

**SAN FRANCISQUITO CREEK WATERSHED
ASSESSMENT OF SEDIMENT MANAGEMENT PRACTICES
PLAN AND SCHEDULE**

March 1, 2002

SANTA CLARA VALLEY
URBAN RUNOFF POLLUTION PREVENTION PROGRAM

Submitted in fulfillment of
SCVURPPP NPDES Permit Provision 9(f)(ii)

CO-PERMITTEES:
SANTA CLARA VALLEY WATER DISTRICT
COUNTY OF SANTA CLARA
CITY OF PALO ALTO

SAN FRANCISQUITO CREEK WATERSHED ASSESSMENT OF SEDIMENT MANAGEMENT PRACTICES PLAN AND SCHEDULE

Introduction

This work plan is submitted in fulfillment of the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) NPDES permit Provision 9(f)(ii) and the San Mateo County-wide Stormwater Pollution Prevention Program (SM-STOPPP) provision C.10. The SCVURPPP and SM-STOPPP permit provision requires the Programs to submit a work plan and schedule to the Regional Board to conduct an assessment of sediment management practices. In this work plan, the key tasks are identified as they relate to assessing the sediment management practices conducted in the watershed. The plan outlines the goal, objectives, and approach that the Programs and its co-permittees will use to assess sediment management practices in the San Francisquito Creek watershed. This effort will also support a holistic approach to watershed management in the development and implementation of the most practicable erosion control and sediment management measures. In addition, this study is anticipated to produce information that will assist the Regional Board in preparing a sediment Total Maximum Daily Load (TMDL) Implementation Plan for the watershed.

Background

The proposed project presented in this work plan will assist the co-permittees of the Santa Clara Valley Urban Runoff Program (SCVURPPP) and the San Mateo Countywide Stormwater Pollution Prevention Program (SM-STOPPP) to comply with the management of sediment impairment and control provision in their respective storm water NPDES permits. The co-permittees of the SCVURPPP include the Santa Clara Valley Water District, County of Santa Clara, and the City of Palo Alto. The co-permittees of the SM-STOPPP include the County of San Mateo, the City of East Palo Alto, the City of Menlo Park, the Town of Woodside, and the Town of Portola Valley.

Provision 9(f)(ii) of the Santa Clara Valley Urban Runoff Pollution Prevention Program NPDES Permit Order No. 01-024 reads as follows:

“San Francisquito Creek. Submit a plan and time schedule for implementation acceptable to the Executive Officer by March 1, 2002 to conduct, in cooperation with STOPPP, an assessment of management practices that are currently being implemented and additional management practices that will be implemented to prevent or reduce excess sediment impairment in urban creeks, and implement any additional management practices necessary to prevent or reduce excess sediment impairment in San Francisquito Creeks. Such management practices may include but are not limited to: management and/or removal of large woody debris and live vegetation from channels; stream bank stabilization projects; road construction, operation, maintenance, and repairs to prevent and control road-related erosion; management of construction related sediment; and management of post-construction sediment from areas of new development or redevelopment.”

Provision C.10 of the reissued San Mateo Countywide Stormwater Pollution Prevention Program NPDES Permit Order 99-059 reads as follows:

Watershed Management Initiative for San Francisquito Creek:
East Palo Alto, Menlo Park, Woodside, Portola Valley, and the County of San Mateo shall develop and implement an erosion control and prevention plan and diazinon toxicity reduction plan. A draft scope of work and outline for the report(s) shall be submitted by September 1, 2000. Interim draft report(s) shall be submitted by March 1, 2001, and final report(s) shall be submitted by September 1, 2001. The final report(s) shall include a schedule for implementation of the plan(s). In addition to, and to facilitate the development of the reports specified above, the dischargers shall coordinate with and participate in the development of the watershed assessment and management plan for San Francisquito Creek watershed and the Santa Clara basin that is being developed through the Santa Clara Basin Watershed Management Initiative.

The final scope of the SM-STOPPP Erosion Control and Prevention Plan was submitted to the Regional Board by San Mateo County on behalf of the SM-STOPPP co-permittees (San Mateo County, East Palo Alto, Menlo Park, Woodside, Portola Valley) on September 1, 2001.

The co-permittees for the SCVURPPP and SM-STOPPP, along with other agencies and organizations in the watershed, are actively participating in a stakeholder process and are working in cooperation and coordination in development of a holistic, watershed approach to sediment assessment and analysis to determine sediment loadings and impacts in the watershed, and the characterization of management practices to reduce sediment impairments. As directed by the Regional Board, SCVURPPP and SM-STOPPP have planned in coordination a sediment assessment of the watershed including problem identification, defining goals and objectives, and the coordination of ongoing efforts within the watershed. The proposed sediment assessment provides a comprehensive study of sedimentation issues impacting the watershed that will utilize sediment analyses currently being pursued in the watershed by the U.S. Geological Survey and Stanford University.

The basic components of a watershed sediment assessment and analysis include a problem statement, quantitative characterization of sediment and hydrologic inputs, source identification, sediment loadings analysis and land use contributions, sediment transport, characterize channel and habitat condition, and potential management options. The watershed sediment assessment and analysis will require an integrated approach involving all of the jurisdictions, resource agencies and the community who have an interest in its outcome. A stakeholder work group has been formed to address the watershed assessments, and is comprised of representatives from the County of San Mateo, County of Santa Clara, USGS, Stanford University, Santa Clara Valley Water District, San Mateo County Stormwater Pollution Prevention Program (SM-STOPPP), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), San Francisquito JPA, and the San Francisquito Watershed Council (formerly CRMP).

In addition, the stakeholders were successful in the award of a Proposition 13 Phase I grant (Prop 13 Grant Project) for watershed sediment analysis and development of a sediment reduction plan, titled the *San Francisquito Creek Watershed analysis and Sediment Reduction Plan* project. The Prop 13 Grant Project Task 7 funds development of a sediment reduction plan based on an assessment of existing management practices, and evaluation and recommendations for additional erosion control measures to be implemented. A large portion of the work for this plan is contingent on the Prop 13 Grant Project scope to be developed by the grant Technical Advisory Committee. Therefore, the implementation and schedule as presented in this plan may be revised depending on the scope and schedule for the Sediment Reduction Plan to be developed under Prop 13 Grant Project Task 7. The stakeholders will conduct the sediment assessment and develop a control measures plan in the holistic context of watershed management and in coordination of the Santa Clara Basin Watershed Management Initiative.

A brief listing of current and planned sediment management practices by the SCVURPPP co-permittees (Santa Clara Valley Water District, Palo Alto, County of Santa Clara) is presented in Table 2. Attachment A – C also provides a brief description of the co-permittees sediment management activities for the SCVWD, Palo Alto, and County of Santa Clara, respectively. Attachment D summarizes the current and planned erosion control and prevention measures of the SM-STOPPP co-permittees (County of San Mateo, East Palo Alto, Menlo Park, Woodside, Portola Valley). In addition to practices by the co-permittees of the two programs, the plan will also survey management practices of jurisdictions, agencies and large landowners within the watershed, such as Mid-Peninsula Regional Open Space District (MROSD), Golden Gate National Recreation Area (GGNRA), and California Department of Transportation (Caltrans). This effort will also review ongoing and proposed efforts by the SCVURPPP, the WMI, and the San Francisquito Watershed Council to compare and contrast agency planning, permitting and model development principles.

Project Goal

The goal of the Sediment Management Practices Assessment is to determine practices that are implemented, planned, or suggested and their effectiveness to control, reduce, or eliminate sedimentation impairments in the San Francisquito Creek watershed.

Project Objectives

The objective of the Sediment Management Practices Assessment is to identify ongoing and planned erosion control measures and sediment management practices in the San Francisquito Creek watershed, and evaluate these activities for benefits and effectiveness by conducting the following:

- Inventory sediment management practices undertaken by the co-permittee agencies,
- Compile and review existing data for performance measures; and
- Identify possible management practices to be implemented in the future.

Project Scope

Task 1. Inventory and Document Sediment Management Practices in the Watershed

Survey jurisdictions, agencies and large landowners within the watershed to assess current management practices. Determine current and planned erosion control measures and sediment management practices in the watershed, the lead agency, regulatory/management driver, purpose and scope, location and extent, and time period. Management practices and control measures include planning activities and regulatory actions to reduce non-point sources of sediment; management of large woody debris and in-channel vegetation; and implementation of Best Management Practices (BMPs) in areas, such as streambank stabilization efforts, trail and rural road erosion control and prevention, new and redevelopment construction, and livestock management. List management practices that are currently being implemented, which management practices could be implemented on a wider scale, and planned measures that will be initiated prior to completion of the watershed analysis study (September 1, 2003). Review available project reports, interview agency staff, and search available records and databases for management activities.

Develop Work Product: Table presenting management practices, lead agency, driver, purpose/scope, stream reach, and schedule.

Funding/Resources. The estimated level of effort for Task 1 is 120 hours. Funding will be supported in part by the Prop 13 Grant (Task 7), and with matching funds and in-kind services by the SCVURPPP and SM-STOPPP co-permittees. The task will be conducted primarily by the Prop 13 grant project contractor, in a coordinated effort utilizing technical services of the stakeholder work group.

Task 2. Compile and evaluate existing information and data.

Using data gathered from Task 1, evaluate documented evidence and qualitatively determine ability of management efforts to improve impairment or prevent degradation of the water body due to sediment, in order to determine measures of success of management practices (performance measures). Incorporate results of the Prop 13 Grant Project Task 5 – Existing Conditions Analysis, as well as findings and recommendations from other efforts such as the WMI San Francisquito Creek Pilot Assessment, SCVURPPP and WMI LUS (Development Policies Comparison), and the FishNet4C regarding reviews on planning and management measures. Develop criteria for evaluation of management practices for effectiveness and to insure the adequacy of erosion and sediment control measures. Conduct evaluation of management practices and policies, and effectiveness of BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce sedimentation. Consider adequacy of project monitoring and maintenance, reporting, training, and education and outreach.

Develop Work Product: Table presenting data from project records and agency information on performance measures for each reach.

Funding/Resources. The estimated level of effort for Task 2 is 120 hours. Funding will be supported in part by the Prop 13 Grant (Tasks 5 and 7), and with matching funds and in-kind services by the SCVURPPP and SM-STOPPP co-permittees. The task will be conducted primarily by the Prop 13 grant project contractor, in a coordinated effort utilizing technical services of the stakeholder work group.

Task 3. Identify potential management practices to be implemented in the future.

Based on the information review, summarize areas where sediment problems occur, and no management actions are planned or implemented. Incorporate results of the Prop 13 grant watershed sediment assessment study and rapid sediment budget analysis, identifying existing and potential anthropogenic sources of erosion and sedimentation, and evaluate effectiveness of current management practices. Consider the findings and recommendations from other efforts such as the WMI San Francisquito Creek Pilot Assessment, SCVURPPP and WMI LUS (Development Policies Comparison), and the FishNet4C regarding reviews on planning and management measures.

Identify possible management practices to address sediment problem areas, including improvements to current management practices. Possible management measures and Best Management Practices may include, but are not limited to, the following: municipal maintenance, rural road maintenance, facility design, construction management and inspection, and parks/open space/land management practices. Recommended policy development may include: land use and management, flooding issues, and enforcement. Consider project monitoring and maintenance, reporting, training, and education and outreach requirements of possible projects.

Determine additional data and information needs to consider applicability of possible management practices, and list management practices that will require further analysis. Gather input from stakeholders, resource experts, and agency professionals to identify and determine the practicality of implementing additional management practices to protect, enhance, or restore the water quality or habitat impacted by sediment impairment (e.g. advantages, disadvantages, maintenance, performance, cost). Coordinate and collaborate with sediment assessment project and modeling efforts, to simulate land use management scenarios and effects of management practices.

Develop Work Products:

- (1) Draft recommended projects list of recommended management measures and Best Management Practices
- (2) Prepare draft and final management measures assessment report, that includes tables developed in task 1, 2, and 3, and addresses knowledge gaps and integration with results of ongoing studies, including the sediment assessment and rapid sediment budget analysis, habitat assessment and limiting factors analysis, SCB-WMI watershed pilot assessment, and the watershed council LTMAP studies. The assessment report will discuss the current and planned management practices in the watershed, and how they influence stream quality and address sediment impairment. The report will provide recommendations of additional management practices to address the causes of sediment impairments.

Funding/Resources. The estimated level of effort for Task 3 is 240 hours. Funding will be supported in part by the Prop 13 Grant (Task 7), and with matching funds and in-kind services by the SCVURPPP and SM-STOPPP co-permittees. The task will be conducted primarily by the Prop 13 grant project contractor, in a coordinated effort utilizing technical services of the stakeholder work group.

Task 4. Implementation Plan of Management Measures

Based on the results and recommendations of Task 3, prioritized recommendations for management of sources and impacted areas shall be developed, ranked according to potential benefit to steelhead and other sensitive species, reduction of flooding, and on a cost/benefit basis. Determine a schedule for implementation of the above management measures to reduce sediment. Incorporate implementation plan of management measures into watershed stewardship plan. Coordinate and collaborate with stakeholder groups and provide for public participation in plan development. Include process to identify partners and funding sources.

Develop Work Products:

(1) Prepare Implementation Plan of recommended projects with schedule, time frame, responsible parties and costing.

Funding/Resources. The estimated level of effort for Task 4 is 156 hours. Funding of the Implementation Plan and Management Measures Task will be supported in part by the Prop 13 Grant (Task 7), and with matching funds and in-kind services by the SCVURPPP and SM-STOPPP co-permittees. The task will be conducted primarily by the Prop 13 grant project contractor, in a coordinated effort utilizing technical services of the stakeholder work group.

Project Level of Effort

The estimated project level of effort for the Sediment Management Practices Assessment is 636 hours. The project budget cost estimate will be developed following finalization of the Prop 13 Grant Project scope and consultant contract. Prop 13 Grant matching funds are not yet determined under the grant process as of date of this work plan. The level of effort estimate does not include efforts associated with supported by ongoing projects and activities in the watershed, including USGS Include, SCVWD, Stanford University, the City of Palo Alto, and the County of Santa Clara.

Project Schedule

The following table presents the anticipated project schedule for conducting the Sediment Management Practices Assessment. The actual project schedule and level of effort is dependent on the scope and subsequent completion and results of the Prop 13 Grant Project. The schedule assumes a start date of March 1, 2002 with a project completion and final report submittal to the Regional Board by September 1, 2003.

Table 1. Sediment Management Practices Assessment Project Milestones

Activity	Deliverable	Start Date	Completion Date
Task 1. Inventory management practices	Table of management practices	Mar 1, 2002	Sep 1, 2002
Task 2. Compile and evaluate existing information	Table of performance measures of implemented efforts	Sep 1, 2002	Mar 1, 2003
Task 3. Identify potential sediment management practices	Table of recommend management measures	Mar 1, 2003	Sep 1, 2003
Task 4. Develop Implementation Plan and Sediment Management Practices Assessment report	Implementation Plan and Draft and final report	Mar 1, 2003	Sep 1, 2003

Attachment A

Sediment Management Practices of the Santa Clara Valley Water District

This section briefly describes the sediment removal and sampling activities of the Santa Clara Valley Water District (District), and documents the types and sources of relevant sediment data collected. The District conducts routine maintenance activities that include sediment removal and erosion control, and constructs flood protection facilities, water utility facilities, and facility-related projects in the San Francisquito Creek Watershed that may include sediment removal or stabilization of sediment sources. The District Stream Maintenance Program encompasses the implementation of routine stream and facility maintenance work, and includes sediment removal, stream bank protection and vegetation management.

Sediment Removal

Sediment removal is the act of mechanically removing sediment deposited within a stream or a facility. It is removed when it (1) reduces capacity, (2) prevents facilities or appurtenant structures from functioning as intended, or (3) impedes fish passage and access to fish ladders. In order to properly dispose of excavated sediments, routine characterization of representative samples is conducted. The samples are collected and analyzed according to state and federal regulations, and generally include analyses of the samples for total mercury.

The District's purpose for performing sediment removal activities is to ensure that a stream will remain within its banks and to ensure that appurtenant facilities are working as designed. Sediment is most often removed from modified channels; sediment is also removed from natural creeks on an occasional basis to provide proper functioning of outfalls, culverts, bridge crossings and stream gauging stations, and from other facilities such as fish ladders, fish screens, percolation ponds, water diversion structures and canals.

The Santa Clara Valley Water District estimates that it removes an average of 80,000 cubic yards of sediment on about 17 miles of channel per year in Santa Clara County. This average includes both concrete-lined and earth-lined channels. This is an average annual quantity and will vary from year to year. For example, in 1986, 176,800 cubic yards of sediment were removed from creeks in Santa Clara County. In 1992 only 44,700 cubic yards of sediment were removed.

In the San Francisquito Creek Watershed, silt was removed in 1984 (3,290 cy), 1993 (1,260 cy), and again in summer/early fall of 1997 (4,600 cy). During the winter of 1997-1998, sediment was removed on an emergency basis on two occasions (a total of 1,500 cy). In 2000, about 4000 CY of sediment was removed by the District along a 400 linear feet reach.

Stream Bank Protection

Stream bank protection involves an action by the District to repair erosion. The District implements stream bank protection when the problem (1) causes or could cause significant damage to a property or adjacent property, (2) is a public safety concern, (3) negatively affects transportation or recreational use, (4) negatively affects water quality,

or (5) negatively affects riparian habitat. Repairs may take several forms from installing "hard" structures (e.g., rock, concrete, sack concrete, gabions) to "soft" structures (e.g., willow brush mattresses, log crib walls, pole plantings). Generally, sediment disposal is not required for these projects, and a laboratory analysis of sediment samples is not conducted.

Bank protection work may either occur as repair of an existing bank protection project, which is failing, or as new work along a bank which is eroding. The new work is considered routine maintenance work because it is either restoring the flood control function of an engineered channel or it is repairing a non-engineered bank to its approximate condition prior to becoming an erosion problem. Erosion on banks may cause vegetation and soil loss, damage to private or public property, transportation impacts, safety hazards, turbidity injurious to fish and aquatic life, and sedimentation downstream. Levee erosion may lead to failure of the structure and flooding in addition to the impacts caused by bank erosion, including damage to public utilities. Most often, bank protection projects are implemented in the dry season (summer), unless an immediate or emergency response is required as a result of bank failure during the wet season.

Hazardous Materials Investigations

The District is responsible for providing the necessary lands, easements, and right-of-ways along the channel prior to construction of flood protection or water utility facilities. Before construction, the District performs Phase I/II Hazardous Substance site investigations, which include the sampling and analysis of surface sediments, soil-borings, monitoring well cores, and excavation sites. The Phase II investigations are conducted to characterize and delineate the lateral and vertical extent of contaminated soil where flood control improvements are planned. The data are used to classify hazardous materials for disposal, identify soil management alternatives and develop cost estimates for remediation and soil disposal. In addition, the investigations provide project management alternatives related to property acquisition, worker health and safety, and residuals management during construction. The samples are collected and analyzed according to state and federal regulations, and generally include analyses of the samples for petroleum hydrocarbons.

DISTRICT RELATED PROGRAMS AND PROJECTS

This following provides an overview of the linkages between the Stream maintenance Program in the San Francisquito Creek watershed and stream-related programs and projects now underway at the District:

1. Annual maintenance work (work conducted in 1998, 1999 and 2000)
2. Capital Improvements Program (CIP, various District project numbers)
3. Comprehensive Flood Management Program (CFMP, District Project No. 000404)
4. Nonpoint Source Pollution Protection Program (NPS Program, District Project No. 007902)
5. Surface Water Quality Improvement Program (Clean Safe Creeks and Natural Flood Protection, District Project No. 267543)
6. San Francisquito Creek Sediment Study (Clean Safe Creeks and Natural Flood Protection, District Project No. 267542)

7. Santa Clara Basin Watershed Management Initiative (SCBWMI, District Project No. 0007914)

1. Annual Maintenance Work (1997, 1998 and 2000)

Purpose: Like the Stream Maintenance Program, this work involved preparing environmental assessments and obtaining regulatory clearances for sediment removal and bank protection activities within the District's jurisdiction. However, these annual projects did not include ongoing vegetation management work because it does not require USACE permits, and Vegetation Management staff avoided locations with ESA issues.

2. Capital Improvements Program (CIP, various District project numbers)

Purpose: Implement needed flood protection supply projects through planning, design, construction, and environmental assessment processes.

3. Comprehensive Flood Management Project (CFMP, District Project No. 000404)

Purpose: The mission of the CFMP is to develop and implement a comprehensive flood protection and stream stewardship program supported by the community, and to secure the funding necessary for the implementation of that program. This project seeks to expand flood protection goals into a larger stream management program. The program outcomes and activities will be consistent with the following ends policies adopted by the Board of Directors for flood protection and stream stewardship:

- Homes, schools, businesses, and transportation networks are protected from flooding and erosion.
- Clean, safe water in our creeks and bays.
- Healthy creek and bay ecosystems are protected, enhanced, or restored as determined appropriate by the Board of Directors.
- Additional open spaces, trails, and parks along creeks and in the watersheds when reasonable and appropriate

Participants: Project-specific stakeholders including District management and staff, community stakeholders, environmental advocacy groups, and local government representatives. Most projects are fully within the District's jurisdiction, while a Joint Powers Authority oversees San Francisquito Creek work, and stream stewardship projects will involve partnerships with local governments, open space districts and community organizations.

4. Nonpoint Source Pollution Prevention Program (NPS Program, District Project No. 007902)

Purpose: To protect aquatic habitat, recreational water uses, and local water supply by preventing pollution of storm water runoff. The NPS Program is

comprised of: (1) “area wide” activities performed collaboratively with 14 other agencies in northern Santa Clara County under the Santa Clara Valley Urban Runoff Pollution Prevention Program and (2) “District-specific” activities performed uniquely by the District for its own operations and within its own jurisdiction.

The NPS Program reduces the flow of all pollutants from diffuse sources into streams, reservoirs, and the San Francisco Bay. The reduction of sediment, metals, and organic pollutants improves water and aquatic habitat quality.

5. Surface Water Quality Improvement Program (Clean Safe Creeks and Natural Flood Protection, District Project No. 267543)

Purpose: In coordination with state, local, and District programs, develop and implement monitoring and assessment projects to minimize or eliminate the impacts of pollutants to the environment, to describe status and trends, to address existing and emerging problems, to support management and regulatory programs, and to evaluate performance measures.

6. San Francisquito Creek Sediment Study (Clean Safe Creeks and Natural Flood Protection, District Project No. 267542)

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.

Goals of the San Francisquito Creek Sediment Study include:

- 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.

7. Santa Clara Basin Watershed Management Initiative (WMI, District Project No. 0007914)

Purpose: The mission of the WMI is to protect and enhance the watershed, creating a sustainable future for the community and the environment. The participants will work toward the development and implementation of an integrated watershed management approach to address water pollution and improve the condition of the Santa Clara Basin. Investigation and implementation measures related to Total Daily Maximum Loads (TMDLs) for pollutants of impaired

waterways are currently under the WMI umbrella, however they may soon become one or more separate projects based on the pollutants to be reduced.

Attachment B

Sediment Management Practices of the County of Santa Clara

Rural Public Works Maintenance – Update of Performance Standards

Drainage Manual

Livestock Advisory Program

Grading Ordinance (see sections C12-411, C12-435(d), and C12-517)

New Development, Use Permit, Environmental Review

Attachment C

Sediment Management Practices of the City of Palo Alto

- 1) Construction Site Inspection and Storm Water Pollution Prevention Plan Compliance Assurance

The primary goal of the inspection and enforcement program is to prevent sediment from running off a construction site. Palo Alto staff visits the following sites as needed during and after the construction period:

- NOI sites (>5 acres)
- Complaints (citizen)
- Patrol - single family construction sites
- Referrals from City crews
- Sites where P.W. Engineering reviewed grading plans and a Storm Water Pollution Prevention Plan was established.
- Revisit problem sites

When Ordinance Violations are discovered, all construction sites are subject to:

Verbal Warnings-cases where a threatened discharge is about to happen or a minor occurrence can be corrected immediately.

Compliance Directive - repeat occurrence or to correct a repeat occurrence of a threatened discharge.

Notice of Violation - follows the issuance of a Compliance Directive. Violator's name is entered into the database.

Fines - issued to repeat violators, gross violators, and violators who are believed to ignore storm water best management practices and PAMC ordinance.

- 2) The entire Environmental Compliance division inspects industrial/commercial sites for sanitary sewer or other purposes while conducting industrial inspections. Potential sediment problems are investigated at the following example areas.

- Materials Storage Areas
- Dumpster Areas
- Vehicle and Equipment Areas

Enforcement follow-up is conducted as appropriate.

- 3) Ordinance Enforcement

The following key Palo Alto Municipal Code provisions are used to take appropriate formal enforcement action for sediment control:

Section 16.09.117 - must have a SWPPP on sites equal to or greater than 5 acres.

Section 16.09.117 - prior approval must be obtained from the city engineer or designee to discharge water pumped from construction sites to the storm drain.

Sediment Management Practices of the City of Palo Alto (continued)

Section 16.09.061 - authority to monitor discharges and issues compliance directives.

Section 16.09.106 - addresses illegal and threatened discharges to storm drains, gutters, creeks, or San Francisco Bay.

Grading Ordinance

Section 16.28.120 – interim and final erosion and sediment control and storm water pollution prevention plans must be prepared, approved, and implemented when a grading permit is needed.

- 4) Outreach – The City of Palo Alto conducts many outreach efforts to raise awareness about sediment control associated with San Francisquito and other creeks. By raising awareness, a higher level of compliance with sediment control requirements is achieved. The City utilizes brochures for construction contractors and project managers concerning earthmoving, saw cutting, concrete work, construction dewatering, materials storage and other specific operations, which can cause sediment. Other information is targeted for commercial business managers that might be involved in construction work, or other types of work that may lead to sediment pollution. Residents and school children are also targeted with outreach messages to solicit their help in sediment control. All City staff is asked to report problems that they see so that Environmental Compliance Staff can take appropriate enforcement action. City Vehicle dashboards show the number to call to report storm drain pollution problems. Cameras have been placed in City Vehicles so that any Staff member can document problems for follow-up by Environmental Compliance Staff.

Attachment D

Erosion Control and Prevention Plan, San Mateo County STOPPP

(submitted to Regional Water Quality Control Board, September 2001)

County of San Mateo

**San Francisquito Creek Watershed
Erosion Control and Prevention Plan**

September 1, 2001

County of San Mateo

Current Erosion Control and Prevention Measures

Program/Activity	Description	Comments
Fishery Network of Central California Coastal Counties (FishNet 4C)	Consortium of 6 counties dedicated to preserving and restoring anadromous fish habitat	San Mateo County is a founding member of this organization, and continues to provide staff and funding for its efforts.
Fishnet 4C Assessment Report "Effects of County Land Use Policies and Management Practices on Anadromous Salmonids and Their Habitats"	This evaluation of County policies and practices resulted in a list of recommendations to the Board of Supervisors. The Board of Supervisors has directed staff to address four priorities identified by the report, as tabulated below:	County staff have been active in addressing the priorities before and since the report was presented to the Board of Supervisors in April 2001. Progress made on each of the priorities is listed below.
Mapping	Prepare and distribute a map depicting streams that provide habitat for anadromous fishes.	Mapping of priority watersheds for restoration of coho salmon and steelhead trout habitat has been completed in consultation with the National Marine Fisheries Service.
Riparian Buffer Zone – San Francisquito Creek	Establish a watershed overlay district that will require riparian corridor mapping, buffer zones and performance standards within the San Francisquito Creek watershed.	A zoning ordinance amendment creating the watershed overlay district is currently being considered by the Planning Commission.
Improve Enforcement Capabilities	Review and improve, where possible, enforcement options to ensure compliance with existing County regulations intended to protect natural resources.	Representatives from the Planning Department, Public Works, Environmental Health, Parks and County Counsel are evaluating existing enforcement capabilities, and will recommend upgrades to the Board of Supervisors.
Performance Standards for Road and Facility Maintenance	Develop and implement performance standards for maintenance activities that potentially impact water quality and/or sensitive habitats.	The County has implemented written performance standards for road and facility maintenance that will benefit aquatic resources. All Public Works and Parks maintenance staff have received training on the standards. The standards were submitted to the Regional Water Quality Control Board in compliance with

Current Erosion Control and Prevention Measures (continued)

Program/Activity	Description	Comments
Performance Standards for Road and Facility Maintenance (cont.)		Provision C.9 of the County-wide NPDES permit. The standards are currently being expanded to include the full range of maintenance activities.
Water Pollution Control for Public Construction	Specifications and management practices required of contractors bidding on public construction projects.	The draft specifications and drawings are in use by Public Works on projects in the Coastal Zone, and will be revised and adapted for use in other areas as needed.
Grading Permit Standards	Requirements enacted by the County to ensure that site grading activities are conducted in a manner that will not degrade aquatic resources.	Enforcement provisions are currently under review.
Stormwater Management and Discharge Control Ordinance	Requirements enacted by the County that prohibit non-stormwater discharges to any county storm drain	Includes best management practices for new development. BMPs are currently under review.
Heritage and Significant Tree Ordinance	Requirements enacted by the County to prohibit cutting or removal of various tree species without a permit.	Includes requirements for replacement tree planting.

Interim Erosion Control and Prevention Measures

The County of San Mateo will be participating with the other co-permittees to accomplish a watershed assessment and rapid sediment budget for San Francisquito Creek. The assessment project, which may be funded in part by Proposition 13 grant funds administered by the Regional Board, is expected to be completed in 2003. During the study period, the County anticipates implementing the following interim erosion control and prevention measures, in addition to those currently in place.

Program/Activity	Description	Comments
Standards for Design and Construction	A guidebook, to be adopted by the Board of Supervisors, that includes accepted methods for erosion and sediment control, water pollution control, streambank stabilization, revegetation, and other types of construction in sensitive areas.	County departments are presently assembling all current guidelines, checklists and management practices used in the design, construction and permitting processes. The material will be updated and assembled into one coherent document for use by County staff and the public to ensure resource protection.
Performance Standards for Road and Facility Maintenance	Develop and implement performance standards for maintenance activities that potentially impact water quality and/or sensitive habitats.	The standards will be continually updated to reflect current technology in erosion and sediment control and water quality controls. Staff training will be provided on an annual basis, and reports submitted as described in the Maintenance Standards submitted to the Regional Board in February 2001.
Huddart and Wunderlich County Parks Road and Trail Assessments	Analyze existing road and trail conditions, propose and implement upgrade measures.	The County Parks Department is applying for grant funding to perform this work.

Final Erosion Control and Prevention Plan

The watershed assessment and rapid sediment budget (Proposition 13 project) mentioned above is expected to be completed in 2003. The final report will contain recommendations for implementing specific practices, managing particular areas within the watershed and prioritizing projects. The County will continue to address the recommendations of the FishNet 4C assessment report mentioned at the beginning of this section while the watershed assessment is underway. The watershed assessment may reveal additional deficiencies in the County's current land management policies and practices and propose changes to those practices. Those proposals will be carefully evaluated at the conclusion of the study and implemented as appropriate.

Inventory of Potential Sediment Sources

Existing and potential sediment sources will be cataloged during the watershed assessment (Proposition 13 project) and repair schemes will likely be proposed. The County has identified Huddart and Wunderlich Park trails as potential sediment sources, and is attempting to secure funding to assess the condition of the trails and to identify and implement potential treatments.

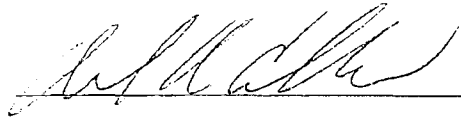
Other sediment sources which may be identified during the assessment study period will be addressed on a case-by-case basis. Examples may include roadside slipouts or damaged culverts during storm periods. Those repairs are generally accomplished as soon as permits can be obtained and weather allows.

CERTIFICATION

I hereby certify that the information contained in the San Francisquito Creek Erosion Control and Prevention Plan, Final Report, September 1, 2001, prepared for the unincorporated area that is within the San Francisquito Creek watershed, to the best of my knowledge is accurate and complete; that the San Mateo County Board of Supervisors, acting as the governing Board of the San Mateo Flood Control District ("District"), is an active member of the San Francisquito Creek Joint Powers Authority (JPA) and has committed funds for the continuation of its membership in the JPA through June 2002; that the District has agreed to participate in and finance a share of a watershed assessment, including the development of a rapid sediment budget; and that the District will continue to work with the Cities/Towns of East Palo Alto, Menlo Park, Palo Alto, Portola Valley and Woodside to cooperatively address water quality issues in the watershed.

NEIL R. CULLEN, DIRECTOR OF PUBLIC WORKS

SIGNATURE:

A handwritten signature in cursive script, appearing to read "Neil R. Cullen", written over a horizontal line.

DATE:

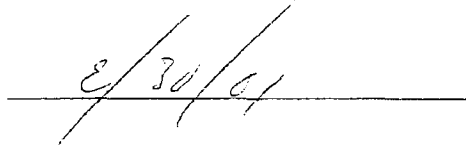
A handwritten date "9/30/01" written in cursive script over a horizontal line.

Table 2. SCVURPPP Co-Permittees Current Sediment Management Practices

Program/Activity	Description	Comments
City of Palo Alto		
Compliance Site Inspection and Storm Water Pollution Prevention Plan Compliance Assurance	The primary goal of the inspection and enforcement program is to prevent sediment from running off a construction site.	
Industrial inspections conducted by the entire Environmental Compliance Division	Inspect industrial and commercial sites for sanitary sewer or other purposes.	Potential sediment problems are investigated at the following example areas: materials storage areas, dumpster areas, and vehicle and equipment areas. Enforcement follow-up is conducted as appropriate.
Ordinance Enforcement	<p>Section 16.09.117 - must have a SWPPP on sites equal to or greater than 5 acres.</p> <p>Section 16.09.117 - prior approval must be obtained from the city engineer or designee to discharge water pumped from construction sites to the storm drain.</p> <p>Section 16.09.061 - authority to monitor discharges and issue compliance directives.</p> <p>Section 16.09.106 - addresses illegal and threatened discharges to storm drains, gutters, creeks, or San Francisco Bay.</p>	Palo Alto Municipal Code provisions are used to take appropriate formal enforcement action for sediment control.
Grading Ordinance	Section 16.28.120 – interim and final erosion and sediment control and storm water pollution prevention plans must be prepared, approved, and implemented when a grading permit is needed.	Palo Alto Municipal Code provisions are used to take appropriate formal enforcement action for sediment control.
Outreach	Outreach efforts to raise awareness about sediment control associated with San Francisquito and other creeks.	

Program/Activity	Description	Comments
Santa Clara Valley Water District		
Annual Sediment Maintenance	Performs sediment removal and bank protection activities within the District's jurisdiction.	Involves environmental assessments and obtaining regulatory permits
Capital Improvement Project	Implementation of flood protection supply projects: <ul style="list-style-type: none"> • Levee Restoration Project 	Involves planning, design, construction, and environmental assessment processes.
Comprehensive Flood Management Protection (CFMP)	Develops and implements a comprehensive flood protection and stream stewardship program supported by project-specific stakeholders	San Francisquito Creek work is overseen by the JPA
Non-point source Pollution Prevention Program	Preventing pollution of storm water runoff through SCVURPPP activities and District-specific activities and operations	Involves District participation in the San Francisquito Creek Watershed Sediment NPDES permit provisions.
Surface Water Quality Improvement Program	Development and implementation of monitoring and assessment projects to minimize or eliminate impacts of pollutants including sediment, address problems, support management measures, and evaluate performance measures.	Involves District participation in the San Francisquito Creek Watershed Sediment Assessment work.
San Francisquito Creek Sediment Study	Support development of sediment TMDL, sediment assessment, and management practices assessment.	Involves performing fish habitat and limiting factors analysis
SCB-WMI	Development and implementation of watershed management approach to address water quality issues through stakeholder forum.	Sediment TMDL stakeholder workgroup within WMI
County of Santa Clara		
Rural Public Works Maintenance	Update of rural maintenance Performance Standards and Drainage Manual	
Livestock Advisory Program	Provides information and assistance regarding livestock stewardship issues to rural landowners such as livestock handling, land management, and water management.	
Grading Ordinance (see sections C12-411, C12-435(d), and C12-517)	Use of Best Management Practices (BMPs) for erosion prevention and sediment control reduces the sediment load in local waterways.	
New Development, Use Permit, Environmental Review	Evaluation of the potential impact of a proposed development project upon the environment	