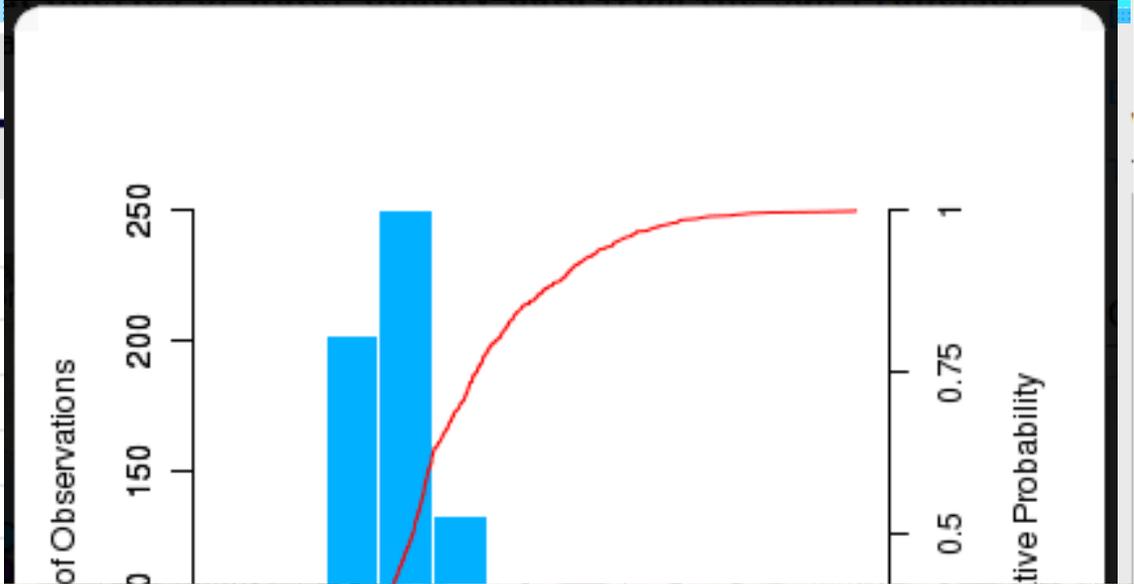
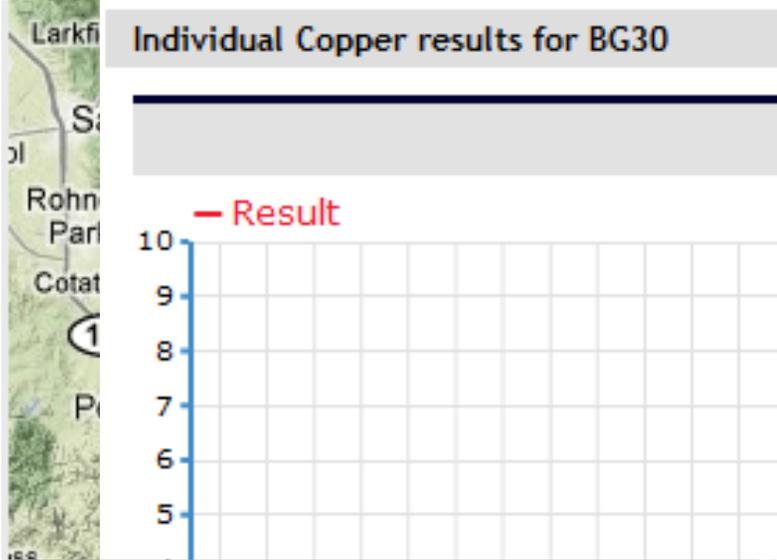
# Contaminant Data Display & Download

water  
sediment  
bivalves  
sport fish



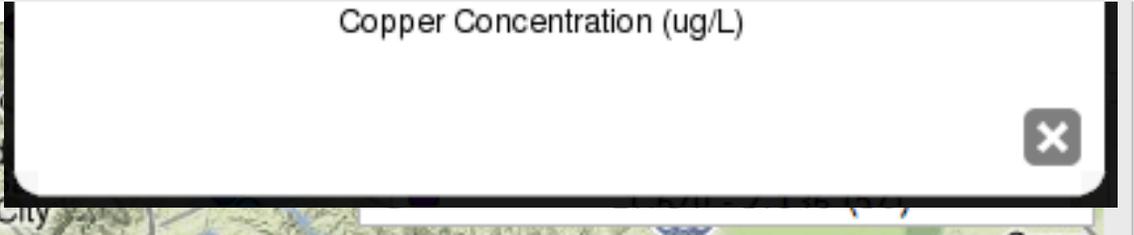
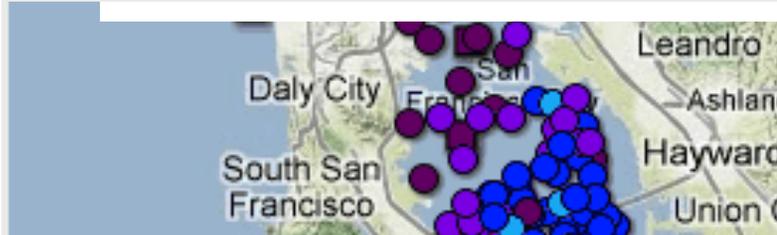
# CD3 Contaminant Data Display & Download

water  
sediment  
shellfish  
sport fish



## Display Notes:

- In 2008, the lab did not analyze larger grainsize fractions (e.g., % Gravel+Shell (> 2mm) and only fractions <2mm are available.
- In 2008, RMP switched grainsize labs from UCSC-DET to MLML-Aiello. Grainsize determination changed to an optical method.



# Metadata Tool

Beta Version

## Central Valley MONITORING DIRECTORY

### Website survey

Please take a few minutes to provide your feedback on the utility and performance of this monitoring directory

The Central Valley Monitoring Directory provides access to program and metadata for current water quality monitoring efforts in the Central Valley watershed. The directory has been developed to help improve the coordination and integration of existing monitoring efforts. Monitoring information is accessed through an interactive map and forms. Links to actual water quality data (hosted elsewhere) have been provided when available.

Features include:

- ▶ Monitoring program information (objectives, duration,



HOME

DIRECTORY

CONTACT

TUTORIAL

LOGIN

The CENTRAL VALLEY MONITORING DIRECTORY is maintained and was developed by the Aquatic Science Center (ASC), with funding and participation from the Central Valley Regional Water Quality Control Board Surface Water Ambient Monitoring Program (SWAMP) and the U.S. Environmental Protection Agency (USEPA).

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

## Program Info

# Regional Monitoring Program for Water Quality in the San Francisco Estuary

[Download Excel](#)

### Organization

San Francisco Estuary  
Institute

### Program website

[view](#)

**Start date** 01/01/1993

**End date** None

**Objectives** Collect data and communicate information about water quality in the San Francisco Estuary to support management decisions

**Annual budget** \$3M

### Basins & sub-basins monitored

- Delta (North Delta, South Delta)

## Sites Monitored

Name	Code	Latitude	Longitude	Map
Sacramento River	BG20	38.059699	-121.806267	locate
San Joaquin River	BG30	38.020541	-121.806267	locate

## Data Products Available

Item	Available Online	URL	Available by Request
Annual Report	Yes	<a href="http://www.sfei.org/rmp/rmp_docs.html">http://www.sfei.org/rmp/rmp_docs.html</a>	Yes
Downloadable data	Yes	<a href="http://www.sfei.org/rmp/rmp_data_access.html">http://www.sfei.org/rmp/rmp_data_access.html</a>	Yes
Downloadable data	Yes	<a href="http://www.ceden.org">http://www.ceden.org</a>	Yes
Newsletter	Yes	<a href="http://www.sfei.org/rmp/rmp_news.htm">http://www.sfei.org/rmp/rmp_news.htm</a>	Yes

# File Repository

## CALIFORNIA WETLANDS

Sort by: [Title](#) | [File Type](#) | [Submit Date](#) | [Submitted by](#)

Califor  
Bay Ar

Pro  
Ma  
Su  
Qu

Questi  
Answ

Backg  
Wetlar

About  
Portal

Wetlar  
(CRAN)

Califor  
Enviro  
Excha  
(CEDE

### 2006/2007 Biological Survey Report

Report describes biological surveys conducted at the site in 2006 and 2007.

[Montezuma Biological Survey Rpt 2006-2007.pdf](#)

Submit date: 09/22/2010

File type: monitoring report

Submitted by: Rachel Bonnefil, Acta Environmental, Inc., [bonnefil@sbcglobal.net](mailto:bonnefil@sbcglobal.net)

### Report on Sediment and Water-Quality Monitoring - 2008/2009

Describes sediment and water-quality monitoring methods and results for 2008 and 2009.

[Montezuma 2008-2009 sediment & wq rpt.pdf](#)

[Montezuma 2008-2009 Sediment & WQ Rpt Appendix F - Sediment Data.pdf](#)

[Montezuma 2008-2009 Sediment & WQ Rpt Appendix G - Water Data.pdf](#)

Submit date: 02/09/2011

File type: monitoring report

Submitted by: Rachel Bonnefil, Acta Environmental, Inc., [bonnefil@sbcglobal.net](mailto:bonnefil@sbcglobal.net)

### Montezuma Wetlands Project Report on Sediment and Water Quality Monitoring - 2006/2007

# CALIFORNIA WETLANDS

## Add files or links

Add one or more files to this project to make the information available to others in the wetland restoration community. The files can be of **any type**: reports, photos, spreadsheets, or others. Alternatively, submit a **web link** (URL) to information already available elsewhere on the web.

Note: To add files, you must have **cookies** enabled on your browser.

Step 1 Give the item you are uploading or linking to a short, descriptive **title**; choose the information **type**; and if desired, provide a detailed **description or comment**. This information will appear with your submission.

Type  Monitoring Report  Plan or Permit  Dataset  Photo  Other  
Includes  Includes Map  Includes Performance Criteria

Description/  
Comment

Step 2 Add your contact information. This information will appear with your submission.

# Landscape Profile/Data Integration

California Wetlands Tracker

Home About

San Francisco Bay Area : Map | Projects | Summaries

## Interactive Map

Layers

Legends

Background

Overlays

### Project Information

- Wetland Projects
- 1600 Permit Projects
- SFBJV Projects
- Trash

### Habitats

- Modern Habitats
- Modern Habitats
- Eelgrass Habitats
- Historical Habitats

### Modern Habitats - BAARI

- Non-Tidal Wetlands

- Vegetated
- Open Water
- Slope
- Vernal Pool
- Unvegetated Flat

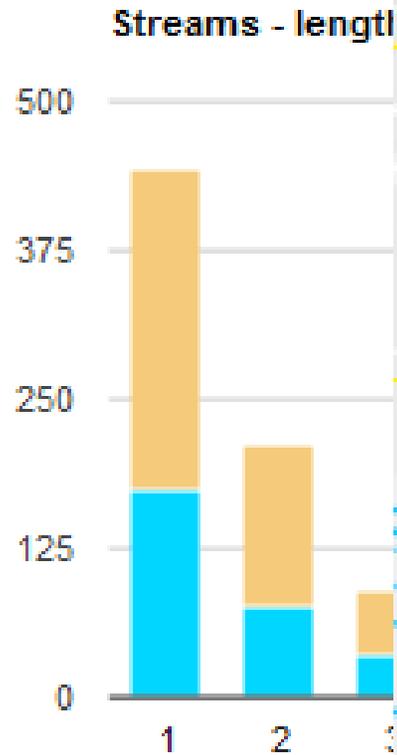


- Tidal Wetlands

- Marsh
- Marsh Flat
- Bay Flat
- Panne
- Lagoon
- Bay Deep

# Interactive M

Stream Length: 854 miles



Channel Density: 0.003787

At this location

## Wetland Condition (CRAM)

Brown's Island

Wetland Class: Estuarine

Non-Saline

Assessment Type: Ambient

Survey- *reference site*

Visit Date: 2007-10-25

Overall Score: 85

### Attributes

Landscape: 100

Hydrology: 100

Physical Structure: 63

Biotic Structure: 78

ts: 13

n Marsh

oration

lopment Project

vements

ect

ey

al - Ambient Survey





# Considerations

- Intended use of data
- Standardize via data entry
- Level of effort required by users
- Funding



Thank you

