

DESCRIPTION

Morro Bay is a shallow lagoon located halfway between San Francisco and Los Angeles on the central coast of California. The watershed of Morro Bay is approximately 48,450 acres and is bounded by the Santa Lucia Range on the north, Cerro Romauldo to the east and the San Luis Range to the south. The primary water quality concerns confronting Morro Bay are sedimentation, nutrient enrichment, bacterial contamination, and heavy metals. Several related problems, including habitat loss and degradation, and excessive water diversion exacerbate these water quality concerns.

Sedimentation has resulted in the loss of 25% of the tidal capacity of the bay in the last century, and is considered by many as the most serious problem confronting the bay. Bacterial contamination in Morro Bay has increased to a point where many of the shellfish growing beds are no longer viable. Bacterial levels exceed standards for shellfish growing in half of the sampled locations in the shellfish beds, and often exceed county and state limits for body contact recreation. The predominant sources of bacteria include failing septic systems, agricultural sources, recreational boaters, and urban runoff.

Nitrates and phosphates in surface water contribute to growth of nuisance algae and decreased dissolved oxygen levels in violation of Basin Plan water quality objectives. Sources include septic systems, fertilizers, urban runoff and animal waste.

Abandoned mines in the upper watershed bring sediments high in chromium, nickel and other metals into Morro Bay. Sediments in the upper watershed at times exceed Hazardous Waste Standards. Sediment levels near offshore boat yards are elevated with mercury and other metals.



Morro Bay

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For more photos, visit:
www.californiacoastline.org.

REASON FOR CCA IDENTIFICATION

Morro Bay is a 2002 303(d)-listed **impaired waterbody that flows into a Marine Protected Area** (Morro Bay State Estuary, and Morro Bay National Estuary Program), and was also one of the original CCAs identified in 1995 as an **impaired bay**.

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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)					
Selected Coastal Zone Waterbodies	Metals	Pathogens & Fecal Coliform	Sediment	Nutrients	Low Dissolved Oxygen	
Morro Bay ▲	▲ Medium	▲ High (2002)	▲ High (2002)			
Chorro Creek ■		■ Low	■ High (2002)	■ High (2002)		
Los Osos Creek ●		● Low	● High (2002)	● High (2002)	● Low	
Potential Sources of Pollutants in Coastal Waterbodies						
Agriculture		■	▲■●	■●	●	c
➤ Grazing		▲	■●		●	
➤ Crop Production		■	▲■●	■●		
➤ Agricultural Storm Runoff		■	■●	■●		
➤ Agricultural Return Flows				●		
Forestry (Silviculture)						
Urban Areas						b
➤ Urban Runoff/ Storm Sewers		▲			●	
➤ Construction/Land Development			▲■			
➤ Septic Systems		▲				
➤ Road Construction			■			
➤ Golf Course Activities			■			
Marinas & Boating						
➤ Boat Discharges/Vessel Wastes	▲					
Hydromodification			■●	●		b, c
➤ Channelization			▲■	●		
➤ Streambank Modification			■	●		
➤ Dredging				●		
Wetlands & Riparian Areas						a, b, c
➤ Removal of Riparian Vegetation				●		

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Potential Sources of Pollutants, continued	Metals	Pathogens & Fecal Coliform	Sediment	Nutrients	Low Dissolved Oxygen	Efforts to Address Pollutants
Erosion/Siltation		•	■	•		b, c
Channel Erosion			▲ ■	•		
Habitat Modification				•		b
Resource Extraction			▲ ■			
➤ Surface Mining	▲					
Unspecified Nonpoint Source	▲	▲	■ •			b
Source Unknown		■				
Natural Sources		▲	■ •		•	

MAJOR EFFORTS TO IMPLEMENT NPS MANAGEMENT MEASURES

a)	Friends of the Estuary at Morro Bay			http://www.friendsofestyuary.org/
		Jerri Chadwick	(805) 528-5800	
	➤ Friends of the Estuary seeks to restore, maintain, and enhance the Estuary at Morro Bay. This is a non-profit organization dedicated to this rare treasure.			
b)	Morro Bay National Estuary Program's Volunteer Monitoring Program			http://www.mbnep.org/volunteer/
	Morro Bay National Estuary Program		(805) 772-3834	staff@mbnep.org
	➤ Promotes citizen-based monitoring to track long-term trends in the watershed; is a primary component of monitoring for implementation of TMDLs under development in Los Osos and Chorro Creeks, and Morro Bay.			
c)	Morro Bay On-Farm Coastal Water Quality Implementation Project (Project Clearwater)			http://www.coastalrcd.org/home.htm
	Coastal San Luis Resource Conservation District	Linda Chipping	(805) 772-4391	lindachipping@yahoo.com
	➤ Provides technical assistance and cost-sharing funds for landowners to install BMPs to reduce sediment, nutrient, and bacteria flow to Morro Bay; landowners participate in "short-courses" and write individual conservation plans.			

REGULATORY/PLANNING JURISDICTIONS

➤ City of Morro Bay	http://www.morro-bay.ca.us/	Greig Cummings	(805) 772-6266	gcummings@morro-bay.ca.us
➤ County of San Luis Obispo, Environmental Health	http://www.slopublichealth.org/index.html	Marina Michel	(805) 781-5544	
➤ Calif. Coastal Commission, Water Quality Unit	http://www.coastal.ca.gov/nps/npsndx.html	Ross Clark	(831) 427-4873	rclark@coastal.ca.gov
➤ Central Coast Regional Water Quality Control Board	http://www.waterboards.ca.gov/centralcoast/	Bill Hoffmann	(805) 772-3834	bhoffmann@waterboards.ca.gov
➤ State Water Resources Control Board	http://www.waterboards.ca.gov/	Steve Fagundes	(916) 341-5487	sfagundes@waterboards.ca.gov
➤ California Coastal Conservancy	http://www.coastalconservancy.ca.gov/	Terri Nevins	(510) 286-4161	tnevins@scc.ca.gov
➤ Calif. Dept. of Fish & Game	http://www.dfg.ca.gov/	Bill Paznokas	(858) 467-4218	wpaznokas@dfg.ca.gov
➤ Calif. Dept. of Fish & Game, Marine Region	http://www.dfg.ca.gov/mrd/mlpa/	Christine Pattison	(805) 772-0114	cpattison@dfg.ca.gov

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➤ Calif. State Parks	http://www.parks.ca.gov/v/default.asp?page_id=594	Vincent Cicero	(805) 927-2185	vcice@parks.ca.gov
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