October 2009

NMFS-SWR-HCD

San Mateo Creek Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
21,821 Acres	18050004	2204400201	Coyote Point (825 Acres)
8,831 Hectares	4th Field **HUC**	2204400302	Lower Crystal Springs Res. (5916 Acres)
34 Square Miles		2204400303	Polhemus Creek (2350 Acres)
	220440	2204400304	Upper Crystal Springs Res. (8626 Acres)
Location	4th Field **Calwater**	2204400306	San Andreas Lake (3786 Acres)
San Mateo County		2204400400	Steinberger Slough (319 Acres)

Species Potential	Miles of Streams with Species Present
Central California Coast **Steelhead**	Steelhead
Coastal San Francisco Bay Diversity Stratum - Potentially Independent Population	7
	NOAA Fisheries, Critical Habitat Redesignation, 2005

Critical Habitat

Central California Coast Steelhead 0 Miles of Stream

Miles of Waterway[A]	Miles	Number of Dams[C]
Naturally Occurring Waterways		8
Intermittent Stream	27	4 - Impassable
Perennial Stream	11	4 - Unknow Barrier Status
Artificial Path / Pipeline	21	
Canal	7	
		Pacific States Marine Fisheries Commission, 2005

[A]USGS National Hydrography Dataset, High Resolution, 2004. 1:24,000

USGS Gaging Stations[B]	Number of Barriers[C]
11162750	26
Crystal Springs Reservoir at Dam near San Mateo, CA	8 Dams
	16 Road Crossings (1 Impassable, 1 Temp. &/or Partially Impassable)
	[C]Passage Assessment Database, Pacific States Marine Fisheries Commission, 2008

EPA Total Maximum Daily Load Classification (**TMDL**)[I]

Diazinon

Sources: Urban Runoff / Storm Sewers

[I]State Water Resources Control Board, 2006

Average Annual Precipitation[E]	Average Annual Precipitation Range[E]
29"	18 - 45"

[E]California Mean Annual Precipitation Zones, 1900-1960, CA Department of Forestry, 1990

Roads[A]	Miles
Roads in Watershed	
Primary Road / Highway	21
Secondary and connecting road, state highways	13
Local, neighborhood, and rural road, city street, unseparated	116
Vehicular trail, 4WD	4
Total Miles	

Road Density	
Miles of Roads per SqMi of Watershed	4.5
Miles of Roads per SqMi of 100m Riparian Buffer*	4.1

*Buffer is 100 meters on either side of the stream centerline
[A]U.S. Census Bureau - Tiger 2000, 2002. 1:24,000

Slope[D]	Acres	Percent of watershed
Lands of 0-2 percent slope	2,266	10%
Lands of 2-4 percent slope	200	1%
Lands of 4-10 percent slope	844	4%
Lands of 10-15 percent slope	607	3%
Lands of 15-30 percent slope	2,018	9%
Lands of 30-60 percent slope	3,739	17%
Lands of 60-100 percent slope	4,675	21%
Lands of 100-456 percent slope	7,472	34%
Elevation Range	0 - 6,795 ft.	0 - 2,071 m

[D]Slope derived from USGS 10 meter Digital Elevation Models (DEM's)

Vegetation[G]	Acres	Percent of watershed
Annual grassland	1,742	8%
Barren	734	3%
Conifer Forest		
Closed-Cone Pine-Cypress	536	2%
Douglas-Fir	1,655	8%
Montane Hardwood-Conifer	1,063	5%
Redwood	86	0%
Unknown Conifer	15	0%
Hardwood Woodland		
Coastal Oak Woodland	4,730	22%
Eucalyptus	94	0%
Valley Foothill Riparian	190	1%
Shrub	5,167	24%
Urban	3,830	18%
Water	1,720	8%
Wetland	257	1%

[G]Multi-source Land Cover Data (2002 v2), CA Department of Forestry, 2002. 100 meter Grid

Land Ownership[H]	Acres	Percent of watershed
Private	21,477	98%
Local (Parks & Recreation)	184	1%
Federal, NPS	160	1%

[H]Management Landscape, CA Department of Forestry, 2002

Population[I]

Total Population within the watershed -- 29,397 People

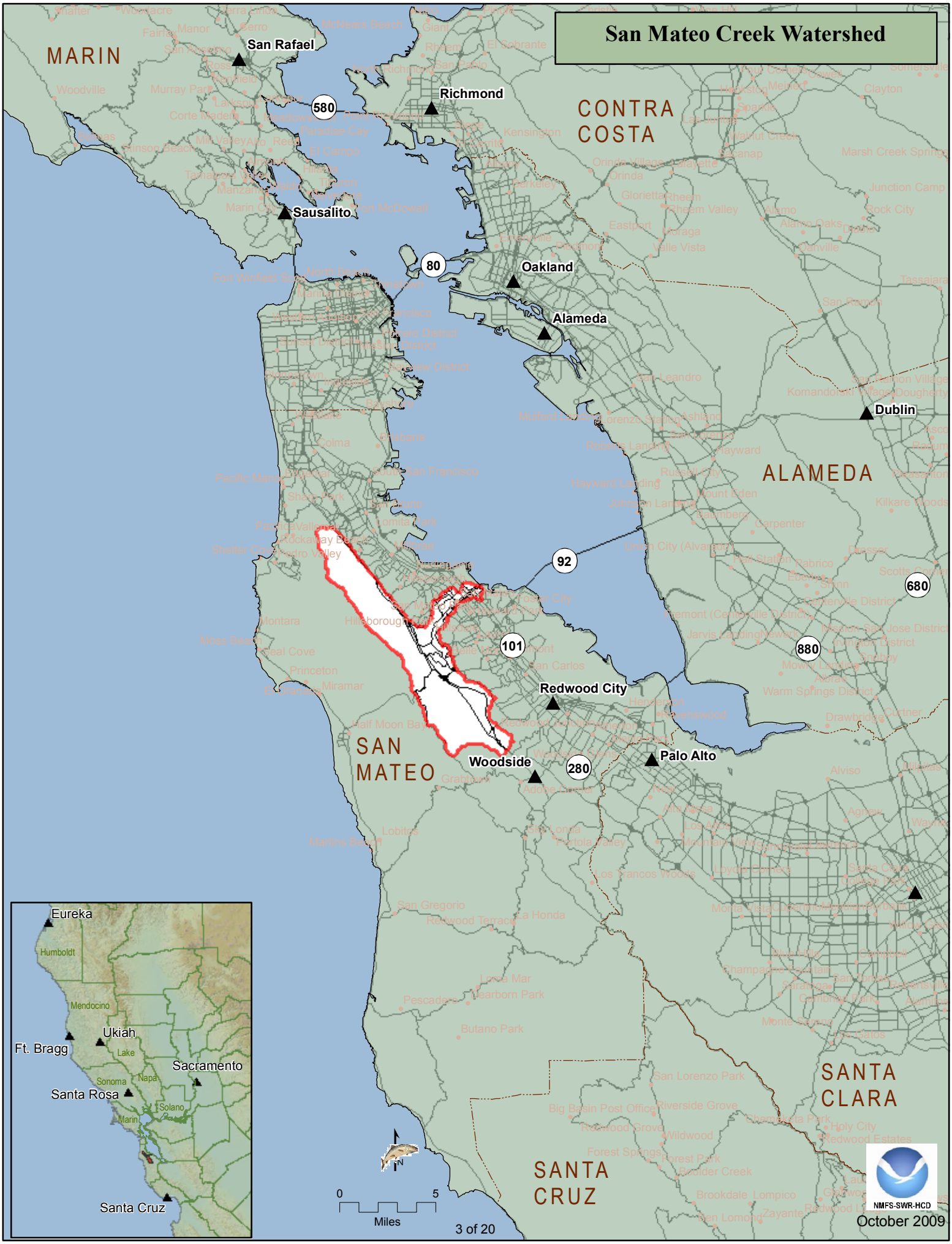
Housing[I]

Total Housing Units within the watershed -- 11,461 Houses

Housing Density
0 to Less than 1 Housing Unit / 160 Acres (85%)
1 Unit / 160 Acres to 1 Unit / 20 Acres (0%)
1 Unit / 20 Acres to 1 Unit / 5 Acres (0%)
1 Unit / 5 Acres to 2 Units / Acre (9%)
2 Units / Acres to Greater than or Equal to 5 Units / Acre (6%)

[I]Census 2000 Block Data (Migrated), CA Department of Forestry, 2003

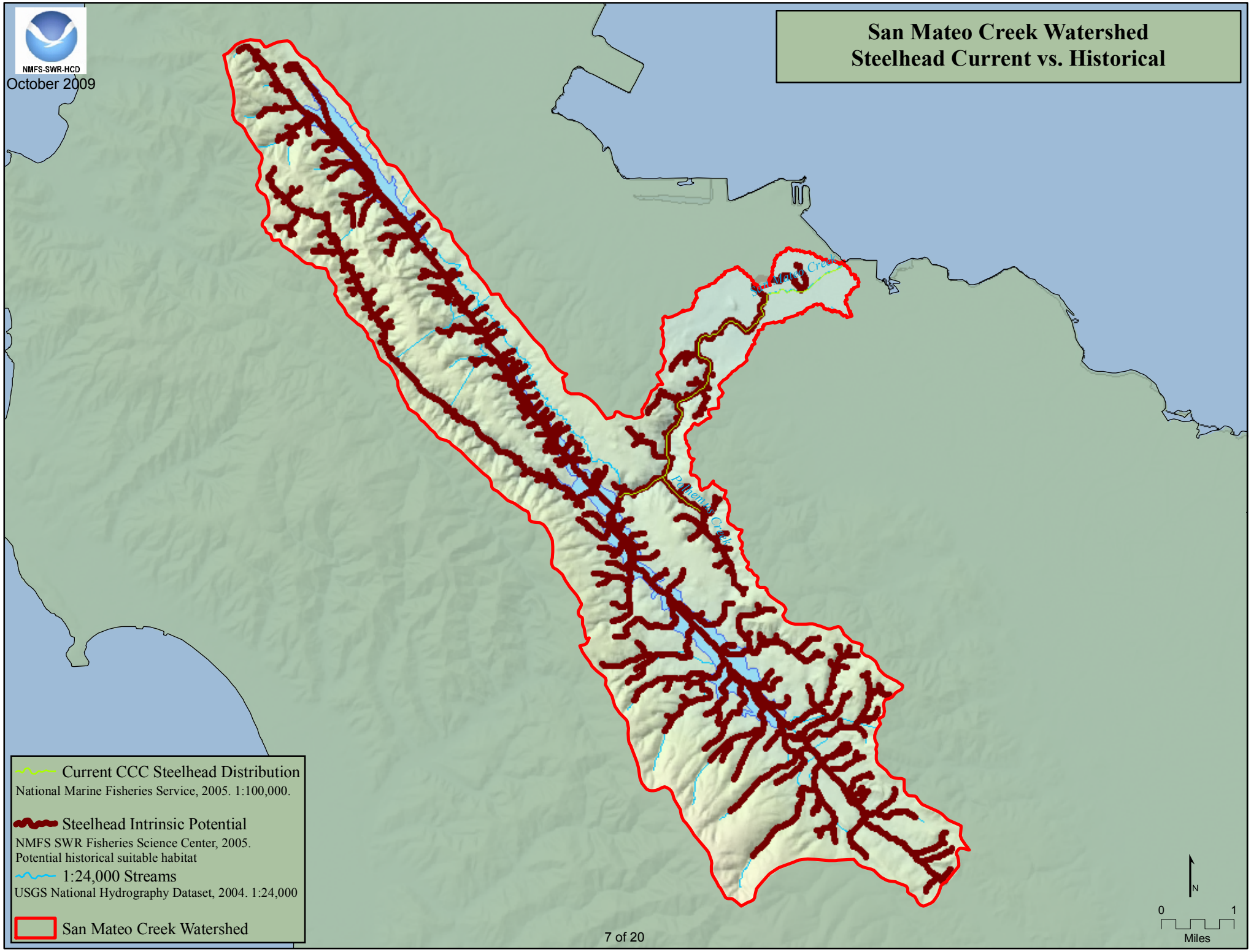
San Mateo Creek Watershed



San Mateo Creek Watershed
NMFS-SWR-HCD
October 2009
©2007 Google
N
0
1
Miles

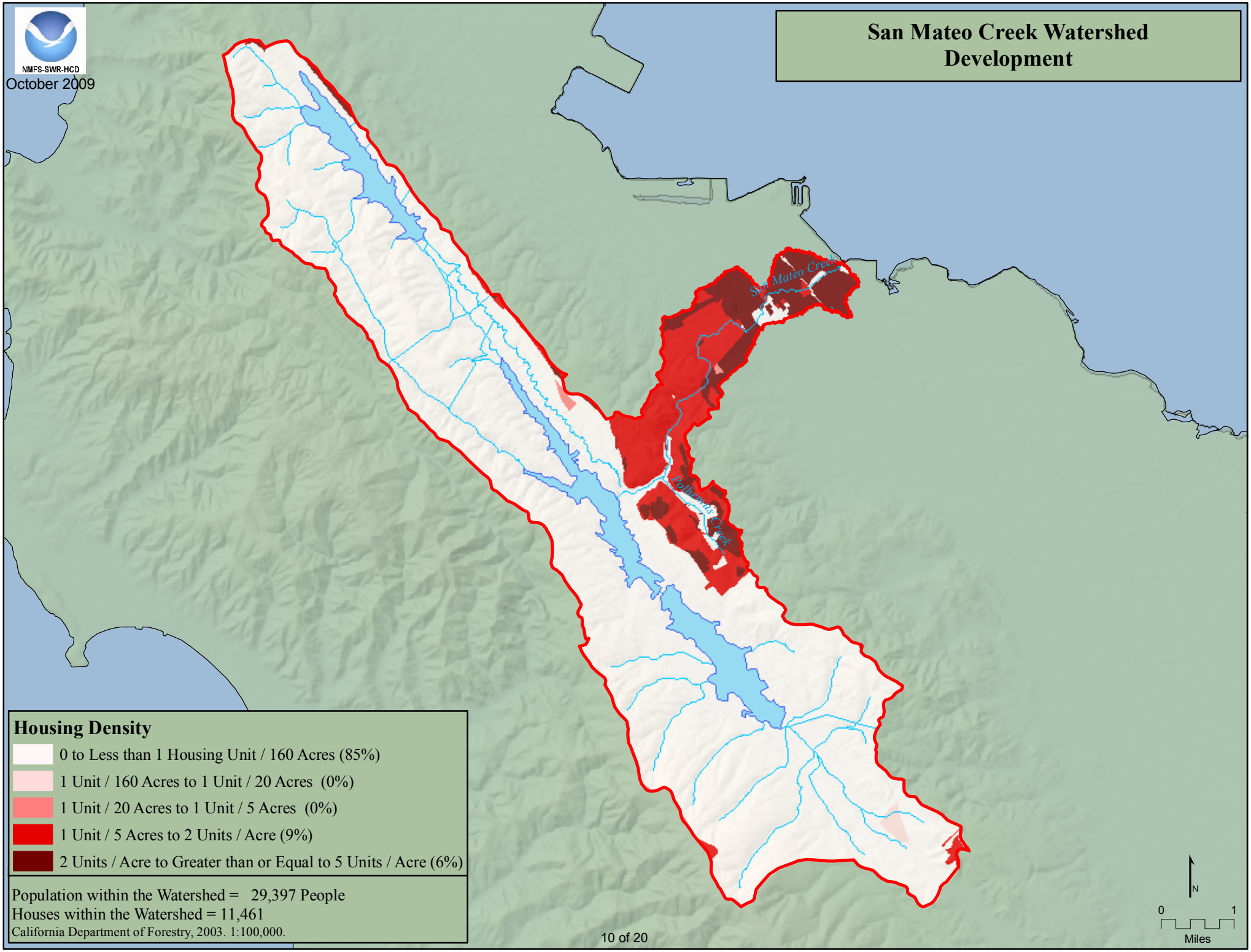
San Mateo Creek Watershed
CalWater Planning Watersheds
NMFS-SWR-HCD
October 2009
San Andreas Lake 3786 Acres
Coyote Point 825 Acres
Steinberger Slough 319 Acres
Lower Crystal Springs Reservoir 5916 Acres
Polhemus Creek 2350 Acres
Polhemus Creek
Upper Crystal Springs Reservoir 8626 Acres
N
0
1
Miles

NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Fish Distribution
San Mateo Creek
Pellhemus Creek
CCC Steelhead Distribution
National Marine Fisheries Service, August 2005. 1:100,000.
1:24,000 Streams
USGS National Hydrography Dataset, 2004. 1:24,000
San Mateo Creek Watershed
N
0
1
Miles

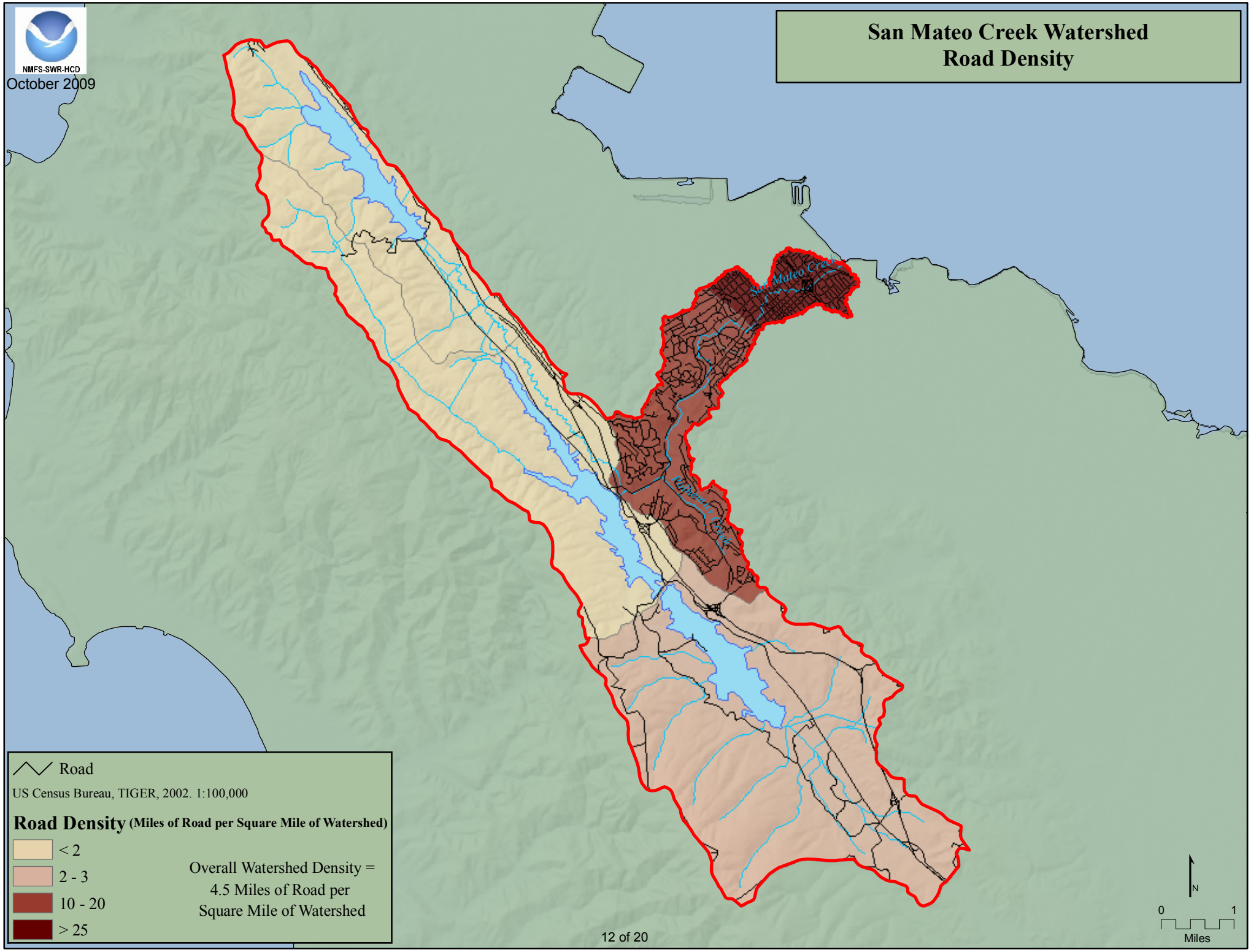

NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Steelhead Current vs. Historical
San Mateo Creek
Pathemus Creek
Current CCC Steelhead Distribution
National Marine Fisheries Service, 2005. 1:100,000.
Steelhead Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat
1:24,000 Streams
USGS National Hydrography Dataset, 2004. 1:24,000
San Mateo Creek Watershed
N
0
1
Miles

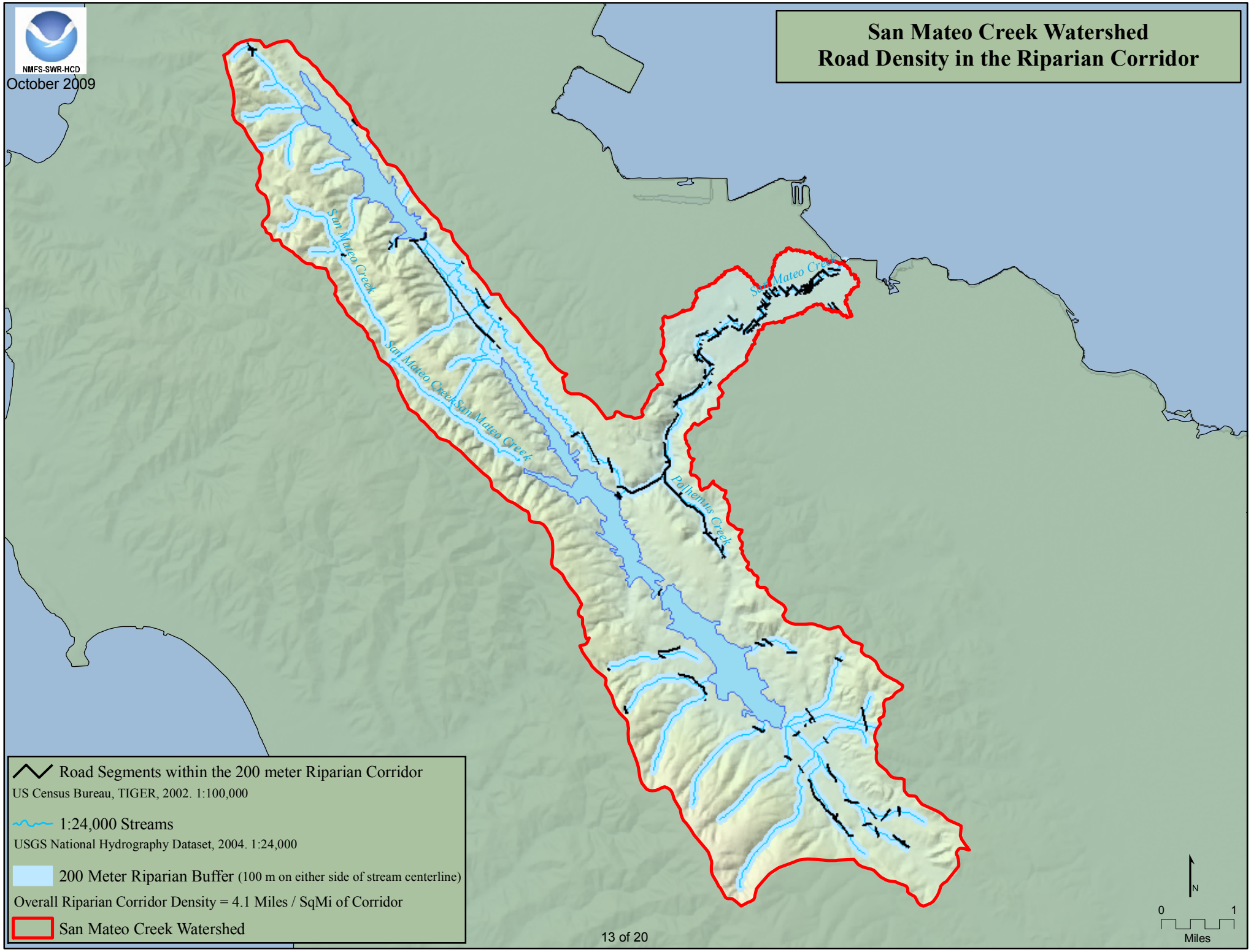
NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Coho Historical
San Mateo Creek
Polhemus Creek
Coho Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat
1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
San Mateo Creek Watershed
N
0
1
Miles

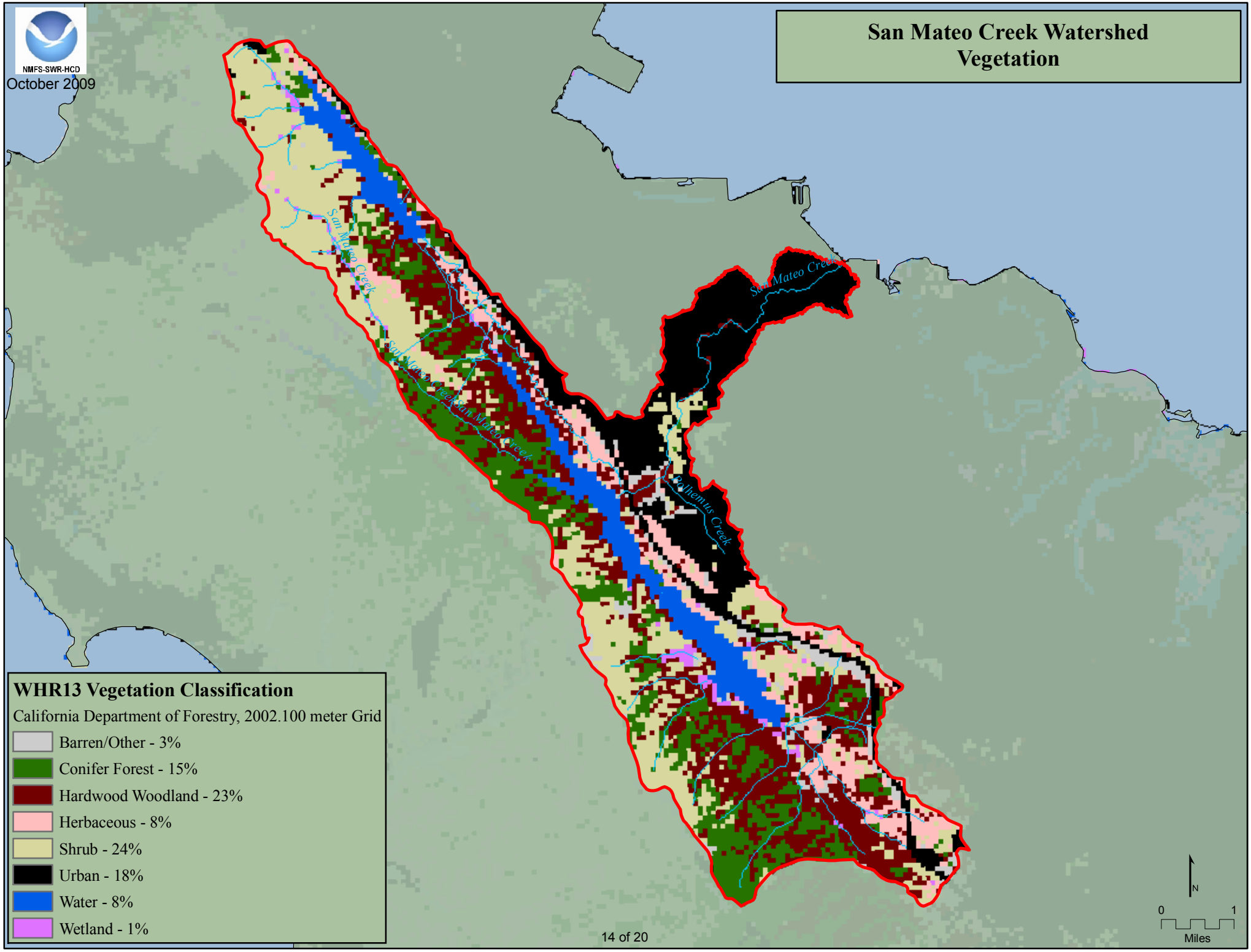
NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Elevation
San Mateo Creek
Talbert Creek
San Mateo Creek Elevation (meters)
High : 2071
Low : 0
USGS
10 Meter Digital
Elevation Model
(DEM)
N
0
1
Miles

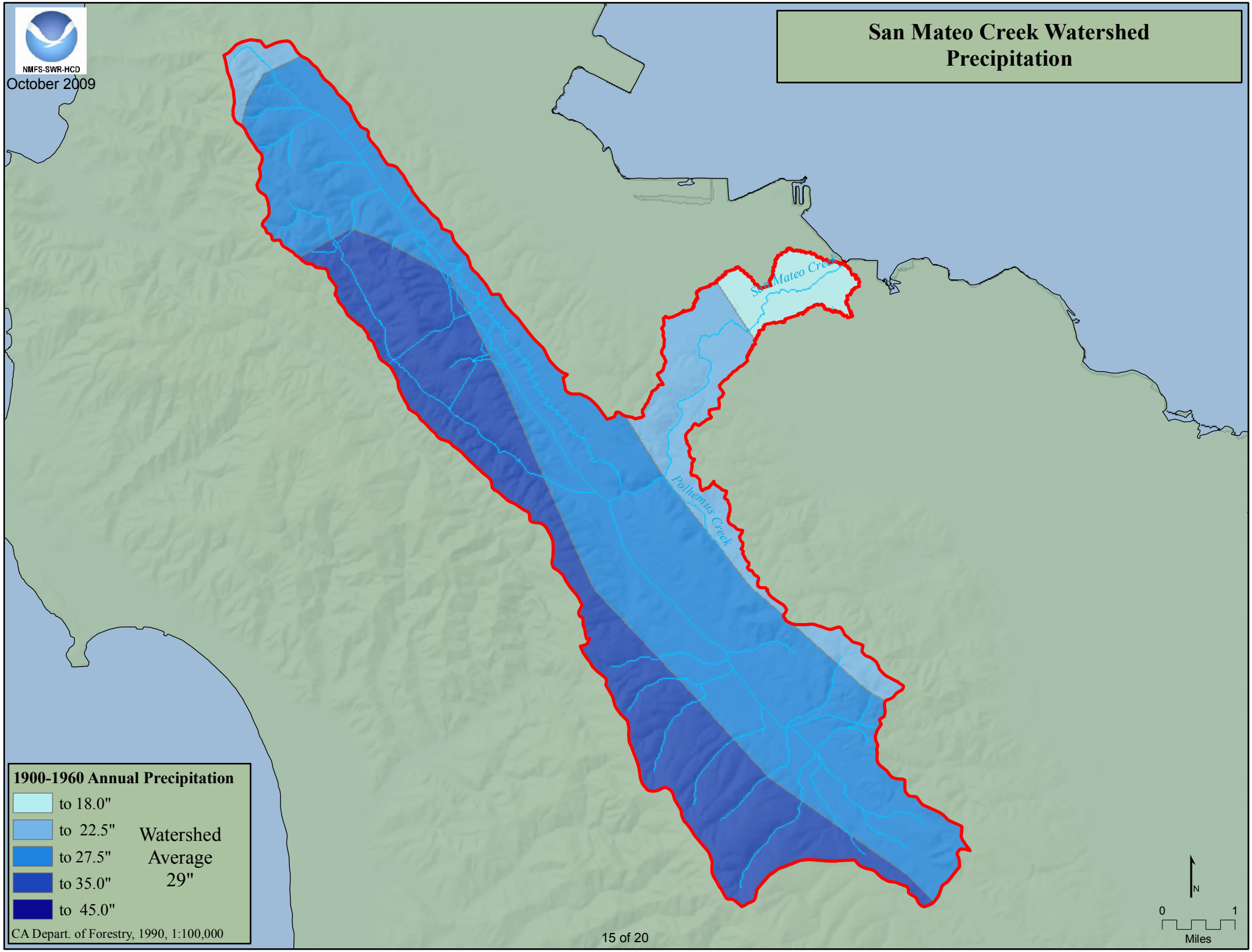

NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Development
San Mateo Creek
Pollywogs Creek
Housing Density
0 to Less than 1 Housing Unit / 160 Acres (85%)
1 Unit / 160 Acres to 1 Unit / 20 Acres (0%)
1 Unit / 20 Acres to 1 Unit / 5 Acres (0%)
1 Unit / 5 Acres to 2 Units / Acre (9%)
2 Units / Acre to Greater than or Equal to 5 Units / Acre (6%)
Population within the Watershed = 29,397 People
Houses within the Watershed = 11,461
California Department of Forestry, 2003. 1:100,000.
N
0
1
Miles

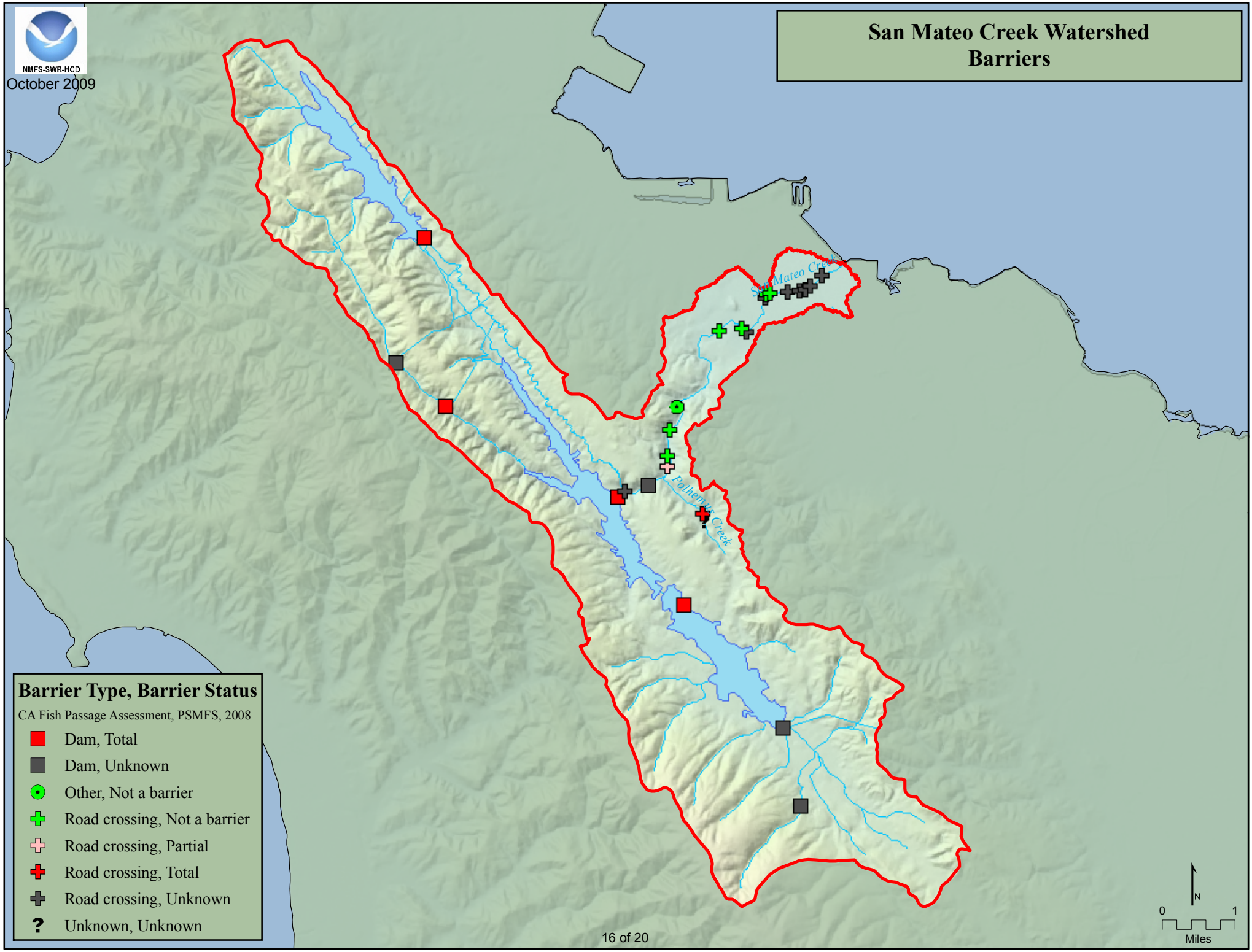
NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Ownership
San Mateo Creek
Polhemus Creek
Ownership
California Department of Forestry, 1999. 1:100,000.
Federal, NPS
Local, City / County Park
Private
N
0
1
Miles

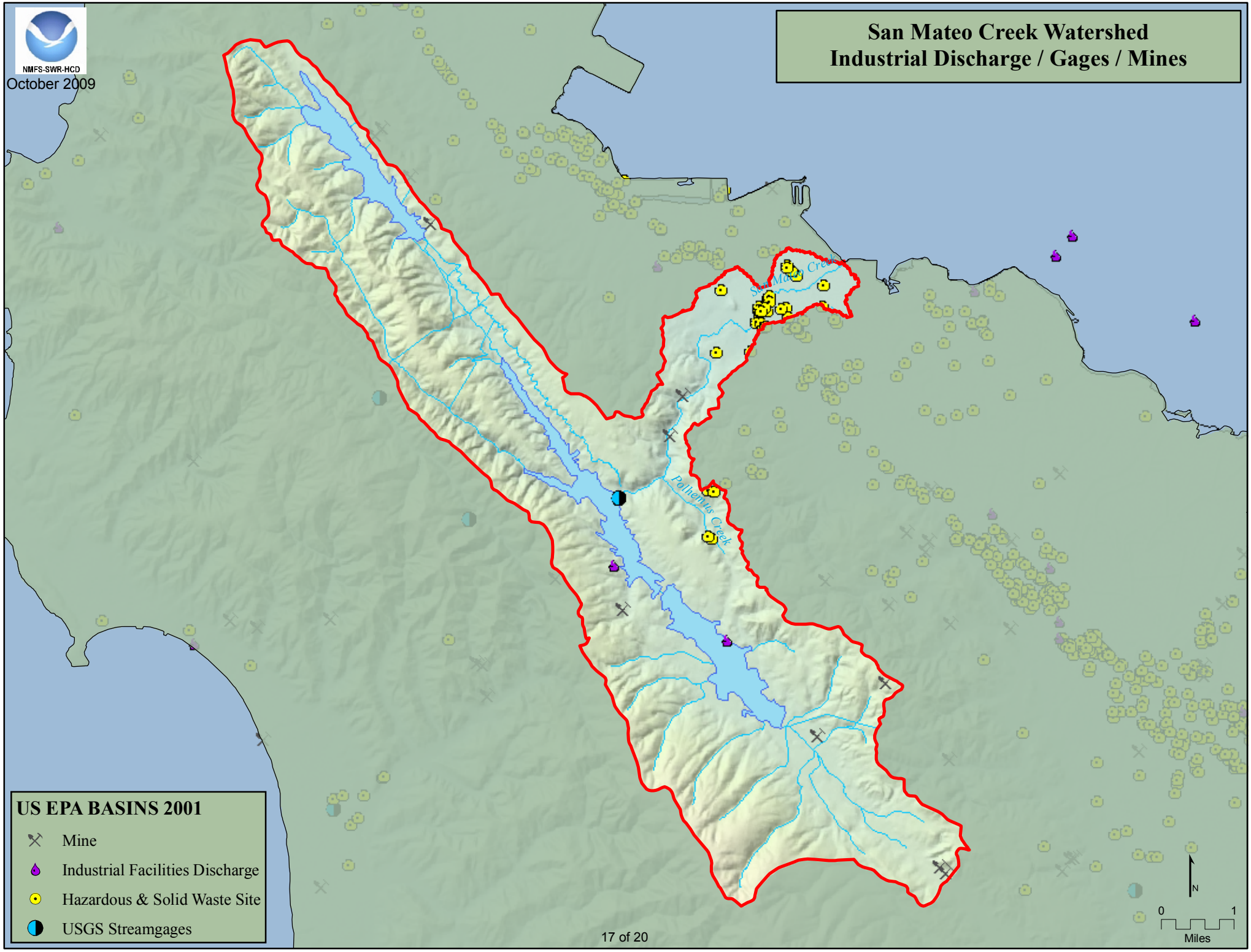

NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Road Density
San Mateo Creek
Cristianitos Creek
Road
US Census Bureau, TIGER, 2002. 1:100,000
Road Density (Miles of Road per Square Mile of Watershed)
< 2
2 - 3
10 - 20
> 25
Overall Watershed Density =
4.5 Miles of Road per
Square Mile of Watershed
N
0
1
Miles


NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Road Density in the Riparian Corridor
San Mateo Creek
San Mateo Creek
San Mateo Creek
San Mateo Creek
Polhemus Creek
Road Segments within the 200 meter Riparian Corridor
US Census Bureau, TIGER, 2002. 1:100,000
1:24,000 Streams
USGS National Hydrography Dataset, 2004. 1:24,000
200 Meter Riparian Buffer (100 m on either side of stream centerline)
Overall Riparian Corridor Density = 4.1 Miles / SqMi of Corridor
San Mateo Creek Watershed
N
0
1
Miles


NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Vegetation
San Mateo Creek
San Mateo Creek
San Mateo Creek
Bothemus Creek
WHR13 Vegetation Classification
California Department of Forestry, 2002.100 meter Grid
Barren/Other - 3%
Conifer Forest - 15%
Hardwood Woodland - 23%
Herbaceous - 8%
Shrub - 24%
Urban - 18%
Water - 8%
Wetland - 1%
N
0
1
Miles


NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Precipitation
San Mateo Creek
Polhemus Creek
1900-1960 Annual Precipitation
to 18.0"
to 22.5"
to 27.5"
to 35.0"
to 45.0"
Watershed
Average
29"
CA Depart. of Forestry, 1990, 1:100,000
N
0
1
Miles


NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Barriers
San Mateo Creek
Polhemus Creek
Barrier Type, Barrier Status
CA Fish Passage Assessment, PSMFS, 2008
Dam, Total
Dam, Unknown
Other, Not a barrier
Road crossing, Not a barrier
Road crossing, Partial
Road crossing, Total
Road crossing, Unknown
Unknown, Unknown
N
0
1
Miles


NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Industrial Discharge / Gages / Mines
San Mateo Creek
Polhemus Creek
US EPA BASINS 2001
Mine
Industrial Facilities Discharge
Hazardous & Solid Waste Site
USGS Streamgages
N
0
1
Miles

NMFS-SWR-HCD
October 2009
San Mateo Creek Watershed
Public Consultation Tracking System
Norfolk Street Bridge Replacement Project, City of San Mateo
San Mateo Shoreline Park
Drainage capacity improvements on San Mateo Creek at Highway 101 overcrossing
222 Bridge Road Bank Stabilization (Lebo Property)
San Mateo Creek
New Crystal Springs Bypass Tunnel
Crystal Springs Reservoir Energy Dissipater
PCTS Record
Current as of September 24, 2009. Only those records with a Latitude and Longitude entered appear here
N
0
1
Miles

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
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

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CCC_Steelhead_ch_06_2005
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1:100,000
August 2005
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Hydrology
1805 NHD Flowline
vector digital data
National Hydrography Dataset High Resolution
United States Geological Survey
1:24,000
2004

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pad_september2008
vector digital data
California Fish Passage Assessment Database
Pacific States Marine Fisheries Commission
September 2006
http://www.calfish.org/

Gaging Stations
USGS Streamgages
vector digital data
U.S. Geological Survey
Reston, Va
2006
http://water.usgs.gov/GIS/dsdl/USGS_Streamgages-NHD_Locations_Shape.zip

Total Maximum Daily Load (TMDL)
R1_rivers_2006 303d
vector digital data
State Water Resources Control Board (SWRCB)
California Environmental Protection Agency
2006

Precipitation
California Mean Annual Precipitation Zones, 1900-1960
Vector digital data
California Department of Forestry and Fire Protection1990
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
USGS
10 Meter Digital Elevation Model (DEM)
USGS , EROS Data Center
1999

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

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

Imagery
Google Maps
remote-sensing image
raster digital data
2008

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
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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)
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Records Management System (RMS)
Public Consultation Tracking System (PCTS)
National Marine Fisheries Service
Oracle Databases
2008