

California's Surface Water Ambient Monitoring Program

# Overview of the SWAMP Bioassessment Webpage

California Aquatic  
Bioassessment Workgroup  
October 20, 2015



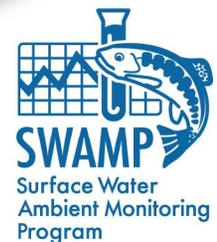
**Michelle Tang**

*SWAMP Unit*

State Water Board

916-341-5504

[Michelle.Tang@waterboards.ca.gov](mailto:Michelle.Tang@waterboards.ca.gov)



# SWAMP Homepage

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



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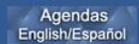
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## SOUND SCIENCE FOR INFORMED WATER QUALITY MANAGEMENT



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SWAMP is tasked with assessing water quality in all of California's surface waters. The program conducts monitoring directly and through collaborative partnerships, and provides numerous information products, all designed to support water resource management in California.

**New from SWAMP Partners:** SWAMP is pleased to present [The 22nd annual meeting of the California Aquatic Bioassessment Workgroup \(CABW\)](#). This year's Oct. 20th-21st meeting at UC Davis includes presentations on creek & meadow restoration, causal assessments, & juvenile salmonids in intermittent streams, among other topics.

## SWAMP HIGHLIGHTS ...



## SEE WHAT WE'RE DOING (& WHAT WE'VE DONE)

Keep up-to-date on SWAMP activities: [Subscribe to the SWAMP Water Quality Monitoring email list.](#)

The Surface Water Ambient Monitoring Program (SWAMP) is pleased to present the 2014 update to the [SWAMP Achievements Report](#). The Achievements Report highlights recent accomplishments of SWAMP and its partners, framing the many projects SWAMP is a part of in the context of their value to the State of

## MEET OUR PARTNERS

SWAMP has developed a rich and varied network of partners over the years.

Go to the ["Meet Our Partners"](#) webpage to be directed to the project/partner feature page.

## CONTACT INFORMATION

Contact Mary Tappel for assistance finding reports, tools, templates, Standard Operating Procedures

# Old Bioassessment Page

**Board Chair**  
**Felicia Marcus**  
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## Reports

### Quick Links

- [Bioaccumulation Monitoring Program](#)
- [Bioassessment Monitoring Program](#)
- [Stream Pollution Trends \(SPoT\) Monitoring Program](#)
- [Special Studies](#)
- [Achievements](#)
- [SWAMP Statewide Planning Documents](#)
- [SWAMP General Information \(Fact Sheets, Posters, etc.\)](#)
- [Webinars and PowerPoint Presentations](#)
- [Regional Reports and Documents](#)

### Achievements

The [Achievements Report](#) highlights recent accomplishments of the SWAMP and its partners, framing the many projects SWAMP is a part of in the context of their value to the State of California and the public at large. The Achievements Report also describes how monitoring data have been used to answer critical water quality questions pertaining to California's surface waters and how this information has been conveyed to resource managers and the public. Program activities are organized under the following categories: Monitoring, Assessments, Communication, Comparability, Coordination, and Management Decisions.

### Bioaccumulation Monitoring Program

The goal of the Bioaccumulation Monitoring Program is to address the "Fishable" beneficial use through surveys of contaminant concentrations in fish tissue throughout waters of the state. The [Bioaccumulation Oversight Group \(BOG\)](#) serves as the advising body for SWAMP's fish tissue monitoring program. Sampling occurs on a five-year cycle, rotating between lakes and reservoirs, coastal waters, and rivers and streams. The following reports are currently available:

- [Lakes & Reservoirs](#)
- [Coastal Waters](#)
- [Streams & Rivers](#)
- [Is It Safe to Eat Fish and Shellfish from our Waters?](#) - On My Water Quality Website
- [Bioaccumulation of Pollutants in California Waters](#)  
A Review of Historic Data and Assessment of Impacts on Fishing and Aquatic Life – October 2007
- [State Mussel Watch \(SMW\) and Toxic Substances Monitoring \(TSM\) Program Publications](#)  
Information about "historic" tissue monitoring, 1976 – 2003

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### Bioassessment Monitoring Program

[PSA](#) | [RCMP](#) | [Algae](#) | [External Review](#) | [CABW & Other Bioassessment Links](#)

#### Perennial Streams Assessment (PSA)

The PSA is an ongoing, long-term statewide survey of the ecological condition of wadeable perennial streams and rivers throughout California. The PSA is funded by SWAMP and other partners, including the USEPA and the Water Boards' Nonpoint Source program. The PSA collects samples for biological indicators (benthic macroinvertebrates, algae) and chemical constituents (nutrients, major ions, etc.), and conducts habitat assessments (both for in-stream and riparian corridor conditions). The PSA has produced numerous reports and other products, including:

- [8-Year PSA Report: Ecological Condition Assessments of California's Perennial Wadeable Streams \(2000 through 2007\)](#): Novel use of probability surveys to assess the condition of streams draining agricultural, urban, and forested landscapes.

No time to read the whole report? Below are four memoranda summarizing major findings from the SWAMP Perennial Streams Assessment:

- [Value of SWAMP's Statewide Monitoring Programs](#)

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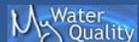
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# California's Surface Water Ambient Monitoring Program

## Interactive CSCI Score Map

California Aquatic  
Bioassessment Workgroup  
October 20, 2015



**Calvin Yang**

*SWAMP Unit*

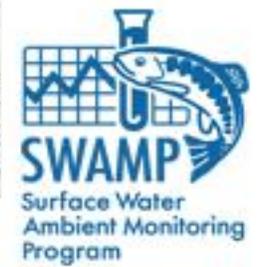
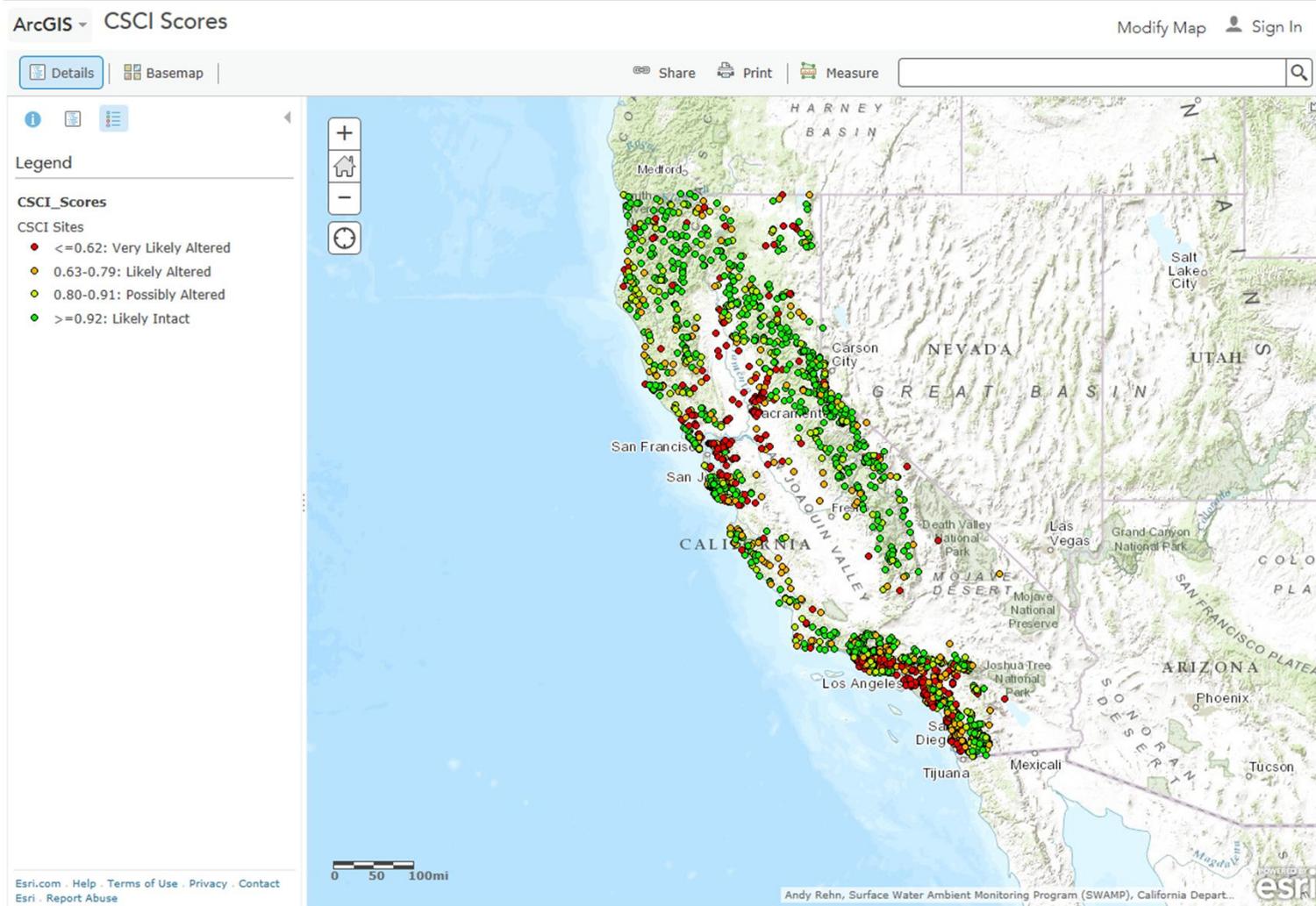
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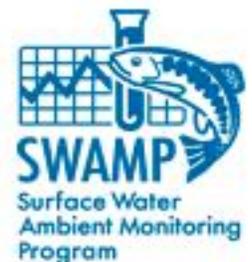
# Overview



## Monitoring Sites Scored with CSCI

Total of 1,985 sites sampled 1997 - 2011

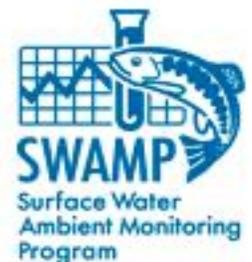
- Perennial Streams Assessment (PSA)
- Reference Condition Management Program (RCMP)
- Stormwater Monitoring Coalition (SMC)
- US Forest Service (USFS)
- Regional Board Bioassessment Monitoring Programs



## Statewide Assessment using CSCI

Four categories used for statewide assessment of biological condition

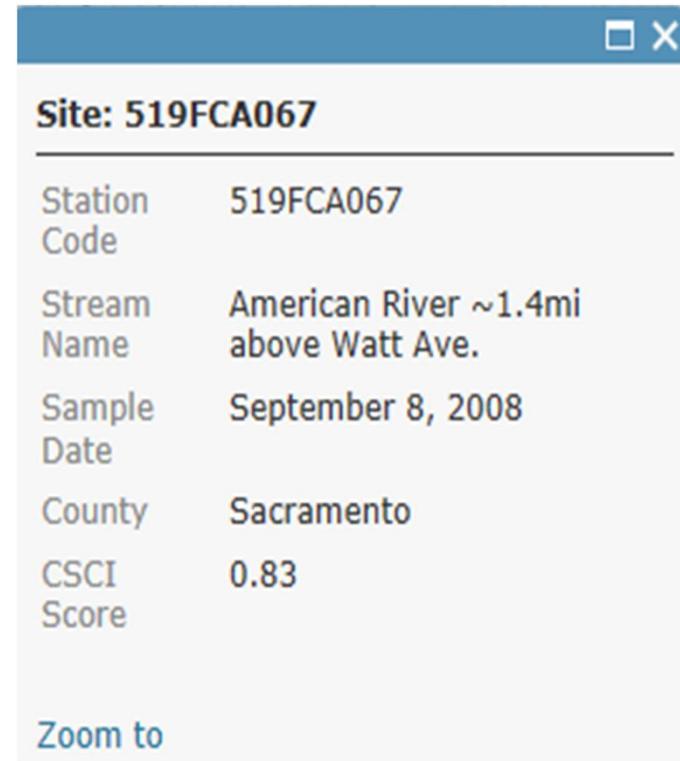
- $\leq 0.62$ : Very Likely Altered
- 0.63 – 0.79: Likely Altered
- 0.80 – 0.91: Possibly Altered
- $\geq 0.92$ : Likely Intact



## Pop-Up for Each Site

Each site will have information on:

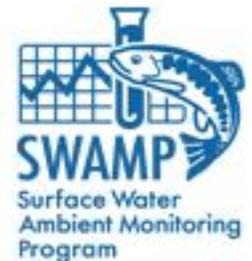
- Station Code
- Stream Name
- Sample Date
- County
- CSCI score



The image shows a screenshot of a web application pop-up window. The window has a blue header bar with a close button (X) and a maximize button (square). Below the header, the text "Site: 519FCA067" is displayed. A horizontal line separates the header from the main content area. The main content area contains a table with the following data:

Station Code	519FCA067
Stream Name	American River ~1.4mi above Watt Ave.
Sample Date	September 8, 2008
County	Sacramento
CSCI Score	0.83

At the bottom of the pop-up, there is a "Zoom to" link.



# New SWAMP Technical Memo

## The California Stream Condition Index (CSCI): A New Statewide Biological Scoring Tool for Assessing the Health of Freshwater Streams

Prepared by: Andrew C. Rehn<sup>1</sup>, Raphael D. Mazor<sup>2,1</sup>, Peter R. Ode<sup>1</sup>

<sup>1</sup>California Department of Fish and Wildlife

<sup>2</sup>Southern California Coastal Water Research Project

SWAMP Technical Memorandum

SWAMP-TM-2015-0002

September 2015



## Feedback

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