

California Regional Water Quality Control Board, Los Angeles Region

**Tissue, Sediment and Benthic Infauna Data
Dominguez Channel estuary (to Vermont)**

Summary of Proposed Action

New Proposed Listings

- “Not Supporting” (Impaired) for sediment toxicity due to exceedances in toxicity tests.
- “Not Supporting” (Impaired) for copper in sediment due to exceedances of Effects Range-Median (ERM) and/or Probable Effects Level (PEL).
- “Not Supporting” (Impaired) for chlordane in sediment due to exceedances of ERM and/or PEL.
- “Not Supporting” (Impaired) for PCBs in sediment due to exceedances of ERM and/or PEL.

These actions all affect the aquatic life beneficial uses and some may affect fish consumption.

Table 1. 303(d) Listing/TMDL Information

Waterbody Name	Dominguez Channel Estuary and Dominguez Channel	Pollutants/Stressors	See Above
Hydrologic Unit	405.12	Source(s)	Historical use of pesticides and lubricants for DDT, chlordane, and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper.
Total Waterbody Size	8.4 and 9	TMDL Priority	Copper: 75 Others: 73
Size Affected		TMDL Start Date (Mo/Yr)	Copper: 2004 Others: 2005
Extent of Impairment	Estuary (not DC above Vermont)	TMDL End Date (Mo/Yr)	Copper: 2007 Others: 2008

Watershed Characteristics

The Los Angeles and Long Beach Harbors are located in the southern portion of the Los Angeles Basin. Along the northern portion of San Pedro Bay is a natural embayment formed by a westerly extension of the coastline which contains both harbors, with the Palos Verdes Hills the dominant onshore feature. Historically, the area consisted of marshes and mudflats with a large marshy area, Dominguez Slough, to the north, and flow from the Los Angeles River entering where Dominguez Channel now drains. Near the end of last century and during the beginning of this one, channels were dredged, marshes were filled, wharves were constructed, the Los Angeles River was diverted, and a breakwater was constructed in order to allow deep draft ships to be directly offloaded and products be swiftly moved. The Dominguez Slough

was completely channelized and became the drainage endpoint for runoff from a highly industrialized area. Eventually, the greater San Pedro Bay was enclosed by two more breakwaters and deep entrance channels were dredged to allow for entry of ships with need of 70 feet of clearance. The LA/LB Harbor complex together is now one of the largest ports in the country.

Both harbors are considered to be one oceanographic unit. Despite its industrial nature, contaminant sources, and low flushing ability, the inner harbor area supports fairly diverse fish and benthic populations and provides a protected nursery area for juvenile fish. The California least tern, an endangered species, nests in one part of the harbor complex.

Similar to LA Inner Harbor in many respects, LB Inner Harbor is dissimilar to the other Port in the higher number of privately-owned waterfront parcels which the Port has recently been in the process of the buying up and converting to Port-related uses, generally container terminals. Also, basins and slips in LB Inner Harbor are somewhat more separated from each other than in LA Inner Harbor which may possibly prevent contamination from spreading easily.

The outer part of both harbors (the greater San Pedro Bay) has been less disrupted and supports a great diversity of marine life. It is also open to the ocean at its eastern end and receives much greater flushing than the inner harbors.

Water Quality Objectives Not Attained

ERM/PEL
Sediment toxicity

Beneficial Uses Affected

Aquatic Life
Fish Consumption

Data Assessment

Sediment toxicity (96)
Benthic community degradation (96)
Sediment Chemistry (96): copper, chlordane, DDT, PCB

Table 2. Summary of Sediment Data for Dominguez Channel Estuary and Dominguez Channel

Dates of Sampling	7/18/96
Number of Samples (n)	1 (sediment)
Minimum Data Value	
Maximum Data Value	Copper: 144 ppm Total chlordane: 32.4 ppb Total DDT: 204.5 ppb Total PCB: 361.5 ppb
Median Data Value	
Arithmetic Mean Value	
Standard Deviation	
Number (Percent) above Objective	Sediment toxicity: 1 (100 %) Benthos: 1 (100 %) Copper: 1 (100 %) Total chlordane: 1 (100 %) Total DDT: 1 (100 %) Total PCB: 1 (100 %)

This table may summarize additional data not relevant to this factsheet that supports a continued listing for this waterbody.

Potential Sources

Historical use of pesticides and lubricants for DDT, chlordane and PCBs. Stormwater runoff, aerial deposition and historical discharges for copper.

References

State Mussel Watch Program database
Bay Protection and Toxic Cleanup Program database