



Cottaneva Creek Watershed

Area	Hydrologic Units	Calwater Subbasins ---	(Planning Watersheds)
10,573 Acres	18010108	1113120101	Cottaneva Creek (10573 Acres)
4,279 Hectares	4th Field HUC		
17 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> 14 NOAA Fisheries, Critical Habitat Redesignation, 2005
Central California Coast Coho Lost Coast Diversity Stratum - Dependent Population	<u>Coho</u> 10 CDFG, Coho Distribution, May 2007

Critical Habitat	
Northern California Steelhead	14 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)

Miles of Waterway ^A	Miles	Number of Dams ^C
Naturally Occurring Waterways		0
Intermittent Stream	20	
Perennial Stream	14	

^CPassage Assessment Database, Pacific States Marine Fisheries Commission, 2005

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

USGS Gaging Stations ^B	Number of Barriers ^C
11468850 Dunn Creek near Rockport, CA	21 0 Dams 16 Road Crossings (3 Impassable, 2 Temp. &/or Partially Impassable) 5 Natural Barriers (Chutes, Falls, Log Jams, etc. (5 Impassable))

^CPassage Assessment Database, Pacific States Marine Fisheries Commission, 2006

Average Annual Precipitation ^E	Average Annual Precipitation Range ^E
49.5"	45 - 55"

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



Roads^A	Miles
Roads in Watershed	
Primary Road / Highway	
Secondary and connecting road, state highways	10
Local, neighborhood, and rural road, city street, unseparated	44
Vehicular trail, 4WD	
Total Miles	54

Road Density	
Miles of Roads per SqMi of Watershed	3.3
Miles of Roads per SqMi of 100m Riparian Buffer*	4.3

*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	48	0%
Lands of 2-4 percent slope	66	1%
Lands of 4-10 percent slope	243	2%
Lands of 10-15 percent slope	247	2%
Lands of 15-30 percent slope	1,271	12%
Lands of 30-60 percent slope	6,080	58%
Lands of 60-100 percent slope	2,549	24%
Lands of 100-194 percent slope	69	1%

Elevation Range	0 - 1,975 ft.	0 - 602 m
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^DSlope derived from USGS 10 meter Digital Elevation Models (DEM's)

Vegetation^G	Acres	Percent of watershed
Annual grassland	86	1%
Barren	5	0%
Conifer Forest		
Montane Hardwood-Conifer	245	2%
Redwood	7,771	73%
Hardwood Forest		
Montane Hardwood	1,895	18%
Montane Riparian	366	3%
Shrub	220	2%
Urban	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 8	10,573	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	10,572	100%

^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 12 years (1994-2005)
3,894 37%	4,562 43% of watershed

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

Population^I	Housing^I
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Total Population within the watershed -- 23 People

Total Housing Units within the watershed -- 15 Houses

Housing Density

0 to Less than 1 Housing Unit / 160 Acres 100%

1 Unit / 160 Acres to 1 Unit / 20 Acres

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



Cottaneva 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		Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class
Size	Density												
Not Determined	Not Determined		5					72		5			
	S P M D			10									
	Total		5	10				72		5		0	92
Seedling	S P M D												
	Total												0
Sapling	S P M D			116	17								
	Total			328	49								377
Pole	S P M D			69	35								
	Total			482	343								1297
Small Tree	S P M D			133	121								
	Total			947	1480			225					2652
Medium/Large Tree	S P M D			376	2								
	Total			3942	190								4132
Multi Layered	S P M D												
	Total			2004									2004
Grand Total by Species Type			5	7999	0	2248	0	72	225	5	0	0	10554

Percent		Agriculture	Barren	Conifer Forest	Conifer Woodland	Hardwood Forest	Hardwood Woodland	Herbaceous	Shrub	Urban	Water	Wetland	Grand Total by Size class
Size	Density												
Not Determined	Not Determined		0%					1%		0%			
	S P M D			0%									
	Total		0%	0%				1%		0%			1%
Seedling	S P M D												
	Total												0%
Sapling	S P M D			1%	0%								
	Total			3%	0%								4%
Pole	S P M D			1%	0%								
	Total			7%	5%								12%
Small Tree	S P M D			1%	1%								
	Total			9%	14%			2%					25%
Medium/Large Tree	S P M D			4%	0%								
	Total			37%	2%								39%
Multi Layered	S P M D												
	Total			19%									19%
Grand Total by Species Type			0%	76%	21%			1%	2%	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%

Cottaneva 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							12.4					
	S P M D												
	Total							12.4					12
Seedling	S P M D												
	Total												0
Sapling	S P M D			9.9	12.4								
	Total			39.5	19.8								59
Pole	S P M D			2.5	4.9	12.4	2.5						
	Total			150.7	254.5								405
Small Tree	S P M D			19.8	39.5	14.8	32.1						
	Total			237.2	370.7			42.0					650
Medium/Large Tree	S P M D			37.1		76.6							
	Total			894.5	44.5								939
Multi Layered	D			573.3									
	Total			573.3									573
Grand Total by Species Type		0	0	1895	0	689	0	12	42	0	0	0	2639

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%					
	S P M D												
	Total							0%					0%
Seedling	S P M D												
	Total												0%
Sapling	S P M D			0%	0%								
	Total			1%	1%								2%
Pole	S P M D			0%	0%	0%	1%						
	Total			6%	10%								15%
Small Tree	S P M D			1%	1%	1%	2%						
	Total			9%	14%		2%	2%					25%
Medium/Large Tree	S P M D			1%		3%							
	Total			34%	2%								36%
Multi Layered	D			22%									
	Total			22%									22%
Grand Total by Species Type		0%	0%	72%	0%	26%	0%	0%	2%	0%	0%	0%	100%

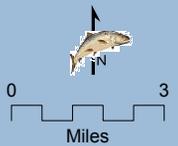
SIZE	Description	Diameter at Breast Height (DBH)
Not Determined		N/A
Seedling		Less Than 1 inch
Sapling		1 to 6 inches
Pole		6 to 11 inches
Small Tree		11 to 24 inches
Medium/Large Tree		Greater Than 24 inches
Multi Layered		Size 5 Over Size 4 Or 3; Total Tree Crown Closure Greater Than 60%

SIZE (SHRUB)	Desc.
Not Determined	
Seedling Shrub	
Young Shrub	
Mature Shrub	
Decadent Shrub	

Crown Decadence
N/A
Seedlings or sprouts < 3 years
None
1 - 25%
> 25%

DENSITY	Description
	None
S	10 to 24%
P	25 to 39%
M	40 to 59%
D	60 to 100%

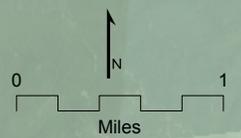
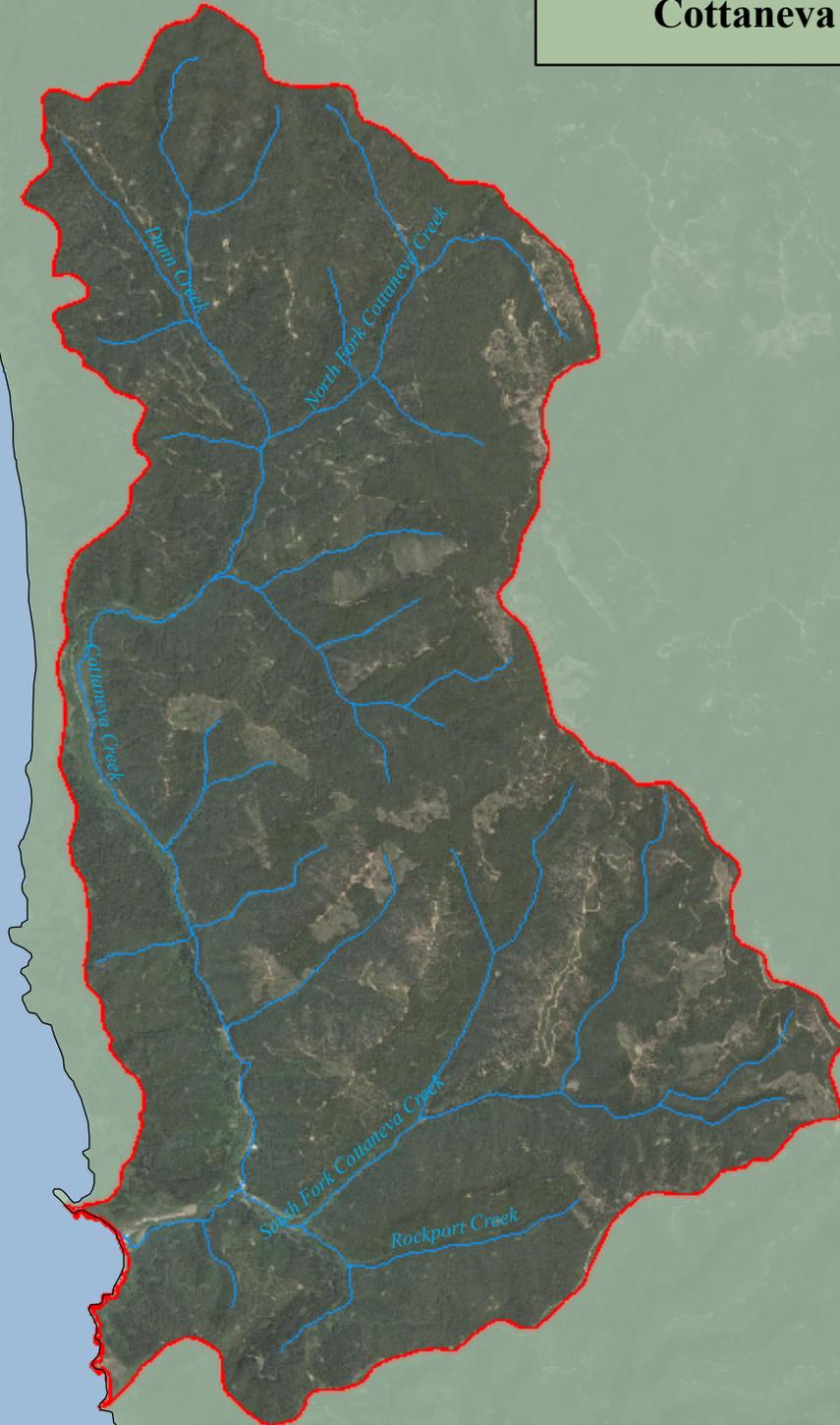
Cottaneva Creek Watershed





NMFS-SWR-HCD
March 2009

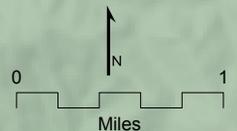
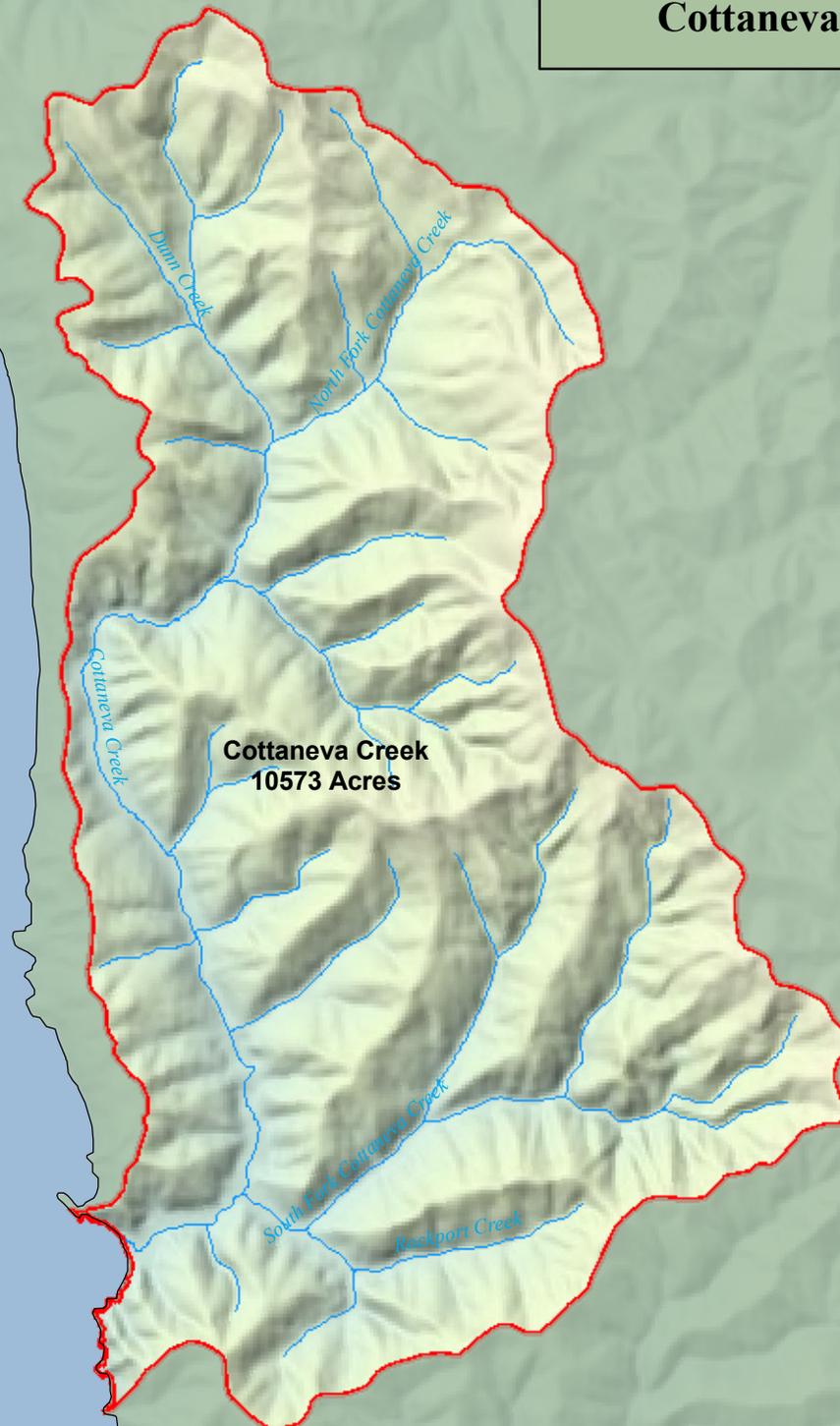
Cottaneva Creek Watershed





NMFS-SWR-HCD
March 2009

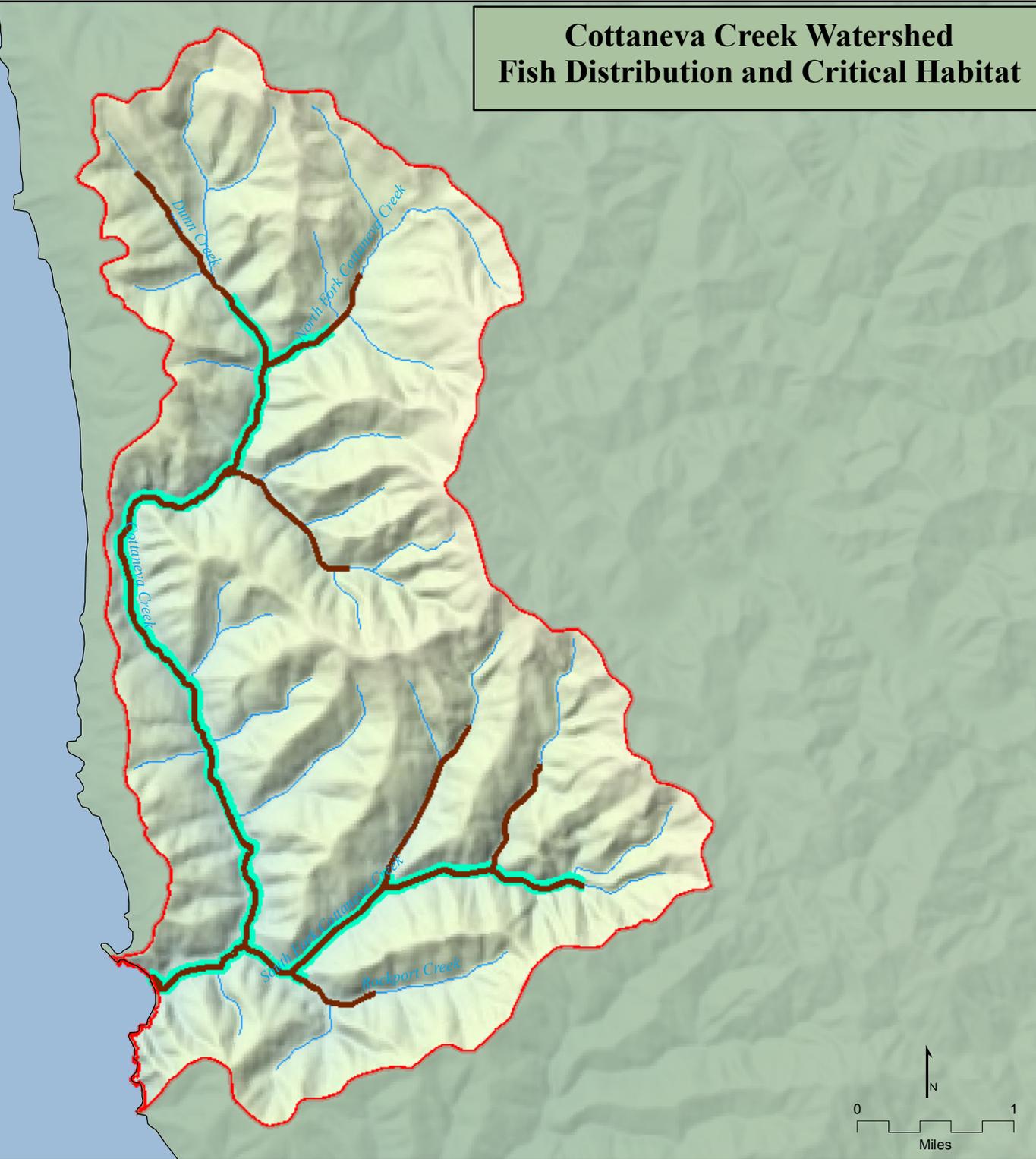
Cottaneva Creek Watershed





NMFS-SWR-HCD
September
2009

Cottaneva Creek Watershed Fish Distribution and Critical Habitat



 NC Steelhead Distribution and Critical Habitat

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

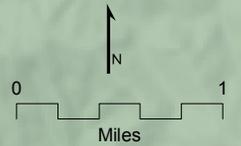
 Coho Distribution

CDFG - NCNCR-ISB, 2009. 1:100,000.

 1:24,000 Streams

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

 Cottaneva Creek Watershed

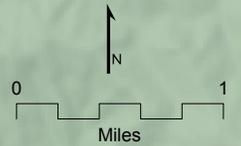
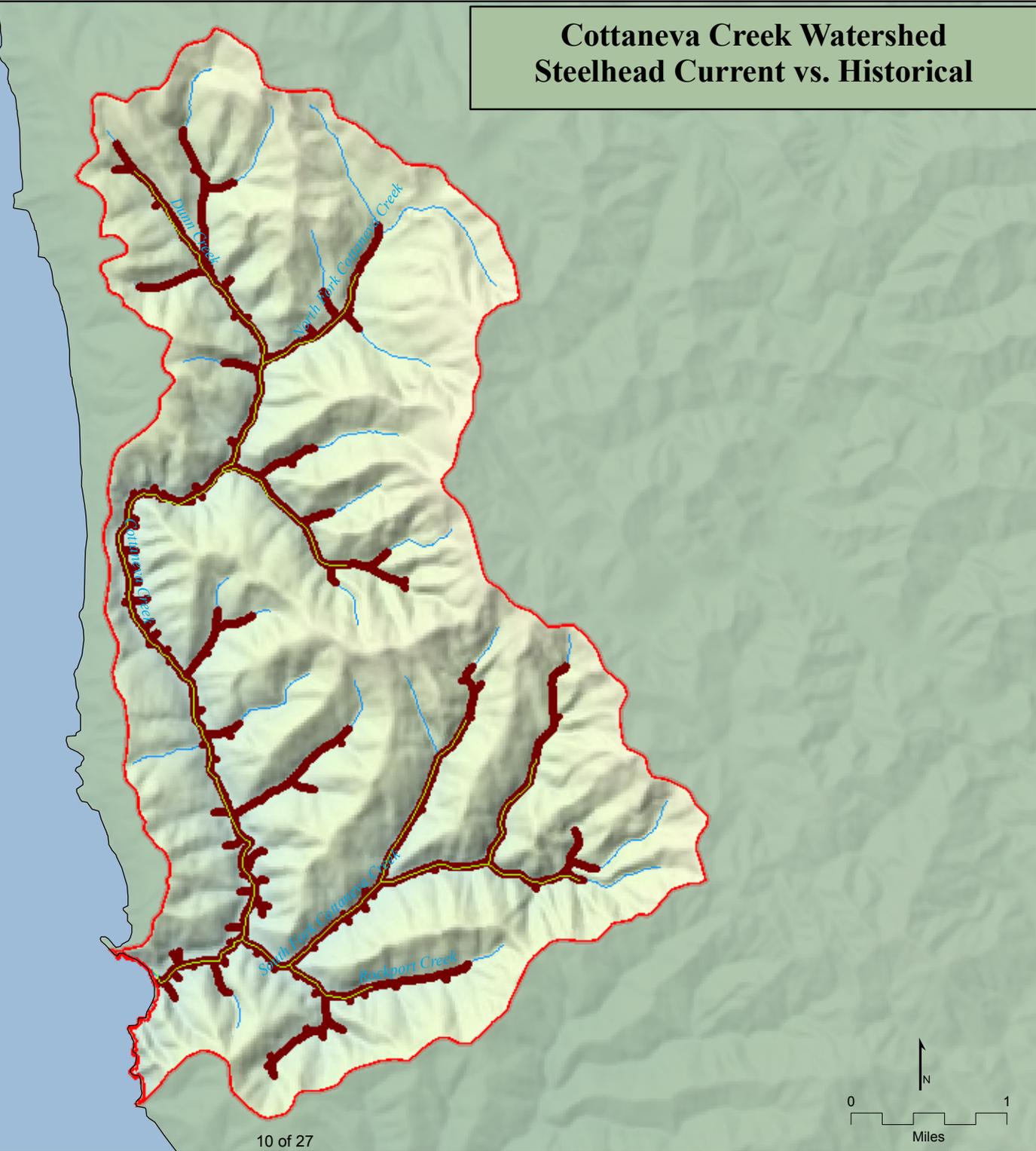




NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Steelhead Current vs. Historical

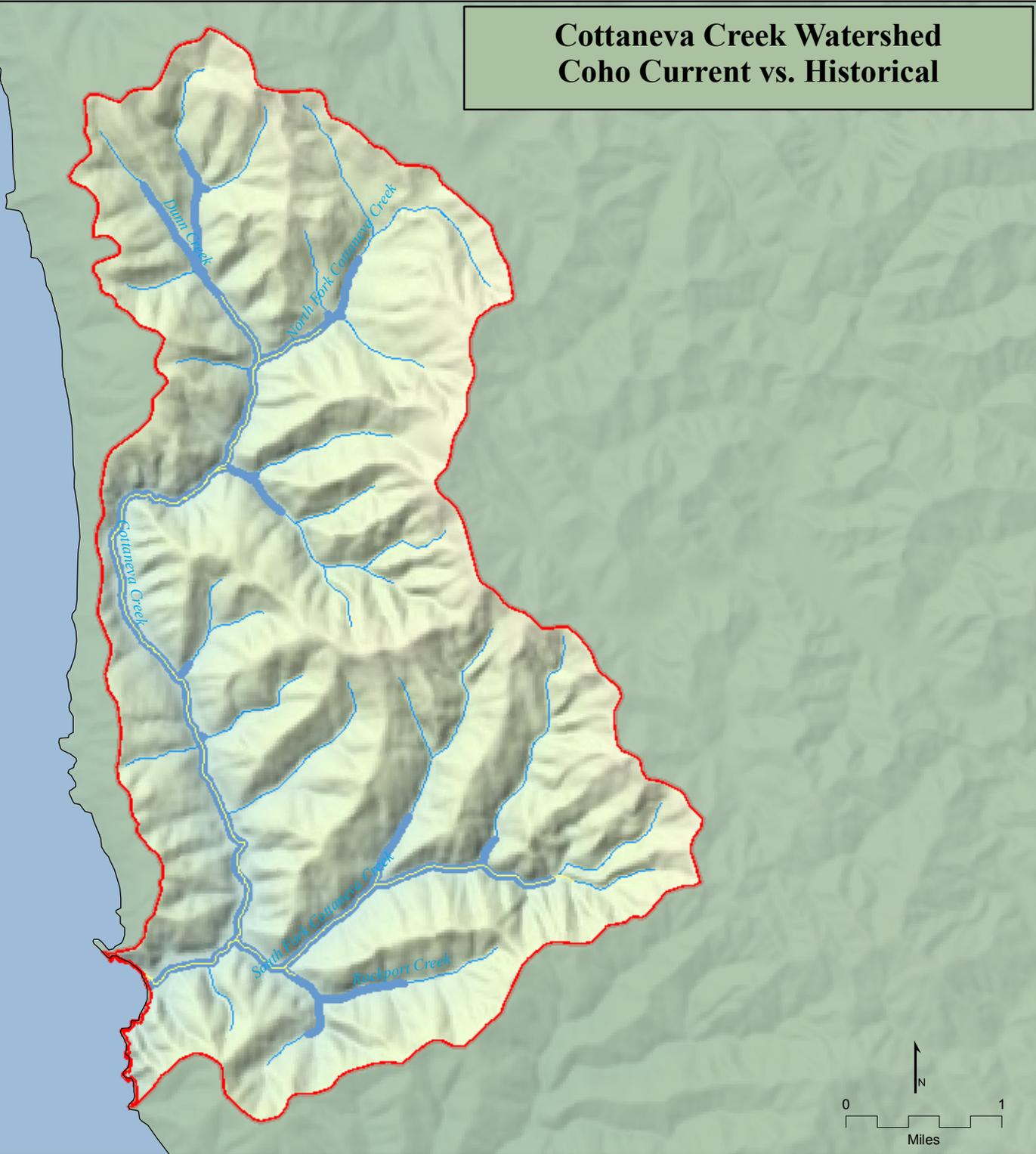
-  Current NC Steelhead Distribution
National Marine Fisheries Service,
August 2005. 1:100,000.
-  Steelhead Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat
-  1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
-  Cottaneva Creek Watershed



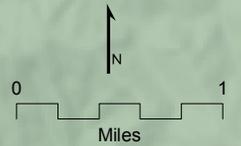


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September
2009

Cottaneva Creek Watershed Coho Current vs. Historical



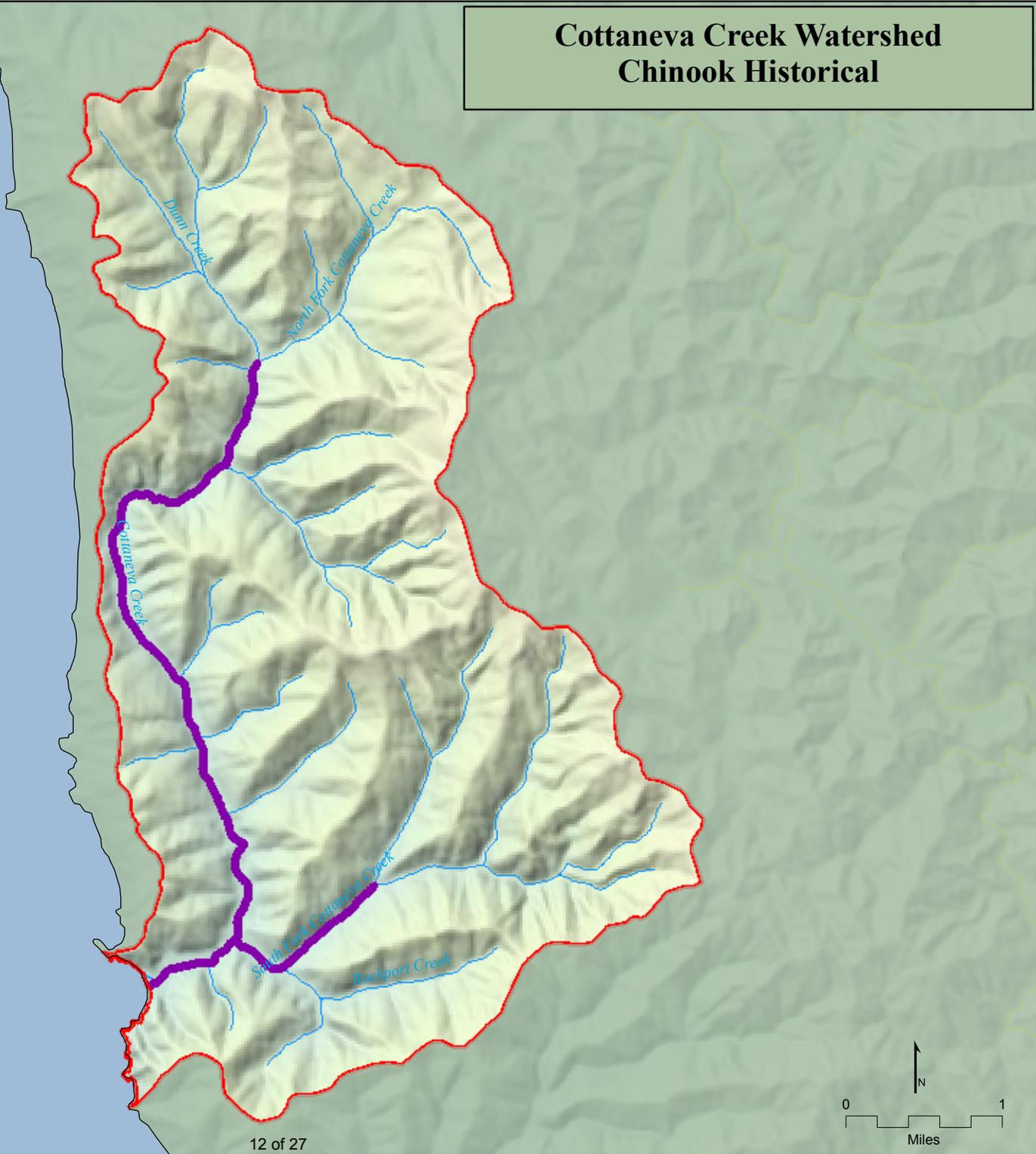
-  Current Coho Distribution
CDFG - NCNCR-ISB, 2009. 1:100,000.
-  Coho Intrinsic Potential
NMFS SWR Fisheries Science Center, 2005.
Potential historical suitable habitat
-  1:24,000 Streams
USGS National Hydrography Dataset,
2004. 1:24,000
-  Cottaneva Creek Watershed





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March 2009

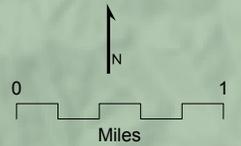
Cottaneva Creek Watershed Chinook Historical



 **Chinook Intrinsic Potential**
 NMFS SWR Fisheries Science Center, 2005.
 Potential historical suitable habitat

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

 **Cottaneva Creek Watershed**



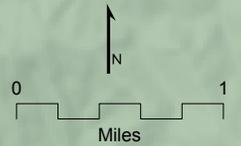


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Cottaneva Creek Watershed Elevation



Cottaneva Creek Elevation (Meters)

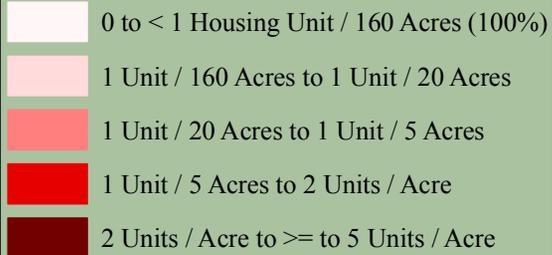




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March 2009

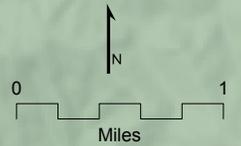
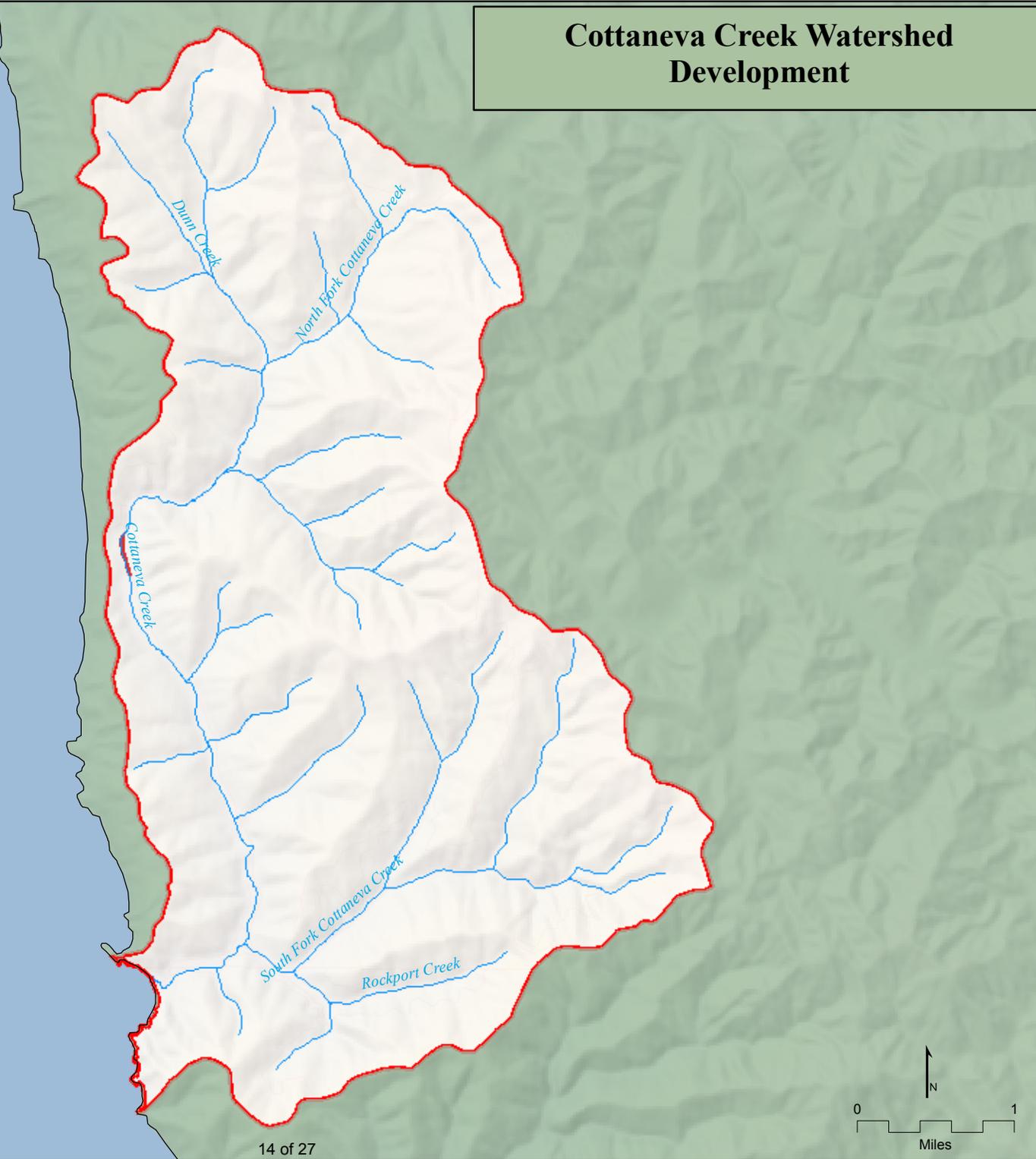
Cottaneva Creek Watershed Development

Housing Density



Population within the Watershed = 23 People
Houses within the Watershed = 15

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





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Cottaneva Creek Watershed Ownership

Forest Industrial Ownership

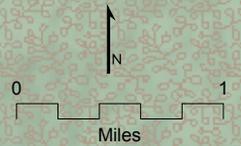
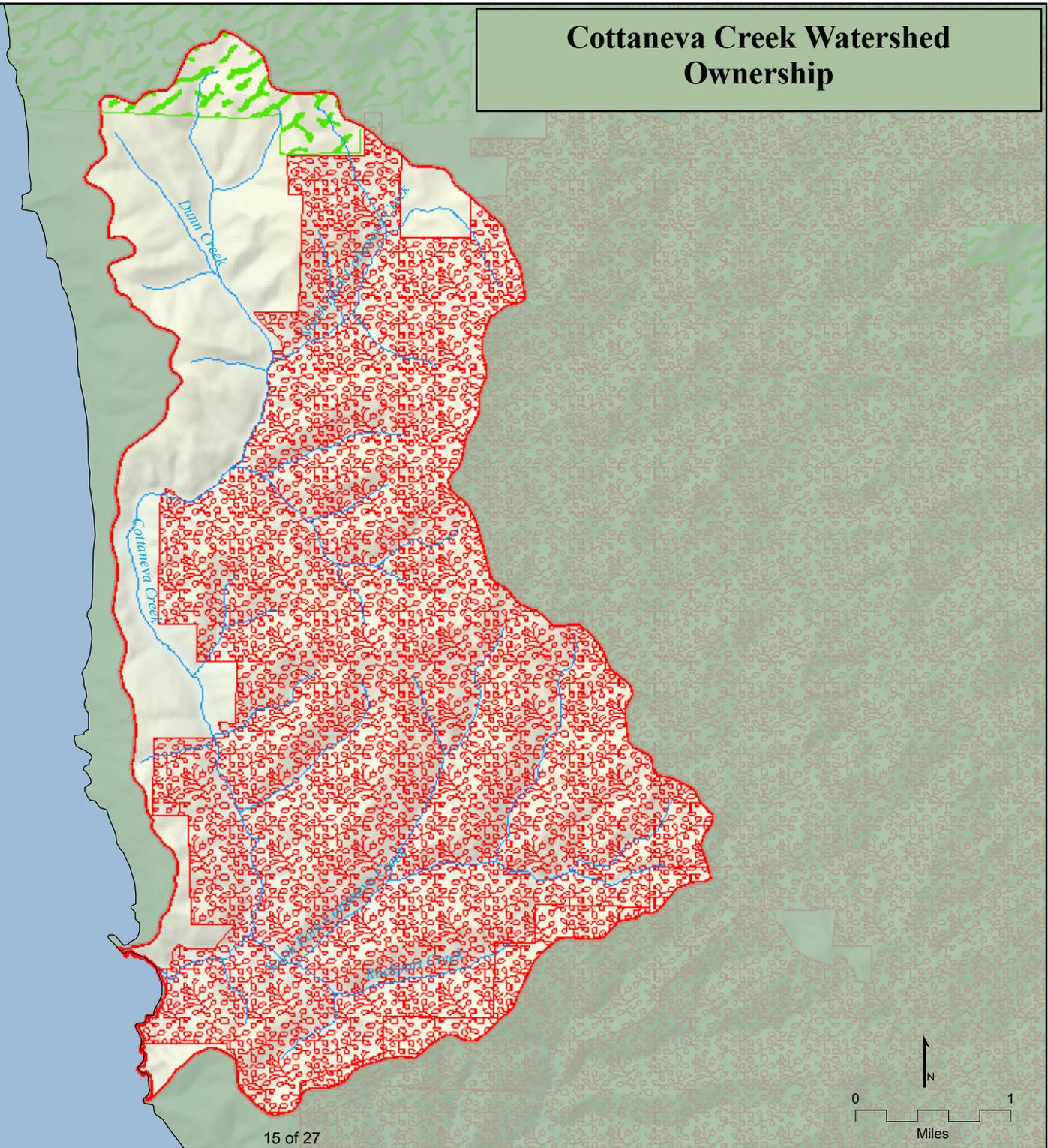
USFWS 2000

-  Mendocino Redwoods
-  Georgia Pacific

Ownership

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

-  Private





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March 2009

Cottaneva Creek Watershed Road Density



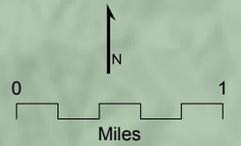
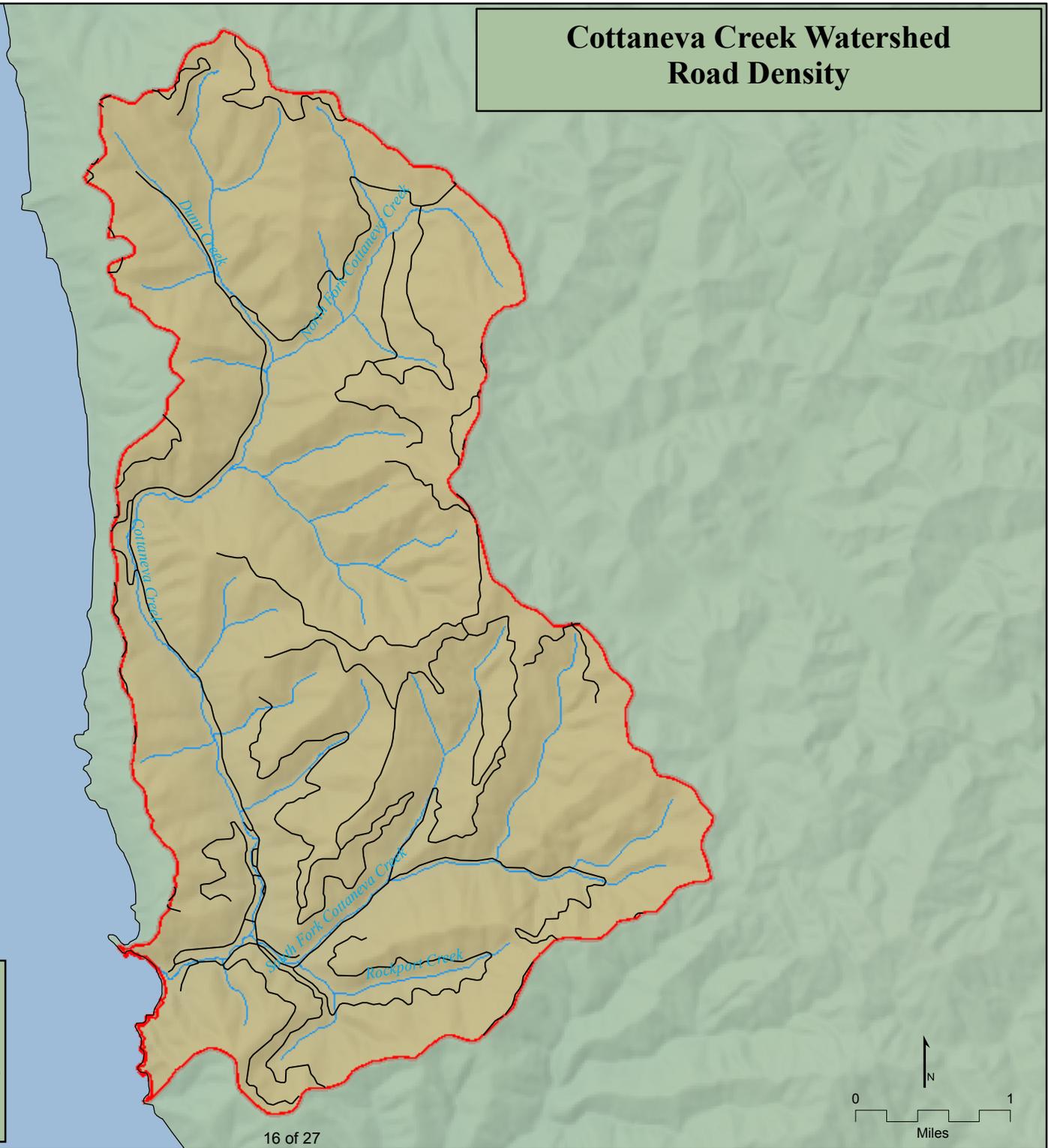
Road

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

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

3.3

Overall Watershed
Density = 3.3 Miles / SqMi

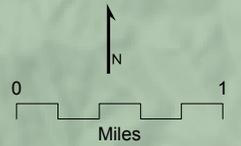
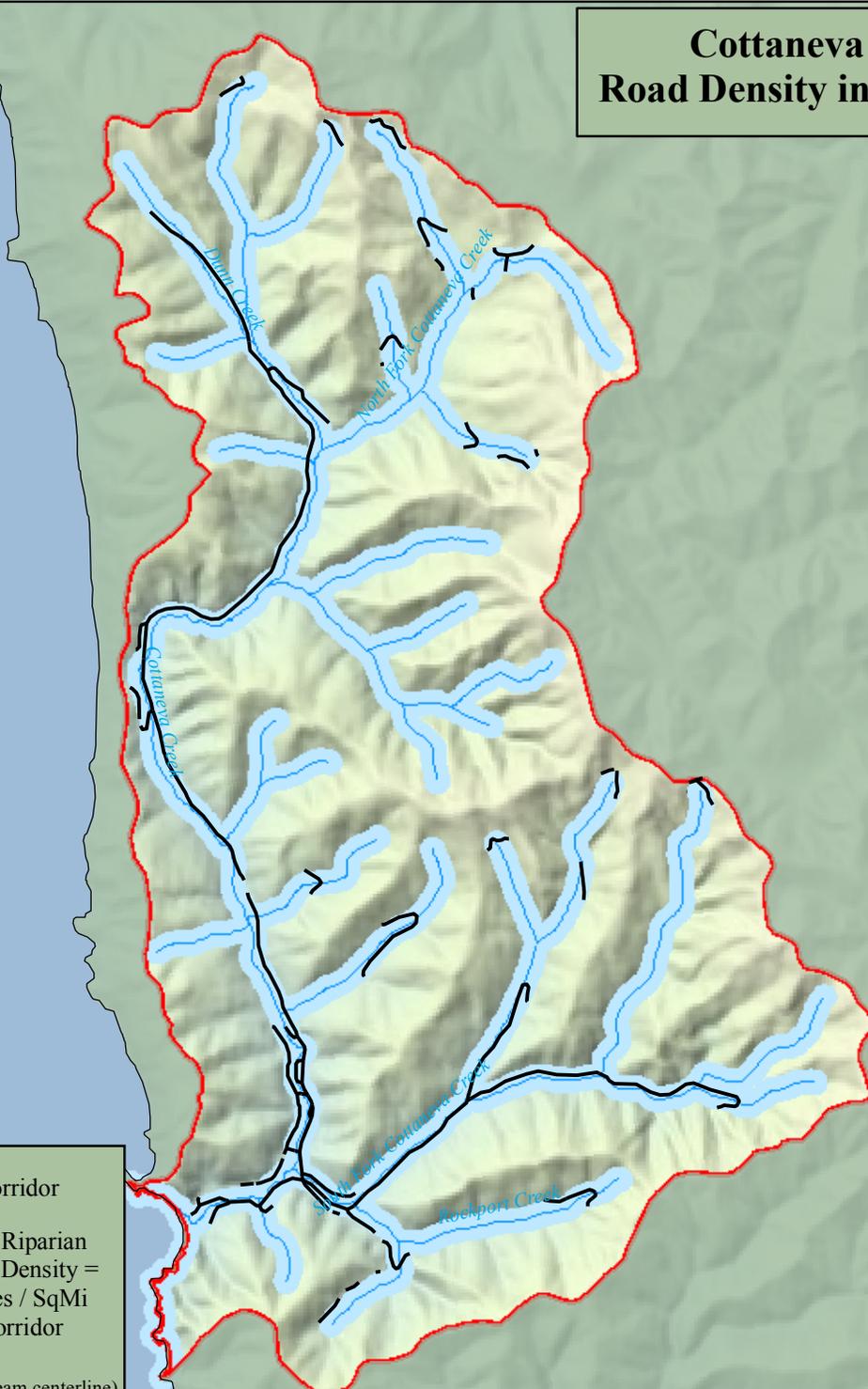




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March 2009

Cottaneva 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 = 4.3 Miles / SqMi of Corridor





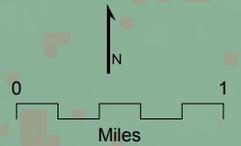
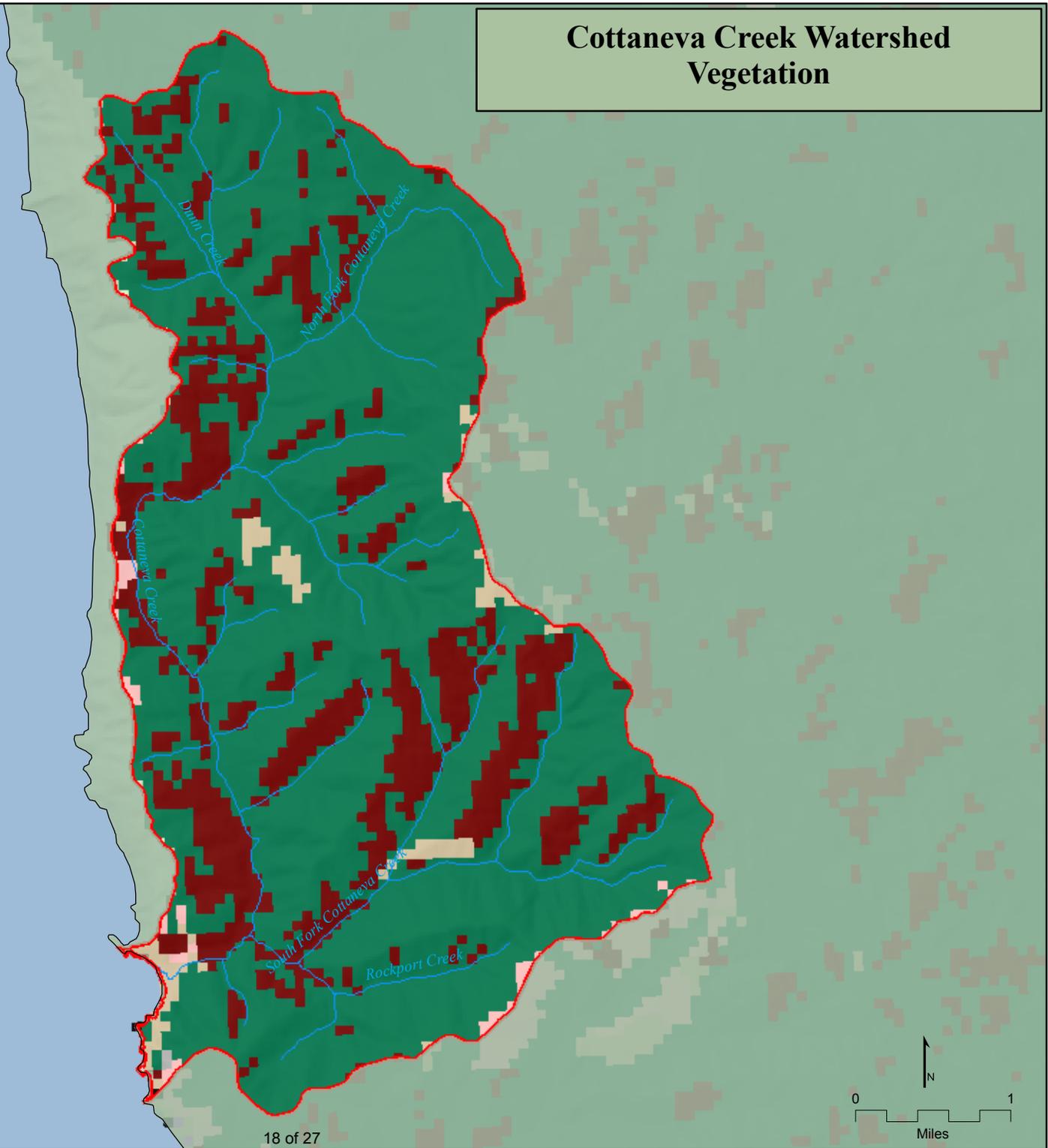
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March 2009

Cottaneva Creek Watershed Vegetation

WHR13 Vegetation Classification

CA Department of Forestry, 2002. 100 meter Grid

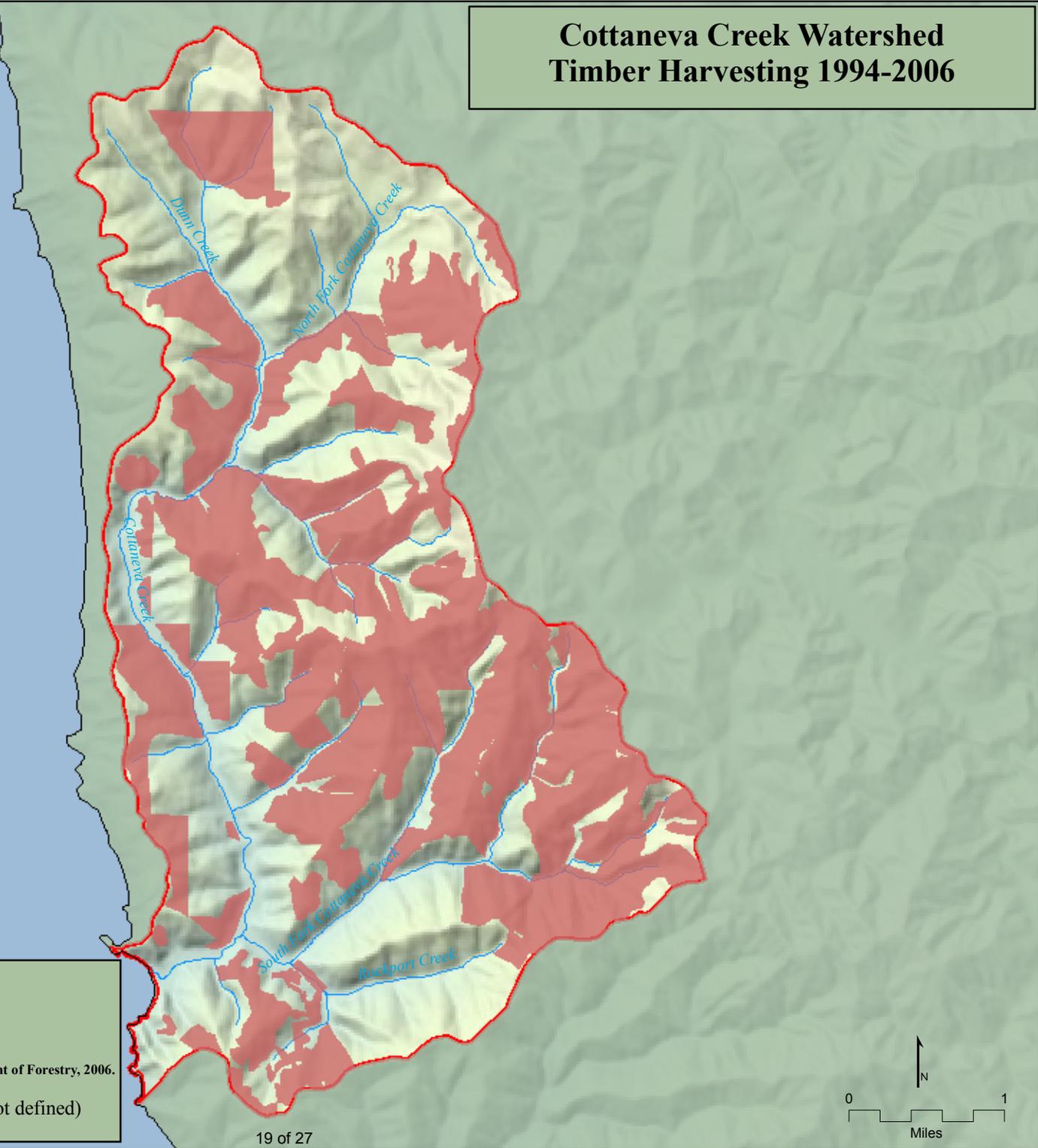
- Barren/Other
- Conifer Forest - 75%
- Hardwood Forest - 21%
- Hardwood Woodland
- Herbaceous - 1%
- Shrub - 2%
- Urban
- Water
- Wetland





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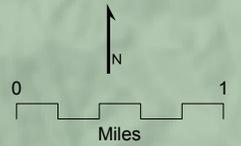
Cottaneva Creek Watershed Timber Harvesting 1994-2006



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

Timber Harvest Plans 1994-2004 California Department of Forestry, 2006.

 Harvest Plans Footprint (Silviculture method not defined)





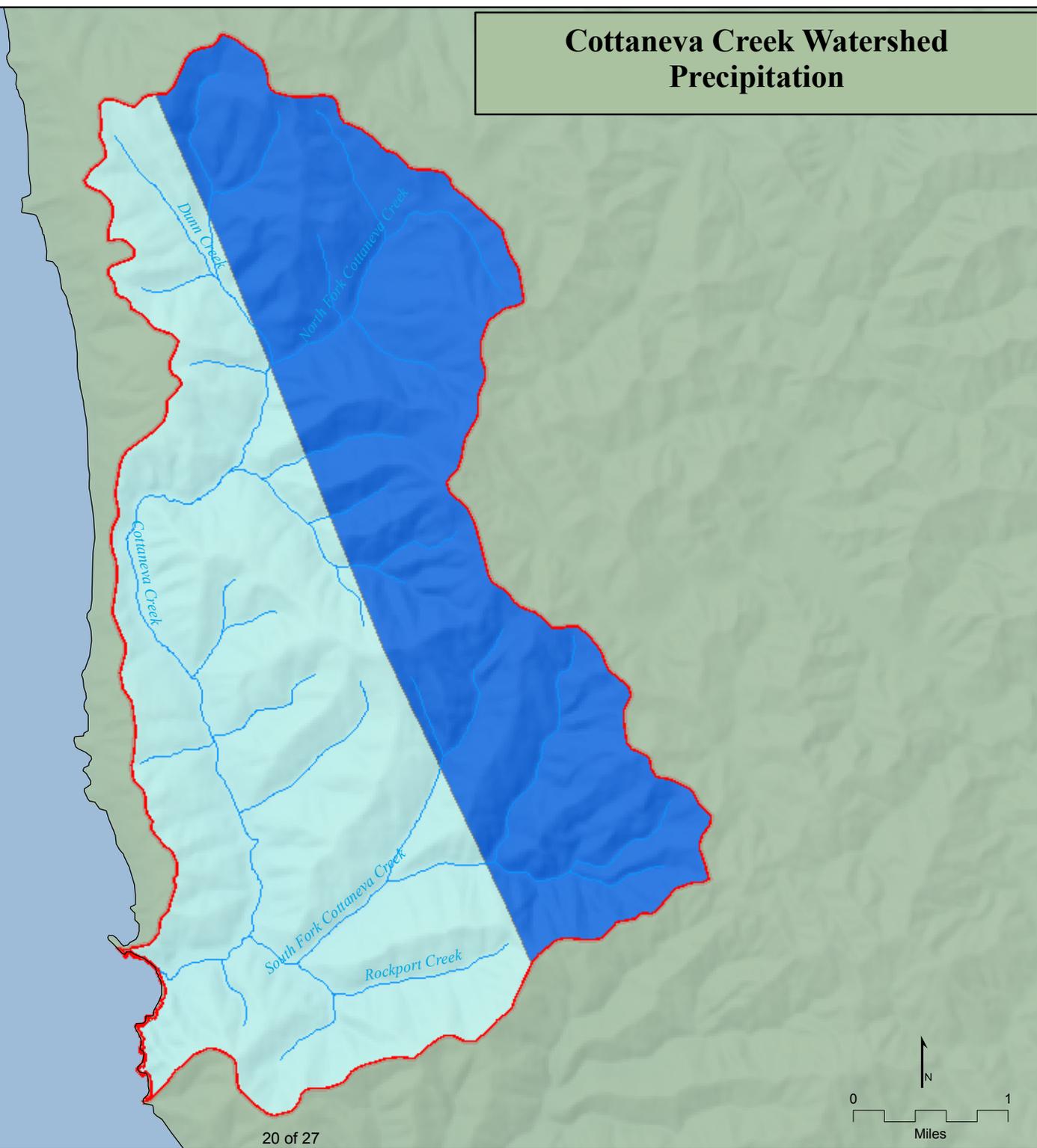
NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Precipitation

1900-1960 Annual Precipitation

	to 45"	Watershed
	to 55"	Average
		49.5"

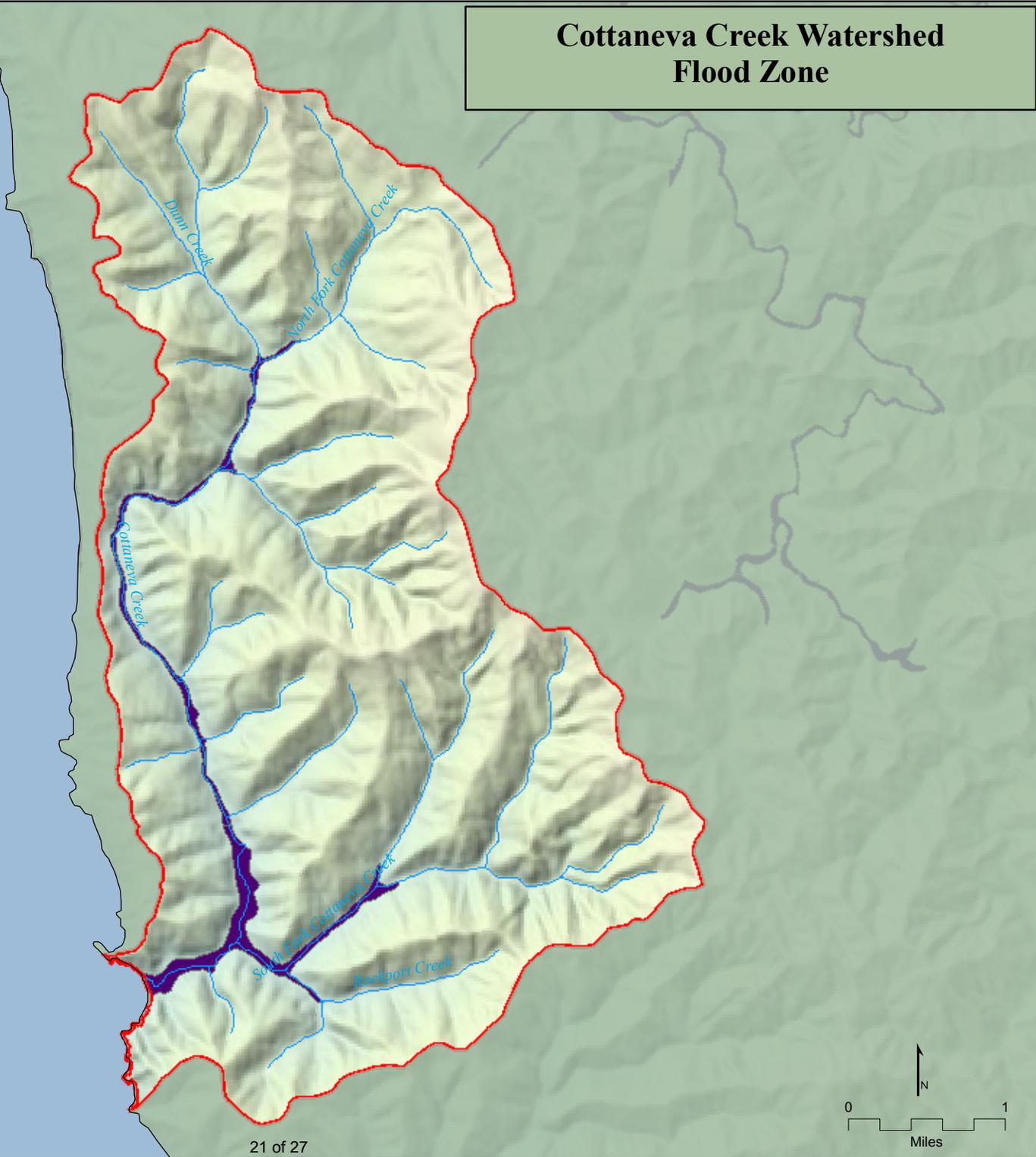
California Department of
Forestry, 1990. 1:100,000





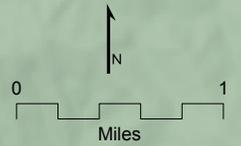
NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Flood Zone



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

- 100 Year Flood Zone
- 500 Year Flood Zone





NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Geologic Features

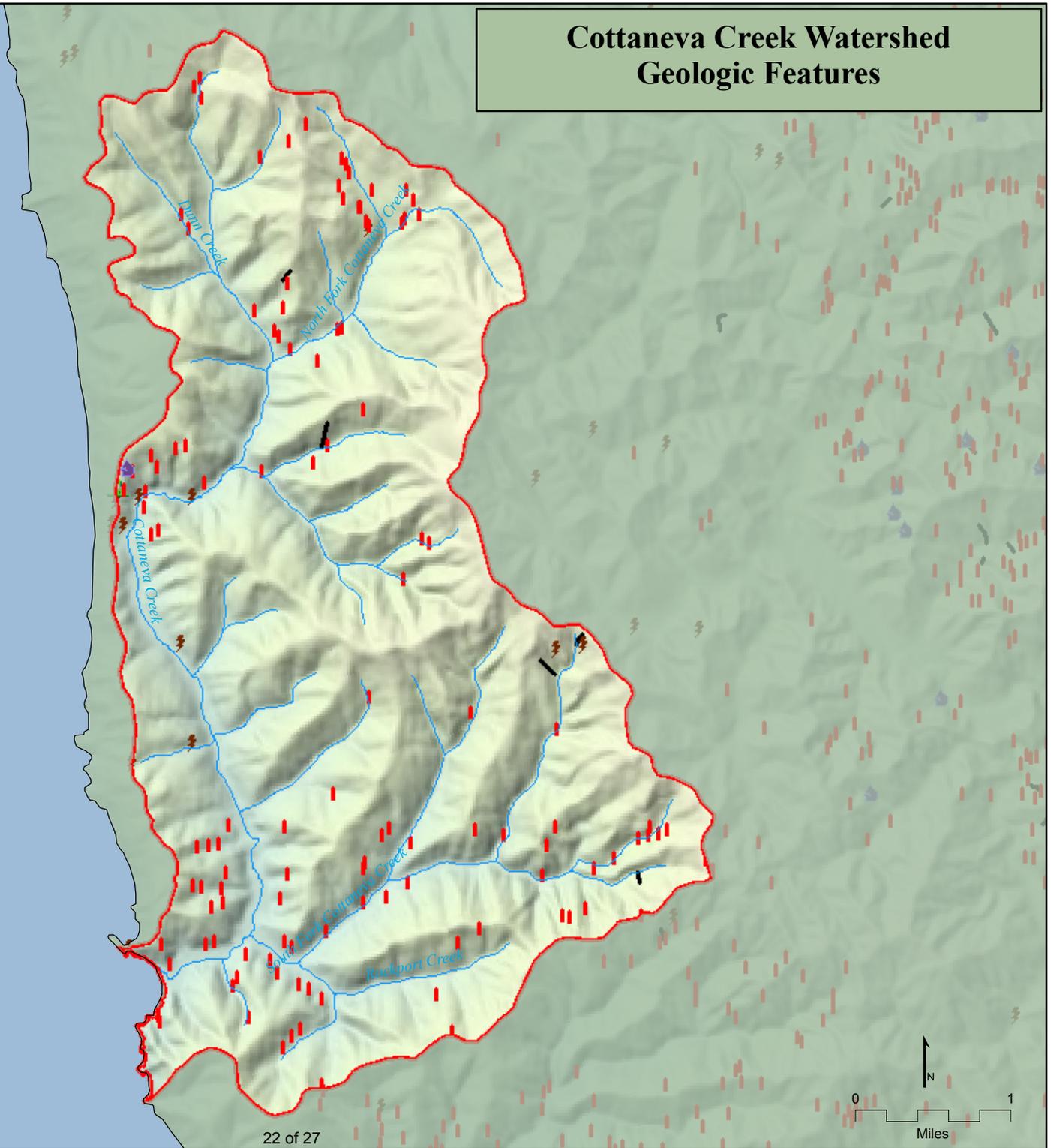
Geologic Feature

CA Geologic Survey

-  Dipbed
-  Marsh
-  Slide
-  Spring

 Gorge

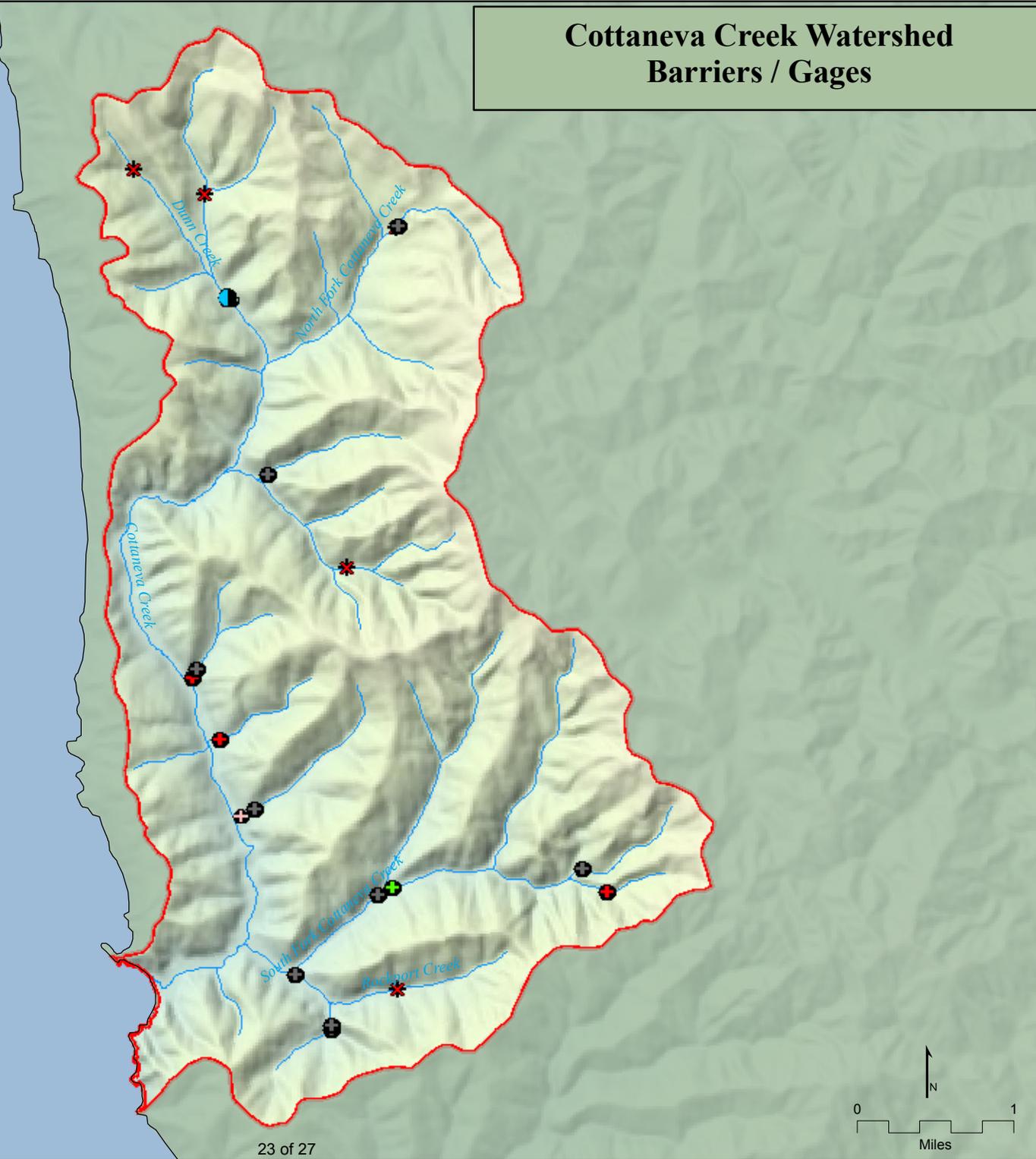
 Torrent track





NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Barriers / Gages



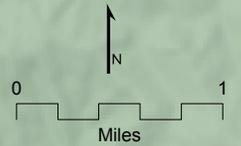
 Gage Station

USGS 2006

Barrier Type, Barrier Status

CA Fish Passage Assessment, PSMFC, 2008

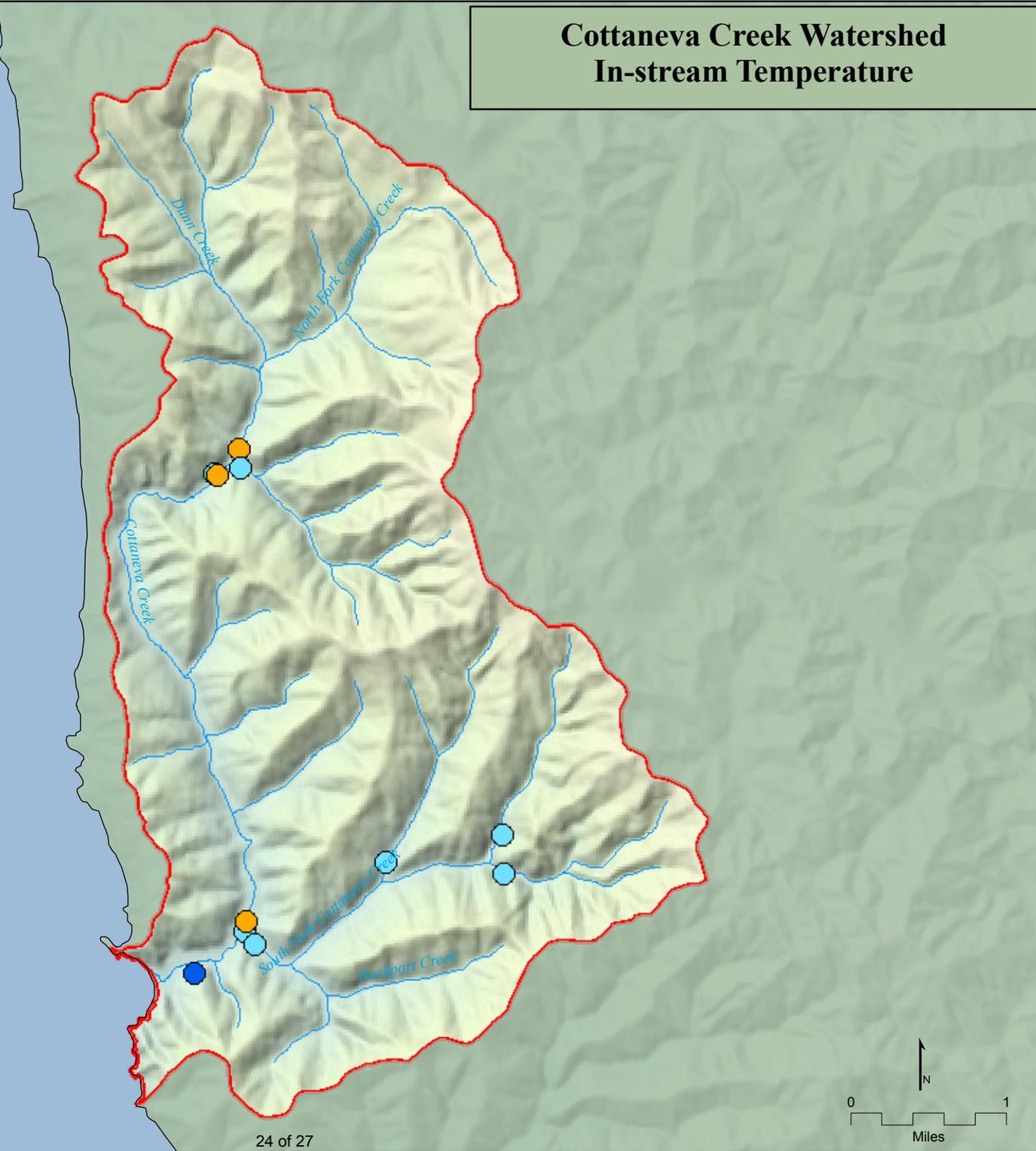
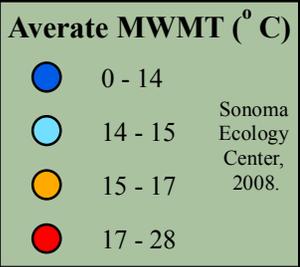
-  Road crossing, Not a barrier
-  Road crossing, Partial
-  Road crossing, Total
-  Road crossing, Unknown
-  Non-structural, Total





NMFS-SWR-HCD
March 2009

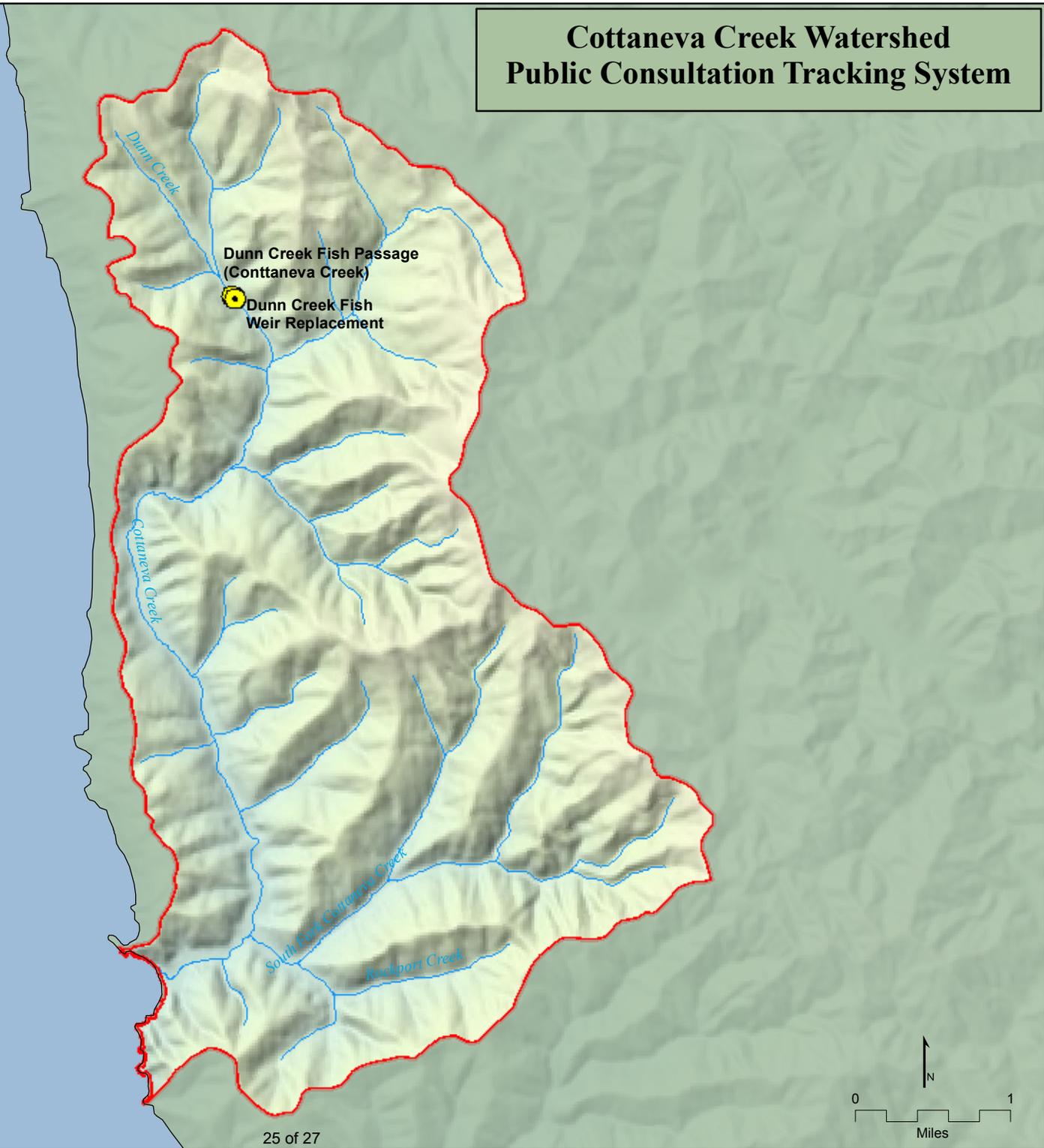
Cottaneva Creek Watershed In-stream Temperature





NMFS-SWR-HCD
March 2009

Cottaneva Creek Watershed Public Consultation Tracking System



 PCTS Record

Current as of January 2009.
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>

Critical Habitat

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>

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>

Hydrology

1801 NHD Flowline
vector digital data
National Hydrography Dataset High Resolution
United States Geological Survey

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2004

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Santa Cruz Fishery Science Center
National Marine Fisheries Service
2005
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pad_september2008
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Pacific States Marine Fisheries Commission
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Reston, Va
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California Mean Annual Precipitation Zones, 1900-
1960
Vector digital data
California Department of Forestry and Fire
Protection 1990
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TGRR00
vector digital data
Roads
United States Census Bureau
1:100000
2000
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Dem_1_utm_f

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NOAA Fisheries, Santa Cruz Laboratory
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Multi-source Land Cover Data
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vector digital data
Department of Conservation, Division of Mines and
Geology
Minimum Mapping Unit: Approximately 8000
Acres (20,000 Hectares)
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vector digital data
California Department of Forestry Forest and
Rangeland Resources Assessment Program
Bureau of Land Management Surface Management
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September 1999

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thp_(year)
Annual Timber Harvest Plans
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California Department of Forestry and Fire
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Santa Rosa, CA
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Census 2000 Block Data (Migrated)
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<http://frap.cdf.ca.gov/data/frapgisdata/select.asp>

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Google Maps
remote-sensing image
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2008
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Intrinsic Potential Model
vector digital data
NOAA Fisheries
Santa Cruz Laboratory, Santa Cruz, CA
2005
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United States Fish and Wildlife Service
Arcata, CA
2000

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Geopoint
vector digital data
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Geology
Minimum Mapping Unit: Approximately 8000
Acres (20,000 Hectares)
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Acres (20,000 Hectares)
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