Inventory of Santa Clara Basin Stream Studies

Updated Version 4.0

Prepared for the
Santa Clara Basin Watershed Management Initiative
Watershed Assessment Subgroup

Prepared By
EOA, Inc

Funded by:
Santa Clara Valley Urban Runoff Pollution Prevention Program

August 15, 2002

Table of Contents

List of Figures

Introduction

Summary
The *Inventory of Santa Clara Basin Stream Studies* describes thirty-four stream-related multi-stakeholder studies and projects that are recently started or in-progress in the Santa Clara Basin. Sixteen of these studies were newly added to the 2002 Stream Studies Inventory, the remaining projects were determined to be ongoing. Twenty-eight projects listed in the 2001 report were completed and therefore, not included in this years update. The information describing the completed studies were archived into the newly developed SCVURPPP metadata database. The Basin is shown in Figures 1 and 2. This inventory of stream studies was compiled as part of the Santa Clara Basin Watershed Management Initiative (SCBWMI). It is an information tool intended to promote inter-agency awareness of environmental investigations within riparian corridors, and to facilitate coordination of related data collection and management.

Background
Initiated in the summer of 1996, the SCBWMI provides a mechanism for all agencies, organizations, and interested individuals operating in this geographic region to develop a coordinated approach to managing surface water resources within the Basin. The SCBWMI is in the process of preparing a Watershed Assessment Report, and in the future will produce a comprehensive Watershed Management Plan for the Basin. The Management Plan will integrate the following issues: watershed protection and enhancement, habitat and water quality enhancement, water rights and water supply reliability, flood control, regulatory compliance, land use, and public awareness and involvement.

The Watershed Assessment Subgroup (WAS) is an entity within the SCBWMI with a mission to provide the SCBWMI with a solid scientific foundation for watershed planning. One of the WAS's tasks is to coordinate the SCBWMI's data collection and data management efforts with stream monitoring studies in the Basin. The Stream Studies Inventory is a result of this task.

Purpose

The WAS sponsored this inventory to provide information that will enable the agencies and organizations directing the stream studies, and the SCBWMI, to 1) adopt consistent data collection procedures, 2) adopt consistent data storage formats and 3) promote efficient data sharing. By communicating such procedures the Stream Studies Inventory may produce several benefits, including:

- Identification of opportunities for collaborating on data collection and database development.
- Standardization of data collection protocols that enable efficient data comparison.

Methods

The studies included in the Stream Studies Inventory were identified by WAS subgroup members and by phoning selected representatives of local agencies and organizations. This inventory is therefore a representative, but not necessarily comprehensive catalog of ongoing stream studies in the Basin.

Agency representatives were contacted initially to explain the purpose of the Stream Studies Inventory and to identify relevant projects and contacts within their agency. Project-contacts were sent electronically both a memo that described the purpose of the SCBWMI and Task 7.6 of the WAS Work Plan (March 2002), and a draft of the Stream Studies Inventory form. The memo requested documentation for information categories in this form.

Follow-up to the memo consisted of at least two phone calls to project-contacts and email correspondences as necessary to repeat requests for documentation, request additional information, and to answer questions. Profiles of individual stream studies were sent to respective project-contacts for verification of information content. Blank spaces next to information categories indicate that project-contacts did not provide this information, but should not be interpreted to mean that such information does not exist.

Updating the Inventory

The Stream Studies Inventory was intended to be a living document. As such, the original document (completed November 4, 1998) has been updated to reflect information current as of June 2002. Verification by project contact is noted at the end of each stream study profile. In addition, new projects identified by members of the SCBWMI were investigated using similar methods as stated above and included in the Inventory as time allowed. For those projects that were identified as being completed, information was entered into a database developed by the SCVURPPP for the purposes of archiving information relevant to Program activities. The database was developed to allow transfer and storage of pertinent watershed information included in both the SSI and the WMI Metadata database (MDDB). To facilitate the archival process of SSI information to the database in the future, field names were combined or eliminated to increase the overlap with field names used in the MDDB. For example, data in the SSI fields *goals* and *objectives* were combined into a single *purpose* field to be compatible with the information contained in the purpose field of the MDDB. The field names used in the current update are shown in the SSI template form. The project summaries carried over from the previous SSI were not changed to reflect the new fields.

Funding

The Santa Clara Valley Urban Runoff Pollution Prevention Program funded the preparation (Monitoring Task 18-05) and updating (Task SC20.71) of the Stream Studies Inventory. The inventory fulfills Task 7.6 of the WAS Work Plan, revised March 2002.

List of Acronyms

BMP	Best Management Practices
CCRS	Coyote Creek Riparian Station
CDFG	California Department of Fish and Game
City SJ	City of San Jose
CRMP	San Francisquito Creek Coordinated Resources Management Plan
EIR/S	Environmental Impact Report/Statement
EOA, Inc	Eisenberg, Olivieri and Associates, Incorporated
GCRCD	Guadalupe Coyote Resource Conservation District
GGNRA	Golden Gate National Recreation Area
GIS	Geographic Information System
GPS	Global Positioning System
IC/ID	Illicit Connections/Illegal Discharges
KLI	Kinetic Laboratories, Inc.
NHI	National Heritage Institute
NMFS	National Marine Fisheries Service
NOI	Notice Of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
PCCF	Peninsula Conservation Center Foundation
RWQCB	Regional Water Quality Control Board
SCBWMI	Santa Clara Basin Watershed Management Initiative
SCVURPPP	Santa Clara Valley Urban Runoff Pollution Prevention Program
SCVWD	Santa Clara Valley Water District
SFEI	San Francisco Estuary Institute
SJRA	San Jose Redevelopment Agency
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
URSGWC	URS Greiner Woodward Clyde
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WAS	Watershed Assessment Subgroup (of the SCBWMI)
WERF	Water Environment Research Foundation

Santa Clara Basin Stream Studies Information Template (updated)

Project Name: *Full project name and acronym if used*

Project description: *Primarily a research or a resource management project? Is the purpose to influence policy, or is it routine compliance with existing regulations and/or policies? Is the impetus for the project to respond to actions filed by representatives outside the organization?*

Keywords: *developed from list of possible keywords (see page 9)*

Lead Agencies/Organizations: *Entities managing the project*
Funding Sources: *Names of sources funding the project*
Contracted Parties: *Entities conducting the project, including Consultants*
Contact Information:
Name: Primary contact(s) for project management and follow-up information
Organization:
Phone:
Fax:
Email:

Purpose: *State Project goals and objectives*

Study Area Watersheds: *Watershed names and if known, 4-digit RWQCB subwatershed code*

Tributaries Sampled in Watershed: *Tributary names*

Sampling Location: *sampling site coordinates, or methods of selecting sample points, e.g., samples are taken every ## m upstream, at specified stream confluences, below stormdrain outfalls, etc., (if a subset of outfalls are sampled, provide outfall identification numbers).*

Sampling Frequency: *Time interval between sampling; are samples taken every hour, day, week, month, year, every major storm event (if so, define storm event), etc.*

Field Sampling Period: *Start and finish date, or indicate if ongoing.*

Sampling Protocols: *If using standard, published protocols, please include references. If not using standard protocols, please include description of methods.*

Detailed Data Description: *For example, pH, conductivity, number of species and individuals of species X, substrate type, public perception of project, etc.*

Data Format: *Specify whether hardcopy (tables, maps, etc.) or digital (spreadsheet, database, geographic information system, etc., including the name and version of the software used).*

Projected Study Completion Date: *Date after which data analysis and reporting will be completed.*

Product Title and Format: *Name and format of reports, maps or databases that were produced as the result of this project.*

Study Information Verified: *Indication of whether the study contact verified the Inventory information for the study, and verification date.*

Keywords

bioassessment/biomonitoring
biological communities
biological data
channel morphology/hydrogeomorphology
chemical data
citizen monitoring/volunteer monitoring
erosion
fisheries
flooding/flood control
groundwater
herbicides
hydrology
Illicit Connections/Illegal Discharges (IC/ID)
invasive/introduced species
land use
macroinvertebrates
mercury/methylmercury
metals
Notice of Intent (NOI) facilities
NPDES permit
pesticides
physical data
physical habitat
pollutant loads
pollutant reduction
pollution prevention
recreation
riparian
salmonids
sediment/sedimentation
special status species
storm drain outfalls
stormwater
streamflow
toxicity
urbanization
water chemistry
water quality
watershed assessment
Wetlands

Table 1. New Projects and Status of Projects

Page No.	Project Name	Project Added to SSI 2002	Project Status is Ongoing	Project Archived to Database
19	Santa Clara Weed Management Area	X		
21	Surface Water Quality Improvement Program (SWQIP)	X		
23	Comprehensive Groundwater Protection Evaluation of South San Francisco Bay Basin	X		
25	Los Gatos Creek at Gilgen Bank Protection	X		
26	Los Gatos Creek Erosion Repairs (Kirk-Page Turnout)	X		
27	Randol Creek Flood Risk Study	X		
28	Giant Reed Control		X	
30	SCVWD Instream Wetland Vegetation Regrowth Study		X	
32	Upper Penitencia Creek Flood Protection		X	
34	Berryessa Creek Flood Protection (Calaveras Blvd to Old Piedmont Road)		X	
36	Calera Creek Flood Protection (Berryessa Creek to I-680		X	
38	Coyote Creek Flood Protection at Rockspring (Tully Rd-Story Rd)		X	
40	Silver-Thompson Flood Protection (Lake Cunningham - Aborn Rd)		X	
42	Sediment Removal Projects		X	
44	Palo Alto Creek Flow Level Monitoring		X	
46	Water Quality and Streamflow Monitoring of the Bear Creek Watershed		X	
48	Jasper Ridge Water Quality Monitoring Program		X	
50	Reservoir Monitoring of Fish Tissue for Bioaccumulative Contaminants		X	
52	County Parks Community Stream Monitoring Program		X	
55	Lower Coyote Creek Fisheries Mitigation and Standish Dam	X		
57	Los Capitancillos Wetlands Mitigation	X		
58	Modification of Drop Structure in Stevens Creek	X		
59	Alamitos Drop Structure Monitoring	X		
60	Masson Dam Fish Ladder/ Screen		X	
61	Guadalupe River Flood Control and Restoration Project		X	
64	Guadalupe River Watershed Mercury TMDL	X		
65	San Francisquito Creek Aquatic Habitat Assessment and Limiting Factors Analysis	X		
67	San Francisquito Sediment Study		X	
70	Regional Stormwater Treatment Program	X		
73	The Surface Water Ambient Monitoring Program (SWAMP)	X		
75	Coyote Creek Stream Stewardship Plan	X		
77	Measurement of Sediment and Contaminant Loads from the Guadalupe River Watershed	X		
79	Ecology and Impacts of the Chinese Mitten Crab		X	
81	Steelhead Population and Habitat Monitoring in West Union Creek		X	

Page No.	Project Name	Project Added to SSI 2002	Project Status is Ongoing	Project Archived to Database
NA	San Francisquito Creek Bank Stabilization and Revegetation Master Plan			X
NA	Upper Guadalupe River Flood Protection			X
NA	Lower Guadalupe River Flood Protection			X
NA	Calabazas Creek Flood Protection			X
NA	Adobe Creek Flood Protection			X
NA	Comprehensive Flood Management Project			X
NA	Sampling and Analysis of Water from San Francisquito Creek Watershed			X
NA	San Francisquito Creek Upper Watershed Volunteer Monitoring Project			X
NA	Adult Steelhead Passage in the Bear Creek Watershed			X
NA	First Flush Monitoring Project			X
NA	Stormwater Monitoring to Support ICID and IND Inspection Programs			X
NA	San Jose Industrial Stormwater Monitoring Pilot Program			X
NA	Sunnyvale Industrial Stormwater Monitoring Pilot Program			X
NA	Palo Alto Stream Monitoring			X
NA	Fisheries and Aquatic Habitat Collaborative Effort (FAHCE)			X
NA	Environmental Enhancement Projects-Streamflow Augmentation			X
NA	Joint Stormwater Agency Project to Study Urban Sources of Mercury and PCBs			X
NA	Stormwater Environmental Indicators Demonstration Project (SEIDP)			X
NA	Storm Drain Mapping Project			X
NA	Stream Maintenance ER/EIR			X
NA	Lower Silver Creek Watershed Project			X
NA	Guadalupe River Flood Management Collaborative (GRFMC)			X
NA	Factors Affecting the Distribution of Lotic Macroinvertebrates in an Urban Setting			X
NA	Assessment of Water Quality in Urban and Rural Stormwater Runoff			X
NA	Genetic Relationships Among Steelhead & Rainbow Trout Populations (Phase I)			X
NA	Genetic Relationships Among Steelhead & Rainbow Trout Populations Bay (Phase II)			X
NA	1998 RMP Estuary Interface Pilot Study, Phase II			X
NA	Biotic Resources (Fishes, Amphibians, etc) of the San Francisquito and Matadero Creek Watersheds: Report on the 1997-1999 Activities			X

Table 2. Summary of Projects by Watershed

Page Number	Project Name	Keywords	Major Watersheds in the Santa Clara Basin											
			Lower Penitencia	Coyote	Guadalupe	San Thomas Aquino	Calabazas	Sunnyvale East	Sunnyvale West	Stevens	Permanente	Matadero Barron	Adobe	San Francisquito
19	Santa Clara Weed Management Area	Invasive/introduced species, restoration	X	X	X	X	X	X	X	X	X	X	X	X
21	Surface Water Quality Improvement Program (SWQIP)	Water quality, pollutant loads, pollutant reduction, watershed assessment	X	X	X	X	X	X	X	X	X	X	X	X
23	Comprehensive Groundwater Protection Evaluation of South San Francisco Bay Basin	Groundwater, water quality, hydrogeology	X	X	X	X	X	X	X	X	X	X	X	X
25	Los Gatos Creek at Gilgen Bank Protection	Erosion, streamflow, geomorphology, soil			X									
26	Los Gatos Creek Erosion Repairs (Kirk-Page Turnout)	Erosion, streamflow, geomorphology, soil			X									
27	Randol Creek Flood Risk Study	Streamflow, flood protection			X									
28	Giant Reed Control Program	Flood control, invasive/introduced species	X	X	X	X	X	X	X	X	X	X	X	X
30	Instream Regrowth Study	Wetlands	X	X	X	X				X				X
32	Upper Penitencia Creek Flood Protection	flooding/flood control, hydrology, sediment		X										
34	Berryessa Creek Flood Protection - (Calaveras Blvd to Old Piedmont Road)	Biological data, chemical data, flooding/flood control, hydrology, physical data, sediment	X											
36	Calera Creek Flood Protection (Berryessa Creek to I-680	Biological data, chemical data, flooding/flood control, hydrology, physical data, sediment	X											

Page Number	Project Name	Keywords	Major Watersheds in the Santa Clara Basin											
			Lower Penitencia	Coyote	Guadalupe	San Thomas Aquino	Calabazas	Sunnyvale East	Sunnyvale West	Stevens	Permanente	Matadero Barron	Adobe	San Francisquito
38	Coyote Creek Flood Protection at Rockspring (Tully Rd- Story Rd)	Biological data, chemical data, flooding/flood control, hydrology, physical data, sediment		X										
40	Silver-Thompson Flood Protection (Lake Cunningham - Aborn Rd)	Biological data, chemical data, flooding/flood control, hydrology, physical data, sediment		X										
42	Sediment Removal Projects	flood control, metals, pesticides, sediment, storm drain outfalls, toxicity, water quality.	X	X	X	X	X	X	X	X	X	X	X	X
44	Palo Alto Creeks Flow Level Monitoring	Water level, water temperature, rainfall rate										X	X	X
46	Water Quality and Streamflow Monitoring of the Bear Creek Watershed	fisheries, hydrology, metals, pesticides, salmonids, special status species, stream flow, water chemistry, water quality.												X
48	Jasper Ridge Biological Preserve (JRBP) Water Quality Monitoring Program	water quality, water chemistry												X
50	Reservoir Monitoring of Fish Tissue for Bioaccumulative Contaminants	Fisheries, chemical data, mercury/methylmercury		X						X				

Page Number	Project Name	Keywords	Major Watersheds in the Santa Clara Basin											
			Lower Penitencia	Coyote	Guadalupe	San Thomas Aquino	Calabazas	Sunnyvale East	Sunnyvale West	Stevens	Permanente	Matadero Barron	Adobe	San Francisquito
52	County Parks Community Stream Monitoring Program	Bioassessment/biomonitoring, biological data, hydrogeomorphology, chemical data, volunteer monitoring, erosion, invasive species, land use, macroinvertebrate, physical habitat, recreation, riparian	X	X	X									
55	Lower Coyote Creek Fisheries Mitigation and Standish Dam	Vegetation, groundwater, fisheries, water quality		X										
57	Los Capitancillos Wetlands Mitigation	Wetland, groundwater, vegetation			X									
58	Modification of Drop Structure in Stevens Creek	Salmonids,sedimentation, streamflow, physical barrier								X				
59	Alamitos Drop Structure Monitoring	Salmonids,sedimentation, streamflow, physical barrier			X									
60	Masson Dam Fish Ladder/Screen	Salmonids, sedimentation, streamflow, physical barrier			X									
61	Guadalupe River Flood Control and Restoration Project	biological communities, mercury, NOI, NPDES, riparian, salmonids, sediment, erosion, flood control, recreation			X									
64	Guadalupe River Watershed Mercury TMDL	Mercury, sediment, hydrogeomorphology			X									
68	San Francisquito Creek Aquatic Habitat Assessment and Limiting Factors Analysis	salmonid, riparian, physical habitat, sediment/sedimentation, special status species, biological data.												X

Page Number	Project Name	Keywords	Major Watersheds in the Santa Clara Basin											
			Lower Penitencia	Coyote	Guadalupe	San Thomas Aquino	Calabazas	Sunnyvale East	Sunnyvale West	Stevens	Permanente	Matadero Barron	Adobe	San Francisquito
67	San Francisquito Sediment Study	Sediment, assessment, rapid sediment budget analysis												X
70	Regional Stormwater Treatment Program	Channel morphology, erosion, hydrology, storm drain outfalls, land use	X	X	X	X	X	X	X	X	X	X	X	X
73	The Surface Water Ambient Monitoring Program (SWAMP)	Bioassessment, metals, pesticides, water chemistry, sediment, toxicity, nutrients, pathogens, bioaccumulation, macroinvertebrates								X	X			
75	Coyote Creek Stream Stewardship Plan	Watershed assessment, watershed management, restoration		X										
77	Measurement of Sediment and Contaminant Loads from the Guadalupe River Watershed	Pollutant loads, mercury, pesticides, sediment			X									
79	Ecology and impacts of the Chinese mitten crab (Eriocheir sinensis) in San Francisco Bay	bioassessment/biomonitoring, biological data, hydrogeomorphology. erosion, invasive/introduced species, physical habitat, sedimentation, macroinvertebrates		X	X	X	X			X	X			
81	Steelhead Population & Habitat Monitoring in West Union Creek	Bioassessment/biomonitoring, biological communities, biological data, macroinvertebrates, fisheries, physical data, salmonids, special status species.												X

Figure 1: **Santa Clara Basin: Counties and Municipalities Within**

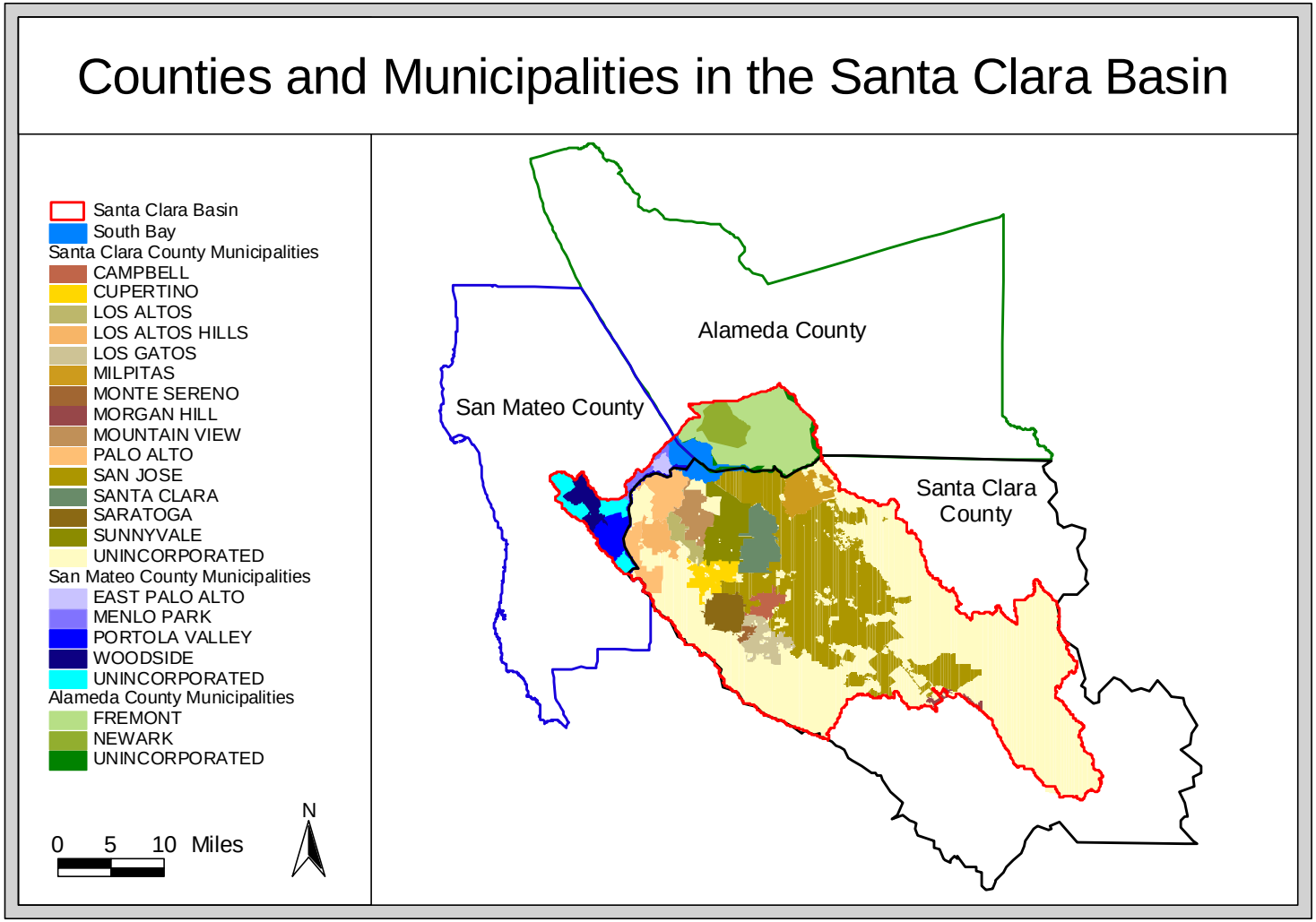
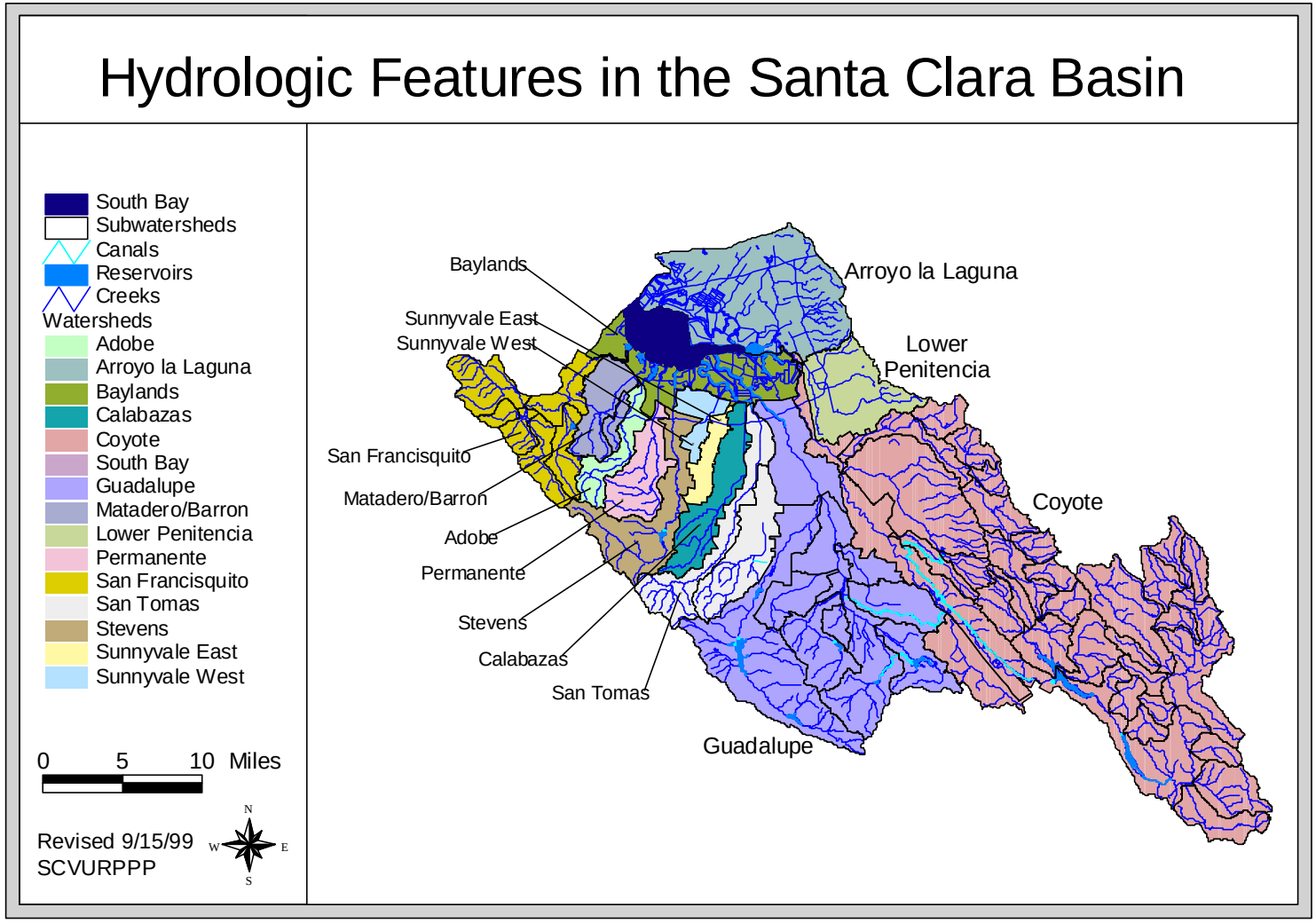


Figure 2: Hydrologic Features in the Santa Clara Basin



Section 1: Resource Management Projects

Santa Clara Weed Management Area

Project description: To develop a 'weed management area', which is a local organization that brings together all interested landowners, land managers (private, city, county, state, and federal), special districts, and the public in a county or other geographical area for the purpose of coordinating and combining their actions and expertise to deal with their common weed control problems. The organization shall function under the authority of a mutually developed memorandum of understanding (MOU) and subject to statutory and regulatory requirements.

Keywords: Invasive/introduced species, restoration

Lead Agencies/Organizations: Santa Clara County Agriculture Department
Funding Sources: None identified
Contracted Parties: United States Department of Agriculture-Natural Resources Conservation Service, California Department of Food and Agriculture, California State Parks, Midpeninsula Regional Open Space District, Santa Clara County, Santa Clara Valley Water District, San Francisco Public Utilities Commission, Guadalupe-Coyote Resource Conservation District, Loma Prieta Resource Conservation District, City of Gilroy, Santa Clara County Cattlemen's Association, Santa Clara County Farm Bureau, University of California Cooperative Extension Service, Blue Oak Ranch, The Nature Conservancy, and the California Native Plant Society.

Contact Information:

Name: Eric Wylde
Organization: Santa Clara County Agriculture Department
Phone: 408-779-0681
Email: Eric_wylde@mail.era.co.county.santa-clara

Purpose: The purpose of this MOU is to establish a weed management area and define the terms and conditions under which the Santa Clara County Weed Management Area will cooperate and coordinate activities necessary to prevent the introduction, establishment and spread of noxious weeds in Santa Clara County. These activities shall focus upon the exclusion, detection, eradication and suppression of designated noxious weeds and invasive exotic plants using an integrated approach.

Integrated weed management is a system used to plan and recommend selected methods of management to prevent, contain or control undesirable plant species or group of species using all available strategies and techniques. Together these strategies and techniques are economically and environmentally more effective than any single option. The elements of integrated management include:

- Education and Awareness
- Prevention and Early Detection
- Inventory
- Control (physical/mechanical, biological, chemical, cultural)
- Monitoring and Evaluation

A number of noxious weeds and invasive exotic plants are found in Santa Clara County. An integrated strategy to manage these populations could minimize their negative effects and prevent future infestations of undesirable plant species.

Study Area Watersheds: All watersheds in Santa Clara County

Tributaries Sampled in Watershed: None identified

Sampling Location: Varies by agency and project.

Sampling Frequency: Varies by agency and project.

Field Sampling Period: Varies by agency and project.

Sampling Protocols: Varies by agency and project.

Detailed Data Description: Varies by project.

Data Format: Varies by project.

Projected Study Completion Date: Ongoing

Product Title and Format: None identified.

Study Information Verified: Internet web site, July 12, 2002 (http://www.cdfa.ca.gov/phpps/ipc/weedmgtareas/SantaClara/MOUrecent.htm)

Surface Water Quality Improvement Program (SWQIP)

Project Description: The Surface Water Quality Monitoring Program will address pollutants of concern in order to:

- reestablish a healthy and diverse ecosystem within the District Watershed;
- protect the downstream resource of San Francisco Bay; and
- provide a safe and healthy water resource.

This will be accomplished through developing a comprehensive understanding of the pollutant contamination in District watersheds, determining data gaps and information needs, implementation and integration of technical and management initiatives within the District and with outside agencies and organizations, leading to efficient and effective watershed-based solutions. The purpose of the Monitoring Program is the following:

1. Characterizing the health of District surface water bodies (creeks and rivers, wetlands, lakes, and estuaries),
2. Identification of control measures and management alternatives,
3. Integration of projects (complement, coordinate, and collaborate); and
4. Monitoring of changing conditions (status and trends).

Keywords: water quality, pollutant loads, pollutant reduction, watershed assessment

Lead Agencies/Organizations: Santa Clara Valley Water District
Funding Sources: Clean,Safe,Creeks and Natural Flood Protection
Contracted Parties: TBD
Contact Information:

Name: Laura Young
Organization: Santa Clara Valley Water District
Phone: (408)265-2607 x2461
Fax: (408)266-6251
Email: lyoung@valleywater.org

Purpose: The Surface Water Quality Improvement Program provides monitoring and identifies projects that will protect watershed and streams through minimizing or eliminating the impacts of pollutants to human health, fish and wildlife, and the environment. The goal of this program is to 1) develop an understanding of contaminant pollution in District watersheds; 2) coordinate and collaborate with other agencies, stakeholder groups and partnerships; 3) design and implement monitoring and assessment projects to assess the status and trends of target pollutants; and 4) identify potential management measures aimed at protecting our creeks by reducing pollutants.

The objectives of the surface water quality monitoring program is to characterize surface water quality and sediment through the development and implementation of monitoring and assessment projects that:

- measure the “health” of the creek,
- describe pollutant and ecosystem status and trends,
- identify existing and emerging water quality problems,
- support surface water quality management and regulatory programs,

- evaluate performance measures and track changes in water quality, and
- measure surface water quality and habitat changes.

These goals and objectives will support the Regional Board by increasing the water quality data and information on District surface waterbodies, identifying and assessing sources of pollutants causing impairment, and determining management actions and source control measures to restore impairments.

Study Area Watersheds: All District watersheds

Tributaries Sampled in Watershed: TBD

Sampling Location: TBD

Sampling Frequency: TBD

Field Sampling Period: TBD

Sampling Protocols: TBD

Detailed Data Description: TBD

Data Format: TBD

Projected Study Completion Date: TBD

Product Title: TBD

Study Information Verified: Laura Young, SCVWD, June 2002

Comprehensive Groundwater Protection Evaluation of South San Francisco Bay Basin

Project description: A comprehensive overview of existing groundwater protection programs in the San Francisco Bay Area

Keywords: Groundwater, water quality, hydrogeology

Lead Agencies/Organizations: San Francisco Bay Regional Water Quality Control Board (SFRWQCB)
Funding Sources: None identified
Contracted Parties: Alameda County Water District, Santa Clara Valley Water District, and San Mateo County Environmental Health Services Division
Contact Information:

Name: Alec Naugel
Organization: RWQCB
Phone: 510-622-2510
Email: awn@rb2.swrcb.ca.gov

Purpose: The purposes of the project are to (1) describe and review the effectiveness of groundwater protection programs and recommend areas for improvement; (2) identify issues of concern that have not been adequately addressed; and (3) describe ongoing protection efforts and offer recommendations to address issues of concern.

The methods used for this project were first, to compile existing information on groundwater protection programs (with a focus on state and local agencies) and summarize the hydrogeology, water use, and water quality in each of the basins. This step included development of geographic information system (GIS) data layers showing the location of public water supply wells and groundwater pollution sites (e.g., leaking underground fuel tanks, solvent plumes, and landfills). Second, the Groundwater Committee identified a set of focus areas based on the experience of its members and concerns expressed at stakeholder meetings. The focus areas cover the following:

- Identification and sealing of vertical conduits
- Leaking sanitary sewer lines
- Pilot electronic reporting for chlorinated volatile organic compound plumes
- Coordination with the Department of Health Services (DHS) Drinking Water Source Assessment and Protection Program
- Surface water and groundwater interactions
- South Bay cities' General Plan review

Finally, the Groundwater Committee analyzed the information collected and developed recommendations to improve groundwater protection programs and identify issues of concern that have not been adequately addressed.

Study Area Watersheds: All major watersheds in the Santa Clara Basin (Santa Clara Valley groundwater basin). In addition, Alameda Creek (Niles Cone groundwater basin) and South Bay draining watershed in San Mateo County (San Mateo Plain ground water basin)

Tributaries Sampled in Watershed: None identified

Sampling Location: Study compiled existing data; specific locations not identified.

Sampling Frequency: Study compiled existing data; variety of sampling methods used.

Field Sampling Period: Study compiled existing data; variety of sampling methods used.

Sampling Protocols: Study compiled existing data; variety of sampling methods used.

Detailed Data Description: Variety of data types compiled and reported.

Data Format: Various formats of data were collected.

Projected Study Completion Date: Final report will be completed September 2002

Product Title and Format: A Comprehensive Groundwater Protection Evaluation for South San Francisco Bay Basins Draft Report; electronic document (word), download from website: http://www.swrcb.ca.gov/rwqcb2/sobayground.htm

Date Verified: Alec Naugel, SF-RWQCB, personal communication, June 28, 2002

Los Gatos Creek at Gilgen Bank Protection

Project Description: Maintain stream bank structural integrity and reduce erosion damage to adjacent properties.

Keywords: Erosion, streamflow, geomorphology, soil

Lead Agencies/Organizations: SCVWD
Funding Sources: Property taxes and benefit assessments
Contracted Parties: Not available at this time
Contact Information:

Name: Ngoc Nguyen
Organization: SCVWD
Phone: 408-265-2607 x2632
Email: ngocnguy@scvwd.dst.ca.us

Purpose: To maintain stream bank structural integrity along Los Gatos Creek between Glenbrook Avenue and Camino Ramon Drive and reduce sediment load downstream. Project will repair approximately 250 feet of eroded gabion bank on the west side of Los Gatos Creek between Creek between Glenbrook Avenue and Camino Ramon Drive.

Study Area Watersheds: Guadalupe

Tributaries Sampled in Watershed: Los Gatos Creek

Sampling Location: Geotechnical data will be collected from May – July, 2002.

Sampling Frequency: NA

Field Sampling Period: NA

Sampling Protocols: Standard engineering land survey, geotechnical investigation

Detailed Data Description: Ground elevation, surface water elevation, stream flow rate, channel cross sections, soil engineering properties (i.e., density, soil type, etc.)

Data Format: Topographic map, soil engineering data

Projected Study Completion Date: Construction should be completed in December 2003.

Product Title and Format: None

Study Information Verified: Ngoc Nguyen, SCVWD, personal communication, 2002

Los Gatos Creek Erosion Repairs (Kirk-Page Turnout)

Project Description: To maintain stream bank structural integrity.

Keywords: Erosion, streamflow, geomorphology, soil

Lead Agencies/Organizations: SCVWD
Funding Sources: Property taxes and benefit assessments
Contracted Parties: Powers Construction

Contact Information:
Name: Ngoc Nguyen
Organization: SCVWD
Phone: 408-265-2607 x2632
Email: ngocnguy@scvwd.dst.ca.us

Purpose: To maintain bank and pipeline structural integrity and reduce sediment load downstream along Los Gatos Creek near Page-Kirk Turnout. Project includes fixing bank erosion along Los Gatos Creek near Page-Kirk Turnout, repairing damaged concrete on the Kirk-Page Turnout structure, and providing earth cover for Central Pipeline at the project site.

Study Area Watersheds: Guadalupe

Tributaries Sampled in Watershed: Los Gatos Creek

Sampling Location: NA
Sampling Frequency: NA
Field Sampling Period: NA

Sampling Protocols: Standard engineering land survey

Projected Study Completion Date: Construction was completed in February 2002.

General Data Types Collected: Topographic data, hydraulic data, geotechnical data

Detailed Data Description: Topographic surveying, water surface elevation, stream flow rate, channel cross sections, soil type, soil density, and other structural information

Data Format: Geotechnical soil boring logs, topographic maps

Product Title and Format: None

Study Information Verified: Ngoc Nguyen, SCVWD, personal communication, 2002

Randol Creek Flood Risk Study

Project Description: Evaluate existing flood conveyance capacity

Keywords: Flood control, streamflow

Lead Agencies/Organizations: SCVWD
Funding Sources: Property taxes and benefit assessments.
Contracted Parties: NA
Contact Information:

Name: Ngoc Nguyen
Organization: SCVWD
Phone: 408-265-2607 x2632
Email: ngocnguy@scvwd.dst.ca.us

Purpose: To evaluate the existing level of flood protection along Randol Creek.

Study Area Watersheds: Guadalupe

Tributaries Sampled in Watershed: Randol Creek

Sampling Location: NA

Sampling Frequency: NA

Field Sampling Period: NA

Sampling Protocols: standard engineering land survey

Detailed Data Description: ground surface elevation, water surface elevation, streamflow rate.

Data Format: Topographic map, channel cross sections

Projected Study Completion Date: June 30, 2002

Product Title and Format: None

Study Information Verified: Ngoc Nguyen, SCVWD, personal communication, 2002

Giant Reed Control Project

(Formerly named Program for Control of Invasive Species)

Overall Purpose: Resource Management – Part of the SCVWD Stream Maintenance Program

Lead Agencies/Organizations: SCVWD
Funding Source: SCVWD
Contracted Party(s): none
Contact Information:
Name: Rick Austin
Organization: SCVWD
Phone: 408-265-2607 x 2573
Fax:
Email: rickaust@scvwd.dst.ca.us

Keywords: biological data, flood control, invasive/introduced species.

Relevance to SCBWMI: Coordinated effort for resource management of invasive species.

Goals: Initiate coordinated research and control efforts for invasive exotics (*Arundo donax*) in Santa Clara County.

Objectives: (1) Continue to remove invasive exotics (e.g. Giant Cane, *Arundo donax*) for flood control purposes; (2) Participate in the Santa Clara County Weed Management Area to coordinate efforts in mapping, data gathering, control and restoration; (3) Develop an EIR for SCVWD maintenance programs using control of exotics as a viable method of habitat enhancement in conjunction with other mitigation requirements. Implementation of this program will require approval of appropriate regulatory agencies.

Study Watersheds and Codes (RWQCB: Santa Clara County

Tributaries Sampled in Watersheds: to be determined.

Sampling Location: to be determined.

Sampling Frequency: to be determined.

Field Sampling Period: Project is part of the mitigation and monitoring program to be included in an EIR. Once the EIR is certified, the project will be launched.

Projected Study Completion Date: 2011.

General Data Types Collected: biological

Detailed Data Description: Mapping effort: currently, generic location information on major infestations exists from data gathered by NRCS, SCVWD and the San Francisquito Creek CRMP. This will eventually be incorporated into a GIS. Test plots will be developed utilizing different chemical control methods and varying the timing of herbicide application in order to determine the effectiveness of different control methods (e.g. for *Arundo*). Project will consist of developing detailed information on target populations of invasive plants species, prioritization of eradication efforts, and specific strategies for programmatic eradication of the exotic species and conversion to native plant habitat.

Sampling Protocols: to be developed. Most likely based on 1999 Team Arundo del Norte sampling protocols.

Data Format: to be determined.

Stakeholders Common to SCBWMI: SCVWD, NRCS, Santa Clara County Weed Management Area (see Appendix A)

Study Information Verified: Rick Austin, SCVWD, personal communication, April 2002

SCVWD Instream Wetland Vegetation Regrowth Study

Overall Purpose: The project was initiated by the District, and subsequently required by regulatory permit condition, to aid in evaluation of wetland impacts and mitigation for stream maintenance projects.

Lead Agencies/Organizations: SCVWD
Funding Sources: SCVWD
Contracted Parties: SCVWD-Ecological Services Unit
Contact Information:

Name: Gale Rankin
Organization: SCVWD
Phone: 408-265-2600
Fax: 408-266-0271
Email: galer@scvwd.dst.ca.us

Keywords: wetlands

Relevance to SCBWMI:

Goals: The purpose is to better define impacts to in-stream tidal and nontidal wetland resulting from the District's sediment removal projects in flood control channels by increasing our understanding of the process of vegetation re-establishment after excavation.

Objectives: To determine the rate, extent, and vegetation characteristics of wetland vegetation re-establishment after sediment removal.

Study Area Watersheds: Coyote Creek, Guadalupe River, San Tomas Aquino/Saratoga Creeks, San Francisquito, Stevens Creek, Lower Penitentcia Creek, and Pajaro Basin Wetlands.

Tributaries Sampled in Watershed: Multiple streams in both the San Francisco Bay and Pajaro River Basins.

Sampling Location: Sample sites included 1997 and 1998 stream maintenance project excavation sites, adjacent reference sites, and randomly selected reference sites on multiple creeks. Sites range from 80 to 5000 feet in length.

Sampling Frequency:.Once annually.

Field Sampling Period: Late summer and fall, 1997 to 2001.

Projected Study Completion Date: July 1, 2002

General Data Types Collected:. Biological

Detailed Data Description:. Wetland vegetation extent, dominance type, and species composition.

Sampling Protocols: Wetlands are identified based on criteria set forth in Corps of Engineers 1997 Wetland Delineation Manual (Environmental Laboratory 1987). Vegetation characteristics are described by a standard approach developed for this project. Wetland extent is determined by 1) field measurements 2) delineation of boundaries, as determined in the field onto recent aerial photographs (scale 1'=50') or 3) a combination of 1 and 2. Mapped polygon areas are generally measured with GIS.

Data Format: Various data are in hard copy, spreadsheet, database and GIS formats.

Stakeholders Common to SCBWMI:

Study Information Verified 05/31/2001

Upper Penitencia Creek Flood Protection

Overall Purpose: Resource Management for Flood Protection

Lead Agencies/Organizations: Partnership between USACE and SCVWD.
Funding Sources: 50% USACE , 50% Local (Benefit Assessments/Property Taxes)
Contracted Parties: USACE, SCVWD, USFWS, additional parties to be determined.
Contact Information:

Name: George Fowler
Organization: SCVWD
Phone: 408-265-2607 x 2748
Fax: 408-268-7687
Email: GFowler@valleywater.org

Keywords: biological data, chemical data, flooding/flood control, hydrology, physical data, sediment.

Relevance to SCBWMI: Because this flood control project is in its initial assessment phase, it could set a precedent for A) how the SCBWMI may interface with such projects, and B) how SCVWD's recent policy amendment to "manage riparian corridors to facilitate movement from mitigation toward enhancement or restoration" may be implemented.

Goals: Reduce damages by existing and expected future flooding in the Upper Penitencia Creek watershed.

Objectives: Conduct a Feasibility Study to provide information required to develop alternative implementable remedies to reduce flood damages.
Sediment Study 12/98: Field reconnaissance to evaluate geomorphic character; Estimate sediment yield, load, and transport capacity; Assess channel stability and upstream and downstream effects of the project; Bridge scour analysis.
Hydrologic Study 12/98: Estimate flow versus frequency curve using USGS stream gauge data, for existing and future hydrologic conditions. Generate flood hydrographs. SCVWD will obtain new data in coordination with USACE and other agencies.
At later dates:
Hydraulic Design and Risk-based Studies - USACE
Social Environment Study - SCVWD
Hazardous Materials Study - SCVWD
Environmental Impact Statement and Report - SCVWD
Fish and Wildlife Studies - USFWS
Economic Studies - SCVWD
Surveying and Mapping - SCVWD

Study Watersheds and Codes (RWQCB): Coyote (Upper Penitencia 5506)

Tributaries Sampled in Watersheds: Upper Penitencia

Sampling Location: Upper Penitencia from Coyote Creek confluence to Dorel Drive

Sampling Frequency: Not Applicable.

Field Sampling Period: 1998 - 2002

Projected Completion Date: Feasibility study in progress.

General Data Types Collected: Physical, chemical, biological, social

Detailed Data Description: Geology, sediment (basin yield, load, and transport capacity), hydrologic (flow/frequency & flood hydrographs), hydraulic (water surface profiles, floodplains & bridge scour), topographic (aerial photos & contour maps), economic (costs/benefits) and real estate (land & structural values).

Sampling Protocols: Not Applicable.

Data Format: Intergraph, AutoCAD, HEC-RAS (HEC-2), HEC-HMS (HEC-1), HEC-FFA

Stakeholders Common to SCBWMI: SCVWD, USFWS, USEPA

Study Information Verified: George Fowler, SCVWD, personal communication, June 2002

Berryessa Creek Flood Protection (Calaveras Blvd to Old Piedmont Road)

Overall Purpose: Resource Management for Flood Protection

Lead Agencies/Organizations: Partnership between USACE and SCVWD.
Funding Sources: 50% USACE , 50% Local (Measure B funds)
Contracted Parties: USACE, SCVWD, USFWS, additional parties to be determined.
Contact Information:

Name: George Fowler
Organization: SCVWD
Phone: 408-265-2607 x 2748
Fax: 408-268-7687
Email: GFowler@valleywater.org

Keywords: biological data, chemical data, flooding/flood control, hydrology, physical data, sediment.

Relevance to SCBWMI: Because this flood control project is in its initial assessment phase (feasibility study), it could set a precedent for A) how the SCBWMI may interface with such projects, and B) how SCVWD's recent policy amendment to "manage riparian corridors to facilitate movement from mitigation toward enhancement or restoration" may be implemented.

Goals: Reduce damages by existing and expected future flooding in the Berryessa Creek watershed.

Objectives: Conduct a Feasibility Study to provide information required to develop alternative implementable remedies to reduce flood damages.
Sediment Study 12/98: Field reconnaissance to evaluate geomorphic character; Estimate sediment yield, load, and transport capacity; Assess channel stability and upstream and downstream effects of the project; Bridge scour analysis.
Hydrologic Study 4/01: Develop flow versus frequency for existing and future hydrologic conditions. Generate flood hydrographs. SCVWD will obtain new data in coordination with USACE and other agencies.
At later dates:
Hydraulic Design and Risk-based Studies - USACE
Social Environment Study – SCVWD/USACE
Hazardous Materials Study - SCVWD
Environmental Impact Statement/Report – USACE/SCVWD
Fish and Wildlife Studies - USFWS
Economic Studies - USACE
Surveying and Mapping - SCVWD

Study Watersheds and Codes (RWQCB): Coyote

Tributaries Sampled in Watersheds: Berryessa Creek

Sampling Location: N/A

Sampling Frequency: N/A

Field Sampling Period: N/A

Projected Completion Date: Feasibility Study currently in progress. Complete in 2004

General Data Types Collected: Physical, chemical, biological, social

Detailed Data Description: Geology, sediment (basin yield, load, and transport capacity), hydrologic (flow/frequency & flood hydrographs), hydraulic (water surface profiles, floodplains & bridge scour), topographic (aerial photos & contour maps), economic (costs/benefits) and real estate (land & structural values).

Sampling Protocols: Not Applicable.

Data Format: AutoCAD, HEC-RAS (HEC-2), HEC-HMS (HEC-1), HEC-FFA

Stakeholders Common to SCBWMI: SCVWD, USFWS, USEPA

Study Information Verified: George Fowler, SCVWD, personal communication, June 2002

Calera Creek Flood Protection (Berryessa Creek to I-680)

Overall Purpose: Resource Management for Flood Protection

Lead Agencies/Organizations: SCVWD.
Funding Sources: 100% Local (Benefit Assessments/Property Taxes)
Contracted Parties: SCVWD, additional parties to be determined.
Contact Information:

Name: George Fowler
Organization: SCVWD
Phone: 408-265-2607 x 2748
Fax: 408-266-6256
Email: GFowler@valleywater.org

Keywords: biological data, chemical data, flooding/flood control, hydrology, physical data, sediment.

Relevance to SCBWMI: Because this flood control project is in its initial assessment phase, it could set a precedent for A) how the SCBWMI may interface with such projects, and B) how SCVWD's recent policy amendment to "manage riparian corridors to facilitate movement from mitigation toward enhancement or restoration" may be implemented.

Goals: Reduce damages by existing and expected future flooding in the Calera Creek watershed.

Objectives: Conduct a Reconnaissance Study to determine flood capacity, sediment, and maintenance issues. Completion of this study may lead to additional detailed study identifying alternative implementable remedies to reduce flood damages and long-term maintenance problems.
Sediment Study: Field reconnaissance to evaluate geomorphic character; Estimate sediment yield, load, and transport capacity; Assess channel stability and upstream and downstream effects of the project; Bridge scour analysis.
Hydrologic Study: Estimate flow versus frequency curve for existing and future hydrologic conditions. Generate flood hydrographs.
At later dates:
Hydraulic Design - SCVWD
Social Environment Study - SCVWD
Hazardous Materials Study - SCVWD
Environmental Impact Report (if necessary) - SCVWD
Fish and Wildlife Studies (if necessary)- SCVWD
Economic Studies – N/A
Surveying and Mapping - SCVWD

Study Watersheds and Codes (RWQCB): Coyote

Tributaries Sampled in Watersheds: Berryessa and Calera Creeks

Sampling Location: N/A

Sampling Frequency: N/A

Field Sampling Period: N/A

Projected Completion Date: Reconnaissance Complete in 9/01

General Data Types Collected: N/A Physical, chemical, biological, social

Detailed Data Description: Future data to be determined if future study funded including Geology, sediment (basin yield, load, and transport capacity), hydrologic (flow/frequency & flood hydrographs), hydraulic (water surface profiles, floodplains & bridge scour), topographic (aerial photos & contour maps), economic (costs/benefits) and real estate (land & structural values).

Sampling Protocols: N/A

Data Format: AutoCAD, HEC-RAS (HEC-2), HEC-HMS (HEC-1), HEC-FFA

Stakeholders Common to SCBWMI: SCVWD

Study Information Verified: George Fowler, SCVWD, personal communication, June 2002

Coyote Creek Flood Protection at Rockspring (Tully Rd- Story Rd)

Overall Purpose: Resource Management for Flood Protection

Lead Agencies/Organizations: Partnership between USACE and SCVWD.
Funding Sources: 50% USACE , 50% Local (Benefit Assessments/Property Taxes)
Contracted Parties: USACE, SCVWD
Contact Information:

Name: George Fowler
Organization: SCVWD
Phone: 408-265-2607 x 2748
Fax: 408-268-7687
Email: GFowler@valleywater.org

Keywords: biological data, chemical data, flooding/flood control, hydrology, physical data, sediment.

Relevance to SCBWMI: Because this flood control project is in its initial assessment phase (feasibility study), it could set a precedent for A) how the SCBWMI may interface with such projects, and B) how SCVWD's recent policy amendment to "manage riparian corridors to facilitate movement from mitigation toward enhancement or restoration" may be implemented.

Goals: Reduce damages by existing and expected future flooding in the Rockspring neighborhood, which suffered significant flood damages in January 1997.

Objectives: Conduct a Feasibility Study to provide information required to develop alternative implementable remedies to reduce flood damages.

This joint USACE/SCVWD project will address a short reach of Coyote Creek (approx 2,500 linear feet) to address the flooding on an interim basis until the ultimate long-term mainstem project is planned and implemented (not currently active).

Hydrologic - Utilize existing hydrology.
Hydraulic Design and Risk-based Studies - USACE
Social Environment Study – USACE
Hazardous Materials Study - SCVWD
Environmental Impact Statement - USACE
Fish and Wildlife Studies - USFWS
Economic Studies - USACE
Surveying and Mapping - USACE

Study Watersheds and Codes (RWQCB): Coyote

Tributaries Sampled in Watersheds: None
Sampling Location: N/A

Sampling Frequency: N/A

Field Sampling Period: N/A

Projected Completion Date: Feasibility study in progress (scheduled for completion in 2003)

General Data Types Collected: Physical, chemical, biological, social

Detailed Data Description: Geology, sediment (basin yield, load, and transport capacity), hydrologic (flow/frequency & flood hydrographs), hydraulic (water surface profiles, floodplains & bridge scour), topographic (aerial photos & contour maps), economic (costs/benefits) and real estate (land & structural values).

Sampling Protocols: Not Applicable.

Data Format: Intergraph, AutoCAD, HEC-RAS (HEC-2), HEC-HMS (HEC-1), HEC-FFA

Stakeholders Common to SCBWMI: SCVWD, USFWS, USEPA

Study Information Verified: George Fowler, SCVWD, personal communication, June 2002

Silver-Thompson Flood Protection (Lake Cunningham - Aborn Rd)

Overall Purpose: Resource Management for Flood Protection

Lead Agencies/Organizations: SCVWD.
Funding Sources: 100% Local (Benefit Assessments/Property Taxes)
Contracted Parties: SCVWD, additional parties to be determined.
Contact Information:

Name: George Fowler
Organization: SCVWD
Phone: 408-265-2607 x 2748
Fax: 408-266-6256
Email: GFowler@valleywater.org

Keywords: biological data, chemical data, flooding/flood control, hydrology, physical data, sediment.

Relevance to SCBWMI: Because this flood control project is in its initial planning phase, it could set a precedent for A) how the SCBWMI may interface with such projects, and B) how SCVWD's recent policy amendment to "manage riparian corridors to facilitate movement from mitigation toward enhancement or restoration" may be implemented.

Goals: Reduce damages by existing and expected future flooding, sedimentation, and erosion in the Silver –Thompson Creeks watersheds upstream of Cunningham Avenue to Aborn Road.

Objectives:
1. Restore channel capacity by removal of accumulated sediments.
2. Construct modifications to allow Lake Cunningham to operate as an off-stream storage facility as originally planned under the NRCS/SCVWD Loer Silver Watershed Project.
3. Evaluate upstream sediment sources and alternatives to sediment reduction.
4. Evaluate erosion and alternatives to minimize erosion within project reach.

Objective 1 will be accomplished under the District's Multi-Year Stream Maintenance Program permits.
Objectives 2-4 will be accomplished upon completion and implementation of a planning study which evaluates alternatives and implementable remedies to reduce flood damages.
Sediment Study: planned completion in 9/01: Field reconnaissance to evaluate geomorphic character; estimate sediment yield, load, and transport capacity; assess channel stability and upstream and downstream effects of the project;
Hydrologic Study completed April 2001. Verified design flows:
At later dates:
Hydraulic Design - SCVWD
Social Environment Study – N/A
Hazardous Materials Study - SCVWD
Environmental Impact Report (if necessary)- SCVWD

Fish and Wildlife Studies (as necessary) - SCVWD
Economic Studies – N/A
Surveying and Mapping - SCVWD

Study Watersheds and Codes (RWQCB): Coyote

Tributaries Sampled in Watersheds: Lower Silver and Thompson Creeks

Sampling Location: Above Lake Cunningham

Sampling Frequency: N/A.

Field Sampling Period: N/A

Projected Completion Date: Planning study to commence in 2001.

General Data Types Collected: Physical, chemical, biological, social

Detailed Data Description: Geology, sediment (basin yield, load, and transport capacity), hydrologic (flow/frequency & flood hydrographs), hydraulic (water surface profiles, floodplains & bridge scour), topographic (aerial photos & contour maps), economic (costs/benefits) and real estate (land & structural values).

Sampling Protocols: N/A.

Data Format: AutoCAD, HEC-RAS (HEC-2), HEC-HMS (HEC-1), HEC-FFA

Stakeholders Common to SCBWMI: SCVWD

Study Information Verified: George Fowler, SCVWD, personal communication, June 2002

Sediment Removal Projects
(Part of the SCVWD Stream Maintenance Program)

Overall Purpose: To restore flood conveyance capacity in improved channels by removing accumulated sediment in accordance with the criteria, standards, or guidelines of the Federal Emergency Management Agency, the U.S. Army Crops of Engineers, the Natural Resources Conservation Service, or the District.

Lead Agencies/Organizations: SCVWD
Funding Sources: SCVWD
Contracted Parties:
Contact Information:

Name: Kate Slama
Organization: SCVWD
Phone: 408-265-2607 x2739
Fax:
Email: kslama@valleywater.org

Keywords: flooding/flood control, sediment/sedimentation, sediment chemistry, water quality

Goals: To alleviate local flooding problems and to meet requirements of the Federal Emergency Management Agency (FEMA) for flood protection.

Objectives: To remove sediment from channels; characterize the physical and chemical properties of the sediments for proper removal and disposal actions; conduct water quality monitoring to verify compliance with the effluent and receiving water limitations by the RWQCB and implement general and site-specific BMPs associated with sediment removal projects.

Study Area Watersheds: Basinwide; variable year to year.
Tributaries Sampled in Watershed: Basinwide; variable year to year.

Sampling Location: Sediment is sampled at locations that have highest potential for detecting maximum number of contaminants. Criteria for selecting locations includes proximity to storm water runoff locations, including outfalls, and in depositional areas and industrial sources where dredging are planned. Both tidal and non-tidal sites are sampled.

Sampling Frequency: For continuous soil core samples, approximately one soil sample per 4,000 cubic yards of sediment to be removed. For discrete samples, four samples are collected, one sample for every 1,000 cy, and composited together in laboratory. Water quality monitoring in receiving waters during project occurs at least two times each day; water quality data is also collected above sites prior to project and in diverted water discharge.

Field Sampling Period: Typically June through November.

Sampling Protocols: Standard soil sampling and laboratory protocols are described in Sediment Characterization Plan developed by SCVWD each year. Water quality sampling protocol are described in Self-Monitoring Program Water Quality Sampling Plan developed by SCVWD each year.

Projected Study Completion Date: Projects completed annually.

General Data Types Collected: Chemical: soil chemistry and general water quality

Detailed Data Description: Analytical testing of soil for metals, pesticides, solvents, hydrocarbons, organic carbon, salinity, toxicity, pH, and asbestos. Water quality parameters include at minimum turbidity, pH and dissolved oxygen.

Stakeholders Common to SCBWMI:

Study Information Verified: Kate Slama, SCVWD, personal communication, July 2002

Palo Alto Creeks Flow Level Monitoring

Overall Purpose: Provide early warning of potential for flooding and display information in a simple, easy to understand format.

Keywords:

Lead Agencies/Organizations: City of Palo Alto
Funding Sources: Storm Drains Enterprise Fund, Operating and Maintenance budget.
Contracted Parties: None
Contact Information:

Name: John Ballard
Organization: City of Palo Alto, Public Works / Operations Division
Phone: 650-496-5935
Fax: 650-852-9289
Email: john_ballard@city.palo-alto.ca.us

Relevance to SCBWMI:

Goals: Obtain rain storm event history and learn the relationship of rain rate, creek levels, tide level, flood basin level on total storm drain system effectiveness. Measure monitor and store creek water level for all Palo Alto Creeks. Provide creek level alarming and warning levels for EOC Commander, residents and non-trained City Staff. Obtain and store creek level, flood basin level and tide level data to determine relationship and influence on storm drain system overall performance and demonstrate creek maintenance program effectiveness or need. Develop long term storm and flood prediction capability for creek levels based on rainfall totals and other factors. Obtain and display live real time, accurate creek level and Storm Drain System component information for all interested parties and local agencies.

Objectives: Measure the creeks, tide level, rain rate and flood basin level to observe and record data about rain events and the effect on creek levels based on tide level or flood basin level. Provide early flood warning information; display that information in a useful easy to understand format. Provide information to City staff and other local cities and agencies.

Study Area Watersheds: San Francisquito Creek, Adobe Creek, Matadero Creek, and Barron Creek.
Tributaries Sampled in Watershed: San Francisquito Creek, Adobe Creek, Matadero Creek, and Barron Creek.

Sampling Location: Adobe Creek, at East Meadow Drive. Matadero Creek, west of West Bayshore Road. San Francisquito Creek, at Chaucer Street Bridge, at Waverley Pedestrian/Bicycle Bridge and at West Bayshore Road Bridge. Palo Alto Flood Basin and Tide Level measured at the flood basin levee tide gates. Rain gauges located at MSC on East Bayshore Road and at Lodge Lift Station in Foothills Park. Temperature measured at Gas Receiving Station 4 on Stanford University campus land.

Sampling Frequency: Continuous

Field Sampling Period:

Projected Study Completion Date: On going, no end date anticipated.

General Data Types Collected: Water level in feet, temperature degrees Fahrenheit, rainfall rate inches per hour, inches per 24 hour and annual total rain fall, time 24 hour clock.

Detailed Data Description: Continuous data is stored on FIX SCADA system server. Creek water level data is measured and recorded in feet measured from the bottom of channel up. Tide level and flood basin levels are established based on corrected benchmark datum showing local tide level above and below sea level established at the Golden Gate Bridge in San Francisco.

Sampling Protocols: Not applicable

Data Format: Not applicable
Follow-up Studies: Not applicable

Stakeholders Common to SCBWMI: Not applicable

Study Information Verified: 06/06/2001

Water Quality and Streamflow Monitoring of the Bear Creek Watershed

Overall Purpose: Resource Management: water quality and riparian habitat monitoring and assessment.

Lead Agencies/Organizations: San Francisquito CRMP
Funding Sources: SCVURPPP, Packard Foundation
Contracted Parties: Balance Hydrologics
Contact Information:

Name: Phil Chang
Organization: San Francisquito Creek Watershed Council
Phone: 650-962-9876
Fax: 650-962-8234
Email: crmp@pccf.org

Keywords: chemical data, fisheries, hydrology, metals, pesticides, salmonids, special status species, stream flow, water chemistry, water quality.

Relevance to SCBWMI: San Francisquito is one of the three pilot watersheds for the SCBWMI. This study may provide useful data for watershed assessment.

Goals: Provide scientific information required to understand the local dynamics of the steelhead trout fishery and to restore the steelhead trout population.

Objectives: Evaluate whether pollutants discharged to Bear Creek adversely affect steelhead.

Study Area Watersheds: San Francisquito (5516)

Tributaries Sampled in Watershed: West Union Creek, Bear Gulch, Bear Creek, Dry Creek.

Sampling Location: West Union Creek @ Flood Estate, @ Kings Mountain, @ Adobe Corner; Bear Gulch @ Water Service Co. intake; Bear Creek @ Fox Hollow, @ Mountain Home, @Sand Hill Road; Dry Creek @ Olive Hill and @ Woodside Town Hall.

Sampling Frequency: stream flow will be monitored at least 5 times during the wet season. Measurements will be timed to a range of storm events and will hopefully include the "first-flush" event. In addition, at least two stream flow measurements will be made during the low flow season. One round of water quality samples will be collected.

Field Sampling Period: 12/99 – ongoing.

Projected Study Completion Date: Project is ongoing.

General Data Types Collected: chemical, physical.

Detailed Data Description: stream flow, pool depth, pH, dissolved oxygen, water quality samples will be analyzed for nitrate, ammonia, total suspended sediment, dissolved heavy metals (Cd, Cu, Pb, Zn), specific conductance, diazinon, and chlorpyrifos.

Sampling Protocols: Flow: USGS hydrographic procedures (Carter and Davidian, 1968); Sediment: Equal discharge increment approach (Edwards and Glysson, 1988, Ward and Herr, 1990); Water quality: see Sampling and Analysis Plan for detailed description.

Data Format: To be determined but intention is to provide during period of study through existing databases and websites developed for the Peninsula Conservation Center and CRMP. Copies of the data will also be made available to archival locations (e.g., SQWIS STORET), and repositories (e.g., municipalities, academic institutions, and agencies).

Stakeholders Common to SCBWMI: San Francisquito CRMP, Town of Woodside, SCVURPPP.

Study Information Verified: Yes (06/05/2001)

Jasper Ridge Biological Preserve (JRBP) Water Quality Monitoring Program

Overall Purpose: Basic indicator monitoring.

Lead Agencies/Organizations: Stanford University
Funding Sources: Stanford University
Contracted Parties: None, testing was performed by a group of docents: Marge DeStaebler, Claire Elliot, Linda Wagner, and Cindy Wilber.
Contact Information:

Name: Cindy Wilber
Organization: Stanford
Phone: 650-327-2277
Fax:
Email: cwilber@stanford.edu

Keywords: water quality, water chemistry

Relevance to SCBWMI:

Goals:

1. To collect baseline data on water quality and chemistry at specific sites within the JRBP
2. To identify relationships between the variables that we test
3. To identify relationships between our data and observed changes in the creek
4. To collect data in a format that can be used comparatively with other creek monitoring groups.

Objectives: (See overall purpose and goals)

Study Area Watersheds: San Francisquito.
Tributaries Sampled in Watershed: Two locations above Searsville Lake and one on San Francisquito Creek.

Sampling Location: Six sites in the upper San Francisquito Creek watershed. The JRBP test site was the bridge below the Searsville Dam, now site 1.
Site 1, the original site at the bridge below the dam
Site 2, off the causeway bridge between middle and lower lake
Site 3, off the trail 12 in the Corte Madera streambed by the staff gauge (as of Fall 2000, this site was discontinued because the course of the stream altered and no longer passed the site.

Sampling Frequency: Docents completed tests every other week from 12/17/1997 to 11/28/1998 at 9:30 am on Saturday morning.

Field Sampling Period: The JRBP water quality-testing program started in January 1998, at one site, under the direction of the Coyote Creek Riparian Station (CCRS). Six other sites in the San Francisquito were tested from November 1997 to 1998.

Projected Study Completion Date: The CCRS project was completed in 11/98. But the JRBP monitoring began 3/26/99 and is ongoing on a monthly basis.

General Data Types Collected: water chemistry.

Detailed Data Description: pH, DO, air and water temperature, turbidity, conductivity.
Sampling Protocols: Water samples collected at 1 meter below the creek'surface. Dissolved Oxygen samples are fixed in the field as soon as collected with 8 drops of Manganous Sulfate Solution and 8 drops of Alkaline Potassium Iodide Azide, after a precipitate is formed 8 drops of Sulfuric Acid are added as a reagent. The fixed water sample is then tested for DO level using Sodium Thiosulfate 0.025 N. Conductivity and pH tests made by dipping meters testing for each into the water sample. Turbidity was measured using an octet comparator.

Data Format: data are contained in the report San Francisquito Creek Upper Watershed Volunteer Monitoring Project 1997-1998

Follow-up Studies:

Stakeholders Common to SCBWMI:
Study Information Verified: 06/08/2001

Reservoir Monitoring of Fish Tissue for Bioaccumulative Contaminants

Overall Purpose: Collect water quality information in the San Francisco Bay Region to evaluate watersheds.
Lead Agencies/Organizations: SWRCB/RWQCB
Funding Sources: SWRCB
Contracted Parties: Ca. Dept. of Fish and Game
Contact Information:

Name: Karen Taberski
Organization: RWQCB
Phone: 510-622-2424
Fax:
Email: kmt@rb2.swrcb.ca.gov

Keywords: fisheries, chemical data, mercury/methylmercury

Relevance to SCBWMI:

Goals: As part of the Surface Water Ambient Monitoring Program (SWAMP), in the San Francisco Bay Region, determine if fish are contaminated in reservoirs where people catch and consume fish.

Objectives: 1) Determine if fish have level of contaminants that would warrant a health advisory on fish consumption, 2) collect data for 303d listing.

Data was collected in the following reservoirs: Stevens Creek, Del Valle, Lake Chabot and Soulejoule Reservoirs were sampled in Winter 00 – Spring 01; Bon Tempe, Nicasio and Anderson Reservoir sampled in winter 01-spring 02. Lafayette and Shadow Cliffs Reservoirs will be sampled in the future, if budget allows.

Study Area Watersheds: Stevens Creek and Coyote Creek
Tributaries Sampled in Watershed: NA

Sampling Location: see above

Sampling Frequency: Undetermined at this time.

Field Sampling Period: Spring 2001

Projected Study Completion Date: Ongoing, however project is on hold pending funding cuts.

General Data Types Collected: Mercury, pesticides and PCBs in fish tissue.

Detailed Data Description: Detailed information on sampling, QA/QC, chemical analysis, and database can be obtained from the State Water Resources Control Board:

Del Rasmussen
State Water Resources Control Board
1001 I St., Sacramento 95812
(916) 341-5545

Sampling Protocols: Netting and electrofishing.

Data Format: Toxic Substance Monitoring Program Report, EXCEL spreadsheet

Follow-up Studies:

Stakeholders Common to SCBWMI:

Study Information Verified: Karen Taberski, RWQCB, personal communication, July 2002

County Parks Community Stream Monitoring Program

Overall Purpose: Both a monitoring tool and restoration project. The purpose is to get the local Community involved with County Parks and volunteerism, while performing monitoring of local creeks. The Program allows for 1 restoration project per year and 4 stream monitoring visits. The intent is to try to get the Community involved and instill "ownership".

Lead Agencies/Organizations: Santa Clara County Department of Parks & recreation, Natural Resource Management Program
Funding Sources: Santa Clara County Parks & Recreation
Contracted Parties: None
Contact Information:

Name: Don Rocha, Parks Natural Resource Management Coordinator
Organization: Santa Clara County Parks & Recreation Department
Phone: 408-846-5892
Fax: 408-846-8821
Email: don.rocha@mail.prk.co.santa-clara.ca.us

Keywords: Bioassessment/biomonitoring, biological communities, biological data, channel morphology/hydrogeomorphology, chemical data, citizen monitoring/volunteer monitoring, erosion, invasive/introduced species, land use, macroinvertebrates, physical data, physical habitat, recreation, riparian

Relevance to SCBWMI: Unknown

Goals: Instill "ownership" in Community with streams and Parks. Collect monitoring data for baseline inventory/surveys and act as a monitoring tool to base natural resource management decisions. Restore and manage degraded streams based on Monitoring Program (including priorities).

Objectives: Base stream restoration and priorities on data collected in the field versus status and agendas. Involve Community and instill pride and "ownership" in County Parks and local streams. Education on stream and riparian systems and ecology.

Study Area Watersheds: Coyote Creek & Los Gatos Creek, currently

Tributaries Sampled in Watershed: Coyote Creek & Los Gatos Creek, currently

Sampling Location: We just conducted our first training. Locations have not been determined as of yet. Looking for representative sample of stream.

Sampling Frequency: Samples are taken 4 times per year. Looking for peak and minimal flows on a gradual scale.

Field Sampling Period: On-going.

Projected Study Completion Date: On-going

General Data Types Collected: Chemical, biological and physical

Detailed Data Description: pH, species, vegetation, substrate type and status, turbidity, dissolved oxygen, impacts, influences, wildlife encountered, status of vegetation

Sampling Protocols: Conduct surveys within specified time frames (for frequency and timing similarities), use provided information and materials to sample stream (Mott, chemical tests), fill out form provided (combination BLM, CDFG and County Parks).

Data Format: Combination hardcopy, field forms and digital to be summarized in Excel and associated with GIS (ArcView 3.2).

Follow-up Studies: Information will be used to determine priorities and define restoration projects, based on sampling results.

Stakeholders Common to SCBWMI: Unknown

Study Information Verified: 06/06/2001

Section 2: Mitigation Projects

Lower Coyote Creek Fisheries Mitigation and Standish Dam

Project Description: Mitigation for Lower Coyote Creek Flood Control Project

Keywords: Vegetation, groundwater, fisheries, water quality

Lead Agencies/Organizations: SCVWD
Funding Source: SCVWD
Contracted Parties: None
Contact Information:

Name: Doug Padley
Organization: SCVWD
Phone: 1-408-265-2607 x2725
Email:

Purpose: Monitor the effects of the adopted Standish Dam mitigation as it benefits or is detrimental to anadromous salmonids (emphasis on steelhead) and the riparian vegetation in the area. Monitoring project is part of mitigation for Lower Coyote Creek Flood Control Project. Initial mitigation plans included modification of the dam, however the CDFG, USFWS, USACE and SCVWD agencies concluded the dam was detrimental to salmonids and recommended not reinstalling the dam. The SCVWD monitored salinity and fish migration effects in the absence of the Dam. Fish monitoring was conducted from 1998-2000 and included operation of anadramous salmonid down-mirgrant (juvenile) and up-migrant (adult) traps. Water quality monitoring was conducted in 2001 (although not required for mitigation). Photo monitoring of vegetation was conducted 199-2001. Mitigation monitoring ended in 2000 and further mitigation efforts are pending regulatory agencies' review of data.

Study Area Watersheds: Coyote

Tributaries Sampled in Watershed: None

Sampling Location: Location of migrant traps was not available. Surface and groundwater was sampled in a 1-mile segment of Coyote Creek above Dixon Landing Road. Surface water was sampled at 5 sites and groundwater was sampled at 18 wells within the 1-mile reach.

Sampling Frequency: Fish monitoring frequency was not available. Sampling of surface water occurred 6 times between May 232 and October 17, 2001.

Field Sampling Period: Monitored between 1998 and 2001.

Sampling Protocols: Salinity was measured using Yellow Springs Instruments (YSI) Model 6600 continuous salinity and temperature loggers.

Detailed Data Description: Number and size of adult and juvenile salmonid caught in migrant traps. Salinity concentrations of water samples taken from creek and adjacent groundwater wells. Photo monitoring of riparian vegetation.

Data Format: Not identified

Projected Study Completion Date: 2000

Product Title and Format: Coyote Creek Flood Control Project Reaches 1,2 & 3; Report of Mitigation and Monitoring Program 2001 (hardcopy).

Study Information Verified: Doug Padley, personal communication, SCVWD, April 2002

Los Capitancillos Wetlands Mitigation

Project Description: Construct wetland for mitigation

Keywords: Wetland, groundwater, vegetation

Lead Agencies/Organizations: SCVWD
Funding Sources: None
Contracted Parties: None
Contact Information:
Name: Belinda Allen
Organization: SCVWD
Phone: 1-408-265-2607 x2644
Email: BelindaA@scvwd.dst.ca.us

Purpose: Create approximately 5 acres of freshwater wetland habitat adjacent to Guadalupe Creek to compensate for sediment removal projects and future mitigation needs. Construction will be completed in December 2002. Baseline monitoring of groundwater, wildlife is completed. Long-term monitoring of groundwater levels and water quality, wetland vegetation and habitat will occur following construction for estimated 5 years.

Study Area Watersheds: Guadalupe

Tributaries Sampled in Watershed: Guadalupe Creek

Sampling Location: Wetland located between Guadalupe Creek and Capitancillos Drive.

Sampling Frequency: TBD
Field Sampling Period: TBD
Sampling Protocols: TBD

Detailed Data Description: TBD
Data Format: TBD

Projected Study Completion Date: Construction of wetlands in December 2002; monitoring completed in 2007.

Product Title and Format: None

Study Information Verified: Personal communication, Belinda Allen, SCVWD, April 2002.

Modification of Drop Structure in Stevens Creek

Project Description: Remove potential fish barrier

Keywords: Physical barrier, fisheries

Lead Agencies/Organizations: SCVWD
Funding Sources: CDFG
Contracted Parties: None
Contact Information:
Name: Liang Lee
Organization: SCVWD
Phone: 408-265-2607 x2927
Email: LiangLee@scvwd.dst.ca.us

Purpose: The project is to modify the design of the existing drop structure to allow passage of the migrating steelhead. The District will monitor the new drop structure to determine if it functions and for sediment and debris accumulation. The existing stream gage will be relocated. Mitigation for structure will include planting of riparian vegetation just upstream of project site; vegetation will be monitored for 2-3 years.

Study Area Watersheds: Stevens Creek

Tributaries Sampled in Watershed: None

Sampling Location: Drop structure is located at Stream Gauge Station #35 just upstream of the HWY 85 crossing.

Sampling Frequency: District will monitor drop structure periodically.

Field Sampling Period: Following construction of new structure in December 2002.

Sampling Protocols: NA

Detailed Data Description: Physical barriers

Data Format: NA

Projected Study Completion Date: Project will begin in June and will be completed in December 2002.

Product Title and Format: None

Study Information Verified: Liang Lee, personal communication, SCVWD, 4/25/02

Alamitos Drop Structure Monitoring

Project Description: Mitigation for construction of drop structure.

Keywords: Fisheries, physical barrier

Lead Agencies/Organizations: SCVWD
Funding Sources: None
Contracted Parties: None
Contact Information:

Name: David Salsbery
Organization: SCVWD
Phone: 1-408-265-2607 x2713
Email: DaviSals@ scvwd.dst.ca.us

Purpose: Monitor anadramous salmonid fish passage at the Alamitos Drop Structure and Masson Dam Fish Ladders for a period of five years. Monitoring has been proposed for adult and juvenile salmonids, however, efforts have been delayed due to permit requirements from National Marine Fisheries Service. District is investigating use of non-fish handling methods for counting and identifying migrating fish to avoid permitting constraints.

Study Area Watersheds: Guadalupe

Tributaries Sampled in Watershed: Alamitos

Sampling Location: Drop structure located below Almaden Lake, behind SCVWD buildings.

Sampling Frequency: Potential year round monitoring if non-fish handling devices are installed.

Field Sampling Period: Start date TBD and will extend for 5 years.

Detailed Data Description: Potential number and species of fish.

Sampling Protocols: TBD

Projected Study Completion Date: TBD

Product: None

Product Format: None

Study Information Verified: David Salsbery, SCVWD, Personal communication, 4/11/02.

Masson Dam Fish Ladder/Screen

Overall Purpose: To accommodate fish passage past the diversion and to specifically address the stipulations and requirements stated in the Fish and Game MOU 0228-97 to provide fish passage at the site by October 1999

Lead Agencies/Organizations: SCVWD/CDFG
Funding Sources: SCVWD
Contracted Parties: John Gilchrist and Associates (Environmental Study – Mitigated Negative Declaration)
Contact Information:

Name: Ted Ibarra
Organization: SCVWD
Phone: 408-265-2607 x2067
Fax: (408) 978-0156
Email: tedibarr@scvwd.dst.ca.us

Keywords: fisheries, salmonids, sediment/sedimentation, streamflow

Relevance to SCBWMI:

Goals: To provide fish passage for all or most SCVWD flashboard diversion dam sites by October 1999

Objectives: To provide fish passage past the diversion facility by October 1999

Study Area Watersheds: Guadalupe River/Guadalupe Creek Watershed
Tributaries Sampled in Watershed: N/A

Sampling Location: N/A
Sampling Frequency: N/A

Field Sampling Period: N/A

Projected Study Completion Date: Was completed October 1999
General Data Types Collected: None

Detailed Data Description: N/A
Sampling Protocols: N/A

Data Format: N/A
Follow-up Studies: N/A or None
Stakeholders Common to SCBWMI: Streams for Tomorrow, Libby Lucas, Keith Anderson
Study Information Verified: 06/06/2001

Guadalupe River Flood Control and Restoration Project

Overall Purpose: Resource Management and Enhancement

Lead Agencies/Organizations: SCVWD, City of San Jose, US Army Corp of Engineers
Funding Sources: SCVWD and USACE (possibly)
Contracted Parties: Jones and Stokes and Northwest Hydraulics (EIR and design), Ferma (construction)
Contact Information:

Name: Terry Neudorf
Organization: SCVWD
Phone: 408-265-2607 x2695
Email: tneudorf@valleywater.org

Keywords: biological communities, fisheries, mercury/methyl mercury, NOI, NPDES, riparian, salmonids, sediment, sedimentation, erosion, flooding/flood control, recreation

Relevance to SCBWMI: May provide useful data for the Watershed Assessment Report.

Goals: To reduce the frequency of flooding as well as the subsequent affects it has on the riparian habitat along the Guadalupe River in the vicinity of downtown San Jose. Also to implement an environmental mitigation program to assess and compensate for environmental impacts caused by the flood control measures by improvement and restoration of the shaded riverine aquatic habitat.

Objectives: To modify the Guadalupe River channel in order to control flooding and reduce damages caused by flooding, and enhance the riparian habitat. This includes the construction of bypass culverts and channel armoring to increase channel capacity and reduce erosion; a low flow channel to facilitate fish passage and spawning; training walls to divert upstream flood waters back into the channel; as well as a series of recreational trails providing access to the river corridor. The project also includes the implementation of a mitigation program to restore on and off-site salmonids habitat by planting SRA cover vegetation, reforming the creek channel, installing instream structures, and narrowing the low flow channel in order to stabilize the channel, reduce erosion, and improve vegetative and wildlife success.

Study Area Watersheds: Guadalupe Watershed
Tributaries Sampled in Watershed: Guadalupe Creek

Sampling Location: A 2.6 mile long portion of the Guadalupe River in downtown San Jose between Interstate Highway I-880 and Interstate Highway I-280. Additionally,1.5 miles of the River downstream and 1.6 miles of Guadalupe Creek located 4 miles upstream of the downtown portion.

Sampling Frequency:

Diverted Water Discharge: conducted on the first two days of the commencement of diversion, one week later, and monthly thereafter.
Reintroduced Flow Discharge: daily for two days upon commencement of discharge
Background Water: daily
Receiving Water: two samples within every 24 hour period, evenly spaced during work hours
Mercury: quarterly for chemicals, continuously for flow and suspended solids

Field Sampling Period: Completed first year monitoring (2001-2002).
Projected Study Completion Date: Continue for lifetime of project or until mitigation requirements are satisfied.
General Data Types Collected: biological, physical, and chemical
Detailed Data Description: pH, turbidity, dissolved oxygen, odor, discoloration, health of new vegetation, percent cover by plant canopy, tree height, tree basal area, percent shaded stream area, bank stability, temperatures, spawning gravel abundance and quality, length of rearing habitat, water depth and velocity, presence of adult spawning and migration, juvenile rearing and migration to Bay, total and dissolved mercury, flow, total suspended solids, hydrographic conditions, decant water, temperature of air, wind direction and velocity, and precipitation

Sampling Sampling Protocols:
Water analyses: laboratory analysis shall be performed by a laboratory approved by the Department of Health Services or a laboratory approved by the Executive Officer.
Background Water: collected from 100 feet from the point of discharge, representative samples of typical undisturbed conditions, additional daily samples taken from a minimum of 500 feet upstream of the active site.
Receiving Water: taken 1 foot below the surface of the water, 100 feet from point of discharge for immediate analysis; duplicates are collected a minimum of once per month for separate on site and laboratory analyses.

Data Format: Data is compiled as written reports, strip charts, calibration and maintenance records, etc. in hardcopy format.

Follow-up Studies:
Mitigation and Monitoring Plan- including the Compensatory Riparian Mitigation Plan, the Vegetative Protection Plan, the Erosion Control Plan, the Stormwater Pollution Prevention Plan, the Soils Management Plan, the Fisheries Mitigation Plan, etc.
Additional studies include: 1) an evaluation of the peak flood flow reductions or controls needed to restore habitat function and value by retention of existing riparian habitat and replacement of existing concrete with suitable riparian vegetation, 2) evaluation of the potential impacts on peak flows of integrated land use, flood control and watershed planning, 3) evaluation of potential impacts on peak flood of retrofitting existing development with onsite storage/infiltration facilities for peak flows, and 4) evaluation of the potential for combinations of flood plain expansion, reservoir storage, reservoir operations and existing and new development onsite storage/infiltration requirements to reduce or control peak flood flows and preserve the habitat.

Study Information Verified: Terry Neudorf, SCVWD, personal communication, July 2002.

Section 3: Permit Compliance

Guadalupe River Watershed Mercury TMDL

Project Description: Preparation of the Mercury Total Maximum Daily Load (TMDL) in the Guadalupe River Watershed.

Keywords: Mercury, sediment

Lead Agencies/Organizations: SCVWD is lead agency on behalf of the WMI, the Guadalupe River Mercury TMDL Work Group will provide technical input
Funding Sources: TBD
Contracted Parties: Tetra Tech
Contact Information:

Name: Dave Drury
Organization: SCVWD
Phone: 408-265-2607 x2721
Email: DaveDrur@scvwd.dst.ca.us

Purpose: Preparation of the Mercury TMDL in the Guadalupe River Watershed. The TMDL will ultimately be the regulatory responsibility of the Regional Board, but implementation will be the responsibility of the communities, private industry, and public agencies in the Watershed. The WMI will serve as the stakeholder forum for preparation of the TMDL, to ensure load allocations and the implementation plan are feasible. A technical TMDL Report will include load allocations for all sources of mercury. A Monitoring Plan will be implemented to evaluate effectiveness of control measures, however funding has not been obtained to develop and implement monitoring plan.

Study Area Watersheds: Guadalupe River
Tributaries Sampled in Watershed: TBD
Sampling Location: TBD
Sampling Frequency: TBD
Field Sampling Period: TBD
Sampling Protocols: TBD
Detailed Data Description: TBD
Data Format: TBD

Projected Study Completion Date: Schedule in original scope of work identified Final Technical TMDL Report due on December 2003, and Final Implementation Plan Report due on November 2004. Delay of monitoring work due to lack of funding however, will probably push completion dates farther into the future.

Product Title and Format: None

Study Information Verified: Dave Drury, SCVWD, personal communication, 2002

San Francisquito Creek Aquatic Habitat Assessment and Limiting Factors Analysis

Project Description: San Francisquito Creek is listed as impaired by sedimentation under Section 303(d) of the Clean Water Act, requiring the development of a Total Maximum Daily Load for sediment. The primary issues in the development of the TMDL include 1) implied degradation of steelhead spawning habitat, and 2) increased flooding for which sediment deposition and decrease in flood flow conveyance may be a contributing factor.

The key tasks are identified as they relate to assessing the aquatic habitat and determining limiting factors to steelhead as it relates to sediment impairments in the watershed. This effort will also support a holistic approach to watershed management in the assessment of sediment impairments.

This study is anticipated to produce information that will assist the Regional Board in preparing the sediment Total Maximum Daily Load (TMDL) for the watershed:

- confirm or reject the validity of the sediment impairment listing;
- determine other causes for aquatic habitat impairment that may exist, which also warrant consideration (e.g. increases in peak flows, baseflow depletion, increases in stream temperature, nutrient pollution, reduction in LWD loading, riparian condition, etc.).

Keywords: salmonid, fisheries, riparian, physical habitat, sediment/sedimentation, special status species, biological communities, biological data.

Lead Agencies/Organizations: Santa Clara Valley Water District
Funding Sources: Clean,Safe Creeks and Natural Flood Protection; Prop 13 Grant
Contracted Parties: TBD
Contact Information:

Name: Laura Young
Organization: Santa Clara Valley Water District
Phone: (408)265-2607 x2461
Fax: (408)266-6251
Email: lyoung@valleywater.org

Purpose: The goal of the Aquatic Habitat Assessment and Limiting Factors Analysis is to determine if steelhead spawning, rearing, and migratory habitat is degraded by land use activities due to excessive sedimentation in the San Francisquito Creek watershed.

The objective of the Aquatic Habitat Assessment and Limiting Factors Analysis is to characterize channel and habitat condition with respect to factors limiting to steelhead populations in the San Francisquito Creek watershed. The data collection and analysis will evaluate these stressors for those limiting to steelhead populations and condition of the aquatic habitat by conducting the following:

- Habitat survey and evaluation of stream hydrologic, geologic, and morphologic characteristics and habitat condition,
- Instream habitat assessment and stressor identification; and
- Limiting factor analysis of aquatic habitat for steelhead populations.

Study Area Watersheds: San Francisquito Creek

Tributaries Sampled in Watershed: Bear Gulch Creek, Los Trancos Creek, San Francisquito Creek mainstem

Sampling Location: TBD

Sampling Frequency: TBD

Field Sampling Period: TBD

Sampling Protocols: To be determined, referenced from:
- Flosi et al. Stream habitat assessment protocols.
- Napa River Watershed Habitat Assessment and Limiting Factors protocol.
- Standard Operating Procedures for the Santa Clara Valley Water District Habitat Inventory (e.g. for FAHCE)

Detailed Data Description: TBD

Data Format: TBD

Projected Study Completion Date: September 2003

Product Title: TBD

Study Information Verified: Laura Young, SCVWD, June 2002

San Francisquito Sediment Study

Overall Purpose: To identify and quantify sources of sediment loadings and land use contributions in the San Francisquito Creek watershed. The sediment assessment will be used to develop implementable actions, based on science, that will address impacts from sedimentation on fisheries, aquatic habitats, and flood conveyance, as well as other beneficial uses designated for San Francisquito Creek.

Lead Agencies/Organizations: Santa Clara Valley Urban Runoff Pollution Prevention Program; San Mateo Countywide Stormwater Pollution Prevention Program; San Francisquito Creek Joint Powers Authority

Funding Sources: Prop 13 Watershed Protection Program Grant; Stakeholder agencies in-kind services

Contracted Parties: *TBD*

Contact Information:

Name: Cynthia D'Agosta
Organization: San Francisquito Creek Joint Powers Authority
Phone: 650-251-8830
Fax: 650-328-7935
Email: cdagosta@menlopark.org

Name: Laura Young
Organization: SCVWD
Phone: 408-265-2607 ext. 2461
Fax: 408-266-6251
Email: lauryoun@scvwd.dst.ca.us

Keywords: sediment; assessment; rapid sediment budget analysis

Relevance to SCBWMI: SOILS workgroup in the Watershed Assessment Subgroup

Goals:

- Conduct sediment assessment and watershed analysis, to identify and quantify sources of sediment loadings, and proportional land use contributions.
- Use the sediment assessment to develop erosion control and prevention plan, that will address impacts from sediment on fisheries, aquatic habitats, and flood conveyance.

The watershed sediment assessment and analysis, which includes the development of a rapid sediment budget, will be conducted in order to develop an erosion control and prevention plan. The sediment assessment will assist in the evaluation of appropriate and feasible management practices to be implemented to prevent and reduce excess sediment production to streams, enhance aquatic habitat, and reduce flood hazards.

Objectives: The project objectives of the watershed sediment assessment are as follows:

- Develop an understanding of how changes in current and historical land use activities affect peak flow runoff and sediment input to streams;
- Determine and quantify flow and sediment conveyance processes through the stream network;
- Identify, analyze, and address adverse impacts of excess sediment production to streams caused by anthropogenic activities;
- Develop an understanding of flow and sediment impacts to life history needs of native aquatic species, and support aquatic habitat enhancement and restoration;
- Promote the recovery of threatened species, such as steelhead trout, which is a priority and primary issue driving the development of the sediment TMDL for San Francisquito Creek;
- Improve floodwater conveyance and reduce incidence of flooding and property damage;
- Conduct the sediment assessment and the development of the control measures plan in the holistic context of watershed management and in coordination of the WMI; and
- Utilize a consensus building approach that involves regulatory agencies, community members, stakeholder groups, and scientific experts to find mutual solutions to creek issues.

Data collection and analysis will focus on characterizing channel condition and habitat condition with respect to factors limiting the populations of aquatic species, especially threatened and/or endangered native aquatic species. Specifically this shall include the following data analysis:

- An evaluation of erosion and channel sedimentation processes and the influence on flood conveyance (e.g., bank erosion intensity, channel geometry, baseflow, fine sedimentation in pools, etc.);
- An evaluation of the balance between stream sediment supply and transport capability and the consequential effects on aquatic habitat attributes (e.g., pool depth, permeability of spawning gravel, streambed and bank stability, etc.); and
- A characterization of physical water quality parameters and habitat structure (e.g., streamflow, temperature, turbidity, riparian canopy, species distribution, etc.) with reference to life history needs of threatened or endangered aquatic species.

The sediment assessment will involve an evaluation of the balance between stream sediment supply and transport, and its consequential effects on biologically important, aquatic habitat attributes (e.g. pool depth; permeability of spawning gravel; stream bed and bank stability; streamflow, temperature, habitat structure with reference to life history needs of sensitive species). The assessment will also determine whether other causes for aquatic habitat impairment may exist, which warrant investigation (e.g. baseflow depletion, increases in stream temperature, nutrient pollution, riparian condition, absence of LWD, etc.), and identify linkages to causes at the watershed scale.

Study Area Watersheds: San Francisquito Creek
Tributaries Sampled in Watershed: *TBD*

Sampling Location: *TBD*

Sampling Frequency:.*TBD*

Field Sampling Period: *TBD*

Projected Study Completion Date: September 1, 2003

General Data Types Collected:. TBD (Field monitoring for the rapid sediment budget may include cross-section and longitudinal profile surveys; characterization of sediment sizes in stream bed (various methods); and measuring erosion features (various methods)).

Detailed Data Description:. *TBD*

Sampling Protocols: *TBD*

Data Format: *TBD*

Follow-up Studies: *TBD*

Stakeholders Common to SCBWMI: Santa Clara Valley Water District, City of Palo Alto, San Francisquito Creek Joint Powers Authority, Santa Clara County, Santa Clara Valley Urban Runoff Pollution Prevention Program, San Francisco Bay Regional Water Quality Control Board, CLEAN South Bay, San Francisquito Watershed Council (formerly San Francisquito Creek Coordinated Resources Management and Planning)

Study Information Verified: Laura Young, SCVWD, personal communication, 2002

Baseline Development for the HMP and the Regional Stormwater Management Program

Project Description: Collect information on storm drain outfalls, determine catchment areas and percent imperviousness of the corresponding catchments serviced by the outralls; use the information to develop baseline information for the HMP and Regional Stormwater Management Program

Keywords: Channel morphology, erosion, hydrology, storm drain outfalls, percent imperviousness

Lead Agencies/Organizations: SCVWD
Funding Sources: SCVWD
Contracted Parties: Mattern & Assoc.; William Lettis & Assoc.
Contact Information:

Name: Dipankar Sen
Organization: SCVWD
Phone: 1-408-265-2607 x 3036
Email: dsen@valleywater.org

Purpose: The project will assist in the future development of design criteria based on the HMP. The design criteria for the HMP will be used to develop on-site and regional alternatives for stormwater management and treatment.

The primary tasks for this project are:

- Establish baseline conditions for stormdrain outfalls, corresponding catchment areas, stream channels, and percent imperviousness within catchments;
- Future changes in percent imperviousness based on current plans;
- Identify areas that are not exempt from Hydrograph Modification Management Plan requirements based on absence of hardened channels
- Field verification of data for critical segments
- Incorporate information in a format that can become part of a GIS database

Study Area Watersheds: Basinwide

Tributaries Sampled in Watershed: TBD

Sampling Location: Stream segments determined based on existing or potential for erosion, as developed from data collected through the Stream Maintenance Program and through the HMP analysis.

Sampling Frequency: TBD

Field Sampling Period: TBD

Sampling Protocols: TBD

Detailed Data Description: Location of storm drain outfalls from maps; field verification of storm drain outfall coordinates and photo in critical areas subject to erosion; catchment for storm drains upstream of creeks subject to erosion; percent imperviousness within the catchment

Data Format: Data will be prepared in Access or MS database.

Projected Study Completion Date: April 2003

Product Title and Format: None completed.

Study Information Verified: Dipankar Sen, SCVWD, personal communication, July 2002

Section 4: Precedent-Setting for Watershed Management

The Surface Water Ambient Monitoring Program (SWAMP)

Project Description: Conduct stream monitoring by rotating basin approach, using rapid bioassessment and general water quality parameters

Keywords: Bioassessment, metals, pesticides, water chemistry, sediment, toxicity, nutrients, pathogens, bioaccumulation, macroinvertebrates

Lead Agencies/Organizations: RWQCB
Funding Sources: SWRCB
Contracted Parties: CDFG for bioassessment

Contact Information:

Name: Steve Moore
Organization: RWQCB
Phone: 1-510-622-2439
Email: Smm@rb2.swrcb.ca.gov

Purpose: The goal of the SWAMP program in this Region is to monitor and assess all waterbodies of the Region in order to identify reference sites (clean sites) and waterbodies or sites that are impaired, based on data and information that provide a weight-of-evidence assessment of water quality. Objectives of the program include: (1) assessing the physical, chemical, and biological condition of waterbodies in the region in order to determine if waterbodies are impaired and beneficial uses are being protected; (2) measuring environmental indicators of stressors (e.g., pollutants or other water quality parameters), laboratory exposure/effects measurements (e.g., toxicity tests), and ecological response (e.g., benthic macroinvertebrate community analyses) from the same location and/or season; (3) generating data and information during different seasonal conditions; (4) generating data and information that is somewhat evenly distributed across a waterbody to provide a screening level of assessment; (5) determining if impacts are associated with specific stressors or land uses and (6) evaluating monitoring tools in the watershed in order to develop a program that uses the best environmental indicators to achieve the purposes of the program

Six San Francisco Bay watersheds were monitored in FY2000-2001 (none were located in Santa Clara Basin). An additional five watersheds will be monitored FY 2001-2002, including two in the Basin (Stevens and Permanente).

Study Area Watersheds: Stevens and Permanente

Tributaries Sampled in Watershed: Hale Creek, East and West Fork Permanente

Sampling Location: Eight sites on Stevens Creek, including four in urban area (from La Avenida upstream to Barranca Dr.), one site below Steven Reservoir at gauging station, and three sites above reservoir in rural area. Seven sites on Permanente Creek, including five in urban area

(from mouth upstream to Fremont Blvd on Permanente and at Covington in Hale Creek), and two sites in rural area (East and West Forks).

Sampling Frequency: Bioassessment conducted once in spring at all sites. Water chemistry and toxicity testing conducted at 2 locations in each watershed for three hydrological regimes. The 3 hydrologic cycles are the wet season (January - March), decreasing hydrograph /spring (April - May) and the dry season (June - August). Conventional water chemistry (nutrients and anions) conducted at 3 locations in Stevens and 2 locations in Permanente for all three sampling periods. Continuous monitoring devices measuring temperature, pH, conductivity, and dissolved oxygen are deployed at three locations in each watershed for two-week intervals about 4 to 7 times per year. At the bottom of each watershed in the non-tidal area is one station, the integrator station, which will integrate the contaminant conditions in the waterbody and determine which contaminants from that waterbody flow into the receiving waters. At these stations, *Corbicula* will be deployed for bioaccumulation measurements and sediment samples will be collected for toxicity analysis, using *Hyalella*, grain size analysis and sediment chemistry. Sampling will be concurrent and occur early in the dry season. Pathogen indicators, total and fecal coliforms and *E.coli*, will be sampled at three locations in each watershed for all three sampling periods. These pathogen indicators require five samples within 30 days to evaluate against objectives listed in the Basin Plan.

Field Sampling Period: Sampling began spring 2002 and will continue into summer of 2003. Monitoring as part of detailed investigations will potentially be conducted in subsequent years.

Projected Study Completion Date: Screening level sampling will be completed by middle of 2003. Detailed investigations may continue for undetermined length of time.

Detailed Data Description: Water and sediment chemistry, tissue chemistry, conventional water quality parameters including chlorophyll, ammonia, nitrate/nitrite, total nitrogen (by TKN), phosphate, alkalinity, hardness, total and dissolved organic carbon (TOC/DOC), total suspended solids (TSS), total dissolved solids (TDS-salinity) and major cations and anions, general water quality (temperature, DO, pH, conductivity and turbidity), toxicity, pathogen indicators include total and fecal coliforms and *E.coli*, benthic macro-invertebrates samples and visual physical habitat assessments.

Sampling Protocols: Water quality samples will be obtained from grab samples and probes. Benthic macro-invertebrates will be sampled using the CDFG's California Stream Bioassessment Protocol.

Data Format: Monitoring data will be added to the Surface Waters Ambient Monitoring Program (SWAMP) database, which was developed in Microsoft Access.

Product Title and Format: None

Study Information Verified: Steve Moore, RWQCB, personal communication, 2002.

Coyote Creek Stream Stewardship Plan (SSP)

Project Description: Develop strategy for implementing the SCVWD Ends Policy using a watershed management approach within the Coyote Creek Watershed.

Keywords: Watershed assessment, watershed management, restoration

Lead Agencies/Organizations: SCVWD
Funding Sources: NA
Contracted Parties: Raines, Melton & Carella, Inc.
Contact Information:
Name: Sarah Young
Organization: SCVWD
Phone: 1-401-265-2607
Email: SaraYoun@scvwd.dst.ca.us

Purpose: Development of stream stewardship plan for stream corridors within the Coyote Watershed, to define existing conditions and status of District support activities and long-range projections, and identify improvement projects in the areas of stream maintenance, capital projects, wetlands mitigation, habitat conservation, riparian restoration, non-point source pollution prevention and watershed management. Candidate projects include studies to obtain additional information and data. Implementation of projects will be dependent on the availability of funding, regulatory requirements, and existence of high priority projects, such as those in response to emergencies and requests from partner agencies.

Study Area Watersheds: Coyote

Tributaries Sampled in Watershed: All tributaries in the Coyote Watershed.

Sampling Location: NA
Sampling Frequency: NA
Field Sampling Period: NA
Sampling Protocols: NA

Detailed Data Description: NA

Projected Study Completion Date: April 2002.

Product Title and Format: Coyote Watershed Stream Stewardship Plan Final Report; electronic (pdf and word) and hard copy.

Study Information Verified: Patrick Esteban, SCVWD, personal communication, 2002 and Final Report.

Section 5: Research

Measurement of Sediment and Contaminant Loads from the Guadalupe River Watershed

Overall Purpose: To evaluate the significance of contaminant loading from small tributaries into the San Francisco Bay.

Lead Agencies/Organizations: Clean Estuary Partnership
Funding Sources: Clean Estuary Partnership
Contracted Parties: San Francisco Estuary Institute (SFEI); USGS; UC Santa Cruz; and Redwood Science Laboratory
Contact Information:

Name: Lester McKee
Organization: SFEI
Phone: 510-746-7363
Email: lester@sfei.org

Keywords: Pollutant loads, mercury, pesticides, sediment

Purpose: The study will provide valuable information to the TMDL process in the San Francisco Bay for addressing pollutants of special concern. Some of questions this study proposes to address are: 1) should control measures to reduce contaminant loading be implemented in local tributaries; 2) are tributaries more import source of contaminants than the Central Valley; 3) help measure effectiveness of management actions taken to reduce mercury discharge from mining districts; and 4) verify the accuracy of estimates of urban runoff loads from local watersheds.

Study Area Watersheds: Guadalupe River
Tributaries Sampled in Watershed: none

Sampling Location: USGS stream gage (11169025) above Hwy 101

Sampling Frequency: Continuous monitoring of suspended sediment, 30 grab samples for contaminant concentration analysis, and 150 samples for suspended sediment concentration analysis will be collected each year.

Field Sampling Period: October 2002 – April 2003 (project may continue through 2006, depending on funding). Sampling efforts will focusing on the wet season. Real-time discharge and rainfall data will be utilized to determine when to mobilize sampling teams.

Detailed Data Description: Suspended sediment concentrations (SSC); contaminants of concern, including mercury, PCBs, PAHs and organochlorine pesticides.

Sampling Protocols: Suspended sediment analyses following USGS protocols; contaminant water samples conducted using a modification of the "clean sampling protocols" developed by UC Santa Cruz.

Data Format: Data sets will be made available on SFEI webpage.

Projected Study Completion Date: 2003, with possible extension through 2006

Product Title and format: Technical reports following each year's data collection and final report at end of study.

Study Information Verified: Lester McKee, SFEI, personal communication, July 2002

Ecology and impacts of the Chinese mitten crab (*Eriocheir sinensis*) in San Francisco Bay

Overall Purpose: This is an ongoing research and monitoring project to examine the ecology and impacts of the Chinese mitten crab, with particular focus on the brackish and freshwater ecosystems of South San Francisco Bay.

Lead Agencies/Organizations: UC Berkeley
Funding Sources: CALFED, Sigma Xi, UC Center for Water and Wildland Resources, UC Berkeley
Contracted Parties: Debbie Rudnick, Graduate student; Vincent Resh, Professor; Lydia Cao, research assistant
Contact Information:

Name: Debbie Rudnick
Organization: UC Berkeley
Phone: 510-642-6315 or 5913
Fax:
Email: drudnick@nature.berkeley.edu

Keywords: bioassessment/biomonitoring,, biological communities, biological data, channel morphology/hydrogeomorphology. erosion, invasive/introduced species, physical habitat, Sediment/sedimentation, macroinvertebrates

Relevance to SCBWMI:

Goals: To monitor invasive mitten crab populations since 1996 in the South Bay estuary and tributaries.

Objectives: To monitor population dynamics of the Chinese mitten crab; examine ecology and habitat associations throughout the life cycle of the crab; monitor burrowing activities and quantify effects to banks and levees; explore trophic ecology and impacts of the Chinese mitten crab; examine competitive interactions with co-occurring crustacea;

Study Area Watersheds: Basinwide
Tributaries Sampled in Watershed: Coyote Creek and its tribs, Guadalupe River and its tribs, San Thomas Aquino Creek, Calabazas Creek, Permanente Creek, Stevens Creek

Sampling Location: Focus on tidally influenced portions of above tributaries; additional sampling and monitoring conducted throughout freshwater portions of tributaries
Sampling Frequency: year-round, at varying frequencies depending on topic

Field Sampling Period: From 1996 to 2002

Projected Study Completion Date: Fall 2002

General Data Types Collected: physical and chemical stream data; biological community data; mitten crab morphological data; sample collection for isotope analysis

Detailed Data Description:
Sampling Protocols: Please see Rudnick, Resh and Halat 2000, Water Resources Center Report #206 (available at http://www.waterresources.ucr.edu/online_pubs.htm) for a detailed description of data and sampling protocols

Data Format: available electronically in Excel, access and text documents. Map data entered using topo! mapping software.
Follow-up Studies: studies are coordinated with the US Fish and Wildlife Service and the California Department of Water Resources in order to standardize methods among mitten crab monitoring programs. It is expected that US Fish and Wildlife will conduct management of this project data at completion.

Stakeholders Common to SCBWMI:
Study Information Verified: Debbie Rudnick, UCB, personal communication, July 2002.

Steelhead Population & Habitat Monitoring in West Union Creek

Overall Purpose: To obtain baseline data on status of steelhead and habitat conditions within West Union Creek

Lead Agencies/Organizations: NPS-GGNRA
Funding Sources: NPS-GGNRA
Contracted Parties: none
Contact Information:

Name: Darren Fong
Organization: GGNRA
Phone: 415-331-8716
Fax:
Email: darren_fong@nps.gov

Keywords: bioassessment/biomonitoring, biological communities, biological data, macroinvertebrates, fisheries, physical data, salmonids, special status species.

Relevance to SCBWMI:

Goals: Inventory of stream habitat conditions and distribution and abundance of fish within Park boundaries.
Objectives: Assess steelhead population and habitat conditions.

Study Area Watersheds: San Francisquito
Tributaries Sampled in Watershed: West Union Creek.

Sampling Location: GGNRA lands downstream to Huddart Park near McGarvey Gulch confluence.
Sampling Frequency: Bioassessment planned once; no plans to monitor on a regular basis.
Field Sampling Period: 1996 - 2002

Projected Study Completion Date: Data has been collected to assess steelhead population and habitat conditions. Park staff plans to collect benthic macroinvertebrates in Fall 2002. No report has been published that summarizes the data.
General Data Types Collected: Fish, Instream habitat

Detailed Data Description: Stream habitat classification, fish community composition, age structure, fish density, steelhead redd densities, Woody debris.
Sampling Protocols: Stream habitat classification: California salmonid stream habitat restoration manual; Juvenile fish: removal depletion electrofish sampling, snorkel
Data Format: Spreadsheet
Stakeholders Common to SCBWMI:

Study Information Verified: Darren Wong, NPS, personal communication, July 2002.

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Appendix A: Preliminary Information on Additional Projects

Preliminary Information on Additional Projects

Project Name	Lead Agency	Contact	Email	Description	Study Water-shed(s)	Sampling Period
PCB TMDL Study	Clean Estuary Partnership (CEP)	Khalil Abu-Saba	abu-saba@amarine.com	Draft TMDL workplan is being developed that will describe tasks to identify and manage controllable loads of PCBs, as well as refine numeric models needed to predict the ecosystem response and time to attain target concentrations in fish.	All tributaries to the San Francisco Bay.	To be determined
Hydromodification Management Plan (HMP)	SCVURPPP	Jill Bicknell	jcbicknell@eoainc.com	The HMP will assess stream condition and provide guidance to local agencies on managing the hydrologic effects of land development on stream stability and geomorphology. The work is being conducted to meet a SCVURPPP permit requirement.	All tributaries to the San Francisco Bay. (may focus on particular watersheds later).	Fall 2002