



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			
<hr/>			
Location	1113		
Mendocino County	4th Field Calwater		

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

Coho Intrinsic Potential	Miles
Km of Historical Coho IP (21.5 C mask)	13
% of IP (21.5 C Mask) with Current Coho Distribution	88%

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		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)

^CPassage 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
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^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

Vegetation density and age class in the entire watershed

California Department of Forestry and Fire Protection; fvge02_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		5					62		2	5		
	S P M D			2									
	Total		5	2				62		2	5		76
Seedling	S P M D												
	Total												0
Sapling	S P M D			27	106								
	Total			207	74								207
Pole	S P M D			15	52	7	10						
	Total			880	704	27	44						924
Small Tree	S P M D					2	10						
	Total			667	581	2	19	514					1200
Medium/Large Tree	S P M D			12	84	119	2723						
	Total			2938									2938
Multi Layered	D			5									
	Total			5									5
Grand Total by Species Type			5	4699	63	62	514	2	5				5350

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%

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		0%					1%		0%	0%		
	S P M D			0%									
	Total		0%	0%				1%		0%	0%		1%
Seedling	S P M D												
	Total												0%
Sapling	S P M D			0%	1%	2%	1%						
	Total			4%									4%
Pole	S P M D			0%	1%	2%	13%	1%					
	Total			16%	1%								17%
Small Tree	S P M D				0%	0%	2%	11%	10%				
	Total			12%	0%	0%	10%						22%
Medium/Large Tree	S P M D			0%	2%	2%	51%						
	Total			55%									55%
Multi Layered	D			0%									
	Total			0%									0%
Grand Total by Species Type			0%	88%	1%	1%	10%	0%	0%				100%

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%

Caspar 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							7.4			4.9		
	Total							7.4			4.9		12
Seedling	S												
	Total												0
Sapling	S				2.5								
	Total				24.7								25
Pole	S				7.4								
	Total				257.0	27.2							284
Small Tree	S				2.5								
	Total				207.6	12.4		76.6					297
Medium/Large Tree	S				2.5								
	Total				798.1								798
Multi Layered	D												
	Total												0
Grand Total by Species Type			0	1287	0	40	0	7	77	0	5	0	1416

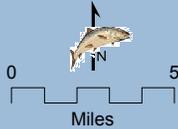
SIZE	Description	Diameter at Breast Height (DBH)
Not Determined		N/A
Seedling		Less Than 1 inch
Sapling		1 to 6 inches
Pole		6 to 11 inches
Small Tree		11 to 24 inches
Medium/Large Tree		Greater Than 24 inches
Multi Layered		Size 5 Over Size 4 Or 3; Total Tree Crown Closure Greater Than 60%

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%			0%		
	Total							1%			0%		1%
Seedling	S												
	Total												0%
Sapling	S				0%								
	Total				2%								2%
Pole	S					1%							
	Total				18%	2%							20%
Small Tree	S					0%							
	Total				15%	1%		5%					21%
Medium/Large Tree	S					0%							
	Total				56%			53%					56%
Multi Layered	D												
	Total												0%
Grand Total by Species Type			0%	91%	0%	3%	0%	1%	5%	0%	0%	0%	100%

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%

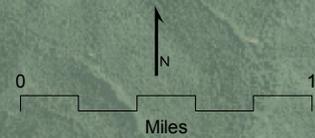
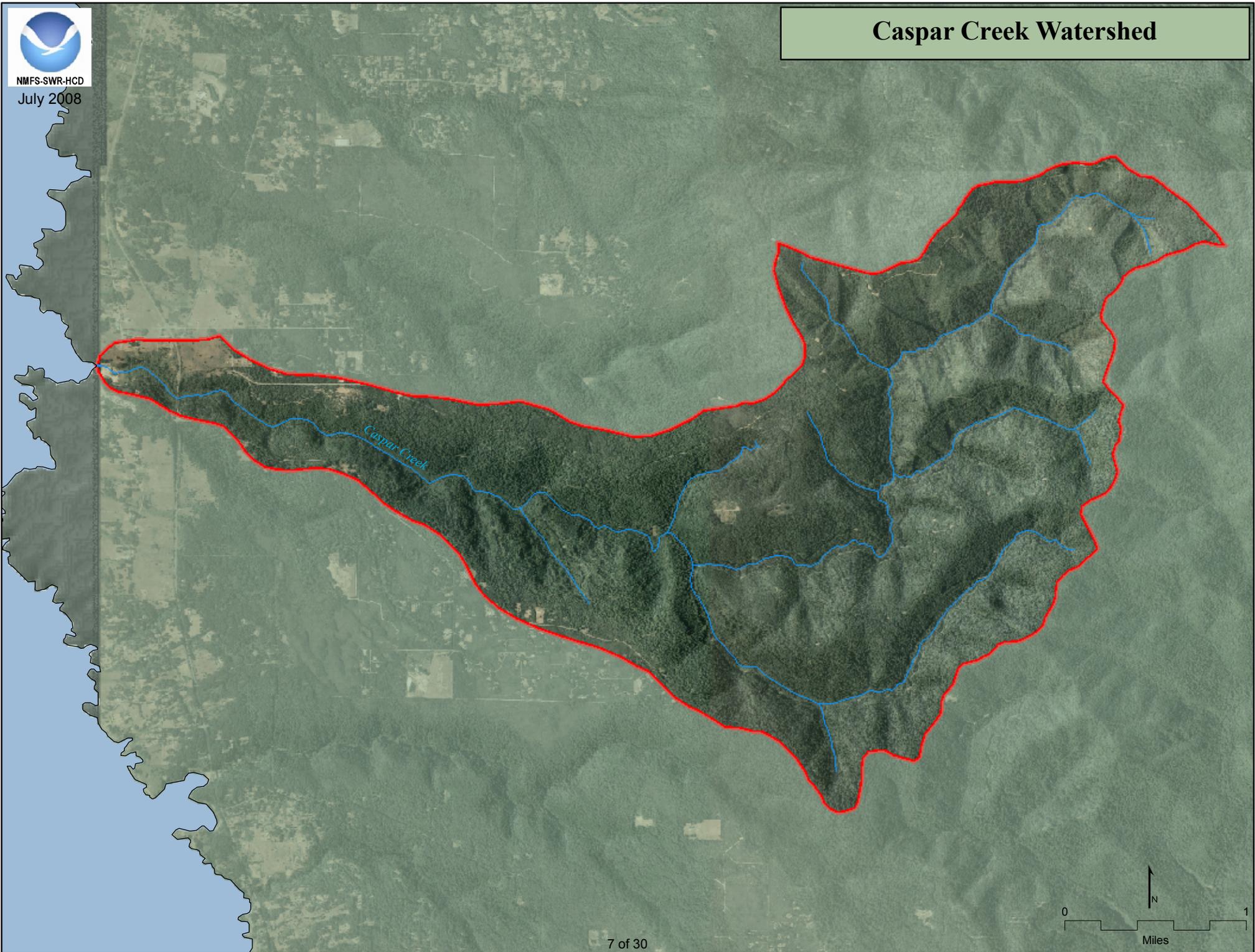
Caspar Creek Watershed





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July 2008

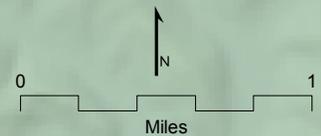
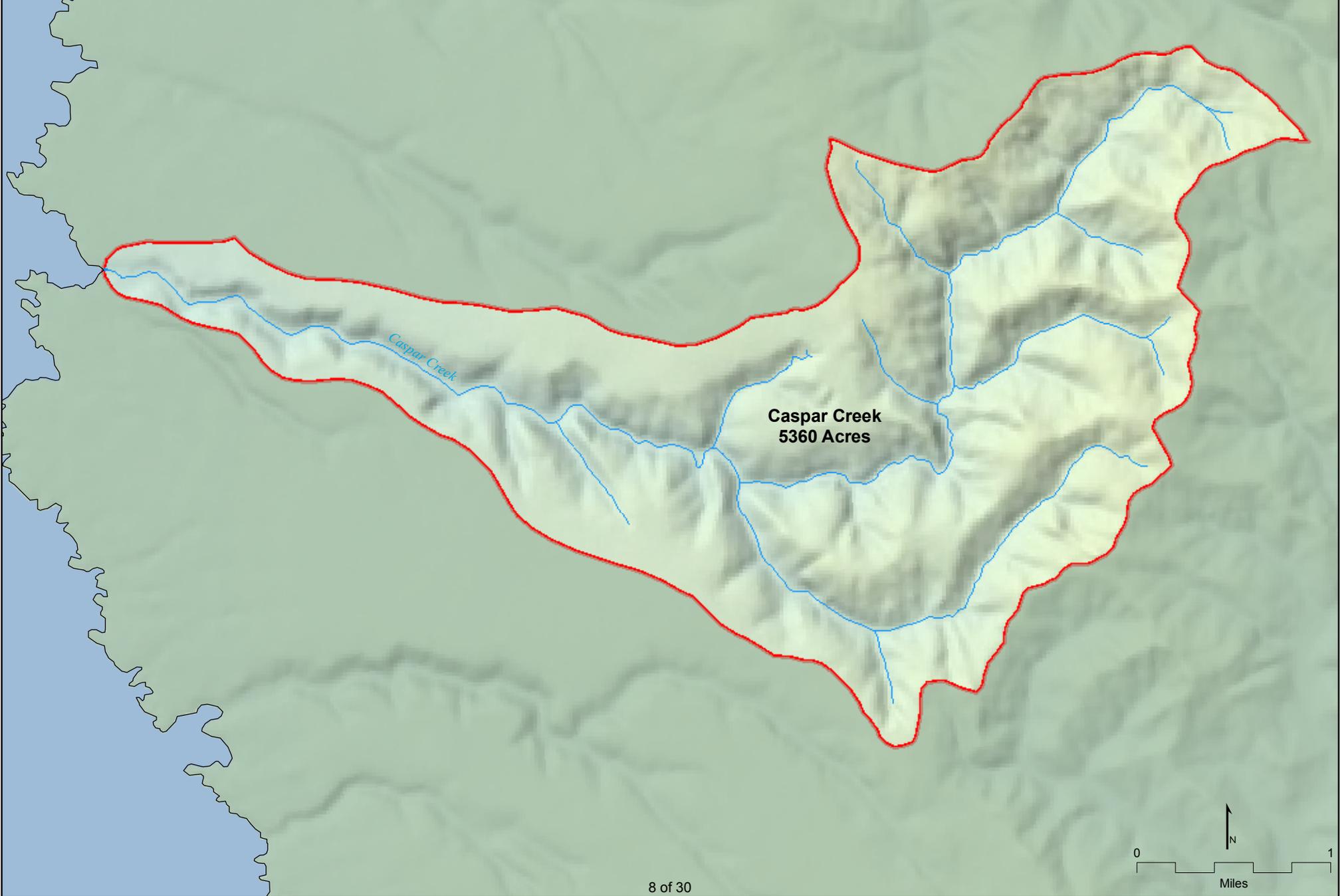
Caspar Creek Watershed





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Caspar Creek Watershed CalWater Planning Watersheds

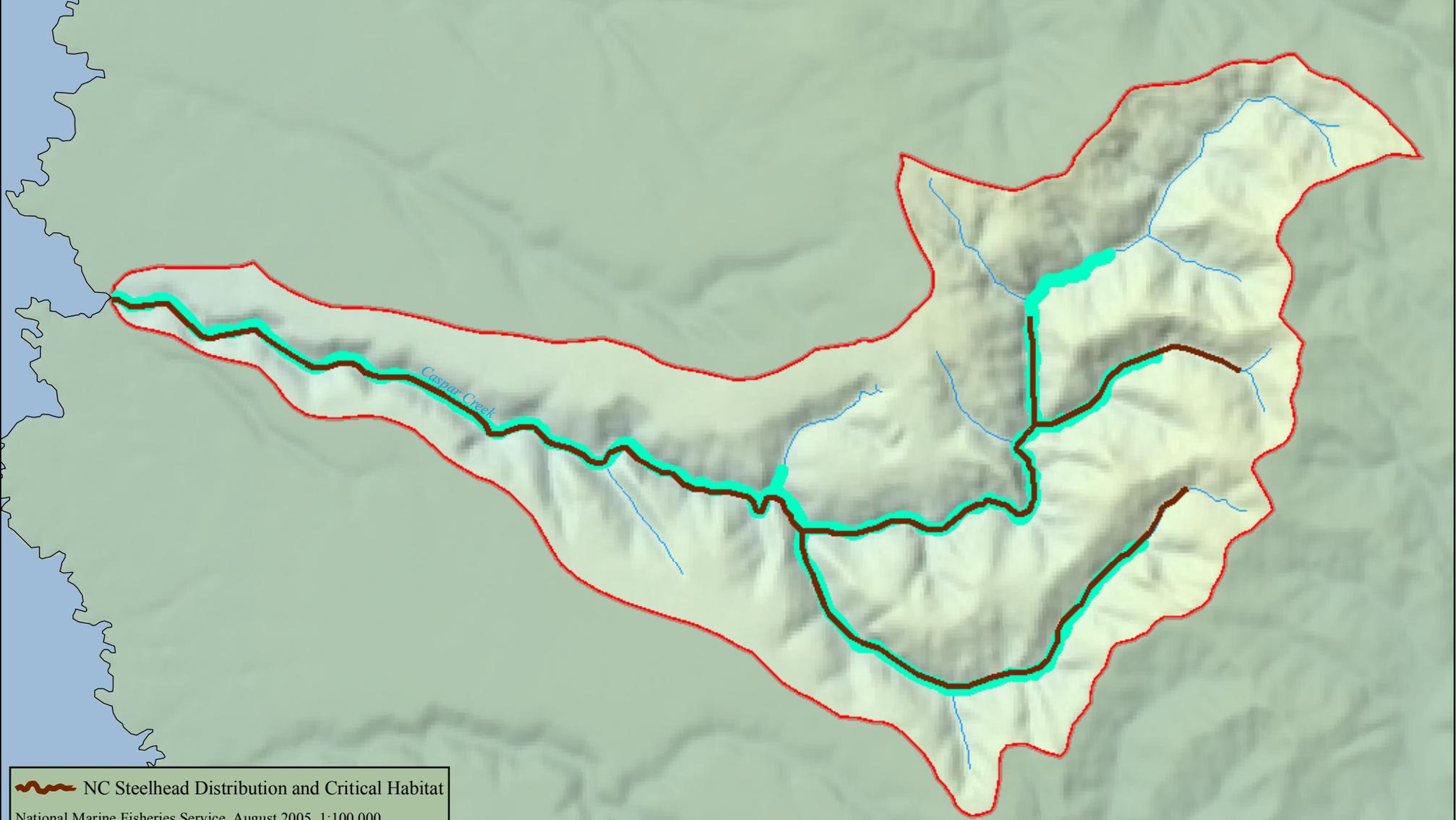




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Caspar Creek Watershed Fish Distribution and Critical Habitat



 NC Steelhead Distribution and Critical Habitat

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

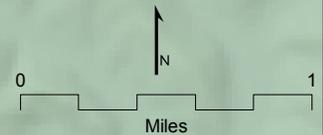
 Coho Distribution

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

 1:24,000 Streams

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

 Caspar Creek Watershed



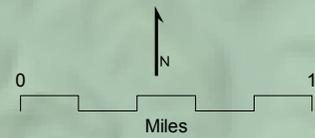


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Caspar Creek Watershed Steelhead Current vs. Historical



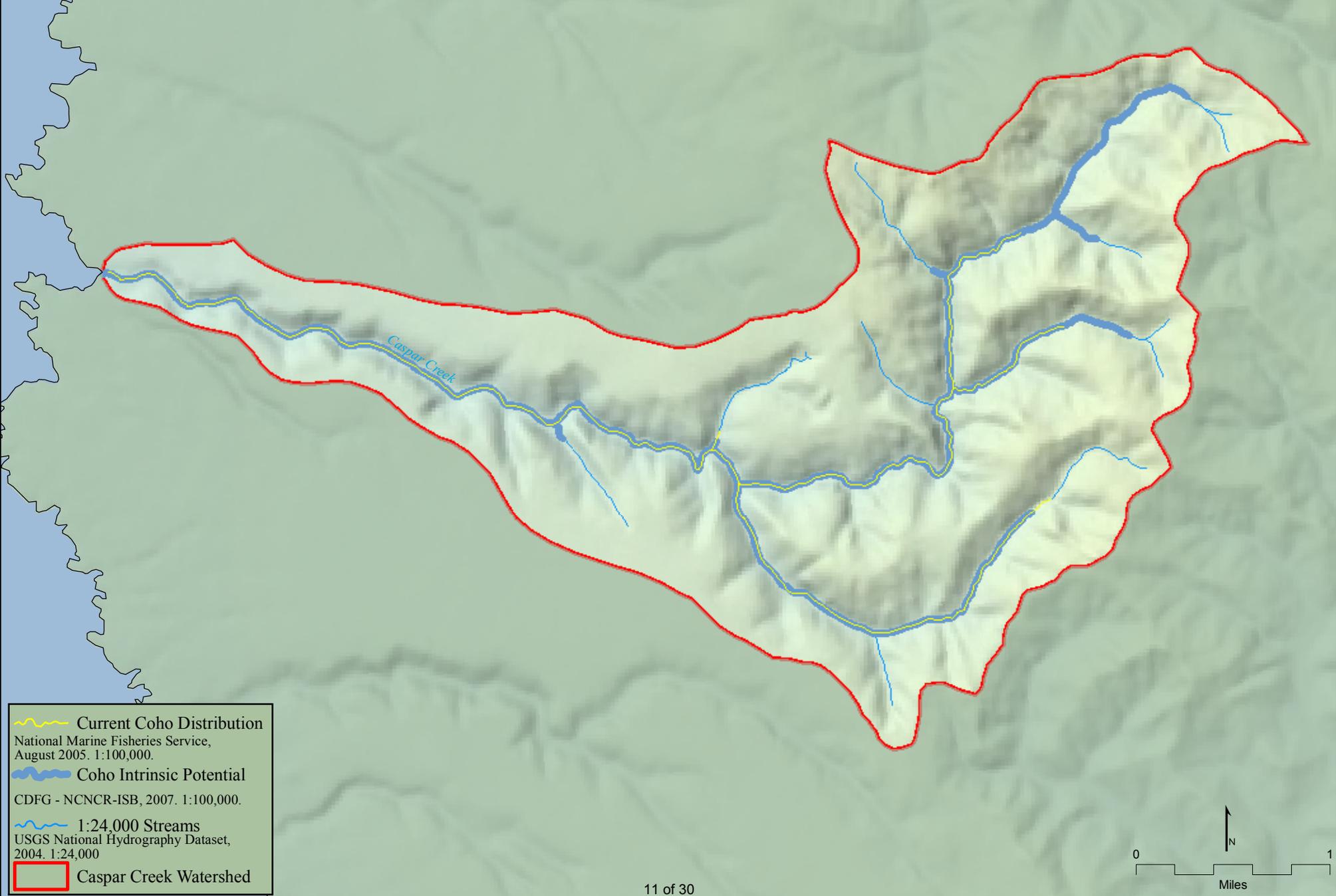
-  Current NC Steelhead Distribution
National Marine Fisheries Service,
August 2005. 1:100,000.
-  Steelhead Intrinsic Potential
CDFG - NCNCR-ISB, 2007. 1:100,000.
-  1:24,000 Streams
USGS National Hydrography Dataset, 2004. 1:24,000
-  Caspar Creek Watershed



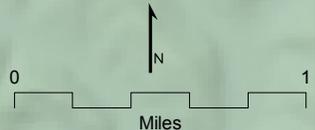


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Caspar Creek Watershed Coho Current vs. Historical



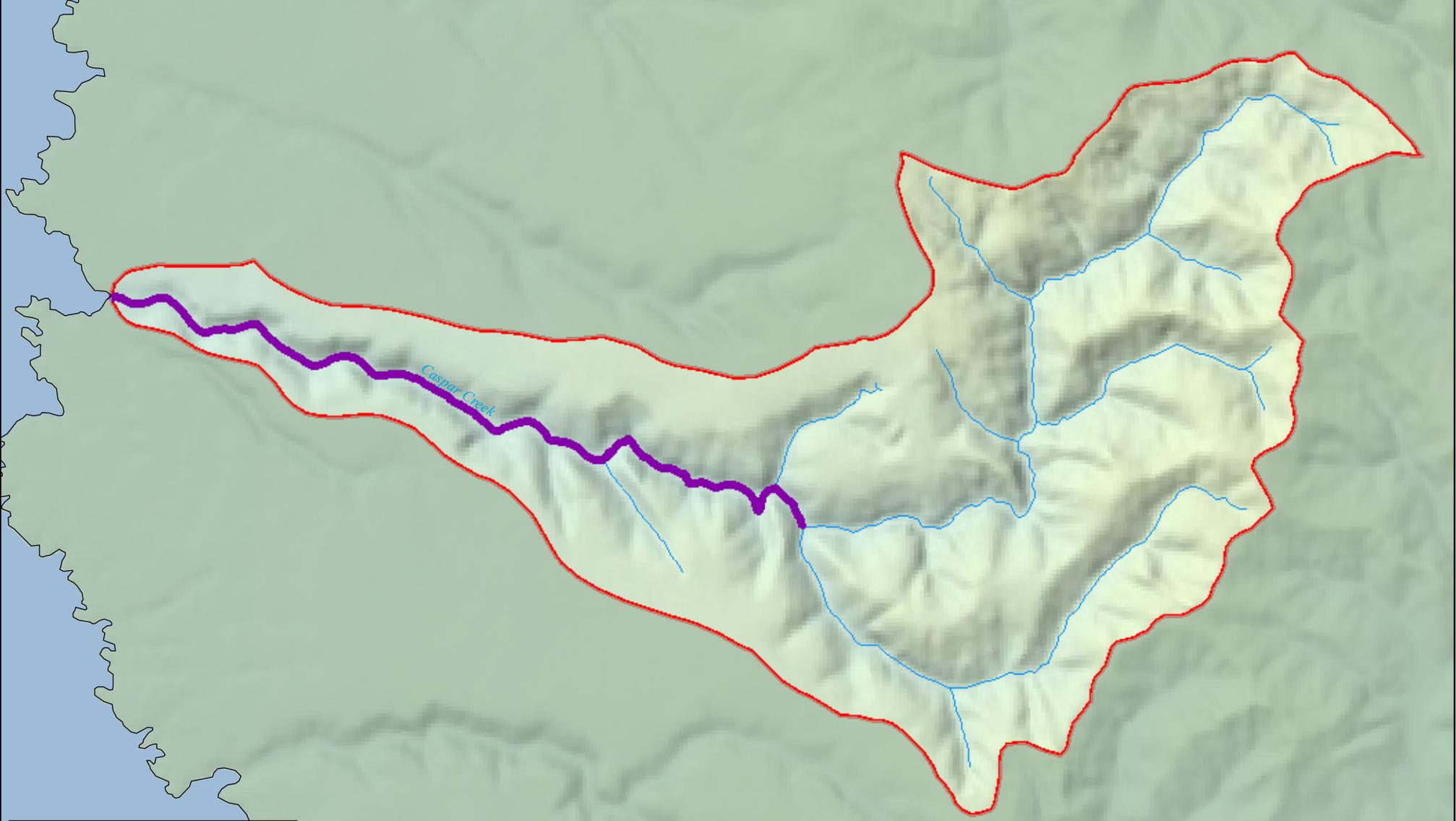
-  Current Coho Distribution
National Marine Fisheries Service,
August 2005. 1:100,000.
-  Coho Intrinsic Potential
CDFG - NCNCR-ISB, 2007. 1:100,000.
-  1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
-  Caspar Creek Watershed





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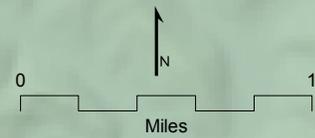
Caspar Creek Watershed Chinook Current vs. Historical



 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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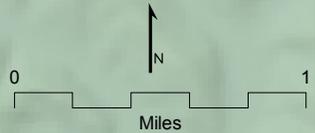
Caspar Creek Watershed Elevation



Caspar Creek Elevation (Meters)

	High : 332
	Low : 0

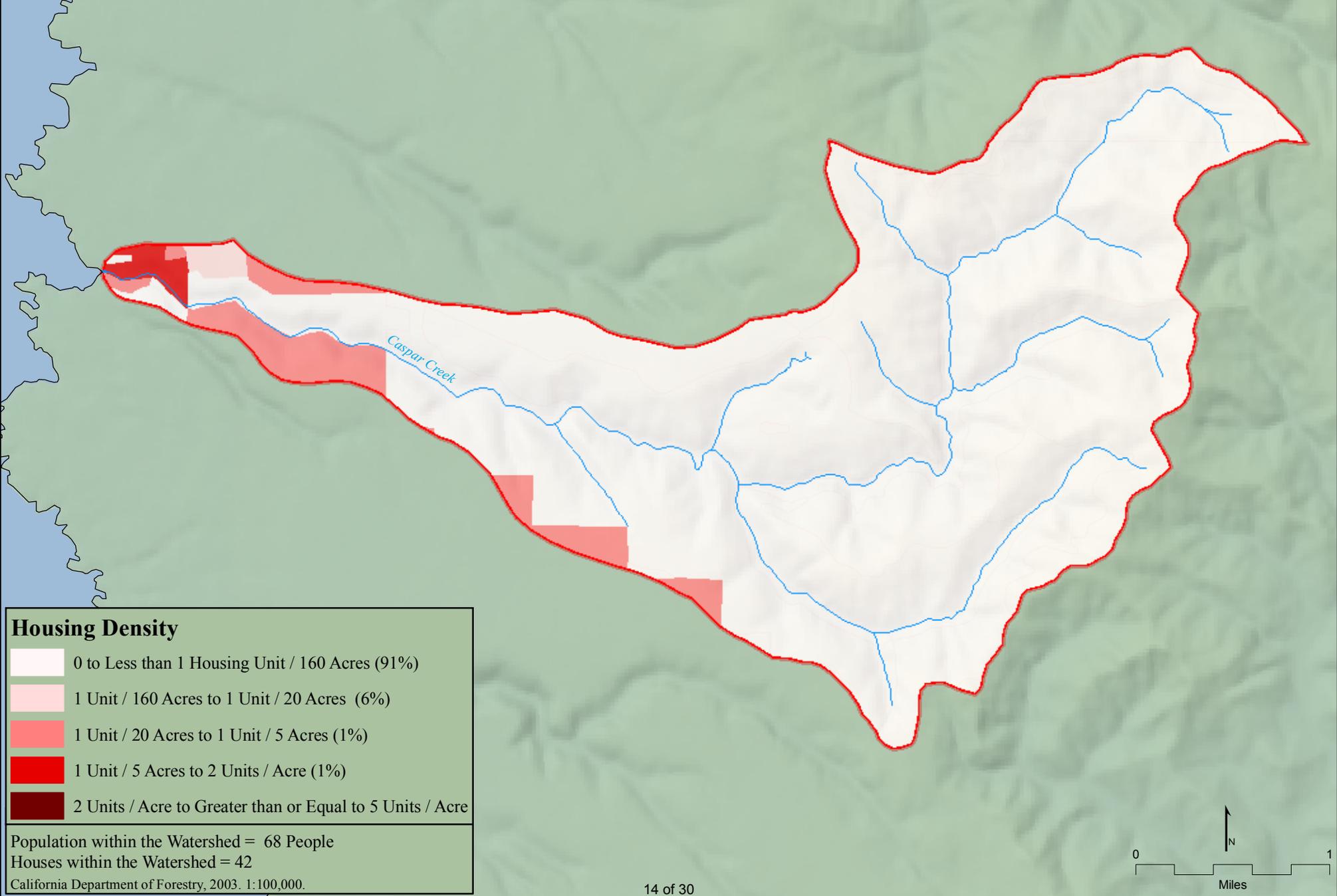
SWR-SCFSC
10 Meter Digital
Elevation
Model (DEM)





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Caspar Creek Watershed Development



Housing Density

- 0 to Less than 1 Housing Unit / 160 Acres (91%)
- 1 Unit / 160 Acres to 1 Unit / 20 Acres (6%)
- 1 Unit / 20 Acres to 1 Unit / 5 Acres (1%)
- 1 Unit / 5 Acres to 2 Units / Acre (1%)
- 2 Units / Acre to Greater than or Equal to 5 Units / Acre

Population within the Watershed = 68 People
Houses within the Watershed = 42

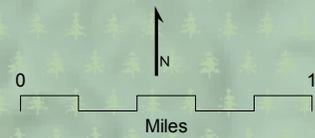
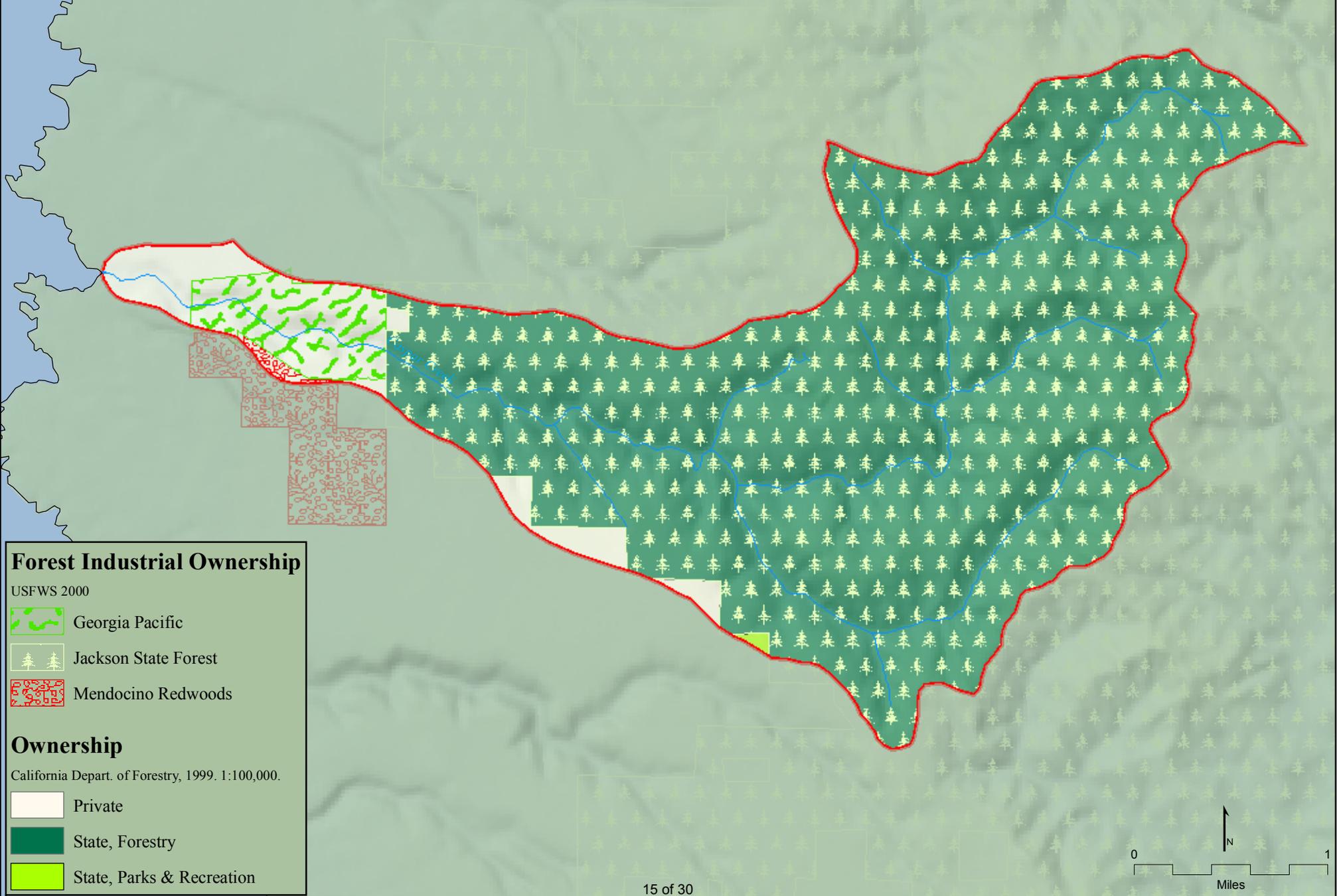
California Department of Forestry, 2003. 1:100,000.



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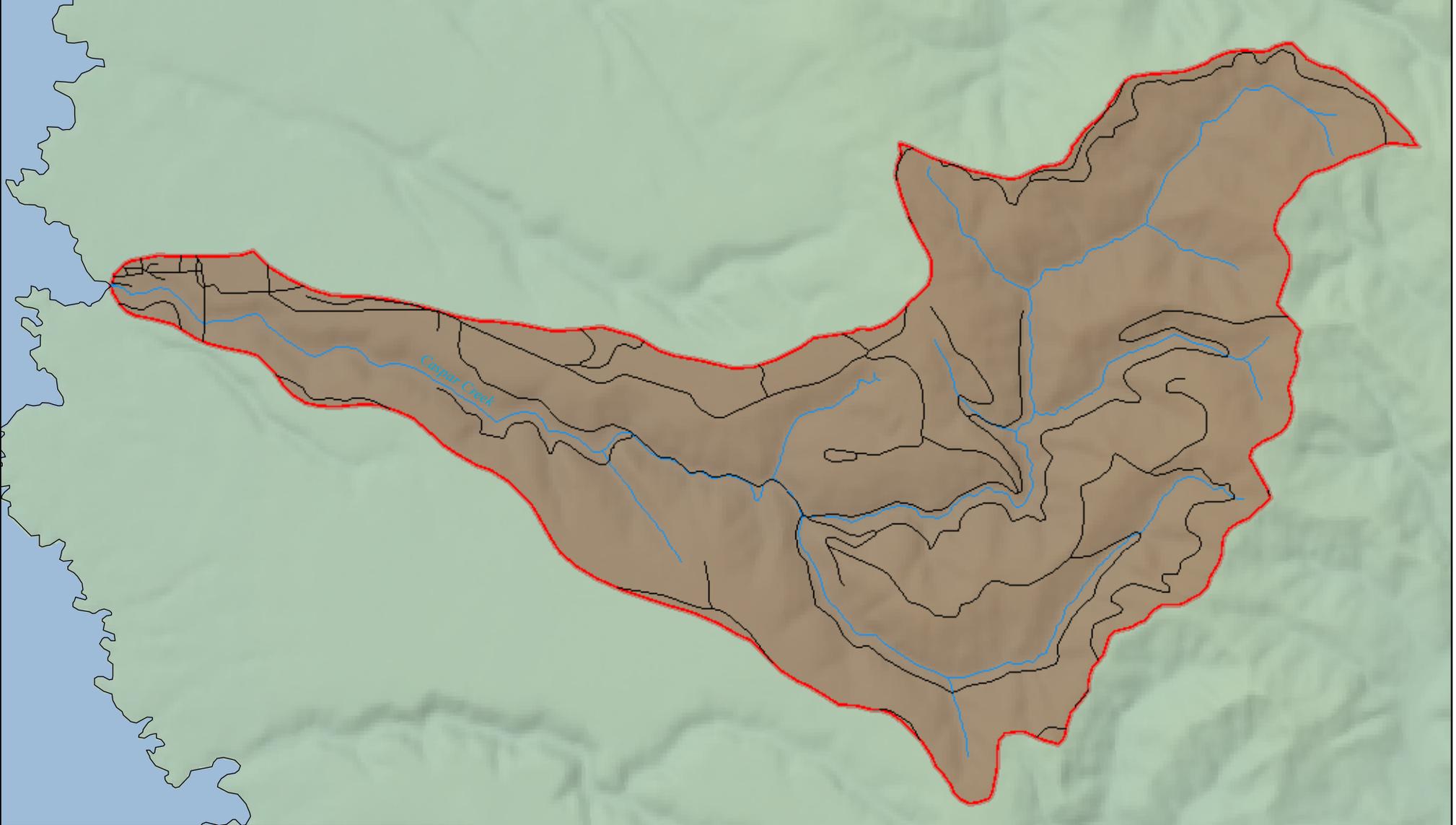
Caspar Creek Watershed Ownership





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Caspar Creek Watershed Road Density

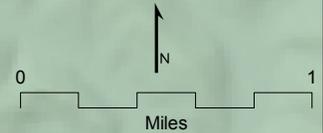


Road

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

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

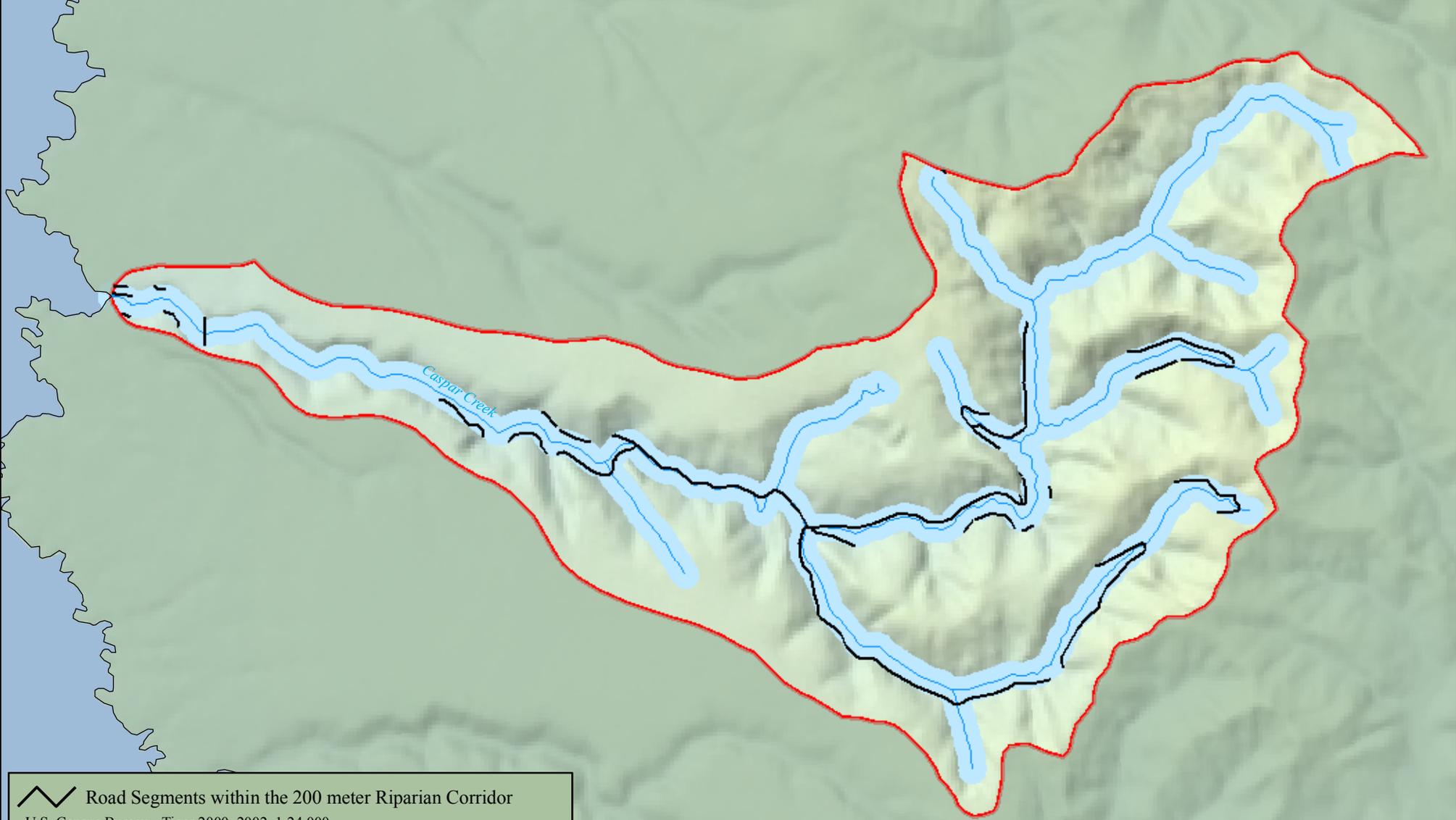
 Watershed Density 4.4 Miles / Square Mile





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Caspar Creek Watershed Road Density in the Riparian Corridor

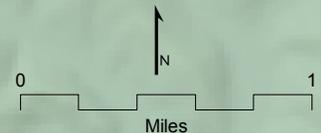


 Road Segments within the 200 meter Riparian Corridor
U.S. Census Bureau - Tiger 2000, 2002. 1:24,000

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

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

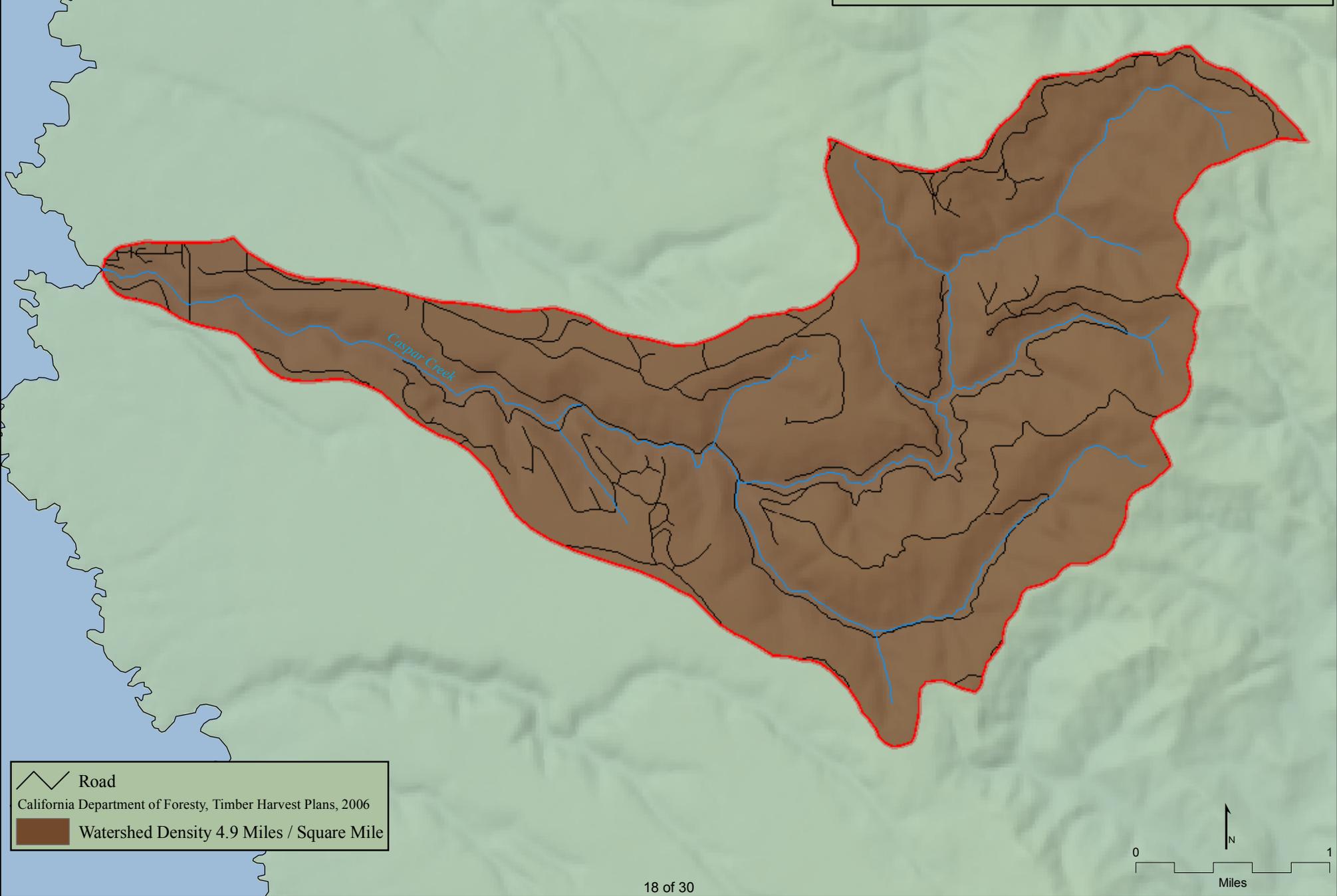
Overall Riparian Corridor Density = 5.0 Miles / SqMi of Corridor





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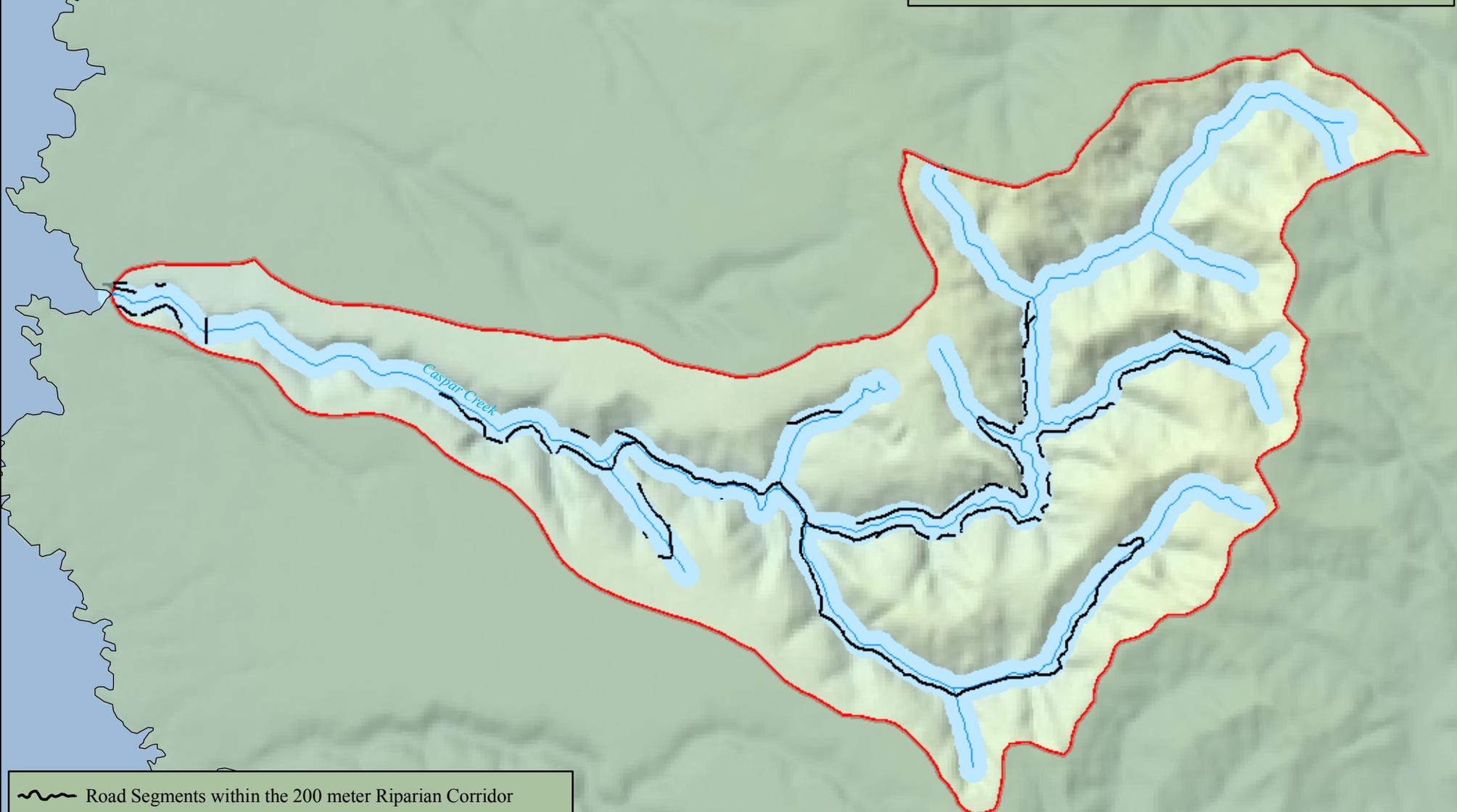
Caspar Creek Watershed Road Density per Timber Harvest Plan Roads





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

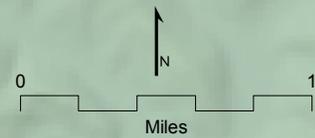


 Road Segments within the 200 meter Riparian Corridor
California Department of Forestry, Timber Harvest Plans, 2006

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

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

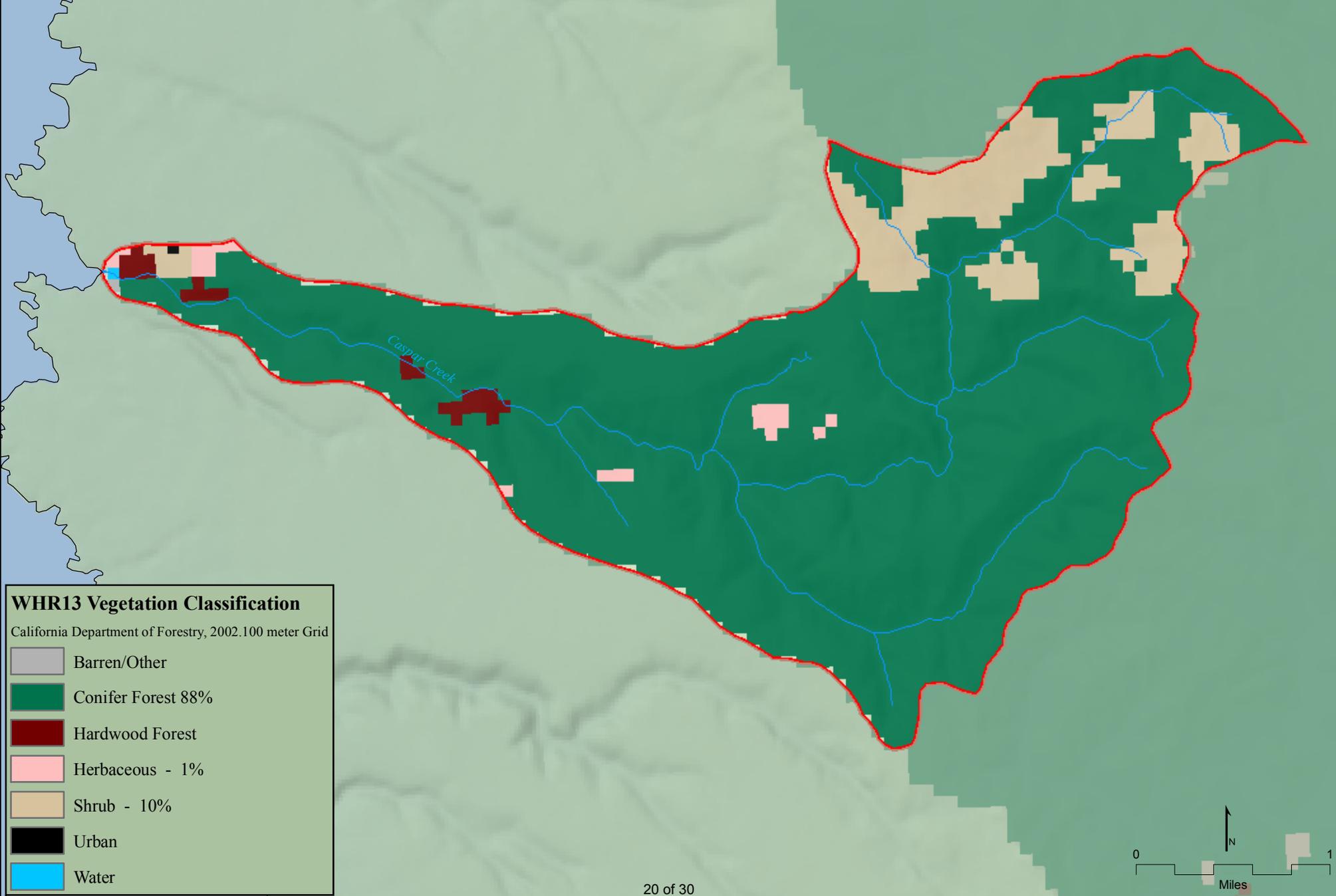
Overall Riparian Corridor Density = 5.7 Miles / SqMi of Corridor





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July 2008

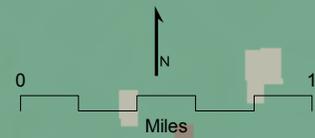
Caspar Creek Watershed Vegetation



WHR13 Vegetation Classification

California Department of Forestry, 2002.100 meter Grid

- Barren/Other
- Conifer Forest 88%
- Hardwood Forest
- Herbaceous - 1%
- Shrub - 10%
- Urban
- Water

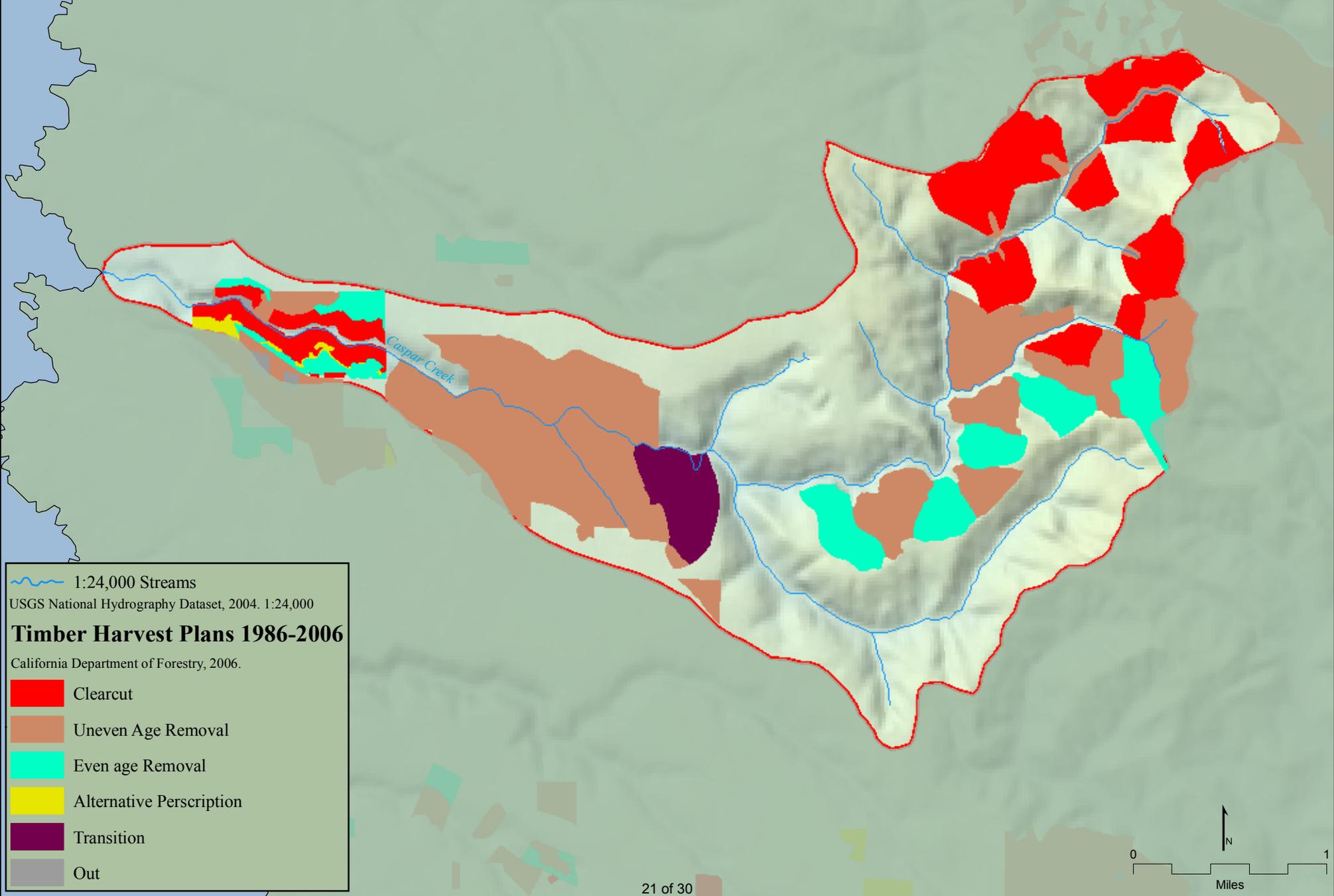




NMFS-SWR-HCD

July 2008

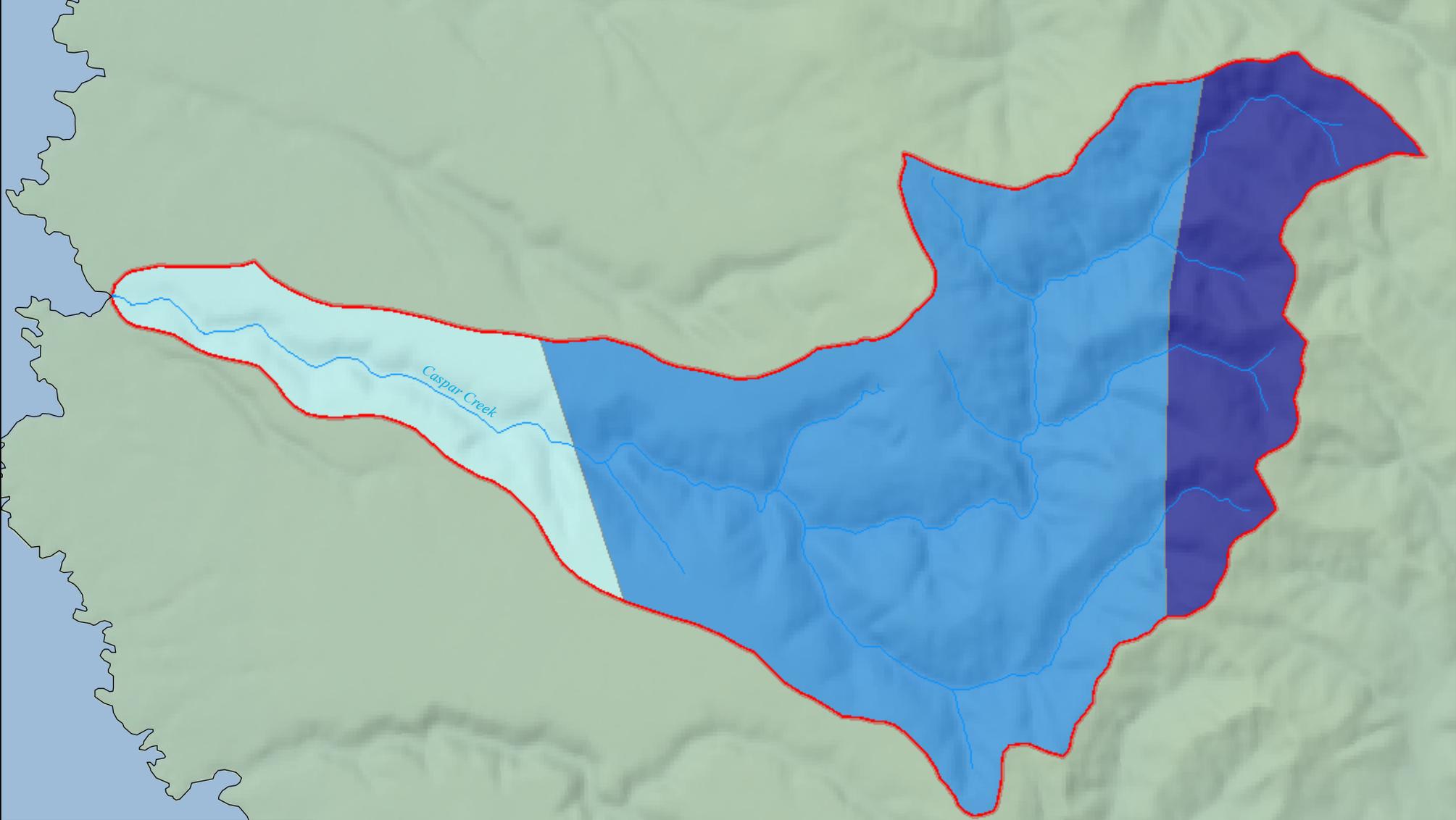
Caspar Creek Watershed Timber Harvesting 1986-2006





NMFS-SWR-HCD
July 2008

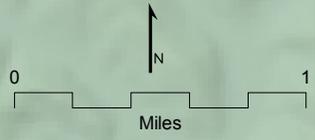
Caspar Creek Watershed Precipitation



1900-1960 Annual Precipitation

Light Blue	to 40"	Watershed Average 46"
Medium Blue	to 45"	
Dark Blue	to 55"	

California Department of Forestry, 1990. 1:100,000

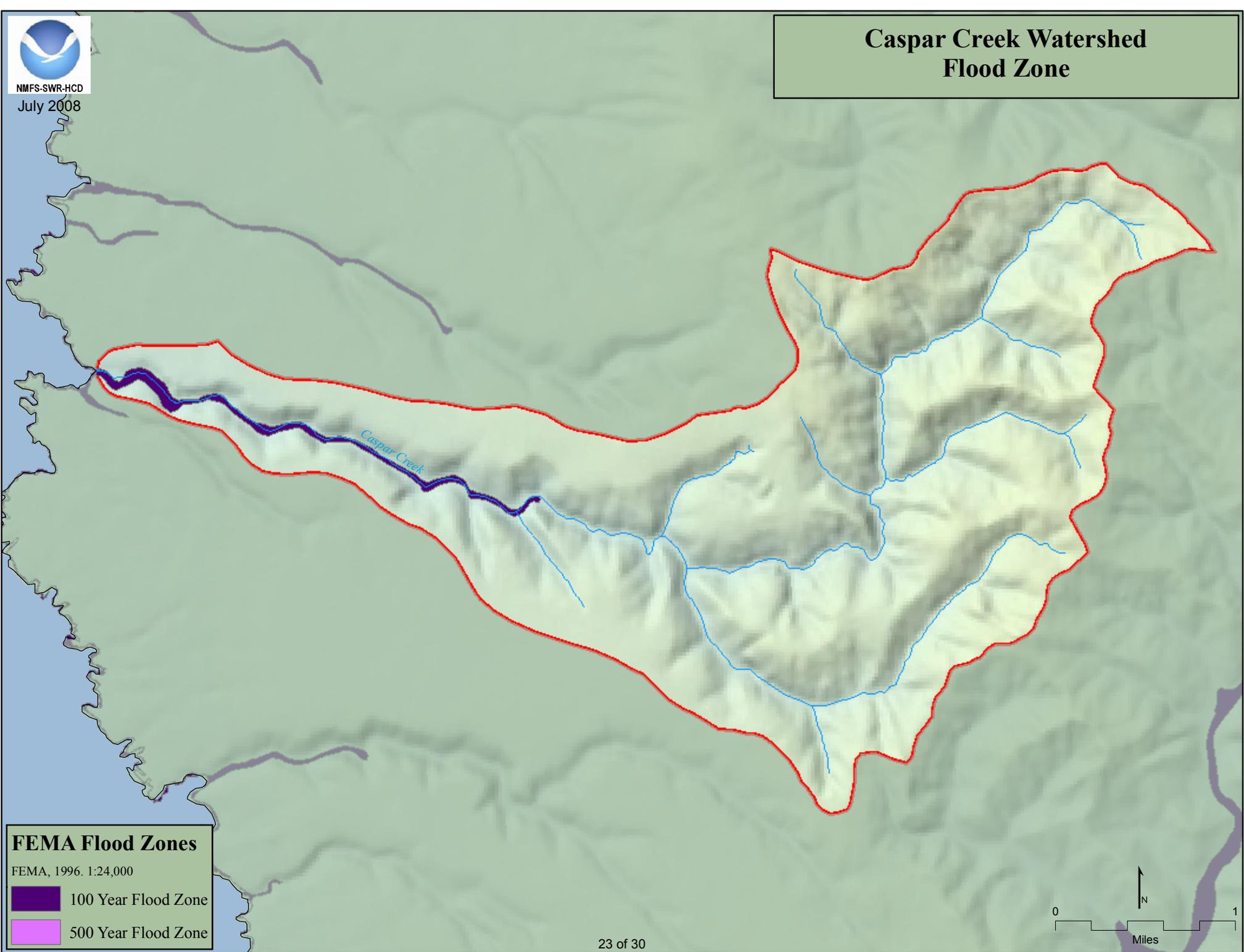




NMFS-SWR-HCD

July 2008

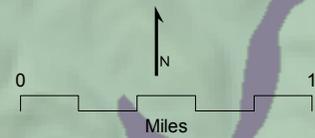
Caspar Creek Watershed Flood Zone



FEMA Flood Zones

FEMA, 1996. 1:24,000

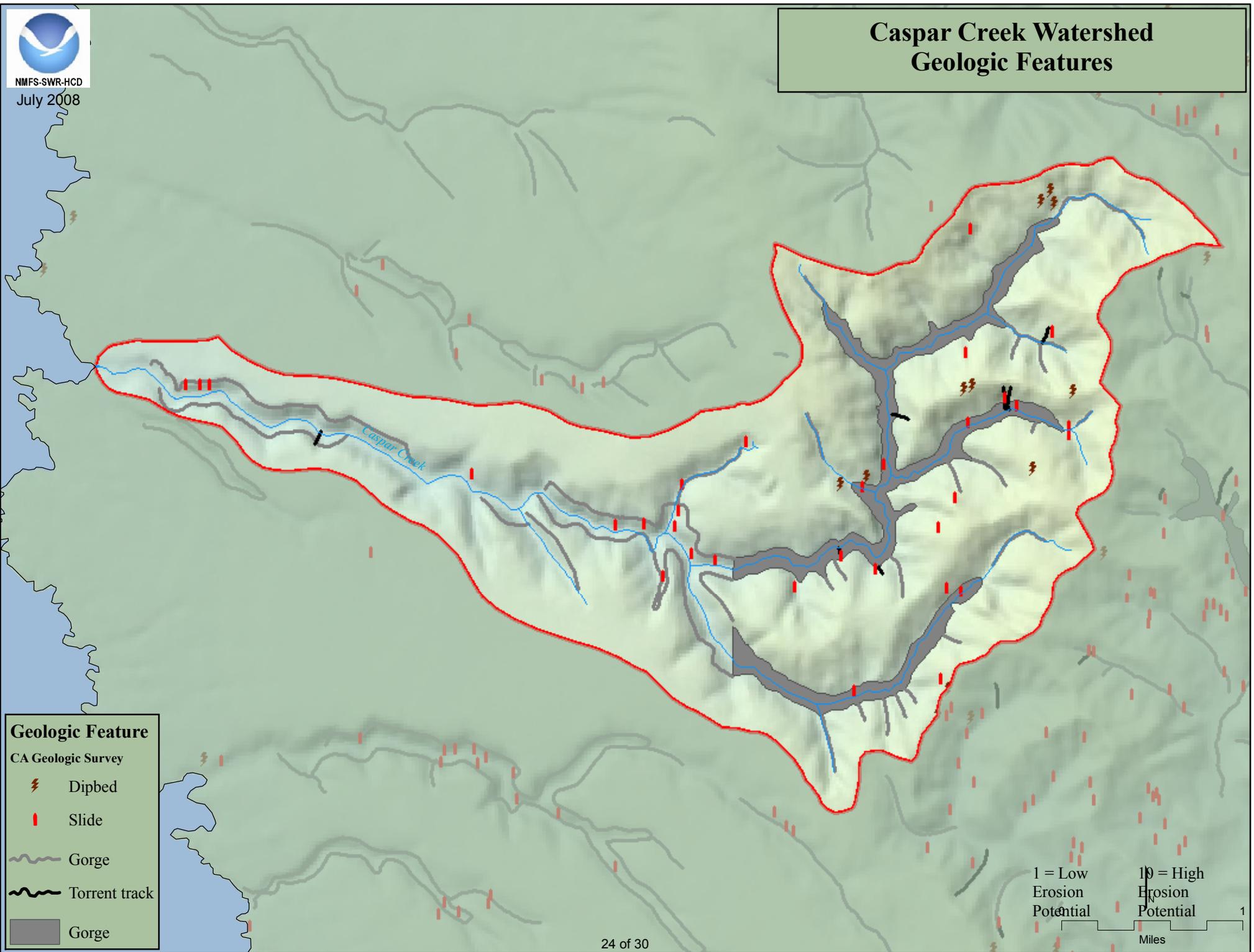
-  100 Year Flood Zone
-  500 Year Flood Zone





NMFS-SWR-HCD
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Caspar Creek Watershed Geologic Features



Geologic Feature

CA Geologic Survey

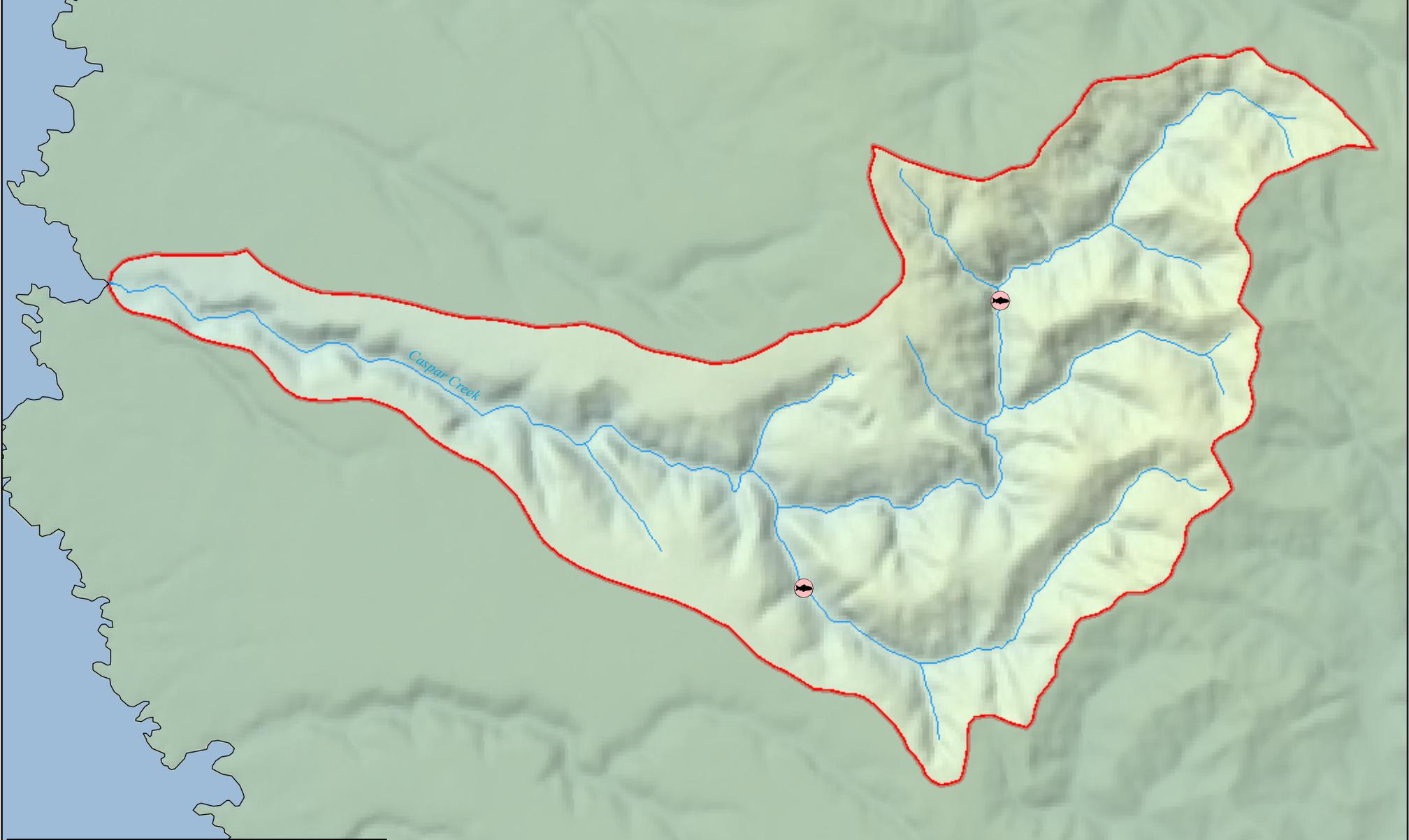
-  Dipbed
-  Slide
-  Gorge
-  Torrent track
-  Gorge

1 = Low Erosion Potential
10 = High Erosion Potential
Miles



NMFS-SWR-HCD
July 2008

Caspar Creek Watershed Barriers

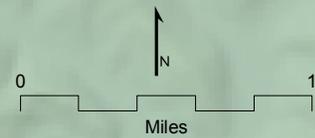


Barrier Type, Barrier Status

CA Fish Passage Assessment, PSMFC, 2008



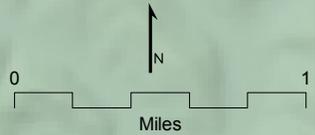
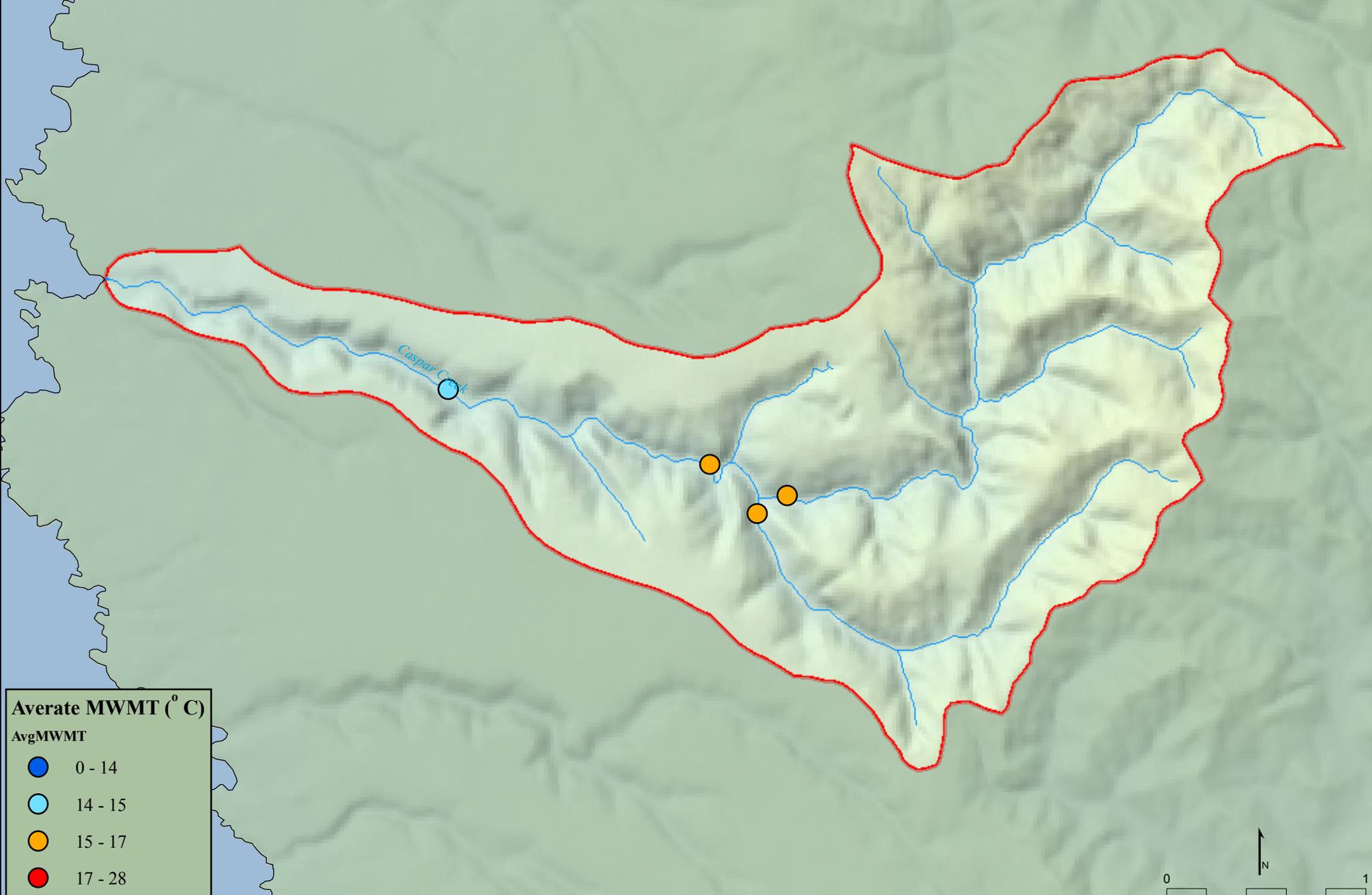
Fish passage facility, Temporal & Partial





NMFS-SWR-HCD
July 2008

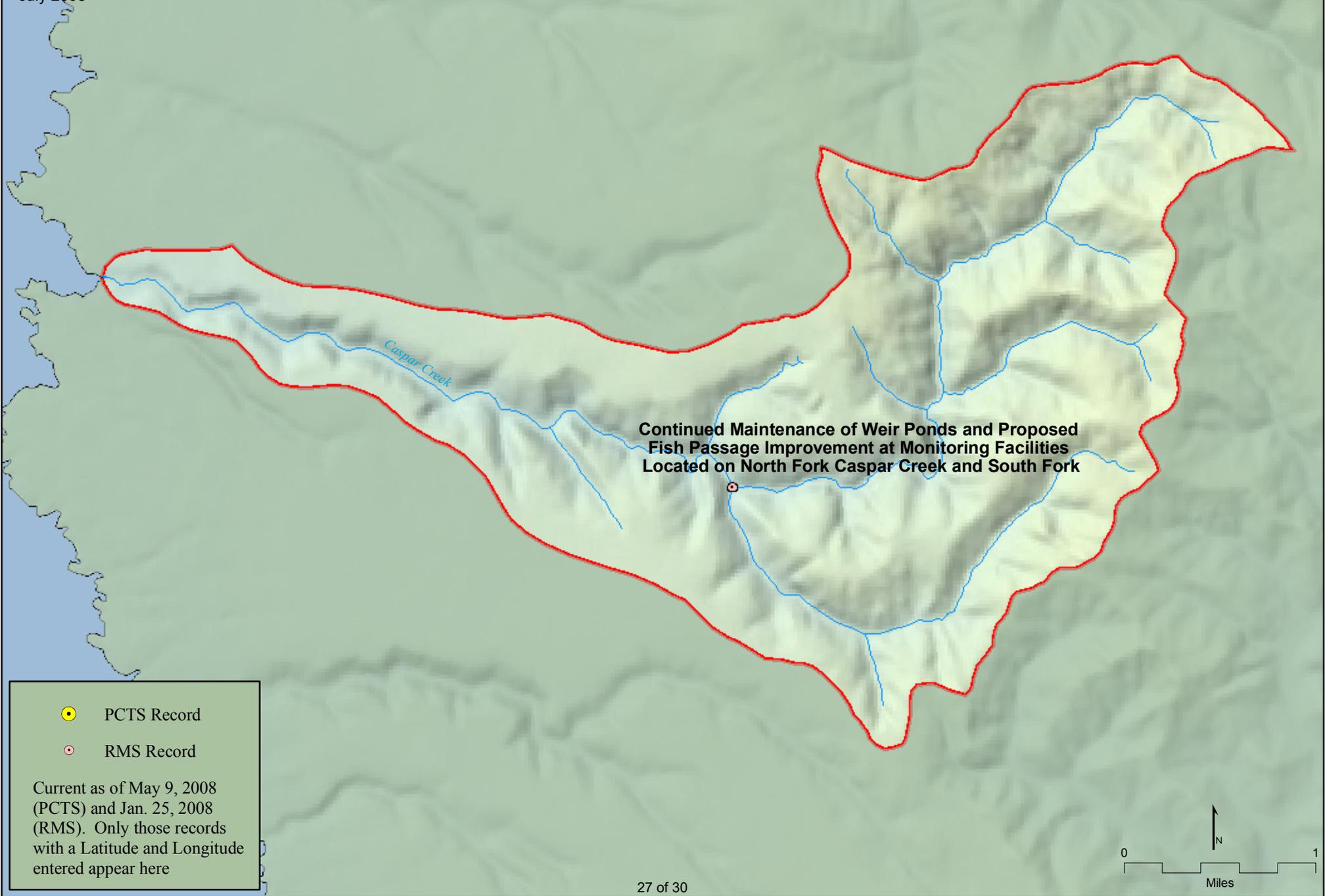
Caspar Creek Watershed In-stream Temperature





NMFS-SWR-HCD
July 2008

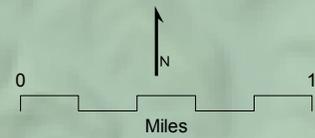
Caspar Creek Watershed Public Consultation Tracking System



**Continued Maintenance of Weir Ponds and Proposed
Fish Passage Improvement at Monitoring Facilities
Located on North Fork Caspar Creek and South Fork**

- 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



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