



Green Valley Creek / Suisun Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
69,850 Acres	18050002	2207210100	Green Valley Creek (10037 Acres)
28,267 Hectares	4th Field HUC	2207210200	Jameson Canyon (10185 Acres)
109 Square Miles		2207210301	Pine Lake (1889 Acres)
	2207	2207210400	Goodyear Slough (9859 Acres)
Location	4th Field Calwater	2207220001	Wooden Valley Creek (10537 Acres)
Marin County		2207220002	Suisun Reservoir (8163 Acres)
Sonoma County		2207220003	Lake Curry (13879 Acres)
		2207230200	Suisun Slough (5295 Acres)

Species Potential	Miles of Streams with Species Present
Central California Coast <u>Steelhead</u>	<u>Steelhead</u>
Interior San Francisco Bay Diversity Stratum	56
- Potentially Independent	NOAA Fisheries, Critical Habitat Redesignation, 2005

Critical Habitat	Miles of Stream
Central California Coast Steelhead	0 Miles of Stream

Miles of Waterway ^A	Miles	Number of Dams ^C
Naturally Occurring Waterways		15
Intermittent Stream	187	5 - Impassable
Perennial Stream	23	1 - Not a Barrier
Canal / Ditch	56	
Connector	1	
Artificial Path	27	
Pipeline	4	

^CPassage Assessment Database, Pacific States Marine Fisheries Commission, 2008

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

USGS Gaging Stations ^B	Number of Barriers ^C
USCE381323122042601	75
Peytonia Slough	15 Dams
	57 - Diversions

^CPassage Assessment Database, Pacific States Marine Fisheries Commission, 2008

Average Annual Precipitation ^E	Average Annual Precipitation Range ^E
24.5"	18 - 37.5"

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

Roads ^A	Miles
Roads in Watershed	
Primary Road / Highway	16
Secondary and connecting road, state highways	7
Local, neighborhood, and rural road, city street, unseparated	132
Driveway or service road, ramp	50
Total Miles	

Road Density	Miles
Miles of Roads per SqMi of Watershed	1.9
Miles of Roads per SqMi of 100m Riparian Buffer*	2.1

*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	14,014	20%
Lands of 2-4 percent slope	5,082	7%
Lands of 4-10 percent slope	5,770	8%
Lands of 10-15 percent slope	5,174	7%
Lands of 15-30 percent slope	19,547	28%
Lands of 30-60 percent slope	18,632	27%
Lands of 60-100 percent slope	1,617	2%
Lands of 100-140 percent slope	14	0%
Elevation Range	0 - 2815 ft.	0 - 858 m

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

Vegetation^G	Acres	Percent of watershed
Agriculture	7,794	11%
Annual grassland	21,073	30%
Barren	440	1%
Hardwood Forest		
Montane Hardwood	15,919	23%
Hardwood Woodland		
Blue Oak-Foothill Pine	573	1%
Blue Oak Woodland	9,306	13%
Eucalytus	17	0%
Valley Foothill Riparian	106	0%
Valley Oak Woodland	52	0%
Herbaceous	329	0%
Shrub	4,611	7%
Urban	4,127	6%
Water	1,562	2%
Wetland	4,006	6%

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

Land Ownership^H	Acres	Percent of watershed
Private	69,311	99%
State (Fish & Game)	513	1%
Federal, Military	26	0%

^HManagement Landscape, CA Department of Forestry, 2002

Population^I	Housing^I
Total Population within the watershed -- 12,934 People	Total Housing Units within the watershed -- 4,341 Houses
	Housing Density
	0 to Less than 1 Housing Unit / 160 Acres 38%
	1 Unit / 160 Acres to 1 Unit / 20 Acres 50%
	1 Unit / 20 Acres to 1 Unit / 5 Acres 7%
	1 Unit / 5 Acres to 2 Units / Acre 3%
	2 Units / Acres to Greater than or Equal to 5 Units / Acre 1%

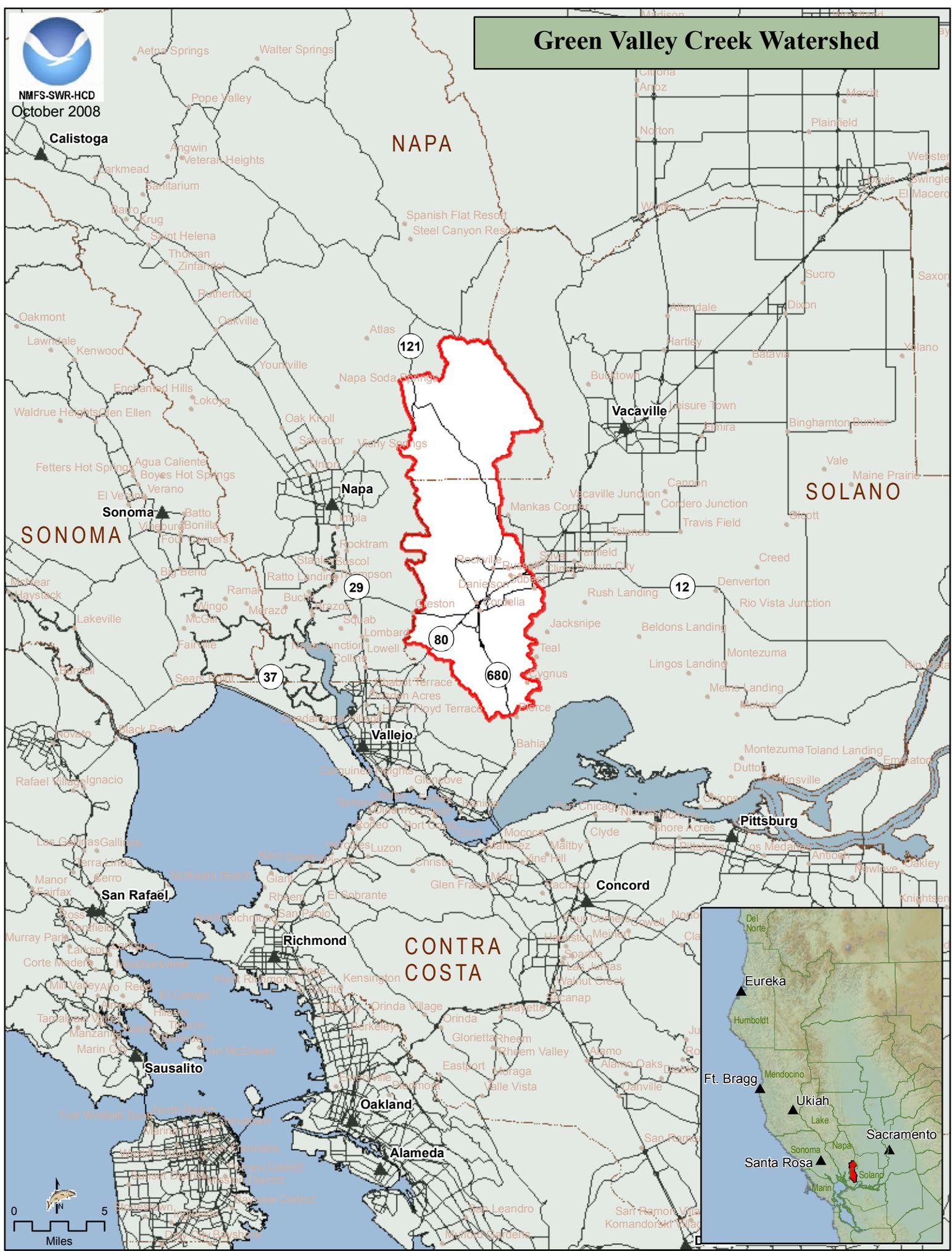
^ICensus 2000 Block Data (Migrated), CA Department of Forestry, 2003





NMFS-SWR-HCD
October 2008

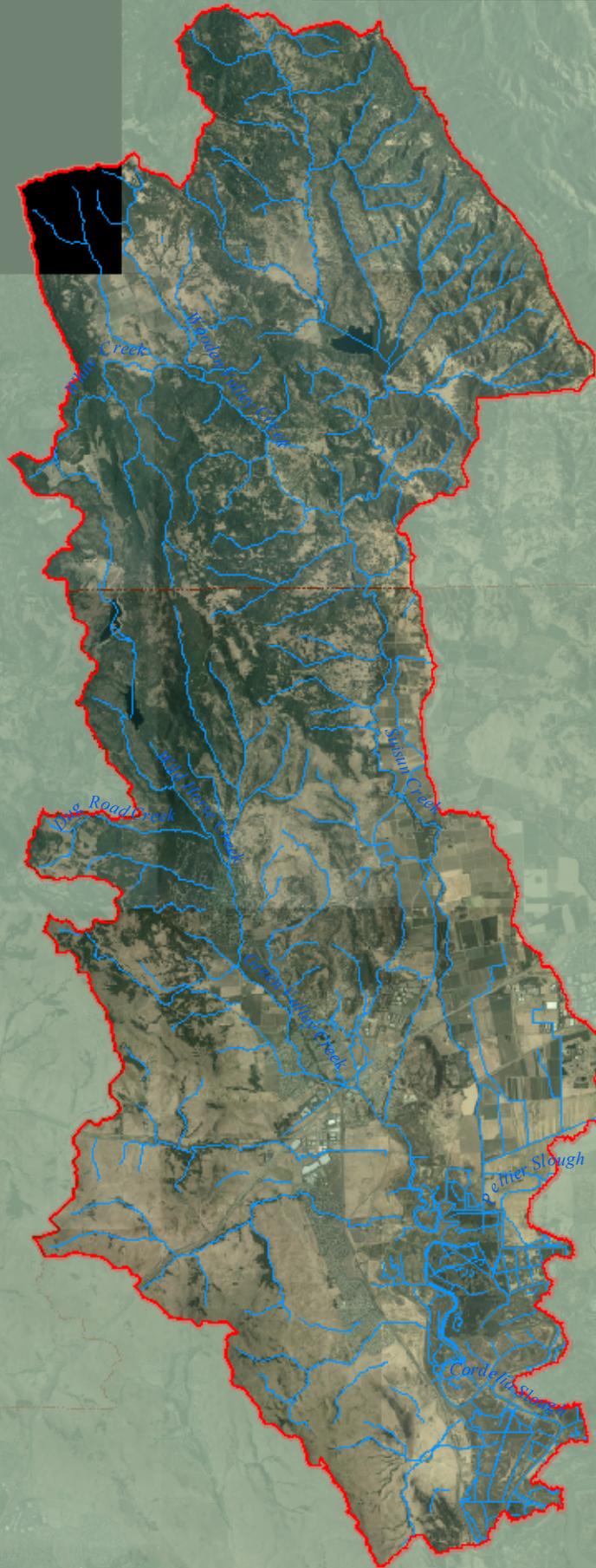
Green Valley Creek Watershed





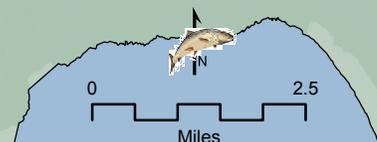
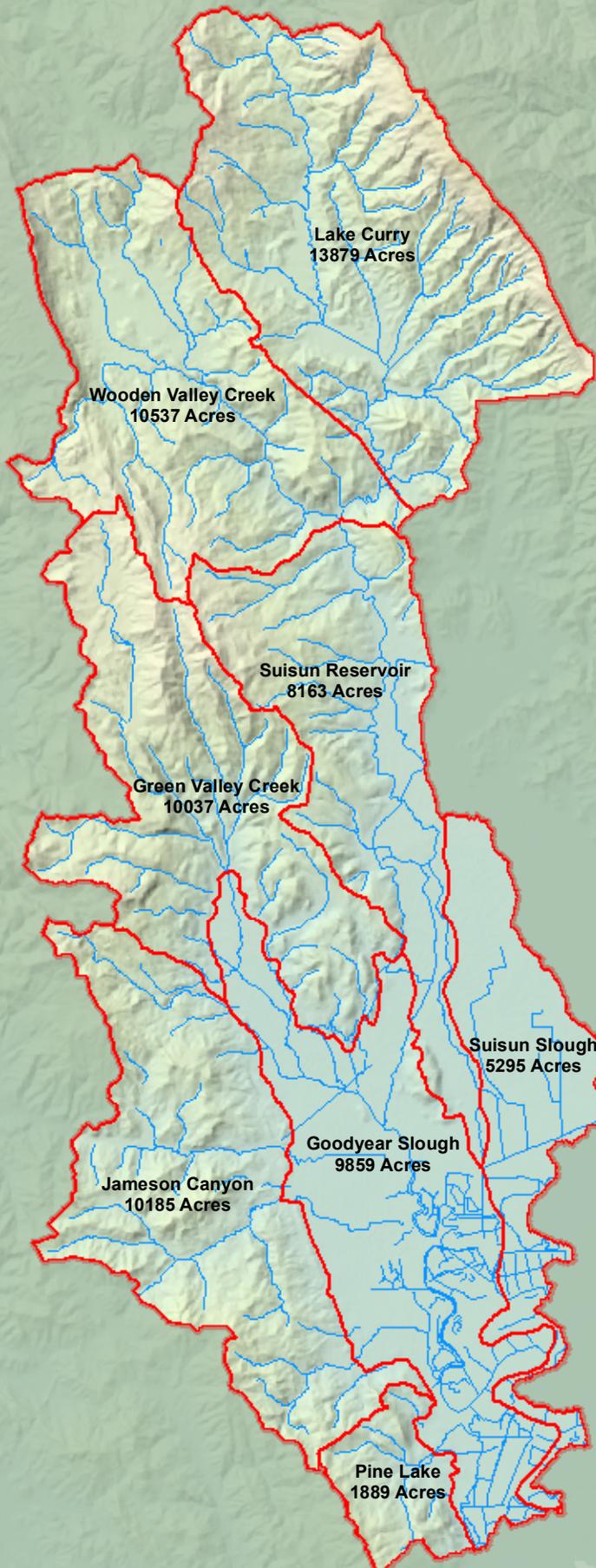
NMFS-SWR-HCD
October 2008

Green Valley Creek Watershed





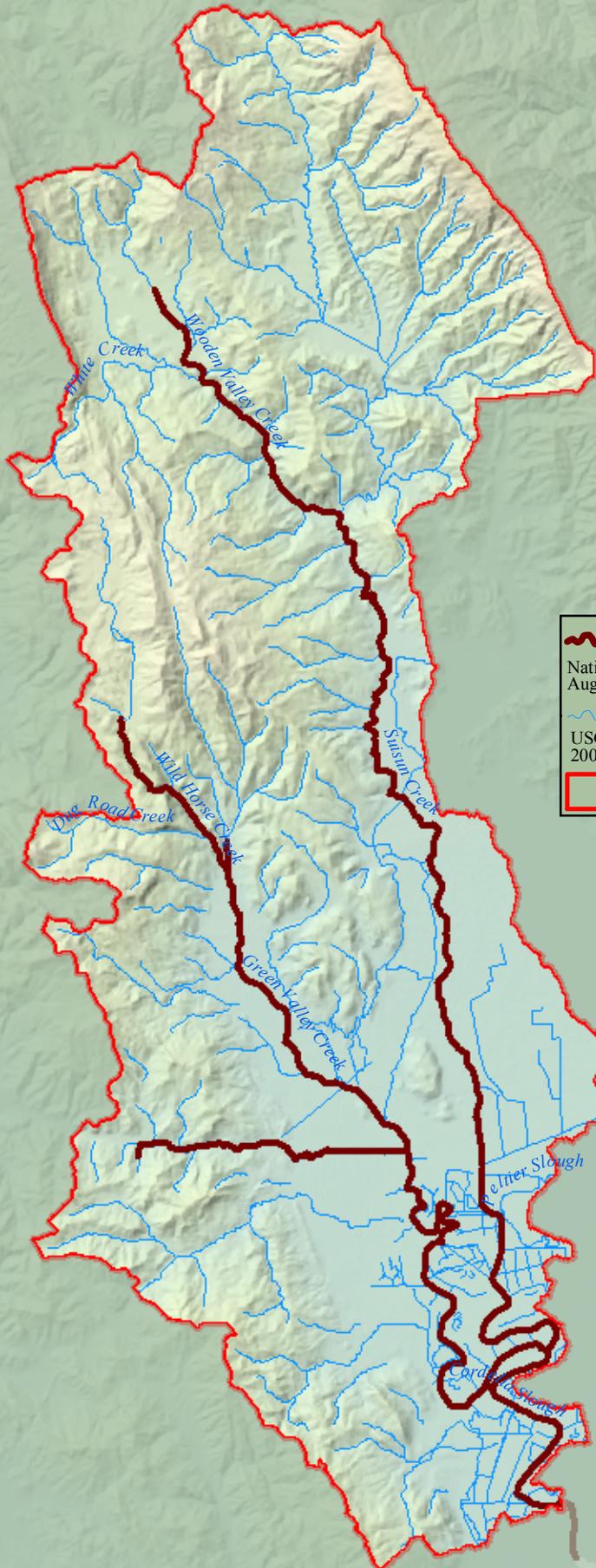
Green Valley Creek Watershed CalWater Planning Watersheds





NMFS-SWR-HCD
October 2008

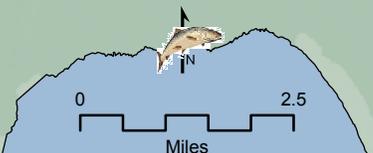
Green Valley Creek Watershed Fish Distribution



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

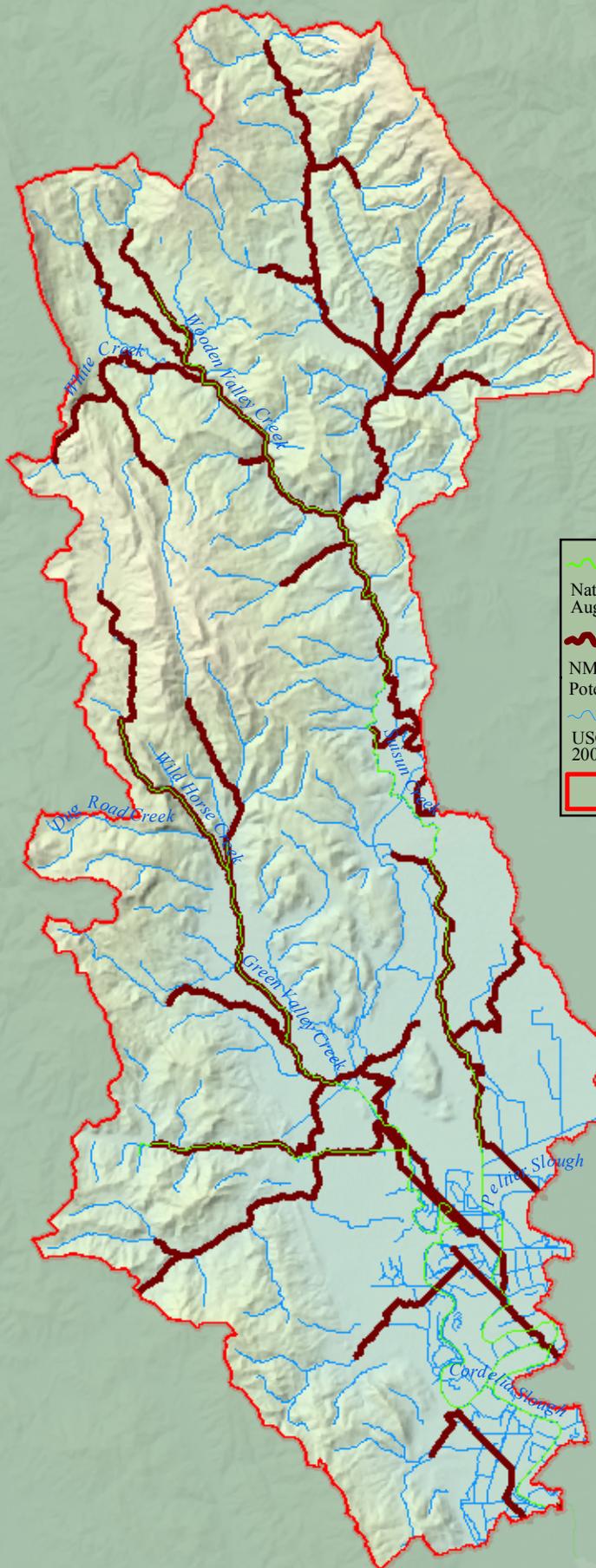
 1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000

 Green Valley Watershed





Green Valley Creek Watershed Steelhead Current vs. Historical



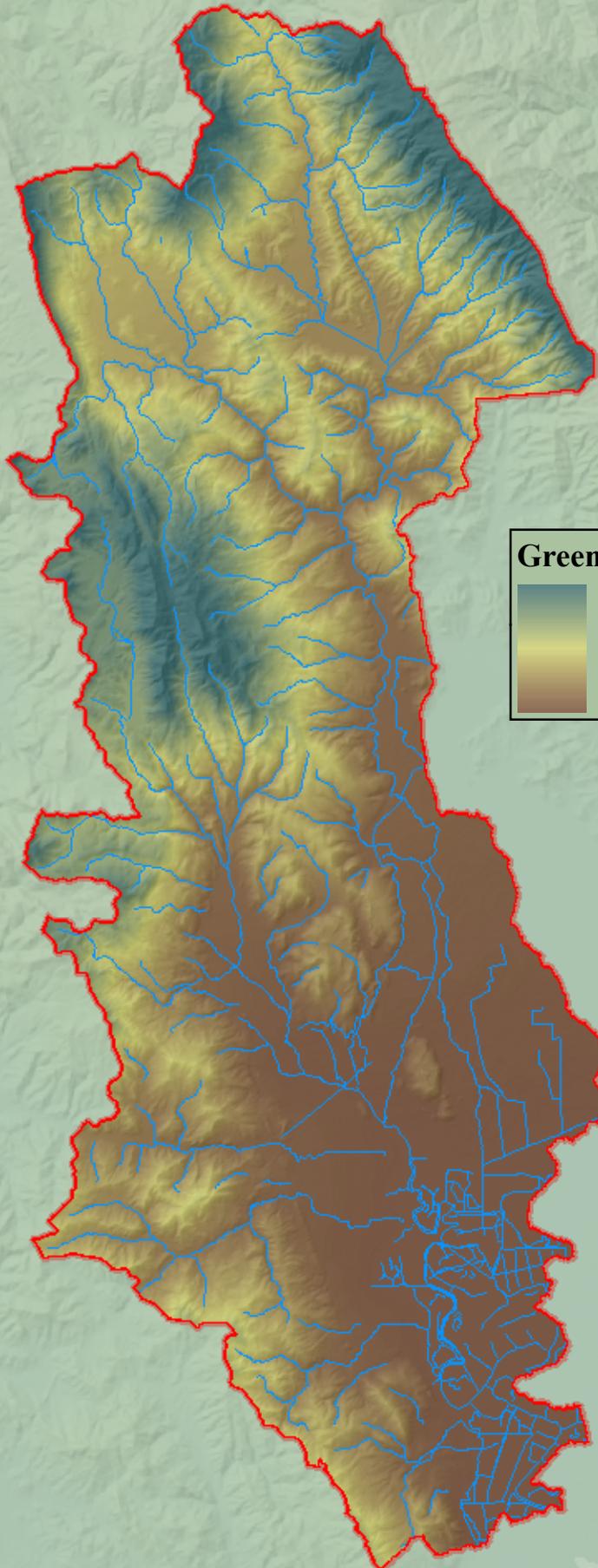
- Current CCC Steelhead Distribution
National Marine Fisheries Service,
August 2005. 1:100,000.
- Steelhead Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat
- 1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
- Green Valley Watershed



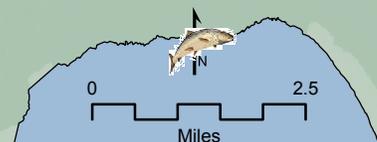
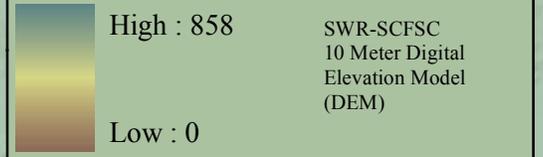


NMFS-SWR-HCD
October 2008

Green Valley Creek Watershed Elevation

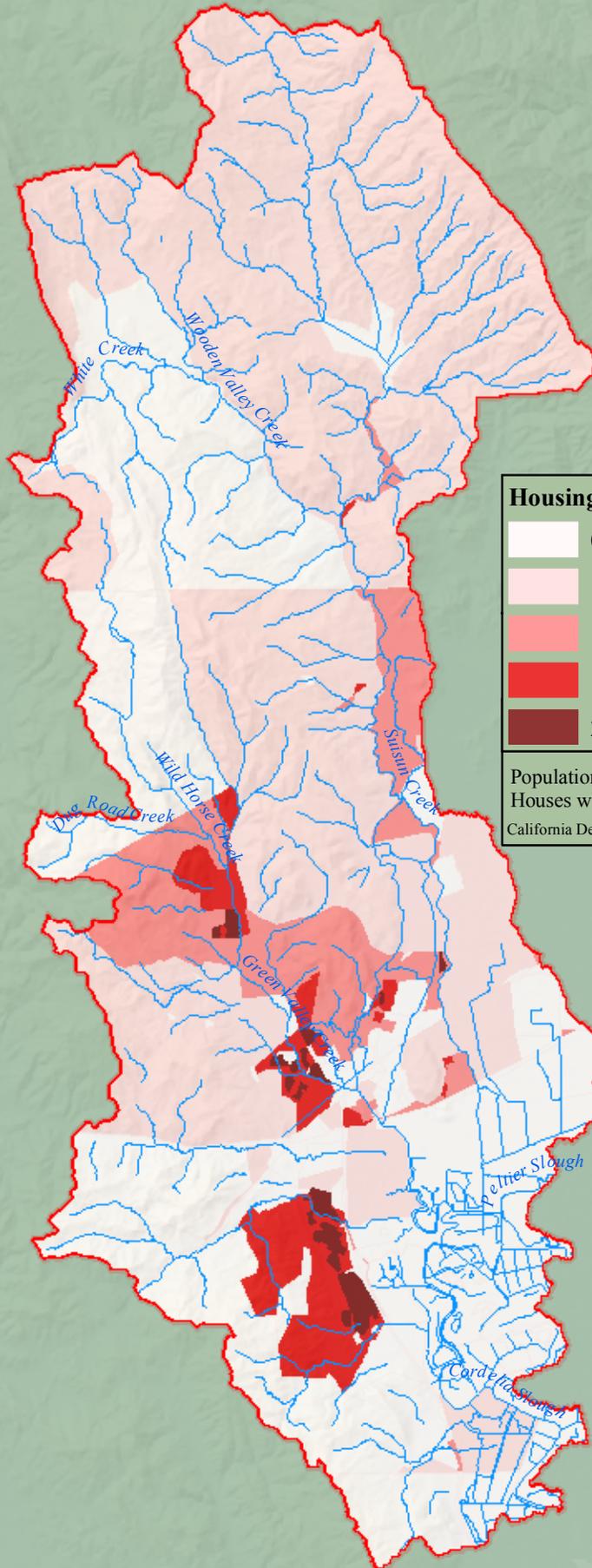


Green Valley Elevation (Meters)





Green Valley Creek Watershed Development



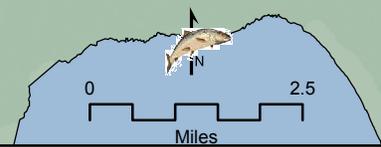
Housing Density

-  0 to Less than 1 Housing Unit / 160 Acres (38%)
-  1 Unit / 160 Acres to 1 Unit / 20 Acres (50%)
-  1 Unit / 20 Acres to 1 Unit / 5 Acres (7%)
-  1 Unit / 5 Acres to 2 Units / Acre (3%)
-  2 Units / Acre to >or = to 5 Units / Acre (1%)

Population within the Watershed = 12,934 People

Houses within the Watershed = 4,341

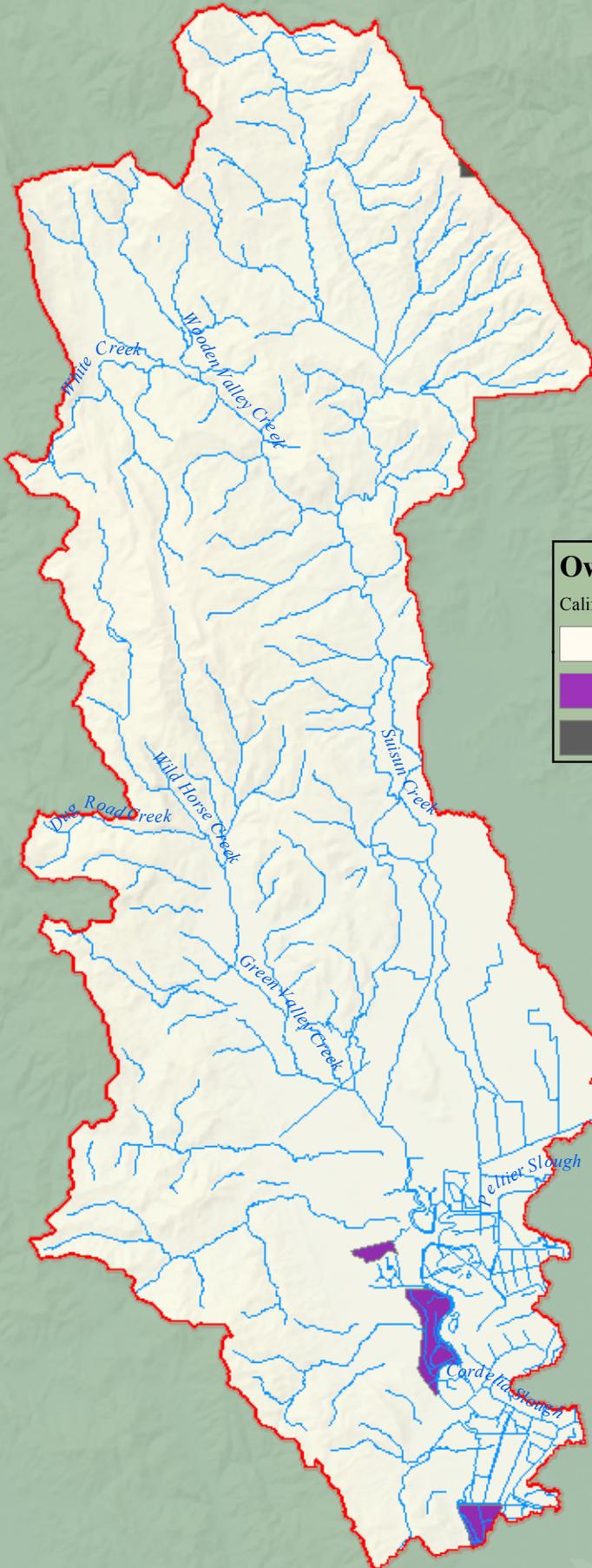
California Department of Forestry, 2003. 1:100,000.





NMFS-SWR-HCD
October 2008

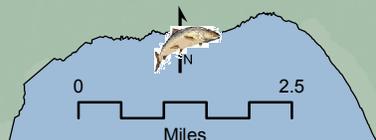
Green Valley Creek Watershed Ownership



Ownership

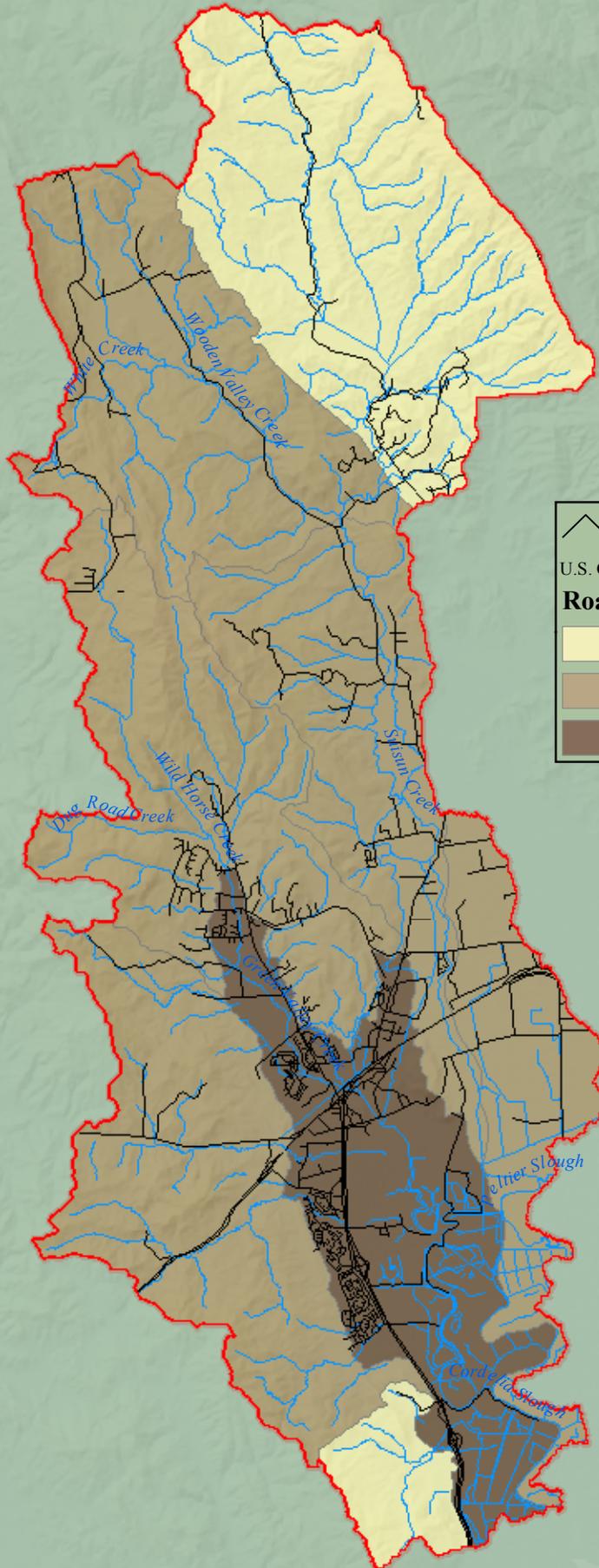
California Dept. of Forestry, 1999. 1:100,000.

- Private
- State, Fish & Game
- Federal, Military





Green Valley Creek Watershed Road Density



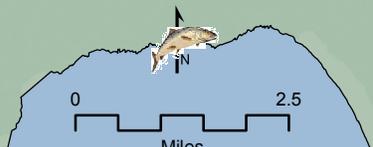
Road

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

Road Density (Miles of Road per Square Mile of Watershed)

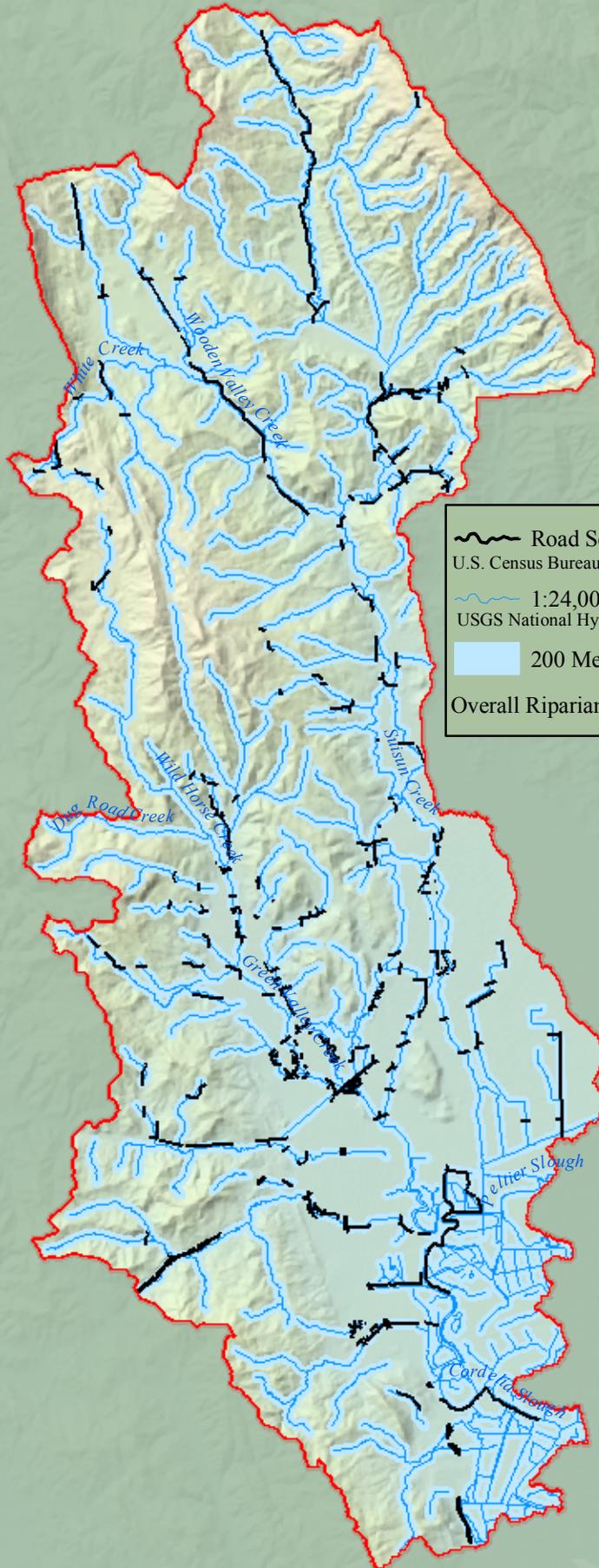
	0.0 - 1.0
	1.0 - 2.0
	5.7

Overall Watershed
Density = 1.9 Miles / SqMi

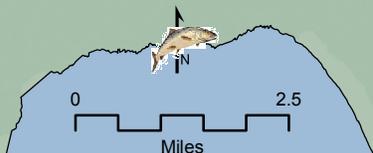




Green Valley Creek Watershed Road Density in the Riparian Corridor

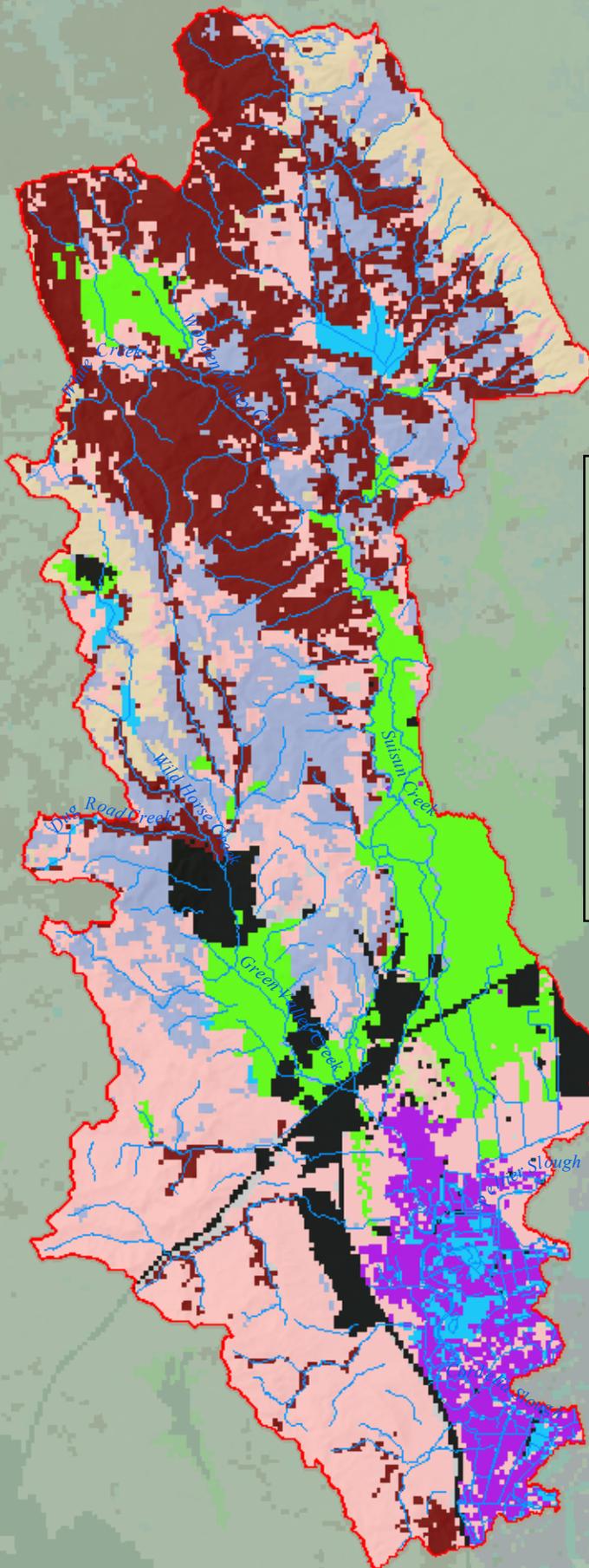


 Road Segments within the 200 meter Riparian Corridor
 U.S. Census Bureau - Tiger 2000, 2002. 1:24,000
 1:24,000 Streams
 USGS National Hydrography Dataset, 2004. 1:24,000
 200 Meter Riparian Buffer (100 m on either side of stream centerline)
 Overall Riparian Corridor Density = 2.1 Miles / SqMi of Corridor





Green Valley Creek Watershed Vegetation



WHR13 Vegetation Classification

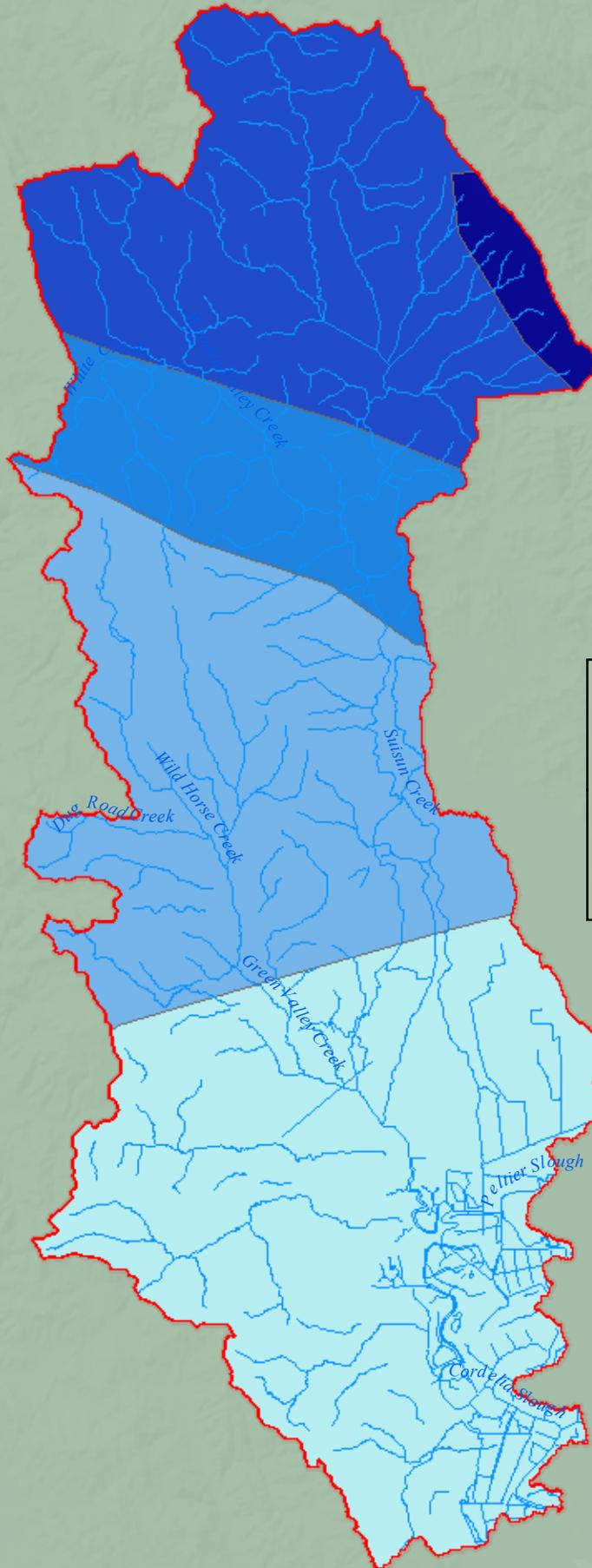
California Department of Forestry, 2002.100 meter Grid

- Agriculture - 11%
- Barren/Other
- Hardwood Forest - 23%
- Hardwood Woodland - 14%
- Herbaceous - 31%
- Shrub - 7%
- Urban - 6%
- Water - 2%
- Wetland - 6%



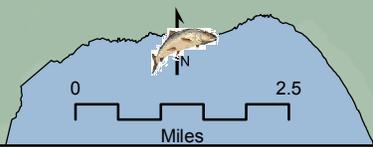


Green Valley Creek Watershed Precipitation



1900-1960 Annual Precipitation

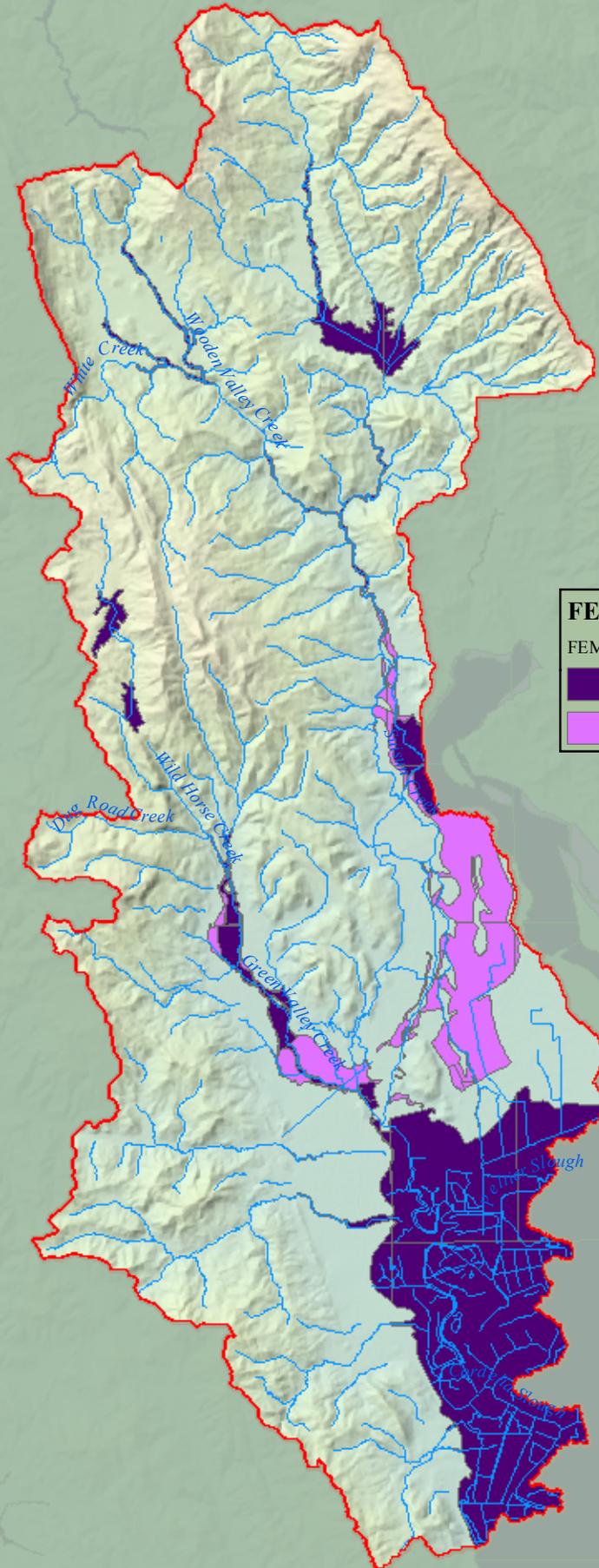
Lightest Blue	to 18.0"	Watershed
Light Blue	to 22.5"	Average
Medium Blue	to 27.5"	24.5"
Dark Blue	to 35.0"	California Department of Forestry, 1990.
Darkest Blue	to 37.5"	1:100,000





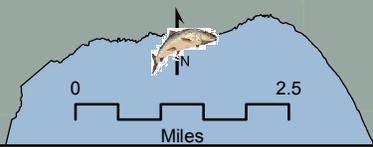
NMFS-SWR-HCD
October 2008

Green Valley Creek Watershed Flood Zone



FEMA Flood Zones
FEMA, 1996. 1:24,000

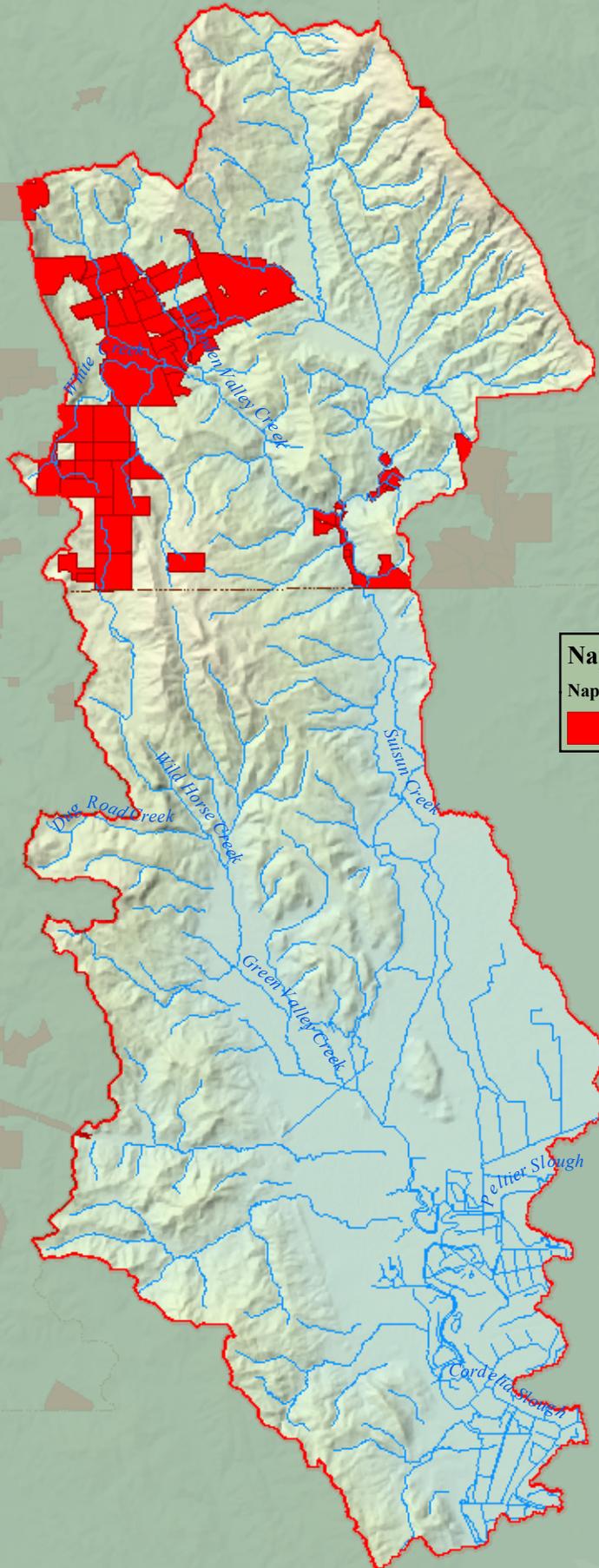
- 100 Year Flood Zone
- 500 Year Flood Zone





NMFS-SWR-HCD
October 2008

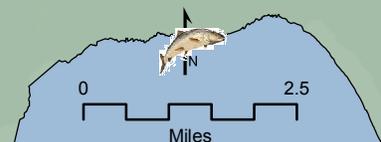
Green Valley Creek Watershed Vineyards (Napa County only)



Napa County Vineyards

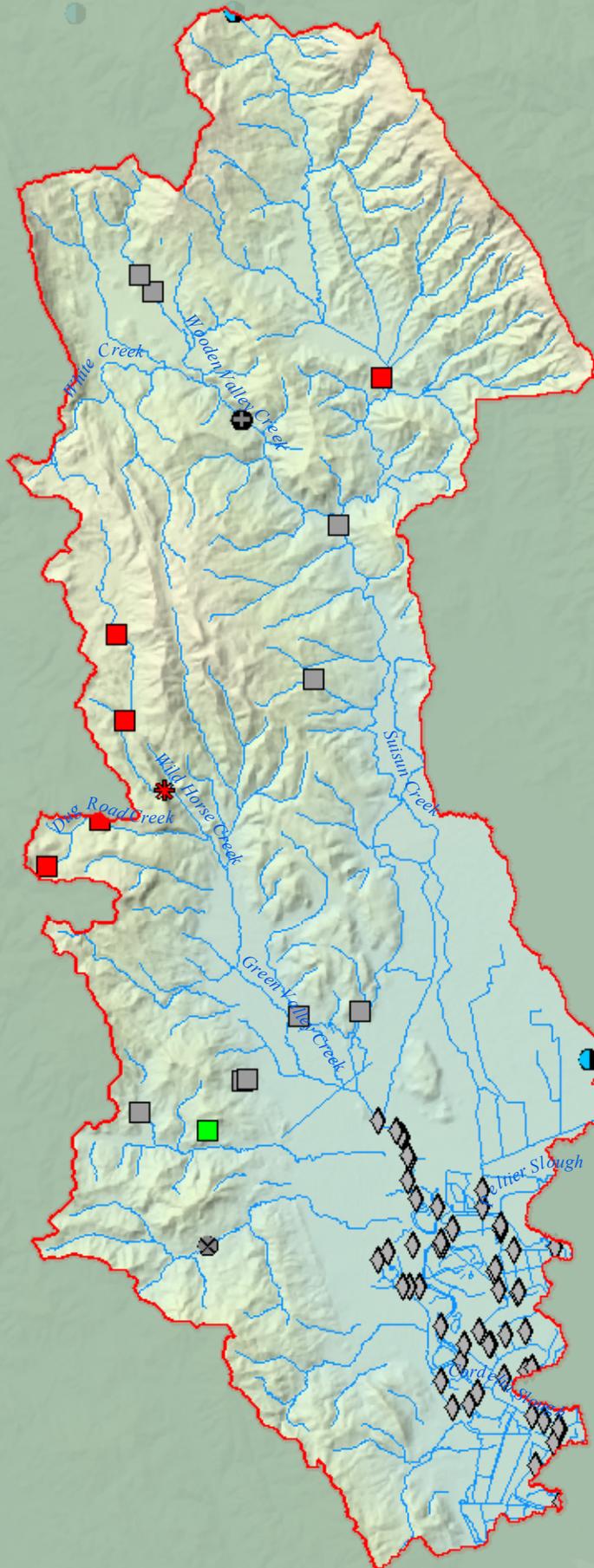
Napa County Parcel Data with Land Use Coding, 2000

 Vineyard or Vineyard Associated Land





Green Valley Creek Watershed Barriers / Gages



● Gage Station

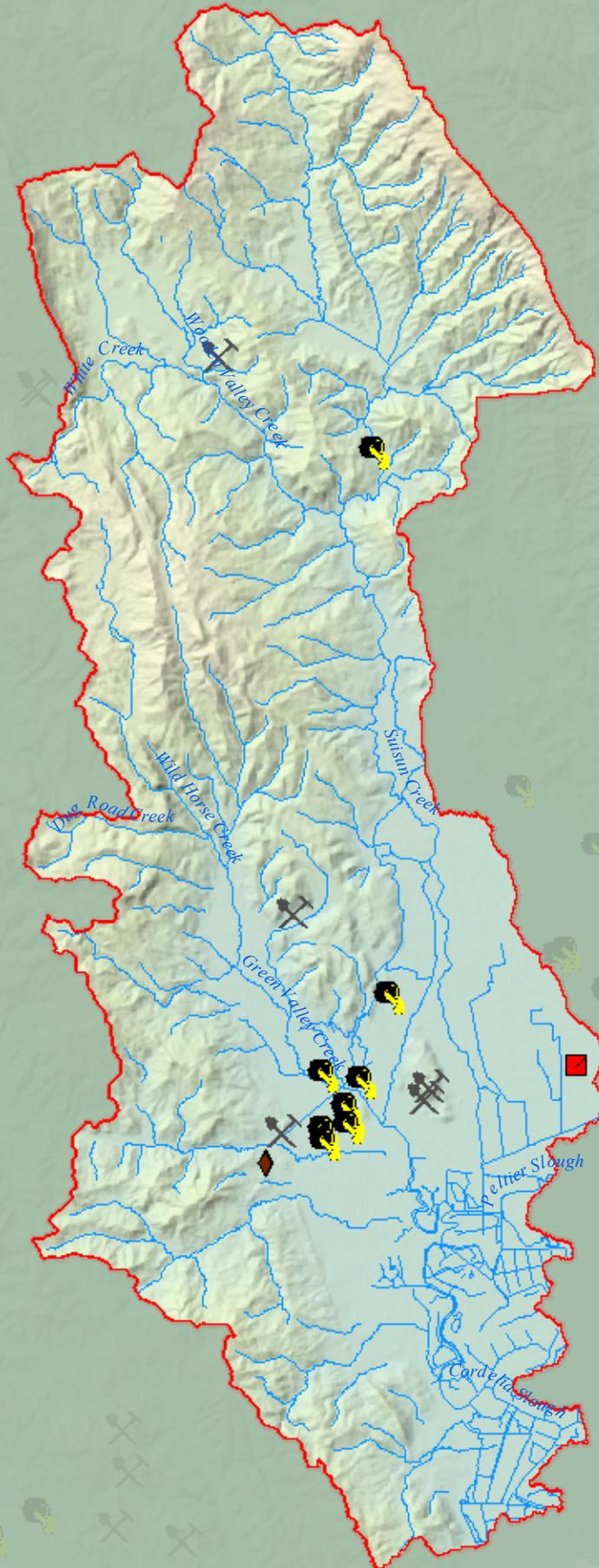
Barrier Type, Barrier Status
CA Fish Passage Assessment, PSMFC, 2008

- Dam, Not a barrier
- Dam, Total
- Dam, Unknown
- ◇ Diversion, Unknown
- * Non-structural, Total
- ⊕ Road crossing, Unknown
- ⊗ Utility crossing, Unknown



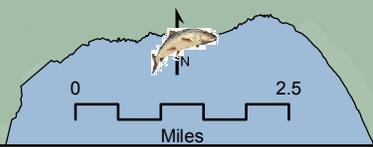


Green Valley Creek Watershed Industrial Discharge



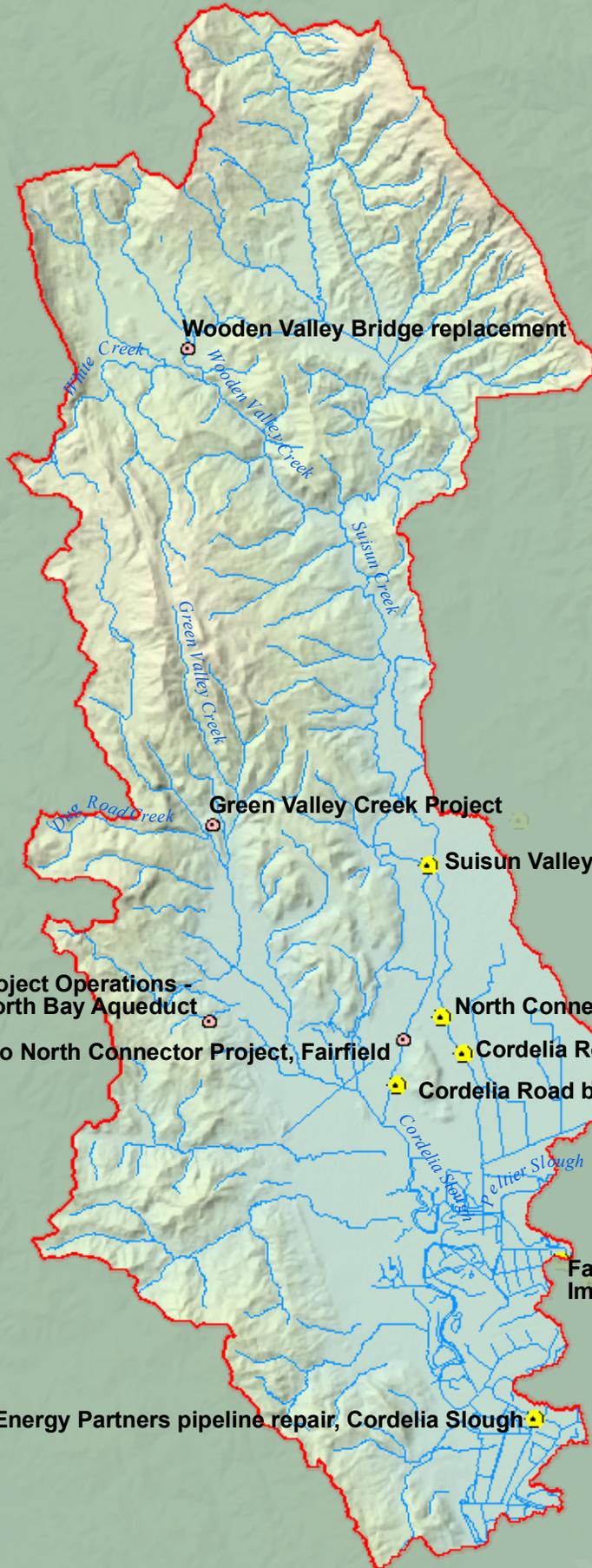
- Mine
- Toxic Release Location
- Permit Compliance
- Hazardous & Solid Waste Site

BASINS, USEPA, 2001.





Green Valley Creek Watershed Public Consultation Tracking System



Wooden Valley Bridge replacement

Green Valley Creek Project

Suisun Valley Bridge Replacement Project (23C-077)

**State Water Project Operations -
North Bay Aqueduct**

North Connector Project, Solano County

Reinitiation-Solano North Connector Project, Fairfield

Cordelia Road Bridge

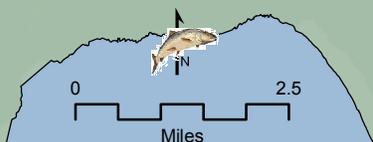
Cordelia Road bridge replacement, Suisun Creek, Solano Co.

**Fairfield Suisun Sewer District
Improvements and Outfall**

Kinder Morgan Energy Partners pipeline repair, Cordelia Slough

 PCTS Record
 RMS 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

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_september2008
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/>

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_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>

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

naip_1-1_2n_s_ca095_2004_1 (Solano)

remote-sensing image

raster digital data

National Agriculture Imagery Program (NAIP)

USDA-FSA Aerial Photography Field Office

Salt Lake City, Utah

2006

<http://datagateway.nrcs.usda.gov/GatewayHome.html>

Historic Suitable Habitat (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
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<http://www.epa.gov/waterscience/basins/>

Industrial_discharge_sites

vector digital data

Better Assessment Science Integrating point and
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2001

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

Toxic_release_inventory

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Better Assessment Science Integrating point and
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National Marine Fisheries Service

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FEMA Flood Insurance Maps 1996

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Federal Emergency Management Agency

Q3 Flood Data Program

1996

<http://www.fema.gov/>