



NMFS-SWR-HCD

Scott Creek Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
19,012 Acres	18060001	3304110201	Big Creek (7201 Acres)
7694 Hectares	4th Field HUC	3304110202	Little Creek (3013 Acres)
30 Square Miles		3304110204	Scott Creek (8798 Acres)
	3304		
Location	4th Field Calwater		
Santa Cruz County			

Species Potential	Miles of Streams with Species Present
Central California Coast Steelhead Santa Cruz Mountains Diversity Stratum - Potentially Independent	<u>Steelhead</u> 16 NOAA Fisheries, Critical Habitat Redesignation, 2005
Central California Coast Coho Santa Cruz Mountains Diversity Stratum - Dependent Population	<u>Coho</u> 13 CDFG, Coho Distribution, May 2007

Critical Habitat	Miles of Stream
Central California Coast Steelhead	16 Miles of Stream
Central California Coast Coho	All accessible river reaches between Punta Gorda & San Lorenzo River including 2 San Francisco Bay streams: Arroyo Corte Madera del Presidio and Corte Madera Creek (64 FR 24049)

Coho Intrinsic Potential	Miles
Km of Historical Coho IP (21.5 C mask)	15
% of IP (21.5 C Mask) with Current Coho Distribution	80%

Spence, B. C., et al., 2008. A framework for assessing the viability of threatened and endangered salmon and steelhead in the North-Central California Coast Recovery Domain. NOAA Tech Memo NMFS-SWFSC-423.

Miles of Waterway ^A	Miles	Number of Dams ^C
Naturally Occurring Waterways		2
Intermittent Stream	10	1 - Impassable
Perennial Stream	45	1 - Not a Barrier
Canal / Ditch	2	
Artificial Path	1	

^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
11161900	23
Scott Creek above creek near Davenport	2 Dams
11162000	6 Road Crossings (1 Impassable, 2 Temp. &/or Partially Impassable)
Scott Creek near Davenport	9 Natural Barriers (Chutes, Falls, Log Jams, etc. (6 Impassable))

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

Average Annual Precipitation ^E	Average Annual Precipitation Range ^E
41.8"	27.5 - 65"

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



Roads^A	Miles
Roads in Watershed	
Secondary and connecting road, state highways	0
Local, neighborhood, and rural road, city street, unseparated	26
Driveway or service road	3
Total Miles	29

Road Density	
Miles of Roads per SqMi of Watershed	1.0
Miles of Roads per SqMi of 100m Riparian Buffer*	1.5

*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	132	1%
Lands of 2-4 percent slope	278	1%
Lands of 4-10 percent slope	1,287	7%
Lands of 10-15 percent slope	1,311	7%
Lands of 15-30 percent slope	4,362	23%
Lands of 30-60 percent slope	8,740	46%
Lands of 60-100 percent slope	2,842	15%
Lands of 100-117 percent slope	58	0%

Elevation Range	0 - 2618 ft.	0 - 798 m
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^DSlope derived from USGS 10 meter Digital Elevation Models (DEM's)

Vegetation^G	Acres	Percent of watershed
Agriculture	257	1%
Annual grassland	578	3%
Conifer Forest		
Closed Cone-Pine-Cypress	7	0%
Redwood	7,386	39%
Unknown Conifer	5,953	31%
Hardwood Forest		
Montane Hardwood	141	1%
Hardwood Woodland		
Coastal Oak Woodland	161	1%
Shrub	4,394	23%
Urban	121	1%
Water	12	0%

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

Erodability of Watershed^F	Acres	Percent of watershed
All of watershed is ranked as 7		

^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]



Area Under a Timber Harvest Plan^A past 10 years		Area Under a Timber Harvest Plan^A past 13 years (1994-2006)	
1,156	6% of watershed	2,339	12% of watershed

^ACalifornia Department of Forestry, Timber Harvest Plans for Scott Watershed, 2006

Land Ownership^H	Acres	Percent of watershed
Private	18124	95%
State (Parks & Recreation)	661	3%
Federal (Military)	226	1%

^HManagement Landscape, CA Department of Forestry, 2002

Population^I	Housing^I
Total Population within the watershed -- 294 People	Total Housing Units within the watershed -- 113 Houses
	Housing Density
	0 to Less than 1 Housing Unit / 160 Acre 71%
	1 Unit / 160 Acres to 1 Unit / 20 Acres 29%
	1 Unit / 20 Acres to 1 Unit / 5 Acres
	1 Unit / 5 Acres to 2 Units / Acre
	2 Units / Acres to Greater than or Equal to 5 Units / Acre

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



Scott Creek

Vegetation density and age class in the entire watershed

California Department of Forestry and Fire Protection; fveg02_2. Vector digital dataset. 100m Grid, 2002.

Acres

Size	Density	Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class
Not Determined	Not Determined	257		12941	2044	697	10200	536	1824	126	12		15696
	S												
	P												
	M												
D													
Seedling	S												0
	P												
	M												
	D												
Sapling	S												0
	P												
	M												
	D												
Pole	S												0
	P												
	M												
	D												
Small Tree	S			309	111	141	158	536	4419	126	12		3314
	P												
	M												
	D												
Medium/Large Tree	S												0
	P												
	M												
	D												
Multi Layered	D												0
	Total												
Grand Total by Species Type		257		13361	141	158	536	4419	126	12			19010

Percent

Size	Density	Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class
Not Determined	Not Determined	1%		70%	11%	4%	54%	3%	10%	1%	0%		83%
	S												
	P												
	M												
D													
Seedling	S												0%
	P												
	M												
	D												
Sapling	S												0%
	P												
	M												
	D												
Pole	S												0%
	P												
	M												
	D												
Small Tree	S			2%	1%	1%	1%	3%	23%	1%	0%		17%
	P												
	M												
	D												
Medium/Large Tree	S												0%
	P												
	M												
	D												
Multi Layered	D												0%
	Total												
Grand Total by Species Type		1%		70%	1%	1%	3%	23%	1%	0%			100%

SIZE	Description	Diameter at Breast Height (DBH)
Not Determined		N/A
Seedling		Less Than 1 inch
Sapling		1 to 6 inches
Pole		6 to 11 inches
Small Tree		11 to 24 inches
Medium/Large Tree		Greater Than 24 inches
Multi Layered		Size 5 Over Size 4 Or 3; Total Tree Crown Closure Greater Than 60%

SIZE (SHRUB)	Desc.	Crown Decadence	DENSITY	Description
Not Determined		N/A		None
Seedling Shrub		Seedlings or sprouts < 3 years	S	10 to 24%
Young Shrub		None	P	25 to 39%
Mature Shrub		1 - 25%	M	40 to 59%
Decadent Shrub		> 25%	D	60 to 100%

Scott Creek

Vegetation within Riparian Buffer (100 meter on either side of stream)

California Department of Forestry and Fire Protection; fveg02_2_ Vector digital dataset. 100m Grid, 2002.

Acres

Size	Density	Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class	
Not Determined	Not Determined	106.0						32.0	487.0	7.0	12.0			
	S				578.0									Total
	P				84.0									
	M				2740.0									
D														
Total		106.0		3402.0		0.0	32.0	487.0	7.0	12.0		4046		
Seedling	S												0	
	P													
	M													
	D													
Total												0		
Sapling	S												0	
	P													
	M													
	D													
Total												0		
Pole	S												0	
	P													
	M													
	D													
Total												0		
Small Tree	S												455	
	P				82.0									
	M													
	D				17.0	17.0	25.0	314.0						
Total				99.0	17.0	25.0	314.0					455		
Medium/Large Tree	S												0	
	P													
	M													
	D													
Total												0		
Multi Layered	D												0	
	Total													0
Grand Total by Species Type		106	0	3501	0	17	25	32	801	7	12	0	4501	

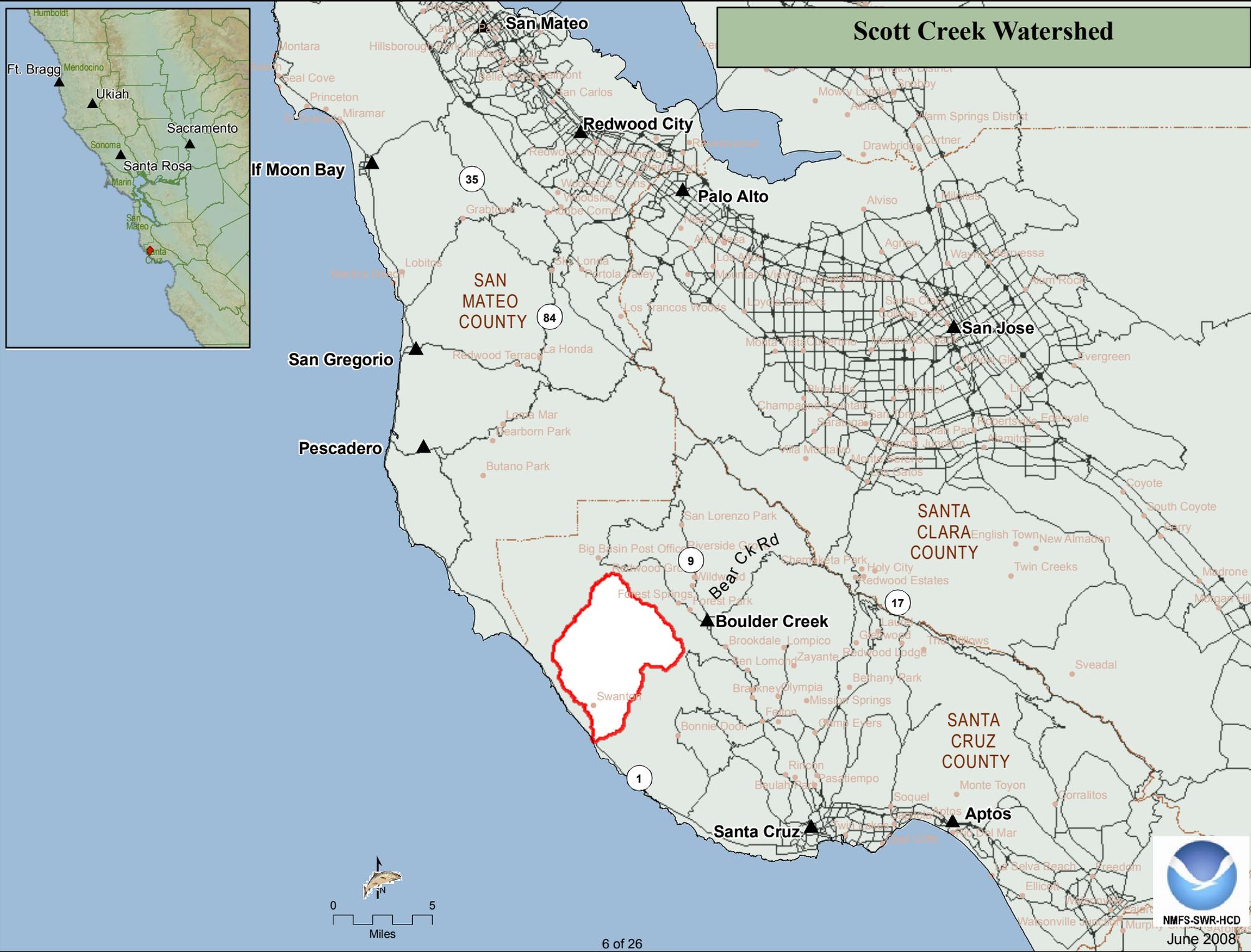
Percent

Size	Density	Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class
Not Determined	Not Determined	2%						1%	11%	0%	0%		90%
	S				13%								
	P				2%								
	M				61%								
Total		2%		76%		0%	1%	11%	0%	0%		90%	
Seedling	S												0%
	P												
	M												
	D												
Total												0%	
Sapling	S												0%
	P												
	M												
	D												
Total												0%	
Pole	S												0%
	P												
	M												
	D												
Total												0%	
Small Tree	S												10%
	P				2%								
	M												
	D				0%	0%	1%	7%					
Total				2%	0%	0%	1%	7%				10%	
Medium/Large Tree	S												0%
	P												
	M												
	D												
Total												0%	
Multi Layered	D												0%
	Total												
Grand Total by Species Type		2%	0%	78%	0%	0%	1%	1%	18%	0%	0%	0%	100%

SIZE Description	Diameter at Breast Height (DBH)
Not Determined	N/A
Seedling	Less Than 1 inch
Sapling	1 to 6 inches
Pole	6 to 11 inches
Small Tree	11 to 24 inches
Medium/Large Tree	Greater Than 24 inches
Multi Layered	Size 5 Over Size 4 Or 3; Total Tree Crown Closure Greater Than 60%

SIZE (SHRUB) Desc.	Crown Decadence	DENSITY	Description
Not Determined	N/A		None
Seedling Shrub	Seedlings or sprouts < 3 years	S	10 to 24%
Young Shrub	None	P	25 to 39%
Mature Shrub	1 - 25%	M	40 to 59%
Decadent Shrub	> 25%	D	60 to 100%

Scott Creek Watershed





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Scott Creek Watershed





NMFS-SWR-HCD

July 2008

Scott Creek Watershed CalWater Planning Watersheds





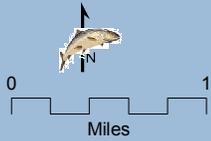
NMFS-SWR-HCD

July 2008

Scott Creek Watershed Fish Distribution and Critical Habitat



-  CCC Steelhead Distribution and Critical Habitat
National Marine Fisheries Service, August 2005. 1:100,000.
-  Coho Distribution
CDFG - NCNCR-ISB, 2007. 1:100,000.
-  1:24,000 Streams
USGS National Hydrography Dataset, 2004. 1:24,000
-  Scott Creek Watershed





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Scott Creek Watershed Steelhead Current vs. Historical





NMFS-SWR-HCD

July 2008

Scott Creek Watershed Coho Current vs. Historical

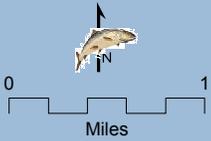




NMFS-SWR-HCD

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Scott Creek Watershed Elevation

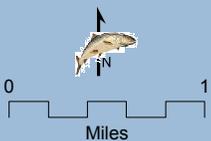
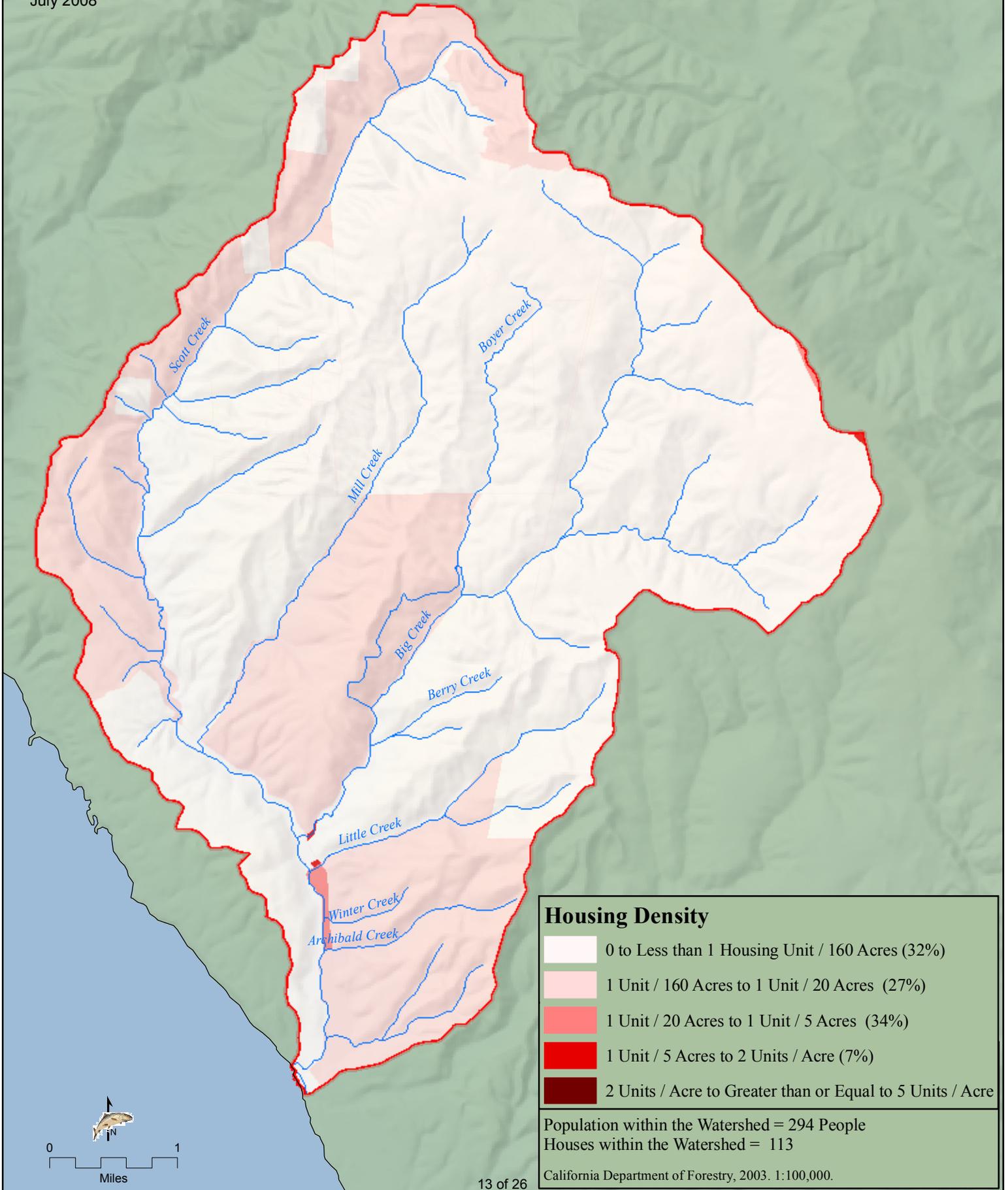




NMFS-SWR-HCD

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Scott Creek Watershed Development

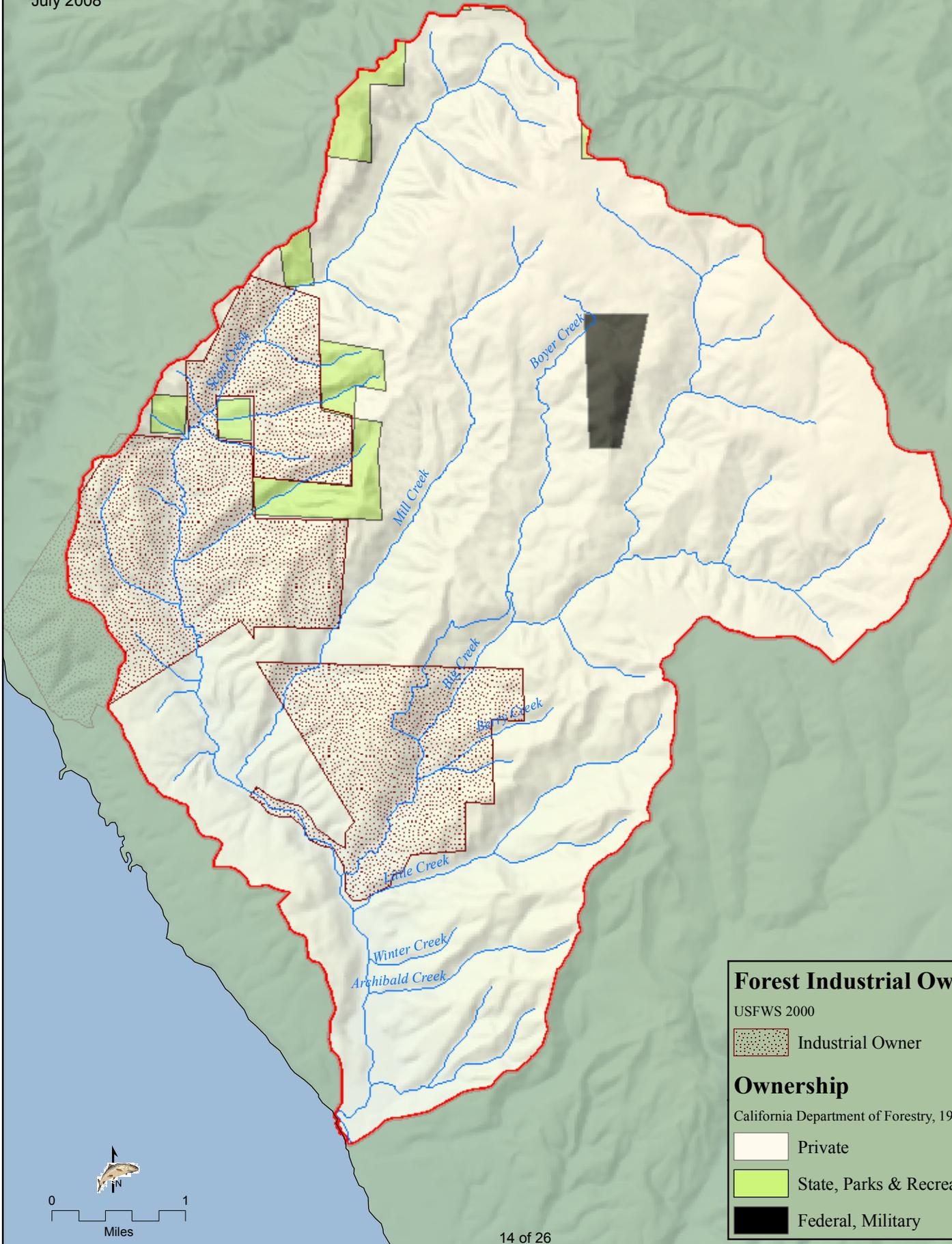




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Scott Creek Watershed Ownership



Forest Industrial Ownership

USFWS 2000

 Industrial Owner

Ownership

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

 Private

 State, Parks & Recreation

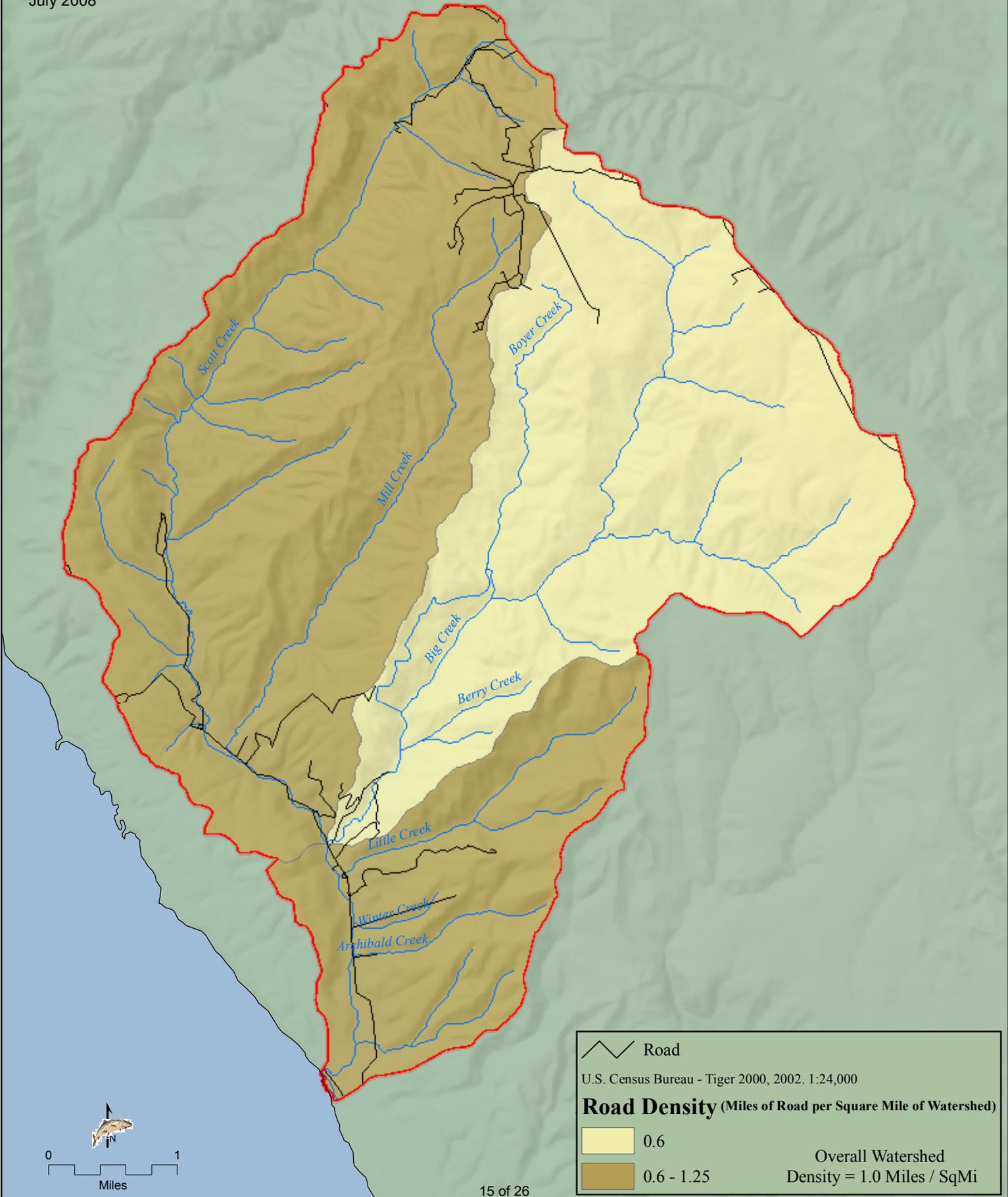
 Federal, Military



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Scott Creek Watershed Road Density





NMFS-SWR-HCD

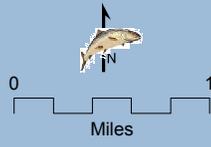
July 2008

Scott 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 = 1.5 Miles / SqMi of Corridor

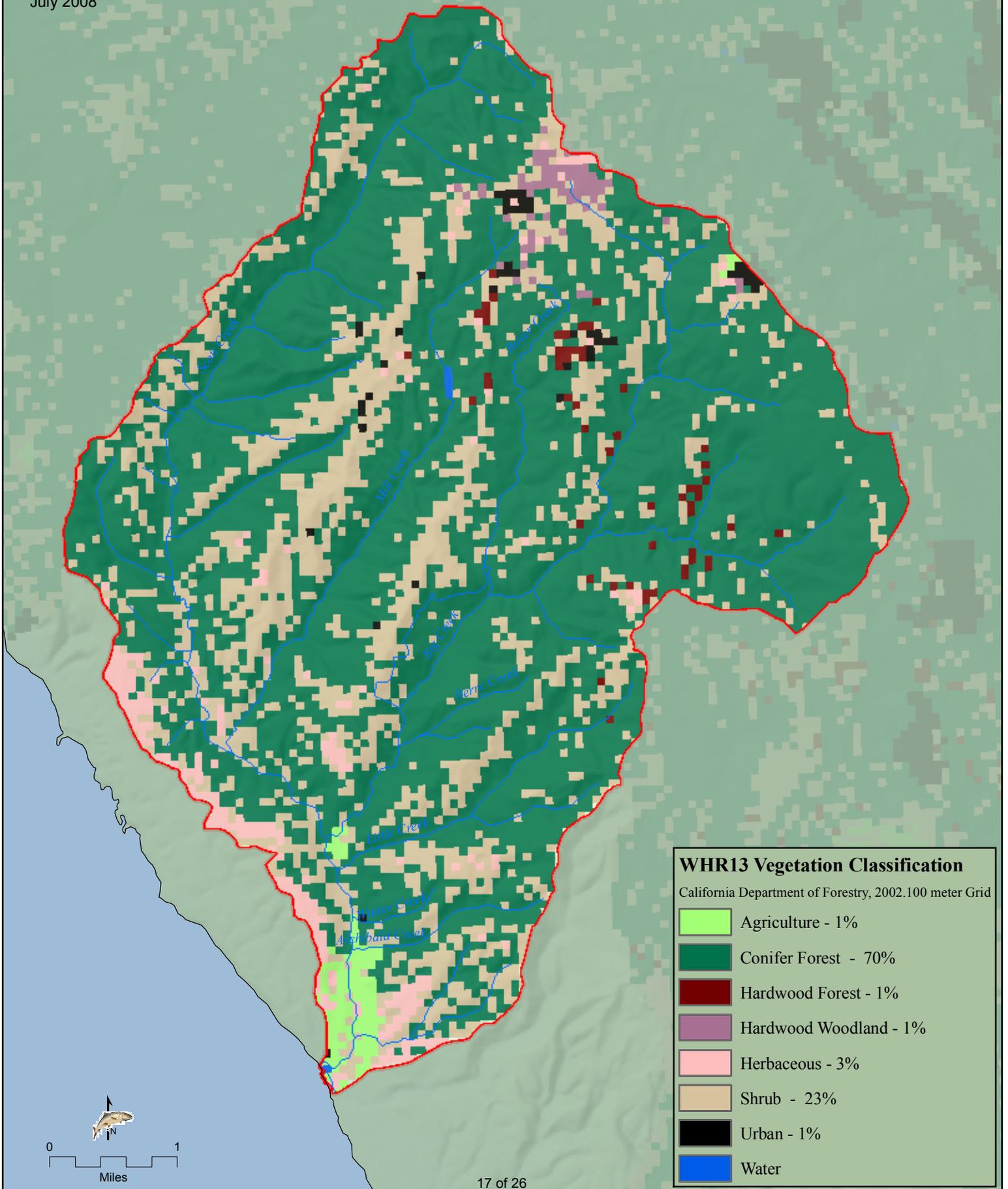




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Scott Creek Watershed Vegetation

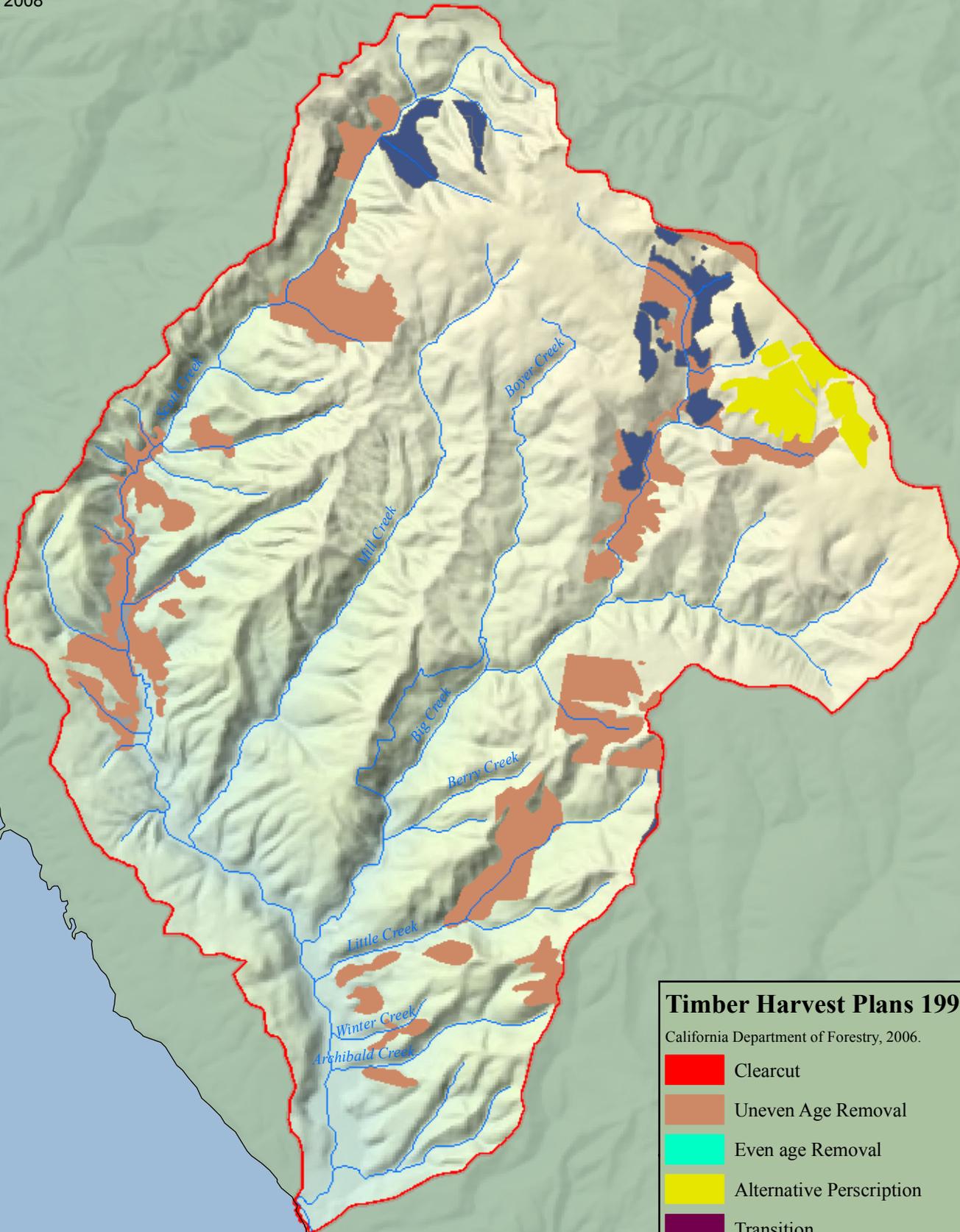




NMFS-SWR-HCD

July 2008

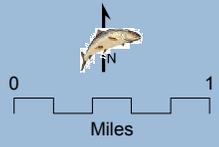
Scott Creek Watershed Timber Harvesting 1994-2006



Timber Harvest Plans 1994-2006

California Department of Forestry, 2006.

- Clearcut
- Uneven Age Removal
- Even age Removal
- Alternative Prescription
- Transition
- Outside THP
- Not Coded

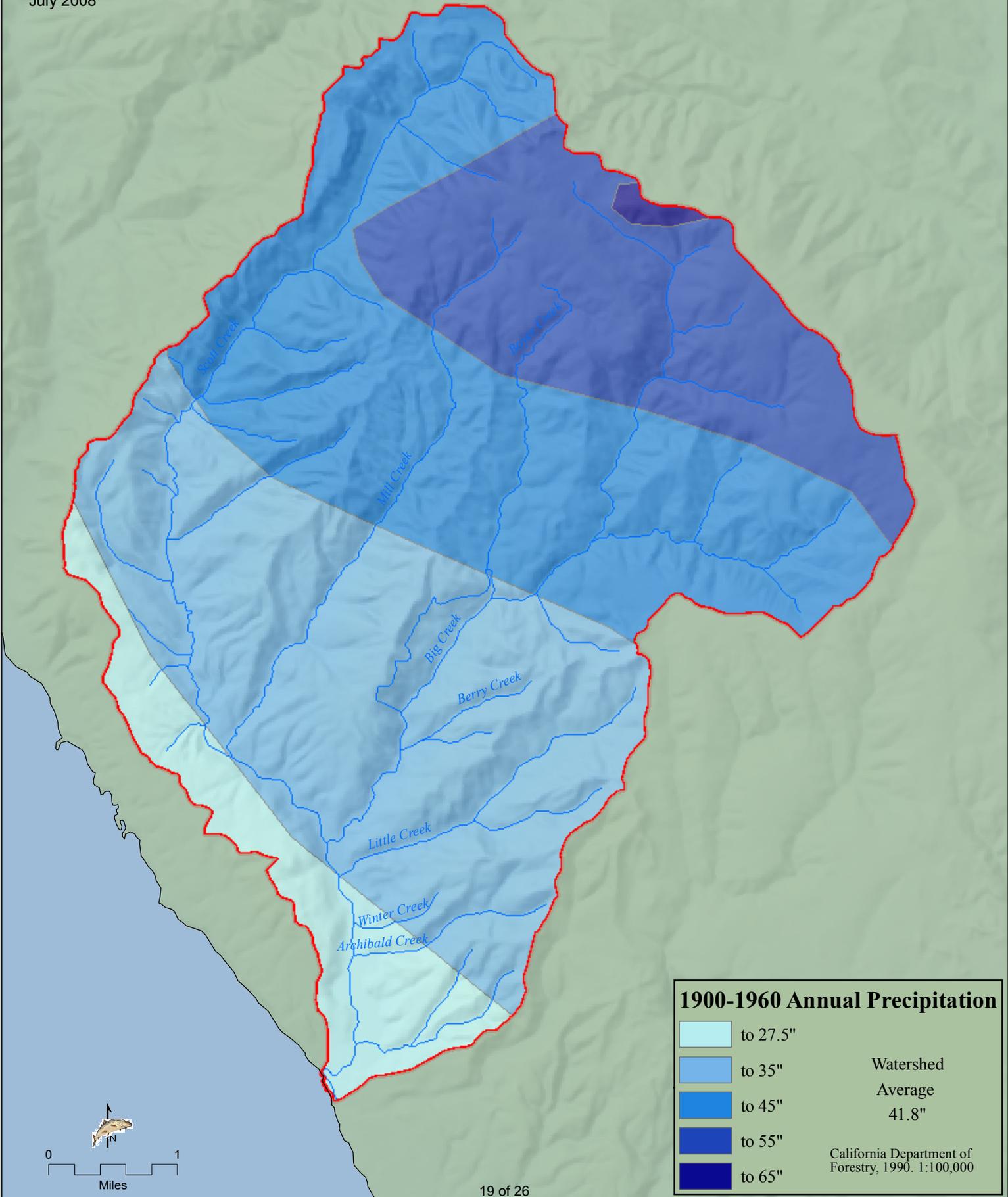




NMFS-SWR-HCD

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Scott Creek Watershed Precipitation

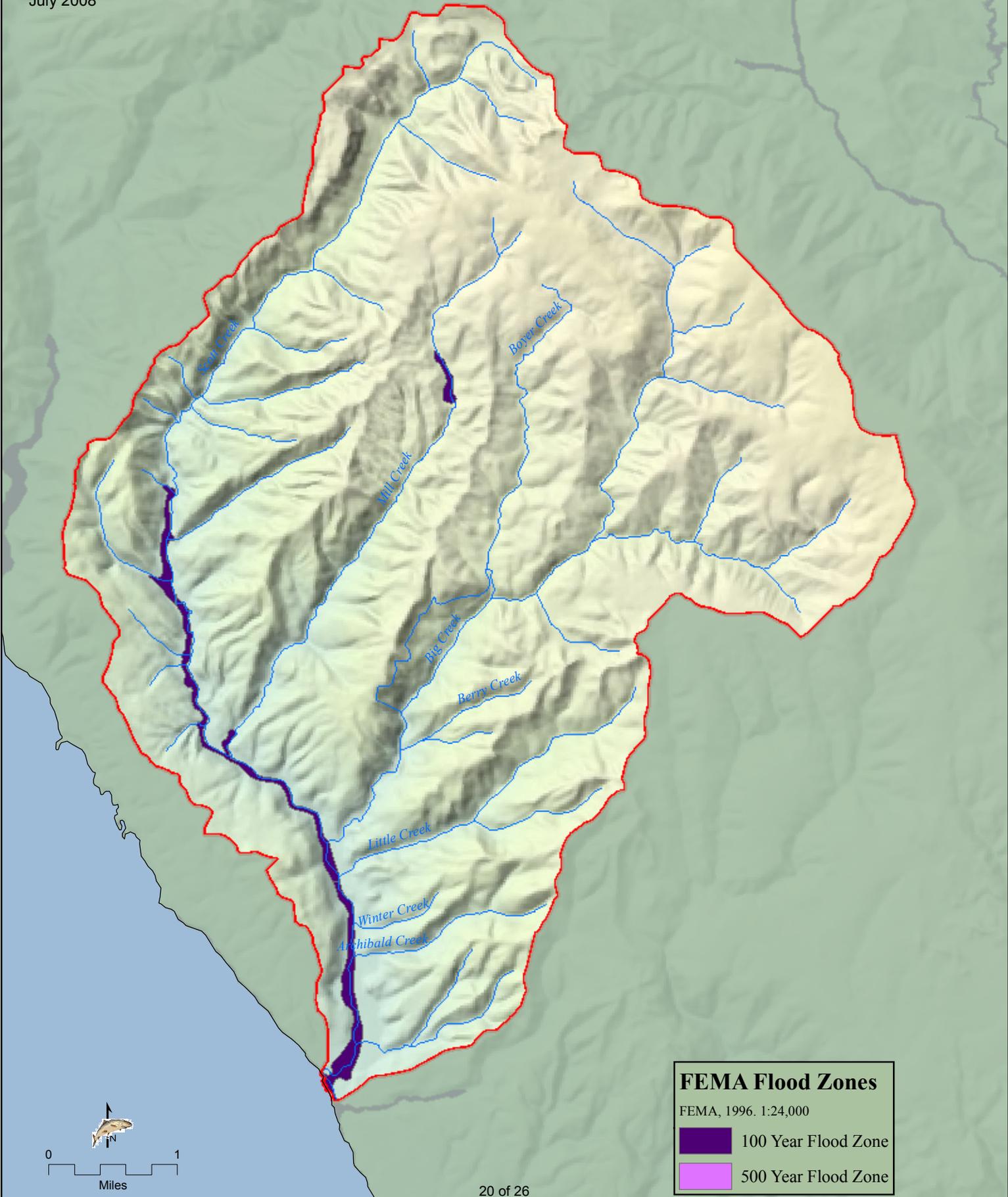




NMFS-SWR-HCD

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Scott Creek Watershed Flood Zone



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

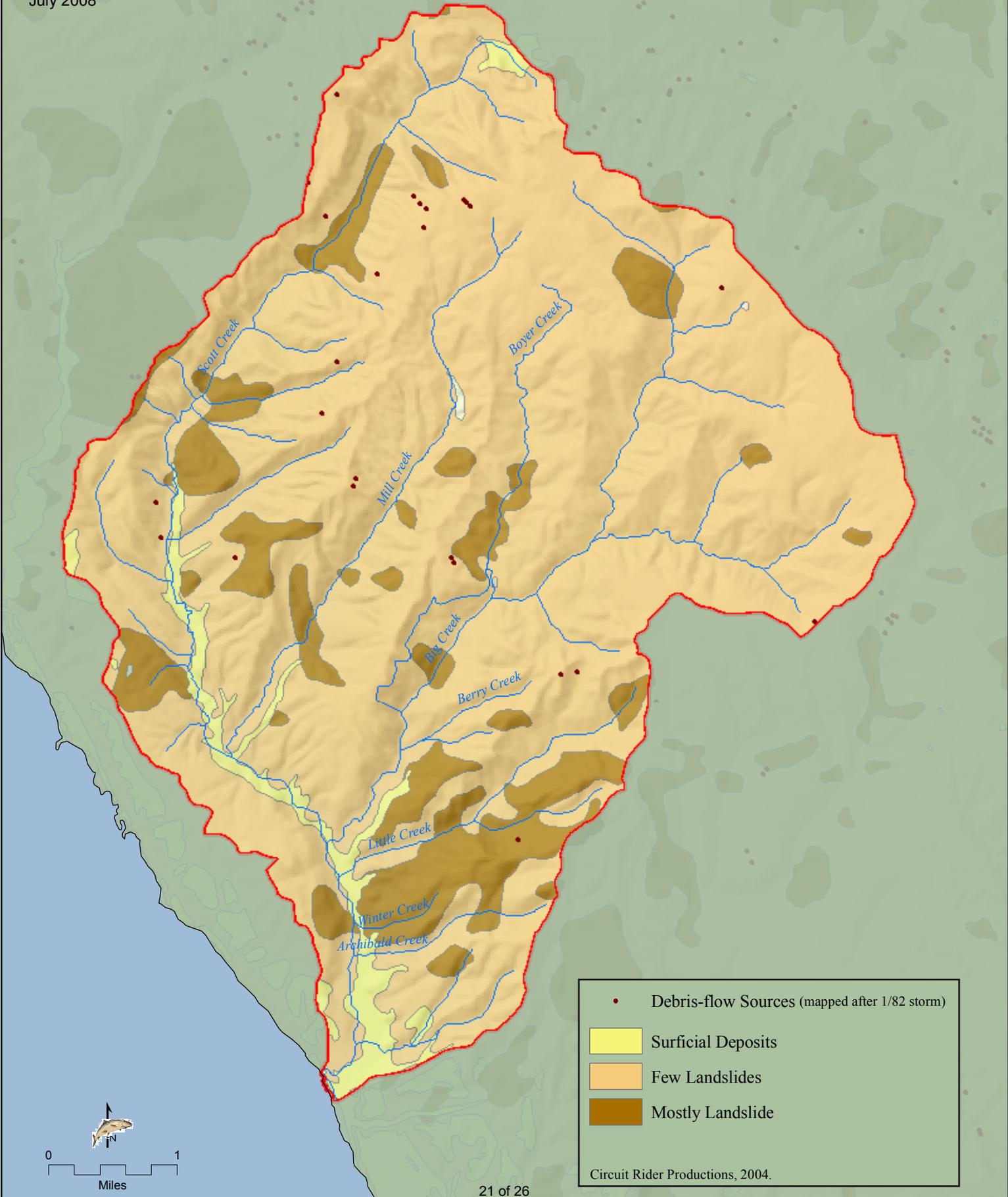
-  100 Year Flood Zone
-  500 Year Flood Zone



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Scott Creek Watershed Geologic Features



- Debris-flow Sources (mapped after 1/82 storm)
- Surficial Deposits
- Few Landslides
- Mostly Landslide

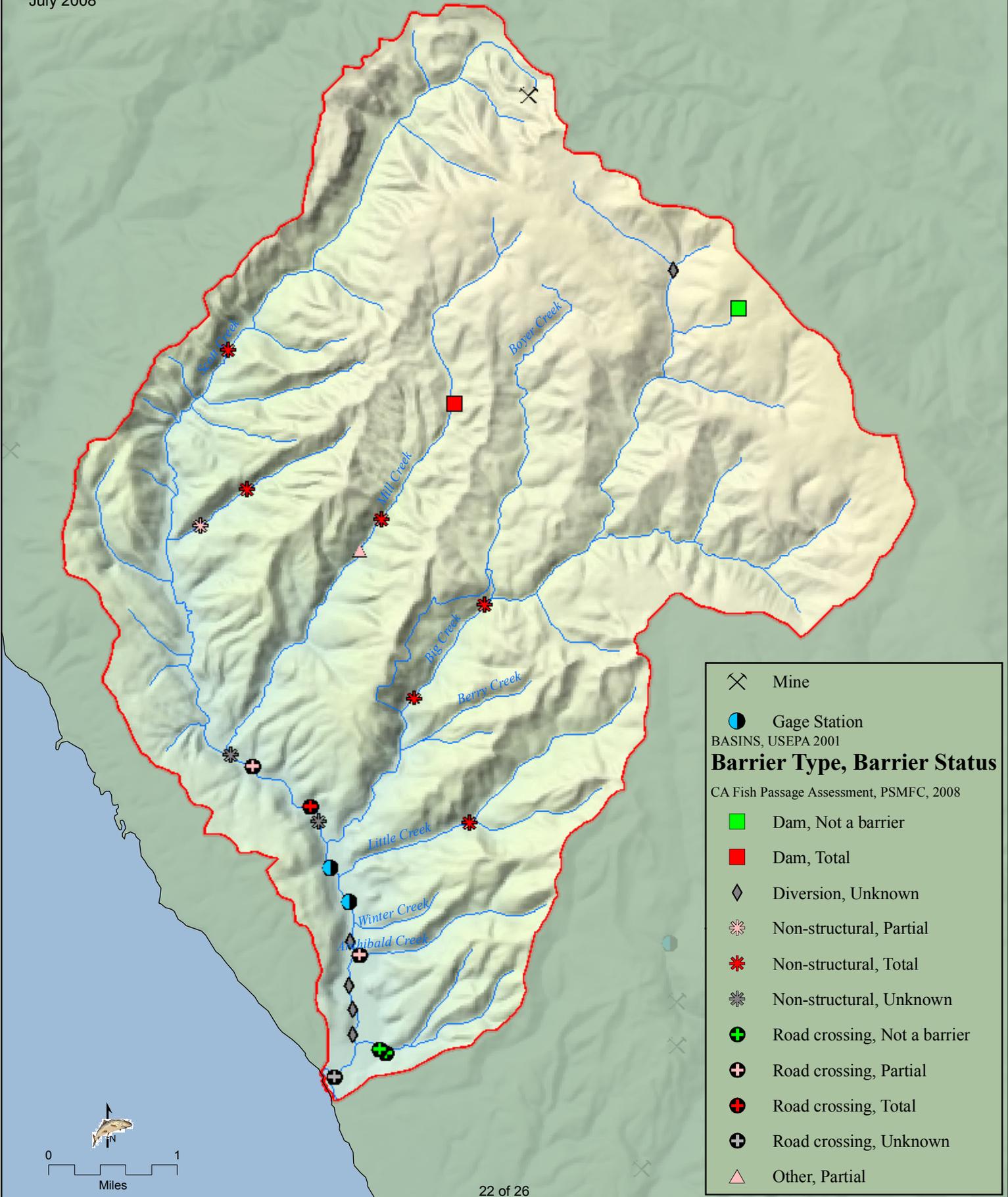
Circuit Rider Productions, 2004.



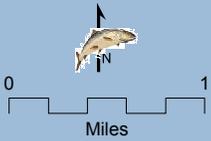
NMFS-SWR-HCD

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Scott Creek Watershed Barriers / Industrial / Gages



Mine
 Gage Station
 BASINS, USEPA 2001
Barrier Type, Barrier Status
 CA Fish Passage Assessment, PSMFC, 2008
 Dam, Not a barrier
 Dam, Total
 Diversion, Unknown
 Non-structural, Partial
 Non-structural, Total
 Non-structural, Unknown
 Road crossing, Not a barrier
 Road crossing, Partial
 Road crossing, Total
 Road crossing, Unknown
 Other, Partial

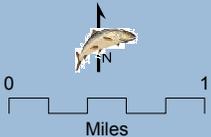
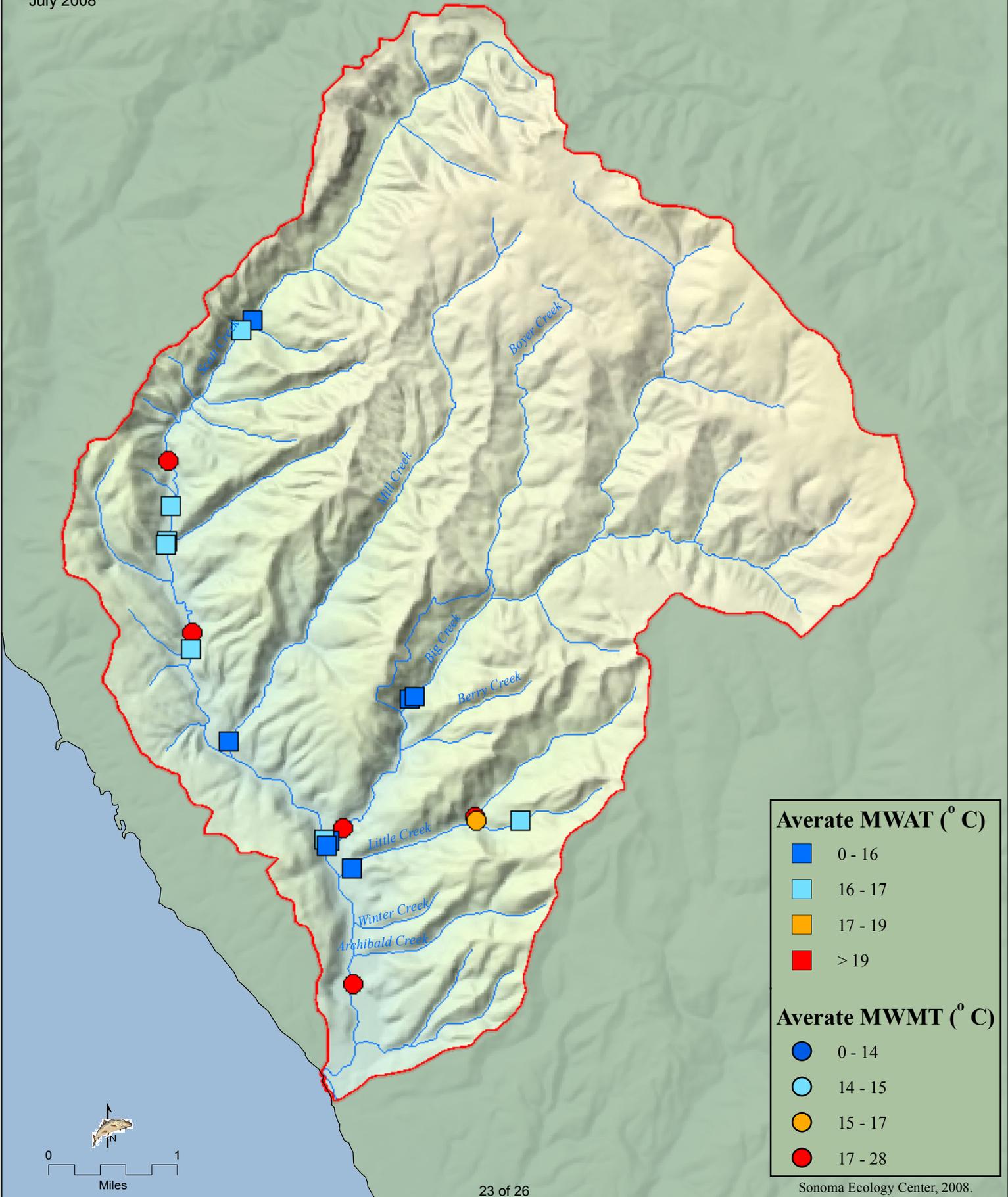




NMFS-SWR-HCD

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Scott Creek Watershed Temperature

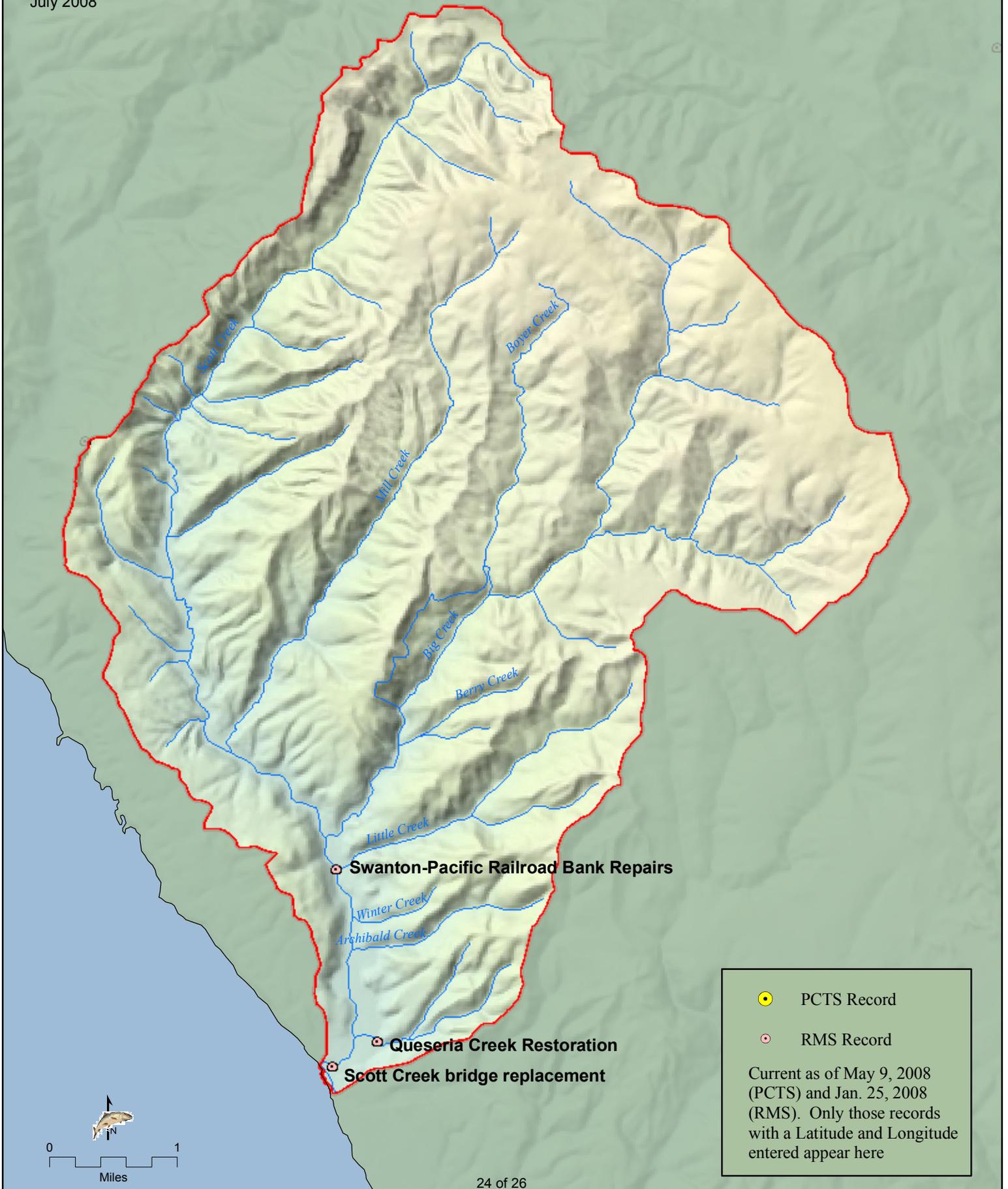




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Scott Creek Watershed Public Consultation Tracking System



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

1806 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/>

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

Spline2
Spline6
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
Department of Conservation, Division of Mines and 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/>

Timber Harvesting

thp_(year)
Annual Timber Harvest Plans
vector digital data
California Department of Forestry and Fire Protection
Santa Rosa, CA
1983-2001

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_ca087_2006_1 (Santa Cruz)
remote-sensing image
raster digital data
National Agriculture Imagery Program (NAIP)
USDA-FSA Aerial Photography Field Office
Salt Lake City, Utah
2004
<http://datagateway.nrcs.usda.gov/GatewayHome.html>

Historic Suitable Habitat (Coho, Chinook, Steelhead)

Intrinsic Potential Model
vector digital data
NOAA Fisheries
Santa Cruz Laboratory, Santa Cruz, CA
2005
<http://swfsc.noaa.gov/>

Forest Industrial Ownership

nwca_own
vector digital data
United States Fish and Wildlife Service
Arcata, CA
2000

Temperature

MWMT_20080117_selected_watersheds
Vector digital data
Sonoma Ecology Center
2008

MWAT_20080117_selected_watersheds
Vector digital data
Sonoma Ecology Center
2008

Geologic Features

Geopoint
vector digital data
Department of Conservation, Division of Mines and Geology
Minimum Mapping Unit: Approximately 8000 Acres (20,000 Hectares)
1994

Gorge
vector digital data
Department of Conservation, Division of Mines and Geology
Minimum Mapping Unit: Approximately 8000 Acres (20,000 Hectares)
1994

Records Management System (RMS)

Public Consultation Tracking System (PCTS)

National Marine Fisheries Service
Oracle Databases
2008