



NATIONAL MARINE
SANCTUARIES™

HARBORS AND DREDGE DISPOSAL

Action Plan Summary

MONTEREY BAY NATIONAL MARINE SANCTUARY

THE ISSUE:

Dredge material from harbor areas adjacent to the Monterey Bay National Marine Sanctuary (MBNMS) is deposited in the MBNMS within designated disposal sites. Through continued cooperation, involved agencies can identify future disposal needs with regard to dredge material composition, pollution load, and amount, while allowing for protection of resources.

OUR GOAL

The sanctuary's goal is to work closely with local partners to address the need for disposal of dredged materials at designated sites as well as the continued protection of sanctuary resources.

Dredge disposal is prohibited within the MBNMS except for dredged materials deposited at authorized disposal sites.

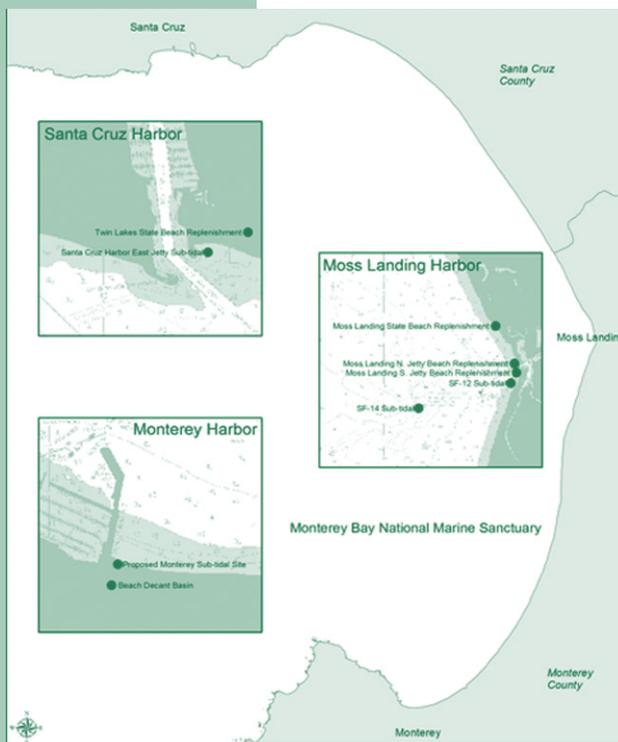
BACKGROUND INFORMATION

Dredging is the periodic removal of accumulated bottom **sediments** from waterways, like harbors, to maintain adequate depth for safe and efficient vessel operations. Four major harbors sit adjacent to the MBNMS. These four harbors include Pillar Point harbor in Half Moon Bay, Santa Cruz harbor, Moss Landing harbor, and Monterey harbor. With the exception of Pillar Point harbor, each harbor dredges to keep their navigation channels and slips open for safe passage of commercial fishermen, recreational fishermen, and boaters. Pillar Point harbor is currently considering dredging the outer and inner harbor area to eliminate accumulated sediment.

Without dredging most harbors along the central California coast would shoal, or fill with sand, over the course of a winter when winter storms, **longshore drift**, and runoff from rivers and creeks all carry sand and sediment into harbors. This natural shoaling would permanently close harbors and make passage by ships unsafe and eventually impossible. Negative economic impacts from the loss of tourism, commercial and recreational fishing, as well as recreational boating could result if harbors were not dredged.



The sanctuary does not directly regulate harbor dredging but does have a regulatory role in the disposal of dredged materials. While dredging is necessary to ongoing harbor operations, dredged material disposal may affect water quality, bury or alter habitat, and affect **bathymetry** and physical processes. Disposal of dredged material from local harbors is allowed in the sanctuary only at designated disposal sites, provided the disposal complies with Environmental Protection Agency (EPA) standards for grain size and contaminant levels, as defined by the Clean Water Act. Dredged materials from certain harbors in the region are sometimes contaminated with toxins, including persistent pesticides such as DDT, and the material is not approved for ocean disposal according to EPA standards. Polluted dredge material is disposed of in confined landfill sites.



Harbors and Dredge Disposal Sites

When the sanctuary was designated in 1992, two existing sites (called SF-12 and SF-14) offshore of Moss Landing for dredge disposal were identified, and the establishment of new sites was prohibited within its boundaries. Since then, the MBNMS has recognized and authorized the use of additional **subtidal** sites at Santa Cruz and Monterey harbors that were in use with valid federal permits prior to sanctuary designation. The dredge material can also be disposed at one beach site within sanctuary jurisdiction, Twin Lakes in Santa Cruz, and at one beach site located outside of sanctuary jurisdiction, South Jetty at Moss Landing harbor. These sites are recognized by state and federal agencies as beach replenishment sites and dredged material is placed on beaches to supplement the sand supply in these areas. The sanctuary reviews the composition of the sediment and any associated contaminants and authorizes dredged material disposal at sites within the MBNMS for clean sediments of the appropriate grain size and amounts. As a part of the management plan review, the sanctuary plans to define, recognize, and pinpoint- using coordinates- the SF-12 dredge disposal site. Additionally, the sanctuary proposes defining, formally recognizing, and pinpointing the exact locations of the Santa Cruz and Monterey subtidal disposal sites. See Figure 1 for approved dredge disposal sites.

The sanctuary works jointly with other state and federal agencies, such as the California Coastal Commission, the US Army Corps of Engineers (ACOE), the EPA, the Regional Water Quality Control Board, the National Marine Fisheries Service, and the US Fish and Wildlife Service to review and permit dredge disposal within the MBNMS. These reviews minimize impacts to sanctuary resources while allowing the continued operation of our critical local harbors.

THE SANCTUARY'S ACTION PLAN

The sanctuary's "Harbors and Dredge Disposal Plan" was developed jointly with a variety of stakeholders and partners and includes, but is not limited to, the following components:

- Continuing to participate in and improve coordinated permit review with the California Coastal Commission, US ACOE, and the US EPA
- Reviewing dredge disposal activities in offshore sites with potential modifications to existing disposal sites
- Tracking and evaluating increased sediment volumes disposed, as well as coordinating with appropriate agencies on reduction programs for upstream sources of sediment
- Continuing to coordinate with the EPA and ACOE on sediment size and suitability for offshore disposal
- Evaluating future beneficial uses for dredge materials such as beach replenishment activities



Siltation at Moss Landing Harbor

For a complete listing of the sanctuary's "Harbors and Dredge Disposal Action Plan" please visit http://sanctuaries.nos.noaa.gov/jointplan/m_reptoad.html and scroll down the page.

GLOSSARY

Bathymetry:

The varying height of the seafloor.

Longshore Drift:

The process by which sand and sediments are carried along the beach, parallel to shore. Along the California coastline, longshore drift is from north to south.

Sediments:

As it pertains to dredging, these sediments can be either sand or silt and from various sources including oceanic processes of long-shore drift; as part of runoff from rivers or creeks that carry large amounts of sediment due to runoff from winter storms or agricultural fields.

Subtidal:

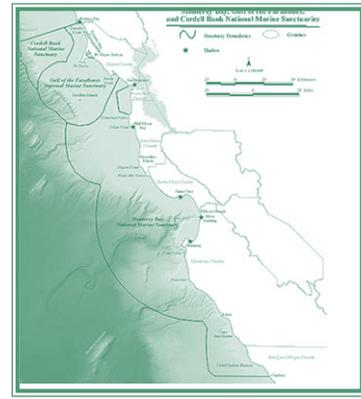
The area below the lowest low tide level in the ocean.

Dredging generally occurs within a port or harbor and therefore outside of the MBNMS boundaries.

The Joint Management Plan Review (JMPR)

"Harbors and Dredge Disposal" is one of the action plans in the Monterey Bay National Marine Sanctuary Draft Management Plan. The MBNMS Draft Management Plan includes twenty-eight plans that, once finalized, will guide sanctuary management for the next five years. The plan is a revision of the original management plan, adopted with sanctuary designation in 1992, and is focused on how to best understand and protect the sanctuary's resources.

The National Marine Sanctuary Program (NMSP) is updating the management plans for the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries in a process known as the Joint Management Plan Review (JMPR).



How You Can Get Involved in the MBNMS Management Plan Process

The MBNMS welcomes your ideas about important resource management issues in the sanctuary. A Draft Management Plan and Draft Environmental Impact Statement are scheduled for release to the public in 2006. Following their release, hearings will be held in several locations throughout the region to gather public comment. Written comments will be accepted as well. To find out about public hearings, or how to submit written comments, please visit our website at <http://www.sanctuaries.nos.noaa.gov/jointplan>.



Aerial of Moss Landing Harbor.

Photo: US Army Corp of Engineers

THE MONTEREY BAY NATIONAL MARINE SANCTUARY

Stretching from Marin to Cambria, the Monterey Bay National Marine Sanctuary encompasses 276 miles of shoreline and 5,322 square miles (4,625 nautical miles) of ocean, extending an average distance of 30 miles from shore. At its deepest point, the sanctuary reaches down 10,663 feet (more than two miles). The sanctuary was established for the purposes of resource protection, research, education, and public use. Its natural resources include one of our nation's largest kelp forests and one of North America's largest underwater canyons. It is home to one of the most diverse marine ecosystems in the world, including 33 marine mammal species, 94 seabird species, 345 fish species, and numerous invertebrates and plants. This remarkably productive marine environment is fringed by spectacular coastal scenery, including sandy beaches, rocky cliffs, rolling hills, and steep mountains.

Resources

California Coastal Commission <http://www.coastal.ca.gov/>
Monterey Bay national Marine Sanctuary <http://montereybay.noaa.gov>
Monterey Harbor <http://www.monterey.org/harbor>
Moss Landing Harbor <http://www.mosslandingharbor.dst.ca.us/index2.htm>
National Oceanic and Atmospheric Administration <http://www.noaa.gov>
Pillar Point Harbor <http://www.smharbor.com/pillarpoint>
Santa Cruz Harbor <http://www.santacruzharbor.org>
Sanctuary Integrated Monitoring Network (SIMoN) <http://www.mbnms-simon.org>
US Army Corps of Engineers <http://www.usace.army.mil>
US Environmental Protection Agency <http://www.epa.gov>

