

A Comprehensive Long-Term Monitoring and Assessment Plan for the San Francisquito Creek Watershed

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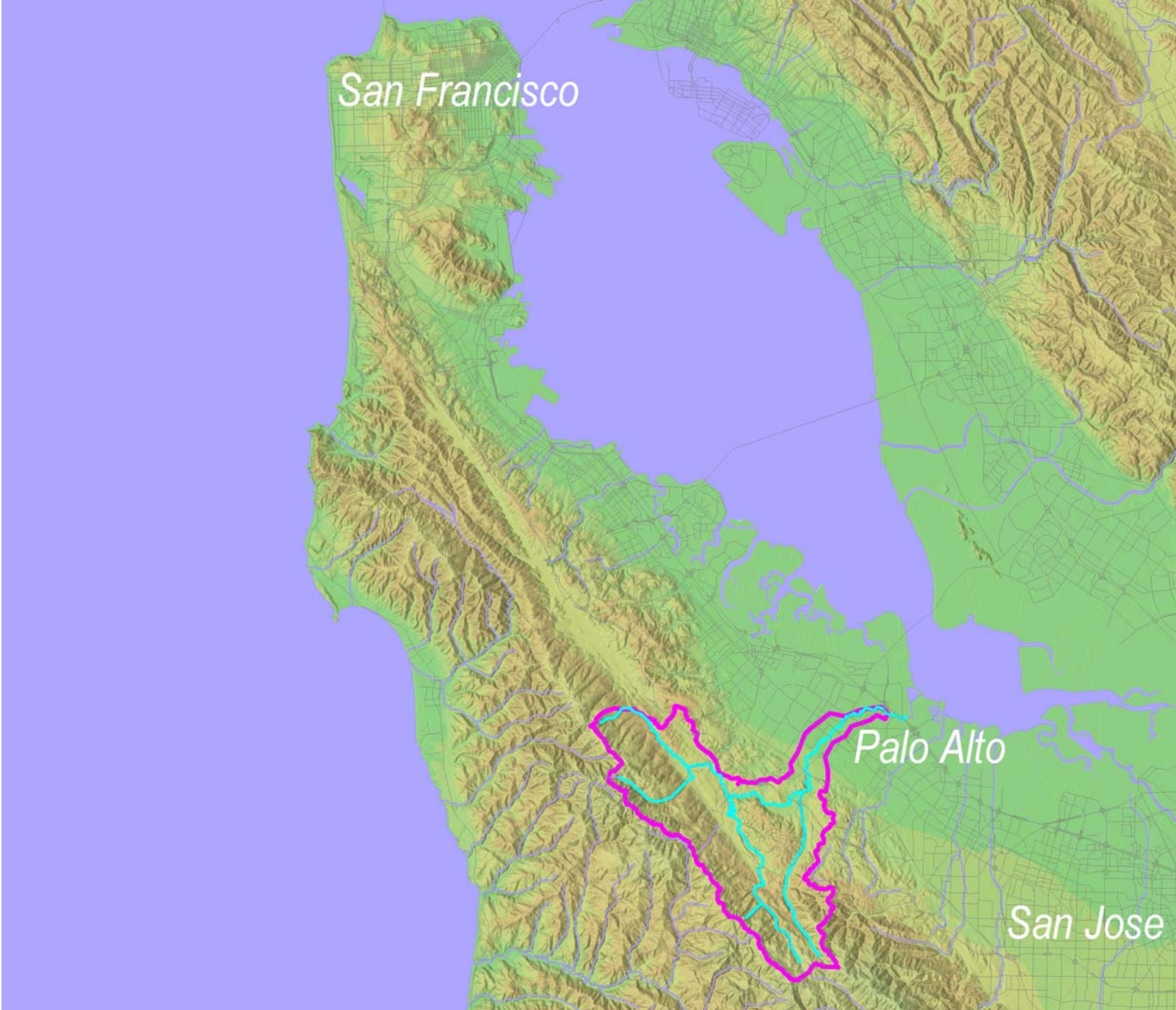
WORK GROUP PROCESS

- CRMP/Watershed Council
- Local Cities (Palo Alto, Portola Valley)
- Stanford University
- Stanford Linear Accelerator Center
- Clean South Bay
- Streams for Tomorrow
- USGS

LOCATION

- On San Francisco Peninsula, S. of SF
- San Mateo/Santa Clara Counties
- Palo Alto/Menlo Park/Stanford Univ.
- (heart of Silicon Valley)





San Francisco

Palo Alto

San Jose

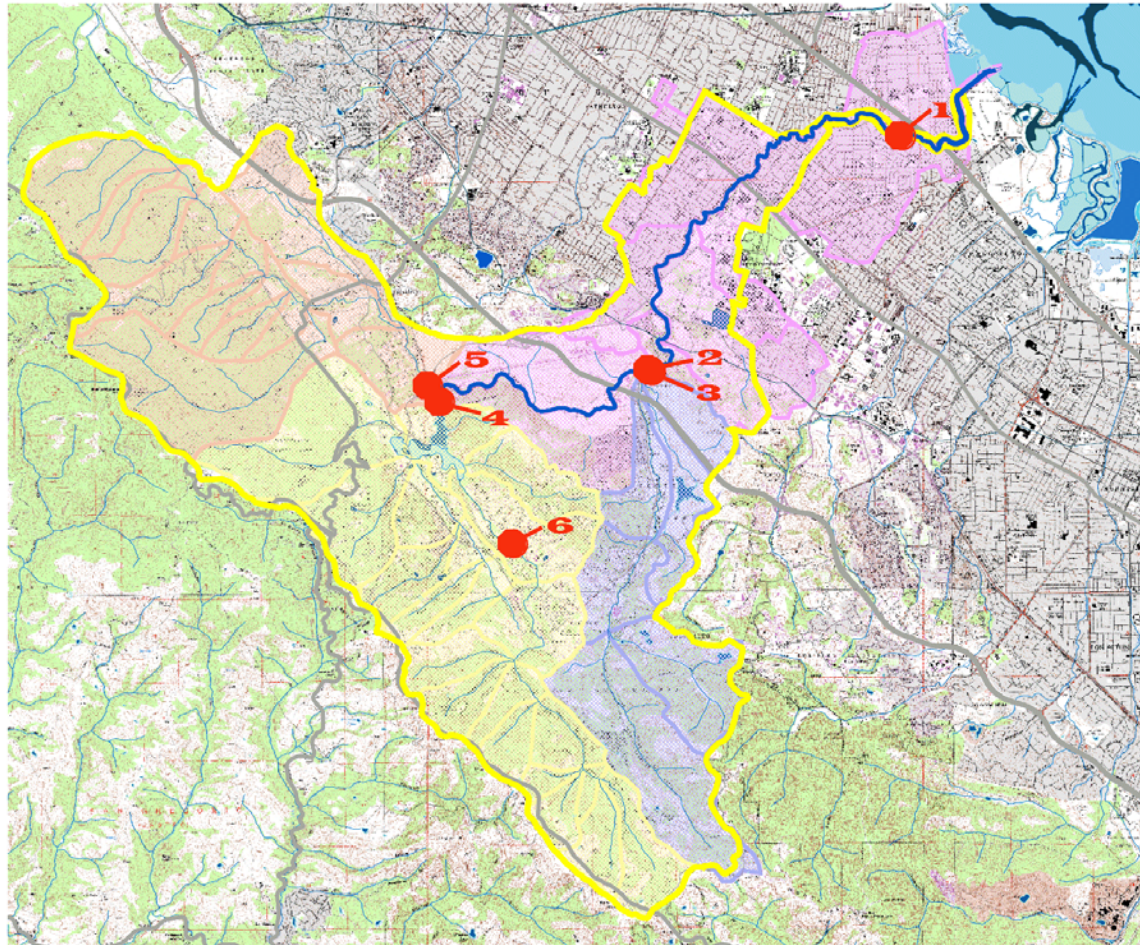


GEOGRAPHY

- Headwaters: Santa Cruz Mountains
- Mouth: South San Francisco Bay
- Watershed Area: 45 sq. mi.
- Land Use: Open Space to Rural to Urban

San Francisquito Creek Watershed

Long-term Monitoring Station Locations



Monitoring Stations

- ① SF Creek at Newell Rd
- ② SF Creek at Piers Ln
- ③ Los Trancos Creek at Piers Ln
- ④ SF Creek at Searsville Dam
- ⑤ Bear Creek at Sand Hill Rd
- ⑥ Corte Madera Creek at Westridge R

- Extreme Storm Event Delineation
- Bear Creek Watershed
- Corte Madera Watershed
- Los Trancos Watershed
- San Francisquito Watershed



BENEFICIAL USES

San Francisquito Creek

Agricultural Supply	*
Cold Freshwater Habitat	Existing
Fish Migration	Existing
Fish Spawning	Existing
Warm Freshwater Habitat	Existing
Wildlife Habitat	Existing
Water Contact Recreation	Potential*
Non-contact Water Recreation	Potential*

* Uses are existing elsewhere in watershed

THE LTMAP CONCEPT

- Provide a framework to facilitate and organize measurement and evaluation of watershed conditions
- Promote public awareness/education
- Communicate results to decision-makers

THE LTMAP PROCESS

- Identify the watershed issues and drivers
- Formulate key questions
 - What do we need to know?
- Develop objectives for the LTMAP
- Define the elements of the LTMAP
- Outline a management structure
- Pursue implementation

ISSUES AND DRIVERS

- Salmonid Habitat Restoration – historical spawning habitat for steelhead trout (listed as federally threatened species)
- Local Flooding – downstream reaches flooded in Feb. 1998
- CWA Section 303(d) Listings –
 - Diazinon (June 2003)
 - Sediment (June 2004)

ISSUES AND DRIVERS

- Basin Plan Requirements (beneficial use attainment)
- Bay Area Stream Protection Policy and Strategy (RWQCB; stream functions, impacts)
- NPDES Stormwater Permits (San Mateo, Santa Clara Counties – monitoring and reporting requirements)
- Endangered Species Act (NMFS designated SF Creek as critical habitat for steelhead trout)

ISSUES AND DRIVERS

- SF Creek CRMP * Steering Committee - top priority: “ongoing monitoring and survey of natural resources” (October 1998)
- * Since reformed as SF Creek Watershed Council

KEY QUESTIONS

- Covered full range from physical and chemical issues to impacts of human activities and social issues

LTMAP OBJECTIVES

- Physical
- Hydrological
- Chemical
- Biological
- Social

ELEMENTS OF LTMAP

- Organized by Objectives Categories
- Include:
 - Monitoring and Assessment Activities
 - Parameters
 - Spatial Extent
 - Temporal Extent
 - Preferred Frequency
 - Related Motives/Management Questions

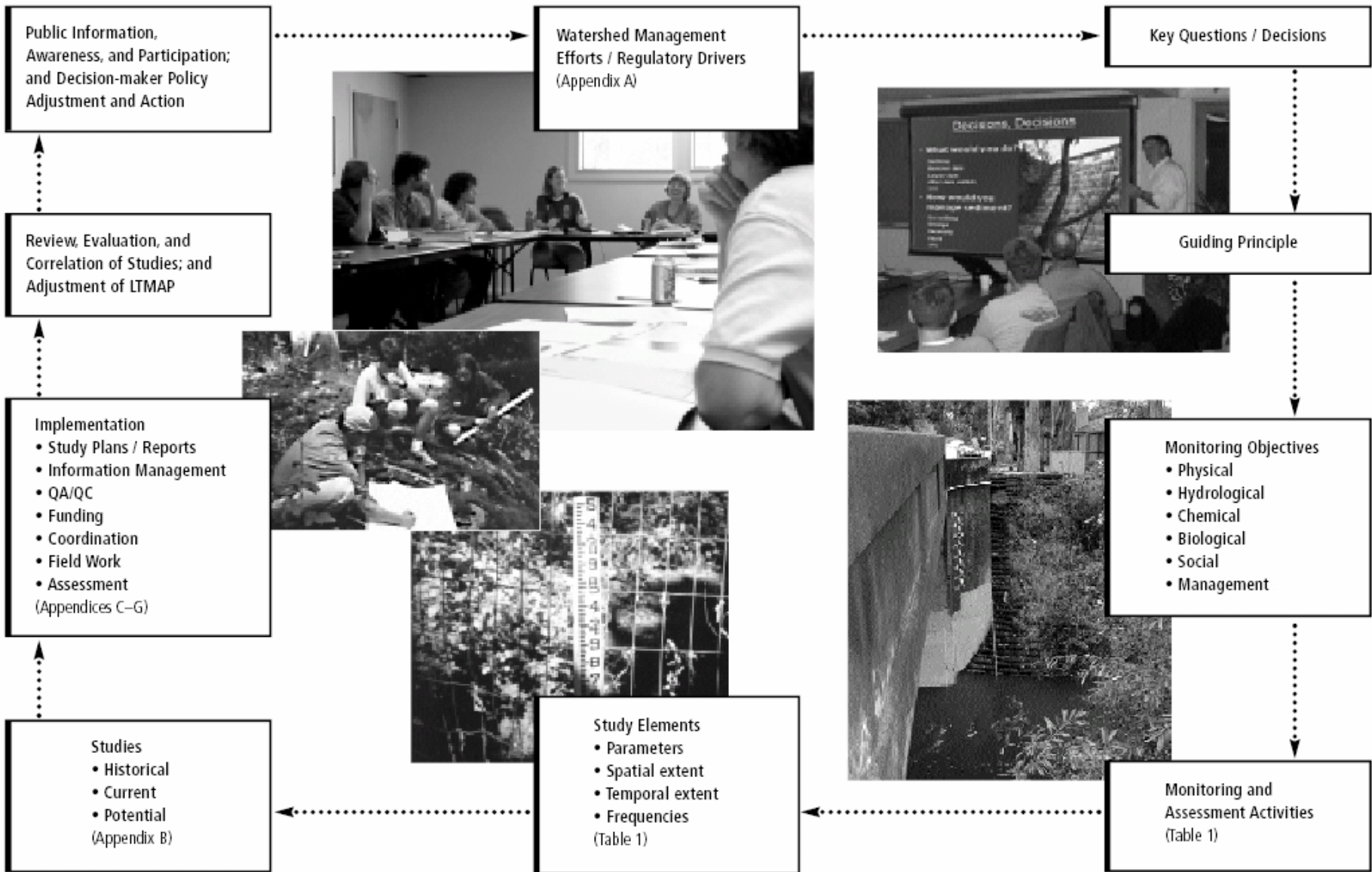
MANAGEMENT

- Watershed Council:
CRMP/Watershed Management Plan
- Joint Powers Authority (flood control)
- Santa Clara Valley Water District
- Reg. Water Board, DF&G
- City of Palo Alto, Counties, Stanford, USGS

ADAPTIVE MANAGEMENT

- PLANNING
- IMPLEMENTATION
 - MONITORING
 - ASSESSMENT
- PLAN REVISION
 - etc. ...

LTMAP – Adaptive Management Approach



Information Management Process

Responsible Groups

RESEARCHERS

- Review LTMAP
- Design studies
- Conduct studies
- Report results
- Review QA/QC data
- ID problems
- Integrate QA/QC
- Report results information into results and data management

TECHNICAL ADVISORY COMMITTEE (TAC)

SUBCOMMITTEES

- Within each monitoring discipline conduct 3rd party peer reviews of individual studies
- Report results

FULL COMMITTEE

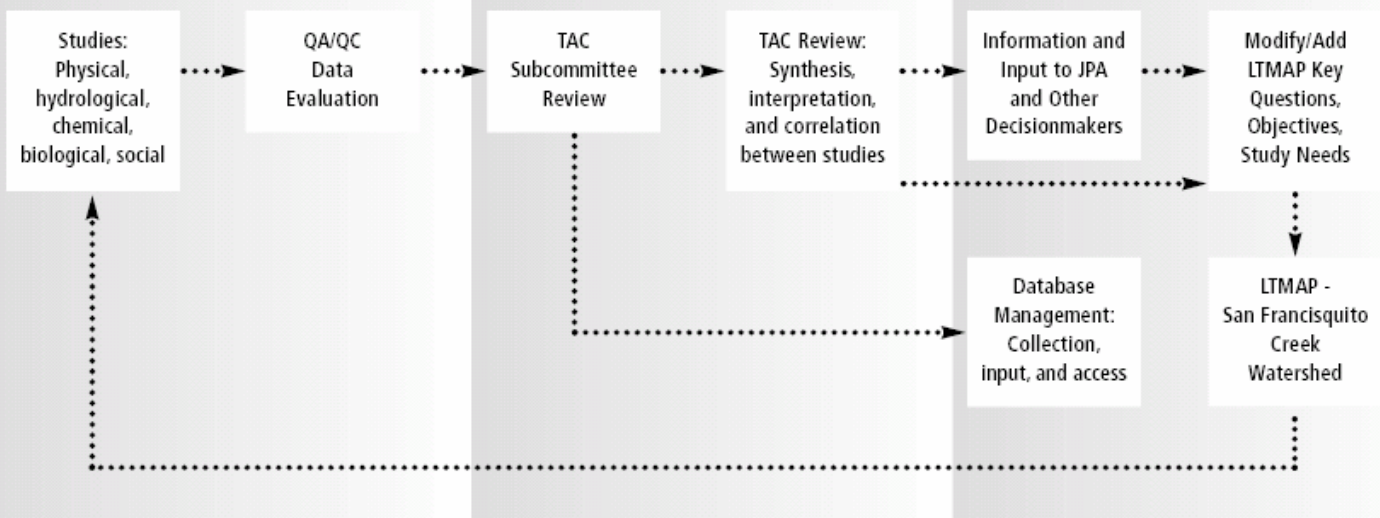
- Across studies in all disciplines:
- Draw correlations
 - Interpret results, as needed
 - Provide input to JPA
 - Make research recommendations

SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY & SAN FRANCISQUITO WATERSHED COUNCIL

- Understand information
- Consider input
- Make decisions
- Define/refine management questions
- Collect studies
- Characterize basic attributes
- Input results into database/GIS
- Make information available
- Integrate new data
- Review drivers
- Reevaluate info needs
- Revise LTMAP

Summaries of Responsibilities

Phases of Information Flow

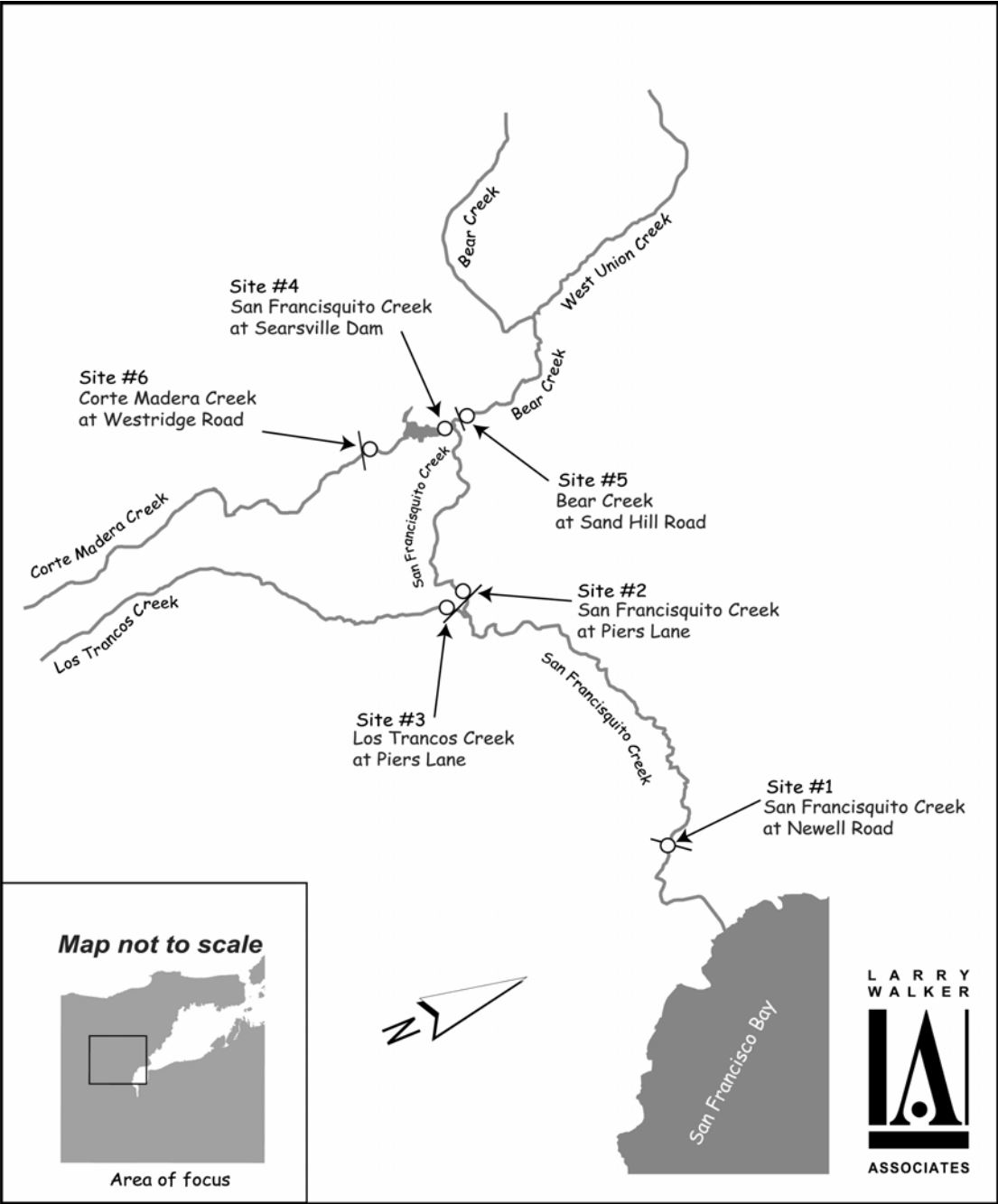


**Long-Term Monitoring and
Assessment Plan for the
San Francisquito Creek Watershed**



LTMAP CONTENTS

- Background/Setting
- Issues/Drivers
- Key Questions
- Goals/Objectives
- Historical/Ongoing/Future Studies
- Current Year Activities
- Priority Research Needs



Map not to scale



Area of focus



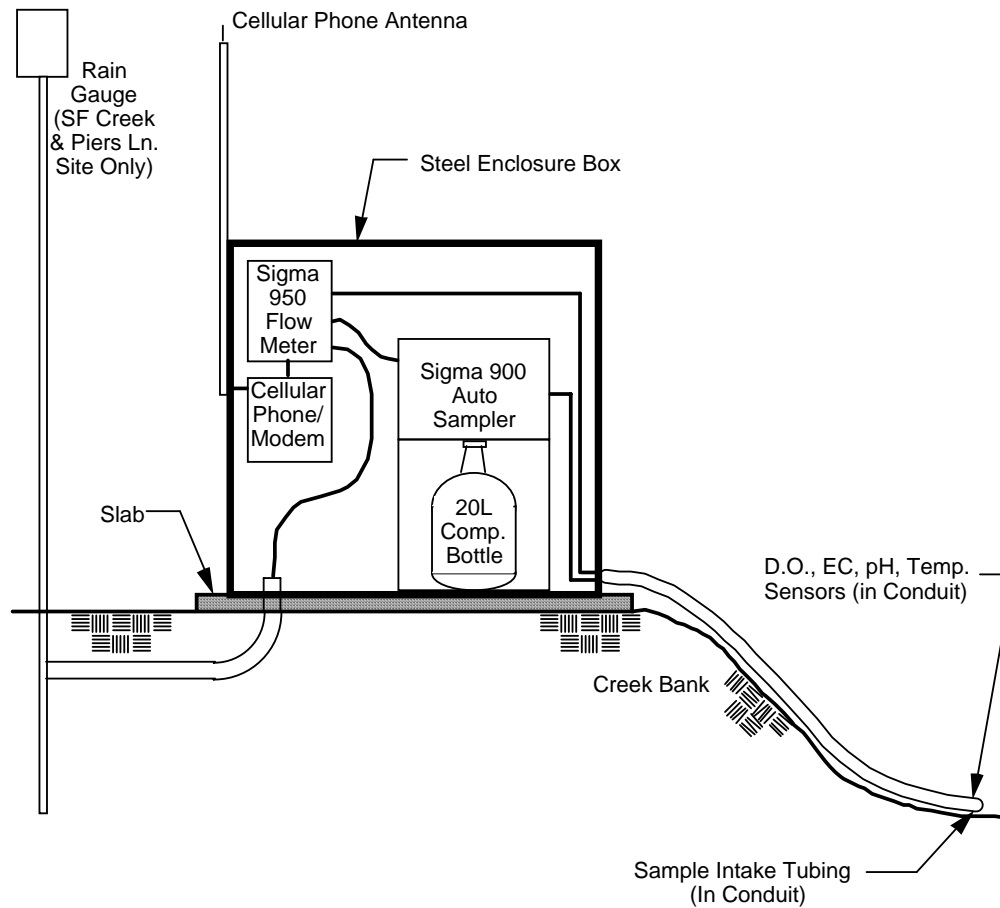


Figure 2. Automated Monitoring Equipment Schematic



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