

DESCRIPTION

Redwood Creek reaches the ocean about eight miles south of the Humboldt-Del Norte County border, with nearly three river miles located within the coastal zone. The creek supports an anadromous fishery, and the estuary is very important for juvenile salmonid rearing. Redwood Creek flows through Redwood National and State Parks.

Redwood Creek is impaired by sediment and temperature. Past and present land use activities (including timber harvesting, road building, grazing, and the construction of levees in the lower 3.5 miles of the creek) have resulted in aggraded and widened stream channels, filled pools, elevated water temperatures, channelization in the lower watershed, and loss of estuary function, contributing to a major decline of the anadromous fishery.



Mouth of Redwood Creek
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www.californiacoastline.org

REASON FOR CCA IDENTIFICATION

Redwood Creek flows into the 'Redwood National Park' **Area of Special Biological Significance (ASBS)**, which is a State Water Quality Protection Area (SWQPA). This creek is also a 2002 303(d)-listed **impaired waterbody that flows into a Marine Protected Area** ('Redwood National Park' ASBS), and was one of the original CCAs identified in 1995 as an **impaired waterbody that flows into an estuary**.

POLLUTED RUNOFF CONDITIONS

	Top 5 Runoff Pollutants of Concern					Efforts to Address Pollutants (See next page)
	2002 303(d)-Listed Pollutants TMDL Priority (& Proposed Completion if available)		Other Pollutants			
Selected Coastal Zone Waterbodies	<u>Sediment</u>	<u>Temperature</u>	?	?	?	
Redwood Creek ▲	▲ Medium	▲ Low				a
Potential Sources of Pollutants in Coastal Waterbodies¹						
Agriculture						a, g
➤ Range Grazing--Riparian	▲					
Forestry (Silviculture)	▲					a, b, c, d, e, f, i
➤ Harvesting & Restoration	▲	[▲]				c, i
➤ Logging Road Construction/Maintenance	▲	[▲]				c, d, e, i
Urban Areas						a, g
➤ Construction	▲					
➤ Land Development	▲					
Hydromodification						a, f
➤ Streambank Modification	▲	▲				
Wetlands & Riparian Areas						a, f
➤ Removal of Riparian Vegetation	▲	▲				

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Potential Sources of Pollutants, continued	Sediment	Temperature	?	?	?	Efforts to Address Pollutants
Erosion/Siltation	▲	▲				a, f, i
Unspecified Nonpoint Source		▲				a
Natural Sources	▲	▲				a, g, i

¹Brackets indicate potential sources of pollutants that are not listed in the 303(d) list for this waterbody; information on these additional potential sources is from Redwood National and State Parks.

MAJOR EFFORTS TO IMPLEMENT NPS MANAGEMENT MEASURES

a)	Total Maximum Daily Load (TMDL) Development for Redwood Creek			http://www.waterboards.ca.gov/northcoast/		
	North Coast Regional Water Quality Control Board	Catherine Kuhlman	(707) 576-2220	ckuhlman@waterboards.ca.gov		
	➤ Provides a quantitative assessment of water quality problems, contributing sources of pollution, and pollutant load reductions or control actions needed to restore and protect the beneficial uses of an individual impaired waterbody.					
b)	Timber Harvest Plan Review			http://www.waterboards.ca.gov/northcoast/		
	North Coast Regional Water Quality Control Board	Fred Blatt	(707) 576-2800	fblatt@waterboards.ca.gov		
	➤ Responsible for regulating waste discharges from timber harvesting activities that could affect the quality and beneficial uses of waters in the North Coast Region.					
c)	Timber Harvest Plan Review			http://www.nps.gov		
	Redwood National and State Parks	Greg Bundros	(707) 825-5145	greg_bundros@nps.gov		
	➤ Since 1976, RNSP geologists have reviewed proposed timber harvest activities in the watershed to reduce potential impacts on the downstream public trust resources.					
d)	Redwood National and State Parks Watershed Restoration Program (Lower Watershed)			http://www.nps.gov		
	Redwood National and State Parks	Chris Heppe	(707) 464-6101	chris_heppe@nps.gov		
	➤ Since 1978, RNSP has been actively treating erosion and sediment sources in Redwood Creek, through removal of abandoned logging roads. Of the 415 miles of roads existing on park lands in 1978, about half have been treated.					
e)	Upper Redwood Creek Watershed Erosion Control Program					
	Pacific Coast Fish, Wildlife, and Wetlands Restoration Association; Redwood National and State Parks; and landowners	Mitch Farro & Darci Short	(707) 839-5664 (707) 825-5144	pcfwwra@reninet.com darci_short@nps.gov		
	➤ Cooperative program to reduce impacts, improve water quality, and restore salmonid habitat through implementation of prioritized road decommissioning, upgrading, erosion control, and erosion prevention work.					
f)	Integrated Watershed Strategy for Redwood Creek					
	Redwood Creek Watershed Group (composed of 15 agencies, landowners, and nonprofit organizations)	Greg Bundros Ron Barlow Gary Rynearson	(707) 825-5145 (707) 488-5952 (707) 668-4483	greg_bundros@nps.gov ocsd@simple.net grynearson@greendiamond.com		
	➤ Working together to identify, prioritize, and implement actions to improve water quality, habitat, and general watershed health in Redwood Creek; and developing Integrated Watershed Strategy for Redwood Creek.					
g)	Stream Temperature, Turbidity and Geomorphic Channel Monitoring of Redwood Creek			http://www.nps.gov		
	Redwood National and State Parks; and US Geological Survey Redwood Field Station	Chris Heppe Mary Ann Madej	(707) 464-6101 (707) 825-5148	chris_heppe@nps.gov Mary_Ann_Madej@usgs.gov		

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➤ Monitoring stream temperature, turbidity (suspended sediment), and mainstem channel change since 1978. Annual cross-section surveys and periodic long profiles document changes in channel stored sediment and complexity.			
h)	Prairie Creek Fisheries Studies (1998-2004, continuing 2005-2008)		
Humboldt State University, and California Cooperative Fish Studies Unit	Walt Duffy	(707) 826-5644	wgd7001@humboldt.edu
➤ Studying demographic response of coho salmon to habitat quality in Redwood National and State Parks. Salmonid growth, survival, movement, and population size recorded for six years in streams with differing habitat conditions.			
i)	Prairie Creek Hydrologic and Sediment Studies (1998-present)		
Redwood National and State Parks	Randy Klein	(707) 825-5111	randy_klein@nps.gov
➤ Collects hydrologic and sediment data for undisturbed reference streams. Monitors sediment impacts from road removal in Redwood National and State Parks.			

REGULATORY/PLANNING JURISDICTIONS

➤ Redwood National & State Parks	http://www.nps.gov/redw/	Chris Heppe	(707) 464-6101	chris_heppe@nps.gov
➤ Orick Community Services District		Ron Barlow	(707) 488-5741	ocsd@simple.net
➤ Humboldt County, Planning & Building Dept.	http://www.co.humboldt.ca.us/	Tom Hofweber	(707) 268-3738	thofweber@co.humboldt.ca.us
➤ Humboldt County, Public Works Dept.	http://www.co.humboldt.ca.us/	Hank Seeman	(707) 268-2680	hseeman@co.humboldt.ca.us
➤ Yurok Tribe, Watershed Program	http://www.yurok.com/	Walt Lara III	(707) 488-0108	
➤ Calif. Coastal Commission, Water Quality Unit	http://www.coastal.ca.gov/nps/npsndx.html	Vanessa Metz	(707) 445-7873	vmetz@coastal.ca.gov
➤ North Coast Regional Water Quality Control Board, NPS Complaint Response	http://www.waterboards.ca.gov/northcoast/	Diana Henriouille-Henry	(707) 576-2350	dhenriouille-henry@waterboards.ca.gov
➤ State Water Resources Control Board, ASBSs	http://www.swrcb.ca.gov/plnspols/oplans/asbs.html	Connie Anderson	(916) 341-5280	csanderson@waterboards.ca.gov
➤ California Coastal Conservancy	http://www.coastalconservancy.ca.gov/	Karyn Gear	(510) 286-4171	kgear@scc.ca.gov
➤ Calif. Dept. of Fish & Game, Coastal Watershed Planning & Assessment Program	http://www.dfg.ca.gov/	Scott Downie	(707) 725-1070	sdownie@dfg.ca.gov
➤ Calif. Dept. of Fish & Game, Region 1	http://www.dfg.ca.gov/	John Mello	(707) 441-5755	jmello@dfg.ca.gov
➤ Calif. Dept. of Forestry	http://www.fire.ca.gov/php/	Tom Osipowich	(707) 725-4413	tom.osipowich@fire.ca.gov
➤ Caltrans, Stormwater Management	http://www.dot.ca.gov/hq/env/stormwater/	Alex Arevalo	(707) 445-6600	Alex_Arevalo@dot.ca.gov