San Francisquito Creek Bank Stabilization & Revegetation Demonstration Project

Recommendations Report

April 19, 2004

Prepared for:

San Francisquito Creek Joint Powers Authority

Prepared by:

northwest hydraulic consultants

nhc

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TABLE OF CONTENTS

LIST OF TABLES ..... **III**

LIST OF FIGURES ..... **III**

LIST OF PHOTOS ..... **III**

1. INTRODUCTION **1**

1.1 BACKGROUND AND OBJECTIVES 1
1.2 BACKGROUND INFORMATION 1

2. SAN FRANCISQUITO CREEK **3**

2.1 RIVER GEOMORPHOLOGY 3
2.2 HYDROLOGY 4
2.3 HYDRAULIC ANALYSIS 7
2.4 BIOLOGICAL RESOURCES 7
2.4.1 Overview *7*
2.4.2 Project Area *8*
2.4.3 Aquatic Resources *11*
2.5 CULTURAL RESOURCES 12

3. SITE SELECTION **14**

3.1 BACKGROUND 14
3.2 NORTON AND CHILDREN'S HEALTH COUNCIL 16
3.3 SUNSET PUBLISHING 21

4. DEVELOPMENT OF DESIGN **24**

4.1 GENERAL CONSIDERATIONS 24
4.2 APPROACH TO BANK STABILIZATION AND RE-VEGETATION 25
4.3 NORTON & CHILDREN'S HEALTH COUNCIL 30
4.3.1 Hydraulic Analysis *30*
4.3.2 Geotechnical Assessment of East Bank (Children's Health Council) *30*
4.3.3 Design Features *31*
4.4 SUNSET PUBLISHING SITE 36
4.4.1 Hydraulic Analysis *36*
4.4.2 Geotechnical Analysis *37*
4.4.3 Design Features *37*
4.5 COST ESTIMATES 41

5. PERMIT REQUIREMENTS **44**

5.1 CLEAN WATER ACT SECTION 401 44
5.2 CLEAN WATER ACT SECTION 404 & RIVER AND HARBORS ACT SECTION 10 45
5.3 CALIFORNIA DEPARTMENT OF FISH AND GAME CODE, SECTION 1600 46

5.4 CALIFORNIA ENVIRONMENTAL QUALITY ACT 47
5.5 NATIONAL ENVIRONMENTAL POLICY ACT 48
5.6 NATIONAL HISTORIC PRESERVATION ACT 49
5.7 LOCAL AGENCY COORDINATION 51

6. SUMMARY AND CONCLUSIONS 52

6.1 PROJECT SUMMARY 52
6.1.1 Project Objectives 52
6.1.2 Physical Conditions 52
6.1.3 Process of Site Selection 52
6.1.4 Meetings 52
6.2 SITE DESIGN 53
6.2.1 Design Concepts 53
6.2.2 Cost 54
6.3 NEXT STEPS 54
6.3.1 Meet with Property Owners and Acquire Funding 54
6.3.2 Conduct Pre-Application Meeting with Permitting Agencies 54
6.3.3 Complete Final Design & Construct Project 54

7. REFERENCES 55

List of Tables

TABLE 2-1. SUMMARY OF ERODING BANK LENGTH FROM RHAA (2000) 4
TABLE 2-2. PEAK FLOWS AT VARIOUS RETURN PERIODS 6
TABLE 2-3. HABITAT TYPES FOUND IN THE SAN FRANCISQUITO CREEK PROJECT AREA 11
TABLE 4-1. NATIVE PLANT SPECIES FLOOD AND GROUND WATER TOLERANCE 28
TABLE 4-2. PLANTING ZONES FOR THE NORTON AND CHILDREN'S HEALTH COUNCIL SITE 36
TABLE 4-3. PLANTING ZONES FOR THE SUNSET PUBLISHING SITE 40
TABLE 4-4. PRELIMINARY COST ESTIMATE FOR CHC/NORTON DEMONSTRATION PROJECT REACH RECOMMENDED CONCEPT 42
TABLE 4-5. PRELIMINARY COST ESTIMATE FOR SUNSET DEMONSTRATION PROJECT REACH RECOMMENDED CONCEPT 43

List of Figures

FIGURE 2.1. SAN FRANCISQUITO CREEK FLOW FREQUENCY CURVE 5
FIGURE 2.2. SAN FRANCISQUITO CREEK FLOW DURATION CURVE 6
FIGURE 3.1. GENERAL PROJECT AREA 15
FIGURE 3.2. NORTON/CHC EXISTING CONDITIONS (1 OF 2) 17
FIGURE 3.3. NORTON/CHC EXISTING CONDITIONS (2 OF 2) 18
FIGURE 3.4. SUNSET PUBLISHING EXISTING CONDITIONS 22
FIGURE 4.1. TYPICAL CHANNEL SECTIONS IN THE DEMONSTRATION AREA 29
FIGURE 4.2. RECOMMENDED CONCEPT CHC/NORTON REACH PLAN VIEW (1 OF 2) 32
FIGURE 4.3. RECOMMENDED CONCEPT CHC/NORTON REACH PLAN VIEW (2 OF 2) 33
FIGURE 4.4. RECOMMENDED SUNSET PUBLISHING REACH PLAN VIEW 38

List of Photos

PHOTO 3.1. NORTON PROPERTY, SACKED CONCRETE WALL AND ERODED BANK 19
PHOTO 3.2. NORTON PROPERTY SACKED CONCRETE WALL 20
PHOTO 3.3. SLOPE AT UPSTREAM END OF CHC 20
PHOTO 3.4. DOWNSTREAM END OF REACH AT CHC 21
PHOTO 3.5. SUNSET PUBLISHING SITE 23

1. INTRODUCTION

1.1 Background and Objectives

San Francisquito Creek starts at the foot of Searsville Dam and flows 12.5 miles to the San Francisco Bay. Through the Cities of Palo Alto, Menlo Park and East Palo Alto, development often extends to the top of bank of the creek, and erosion during large floods threatens roads, homes and other facilities. The Cities, San Mateo County, Santa Clara Valley Water District (SCVWD), and individual property owners have all constructed bank protection works to protect property and facilities along the creek, generally without an overall plan.

In 2000, the Cities of Menlo Park, Palo Alto, East Palo Alto, the Santa Clara Valley Water District, and the County of San Mateo co-sponsored the San Francisquito Creek Master Plan to provide guidance for future bank stabilization and revegetation projects. Subsequently, the San Francisquito Creek Joint Powers Authority (JPA) was created to maintain and protect the 12.5 mile San Francisquito Creek and its 45 square mile watershed. Following the ideology set for the in the Master Plan and through a grant from the California Coastal Conservancy the JPA is coordinating efforts to design and implement a bank stabilization and revegetation demonstration project.

The JPA contracted with Northwest Hydraulic Consultants, Inc. (**nhc**) and subconsultants Jones & Stokes (J&S) and EarthTech to develop conceptual designs for future bank stabilization and revegetation projects at selected sites on San Francisquito Creek between Junipero Serra Boulevard and US Highway 101. This report describes the selection of suitable demonstration sites, the development of our design approach, the design concepts and the permitting process for implementing the demonstration projects.

The demonstration projects will provide property owners and designers of bank protection works with an example of environmentally sensitive bank protection design and construction methods that utilize vegetation enhanced concepts to meet project goals. This project is focused on the main stem of San Francisquito Creek; however, the long-term goal is to use the knowledge gained to improve bank protection design and construction throughout the San Francisquito Creek watershed.

1.2 Background Information

The following is a list of reports and studies that were reviewed as background information prior to developing bank stabilization and revegetation concepts:

1. San Francisquito Creek Bank Stabilization and Revegetation Master Plan Existing Conditions Report (RHAA (1), 2000)
2. San Francisquito Creek Bank Stabilization and Revegetation Master Plan Report (RHAA(2), 2000)
3. Searsville Lake Sediment Impact Study (**nhc**, 2002)

4. San Francisquito Creek Watershed Assessment and Sediment Reduction Plan: Historic Conditions Report and Existing Conditions Report (**nhc**, 2003)
5. Geotechnical Assessment of East Bank Conditions San Francisquito Creek, Children's Health Council, Palo Alto (EarthTech, 2000)
6. Investigations of San Francisquito Creek (Allardt, 1888)