



Caspar Creek Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
5,356 Acres	18010108	1113300404	Caspar Creek (5356 Acres)
2,167 Hectares	4th Field HUC		
8 Square Miles	1113		
Location		4th Field Calwater	
Mendocino County			

Species Potential	Miles of Streams with Species Present
Northern California Steelhead North-Central Coastal Diversity Stratum - Potentially Independent Population	<u>Steelhead</u> 10 NOAA Fisheries, Critical Habitat Redesignation, 2005
Central California Coast Coho Lost Coast-Navarro Point Diversity Stratum - Dependent Population	<u>Coho</u> 10 CDFG, Coho Distribution, May 2007
California Coastal Chinook North-Central Coastal Diversity Stratum - Dependent Independent Population	<u>Chinook</u> 0 NOAA Fisheries, Critical Habitat Redesignation, 2005

Critical Habitat	Miles of Stream
Northern California Steelhead	10 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)
California Coastal Chinook	0 Miles of Stream

Miles of Waterway ^A	Miles	Number of Dams ^C
Naturally Occurring Waterways		0
Intermittent Stream	9	
Perennial Stream	8	

^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
	2
	0 Dams 2 Fish Passage Facility (Temporal/Partial Barrier Status)
	^C Passage Assessment Database, Pacific States Marine Fisheries Commission, 2008

Average Annual Precipitation ^E	Average Annual Precipitation Range ^E
46"	40 - 55"

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



Roads^A	(US Census Bureau (TIGER))	Miles
Roads in Watershed		
Primary Road / Highway		0
Secondary and connecting road, state highways		0
Local, neighborhood, and rural road, city street, unseparated		35
Vehicular trail, 4WD		0
Driveway or service road		0
Total Miles		

Road Density	(US Census Bureau (TIGER))	
Miles of Roads per SqMi of Watershed		4.4
Miles of Roads per SqMi of 100m Riparian Buffer*		5.0

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

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

Roads^{A1}	(Timber Harvest Plans)	Miles
Roads in Watershed		
Abandoned Seasonal		
Bridge		
Existing Permanent (rocked)		9
Existing Seasonal		27
Existing Temporary & 4WD		2
Proposed Permanent (rocked)		
Proposed Seasonal		
Proposed Temporary & 4WD		
Reconstructed Seasonal		
Secondary Road (2-3 lanes)		4

Road Density	(Timber Harvest Plans)	
Miles of Roads per SqMi of Watershed		4.9
Miles of Roads per SqMi of 100m Riparian Buffer*		5.7

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

^{A1}California Department of Forestry, Timber Harvest Plans for Noyo Watershed, 2006

Slope^D	Acres	Percent of watershed
Lands of 0-2 percent slope	142	3%
Lands of 2-4 percent slope	336	6%
Lands of 4-10 percent slope	587	11%
Lands of 10-15 percent slope	296	6%
Lands of 15-30 percent slope	1,136	21%
Lands of 30-60 percent slope	2,495	47%
Lands of 60-100 percent slope	363	7%
Lands of > 100 percent slope	3	0%

Elevation Range	0 - 1089 ft.	0 - 332 m

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



Vegetation^G	Acres	Percent of watershed
Annual grassland	57	1%
Barren	2	0%
Conifer Forest		
Closed Cone-Pine-Cypress	240	4%
Klamath Mixed Conifer	7	0%
Redwood	4,455	83%
Hardwood Forest		
Montane Riparian	64	1%
Shrub	516	10%
Urban	2	0%
Water	2	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 5	5,356	100%

^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	517	10%
State (Forestry)	4,832	90%
State (Parks & Recreation)	8	0%

^HManagement Landscape, CA Department of Forestry, 2002

Area Under a Timber Harvest Plan^A past 10 years		Area Under a Timber Harvest Plan^A past 20 years	
97	2% of watershed	1,319	25% of watershed

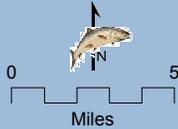
^ACalifornia Department of Forestry, Timber Harvest Plans for Big Watershed, 2006

Population^I	Housing^I
Total Population within the watershed -- 68 People	Total Housing Units within the watershed -- 42 Houses
	Housing Density
	0 to Less than 1 Housing Unit / 160 Acres 93%
	1 Unit / 160 Acres to 1 Unit / 20 Acres 1%
	1 Unit / 20 Acres to 1 Unit / 5 Acres 5%
	1 Unit / 5 Acres to 2 Units / Acre 1%
	2 Units / Acres to Greater than or Equal to 5 Units / Acre

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



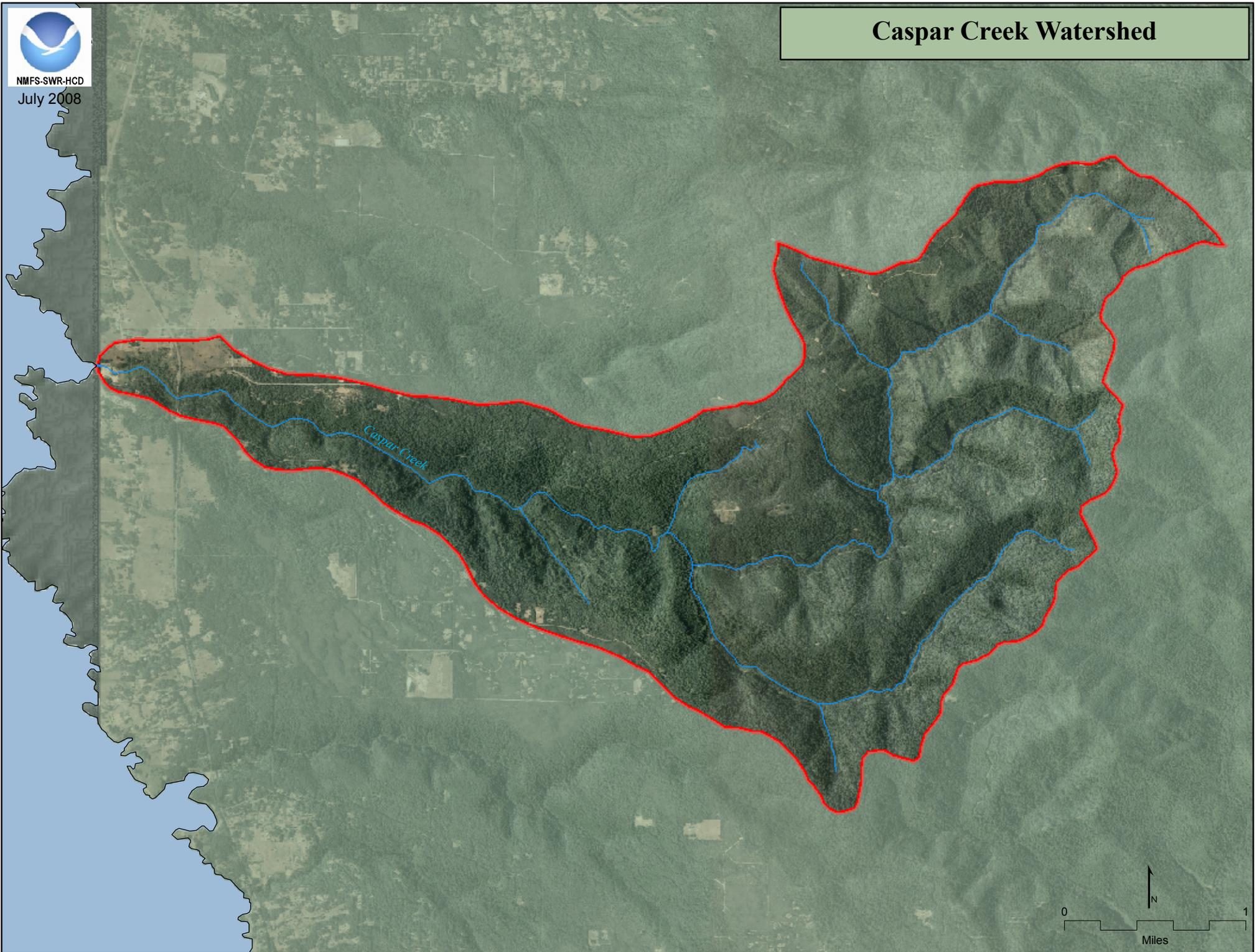
Caspar Creek Watershed





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July 2008

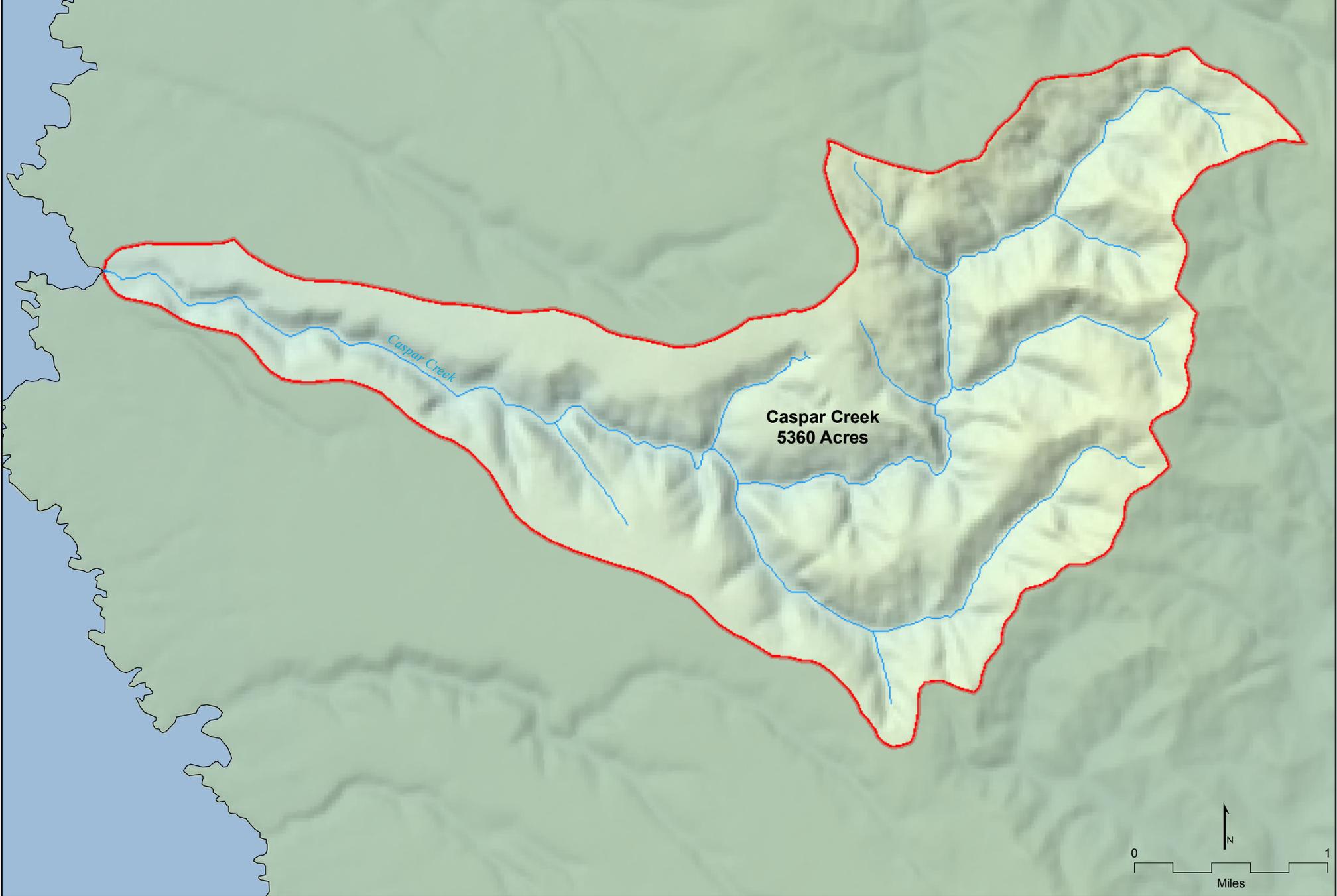
Caspar Creek Watershed





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July 2008

Caspar Creek Watershed CalWater Planning Watersheds

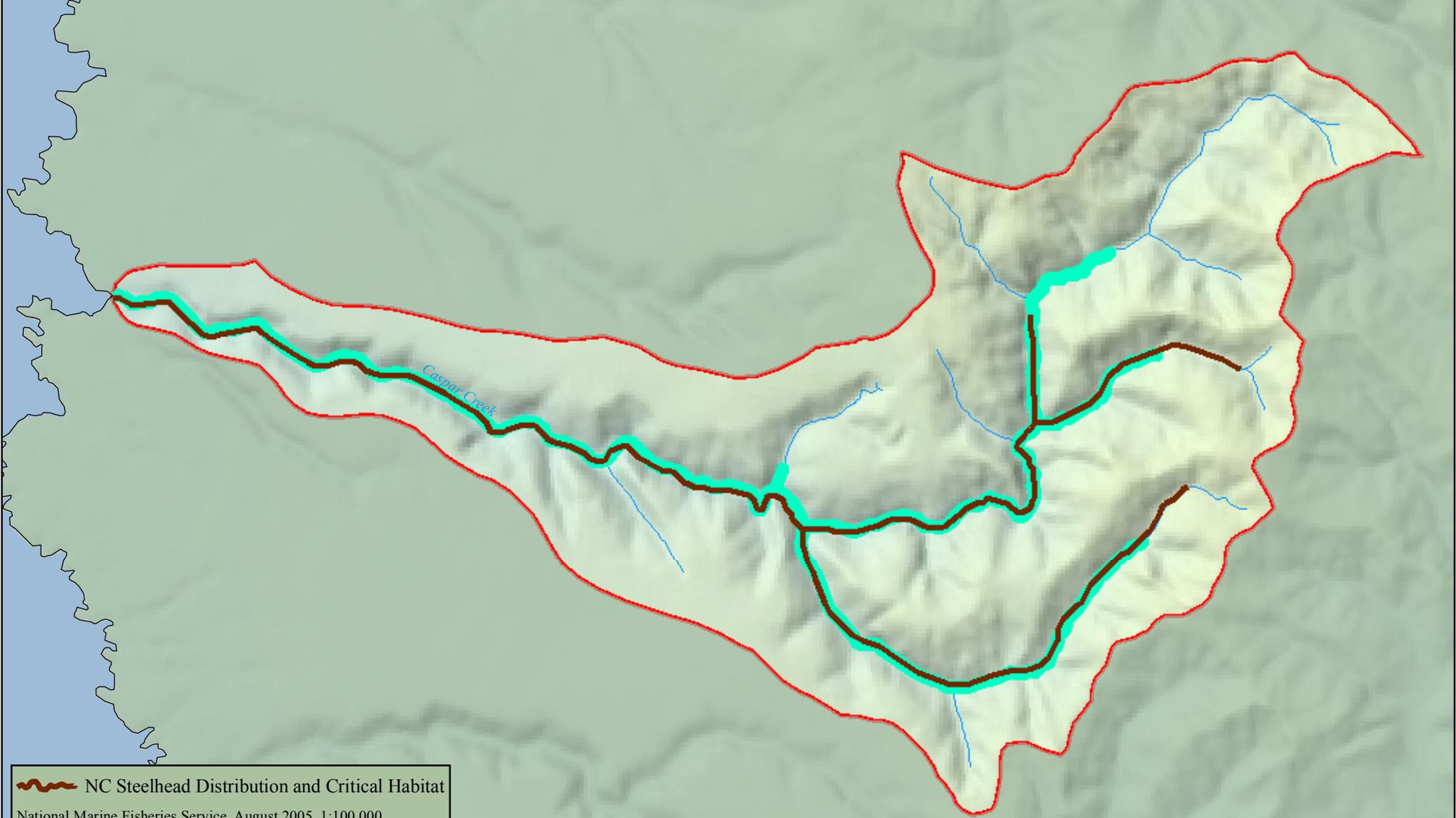




NMFS-SWR-HCD

July 2008

Caspar Creek Watershed Fish Distribution and Critical Habitat



 NC Steelhead Distribution and Critical Habitat

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

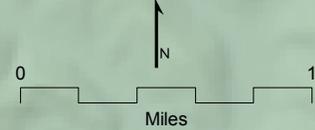
 Coho Distribution

CDFG - NCNCR-ISB, 2007. 1:100,000.

 1:24,000 Streams

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

 Caspar Creek Watershed





NMFS-SWR-HCD
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Caspar Creek Watershed Steelhead Current vs. Historical



 Current NC Steelhead Distribution

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

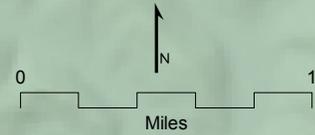
 Steelhead Intrinsic Potential

CDFG - NCNCR-ISB, 2007. 1:100,000.

 1:24,000 Streams

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

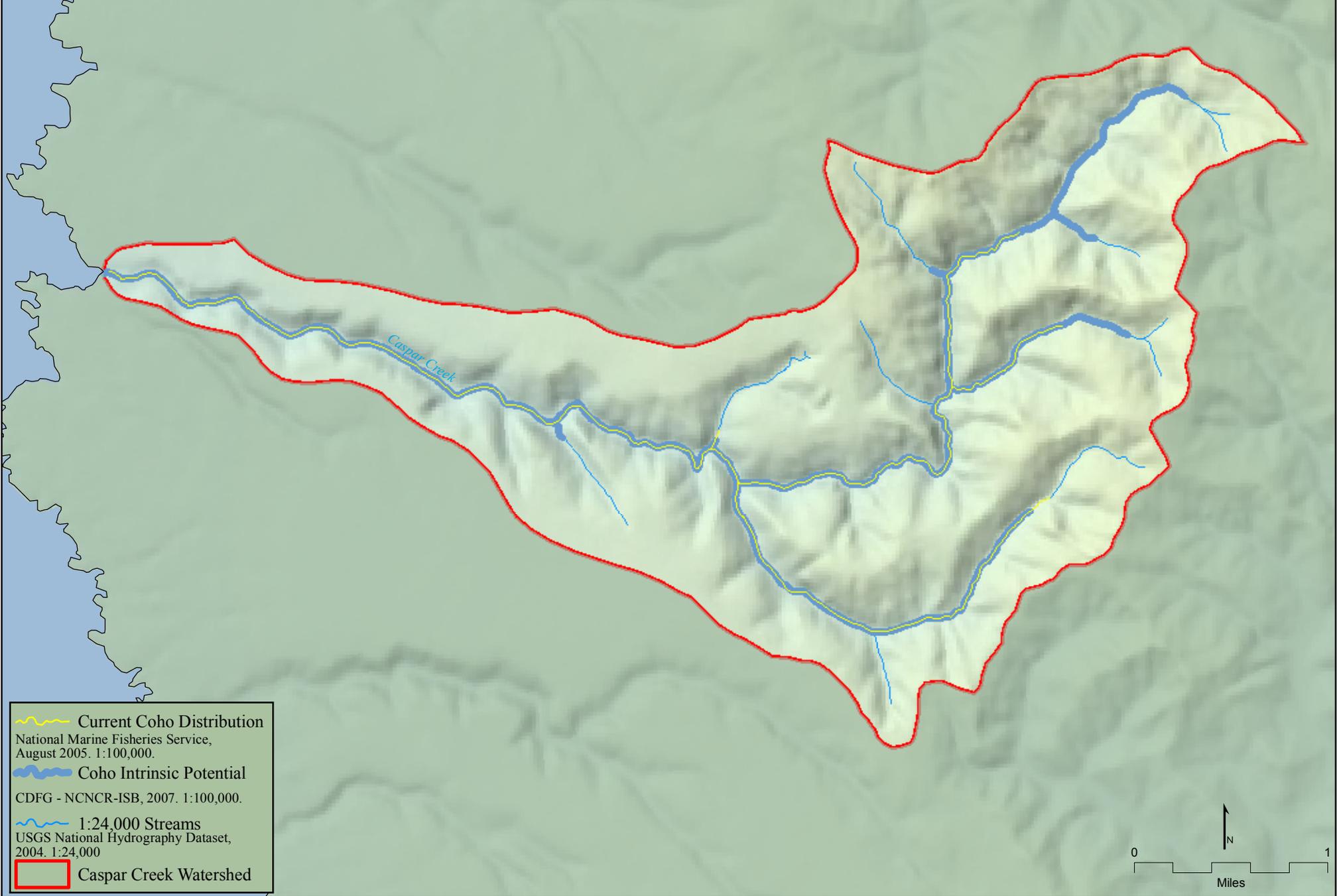
 Caspar Creek Watershed



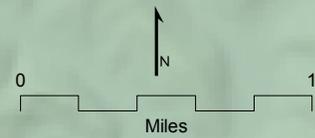


NMFS-SWR-HCD
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Caspar Creek Watershed Coho Current vs. Historical



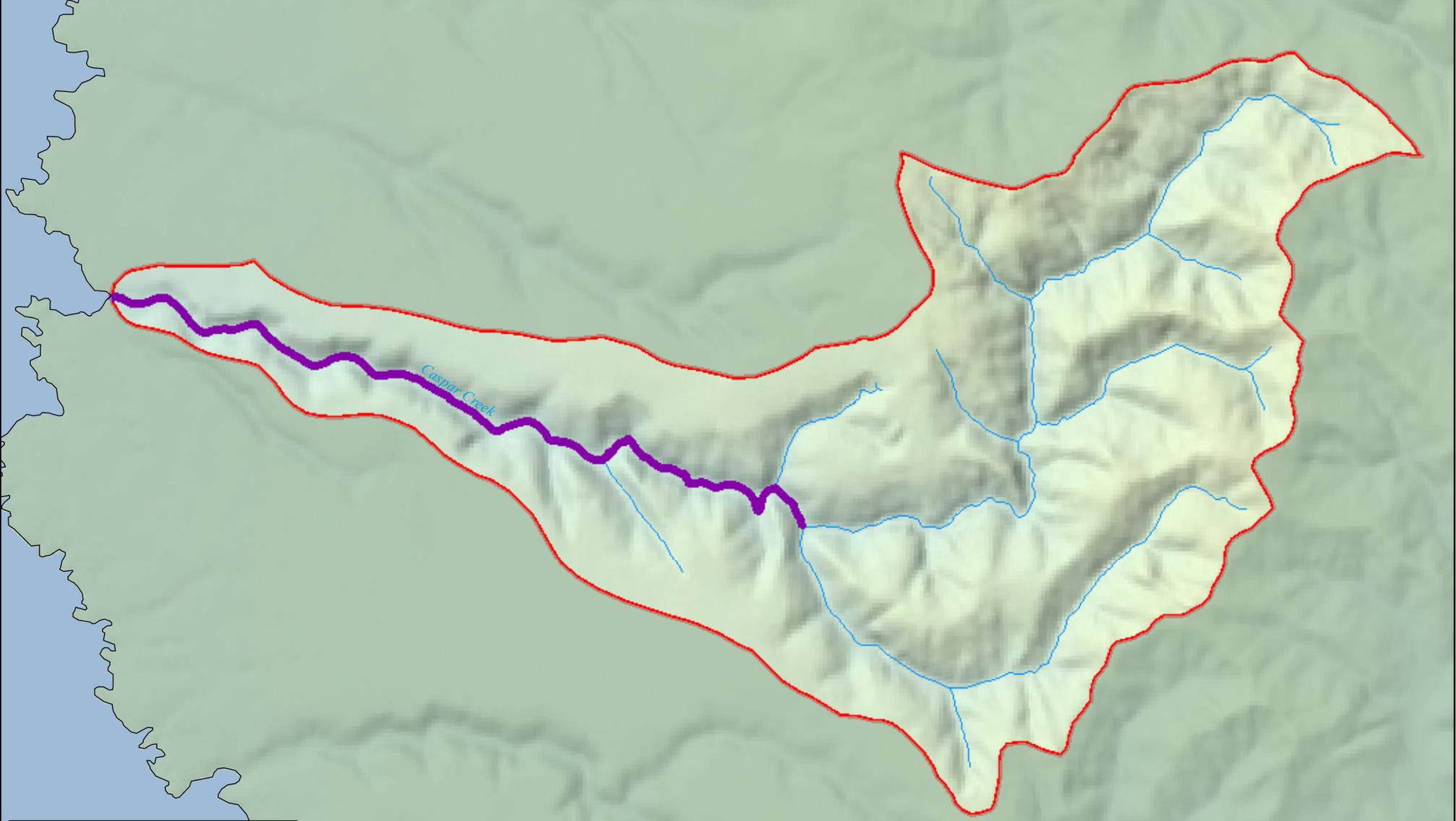
-  Current Coho Distribution
National Marine Fisheries Service,
August 2005. 1:100,000.
-  Coho Intrinsic Potential
CDFG - NCNCR-ISB, 2007. 1:100,000.
-  1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
-  Caspar Creek Watershed





NMFS-SWR-HCD
July 2008

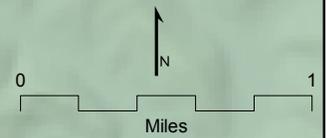
Caspar Creek Watershed Chinook Current vs. Historical



 Chinook Intrinsic Potential
CDFG - NCNCR-ISB, 2007. 1:100,000.

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

 Caspar Creek Watershed



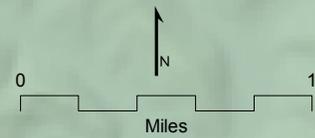
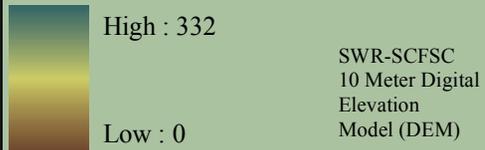


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Caspar Creek Watershed Elevation



Caspar Creek Elevation (Meters)

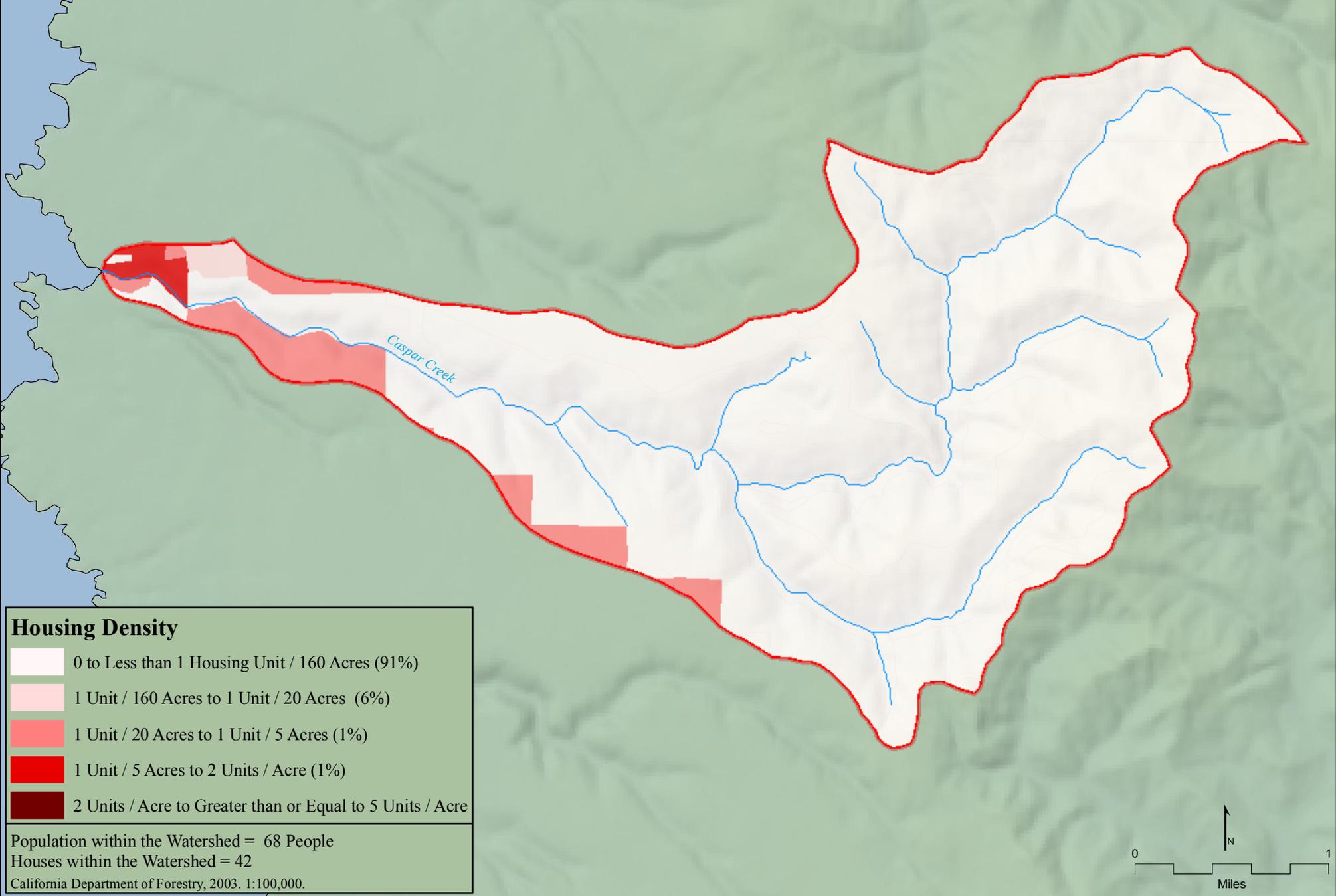




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Caspar Creek Watershed Development

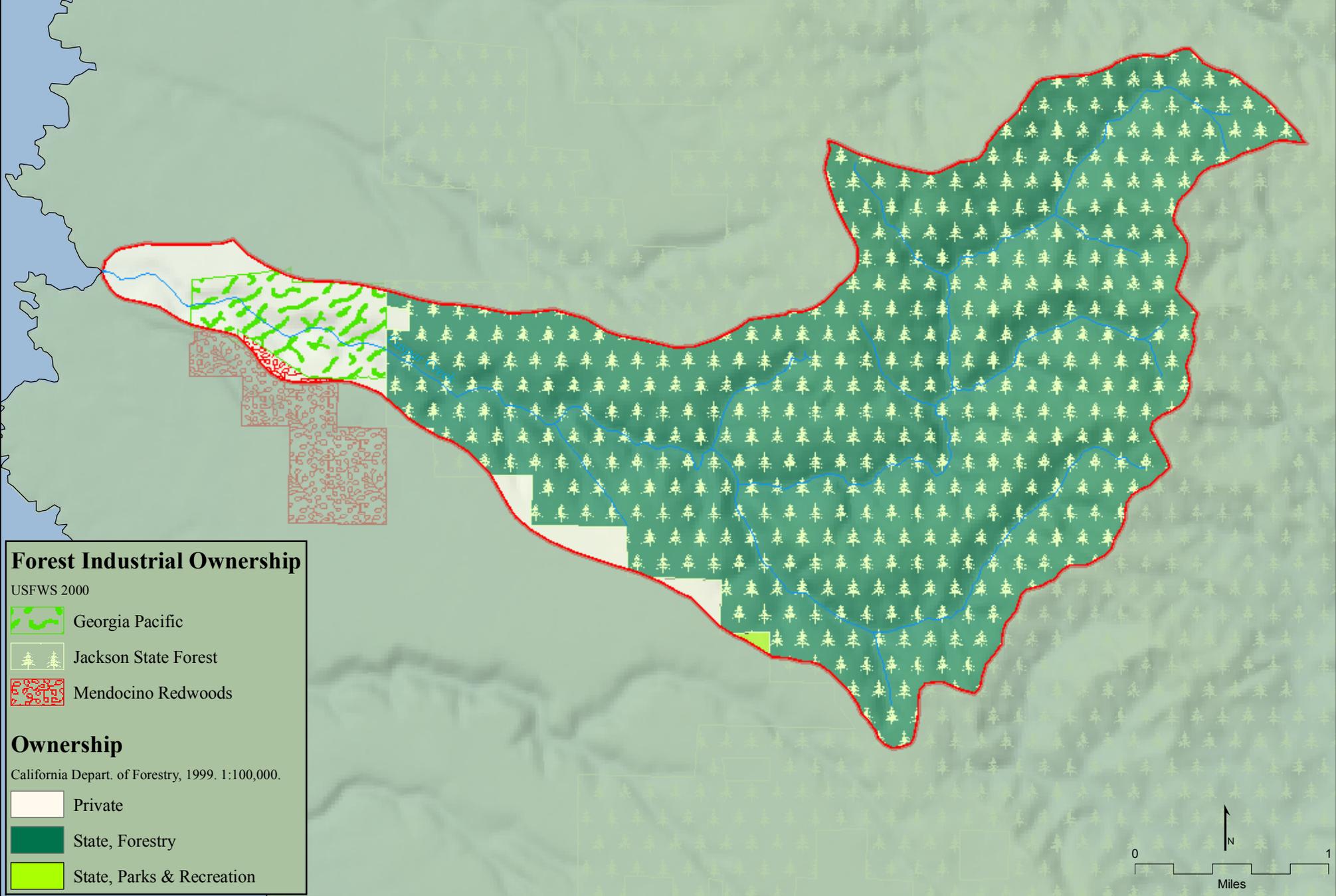




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Caspar Creek Watershed Ownership





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July 2008

Caspar Creek Watershed Road Density

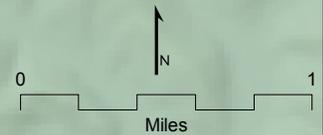


Road

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

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

 Watershed Density 4.4 Miles / Square Mile

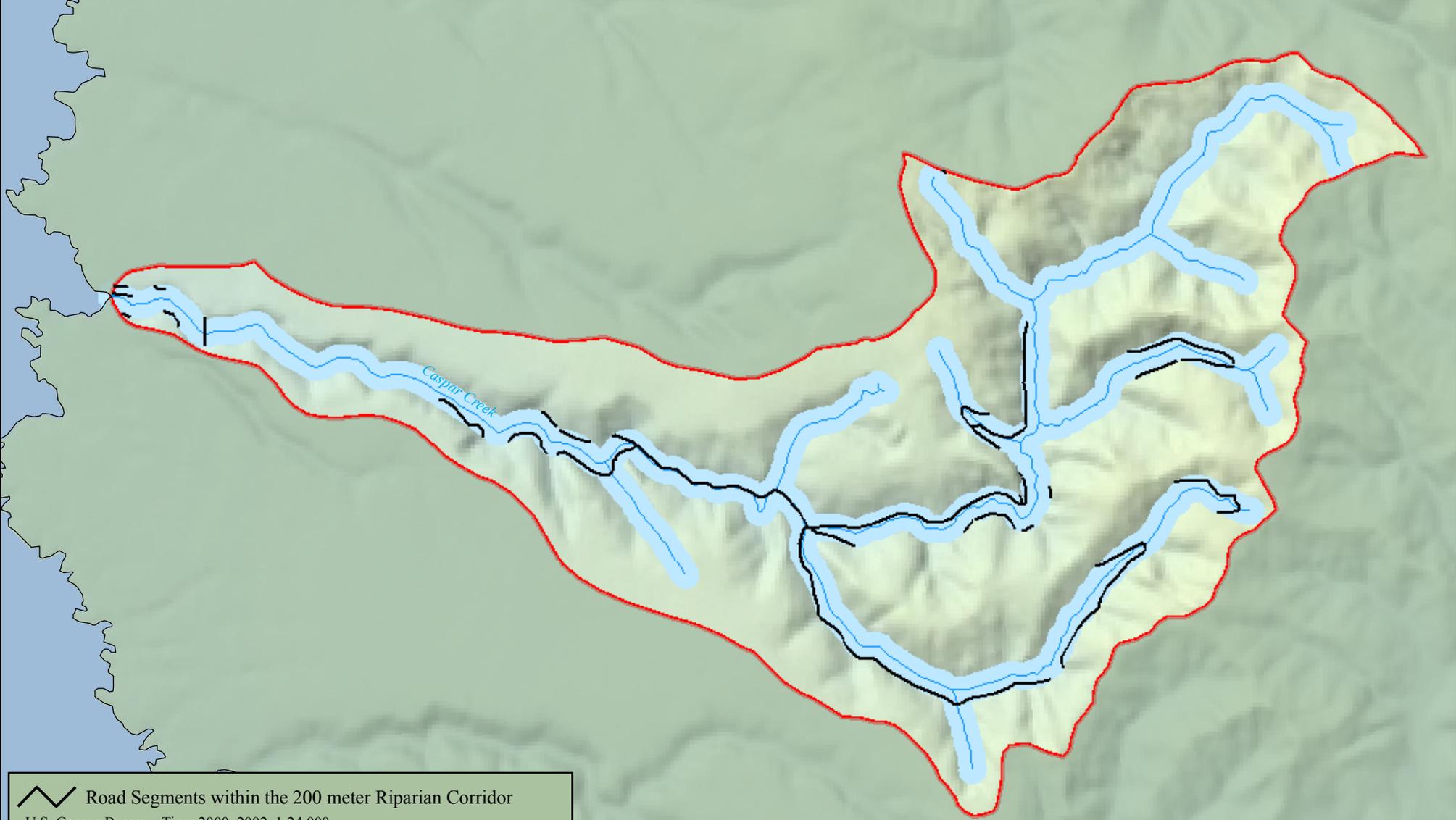




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Caspar Creek Watershed Road Density in the Riparian Corridor

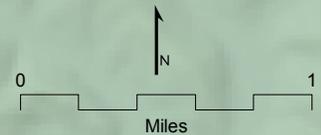


 Road Segments within the 200 meter Riparian Corridor
U.S. Census Bureau - Tiger 2000, 2002. 1:24,000

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

 200 Meter Riparian Buffer (100 m on either side of stream centerline)

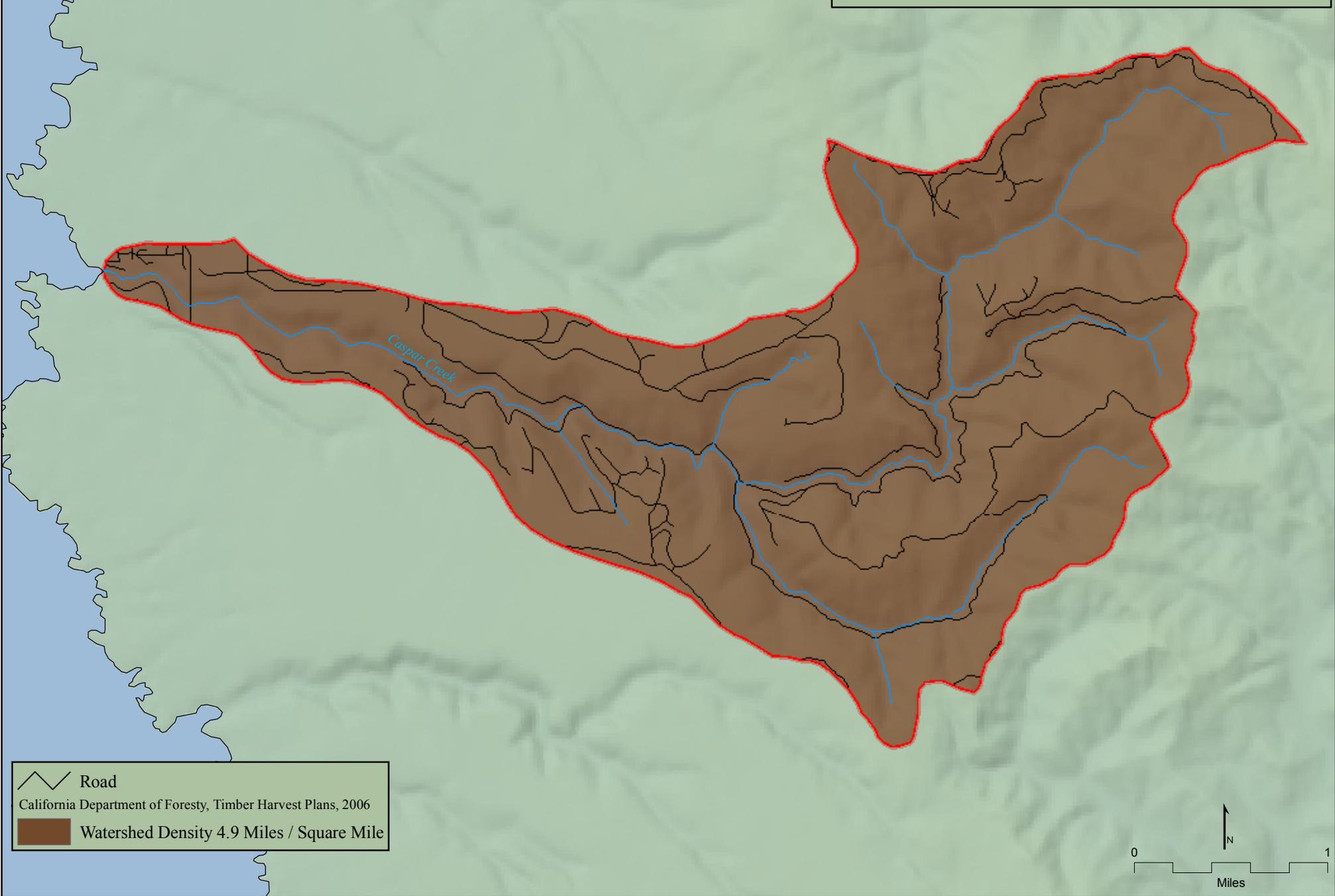
Overall Riparian Corridor Density = 5.0 Miles / SqMi of Corridor



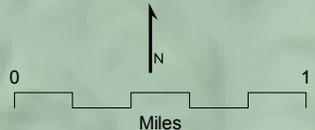


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Caspar Creek Watershed Road Density per Timber Harvest Plan Roads



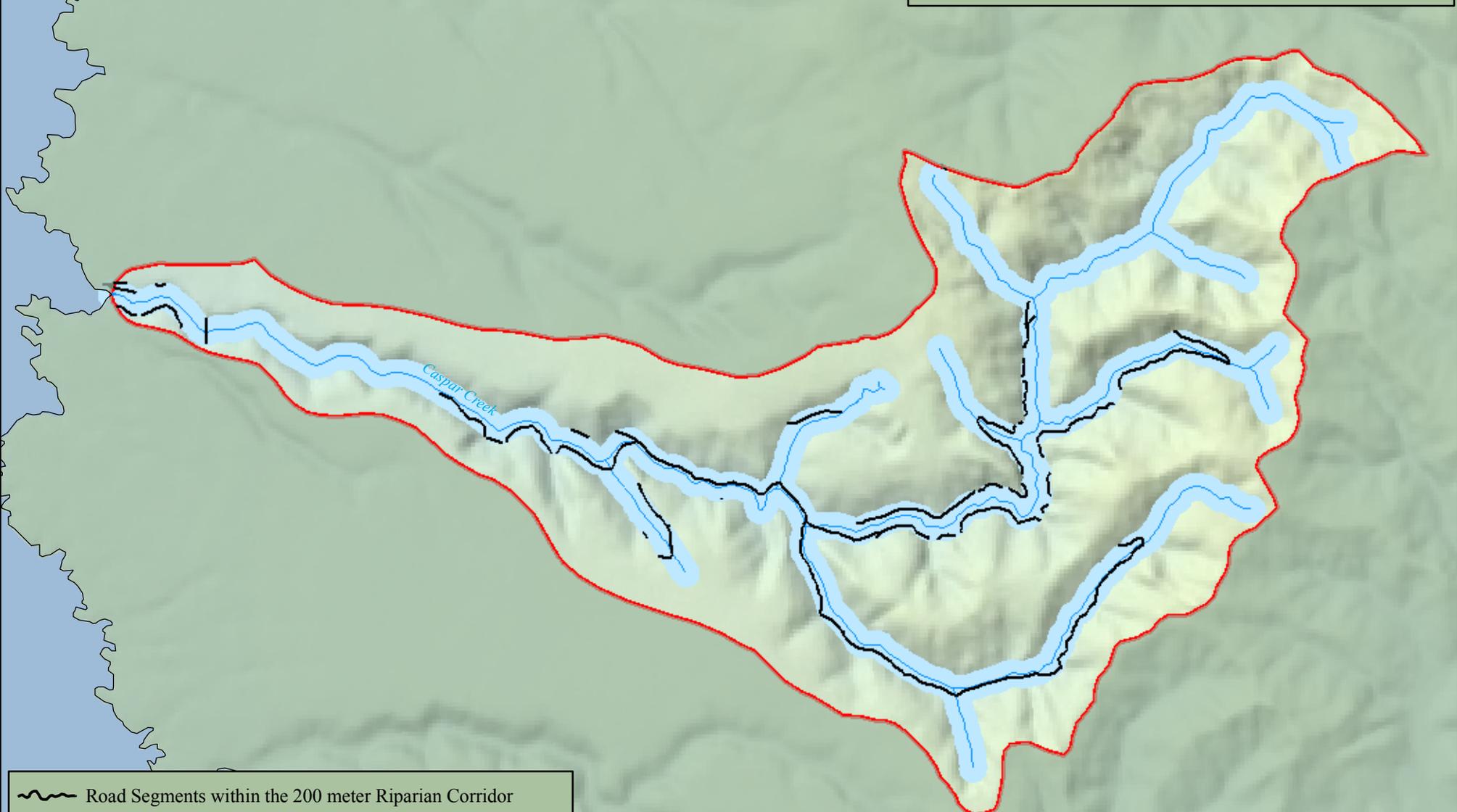
 Road
California Department of Forestry, Timber Harvest Plans, 2006
 Watershed Density 4.9 Miles / Square Mile





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July 2008

Caspar Creek Watershed Road Density in the Riparian Corridor per Timber Harvest Plan Roads

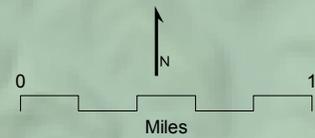


 Road Segments within the 200 meter Riparian Corridor
California Department of Forestry, Timber Harvest Plans, 2006

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

 200 Meter Riparian Buffer (100 m on either side of stream centerline)

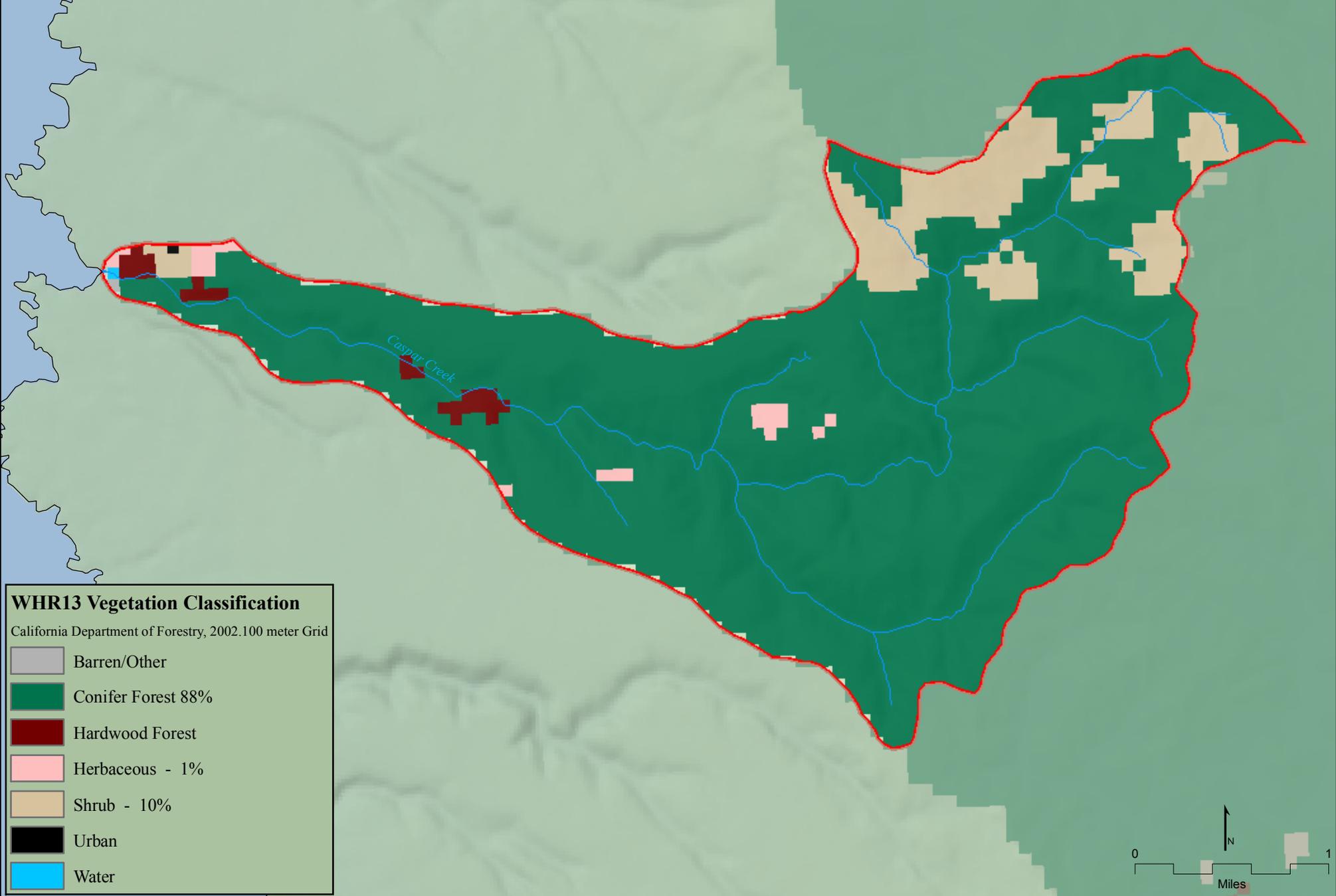
Overall Riparian Corridor Density = 5.7 Miles / SqMi of Corridor





NMFS-SWR-HCD
July 2008

Caspar Creek Watershed Vegetation





NMFS-SWR-HCD

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Caspar Creek Watershed Timber Harvesting 1986-2006

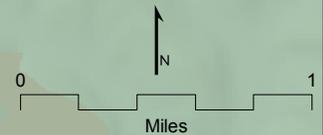
1:24,000 Streams

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

Timber Harvest Plans 1986-2006

California Department of Forestry, 2006.

-  Clearcut
-  Uneven Age Removal
-  Even age Removal
-  Alternative Perscription
-  Transition
-  Out

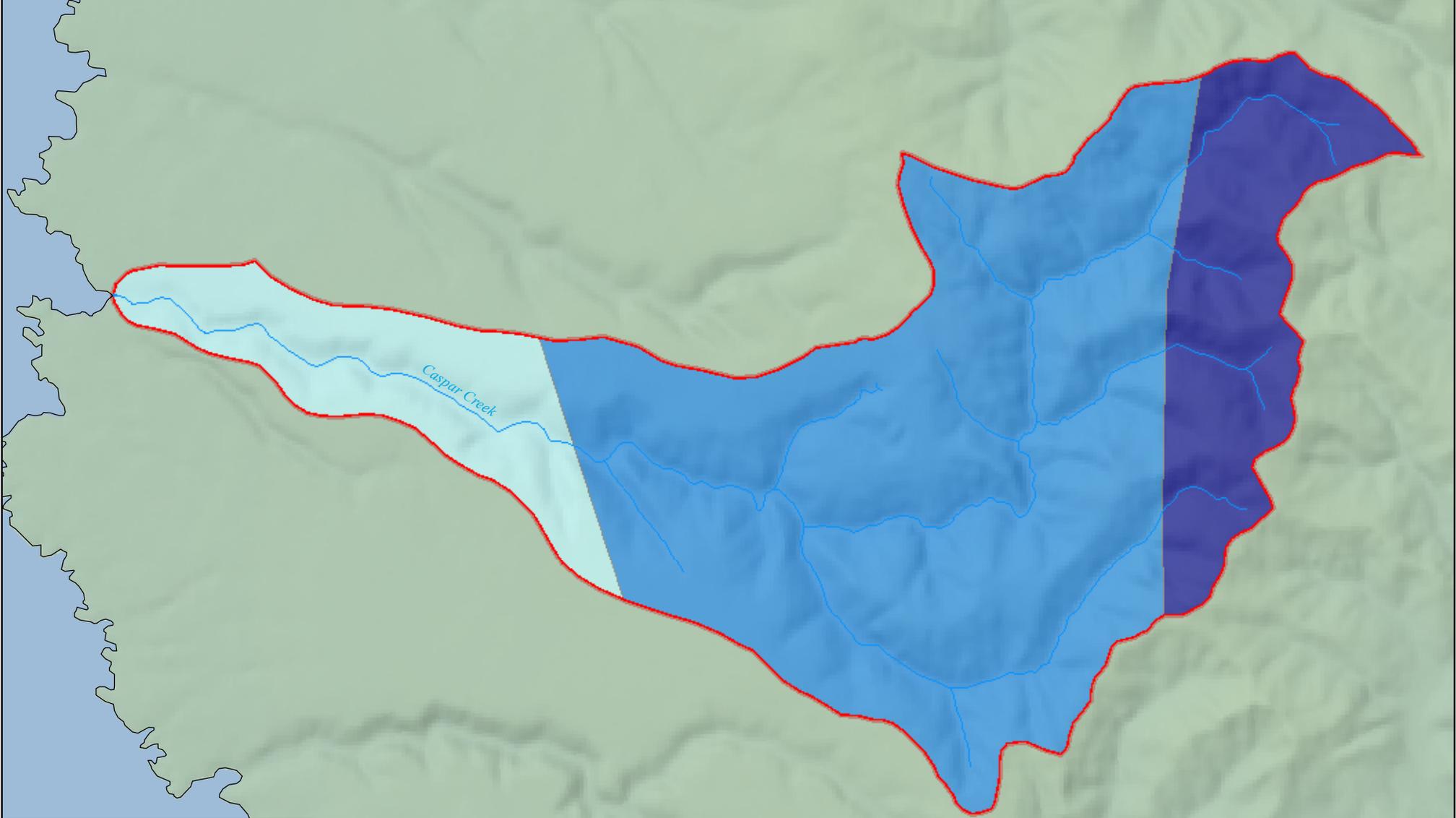




NMFS-SWR-HCD

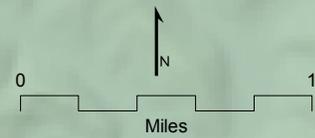
July 2008

Caspar Creek Watershed Precipitation



1900-1960 Annual Precipitation

	to 40"	Watershed Average 46"
	to 45"	
	to 55"	California Department of Forestry, 1990. 1:100,000

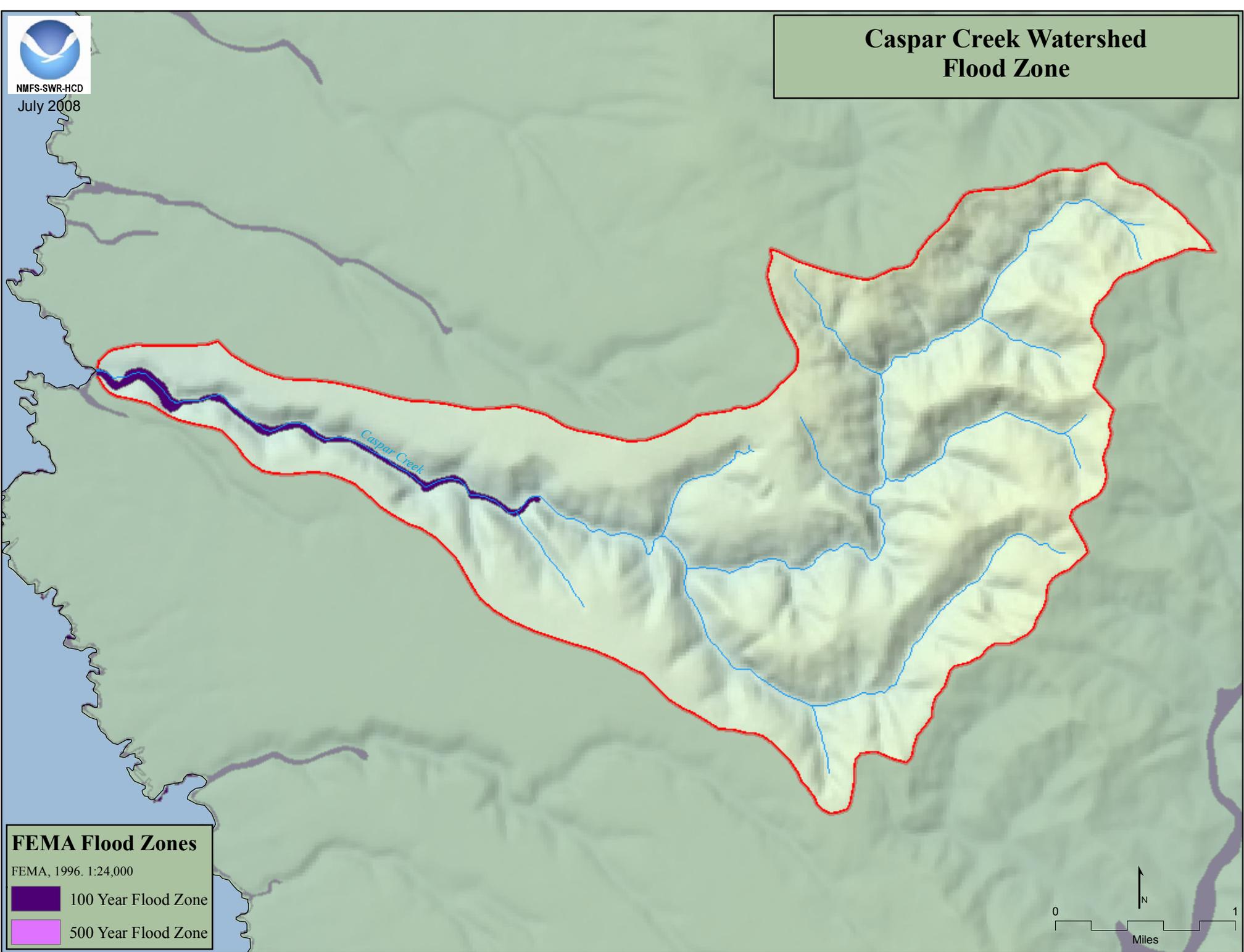




NMFS-SWR-HCD

July 2008

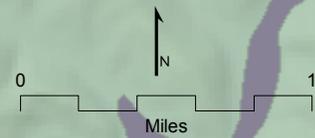
Caspar Creek Watershed Flood Zone



FEMA Flood Zones

FEMA, 1996. 1:24,000

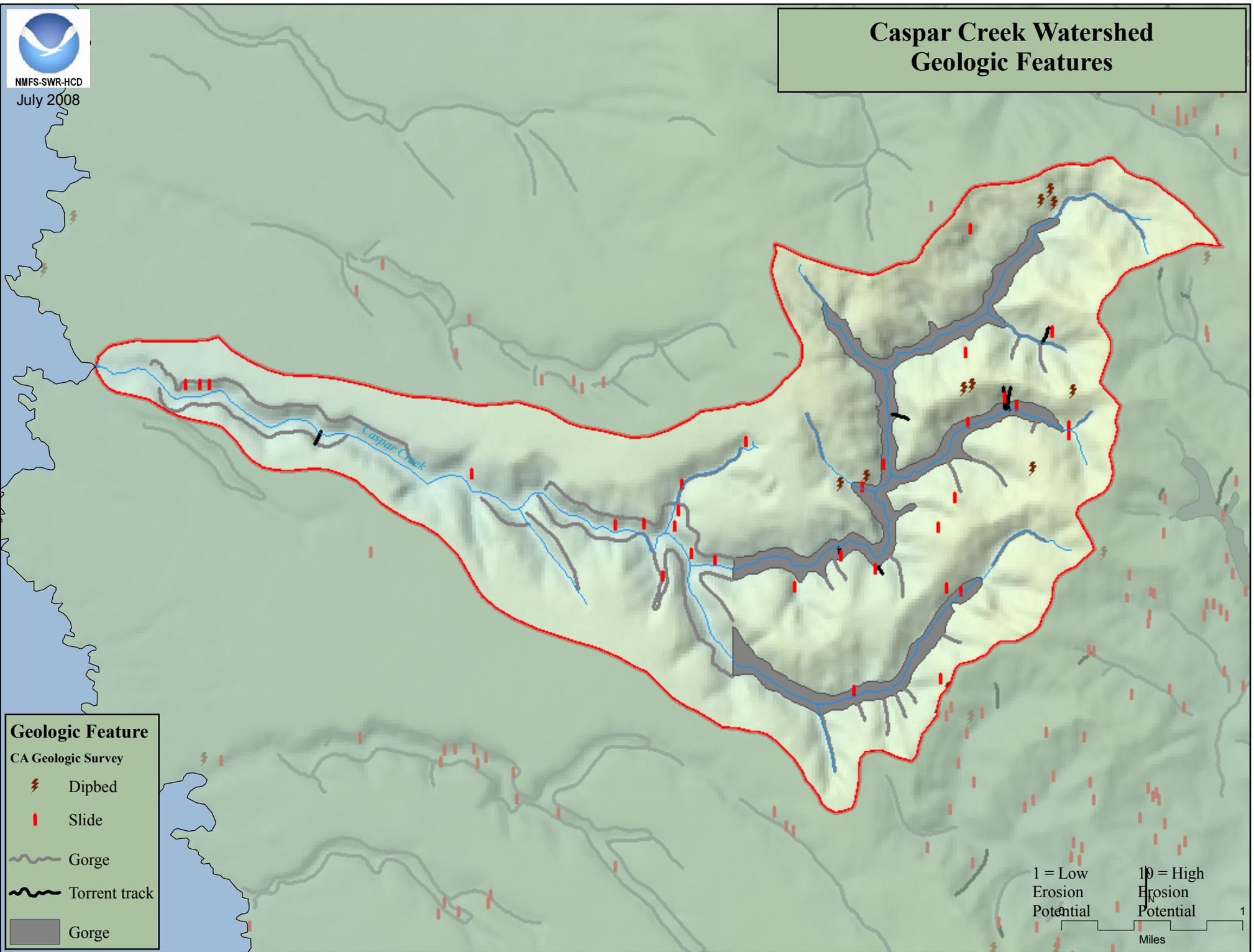
-  100 Year Flood Zone
-  500 Year Flood Zone





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Caspar Creek Watershed Geologic Features



Geologic Feature
CA Geologic Survey

- Dipbed
- Slide
- Gorge
- Torrent track
- Gorge

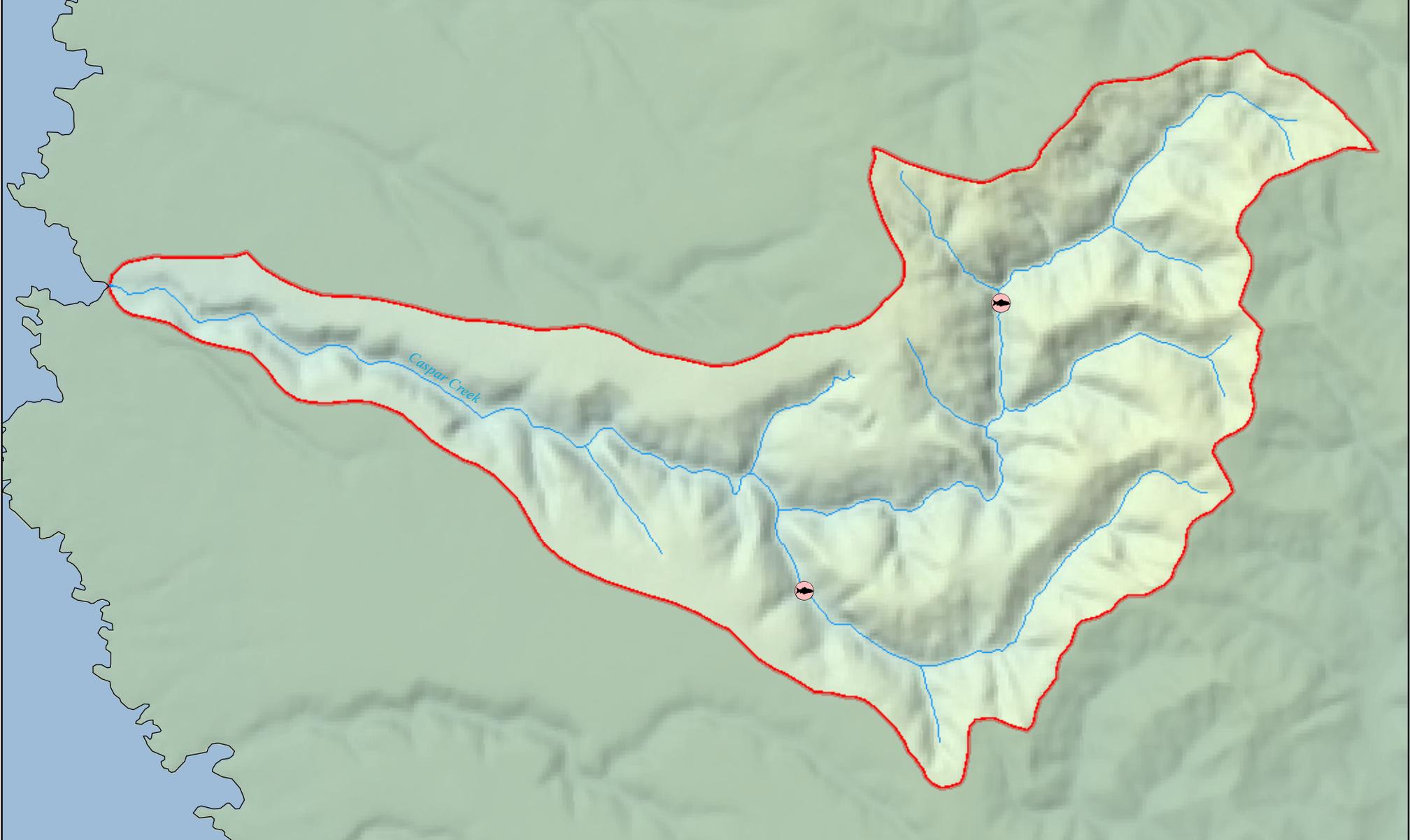
1 = Low Erosion Potential 10 = High Erosion Potential

Miles



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July 2008

Caspar Creek Watershed Barriers

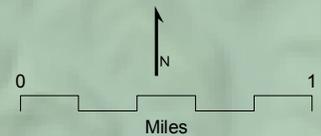


Barrier Type, Barrier Status

CA Fish Passage Assessment, PSMFC, 2008



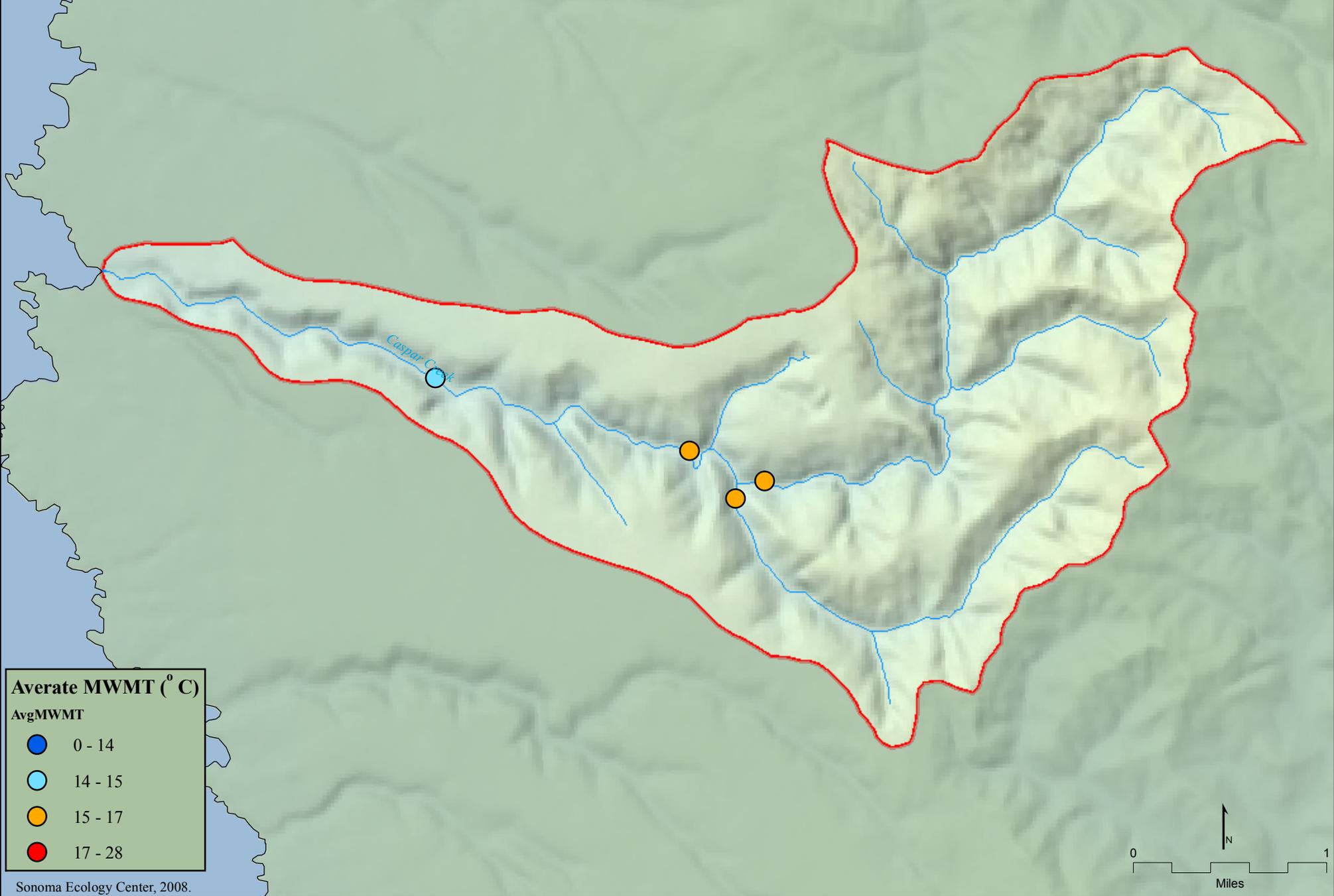
Fish passage facility, Temporal & Partial





NMFS-SWR-HCD
July 2008

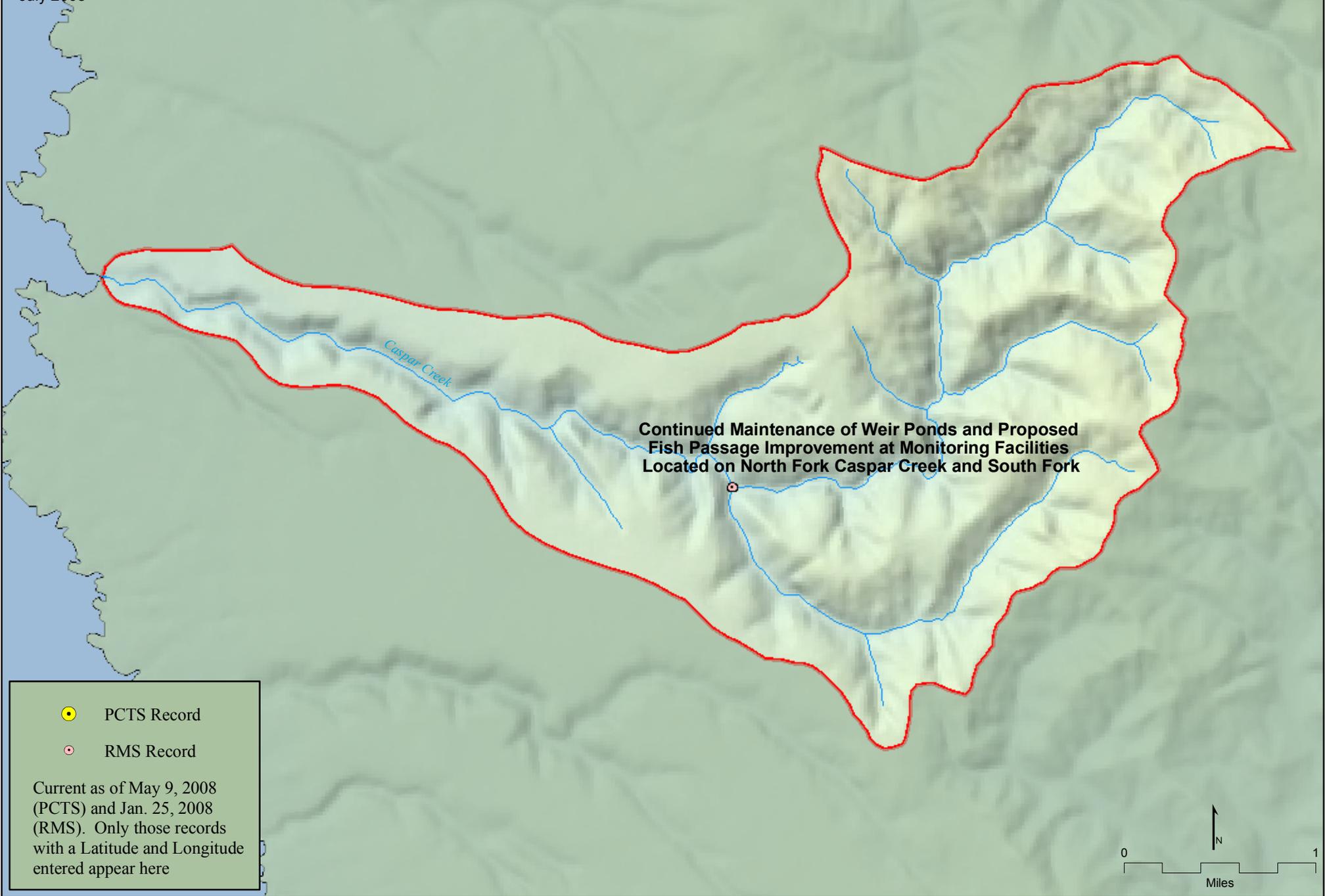
Caspar Creek Watershed In-stream Temperature





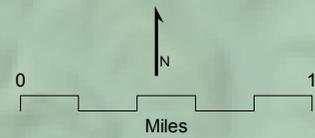
NMFS-SWR-HCD
July 2008

Caspar Creek Watershed Public Consultation Tracking System



- 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

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

NC_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>

CC_Chinook_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

CC_Chinook_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>

NC_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

1801 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/>

Total Maximum Daily Load (TMDL)

R1_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

roads

vector digital data

Timber Harvest Plans

California Department of Forestry and Fire Protection

1:24,000

2006

TGRR00

vector digital data

Roads

United States Census Bureau

1:100000

2000

<http://www.census.gov/geo/www/tiger/>

Elevation

Dem_1_utm_f

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_ca045_2004_1 (Mendocino)

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

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