



San Francisquito Creek Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
27,660 Acres	18050003	2205500101	Corte Madera Creek (16,553 acres)
11,194 Hectares	4th Field HUC	2205500202	Deer Creek (1,003 acres)
43 Square Miles		2205500400	Sunnyvale (2,477 acres)
	2205	2205500102	West Union Creek (7,602 acres)

Location
 San Mateo County
 Santa Clara County

4th Field Calwater

Species Potential	Miles of Streams with Species Present
Central California Coast Coho San Francisco Bay Diversity Stratum - Dependent Population	<u>Coho</u> 0 CDFG, Coho Distribution, May 2007
Central California Coast Steelhead Coastal San Francisco Bay Diversity Stratum - Potentially Independent Population	<u>Steelhead</u> 26 NOAA Fisheries, Critical Habitat Redesignation, 2005

Critical Habitat
 Central California Coast Steelhead 26 Miles of Stream

Miles of Waterway ^A	Miles	Number of Dams ^C
Naturally Occurring Waterways		29
Connector	1	2 - Impassable
Canal / Ditch	1	3 - Not a Barrier
Pipeline / Aquaduct	3	19 - Partially Impassable
Intermittent Stream	80	5 - Unknown passage status
Perennial Stream	0	
Artificial Path	3	

^CPassage Assessment Database,
 Pacific States Marine Fisheries Commission, 2005

^AUSGS National Hydrography Dataset, High Resolution, 2004. 1:24,000

USGS Gaging Stations ^B	Number of Barriers ^C
Napa River at Calistoga USGS11162940	78
San Francisquito Creek below Ladera Damsite USGS11162950	29 Dams (2 Impassable)
San Francisquito Creek tributary near Stanford University USGS11163200	1 Water Rights Diversions
Los Trancos Creek tributary near Stanford University USGS11163500	30 Road Crossings (10 Impassable)
Los Trancos Creek at Stanford University USGS11164000	16 Non-structural (Logjam or Falls) (4 Impassable)
Lagunita Canyon at Stanford University USGS11164500	
San Francisquito Creek at Stanford University USGS11165000	
San Francisquito Creek at Menlo Park USGS11165500	
San Francisquito Creek at Palo Alto	

^CPassage Assessment Database,
 Pacific States Marine Fisheries Commission, 2006

^BUS Environmental Protection Agency BASINS Project, 2001



EPA Total Maximum Daily Load Classification (TMDL)¹

High Priority -Diazinon; Medium Priority - Sediment / Siltation

Sources: Diazinon = Urban Runoff / Storm Sewers Sediment /Siltation = Nonpoint Source

¹State Water Resources Control Board, 2003

Average Annual Precipitation^E

29.4 inches

Average Annual Precipitation Range^E

14-45"

^ECalifornia Mean Annual Precipitation Zones, 1900-1960, CA Department of Forestry, 1990

Roads^A

Miles

Roads in Watershed

Primary Road or Highway

7

Secondary and connecting road, state highways

10

Local, neighborhood, and rural road, city street, unseparated

208

Vehicular trail, road passable only by 4WD vehicle, unseparated

1

Driveway or service road

9

Total Miles

235

Road Density

Miles of Roads per SqMi of Watershed

5.5

Miles of Roads per SqMi of 100m Riparian Buffer*

4.7

*Buffer is 100 meters on either side of the stream centerline

^AU.S. Census Bureau - Tiger 2000, 2002. 1:24,000

Slope^D

Acres

Percent of watershed

Lands of 0-2 percent slope

1,867

7%

Lands of 2-4 percent slope

1,917

7%

Lands of 4-10 percent slope

4,626

17%

Lands of 10-15 percent slope

3,095

11%

Lands of 15-30 percent slope

8,258

30%

Lands of 30-60 percent slope

7,239

26%

Lands of 60-100 percent slope

659

2%

Lands of > 100 percent slope

1

0%

Elevation Range

0-2565 ft.

0-782 m

^DSlope derived from USGS 10 meter Digital Elevation Models (DEM's)

Vegetation^G

Acres

Percent of watershed

Agriculture

371

1%

Annual grassland

2,419

9%

Barren

116

0%

Conifer Forest

0%

Douglas Fir

358

1%

Montane Hardwood-Conifer

247

1%

Redwood

4,072

15%

Unknown Conifer Type

1,673

6%

Hardwood Forest

0%

Montane Hardwood

294

1%

Hardwood Woodland

0%

Coastal Oak Woodland

2,182

8%

Valley Foothill Riparian

22

0%

Mixed Chaparral

12

0%

Shrub

7,557

27%

Urban

8,196

30%

Water

116

0%

^GMulti-source Land Cover Data (2002 v2), CA Department of Forestry, 2002. 100 meter Grid



Erodability of Watershed^F	Acres	Percent of watershed
Ranking = 4	16,556	60%
Ranking = 5	8,626	31%
Remainder of Watershed Unranked		

^FDepartment of Conservation, Division of Mines and Geology; minimum mapping unit: approx. 8000 acres
Watersheds were rated based on slope, precipitation, and lithologic susceptibility to failure. Total erosion potential is based on a combination of the landslide potential, debris slide potential, and the surface erosion potential. Rating 0-10 [0 = Low slide potential, 10 = High slide potential]

Land Ownership^H	Acres	Percent of watershed
Private	24,569	89%
Local	1,870	7%
Not Coded	1,221	4%

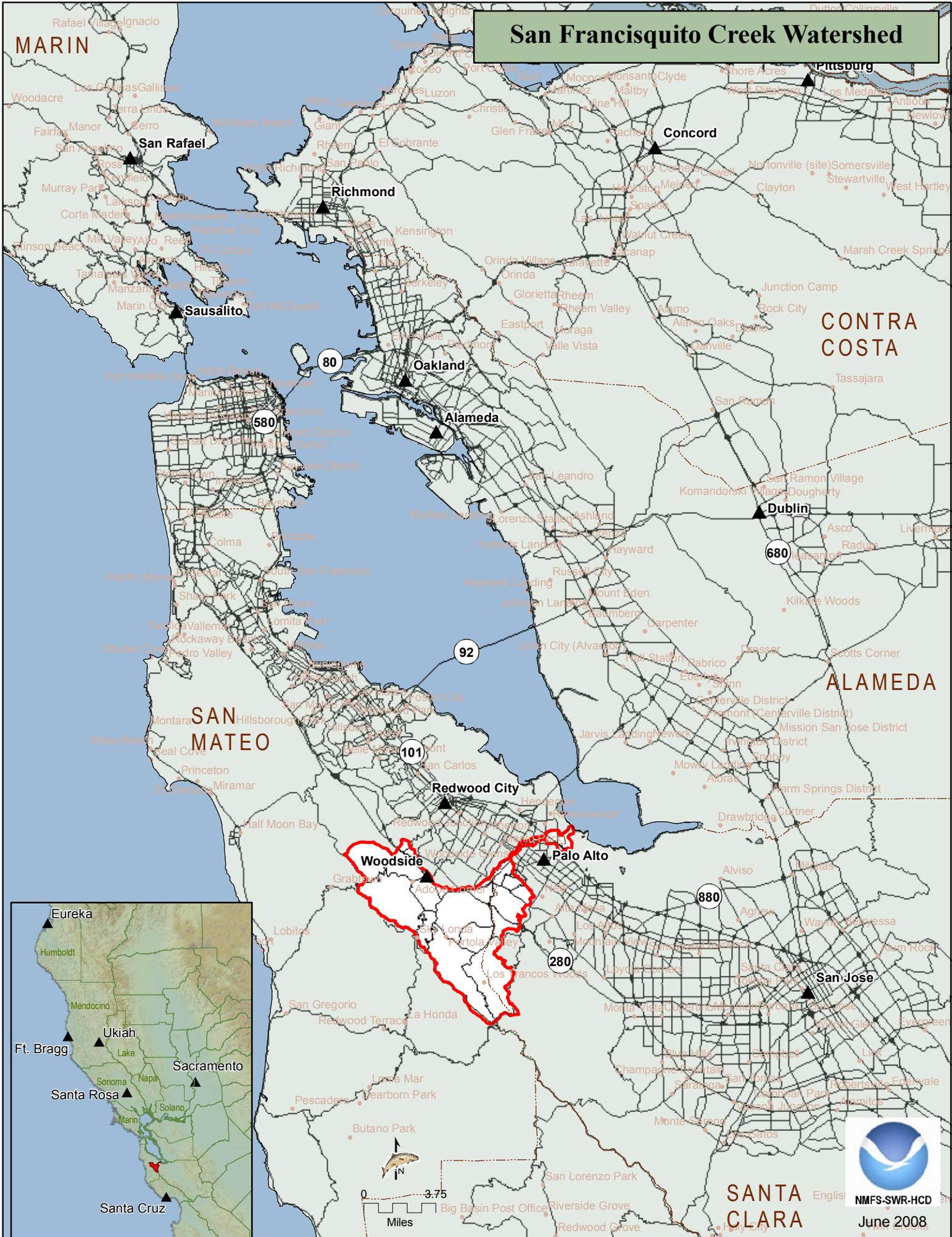
^HManagement Landscape, CA Department of Forestry, 2002 and US FWS (data supplied by major landowners who were undergoing an HCP), 2000

Population^I	Housing^I
Total Population within the watershed -- 33,628 People	Total Housing Units within the watershed -- 10,747 Houses
	Housing Density
	0 to Less than 1 Housing Unit / 160 Acres 39%
	1 Unit / 160 Acres to 1 Unit / 20 Acres 9%
	1 Unit / 20 Acres to 1 Unit / 5 Acres 24%
	1 Unit / 5 Acres to 2 Units / Acre 24%
	2 Units / Acres to Greater than or Equal to 5 Units / Acre 4%

^ICensus 2000 Block Data (Migrated), CA Department of Forestry, 2003



San Francisquito Creek Watershed



NMFS-SWR-HCD
June 2008

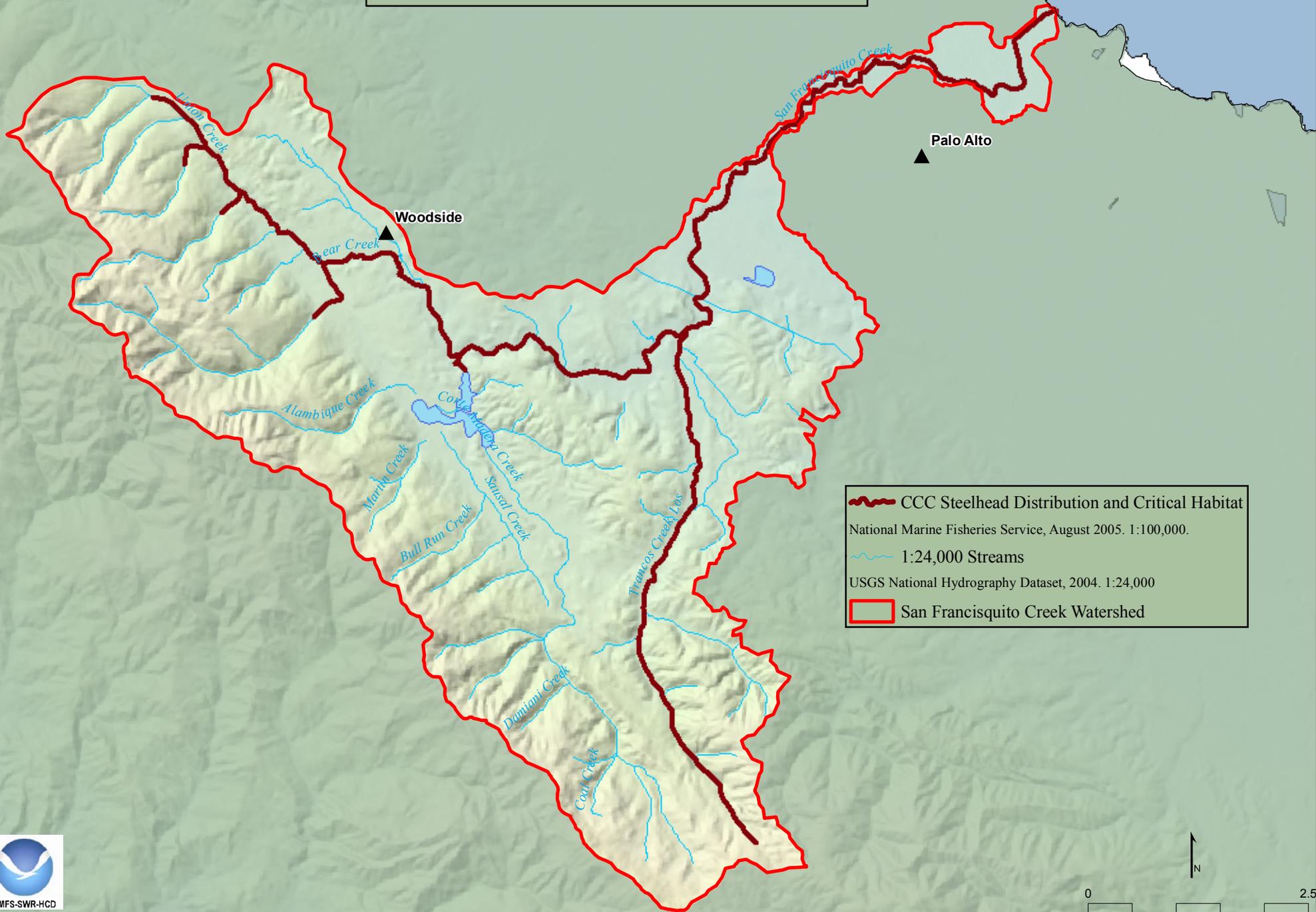
San Francisquito Creek Watershed



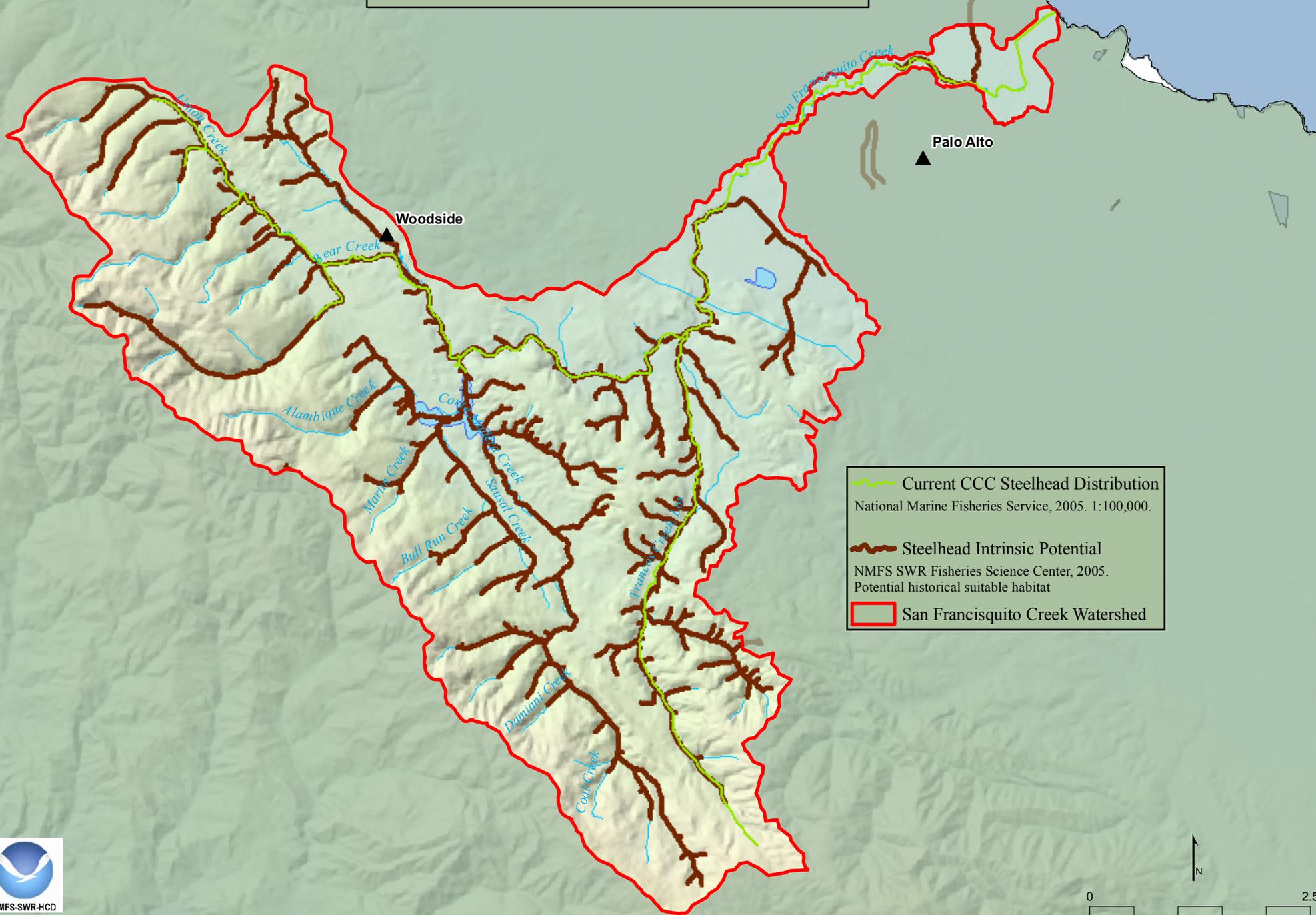
San Francisquito Creek Watershed CalWater Planning Watersheds



San Francisquito Creek Watershed Fish Distribution and Critical Habitat



San Francisquito Creek Watershed Steelhead Current vs. Historical

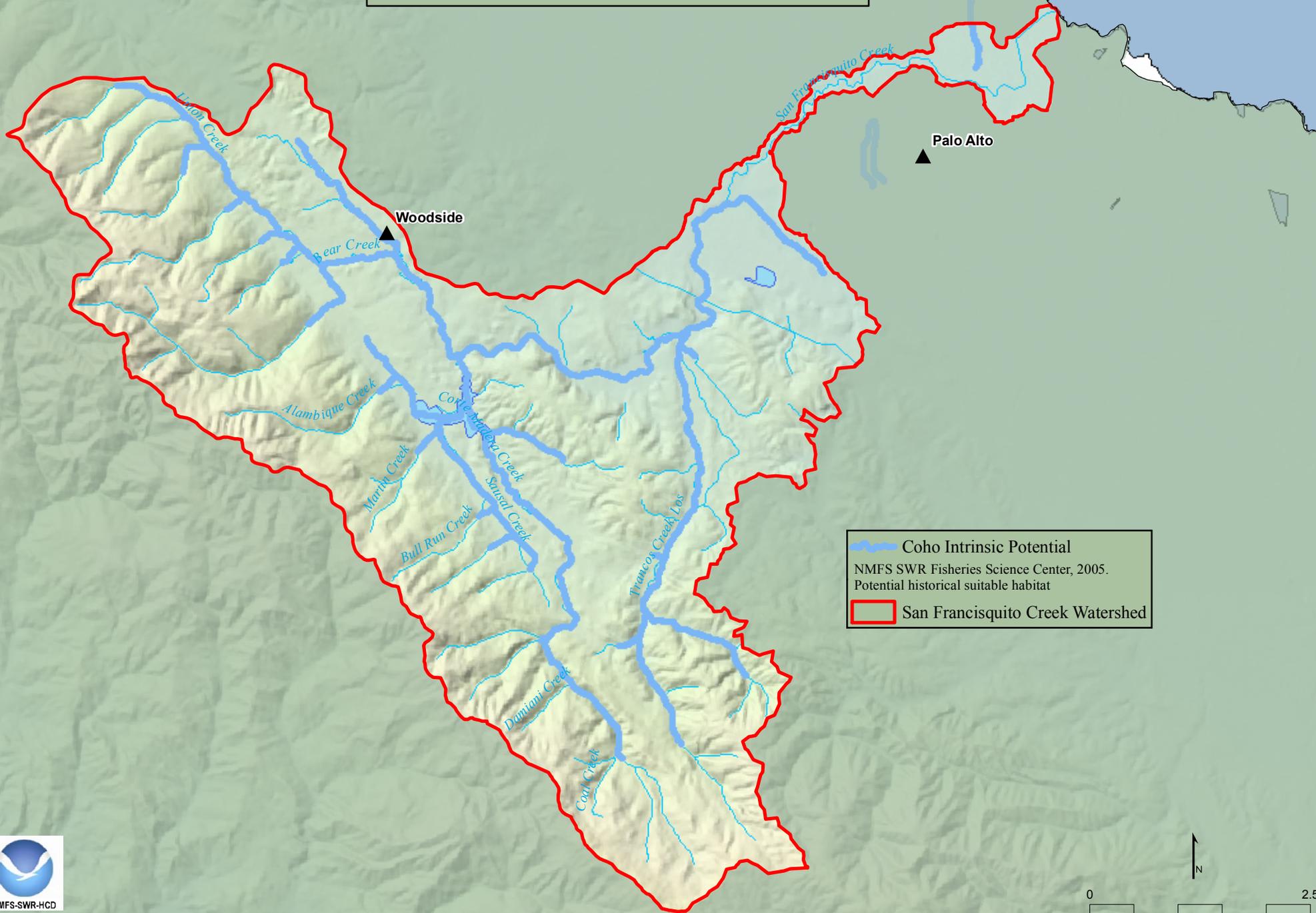


 Current CCC Steelhead Distribution
National Marine Fisheries Service, 2005. 1:100,000.

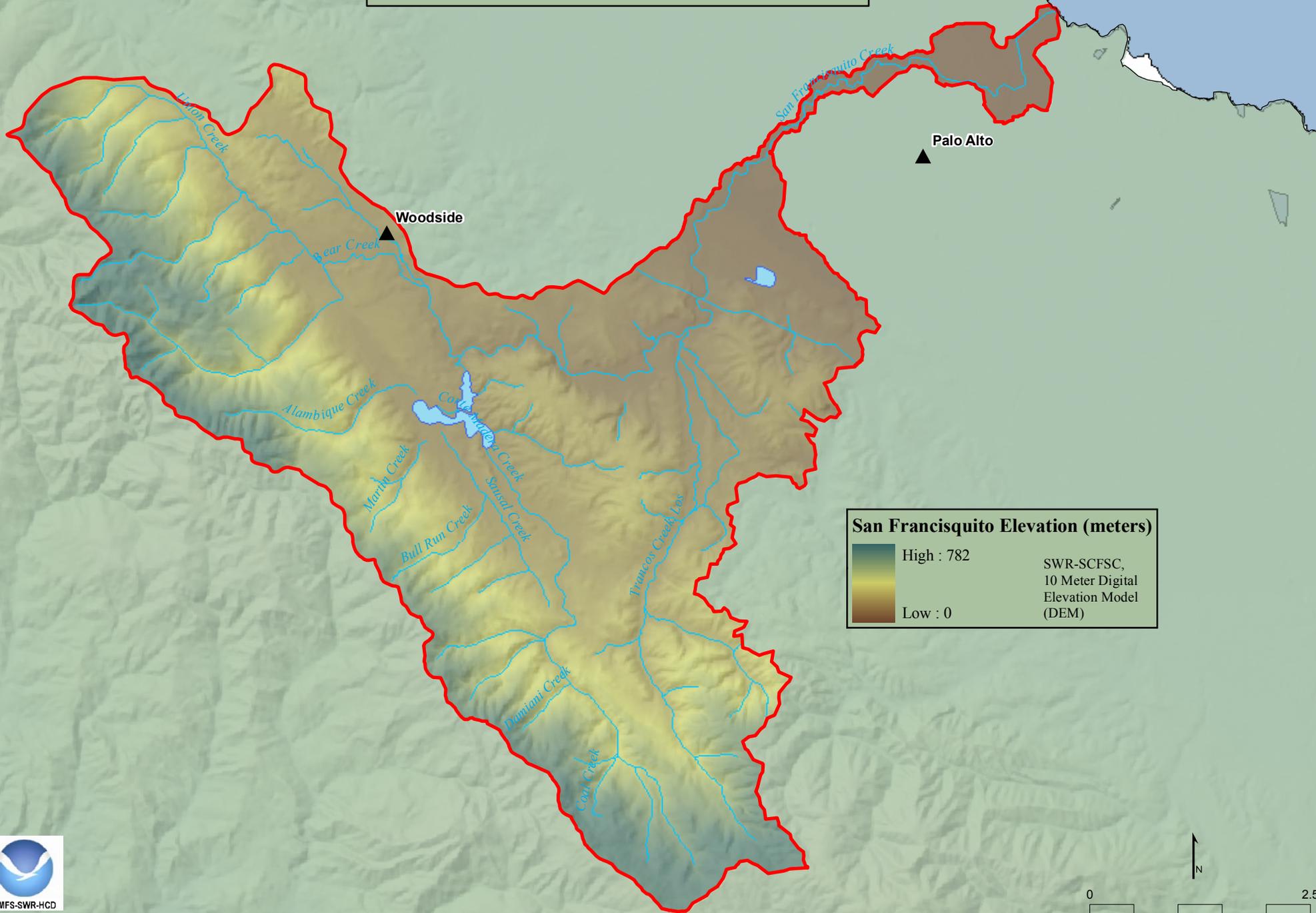
 Steelhead Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat

 San Francisquito Creek Watershed

San Francisquito Creek Watershed Coho Historical



San Francisquito Creek Watershed Elevation

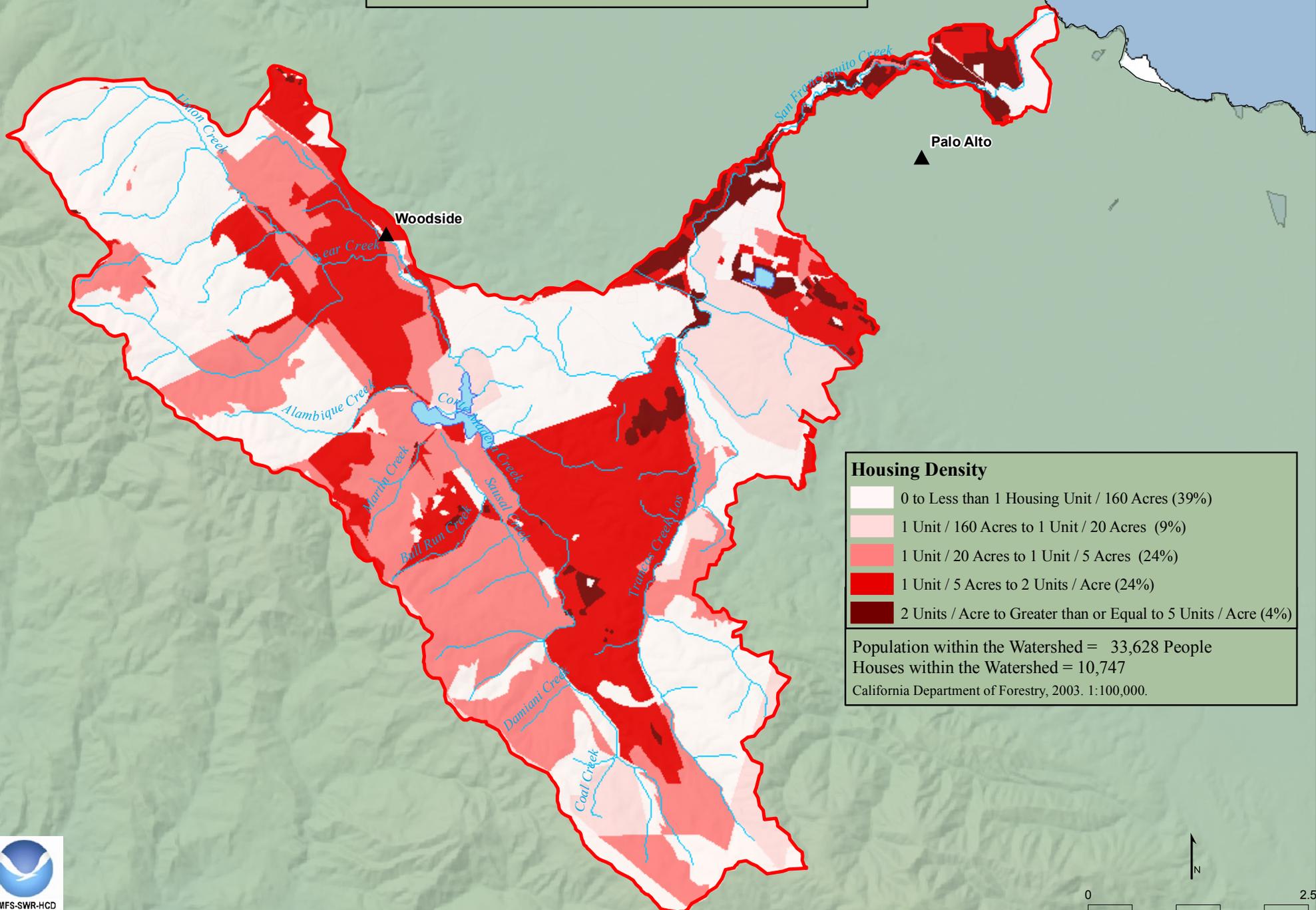


San Francisquito Elevation (meters)

High : 782
Low : 0

SWR-SCFSC,
10 Meter Digital
Elevation Model
(DEM)

San Francisquito Creek Watershed Development

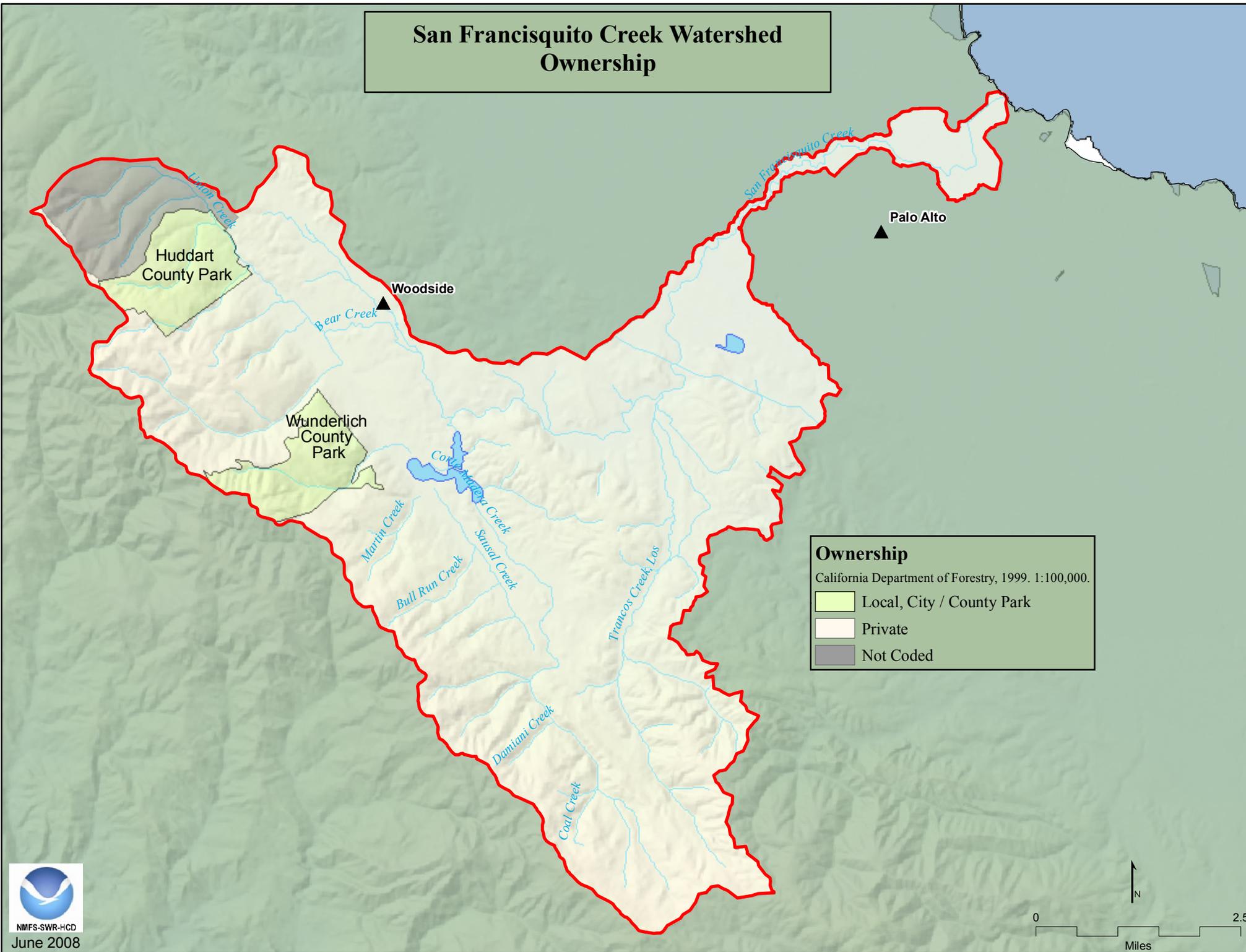


Housing Density

- 0 to Less than 1 Housing Unit / 160 Acres (39%)
- 1 Unit / 160 Acres to 1 Unit / 20 Acres (9%)
- 1 Unit / 20 Acres to 1 Unit / 5 Acres (24%)
- 1 Unit / 5 Acres to 2 Units / Acre (24%)
- 2 Units / Acre to Greater than or Equal to 5 Units / Acre (4%)

Population within the Watershed = 33,628 People
 Houses within the Watershed = 10,747
 California Department of Forestry, 2003. 1:100,000.

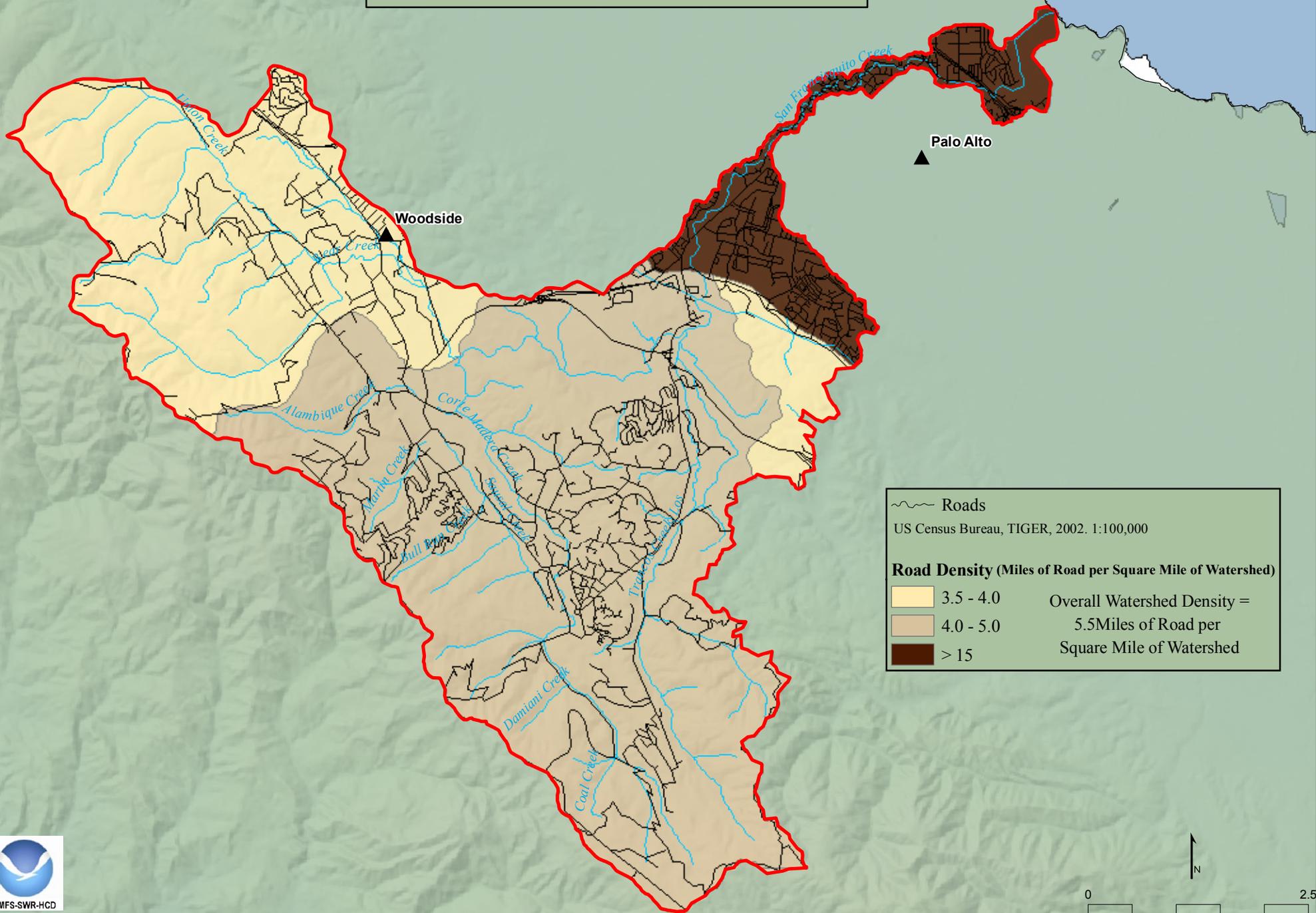
San Francisquito Creek Watershed Ownership



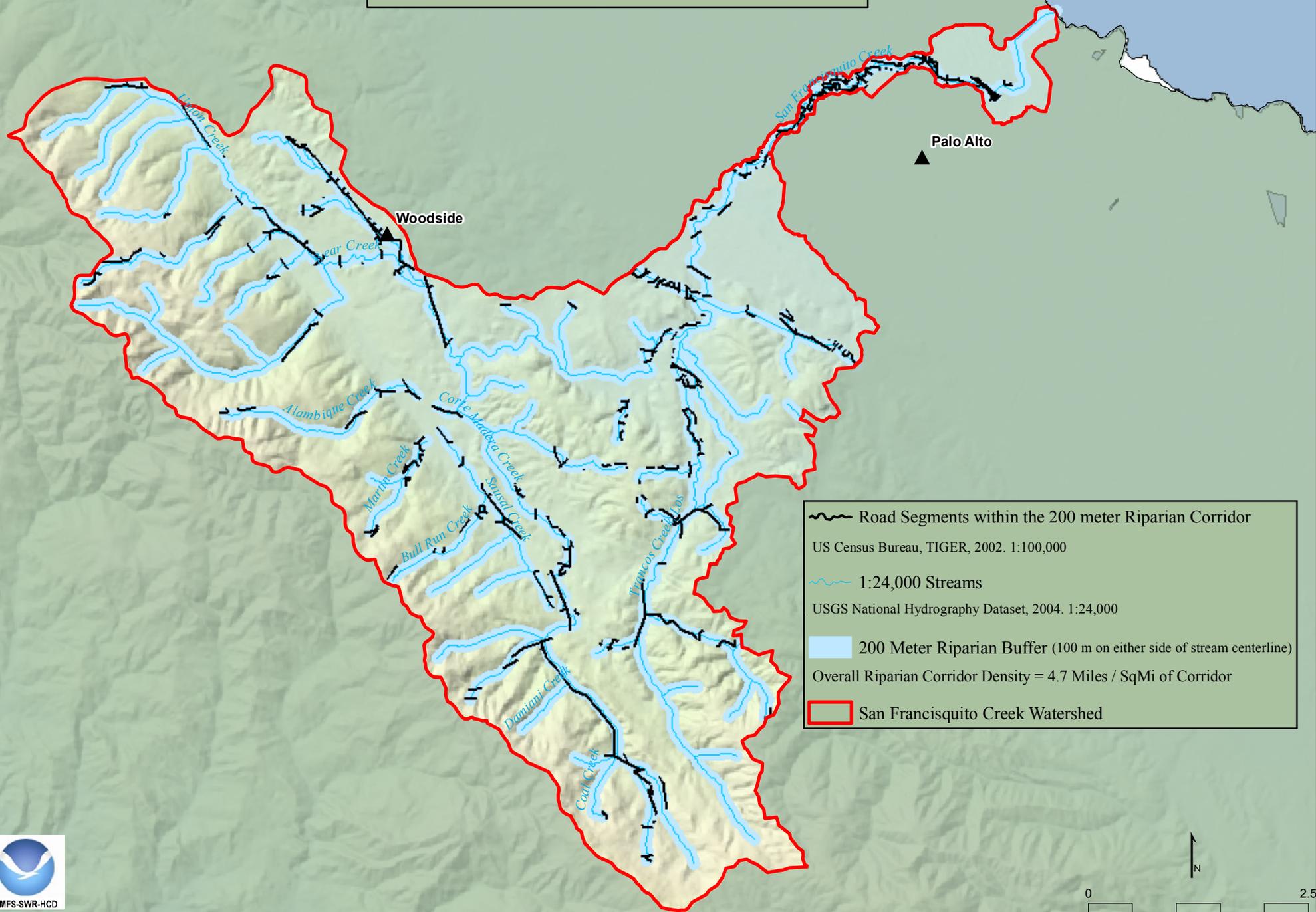
Ownership
California Department of Forestry, 1999. 1:100,000.

- Local, City / County Park
- Private
- Not Coded

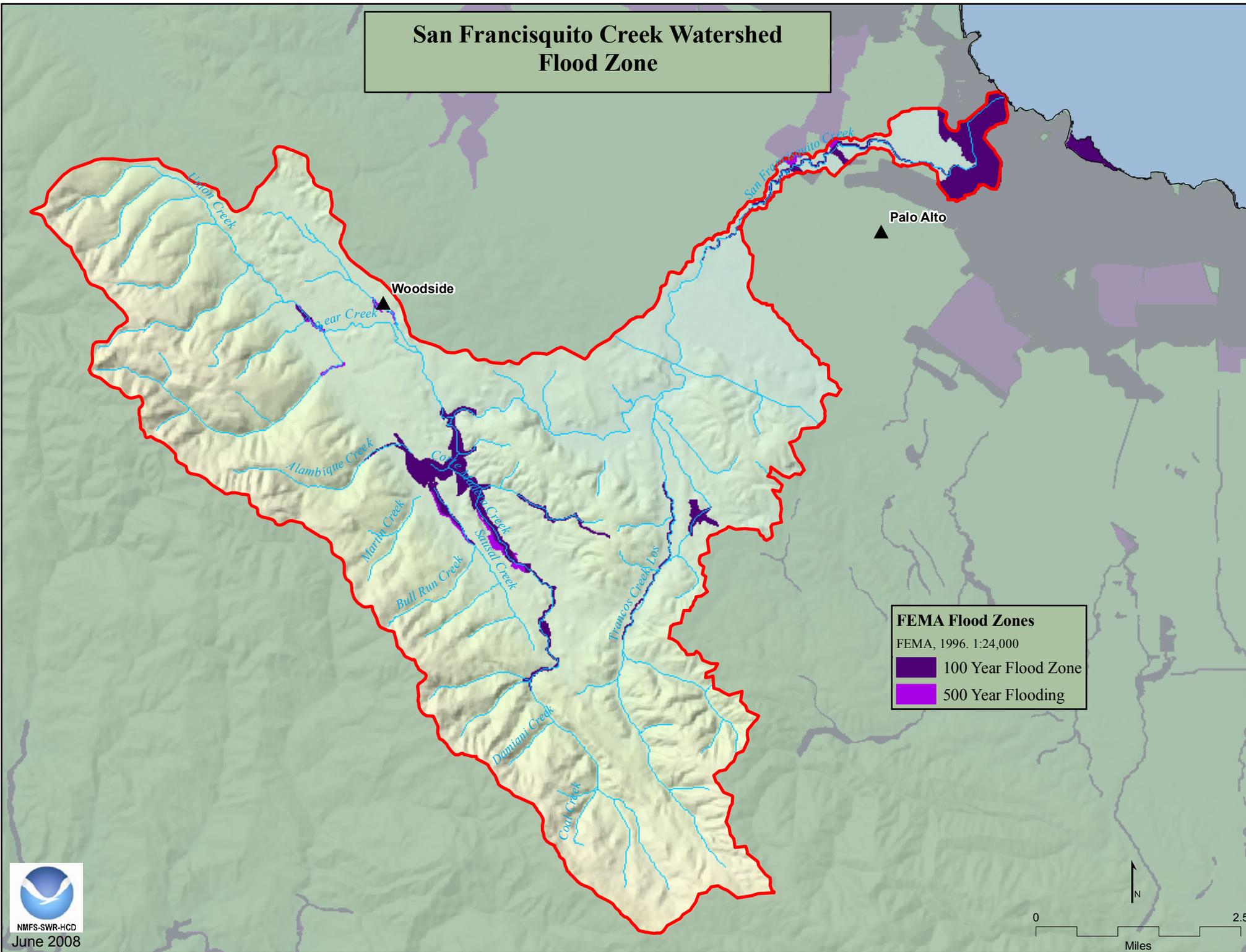
San Francisquito Creek Watershed Road Density



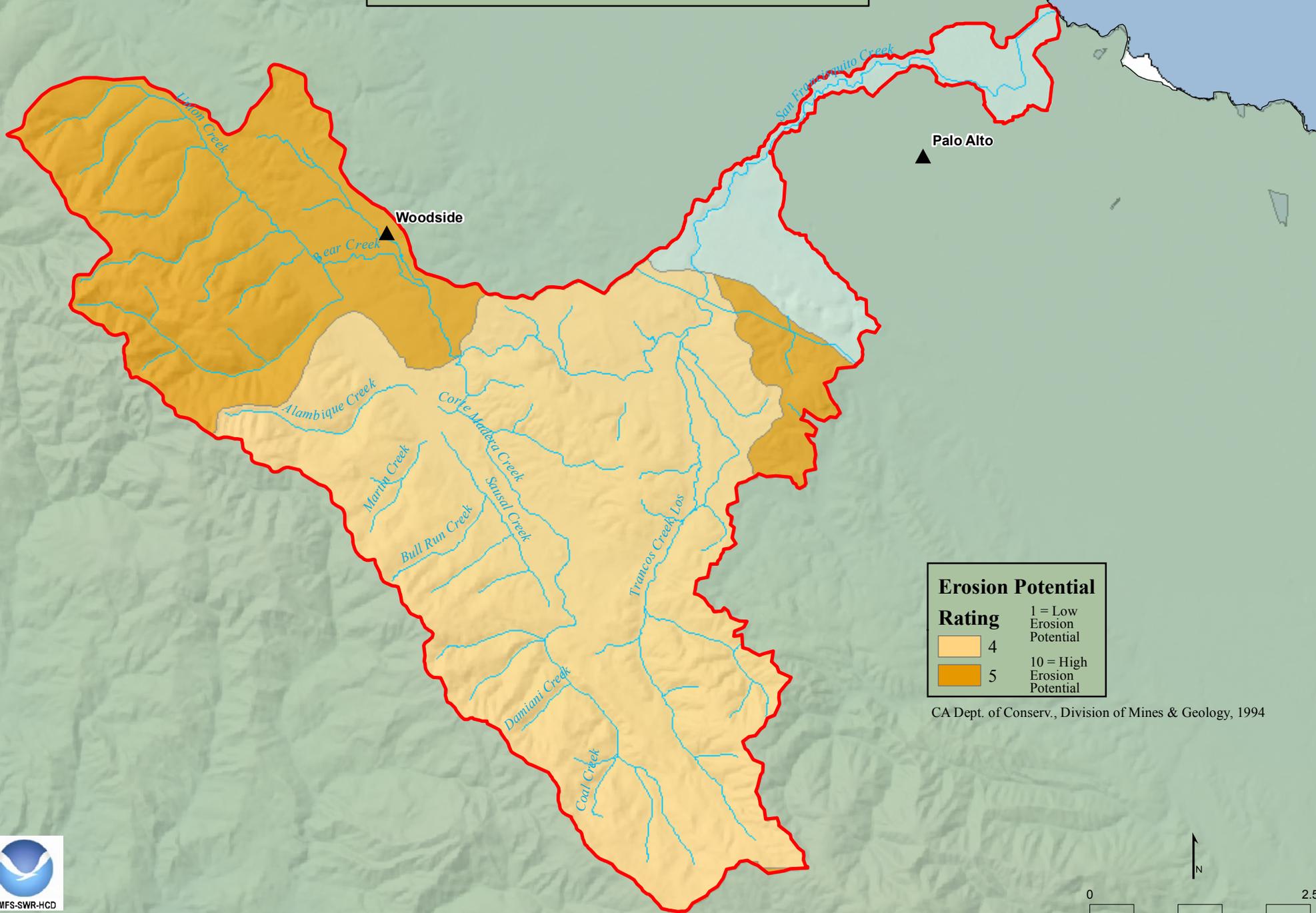
San Francisquito Creek Watershed Road Density in the Riparian Corridor



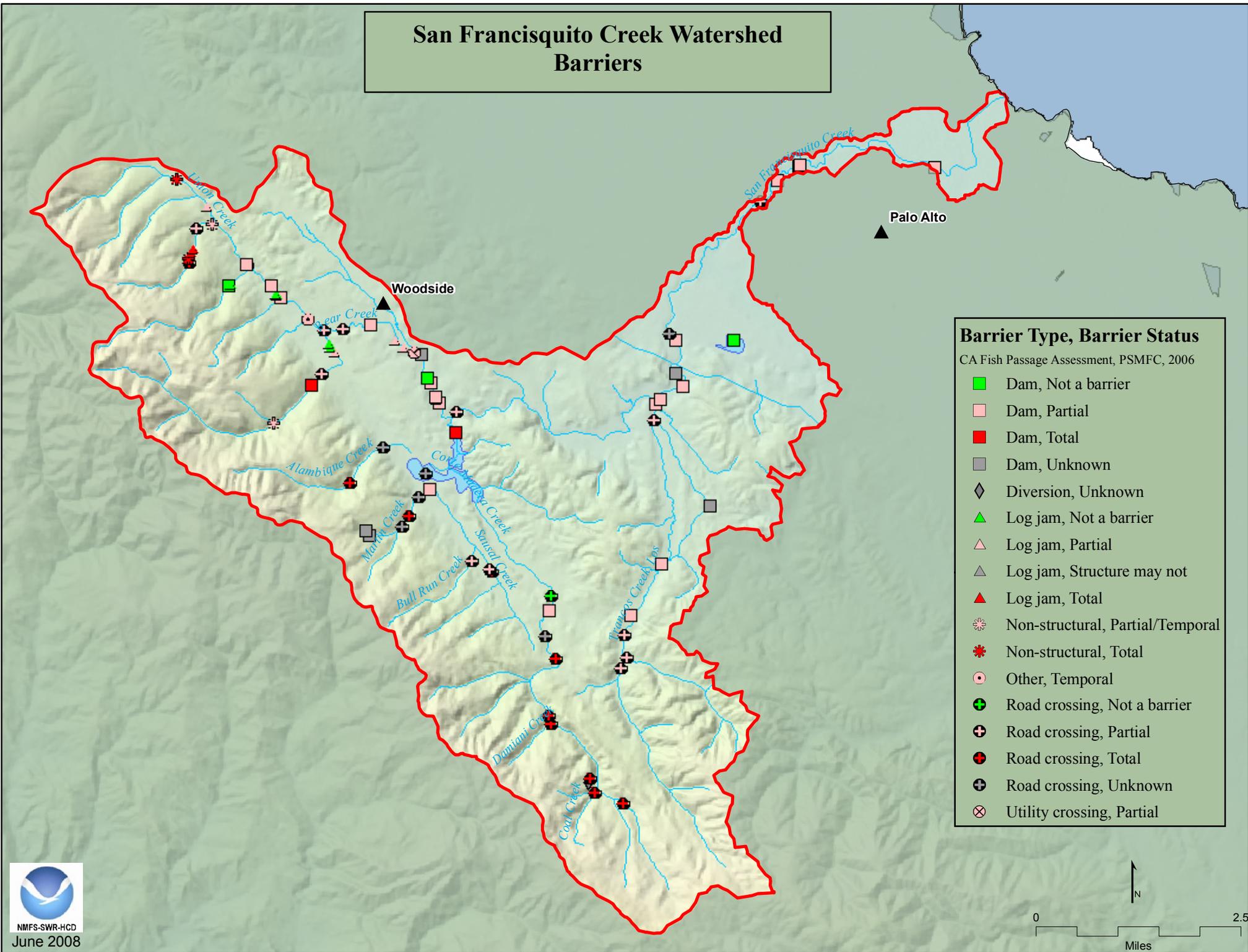
San Francisquito Creek Watershed Flood Zone



San Francisquito Creek Watershed Erosion Potential



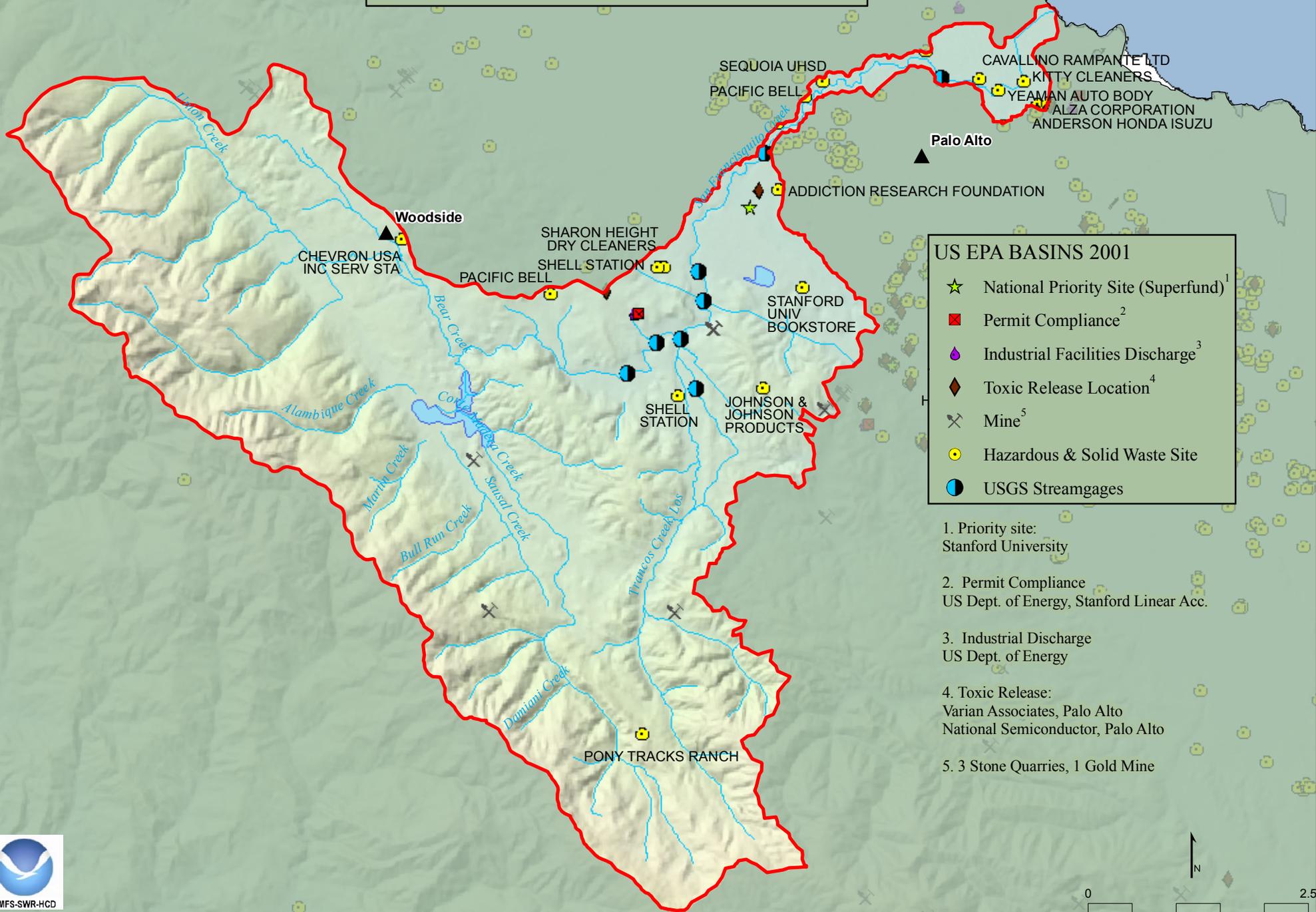
San Francisquito Creek Watershed Barriers



Barrier Type, Barrier Status
 CA Fish Passage Assessment, PSMFC, 2006

- Dam, Not a barrier
- Dam, Partial
- Dam, Total
- Dam, Unknown
- ◇ Diversion, Unknown
- ▲ Log jam, Not a barrier
- ▲ Log jam, Partial
- ▲ Log jam, Structure may not
- ▲ Log jam, Total
- ✱ Non-structural, Partial/Temporal
- ✱ Non-structural, Total
- ⊙ Other, Temporal
- ⊕ Road crossing, Not a barrier
- ⊕ Road crossing, Partial
- ⊕ Road crossing, Total
- ⊕ Road crossing, Unknown
- ⊗ Utility crossing, Partial

San Francisquito Creek Watershed Industrial Discharge / Gages / Mines



San Francisquito Creek Watershed Public Consultation Tracking System

San Francisquito Creek Bank Stabilization

San Francisquito Creek Bank Stabilization at
Alma Street, Menlo Park

Bear Creek Fish Screen at
Station 3 for California
Water Service

Woodside Rock
Wall Bank Stabilization

Modification of Felt Lake
diversion/fish ladder facility
on Los Trancos Creek, Stanford University

Santa Clara Valley Water
District stream maintenance
2000, sediment removal

San Francisquito Creek Pump
Station at Highway 101

San Francisquito Creek
Levee Improvement project

Palo Alto

Woodside

● RMS / PCTS Record

Current as of May 9, 2008 (PCTS)
and Jan. 25, 2008 (RMS).
Only those records with a
Latitude and Longitude
entered appear here

References

Watersheds

calwater_ver2_2
vector digital data
California Watersheds (CALWATER 2.2)
California Department of Forestry and Fire
Protection
1:24,000
1999
<http://www.ca.nrcs.usda.gov/features/calwater/>

Distribution

Coho_Distribution
vector digital data
Eric Haney - CDFG - NCNCR-ISB
1:100,000
2006
Draft
<http://www.calfish.org/>

CCC_Steelhead_Distribution_06_2005
vector digital data
National Marine Fisheries Service (NOAA
Fisheries)
1:100,000
August 2005
<http://swr.nmfs.noaa.gov/salmon/layers/finalgis.htm>

Critical Habitat

CCC_Steelhead_ch_06_2005
vector digital data
National Marine Fisheries Service (NOAA
Fisheries)
1:100,000
August 2005
<http://swr.nmfs.noaa.gov/salmon/layers/finalgis.htm>

Hydrology

1805 NHD Flowline
vector digital data
National Hydrography Dataset High Resolution
United States Geological Survey
1:24,000
2004

Dams

Dams_2005
vector digital data

Goslin, M.,
Santa Cruz Fishery Science Center
National Marine Fisheries Service
2005
<http://swfsc.noaa.gov/>

Barriers and Diversions

pad_september2006
vector digital data
California Fish Passage Assessment Database
Pacific States Marine Fisheries Commission
September 2006
<http://www.calfish.org/>

Gaging Stations

gages
vector digital data
Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)
United States Environmental Protection Agency
2001
<http://www.epa.gov/waterscience/basins/>

Total Maximum Daily Load (TMDL)

R2_rivers_2002 303d
vector digital data
State Water Resources Control Board (SWRCB)
California Environmental Protection Agency
2002

Precipitation

California Mean Annual Precipitation Zones, 1900-
1960
Vector digital data
California Department of Forestry and Fire
Protection 1990
1:100,000
<http://frap.cdf.ca.gov/data/frapgisdata/select.asp>

Roads

TGRR00
vector digital data
Roads
United States Census Bureau
1:100000
2000
<http://www.census.gov/geo/www/tiger/>

Elevation

Spln_mos_01

Spln_mos_02

10 Meter Digital Elevation Model (DEM)

NOAA Fisheries, Santa Cruz Laboratory

2003

Vegetation

fveg02_2

raster digital data

Multi-source Land Cover Data

California Department of Forestry and Fire
Protection

100 meter Grid

2002

<http://frap.cdf.ca.gov/data/frapgisdata/select.asp>

Erodability

Highly Erodible Watersheds

vector digital data

Dept. of Conservation, Division of Mines &
Geology

Minimum Mapping Unit: Approximately 8000

Acres (20,000 Hectares)

1994

<http://gis.ca.gov/catalog/BrowseRecord.epl?id=380>

Land Ownership

GOVTOWNA

vector digital data

California Department of Forestry Forest and
Rangeland Resources Assessment Program

Bureau of Land Management Surface Management

1:100,000

September 1999

<http://old.casil.ucdavis.edu/casil/gis.ca.gov/teale/govtowna/>

Developed Area and Population

Census 2000 Block Data (Migrated)

vector digital data

California and the Department of Forestry and Fire
Protection, FRAP

2003

1:100,000

<http://frap.cdf.ca.gov/data/frapgisdata/select.asp>

Historic Suitable Habitat (Coho, Steelhead)

Intrinsic Potential Model

vector digital data

NOAA Fisheries

Santa Cruz Laboratory, Santa Cruz, CA

2005

<http://swfsc.noaa.gov/>

Toxins

Hazardous_&_solid_waste_sites

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

vector digital data

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

mines

vector digital data

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

Industrial_discharge_sites

vector digital data

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

Toxic_release_inventory

vector digital data

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

Permit_compliance

vector digital data

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

Priority_list_sites

vector digital data

Better Assessment Science Integrating point and
Nonpoint Sources (BASINS)

United States Environmental Protection Agency
2001

<http://www.epa.gov/waterscience/basins/>

Records Management System (RMS)

Public Consultation Tracking System (PCTS)

National Marine Fisheries Service

Oracle Databases

2008

Imagery

Google Maps

remote-sensing image

raster digital data

2008