



SWAMP:
*Surface Water Ambient Monitoring
Program*

25 September 2003

Jimmy Smith

Regional Water Quality Control Board, San Diego

History / Mandate

- Report to the legislature in January 2000
- Assembly Bill 982
 - Water Code Section 13191 - 13192
 - propose comprehensive state program (surface water)
 - coordinate all Board water quality monitoring projects/programs
 - comparable data

Logistics

- Statewide effort to assess the conditions of surface waters
- SWRCB Administration
- RWQCB Implementation
 - monitoring conducted by **CDFG**, USGS and local RB contracts

Monitoring Areas

- Existing
 - SMW, TSMP, TTP and CFCP
- Proposed
 - TMDLs, Grants (Prop 13, 40, 50 and 319h) and Citizen Monitoring
- Future
 - Special Studies, NPDES and WDRs

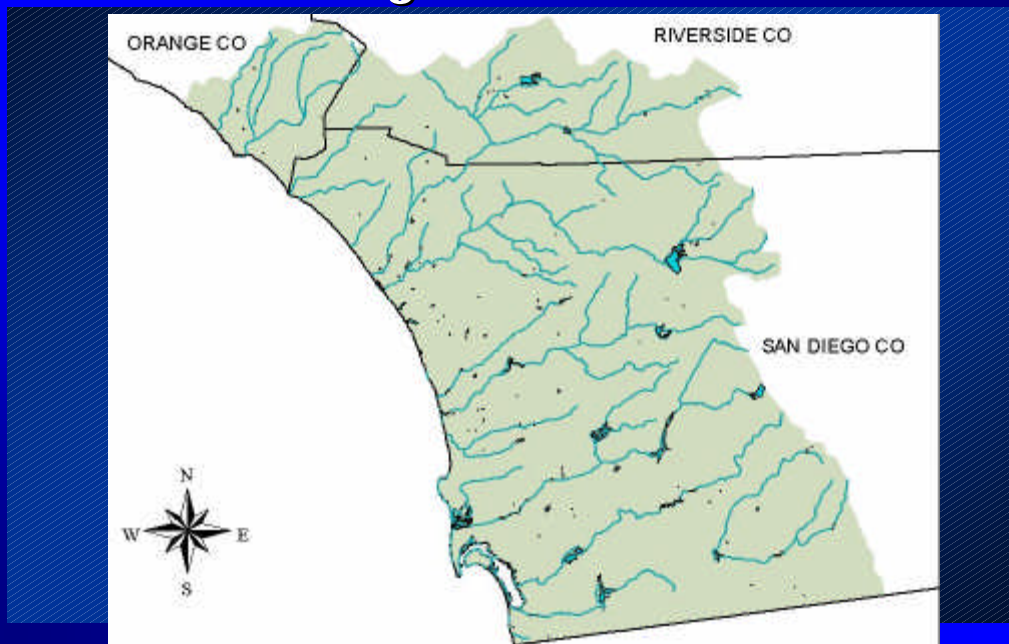
Primary Objectives

- Assessment of Surface Water Quality and Beneficial Uses of San Diego Region rivers, streams, reservoirs and coastal waters:
 - Support and expand 305(b) assessment
 - Support 303(d) listings / de-listings
 - Provide information to initiate or support site specific actions (including traditional enforcement)

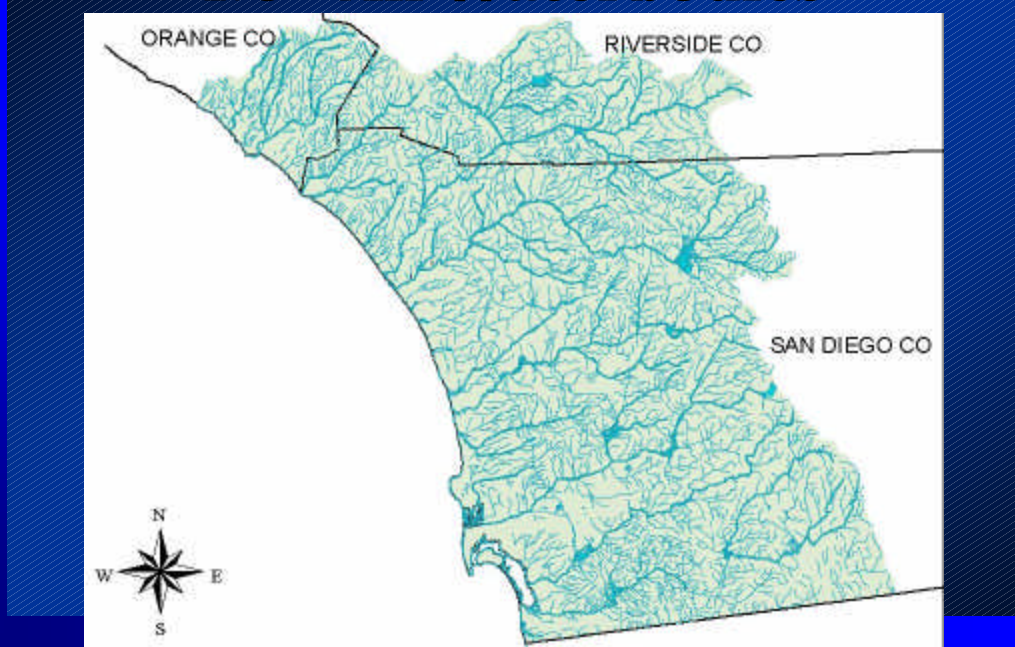
Secondary Objectives

- Identify long term trends in water quality, beneficial uses and habitat.
- Develop lasting partnerships with stakeholders
- Support development of nutrient criteria
- Support development and refinement of and Index of Biotic Integrity
- Education

R9 - Major Waterbodies



R9 - All Waterbodies



R9 - 2002 303(d)



SWAMP 2000

- Proposed a cost efficient monitoring program to meet all CWA needs for all water types and pollutants
- | <u>Requested</u> | <u>Received</u> |
|-----------------------|-----------------|
| \$59 to \$115 million | \$5 million |
| 87 to 132 PYs | 10 PYs |

R9 Overview

- Rotating Watersheds (2 per year)
- Targeted sample station selection
- ~15 stations sampled 4 times
 - Winter Baseflow (perennial and intermittent)
 - Spring Baseflow (perennial and intermittent)
 - Early Summer Baseflow (perennial and intermittent)
 - Fall Baseflow (perennial)

Parameters Measured

- Water Chemistry:
 - Discrete Samples:
 - dissolved metals, pesticides, PCBs, PAHs, total PO₄, O-PO₄, total NH₄, NO₃, TKN, SO₄, alkalinity
 - Meter/Probe:
 - conductivity, dissolved oxygen, pH, salinity, temperature, turbidity, velocity
- Sediment:
 - % fines

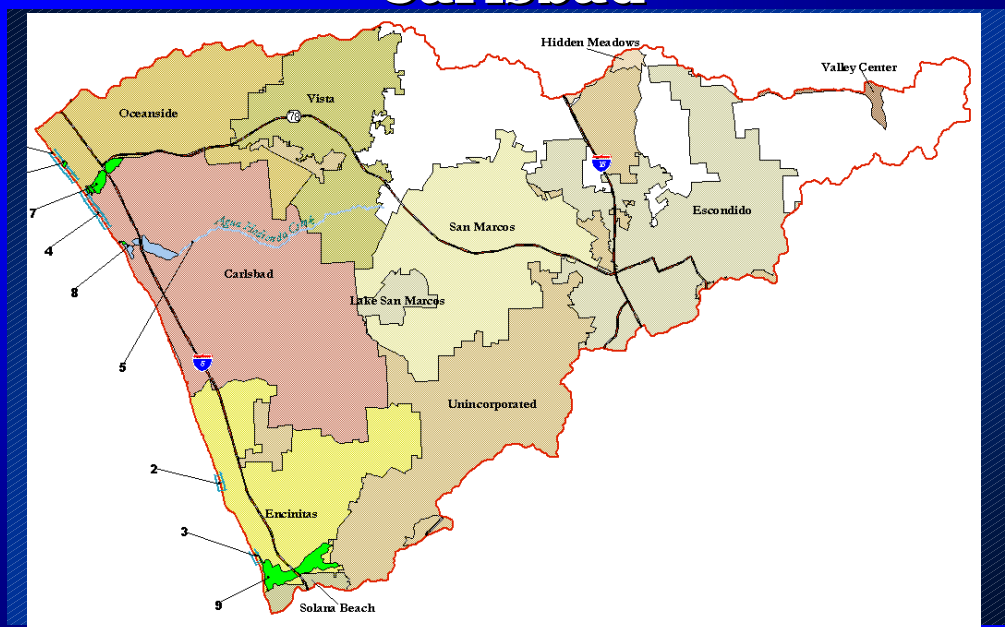
Parameters Measured

- Toxicity:
 - FW = *Ceriodaphnia* and *Selanestrum*
 - Seds = *Hyalella*
- Tissue:
 - metals, pesticides, PCBs, PAHs
- Bioassessment
 - macroinvertebrates
- Physical Habitat Assessment

SWAMP FY 00-01

- Carlsbad Hydrologic Unit - 9 Stations
- Los Penasquitos Hydrologic Unit - 6 Stations
- Integrative Sampling Approach:
 - water chemistry
 - water toxicity
 - sediment toxicity
 - TSM_P
 - Aquatic Bioassessment

Carlsbad

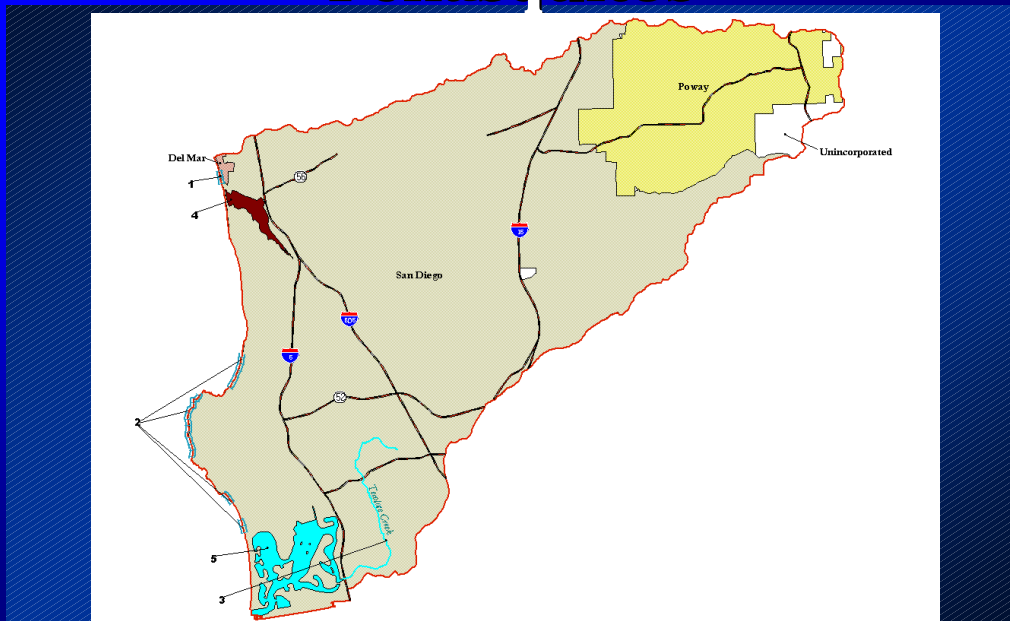


Carlsbad

- Agua Hedionda Creek
- Buena Creek
- Buena Vista Creek
- Cottonwood Creek
- Encinitas Creek
- Escondido Creek (2)
- Loma Alta Creek
- San Marcos Creek

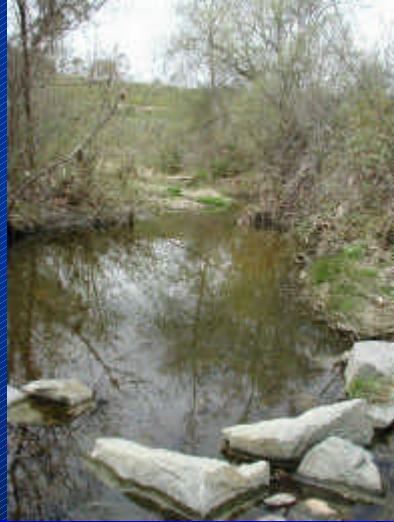


Penasquitos



Los Penasquitos

- Poway Creek
- Los Penasquitos Creek
- Rattlesnake Creek
- **Rose Canyon Creek**
- Soledad Creek
- Tecolote Creek

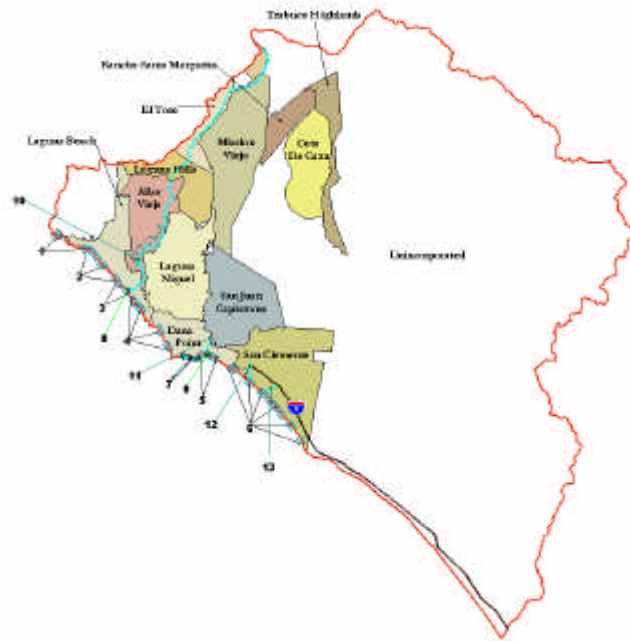


SWAMP FY 01-02

- San Juan Hydrologic Unit - 9 Stations
- Otay Watershed - 2 Stations

- Fully Integrative Design:
 - Bioassessment, bacteria and sediment
 - chemistry through permitted monitoring

San Juan

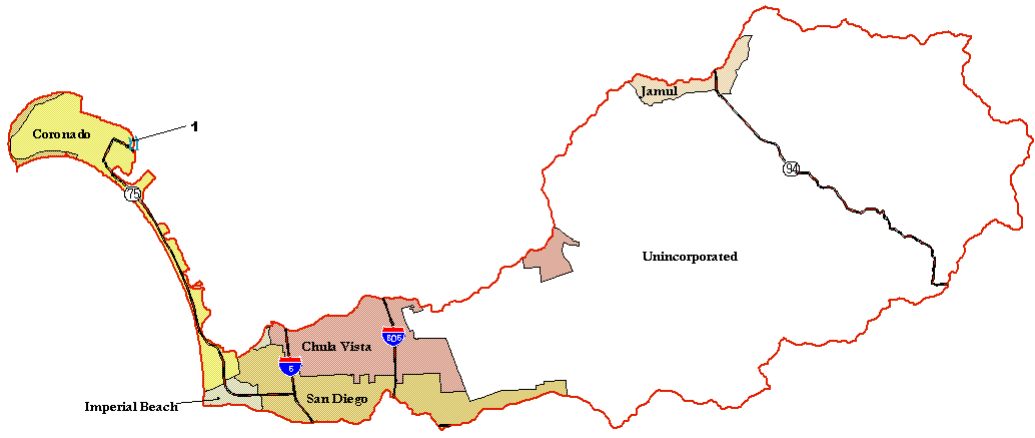


San Juan

- Aliso Creek
- Arroyo Trabuco Creek
- Bell Canyon Creek
- English Creek
- Laguna Canyon Creek
- Moro Creek
- Oso Creek
- San Juan Creek (2)



Otay



Otay

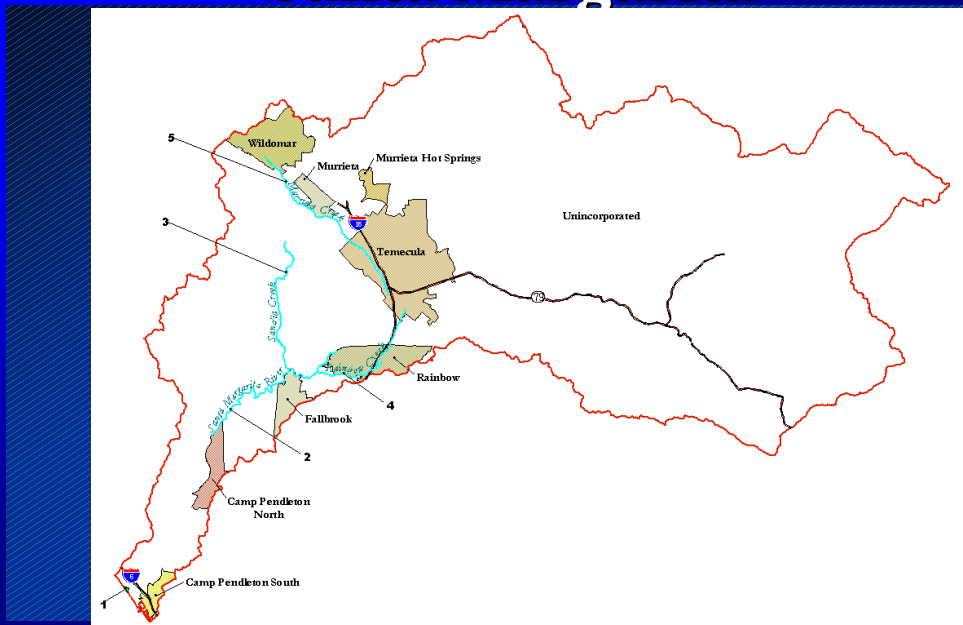
- Jamul Creek
- Poggi Creek



SWAMP FY 02-03

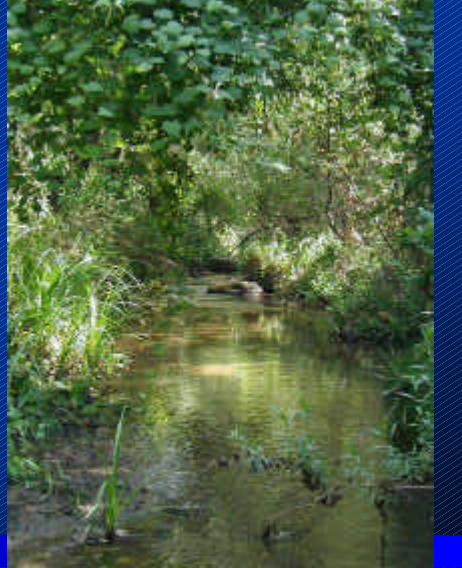
- Santa Margarita Watershed - 5 stations
- San Dieguito Watershed - 5 stations
- Fully Integrative Design
- Shared monitoring through partnerships

Santa Margarita

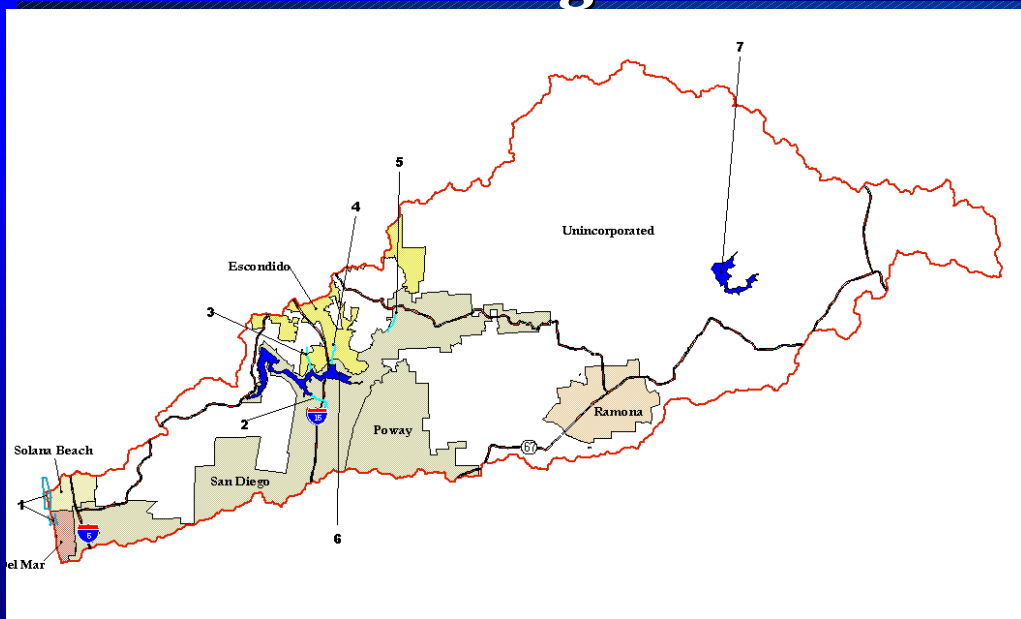


Santa Margarita

- De Luz Creek
- Rainbow Creek
- Sandia Creek
- Santa Margarita (2)



San Dieguito

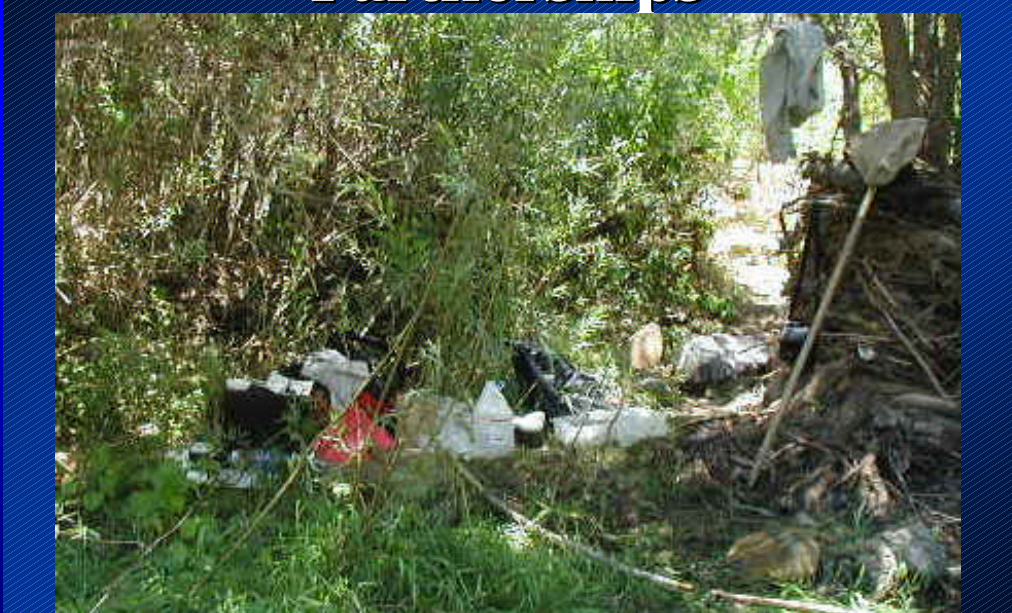


San Dieguito

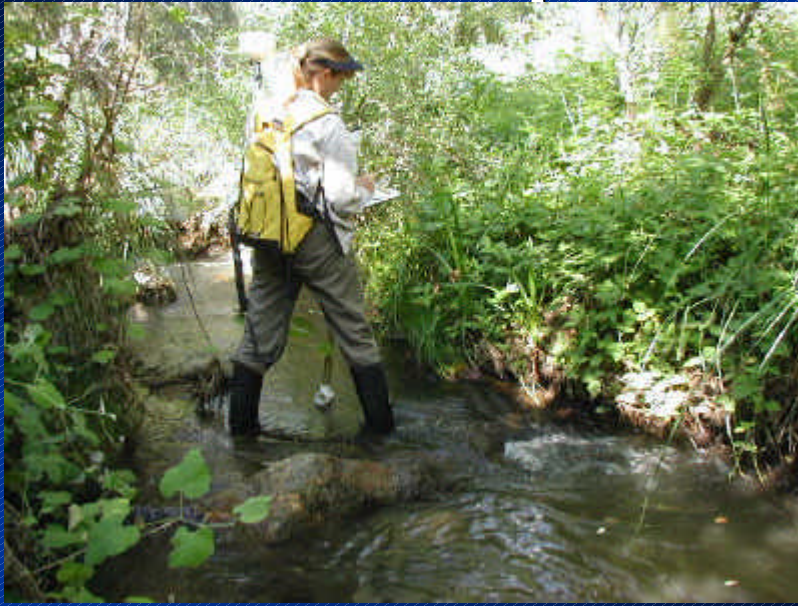
- Cloverdale Creek
- Green Valley Creek
- San Dieguito River
- **Santa Ysabel Creek (2)**



Partnerships



Partnerships



Partnerships



Partnerships



Partnerships

- City of San Diego - Water Dept
- County of San Diego - Watershed Protection Program of the Department of Public Works
- San Diego Stream Team / Escondido Creek Conservancy
- CDFG
- USFS
- La Jolla Tribe
- California State Parks - Rancho Cuyamaca & Palomar Mountain
- Project Clean Water - Science and Technology TAC

Potential Partnerships

- City of SD - Metropolitan Wastewater Dept
- San Dieguito Municipal Water District
- Santa Margarita Watershed Monitoring Framework Workgroup
- Other Indian Tribes
- Camp Pendleton (USMC)
- San Diego Baykeeper / Surfrider Foundation
- Orange Coast Coast Watch, Clean Aliso Creek Coalition
- 4 Lagoon Foundations

Common Ground

Quality Assurance Management Plan

for the State of California's
Surface Water Ambient Monitoring Program:



"SWAMP"

prepared under contract by:

Max Puckett
California Department of Fish and Game
34500 Coast Highway One
Monterey, CA 93940

for the:

California State Water Resources Control Board
Division of Water Quality

<http://www.swrcb.ca.gov/swamp/qapp.html>

Next Steps

- FY 03-04
 - less than 10% of historic budget
 - focus on bioassessment
 - analyze incoming data
 - increase coordination
- FY 04-05
 - funding restored...???
 - continue rotations: San Luis Rey & San Diego River

Summary

- SWAMP helps fill a critical gap in data gathering and analysis necessary for adequate water quality assessment and impaired water body listing / de-listing.
- Focus on integrative assessment
 - incorporate data from permitted dischargers
 - continue and develop partnerships

SWAMP Team

- Dave Gibson
- Mike Hardy
- Bruce Posthumus
- Linda Pardy
- Deborah Jayne

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<http://www.swrcb.ca.gov/swamp/>

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