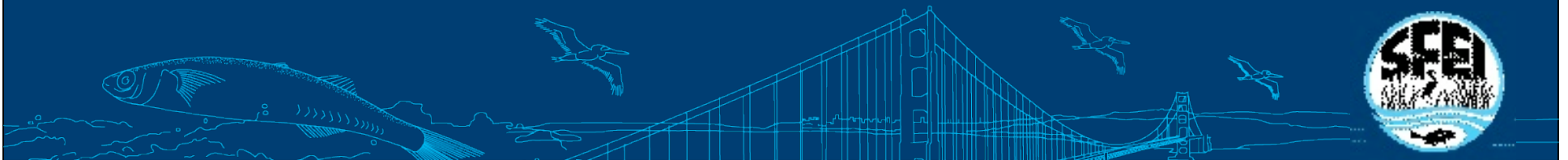


Environmental Data Upload and Visualization Tools

Cristina Grosso, John Oram, Shira Bezalel,
Todd Featherston, John Ross, Michael May,
Patty Frontiera, Josh Collins, Meredith
Williams, Kristen Cayce, Thomas Jabusch

San Francisco Estuary Institute



Goals of Information Management

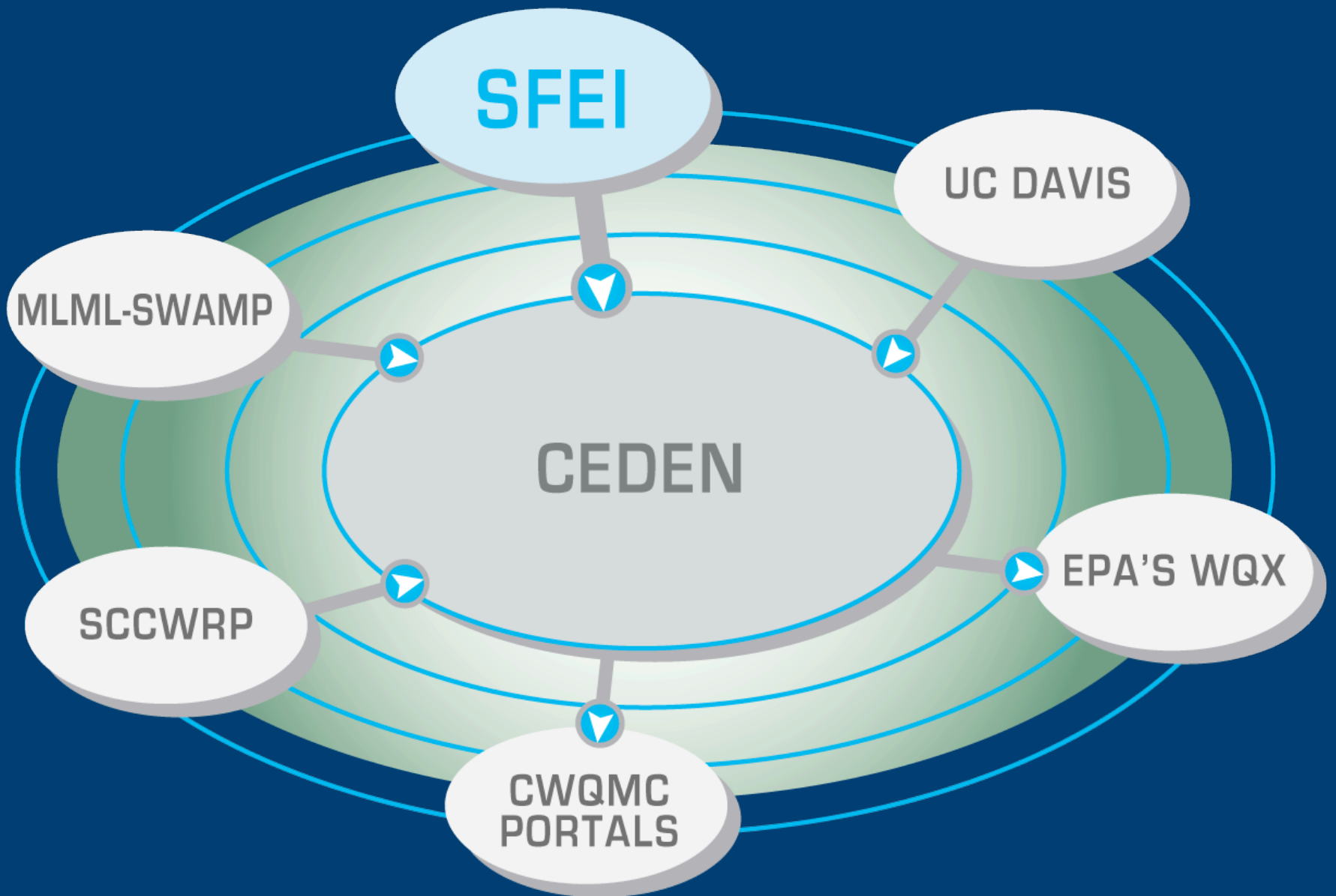
- Provide easy access to reliable data
- Use similar protocols across projects
- Convey information in meaningful ways



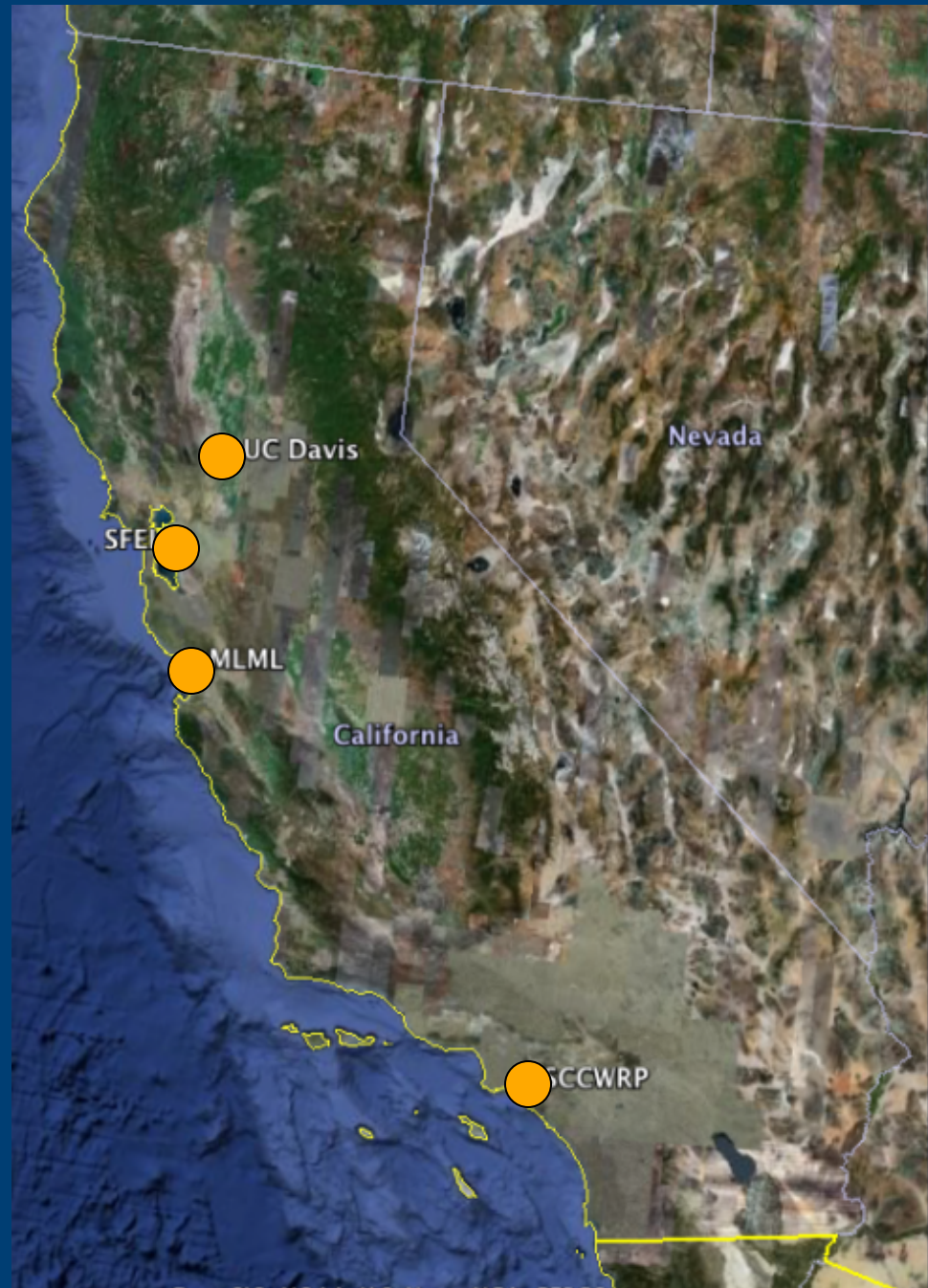
Challenges to Data Sharing

- Different data formats and QA procedures
- Time-consuming to compile data
- Limited resources
- Tailoring content for different audiences
 - Develop question and theme-based portals





California Regional Data Centers



Regional Data Center Services

Upload

Store

Exchange

Access

Coordinate

Integrate



Tool Development

Data upload



Standard data storage



Data visualization



Regional Monitoring Program for Water Quality (RMP)

- Long-term monitoring program
 - collecting samples since 1993
- Guided by management questions
 - levels of concern
 - sources, pathways and loadings



Regional Monitoring Program for Water Quality (RMP)

→ Status and Trends monitoring

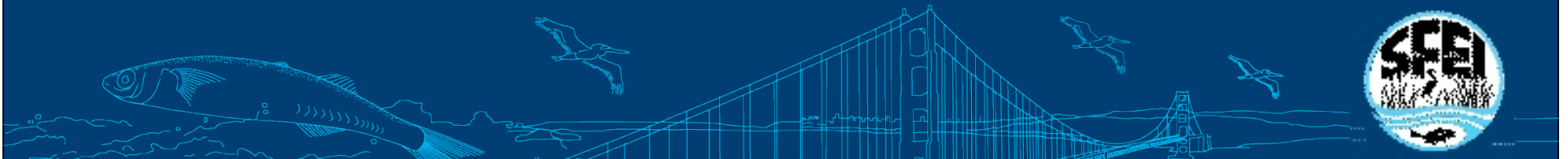
- collects sediment, water, and tissue

→ Pilot and Special studies

- tailored to answer specific questions



Data Upload Tools





Field Data Entry Form: Water

today filter no filter previous next new save

Sampling Event Info

Station Code: BG20

Sample Date: 7/9/2008
(dd/mm/yyyy)

People

Data Entry: Amy Franz

Field Measurements: Jennifer Hunt

Samples: Amy Franz

Event
Comments:

Field Measurements

Analyte:	Units:	Result:	Comments:
Oxygen, Dissolved	% saturation	88.1	
Temperature	°C	22.27	
Conductivity	mS/cm	1.495	
Salinity	ppt	0.77	
pH	pH	8.43	

Instrument: YSI556

Samples

Analyte:	Container:	Container ID:	Vol. Filtered:	Vol. Filt. Unit:	Filter No.	# of Filters:	Comments:
POC (filtered)	40 mL glass	RMP 08WC-1093	314	ml	3	1	Started with filter 12 but pump was put together wro
Chlorophyll/Phae	40 mL amber vials w	RMP 08WC-1099	1020	ml	NA	3	20 ml 90% methanol added
DOC (dissolved)	250 mL plastic	RMP 08WC-1094	314	ml	NA	1	250ml plastic bottle from CAS
				ml			

SAN FRANCISCO ESTUARY INSTITUTE

Region-wide Science for Ecosystem Management



SFEI Data Checker

Welcome to the SFEI Data Checker. Please complete Steps 1-5 to check your file.

After checking your file, you will be given an opportunity to submit your data.

1) SELECT A DATA CATEGORY:

Note: Only Chemistry is available at this time. (April 2010)

Chemistry ▼

2) ENTER YOUR EMAIL ADDRESS:

shira@sfei.org

3) SELECT YOUR AGENCY:

ABCL	ABC Laboratories
ALPHA	Alpha Analytical, Inc.
ALWAL	A & L Western Agricultural Laboratories, Inc.
AMS	Applied Marine Sciences, Inc.
AMS-CA	Applied Marine Sciences, Inc. California
ANACON	ANACON, Inc.
APPL	Agriculture & Priority Pollutants Laboratories, Inc
AquaSci	AquaScience

4) ENTER YOUR EXCEL FILE TO UPLOAD (.XLS FORMAT ONLY):

S:\Shira\DB_StagingArea\COPY L-622-09_SFEI 844_RMP_S_PYD-PYN_Mar 22_20

Browse...

5) CLICK BUTTON TO BEGIN CHECKING:

Check file...

[Help](#) | [LookUp Lists](#)

Please note that new error checks and functionality are routinely added.

SAN FRANCISCO ESTUARY INSTITUTE

Region-wide Science for Ecosystem Management



SFEI Data Checker

Summary of Errors Found in Results Worksheet

The table below is a summary of errors found in your spreadsheet. Check your email for a detailed list of these errors attached in an Excel file.

Error	Error Count
Missing ResultQualCode, a required field.	214
Warning: MDL and RL are both NULL. This is only valid for some analytes (% survival, ancillary measurements).	33

If you would like to submit this spreadsheet to SFEI despite these errors, click the submit button to go to the submission screen.

[Submit...](#)

[Help](#) | [LookUp Lists](#) | [Main Menu](#)

SAN FRANCISCO ESTUARY INSTITUTE

Region-wide Science for Ecosystem Management



SFEI Data Checker

Submit Data

Click on the blue Submit button to submit your spreadsheet to SFEI.

Add email addresses to be cc'd here (multiple email addresses should be separated with a comma):

CC:

Type in an optional message to the SFEI Data Management Team here:

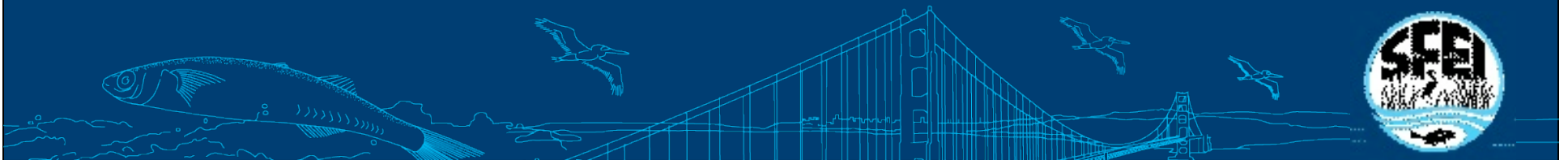
Comments:

Please add new Method
Code "AXYS 3205B".

Submit

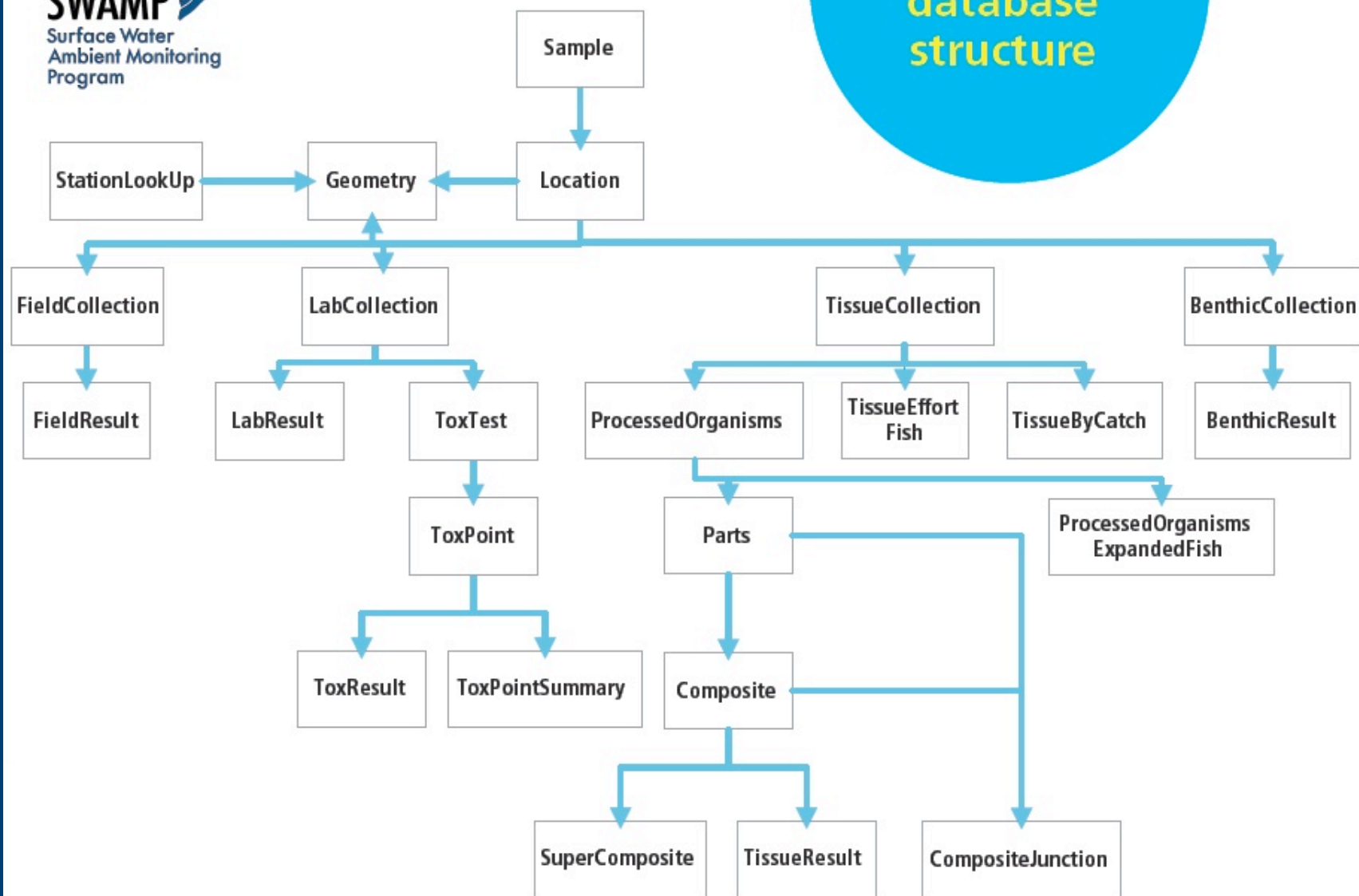
[Back to Main Menu](#)

Standard Data Storage

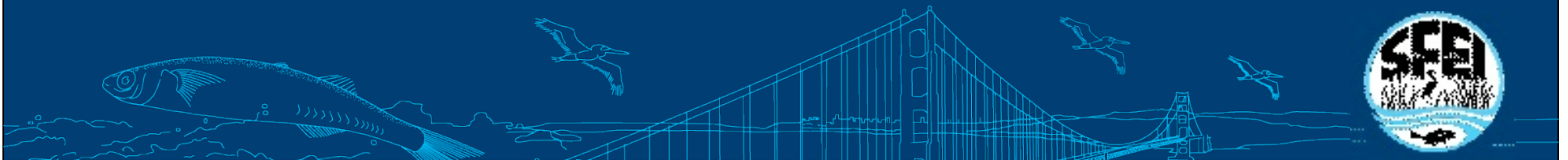




SWAMP v.2.5 database structure



Data Visualization



SAN FRANCISCO ESTUARY INSTITUTE

www.sfei.org

Region-wide Science for Ecosystem Management SAN FRANCISCO ESTUARY INSTITUTE

Search Parameters:

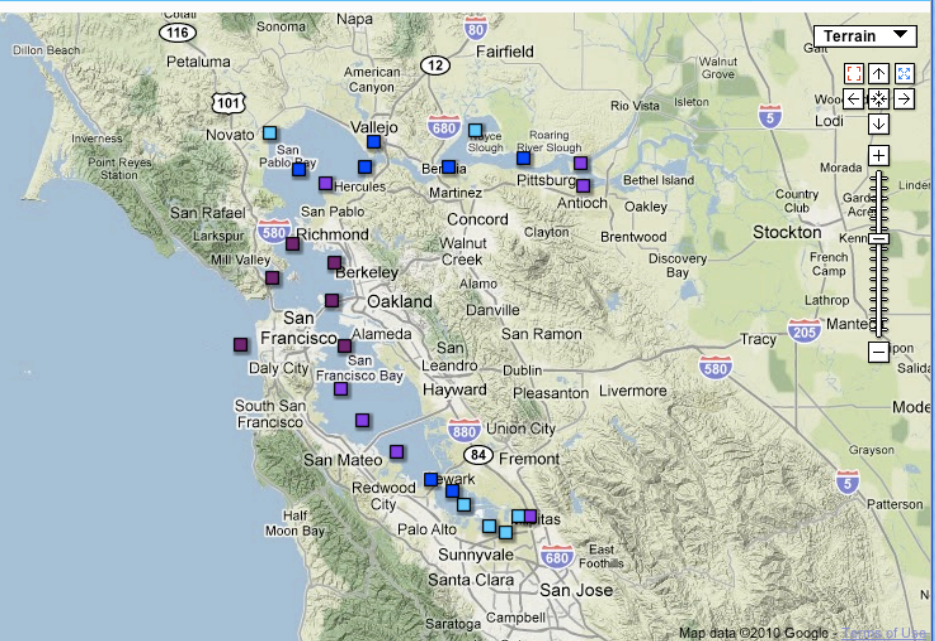
Test Material : Water
 Program/Project : Regional Monitoring Program
 Start Year : 1993
 End Year : 1997
 Matrix : Total
 Parameter Type : Trace Elements
 Parameter : Cu

Cu (ug/L)

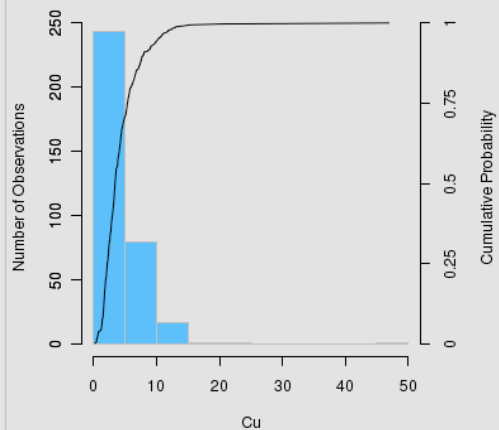
- ☐ Average of Multiple Samples
- ▲ Null / Not Reported (0)
 - 0.622 - 2.086 (6)
 - 2.086 - 4.268 (7)
 - 4.268 - 5.798 (7)
 - 5.798 - 18.343 (6)

POWERED BY Google

10 mi
20 km



Distribution of Results

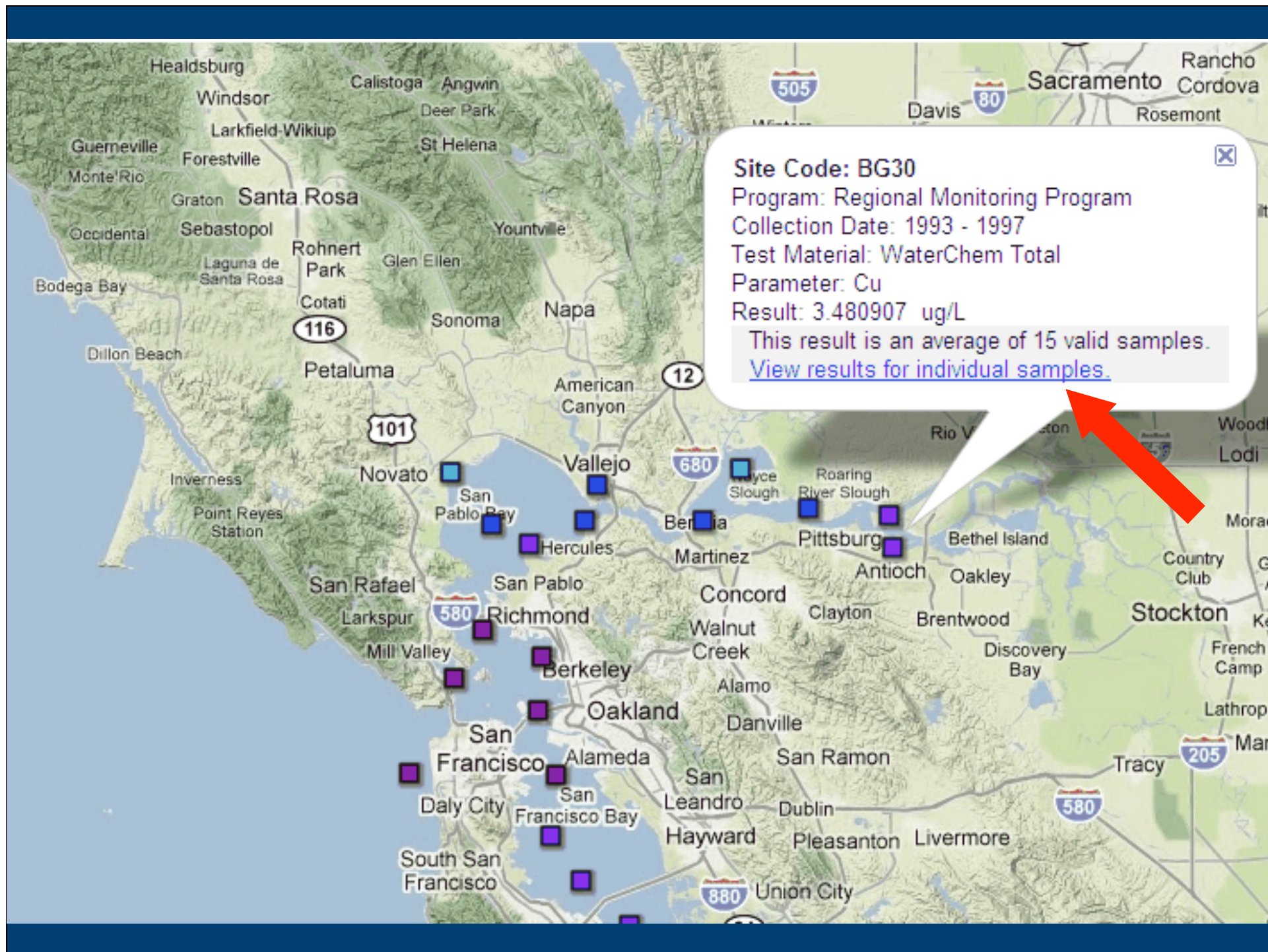


Download Data

- ☒ [Download Excel \(All Qualifiers\)](#)
- ☒ [Download Excel \(Primary Qualifiers\)](#)

Links

- [RMP Home Page](#)
- [View sampling station maps](#)

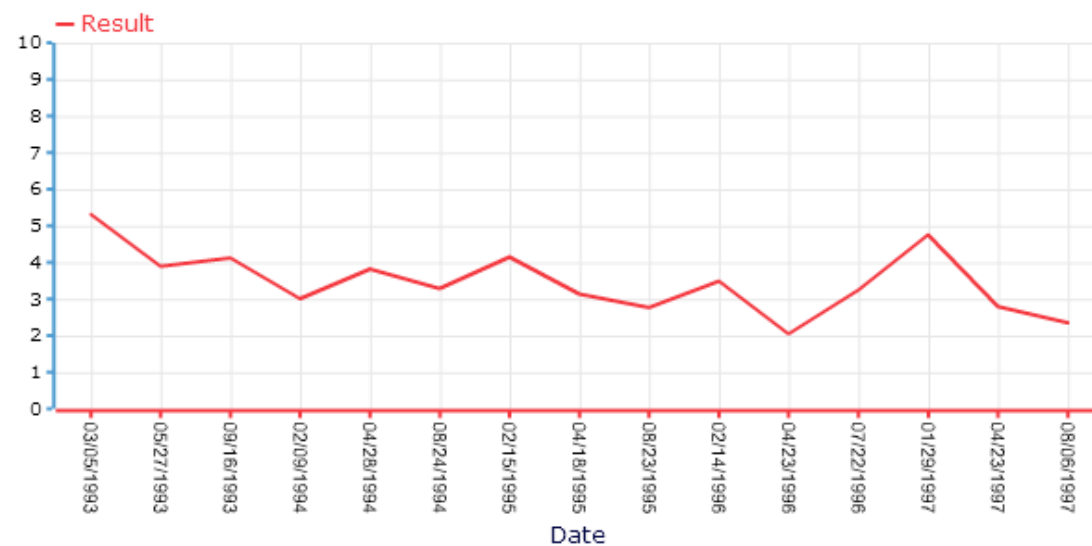


Individual Cu results for BG30

Close

 [Show/hide chart](#)
 [Hide table](#)

Date	Result	MDL	Units	Qualifier	Compliance Code
03/05/1993	5.31	0.00393	ug/L		Com
05/27/1993	3.9	0.00393	ug/L		Com
09/16/1993	4.12	0.00393	ug/L		Com
02/09/1994	3.0131	0.00702	ug/L		Com
04/28/1994	3.822	0.018	ug/L		Com
08/24/1994	3.284	0.018	ug/L		Com
02/15/1995	4.1558	0.0098	ug/L		Com
04/18/1995	3.14	0.01	ug/L		Com
08/23/1995	2.77	0.005	ug/L		Com
02/14/1996	3.49	0.027	ug/L		Com
04/23/1996	2.05	0.008	ug/L		Com
07/22/1996	3.25	0.017	ug/L		Com
01/29/1997	4.756043	0.014284	ug/L		Com
04/23/1997	2.79395	0.010991	ug/L		Com
08/06/1997	2.358712	0.007141	ug/L		Com

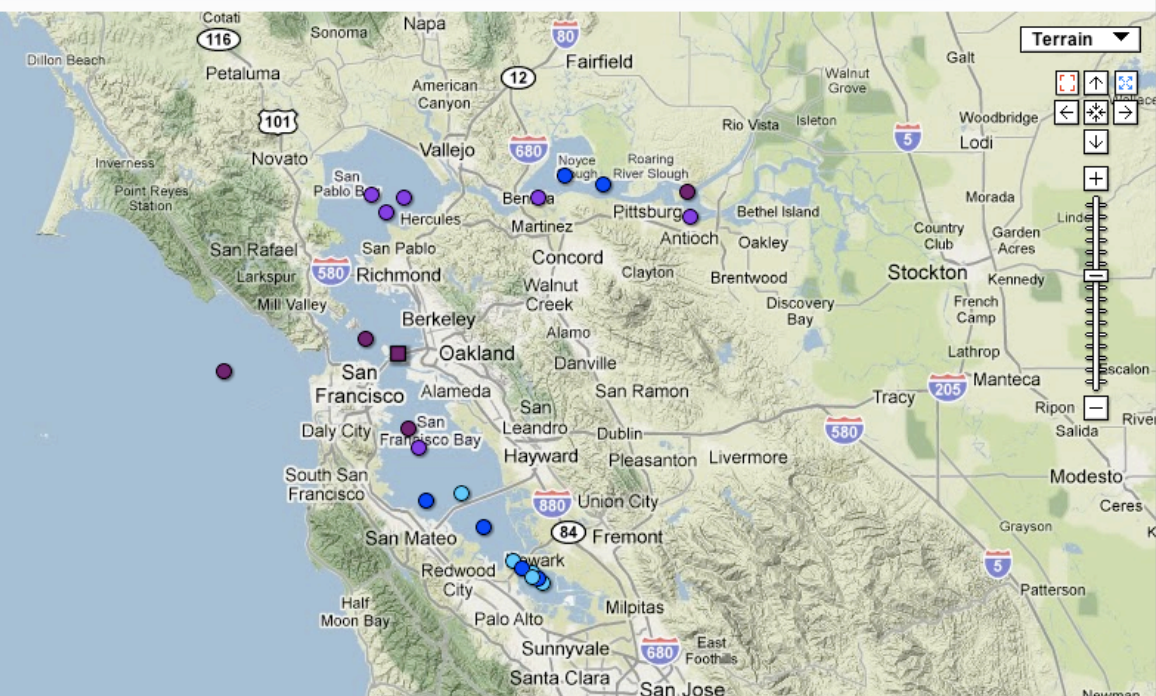


Search Parameters:

Test Material : Water
Program/Project : Regional Monitoring Program
Start Year : 2008
End Year : 2008
Matrix : Dissolved
Parameter Type : Trace Elements
Parameter : Cu

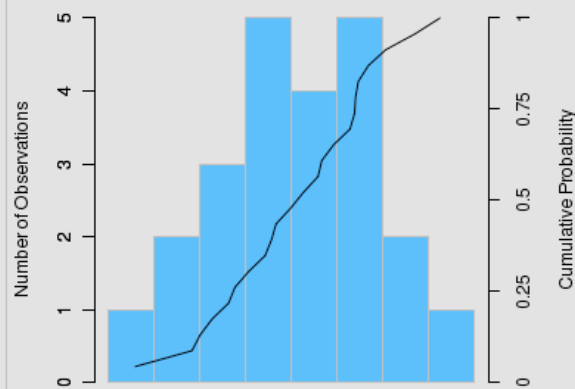
Cu (ug/L)

- ☐ Average of Multiple Samples
- ▲ Null / Not Reported (0)
 - 0.290 - 1.455 (5)
 - 1.455 - 2.210 (6)
 - 2.210 - 2.715 (6)
 - 2.715 - 3.623 (5)



Display Notes:

- In 2008, the RMP switched water trace metals labs from UCSC to BR. BR uses a new method, reductive precipitation, while UCSC extracted with a weak acid, which resulted in reporting near-total concentrations that approximate bioavailability to organisms.



- [Download Excel \(All Qualifiers\)](#)
- [Download Excel \(Primary Qualifiers\)](#)

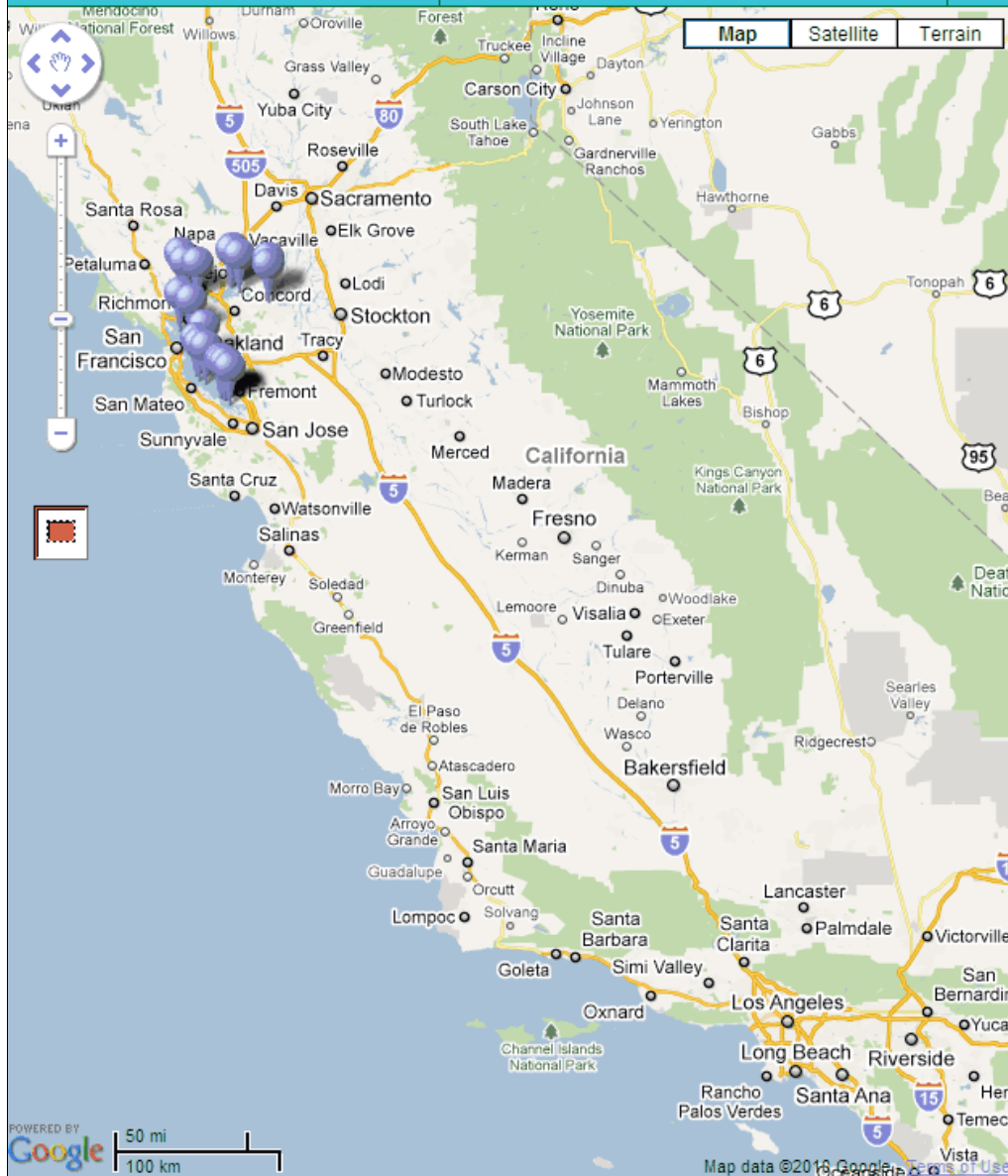
Links

- [RMP Home Page](#)
- [View sampling station maps](#)



CEDEN

CALIFORNIA ENVIRONMENTAL DATA EXCHANGE NETWORK

[Home](#)[About Us](#)[Submit Data](#)[Access Data](#)

RESULT CATEGORY:

☒ Water Quality ☐ Toxicity ☐ Field Data

☐ Turn off automatic mapping of stations.

Click **Map Stations** at any time to show stations on the map

[MAP STATIONS](#)[MAP COUNTIES](#)[MAP HUC-8](#)[SHOW QA](#)[SHOW STATIONLU](#)[HELP](#)[START OVER](#)

Programs [Select] **SFEI**

Projects [Select] **2007 RMP Status & Trends**

Parameter Groups [Select] **pcbs**

Parameters [Select] **PCB 033, Total**

Stations [Select]

- Central Bay (CB021W)
- Central Bay (CB022W)
- Central Bay (CB023W)
- Dumbarton Bridge (BA30)
- Lower South Bay (LSB027W)
- Lower South Bay (LSB028W)
- Lower South Bay (LSB029W)
- Lower South Bay (LSB030W)
- Lower South Bay (LSB032W)
- Sacramento River (BG20)

☐ Include stations that are missing lat/lngs

Available date range: **Aug-07-2007 to Aug-16-2007**

From:

To:

[RETRIEVE DATA](#)

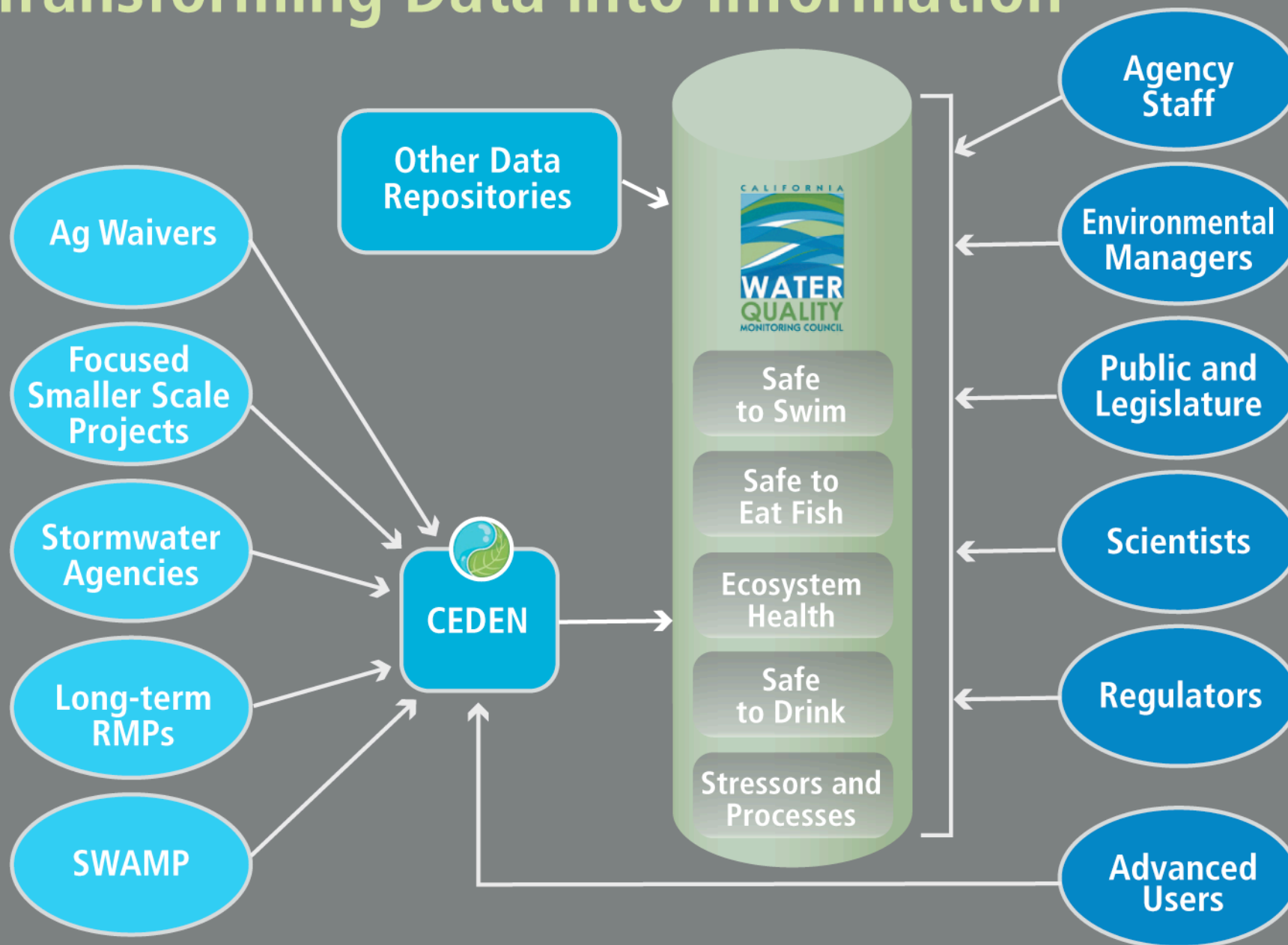
☐ Non-QA Data Only

☐ First 1000 Records Only

Record Count:

Download Format: **excel**

Transforming Data into Information





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>>](#)

www.waterboards.ca.gov/mywaterquality

Theme-based Portals

- Communicate to different audiences
- Provide logical access points to data
- Endow data with relevance in meaningful ways



CALIFORNIA WETLANDS

Search

California

North Coast
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Central Coast
South Coast
Central Valley
Lahontan
Colorado
River Basin

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Explore your wetlands

Select a region to view interactive maps monitoring information related to wetlands and wetland projects.

- [North Coast](#)
- [San Francisco Bay Area](#)
- [Central Coast](#)
- [South Coast](#)
- [Central Valley](#)
- [Lahontan](#)
- [Colorado River Basin](#)



Questions Answered

Click on a question below to view summary information based on available monitoring results.

- [Where are California's wetlands? Is there a wetland near me?](#)
- [How much wetland habitat does California have?](#)
- [How much wetland habitat has California lost?](#)
- [How healthy are California's wetlands?](#)
- [What is being done to improve California's wetlands?](#)
- [What is the status of wetland mapping in California?](#)

Wetland Condition

The California Wetlands Portal reports on wetland condition on the [CRAM website](#).

www.californiawetlands.net

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Bay Area Project List

Key: plan/permit info performance criteria monitoring report prepared map photo other locate on map

Project	Status	County	Total Acres
125 Fox Hollow Road Bank Repair - Bear Gulch Creek, Woodside	Construction planned	San Mateo	<0.1
12th Street Reconstruction Project	Construction planned	Alameda	0.7
20 & 40 Hilton Court Slide Repair	Construction planned	Contra Costa	<0.1
Adobe Creek Upper Reach 5 Restoration Project	Construction planned	Santa Clara	0.8
Albany Bulb Lagoon	Construction planned	Alameda	6.7
Albany Salt Marsh Expansion	Construction planned	Alameda	3.6
Alhambra Highlands Mitigation	Construction planned	Contra Costa	1.7
Alhambra Valley Road Bank Repair	Construction planned	Contra Costa	<0.1
American Canyon Creek Restoration	Construction planned	Napa	1.1
American Canyon Ecosystem Enhancement Project	Construction completed	Napa	610.0
Arroyo Seco Improvement Program	Construction planned	Alameda	10.6
Ashford Village	Construction planned	Solano	1.7
Azaya Ranch Vineyard Project - Phase I and II	Construction planned	Marin	3.7
Bahia Lagoon	Construction completed	Marin	30.1
Bahia Wetland Restoration	Construction planned	Marin	674.3
Bailey Estates	Construction planned	Contra Costa	5.7
Bair Island Restoration Project	Construction in-progress	San Mateo	1,385.5
Bair Island SFO Mitigation	Construction completed	San Mateo	220.2
Barron Creek at 1018 Los Robles Avenue	Construction planned	Santa Clara	<0.1

Hoffman Marsh Wetland Mitigation Project

Basic Info | [Files & Links](#)

Status	Construction completed
Project Type	Compensatory mitigation
Project Area	6.0 acres

County	Contra Costa
Location	37.9013° N -122.316° W MAP

Project Identification [?](#)

ID	Type
11-83	BCDC - Record Number
223280	USACE - File Number

Habitat Plan [?](#)

Habitat	Activity	Acres	Source
Estuarine wetlands	Enhanced	6.0	Map

Related Habitat Impacts [?](#)

Habitat	Acres Lost	Source
No Data		

Historical Habitats [?](#)

Habitat	Acres
Estuarine wetlands	6.0

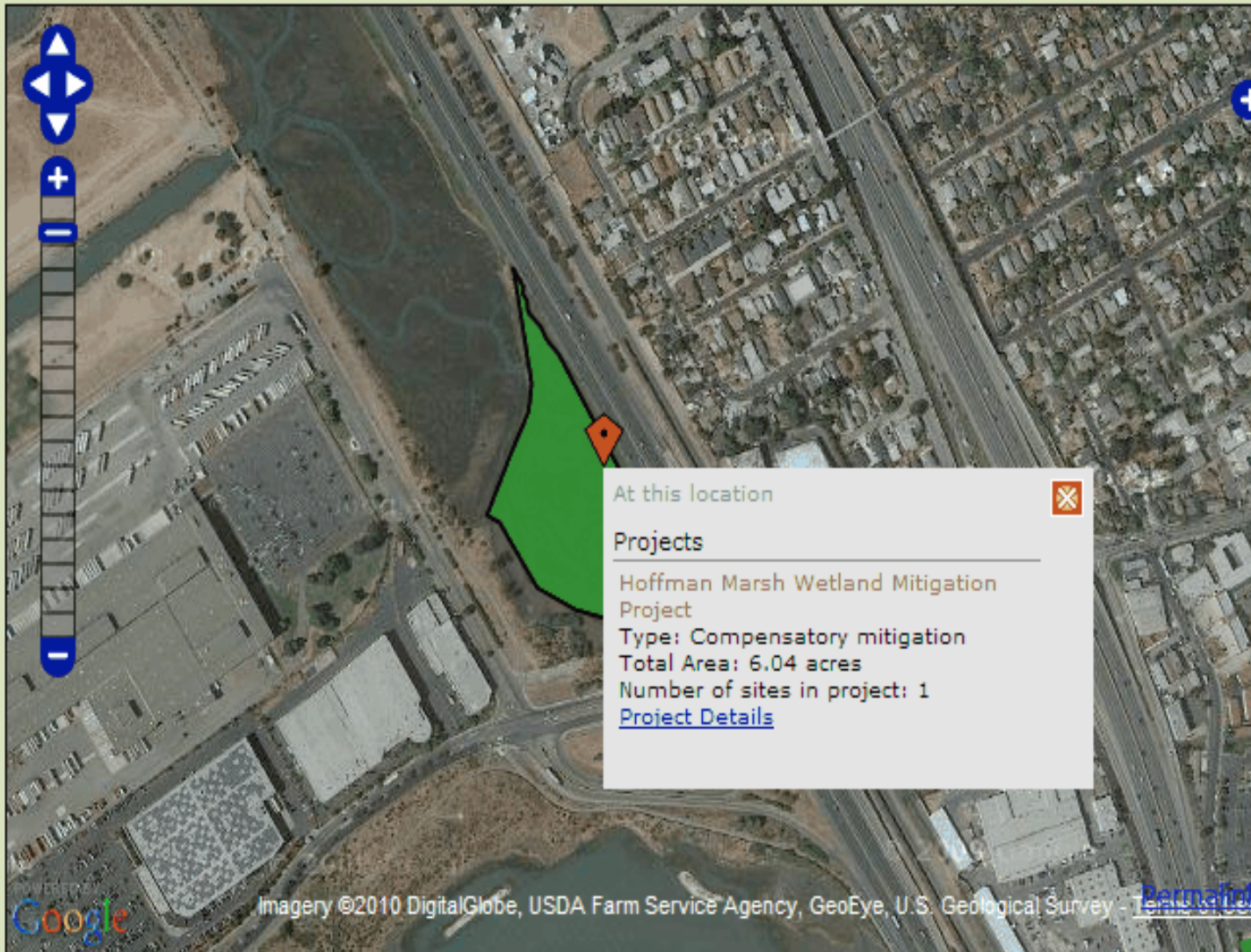
Sites [?](#)

Name	Status	Acres
Highway 580 at Stege Creek mitigation	Construction completed	6.0

Events [?](#)

Date	Type	Description
1982	Report	Restoration Plan issued
1983-10-26	Permit	BCDC record number issued
1985	Report	Monitoring Report issued
1985	Groundwork end	On-the-ground work completed
1996-08-21	Permit	USACE permit issued
2006-06	Project entered	Project entered into database

? Need help using this map?



Layers

- ☒ Wetland Projects +
- ☐ Condition (CRAM) +
- ☐ Modern Habitats +
- ☐ Historical Habitats +

Background

- ☐ Basic
- ☐ USGS Topo Maps
- ☒ Google Satellite
- ☐ Google Terrain

Legend

Projects

- Construction completed
- Construction in-progress
- Construction planned

- Approximate boundary

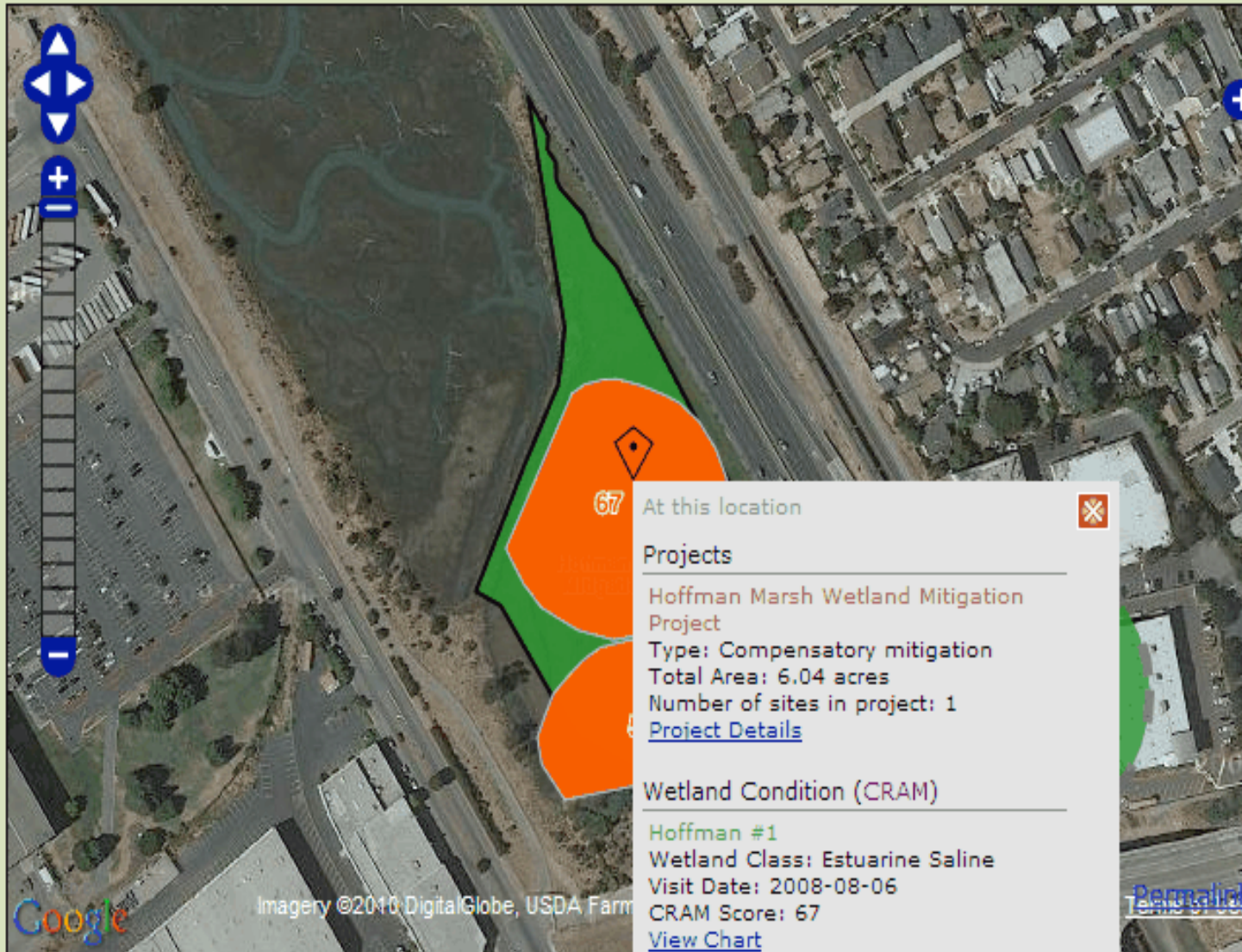
Wetland Projects

Wetland Condition (CRAM)

Zoom to Location

Project Locator...

? Need help using this map?



Layers

- ☒ Wetland Projects +
- ☒ Condition (CRAM) +
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- ☐ Historical Habitats +

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- Construction completed
- Construction in-progress
- Construction planned

- Approximate boundary

Condition

- 80 CRAM Assessment

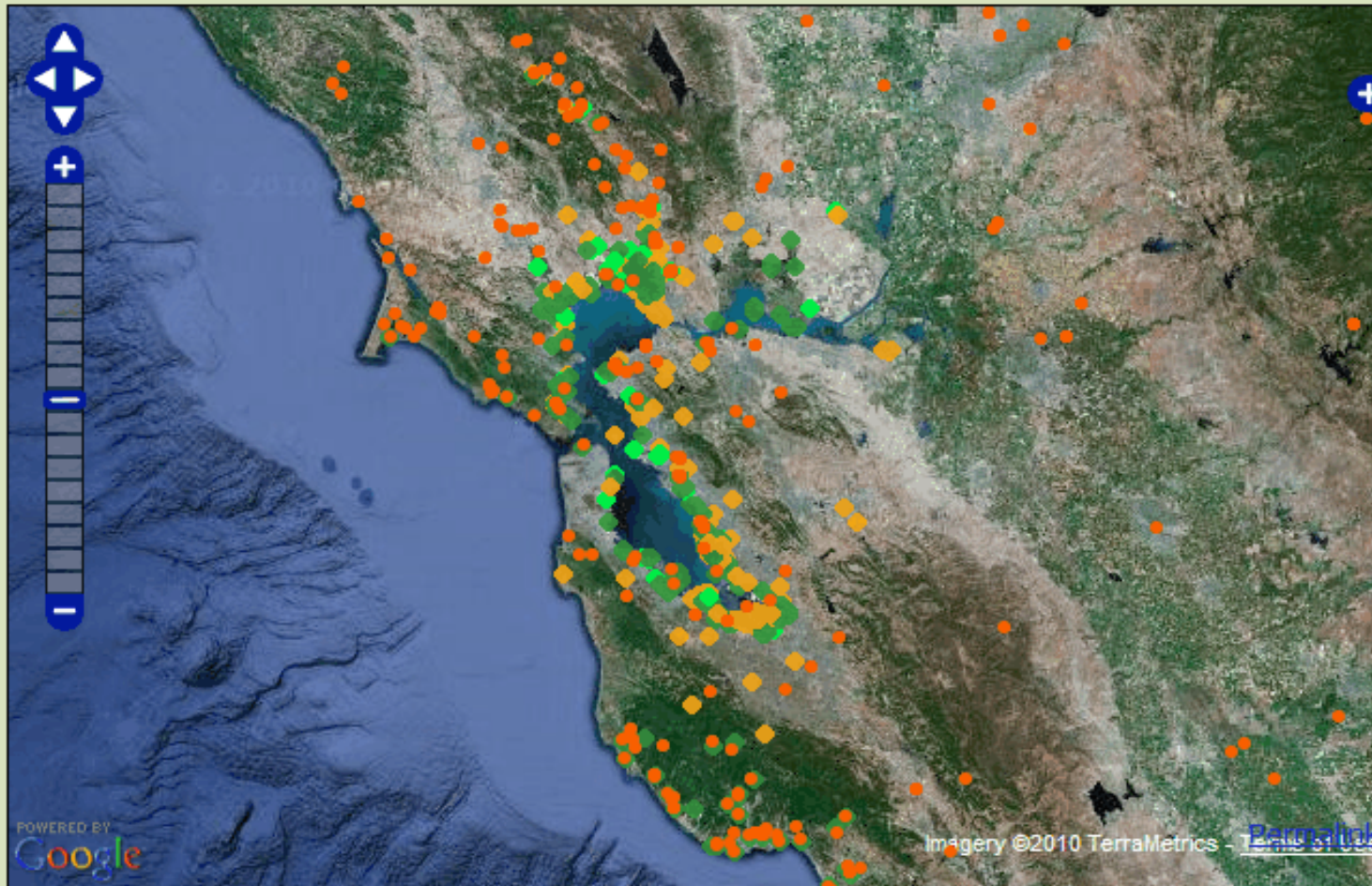
Wetland Projects

Wetland Condition (CRAM)

Zoom to Location

Project Locator...

? Need help using this map?



Layers




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- ☒ Condition (CRAM) +
- ☐ Modern Habitats +
- ☐ Historical Habitats +

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- ☒ Google Satellite
- ☐ Google Terrain

Legend

Projects

-  Construction completed
-  Construction in-progress
-  Construction planned



Approximate boundary

Condition



CRAM Assessment

Wetland Projects

Wetland Condition (CRAM)

Zoom to Location

CRAM Site Name	Wetland Class	Visit Date	Overall Score
Adobe Creek at Petaluma Adobe State Park	Riverine	2005-08	72
Alamo Creek	Riverine Confined	2009-01	77
Alhambra Creek at Martinez AEC - Restored	Riverine Unconfined	2007-11	49
Alhambra Creek - Reference	Riverine Unconfined	2007-11	43
Alhambra Downtown - Reference	Riverine Unconfined	2007-11	39
Alhambra Downtown - Restored	Riverine Unconfined	2007-11	44
American canyon	Riverine Confined	2006-10	58

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- [Colorado River Basin](#)



**Where are California's wetlands?
Is there a wetland near me?**

Questions

Click

- [How much wetland habitat does California have?](#)
- [How much wetland habitat has California lost?](#)
- [How healthy are California's wetlands?](#)
- [What is being done to improve California's wetlands?](#)
- [What is the status of wetland mapping in California?](#)

Wetland Condition

The California Wetlands Portal reports on wetland condition on the [CRAM website](#).

Where are California's wetlands? Is there a wetland near me?



Wetlands of many [types](#) can be found in all regions of California. To see maps showing where the wetlands are near you:

- Click on a region on the map
- Select a region from the list

Select a region



Go!

- Type in an address
(example: 123 Main St, Sacramento, Ca)

7770 Pardee Lane, Oakland

Go!

Is your location of interest not showing any wetlands nearby? Not all of California's wetlands have been mapped. Click [here](#) for more information on the status of wetland mapping in California.



Layers

- ☐ Wetland Projects +
- ☐ Condition (CRAM) +
- ☒ Modern Habitats +
- ☐ Historical Habitats +

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- ☒ Approximate boundary

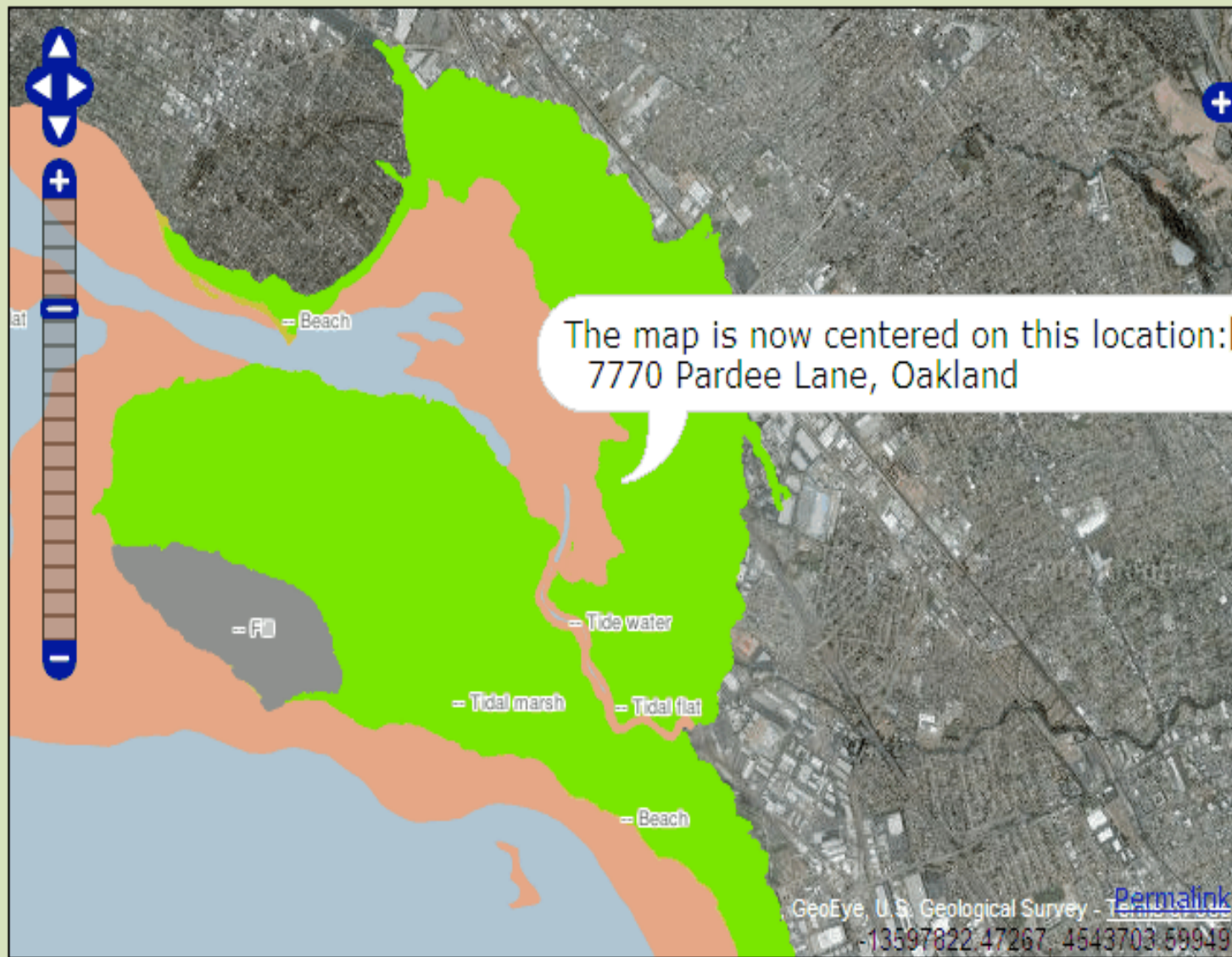
Wetland Projects

Wetland Condition (CRAM)

Zoom to Location

Project Locator...





Layers

- ☐ Wetland Projects +
- ☐ Condition (CRAM) +
- ☒ Modern Habitats -
Transparency
- ☒ Historical Habitats -
Transparency

Background

- ☐ Basic
- ☐ USGS Topo Maps
- ☒ Google Satellite
- ☐ Google Terrain

Legend

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Wetland Condition (CRAM)

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Project Locator...

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- [Colorado River Basin](#)



Questions

Click

How much wetland habitat does California have?

- [How much wetland habitat does California have?](#)
- [How much wetland habitat has California lost?](#)
- [How healthy are California's wetlands?](#)
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- [What is the status of wetland mapping in California?](#)

Wetland Condition

The California Wetlands Portal reports on wetland condition on the [CRAM website](#).

How much wetland habitat does California have?



Currently (January 2009), California has approximately 2.9 million acres of wetlands.

To see a graph of the distribution of wetland acres statewide or within a region:

- Click on a region in the map
- Select a region from the list

Select a region ▼

Go!

Select a region

- Statewide

North Coast

Bay Area

Central Coast

South Coast

- Central Valley

Lahontan

Colorado River

Click on the link to download January 2009 summary

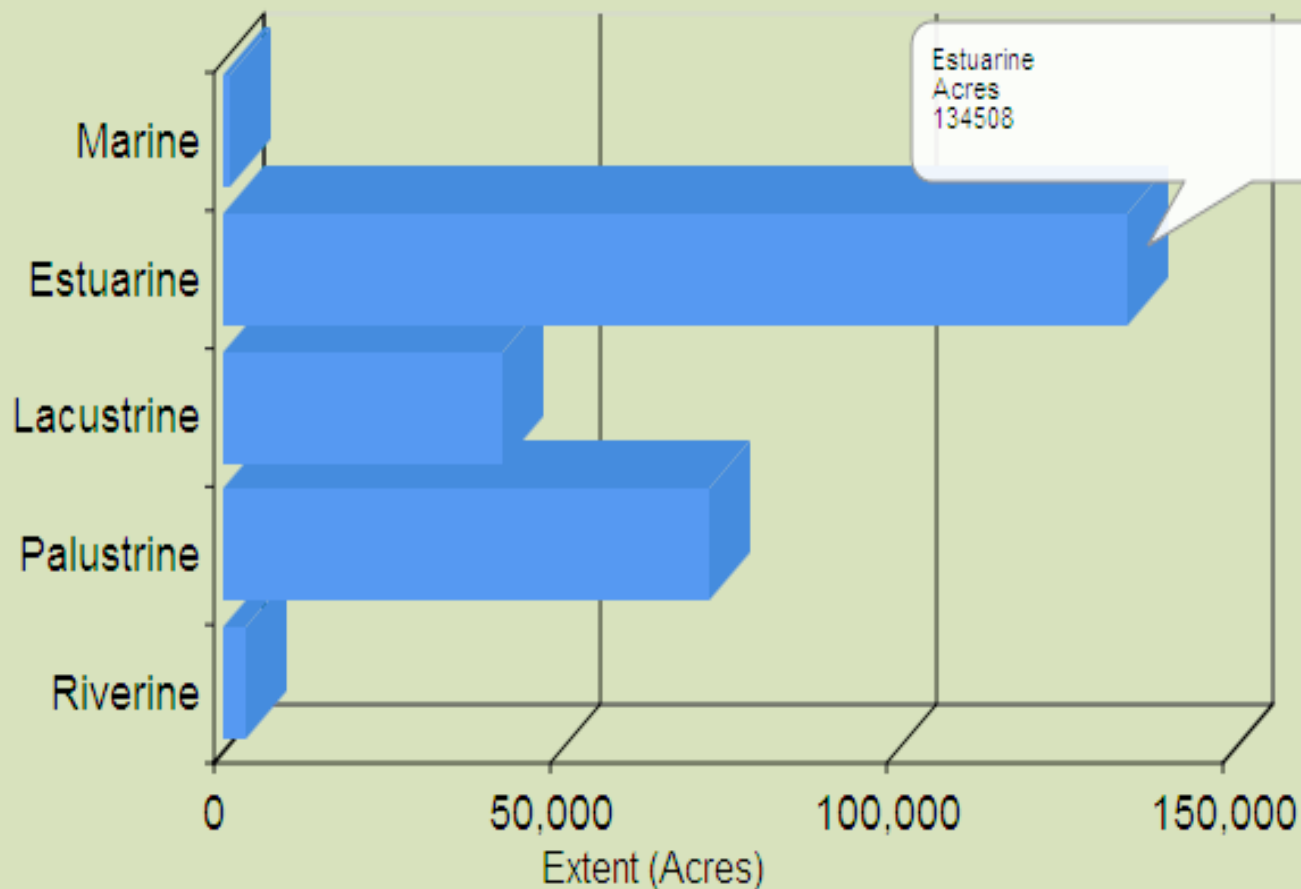
Shape files available from the [National](#)

Summary of Wetland Extent

San Francisco Bay Regional Water Quality Control Board

January 1, 2009

With 95% of its geographic area mapped, the San Francisco RWQCB has approximately 252 thousand acres of wetlands. Fifty three percent of the total wetland area found in the estuarine class. Approximately 29% is found in the palustrine class (e.g. ponds, vernal pools, playas, wet meadows, slope wetlands). Another 16% are associated with lakes and reservoirs. Less than 1% are marine wetlands.



Get more information about the major types of wetlands within California:

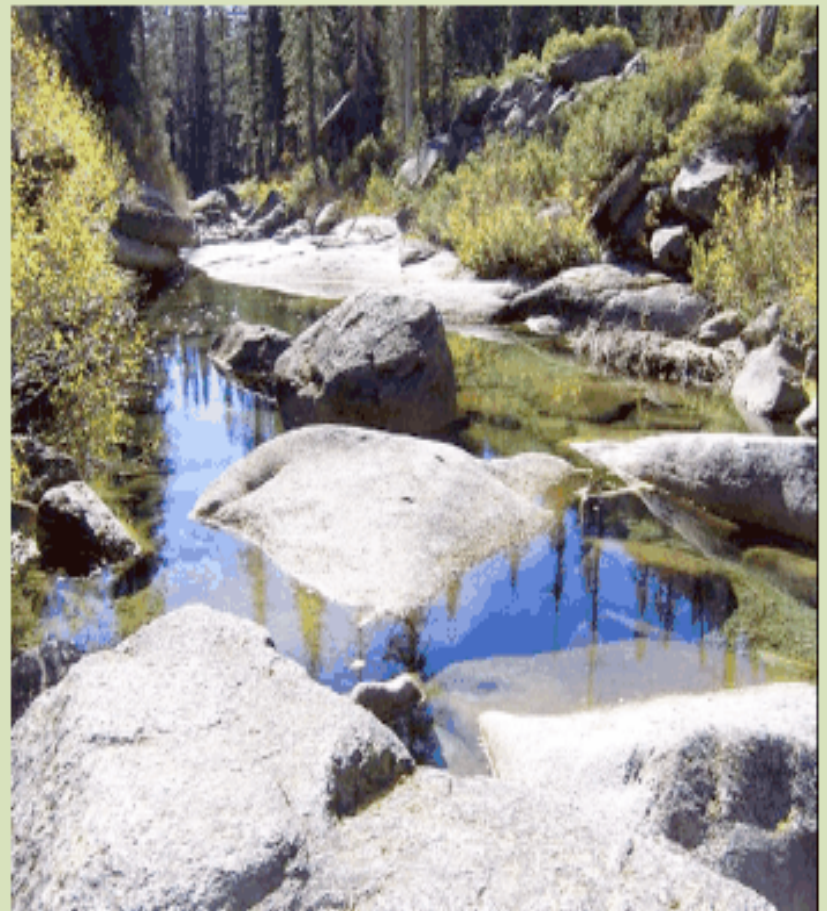
- [Estuarine Wetlands](#)
- [Riverine Wetlands](#)
- [Lake Wetlands \(lacustrine\)](#)
- [Marine Wetlands](#)
- Palustrine Wetlands
 - [Depressional Wetlands](#)
 - [Playa Wetlands](#)
 - [Seep, Spring and Slope Wetlands](#)
 - [Vernal Pool Wetlands](#)

Riverine Wetlands

Riverine wetlands get most of their water from the flow conveyed by a natural or artificial channel, such as a river, stream, canal, or ditch. They can form within any portion of a river system, including low terraces, floodplains, banks, and the river bed.



Photo: Santa Clara River, Ventura County (E. Stein, SCCWRP)



Tool Development Collaboration

Data upload



Standard data storage



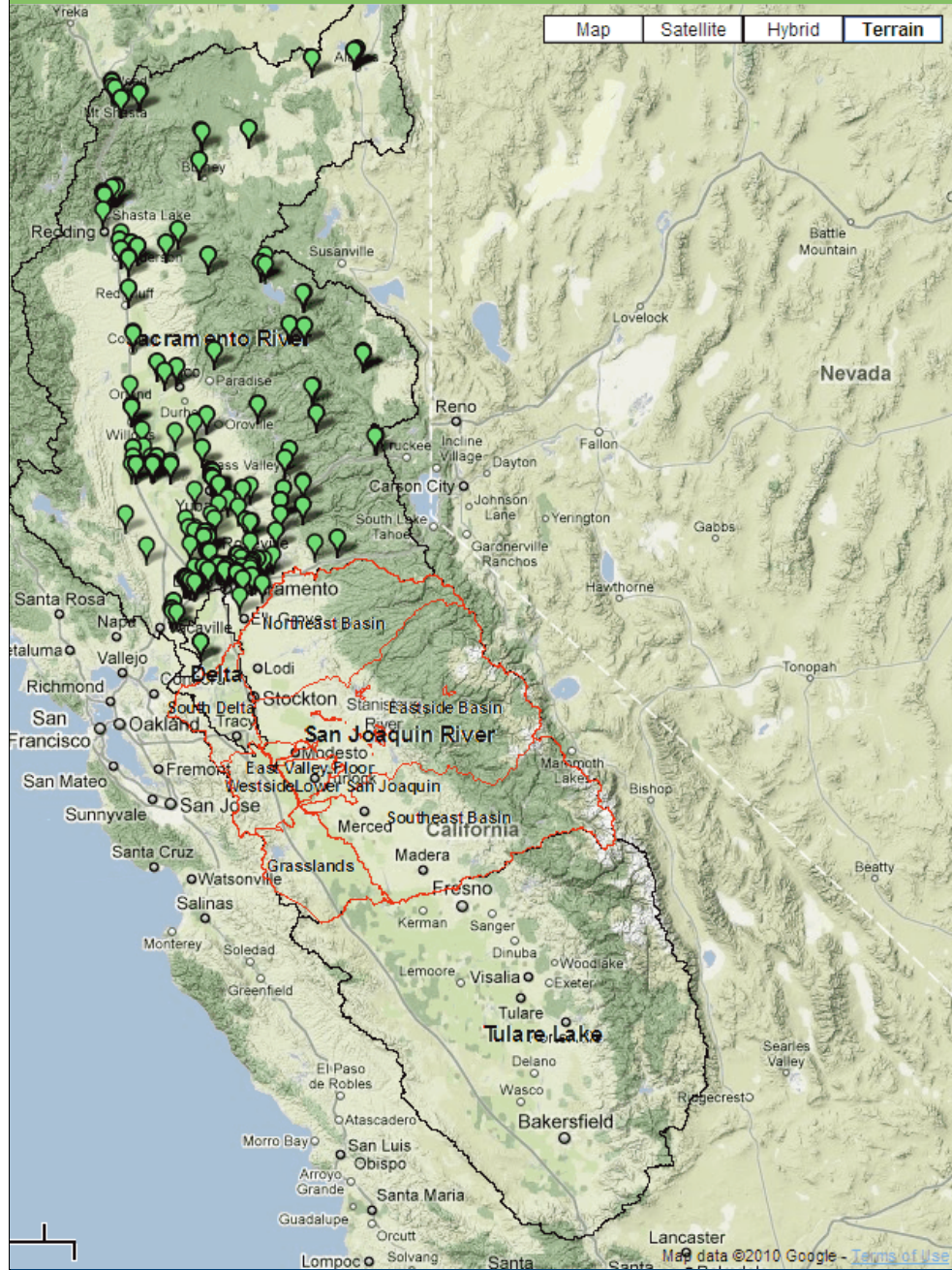
Data visualization



Answer management questions



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Program	Lead Organization	No of sites (unmap all)	Basin	Bioassessment	Disinfection Byproducts	General Sediment Quality	General Water Quality
NPDES Self Monitoring Program	CVRWQCB Show Partners	177 (unmap)	Sacramento River	9 sites	41 sites		176 sites
Surface Water Ambient Monitoring Program (SWAMP)	CVRWQCB	13 (unmap)	Sacramento River			13 sites	
Municipal Water Quality Investigations	DWR	3 (unmap)	Sacramento River		2 sites		3 sites
Surface Water Ambient Monitoring Program	SWRCB	43 (unmap)	Sacramento River				43 sites
Irrigated Lands Regulatory Program	CVRWQCB Show Partners	19 (unmap)	Sacramento River			1 sites	15 sites
Central District - Surface Water Monitoring	DWR	19 (unmap)	Sacramento River				7 sites
National Water Quality Assessment Program	USGS	2 (unmap)	Sacramento River				2 sites

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Basin Sacramento River Sub Basin Sacramento River

Watershed Upper Sacramento

Site Name Sacramento River, 100 ft below confluence of Little Castle Creek (west bank) Site Code RSW-001 493 Latitude 41.2475 Longitude -122.133333

[Show monitored parameters](#)[Show on Map](#) [View Program](#) [View Monitoring Plan](#)

Basin Sacramento River Sub Basin Sacramento River

Watershed Upper Sacramento

Site Name Sacramento River 300 ft below EEF-001, adjacent to Pond 4 Site Code RSW-002 494 Latitude 41.255278 Longitude -122.126944

[Show monitored parameters](#)[Show on Map](#) [View Program](#) [View Monitoring Plan](#)

Basin Sacramento River Sub Basin Sacramento River

Watershed Upper Sacramento

Site Name Sacramento River, adjacent to the northern most module of the train crew quarters Site Code R-1 495 Latitude 41.2125 Longitude -122.2675

[Show monitored parameters](#)[Show on Map](#) [View Program](#) [View Monitoring Plan](#)

Basin Sacramento River Sub Basin Sacramento River

Watershed Upper Sacramento

Site Name Sacramento River, 500 ft DS from the point of discharger Site Code R-2 496 Latitude 41.208611 Longitude -122.27139

[Show monitored parameters](#)[Show on Map](#) [View Program](#) [View Monitoring Plan](#)

Basin Sacramento River Sub Basin Sacramento River

Watershed Upper Sacramento

Site Name Big Springs Creek, DS of Discharge 001 Site Code R-1 550 Latitude 41.306111 Longitude -122.32861

[Show monitored parameters](#)[Show on Map](#) [View Program](#) [View Monitoring Plan](#)[Show all sites](#) [Scroll to top](#)

Main Directory

Map Satellite Hybrid Terrain

Site GIS

Basin: Sacramento River
Subbasin: Sacramento River
Watershed: COLUSA BASIN
Latitude: 39.3611
Longitude: -121.8675

Site Name: Cherokee Canal upstream site for BS1
Site Code: 520CRCCCG
[Show metadata](#)

Gridley Rd
Sacramento River
Colusa Hwy
Gray Lake Watershed Management

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Basin Sacramento River Sub Basin Sacramento River

Watershed COLUSA BASIN

Site Name Colusa Basin Drain above Knights Landing Site Code 520XCBDKL 1163 Latitude 38.81212 Longitude -121.72433

[Show monitored parameters](#)

[Show on Map](#)

[View Program](#)

[View Monitoring Plan](#)

Basin Sacramento River Sub Basin Sacramento River

Watershed COLUSA BASIN

Site Name Colusa Basin Drain #5 Site Code 520XCBDWR 1164 Latitude 39.18325 Longitude -122.05143

Monitoring Plan: California Rice Commission

Sample Type: Hydrology

Parameter Group: Hydrology

Frequency: Other

Flow

Sample Type: Sediment Quality

Parameter Group: Sediment Chemistry

Frequency: Other

Total Organic Carbon (TOC)

Sample Type: Toxicity

Parameter Group: Sediment Toxicity

Frequency: Other

Hyaella azteca

Parameter Group: Water Toxicity

Frequency: Other

Toxicity (acute) - Ceriodaphnia, Toxicity (acute) - Fathead minnow, Toxicity (acute)

Sample Type: Water Quality

Parameter Group: General Water Quality

Frequency: Other

Program Info

Irrigated Lands Regulatory Program

[Download Excel](#)

Organization

Central Valley Regional
Water Quality Control
Board
[Partners](#)

Contact

Parry Klassen
559-288-8125
parryk@comcast.net

Start Date 2002-11-23 00:00:00

End Date None

Objectives -Assess the impacts of waste discharges from irrigated lands to surface water. -Determine degree of implementation of management practices to reduce discharge of specific wastes that impact water quality. -Determine the effectiveness of management practices and strategies to reduce discharges of wastes that impact water quality. -Determine concentration and load of waste in these discharges to surface waters. -Evaluate compliance with existing narrative and numeric water quality objectives to determine if additional implementation of management practices is necessary to improve and/or protect water quality.

Annual Budget None

Basins & sub-basins monitored

- San Joaquin River (Southeast Basin, East Valley Floor, Eastside Basin, Northeast Basin, Westside, Grasslands, Lower San Joaquin River)
- Delta (South Delta, North Delta)
- Sacramento River (Sacramento River)

Monitoring Plans

[California Rice Commission](#)

[East San Joaquin Water Quality Coalition](#)

[Goose Lake Water Quality Coalition](#)

[Merced Irrigation District](#)

[Modesto Irrigation District](#)

[Oakdale Irrigation District](#)

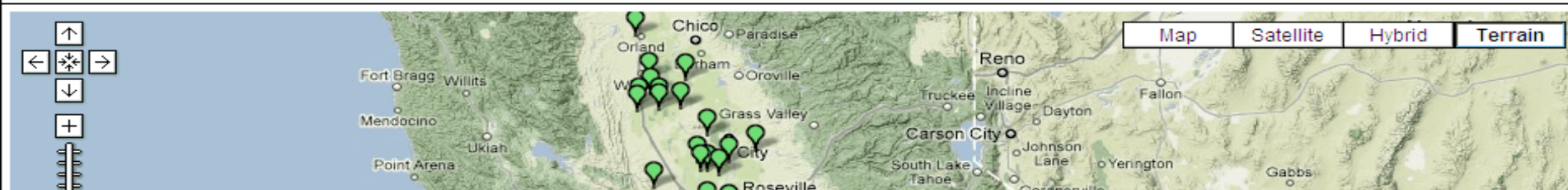
[Sacramento Valley Water Quality Coalition](#)

[San Joaquin County & Delta Water Quality Coalition](#)

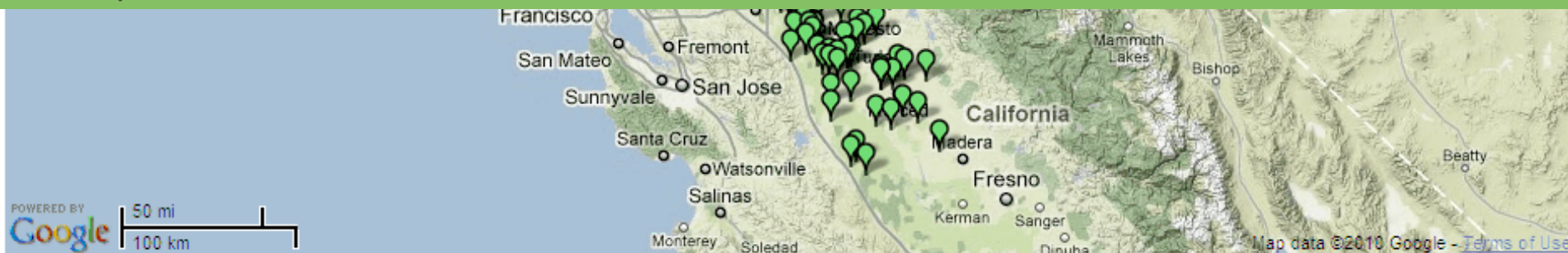
[South San Joaquin Irrigation District](#)

[Turlock Irrigation District](#)

[Westside Water Quality Coalition](#)



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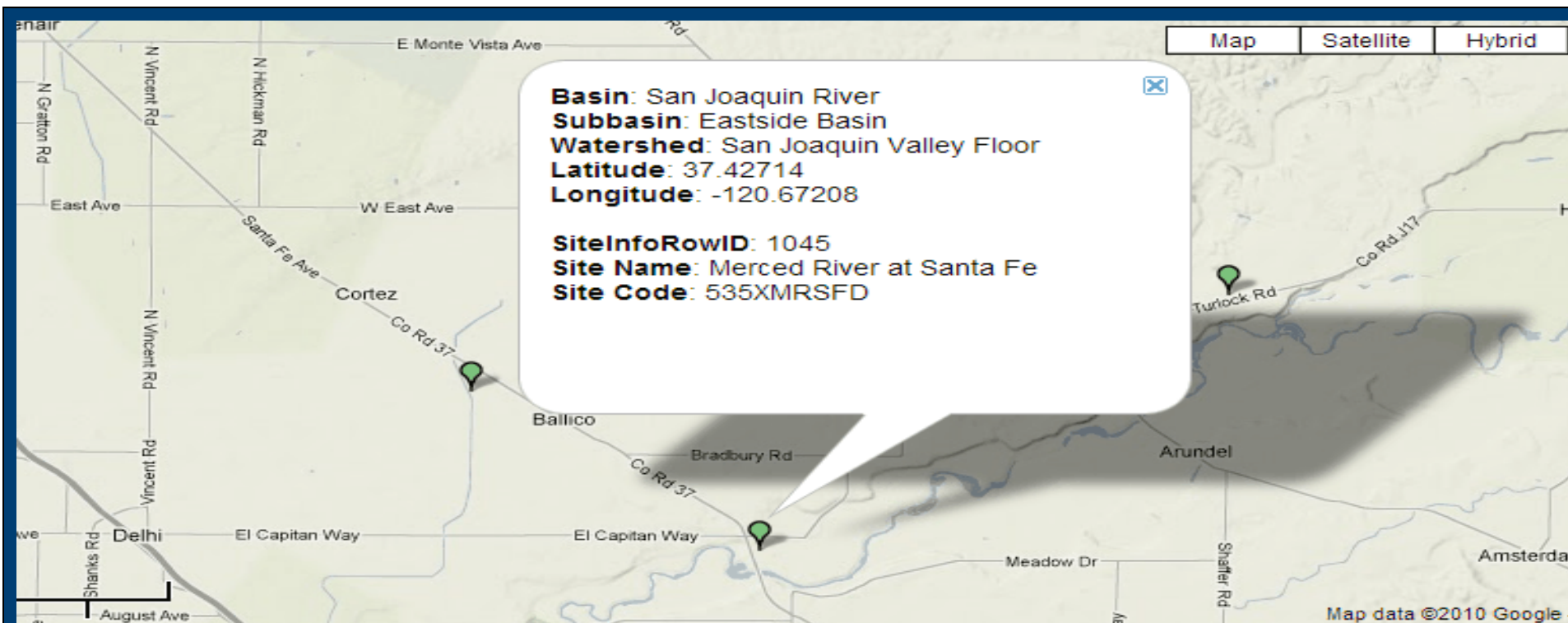
The following is a summary of information for the sites mapped.

Map	Site Name	Site Code	Latitude	Longitude
Map	Deadman Creek at Highway 59	535DMCAHF	37.19810	-120.48690
Map	Lateral 2 1/2 near Keyes Road	535LTHNKR	37.54780	-121.09274
Map	Deadman Creek at Gurr Road	535XDCAGR	37.19356	-120.56124
Map	Dry Creek at Wellsford Road	535XDCAWR	37.66017	-120.87432
Map	Duck Slough at Gurr Road	535XDSAGR	37.21423	-120.55958
Map	Highline Canal at Lombardy Avenue	535XHCHNN	37.45560	-120.72071
Map	Howard Lateral at Highway 140	535XHLAHO	37.30790	-120.78200
Map	Mootz Drain at Langworth Road	535XMDALR	37.70582	-120.89303
Map	Muddy Lateral at Highway 140	535XMLAHO	37.30945	-120.78759
Map	Merced River at Santa Fe	535XMRSFD	37.42714	-120.67208
Map	Peaslee Creek at Lake Road	535XPCALR	37.61769	-120.50733
Map	Prairie Flower Drain at Crows Landing Road	535XPFDCCL	37.4422	-121.00236
Map	Rodden Creek at Rodden Road	535XRCARD	37.79042	-120.80790
Map	Yori Grove Drain at East Taylor Road	535YGDETR	37.53690	-120.98346
Map	Ash Slough at Avenue 21	545XASAAT	37.05450	-120.41580



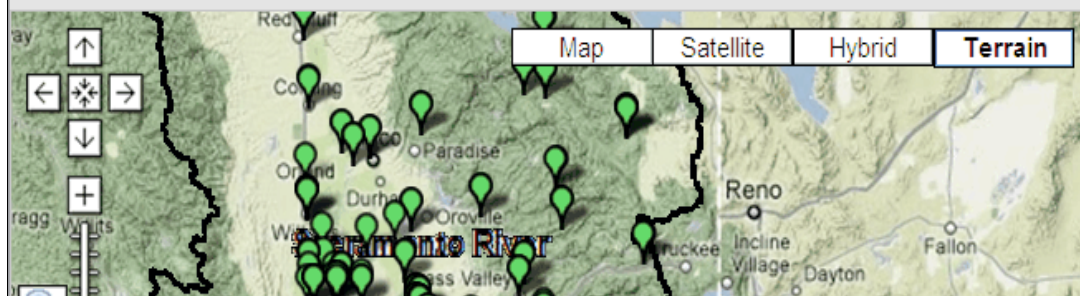
Showing 1 to 15 of 97 entries

Search:



Group	Parameters	Frequency
Bioassessment	Benthic Macroinvertebrates	Semiannual
General Sediment Quality	Particle Size	Other
General Water Quality	Dissolved Oxygen (DO), Electrical Conductivity (EC), Hardness, Particle Size, pH, Temperature, Total Dissolved Solids (TDS), Total Suspended Solids (TSS), Turbidity	Bimonthly, Monthly, Other, continuous, Biannual, Continuous
Hydrology	Flow	Monthly, Other
Major Ions & Minerals	Boron, Bromide, Potassium	Monthly, Other
Metals & Trace Elements	Arsenic, Cadmium, Copper, Lead, Molybdenum, Nickel, Selenium, Zinc	Monthly, Other
Nutrients	Nitrate + Nitrite as N NO ₃ -N + NO ₂ -N, Orthophosphate PO ₄ , Phosphorus, Soluble Orthophosphate PO ₄ , Total Ammonia NH ₃ , Total Kjeldahl Nitrogen (TKN), Unionized Ammonia NH ₃ -N	Monthly, Other

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Lead
OrganizationCollaborative
Partner (s)

Program

No of
sites
([unmap all](#))

Basin

Lead
OrganizationCollaborative
Partner (s)

Program

No of
sites
([unmap all](#))

Basin

Bioassessment

Disinfection
ByproductsGeneral
Sediment
QualityGeneral
Water
Quality

CVRWQCB

City of
Davis
...[NPDES Self
Monitoring
Program](#)177
([unmap](#))Sacramento
River

9 sites

41 sites

176 sites

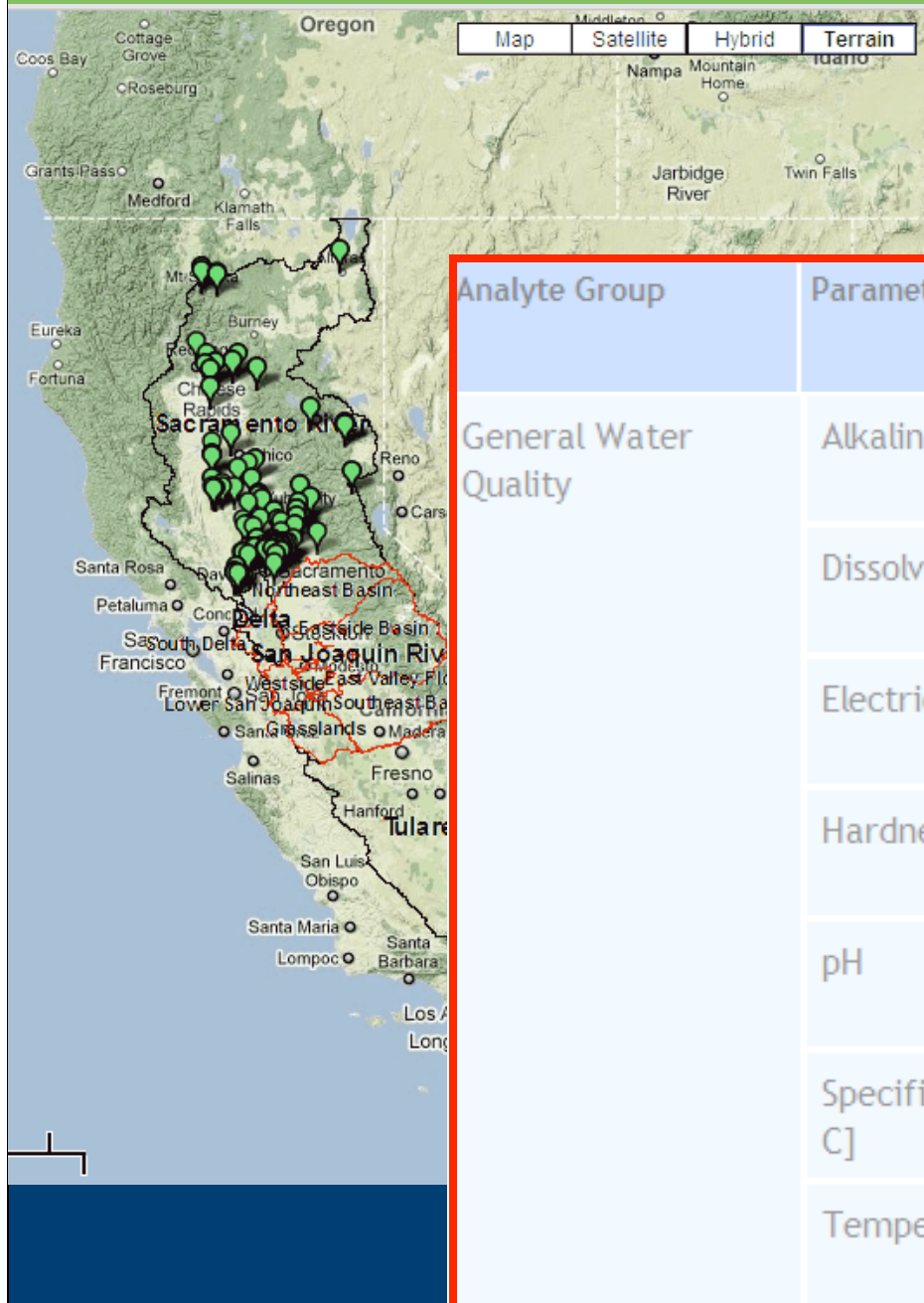
Central
Valley
Regional
Water
Quality
Control
Board[Surface
Water
Ambient
Monitoring
Program
\(SWAMP\)](#)13
([unmap](#))Sacramento
River

13 sites

Sacramento
Valley
Water
Quality
Coalition
...[Irrigated
Lands
Regulatory
Program](#)19
([unmap](#))Sacramento
River

1 sites

15 sites



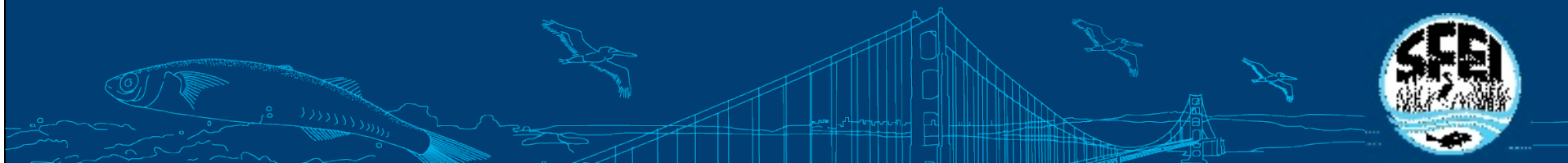
Programs Agencies Parameters Sites Help			
Analyte Group	Parameter	No of sites (map all)	Basin
Bioassessment	Benthic Macroinvertebrates	9 sites (map)	Sacramento River

Analyte Group	Parameter	No of sites (unmap all)	Basin
General Water Quality	Alkalinity	3 sites (map)	Sacramento River
	Dissolved Oxygen (DO)	184 sites (unmap)	Sacramento River
	Electrical Conductivity (EC)	101 sites (map)	Sacramento River
	Hardness	85 sites (map)	Sacramento River
	pH	203 sites (map)	Sacramento River
	Specific Conductance [EC @ 25 deg C]	89 sites (map)	Sacramento River
	Temperature	204 sites (map)	Sacramento River

Thank you



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