

**STATE AND FEDERAL LAWS, REGULATIONS, AND PROGRAMS  
OTHER THAN THOSE OF THE STATE DEPARTMENT OF FISH & GAME  
AND PACIFIC FISHERY MANAGEMENT COUNCIL  
THAT CONTRIBUTE TO THE PROTECTION OF MARINE RESOURCES**

Prepared by National Marine Sanctuary Program Staff

The two summaries of laws, regulations, and programs found below were compiled by the staff of the MBNMS and the NMS Program. Although a request was made for some type of analysis that would discuss the degree to which these laws, regulations and programs contributed to the MBNMS meeting its goals, none could be provided at this time.

**MONTEREY BAY NATIONAL MARINE SANCTUARY  
GOALS, REGULATIONS, AND PROGRAMS**

Prepared by Huff McGonigal, MBNMS

The National Marine Sanctuaries Act states that the National Marine Sanctuary Program shall “maintain for future generations the habitat and ecological services of the natural assemblage of living resources that inhabit Sanctuaries and “while the need to control the effects of particular activities has led to enactment of resource-specific legislation, these laws cannot in all cases provide a coordinated and comprehensive approach to the conservation and management of the marine environment”. As such, the Monterey Bay National Marine Sanctuary subscribes to a broad and comprehensive management approach that is in keeping with the NMSA’s primary objective of resource protection. This approach differs from the various national and local agencies and laws directed at managing single or limited numbers of species or specific human activities within the ocean. Ecosystem-based management serves as a framework for addressing long-term protection of a wide range of living and non-living marine resources, while allowing multiple uses of the Sanctuary that are compatible with resource protection. The following is a summary of the programs and strategies at the MBNMS that contribute to achieving these goals.

**Goals**

The Monterey Bay National Marine Sanctuary’s program goals are to:

1. Enhance resource protection, through comprehensive and coordinated conservation and management tailored to the specific resources that complements existing regulatory

authorities

2. Support, promote and coordinate scientific research on, and monitoring of, the site specific marine resources to improve management decision-making
3. Enhance public awareness, understanding, and wise use of the marine environment through public interpretive and recreational programs
4. Facilitate, to the extent compatible with the primary objective of resource protection, multiple uses of these marine areas not prohibited pursuant to other authorities

Four program areas generally divide the administration of the MBNMS: research and monitoring, resource protection, education and outreach, and program operations. Following is a description of these areas and accomplishments since MBNMS designation.

### **Research and Monitoring**

The research and monitoring program's focus is on science for resource management: determining information gaps; developing collaborative studies to improve understanding of issues; and interpreting research for decision makers. Much of the credit for the research in the MBNMS belongs to the world-renowned and extremely collaborative research community in central California. For example, approximately twenty research institutions are represented on the MBNMS Research Activity Panel, which wrote the first-ever MBNMS Research Plan. Many members also contributed text and bibliography files to a web-based Site Characterization that summarizes existing information on the MBNMS's natural resources. In turn, the MBNMS identified the need for research to address specific resource management issues and provided a method for applying scientific results to public policy. This resulted in several multi-million dollar efforts to map MBNMS habitats, monitor nearshore ecosystems, and model ocean circulation.

Through MBNMS funding, writing issue reviews, building collaborations, providing research platforms, and obtaining grants, the research and monitoring program achieved notable success in:

*Monitoring* beach-cast seabirds and marine mammals, seabirds, marine mammals, and krill in Monterey Bay; gray whale migrations; kelp canopies; rocky shores; and water quality in Elkhorn Slough

*Characterizing* pinniped rookeries; seafloor habitats in the nearshore, offshore, and in formerly restricted military zones; and even management issues such as marine zoning regulation and kelp harvesting

*Providing* extensive information in technical reports available on the web; at symposia coordinated with the MBNMS Education Program and local governments; and through numerous technical advisory committees

*Studying* tidal erosion in Elkhorn Slough; distribution of introduced species; sea lion deaths caused by harmful algal blooms; fishery impacts from trawling and gillnet bycatch; coastal erosion; impacts of ship groundings and oil spills; and human use effects in kelp forest and rocky shore systems

As public and resource management needs are clarified through MBNMS advisory groups and in coordination with the MBNMS resource protection program, it becomes evident more research and monitoring is needed than has been completed. Habitat mapping has improved since 1992, yet most of the habitats and distribution and abundance of key species have not been mapped or measured. Moreover, little data exists on how human activities are changing the MBNMS ecosystem through time. The MBNMS initiated its ecosystem monitoring program, the Sanctuary Integrated Monitoring Network (SIMoN), in 1999 with grant funding awarded in 2001. After hiring staff and developing the infrastructure, the website for SIMoN was launched in 2003 which provides the public, decision makers and the research community with monitoring data and an integrated view of data collecting efforts.

## **Resource Protection**

A key resource protection goal for the MBNMS was achieved at the time of designation; protection from oil and gas development. The creation of MBNMS in 1992 was the culmination of more than 15 years of public support and efforts of government officials and environmental groups. In 1983, the Reagan Administration removed Monterey Bay from the list of active sanctuary candidates. Many viewed this as an attempt to prepare the area for oil drilling. In 1988, with the backing and activism of environmental organizations and local governments, former Congressman Leon Panetta pushed through legislation requiring sanctuary designation no later than December 31, 1989. While this congressional mandate got the designation process back on track, it was repeatedly delayed due to the continuing controversy over proposed oil and gas activities. The public's overwhelming support for sanctuary designation finally provided results. A comprehensive ban on offshore oil and gas activities was eventually supported by the Bush Administration and included by NOAA in the final MBNMS regulations.

A key objective of the management plan is to ensure that human activities in the MBNMS do not adversely affect natural resources, including habitats. This is accomplished through a variety of approaches, including collaborative planning efforts to prevent and reduce human impacts, regulations, permits, and

enforcement efforts. Management efforts also involve helping to educate the public and MBNMS users about how they can minimize or eliminate harmful behavior. The resource protection program also administers the Conservation Working Group (CWG), which was originally formed to focus the knowledge and talent of local, regional, and national conservation groups on the designation process for the Monterey Bay National Marine Sanctuary. The CWG now works to serve as a forum for conservation issues, identify resource protection needs, and provide advice, views, and factual information on resource protection, Sanctuary management, and other issues in response to requests from staff, the SAC and associated working groups, and other appropriate parties.

The MBNMS's long coastline, including four harbors and several urban areas, create multiple, complex threats to a healthy coastal ecosystem. A key goal is to actively prevent damage to the resources, thereby avoiding crisis situations apparent elsewhere in the country. The resource protection program accomplished many important objectives such as:

- A Water Quality Protection Program developed and partially implemented three plans to improve or protect water quality (related to urban runoff, harbors and marinas, and agriculture and rural lands) as well as plans to strengthen coordinated regional water quality monitoring by government agencies and citizen groups, and a Memorandum of Agreement with the state designed to protect Sanctuary Water Quality from permitted discharge
- Strategies, now approved at the international level, to move large commercial ships farther offshore and use north-south transit lanes to reduce threats of spills from vessel traffic such as container ships, bulk product carriers, and tankers
- Participation in research and a long-range management plan for Highway 1 reducing impacts from landslide repair and disposal activities
- Establishment of an Interpretive Enforcement Program, including a NOAA Office of Law Enforcement officer assigned to focus exclusively on MBNMS enforcement issues
- Development of a cooperative enforcement agreement with state agencies
- A hazardous material/emergency response program for events such as spills and vessel groundings
- Collaborative educational products and outreach on resource protection issues such as water quality, motorized personalized watercraft (MPWCs), boating, and vessel traffic
- Development of a permit program to review planned activities that may harm

MBNMS resources and to issue permits or other authorizations with conditions to minimize impacts

- Coordinated review of projects, plans and permits of other agencies to minimize impacts
- A prohibition on all oil and gas development
- Prohibitions aimed at minimizing disturbance of the seabed, protecting wildlife, and preserving cultural resources

### **Education and Outreach**

The MBNMS's education and outreach efforts help connect people to the marine environment. The Education program's goal is to promote public understanding of our national marine Sanctuaries and empower citizens with the knowledge necessary to make informed decisions leading to the responsible stewardship of aquatic ecosystems. Partnerships and collaboration have played a key role in the development and implementation of the MBNMS's educational efforts. The MBNMS Education Panel, comprised of marine educators representing twenty organizations and schools, is a prime example of how the MBNMS works with the regional community to shape the MBNMS's educational focus.

The Education and Outreach Program has accomplished or has underway some important objectives of the management plan, such as:

- Increasing public awareness of our Sanctuaries through a variety of techniques, including:
  - Public lectures and forums and the annual MBNMS Currents Symposium
  - Anniversary celebrations and a variety of public events
  - Interpretive signs and displays at state parks, beaches, and interpretive facilities
  - Educational products and materials including books, brochures, posters, maps, newsletters, annual reports, videos, and an extensive web site
- Operation of MBNMS's Team Ocean Conservation Education Action Network (OCEAN) and support of volunteer programs, including Bay Net, Save Our Shores, and Friends of the Elephant Seal
- Providing education to address specific issues that may threaten MBNMS resources by:
  - Developing a variety of water quality programs and products to

- address urban runoff
  - Providing public outreach to promote stewardship of endangered species, fragile
  - Habitats like tidepools, and protected species such as marine mammals
  - Developing and distributing educational materials on shipping lanes to mariners
- Providing educational opportunities for teachers and students by:
- Developing school curricula
  - Organizing teacher workshops
  - Providing shipboard and submersible “teacher-in-the-sea” opportunities
  - Coordinating teacher-led intertidal monitoring programs for high school students
  - Supporting the development of Camp SEA (Science, Education, and Adventure) Lab, a residential marine science program

## REGULATIONS AND LEGISLATION AFFECTING THE MARINE ENVIRONMENT IN THE MBNMS

Prepared by the NMS Program Staff

### REGULATIONS AND LEGISLATION

#### ECOSYSTEM PROTECTION

##### ***MONTEREY BAY NATIONAL MARINE SANCTUARY***

The Monterey Bay National Marine Sanctuary (MBNMS), designated in 1992, is a Federally protected marine area offshore of California's central coast. Stretching from Marin to Cambria, the MBNMS encompasses a shoreline length of 276 miles and 5,322 square miles of ocean, extending an average distance of 30 miles from shore. At its deepest point, the MBNMS reaches down 10,663 feet (more than two miles). It is our nation's eleventh Marine Sanctuary and its largest- larger than Yosemite or Yellowstone National Parks.

The MBNMS was established for the purpose of resource protection, research, education and public use. Its natural resources include our nation's largest kelp forest, one of North America's largest underwater canyons and the closest-to-shore deep ocean environment in the continental United States. It is home to one of the most diverse marine ecosystems in the world, including 33 species of marine mammals, 94 species of seabirds, 345 species of fishes, 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.

There are a variety of potential resource threats and opportunities within the Sanctuary due to the sensitivity of habitats and species in the region, the long stretch of adjacent populated coastline, and the multiple uses of the marine environment. Sanctuary research and monitoring programs evaluate the status and health of marine species, habitats and ecosystems, provide critical information to resource managers, and coordinate activities with the array of world-class research institutions in the region. Resource protection activities use a variety of means to reduce or prevent detrimental human impacts, including collaborative planning efforts, regulations and permits, emergency response activities, enforcement and education. Education and outreach is used as a critical element in enhancing understanding and stewardship of this national treasure, ranging from public events and interactive teacher workshops to extensive written materials. Building partnerships and strong involvement of the public is a key element in all of these efforts, and includes ongoing participation of a diverse Sanctuary Advisory Council.

### ***MARINE LIFE PROTECTION ACT***

The Marine Life Protection Act (MLPA) was signed into law in 1999 and directs the state to redesign California's system of marine protected areas (MPAs) to increase its coherence and effectiveness in protecting the state's marine life and habitats, marine ecosystems, and marine natural heritage, as well as to improve recreational, educational and study opportunities provided by marine ecosystems. The purpose of the MLPA is to improve the array of MPAs existing in California waters through the adoption of a Marine Life Protection Program and a comprehensive master plan.

The MLPA states that marine life reserves (defined as no-take areas) are essential elements of an MPA system because they protect habitat and ecosystems, conserve biological diversity, provide a sanctuary for fish and other sea life, enhance recreational and educational opportunities, provide a reference point against which scientists can measure changes elsewhere in the marine environment, and may help rebuild depleted fisheries. Six goals for the MLPA are:

1. To protect the natural diversity and abundance of marine life, and the structure, function, and integrity of marine ecosystems.
2. To help sustain, conserve, and protect marine life populations, including those of economic value, and rebuild those that are depleted.
3. To improve recreational, educational, and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity.

4. To protect marine natural heritage, including protection of representative and unique marine life habitats in California waters for their intrinsic value.
5. To ensure that California's MPAs have clearly defined objectives, effective management measures, and adequate enforcement, and are based on sound scientific guidelines.
6. To ensure that the state's MPAs are designed and managed, to the extent possible, as a network.

## **WATER QUALITY**

The water quality of the sanctuaries is regulated by a number of statutes and government agencies. These serve to protect the marine environment from the various point and nonpoint sources of marine pollution. Regulations applicable to the various types of cruise ship discharges are described above in the affected environment discussion of cruise ship discharges.

### ***Federal Water Pollution Control Act, commonly known as the Clean Water Act, 33 U.S.C. § 1251 et seq.***

The CWA was passed in 1972 by Congress, and amended in 1987. Under CWA Section 402 (33 U.S.C. § 1342), any discharge of a pollutant from a point source (e.g., a municipal or industrial facility) to the navigable waters of the United States or beyond must obtain an NPDES permit, which requires compliance with technology- and water quality-based treatment standards. Two sections of the CWA deal specifically with discharges to marine and ocean waters. Under CWA Section 403 (33 U.S.C. § 1343), any discharge to the territorial seas or beyond also must comply with the Ocean Discharge Criteria established under CWA Section 403. CWA Section 312 (33 U.S.C. § 1322) contains regulations protecting human health and the aquatic environment from disease-causing microorganisms that may be present in sewage from boats. An MSD is equipment on board a vessel designed to receive, retain, treat, control, or discharge sewage, and any process to treat such sewage. Pursuant to Section 312 of the CWA, all recreational boats with installed toilet facilities must have an operable MSD on board. Vessels 20 meters (65 feet) and under may use a Type I, II, or III MSD. Vessels over 20 meters (65 feet) must install a Type II or III MSD. All installed MSDs must be Coast Guard-certified. Coast Guard-certified devices are so labeled except for some holding tanks, which are certified by definition under Section 312 of the CWA (33 U.S.C. § 1322).

### ***Title I of the Marine Protection, Research, and Sanctuaries Act, also known as the Ocean***

#### ***Dumping Act, 33 U.S.C. §§ 1401-1445***

The Marine Protection, Research, and Sanctuaries Act (MPRSA) regulates the dumping of wastes into marine waters. It is the primary federal environmental statute governing transportation of dredged material for the purpose of disposal into ocean waters, while CWA Section 404 governs the discharge of dredged or fill material into waters of the US. In 1983, a global ban on the dumping of



radioactive wastes was implemented. The MPRSA and the CWA regulate materials that are disposed of into the marine environment, and only sediments determined to be nontoxic by USEPA standards may be disposed of into the marine environment. The USEPA and the USACE share responsibility for managing the disposal of dredged materials (Chin and Ota 2001).

***Oil Pollution Control Act, 33 U.S.C. § 2701 et seq.***

The Oil Pollution Control Act of 1990 requires extensive planning for oil spills from tank vessels and onshore and offshore facilities and places strict liability on parties responsible for oil spills.

***Act to Prevent Pollution from Ships, 33 U.S.C. § 1901 et seq.***

The discharge of solid wastes is regulated under the APPS, as amended by the Marine Plastic Pollution Research and Control Act of 1987, and the CWA. The APPS regulates the disposal of plastics and garbage for the United States Annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78). Under these regulations the disposal of plastics is prohibited in all waters, and other garbage, including paper, glass, rags, metal, and similar materials, is prohibited within 22 km (twelve nm; 14 miles) from shore (unless macerated). Under the current regulations, disposal of much of the solid waste generated by vessels is allowed in areas within the marine sanctuaries beyond 22 km from the shore (NOAA 2003c, 2003d, 2003e).

***Coastal Zone Management Act, 16 U.S.C. §§ 1451-1466***

The Coastal Zone Management Act (CZMA) provides incentives for coastal states to develop and implement coastal area management programs. It is significant with regards to water pollution abatement, particularly concerning nonpoint source pollution.

***Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§ 9601 - 9675***

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) addresses cleanup of hazardous substances and mandates liability for environmental cleanup on those whose actions cause release into the environment. In conjunction with the CWA, it requires preparation of a National Contingency Plan for responding to oil or hazardous substances release. The RCRA addresses hazardous waste management, establishing duties and responsibilities for hazardous waste generators, transporters, handlers, and disposers.

***Porter-Cologne Water Quality Control Act, California Water Code §§ 13000-14958***

The Porter-Cologne Water Quality Control Act contains provisions for enforcing water quality standards through issuance of Waste Discharge Requirements. Pursuant to the act, the SWRCB has the primary responsibility to protect

California's coastal and ocean water quality. SWRCB has been given the authority by the USEPA to administer the NPDES program for California. The Regional Water Quality Control Boards, in coordination with the SWRCB, issue both state waste discharge requirements and NPDES permits to individual dischargers. Dischargers are required to establish self-monitoring programs for their discharges and to submit compliance reports to Regional Water Quality Control Boards. The SWRCB has established regulations to implement these measures through water quality control plans, including the California Ocean Plan (Ocean Plan), the Regional Water Quality Control Plans (Basin Plans), and the Thermal Water Quality Control Plan (California Ocean Resources Management Program 1995).

### ***California Assembly Bills 2093 and 2672***

California recently enacted legislation (Assembly Bills 2093 and 2672) that mandate stricter pollution prevention from cruise ships. One of the new laws (AB 2093) prohibits the discharge of graywater from cruise ships into state waters, and the other (AB 2672) prohibits the discharge of treated or untreated sewage from cruise ships into state waters. This legislation is significantly more stringent than federal regulation of cruise ships and also provides the strongest state protections from cruise ship pollution in the United States.

### ***California Coastal Act, Cal. Pub. Res. Code § 30000 et seq.***

The California Coastal Act of 1976 mandates protections for terrestrial and marine habitat through its policies on visual resources, land development, agriculture, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, power plants, ports, and public works. The Coastal Commission administers various programs, including Local Coastal Programs and the Water Quality Program, which facilitates the interagency Nonpoint Source Pollution Control Program.

### ***California Marine Invasive Species Act, AB 433***

The California Marine Invasive Species Act of 2003 mandates the management of ballast water. The act reauthorized and improved upon the California Ballast Water Management and Control Act (AB703). It requires mid-ocean exchange or retention of ballast water for vessels coming from outside the EEZ and requires vessels coming from other west coast ports to minimize ballast water discharge. Record-keeping and other compliance measures apply to all vessels entering California waters. As of March 22, 2006, all vessels must exchange ballast water when traveling between one port or place and another in the Pacific Coast Region.

## **MINERALS**

CBNMS, GFNMS and MBNMS each have regulations that prohibit exploring for, or developing, or producing, oil, gas, or minerals in the Sanctuary (with an exception for jade in portions of MBNMS). In addition, GFNMS and MBNMS have regulations that prohibit drilling into, altering, or placing structures on the seabed.

***California Coastal Sanctuary Act of 1994, Cal. Pub. Res. Code §§ 6240-6244***

Since 1994, all new oil and gas exploration or drilling within California state waters has been permanently banned (to 3 nm [3.5 miles; 5.5 km] from the shore). This comprehensive ban on new oil and gas leasing in State waters was enacted through the California Coastal Sanctuary Act of 1994. The California Coastal Sanctuary Act created a comprehensive statewide coastal sanctuary that prohibits future oil and gas leasing in state waters, from Mexico to the Oregon border, in perpetuity. Existing oil and gas leases are added to the sanctuary as they are quitclaimed to the state.

***1998 Presidential Directive***

Since 1982, there has been a temporary moratorium placed by Congress on oil and gas leasing and development on the federal Outer Continental Shelf (OCS) adjacent to California. State tide and submerged lands include the area from the mean high tide line seaward to the 3 nm (3.5 miles; 5.5 km) boundary with the federal OCS. President Clinton issued a Presidential Directive under the OCS Lands Act in 1998 that blocked new leasing activity until at least 2012. The Davidson Seamount area is located within the federal OCS and is subject to this current moratorium. The following discussion of regulations is applicable to the Davidson Seamount area.

***Submerged Lands Act, 43 U.S.C. § 1301 et seq.***

Under the Submerged Lands Act (SLA) the location of energy and mineral resources determines whether or not they fall under state control. The SLA granted states title to the natural resources located within three miles of their coastline. For purposes of the Submerged Lands Act, the term “natural resources” includes oil, gas and all other minerals.

***Outer Continental Shelf Lands Act, 43 U.S.C. § 1331 et seq.***

The Outer Continental Shelf Lands Act (OCSLA), established federal jurisdiction over submerged lands on the OCS seaward of state boundaries. Under the OCSLA, the Secretary of the Interior is responsible for the administration of mineral exploration and development of the OCS. The OCSLA provides guidelines for implementing an OCS oil and gas exploration and development program, and authorities for ensuring that such activities are safe and environmentally sound.

***Deep Seabed Hard Mineral Resources Act, 30 U.S.C. § 1401 et seq.***

The Deep Seabed Hard Mineral Resource Act provides regulations for developing deep seabed hard minerals, requires consideration of environmental impacts prior to issuance of mineral development permits, and requires monitoring of environmental impacts associated with any mineral development activities. With regard to minerals on the deep seabed, seabed nodules contain nickel, copper, cobalt and manganese - minerals important to many industrial uses. No commercial deep seabed mining is currently conducted, nor is such

activity anticipated in the near future.

***Ocean Thermal Energy Conversion Act, 42 U.S.C. § 9101 et seq.***

With regard to alternative energy sources from the ocean, the Ocean Thermal Energy Conversion (OTEC) Act established a licensing program for facilities and plants that would convert thermal gradients in the ocean into electricity. The OTEC Act directed the Administrator of NOAA to establish a stable legal regime to foster commercial development of OTEC. In addition, the OTEC Act directed the Secretary of the department in which the USCG is operating to promote safety of life and property at sea for OTEC operations, prevent pollution of the marine environment, clean up any discharged pollutants, prevent or minimize any adverse impacts from construction and operation of OTEC plants, and ensure that the thermal plume of an OTEC plant does not unreasonably impinge on and thus degrade the thermal gradient used by any other OTEC plant or facility, or the territorial sea or area of national resource jurisdiction of any other nation unless the Secretary of State has approved such impingement after consultation with such nation. The OTEC Act also assigned responsibilities to the Secretary of State and the Secretary of Energy regarding OTEC plants.

**BIOLOGICAL RESOURCES**

There are numerous federal and state regulations providing protection of biological resources in the sanctuaries. The primary regulations and regulating agencies are summarized below.

***Federal Clean Water Act, 33 U.S.C. §§ 1251-1387***

The USACE and EPA have primary federal responsibility for administering regulations that concern waters and wetlands. The USACE acts according to the Rivers and Harbors Act (Sections 9 and 10), which regulates placement of structures or other work in addition to fill in “navigable waters,” and the CWA (Section 404), which governs fill in “waters of the United States,” including wetlands. A USACE permit is required if a project would place structures within navigable waters or if it would result in altering waters of the US below the ordinary high water mark in nontidal waters. The USACE does not issue these types of permits in cases where the USACE itself is the lead agency; instead it evaluates the project to determine compliance and acceptability. The primary criteria for evaluating the biological impacts of the USACE permit actions in wetlands is provided by the USEPA, but the mandates of other federal agencies apply as well. Those agencies include, but are not limited to, the USFWS and the National Marine Fisheries Service (NMFS). Additional enforcement of the CWA is provided by the State Water Quality Resources Control Board (SWQRCB), which must certify that a USACE permit action meets state water quality objectives (Section 401, CWA).

***Endangered Species Act, 16 U.S.C. §§ 1531 – 1544***

The ESA protects plant and animal species (and their habitats) that are listed as endangered and threatened. Species are listed as endangered if found to be in

danger of extinction throughout all or a significant portion of their ranges; species are listed as threatened if they are likely to become endangered within the foreseeable future. The ESA also protects designated critical habitat for listed species, which are areas of physical or biological features essential to the conservation of the species and which may require special management considerations. The ESA requires federal agencies to consult with USFWS and/or NMFS, as applicable, before initiating any action that may affect a listed species.

***Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801 et seq.***

Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the U.S. claimed sovereign rights and exclusive fishery management authority over all fish, and all Continental Shelf fishery resources, within the EEZ (within 200 nm [230 miles; 370 km] of the shoreline). The MSA established a procedure for authorizing foreign fishing, and prohibited unauthorized foreign fishing within the EEZ.

The MSA also established national standards for fishery conservation and management within the EEZ, and created eight Regional Fishery Management Councils composed of state officials with fishery management responsibility, the regional administrators of NOAA Fisheries, and individuals appointed by the Secretary of Commerce who are knowledgeable regarding the conservation and management, or the commercial or recreational harvest, of the fishery resources of the geographical area concerned. The Councils are responsible for preparing and amending fishery management plans for each fishery under their authority that requires conservation and management.

Fishery management plans (FMPs) describe the fisheries and contain necessary and appropriate conservation and management measures, applicable to foreign vessels in U.S. waters and fishing by U.S. vessels. The plans are submitted to the Secretary of Commerce, who has delegated to NOAA approval of the plans. If approved, NOAA Fisheries promulgates implementing regulations. NOAA Fisheries may prepare Secretarial FMPs if the appropriate Council fails to develop such a plan.

Of particular relevance to this DEIS are recent changes to the Groundfish FMP. Amendment 19 has been prepared by NOAA Fisheries and the PFMC to comply with Section 303(a)(7) of the MSA by amending the Pacific Coast Groundfish FMP to:

- Describe and identify essential fish habitat (EFH) for the fishery;
- Designate Habitat Areas of Particular Concern (HAPC);
- Minimize to the extent practicable the adverse effects of fishing on EFH; and
- Identify other actions to encourage the conservation and enhancement of EFH.

The proposed rules and management measures are intended to minimize, to the extent practicable, adverse effects on Groundfish EFH from fishing. On May 11, 2006, NOAA Fisheries published a final rule to implement regulatory provisions of Amendment 19 to the Pacific Coast Groundfish FMP (71 FR 27408). This rule designated the areas within the 50-fathom isobath of Cordell Bank and the Davidson Seamount Management Area (as well as other areas in the ROI) as EFH, and implemented the following prohibitions as applicable within these EFH areas:

- Fishing with dredge gear anywhere in EFH;
- Fishing with beam trawl gear anywhere in EFH;
- Fishing with specified types of bottom trawl gear anywhere in EFH;
- Fishing with bottom contact gear within 50 fathoms of Cordell Bank; and
- Fishing with bottom contact gear or any other gear that is deployed deeper than 500 fathoms (3000 feet) within the Davidson Seamount.

***Fish and Wildlife Coordination Act and Implementing Regulations, 16 U.S.C. §§ 661 – 666c***

Any federal agency that proposes to control or modify any body of water must first consult with the USFWS or NMFS, as appropriate, and with the head of the appropriate state agency exercising administration over the wildlife resources of the affected state. The USACE has a memorandum of understanding with the USFWS to provide a coordination act report to assist in planning efforts.

***Migratory Bird Treaty Act, 16 U.S.C. § 703 et. seq.***

The MBTA is a federal statute that implements US treaties with several countries concerning the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. Further, the regulatory definition of a migratory bird is broad and includes any mutation or hybrid of a listed species, as well as any part, egg, or nest of such bird (50 CFR 10.12). Migratory birds are not necessarily federally listed endangered or threatened under the ESA. The MBTA, which is enforced by the USFWS, makes it unlawful “by any means or manner, to pursue, hunt, take, capture [or] kill” any migratory bird except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale purchase, barter, or the offering of these activities, except as permitted by the implementing regulations.

***Marine Mammal Protection Act, 16 U.S.C. §§ 1361-1421h***

The MMPA protects and conserves marine mammal species by placing a moratorium on harassing, hunting, capturing, or killing any marine mammal or attempting any of these. If a project proponent determines that an action could incidentally harass (“take”) marine mammals, the proponent must consult with either the USFWS or NMFS to determine if a permit to take a marine mammal is required. A recent redefinition of “take” of an MMPA-protected species occurred under the FY 2004 Defense Authorization Act (House Bill 1588), where an animal

is “taken” if it is harassed, and where harassment is defined as “(i) any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild or (ii) any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered” (section 315(f) P.L. 107–314; 16 U.S.C. § 703 note).

***Rivers and Harbors Appropriations Act of 1899, 33 U.S.C. §§ 401, 403***

Section 10 of the Federal Rivers and Harbors Appropriations Act of 1899 (RHA) prohibits the unauthorized obstruction or alteration of any navigable water. Navigable waters under the RHA are those “subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce” (33 CFR 3294). Typical activities requiring Section 10 permits are construction of piers, wharves, bulkheads, marinas, ramps, floats, intake structures, cable or pipeline crossings, and dredging and excavation.

***Coastal Zone Management Act, 16 U.S.C. §§ 1451-1466***

The CZMA encourages states to preserve, protect, develop, and, where possible, restore or enhance valuable natural coastal resources, such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. To encourage states to participate, the CZMA makes federal financial assistance available to any coastal state or territory that is willing to develop and implement a comprehensive coastal management program. Federal agencies are required to carry out activities that affect any land or water use or natural resource of a state’s coastal zone in a manner consistent with the enforceable policies of an approved state management plan.

***Executive Order 11990***

Executive Order 11990, Protection of Wetlands (42 FR 26961, May 24, 1977), was signed by President Carter in 1977 to avoid the adverse impacts associated with destroying or modifying wetlands.

***Executive Order 13112***

Enacted in 1999, this order directs federal agencies to prevent the introduction of invasive species and provide for their control; establishes the Invasive Species Council and directs them to write an invasive species management plan within 18 months.

***National Invasive Species Act***

The federal National Invasive Species Act (1996) strengthened the 1990 law requiring open water exchange (OWE) of ballast water and mandatory ballast management plans and reporting.

***Ocean Dumping Act, 33 U.S.C., §§ 1401-1402***

The USEPA has regulatory responsibilities with regard to ocean water quality under both the Clean Water Act (see above) and Title 1 of the Marine Protection, Research, and Sanctuaries Act (Ocean Dumping Act). The Ocean Dumping Act prohibits the unpermitted dumping of “any material transported from a location outside the United States” into the territorial sea of the United States, or into the zone contiguous to the territorial sea, to the extent discharge into the contiguous zone would affect the territorial sea or the territory of the United States. This act supersedes any related Clean Water Act requirements.

***California Coastal Act, California Public Resources Code § 30000***

The California Coastal Act (CCA) defines the “coastal zone” as the area of the state that extends three miles seaward and generally about 1,000 yards (910 meters) inland. In particularly important and generally undeveloped areas, where there can be considerable impact on the coastline from inland development, the coastal zone extends to a maximum of five miles (8 km) inland from mean high tide line. In developed urban areas, the coastal zone extends substantially less than 1,000 yards (910 meters) inland. The Coastal Commission’s jurisdiction does not extend into or around San Francisco Bay, where development is regulated by the San Francisco Bay Conservation and Development Commission (Cal. Pub. Res. Code § 30103). Almost all development within the coastal zone, which contains many wetlands, requires a coastal development permit from either the Coastal Commission or a local government with a certified Local Coastal Program.

***California Endangered Species Act, California Fish and Game Code §§ 2050-2111.5***

The CESA places the responsibility for maintaining a list of threatened and endangered species on the CDFG. The CDFG also maintains a list of candidate species that are under review for addition to either the list of endangered species or the list of threatened species. Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any California-listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFG encourages informal consultation on any proposed project that may affect a candidate species.

***Cal. Fish and Game Code §§ 1600-1607***

The state’s authority in regulating activities in wetlands resides primarily with the CDFG and the State Water Resources Control Board (SWRCB). The State of California regulates wetlands through the CDFG, which provides comment on USACE permit actions under the Fish and Wildlife Coordination Act. The CDFG may develop mitigation measures and require the preparation of a streambed alteration agreement if a proposed project would obstruct the flow or alter the



bed, channel, or bank of a river or stream in which there are fish or wildlife resources, including intermittent and ephemeral streams. The CDFG is authorized to do so by the State Fish and Game Code Sections 1600-1607.

The CDFG has established ecological reserves, marine reserves, game refuges, and marine life refuges in the ocean waters and submerged lands surrounding the Farallon Islands and Point Reyes. The agency has the authority to prohibit or restrict activities that may harm resources, including fishing, collecting, swimming, boating, and public entry. The CDFG works closely with the sanctuaries in oil spill response, damage assessment, and restoration through its Office of Spill Prevention and Response.

### ***California Marine Invasive Species Act, AB 433***

The California Marine Invasive Species Act of 2003 mandates the management of ballast water. The act reauthorized and improved upon the California Ballast Water Management and Control Act (AB 703). It requires mid-ocean exchange or retention of ballast water for vessels coming from outside the EEZ and requires vessels coming from other west coast ports to minimize ballast water discharge. Record-keeping and other compliance measures apply to all vessels entering California waters.

### ***State Water Resources Control Board***

The SWRCB adopts statewide water quality control plans and policies, such as the Ocean Plan, the Thermal Plan, and the State Implementation Policy. The SWRCB has established a system of 34 ASBS. These areas are designated for special protection from undesirable alteration in natural water quality. Five ASBSs are located in GFNMS, including Duxbury Reef, Point Reyes Headland, Double Point, Bird Rock, and the Farallon Islands.

## **COMMERCIAL FISHERIES**

Commercial fisheries in the sanctuaries are managed by the PFMC, NOAA Fisheries, the CDFG, the California State Legislature and the California Fish and Game Commission. Coastal fisheries in state waters (up to 3 nm [3.5 miles, 5.5 km] from the shoreline) are generally managed by the CDFG and the Fish and Game Commission. NOAA Fisheries and the PFMC regulate and manage ocean fisheries beyond state waters (from 3 nm offshore to the extent of the EEZ, 200 nm [230 miles; 370 km] offshore).

### ***Marine Life Management Act, AB 1241***

California's Marine Life Management Act (MLMA), which became law on January 1, 1999 (codified in scattered sections of the Cal. Fish and Game Code), regulates the harvest of California's marine living resources, including commercial fisheries. The fishery management system established by the MLMA applies to four groups of fisheries:

1. Nearshore finfish fishery and the white seabass fishery;

2. Emerging fisheries (new and growing fisheries that are not currently subject to specific regulation);
3. Fisheries managed by the Fish and Game Commission before January 1, 1999; and
4. Commercial fisheries for which there is no statutory delegation of authority to the Fish and Game Commission and Department (CDFG 2004a).

***Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1801-1882***

The MSA established the PFMC, one of eight regional councils established by the act. The PFMC has responsibility for establishing and updating management plans for key commercial fish species. Management plans include a *Groundfish Management Plan*, which covers 82 species of rockfish, flatfish, roundfish, sharks, skates, and others. Chinook (*Oncorhynchus tshawytscha*) and coho (*Oncorhynchus kisutch*) are the primary salmon species managed by the PFMC. Four coastal pelagic species are managed by the PFMC, including Northern anchovy (*Engraulis mordax*), Pacific sardine (*Sardinops sagax*), Pacific (chub) mackerel (*Scomber japonicus*), and Jack mackerel (*Trachurus symmetricus*). In conjunction with the International Pacific Halibut Commission, the PFMC manages the Pacific halibut (*Hippoglossus stenolepis*), a large flatfish that migrates between US and Canadian waters, in determining a total allowable catch (TAC) (PFMC 2000).

**Highly Migratory Species Management**

In 2004, NOAA Fisheries partially approved an FMP for West Coast highly migratory species (HMS) fisheries, species that are currently managed by individual states. The FMP for highly migratory species manages the following species:

- Tunas: north Pacific albacore, yellowfin, bigeye, skipjack, northern bluefin;
- Sharks: common thresher, pelagic thresher, bigeye thresher, shortfin mako, blue;
- Billfish/swordfish: striped marlin, Pacific swordfish; and
- Other: dorado (also known as dolphinfish and mahi-mahi).

The HMS FMP:

- Allows the PFMC to provide advice to NOAA Fisheries and the Department of State, so that West Coast interests are represented in international negotiations and decisionmaking;
- Increases public awareness about West Coast HMS fishery issues;
- Facilitates greater public involvement in managing HMS fisheries; and
- Helps garner congressional support to the PFMC and NOAA Fisheries for the study and management of HMS fisheries.

The HMS FMP is a “framework” plan, which means it includes some fixed elements as well as a process for creating or changing regulations without amending the plan. In biggest short-term change for fishers stemming from the HMS FMP are new monitoring requirements, which went into effect in 2005. Commercial fishers must obtain a permit from NOAA Fisheries to fish for HMS and maintain logbooks documenting their catch. (Current state-mandated logbooks meet this requirement.) Recreational charter vessels must also keep logbooks. If requested by NOAA Fisheries, a vessel must carry a fishery observer. These measures are intended to improve data collection about HMS catches.

### Groundfish Management

The PFMC develops and recommends groundfish harvest specifications and management measures to NOAA Fisheries. If approved by NOAA Fisheries, these specifications and management measures typically become effective on January 1 of any given year (the beginning of the management cycle). Federal groundfish regulations include groundfish harvest levels and fishing restrictions (trip limits, area closures, season lengths, etc.), which are known as the “harvest specifications and management measures (NOAA 2006).

Since 2003, several groundfish conservation areas have been implemented through regulation by NOAA Fisheries Service to reduce overfishing on various groundfish species (NOAA 2006). A groundfish conservation area is defined by NOAA Fisheries as “any closed area intended to protect a particular groundfish species or species group or species complex.” Groundfish conservation areas in the ROI include: rockfish conservation areas, Farallon Islands groundfish closure, and Cordell Bank groundfish closure. The closures have been in existence in the ROI since 2003 and will remain closed until depleted groundfish species are “recovered” under the MSA.

The Rockfish Conservation Areas (RCAs) are large area closures intended to protect a complex of species, such as the overfished shelf rockfish species. The RCAs differ between gear types (e.g., there are a trawl RCA, a non-trawl RCA, and a recreational RCA), vary throughout the year with cumulative limit period, and have boundaries defined by specific latitude and longitude coordinates that approximate depth contours.

Of particular relevance to this DEIS are recent changes to the Groundfish FMP. Amendment 19 has been prepared by NOAA Fisheries and the PFMC to comply with Section 303(a)(7) of the MSA by amending the Pacific Coast Groundfish FMP to:

Amendment 19 has been prepared by NOAA Fisheries and the PFMC to comply with Section 303(a)(7) of the MSA by amending the Pacific Coast Groundfish FMP to:

- Describe and identify essential fish habitat (EFH) for the fishery;

- Designate Habitat Areas of Particular Concern (HAPC);
- Minimize to the extent practicable the adverse effects of fishing on EFH; and
- Identify other actions to encourage the conservation and enhancement of EFH.

The proposed rules and management measures are intended to minimize, to the extent practicable, adverse effects on Groundfish EFH from fishing. On May 11, 2006, NOAA Fisheries published a final rule to implement regulatory provisions of Amendment 19 to the Pacific Coast Groundfish FMP (71 FR 27408). This rule designated the areas within the 50-fathom isobath of Cordell Bank and the Davidson Seamount Management Area (as well as other areas in the ROI) as EFH, and implemented the following prohibitions as applicable within these EFH areas:

- Fishing with dredge gear anywhere in EFH;
- Fishing with beam trawl gear anywhere in EFH;
- Fishing with specified types of bottom trawl gear anywhere in EFH;
- Fishing with bottom contact gear within 50 fathoms of Cordell Bank; and
- Fishing with bottom contact gear or any other gear that is deployed deeper than 500 fathoms (3000 feet) within the Davidson Seamount.

#### ***Sustainable Fisheries Act, P.L. 104-297***

The Sustainable Fisheries Act (SFA), which became law on October 11, 1996, amended the Magnuson Act, renamed the Magnuson-Stevens Fishery Conservation and Management Act (the Magnuson-Stevens Act). NOAA has responsibilities under the Magnuson-Stevens Act for scientific data collection, fisheries management, and enforcement.

#### ***The California Aquaculture Development Act***

The California Aquaculture Development Act of 1979 established the California Department of Fish and Game (CDFG) as the lead agency for aquaculture in the state. In 1982, legislation was passed that provided guidelines and authority for aquaculture regulations developed by the Fish and Game Commission. These guidelines and authority for aquaculture regulations are in California Code of Regulations, Title 14, Natural Resources: Division 1. Fish and Game Commission - Department of Fish and Game. These regulations are referred to as Title 14. CDFG is responsible for issuing leases and permits for specific aquaculture activities and coordinating with two committees, the Aquaculture Development Committee and the Aquaculture Disease Committee, which exist for the purpose of interaction among sectors of the aquaculture industry and government regulatory agencies.

There are several other state agencies that have regulatory authority over certain aspects aquaculture. They include the California Departments of Health Service and Food and Agriculture (disease and health), the State Lands Commission (leased lands), the Coastal Commission (coastal uses and public recreation and access), and the State Water Resources Control Board (water quality).

In federal waters NOAA, US Army Corps of Engineers, EPA, DOI, USDA and the US Department of Health and Human Services all have various jurisdictional oversight over aquaculture facilities and operations. There is also pending legislation relating to aquaculture in offshore waters.

## **CULTURAL AND MARITIME HERITAGE RESOURCES**

Cultural and historical resources are regulated through a number of federal laws, as summarized below. Sanctuary and California State regulations prohibit disturbance of submerged archaeological and historical resources, except by permit. The NMSP and California State Lands Commission have an archaeological resource recovery permit system in place.

The National Historic Preservation Act (NHPA) (16 U.S.C. § 470 et seq.) serves as the basis for a process that considers the effects of federal undertakings on cultural and historic resources. The procedure an agency takes to achieve compliance with this legislation is commonly called the Section 106 process. Although the NHPA was created primarily in response to numerous federally funded urban renewal projects that demolished old neighborhoods and historic homes, it applies to any actions an agency may take that would affect historic or cultural resources as they are defined in the law. The intent of the process is to require the federal agency, in consultation with other affected parties, to make an informed decision as to the effect its actions would have on something that may be important to our heritage.

Depending on the resources identified, the following legislation could also apply within the sanctuaries:

### ***National Historic Preservation Act of 1966, 16 U.S.C. §§ 470-470x-6***

Cultural resources on federal lands are protected primarily through the NHPA of 1966 and its implementing regulations (found at 36 CFR Part 800). Section 106 of the NHPA requires federal agencies to identify and evaluate the effects of their actions on properties listed in or eligible for listing in the National Register of Historic Places (NRHP). Consultation with the State Historic Preservation Officer, Native American tribes, native Hawaiian organizations, the Advisory Council for Historic Preservation, and other interested parties is part of the regulatory process. To be protected under the NHPA, a property must meet specific criteria of significance established under the NHPA's regulations at 36 CFR Part 60.

### ***Archaeological Resources Protection Act of 1979, 16 U.S.C. §§ 470aa – 470mm***

This act requires all archaeological excavations on federal land to be undertaken pursuant to permit issued by the federal land manager. This act also imposes criminal penalties for unauthorized excavations.

***Native American Graves Protection and Repatriation Act of 1990, 25 U.S.C. §§ 3001-3013***

This act requires federal agencies to identify and inventory possible Native American, native Alaskan, or native Hawaiian human remains, burial goods, or cultural items in their collections and to make them available for repatriation to affiliated tribes or lineal descendants. The act also establishes procedures for handling and disposing of such remains, burial goods, or cultural items discovered on federal lands.

***Abandoned Shipwrecks Act of 1987, 43 U.S.C. §§ 2101-2106***

This act asserts federal ownership over all shipwrecks found in state waters (within the 3-mile line) and transfers ownership of those resources to the states. Shipwrecks in federal waters remain under the jurisdiction of the federal government.

***Antiquities Act of 1906, 16 U.S.C. §§ 431-433***

This act requires a permit to excavate or remove any historic objects or antiquities from federal lands, and grants the President the authority to designate as national monuments landmarks of historic or scientific importance. The permit provisions of the Antiquities Act are generally enforced through the NHPA process.

***Historic Sites, Buildings, Objects, and Antiquities Act of 1935, 16 U.S.C. §§ 461-467***

This act establishes the national policy of preserving historic resources and gives the Secretary of the Interior the power to make historic surveys and document, evaluate, acquire, and preserve archaeological and historic sites across the country. This act provided the authority behind the establishment of the National Historic Landmarks and Historic American Buildings Survey programs.

## **HAZARDOUS WASTES AND WASTE DISPOSAL**

***Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9610***

The CERCLA, commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. Superfund is the federal government's program to clean up the nation's uncontrolled hazardous waste sites.

The CERCLIS contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation, including sites that are on the National Priorities List (NPL) or being considered for the NPL. CERCLIS contains information on sites located within the shoreline counties of

the ROI. There are four CERCLIS sites within Santa Cruz County, including one NPL site; eleven CERCLIS sites and one NPL site are within San Francisco County; three CERCLIS sites are within Marin County; six CERCLIS sites, including three NPL sites, are within Monterey County; twenty-seven CERCLIS sites, including two NPL sites, are within Sonoma County; one CERCLIS site is within San Luis Obispo County; and ten CERCLIS sites are within San Mateo County.

***Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901-6992***

The RCRA addresses hazardous waste management, establishing duties and responsibilities for hazardous waste generators, transporters, handlers, and disposers.

***Clean Water Act, 33 U.S.C. § 1251 et seq.***

Section 312 of the CWA requires the use of MSDs for all vessels within 3 nm (3.5 miles; 5.5 km) offshore; raw sewage can be legally discharged beyond 3 nm. Vessels over sixty-five feet in length must have a Type II or Type III MSD. In the sanctuaries, the discharge of raw sewage is prohibited, and it is required that properly functioning marine sanitation devices be used when discharging sewage waste (NOAA 2003c, 2003d, 2003e).

## **MARITIME TRANSPORTATION**

***Federal Regulations***

Several acts of Congress govern the movements of commercial vessels in specified waterways. These acts include the Ports and Waterways Safety Act of 1972, the Port and Tanker Safety Act of 1978, and the Oil Pollution Act of 1990. In addition, the Coast Guard Vessel Traffic Service (VTS) regulations became effective October 1994. The VTS San Francisco Area includes the Pacific Ocean in a 38.7 nm (33 miles; 77 km) radius around Mount Tamalpais, which is 10 miles (16 km) north of the Golden Gate. State law also governs the discharging of ballast water through the Ballast Water Management for Control of Nonindigenous Species section of the California Public Resources Code (1999).

The Ports and Waterways Safety Act of 1972 authorizes the US Coast Guard to establish vessel traffic service/separation (VTSS) schemes for ports, harbors, and other waters subject to congested vessel traffic. The VTSS apply to commercial ships, other than fishing vessels, weighing 300 gross tons (270 gross metric tons) or more (NOAA 2005b).

The volunteer traffic separation lanes used by commercial vessels transiting the northern/central California coast were established in 2000 by the United Nations International Maritime Organization (IMO) and were the result of a collaborative effort between the USCG and MBNMS. The intention of this effort was to reduce the likelihood of a spill in MBNMS along the central and northern California Coast

as well as to ensure safe, efficient, and environmentally sound transportation by vessels.

The new plan routes large vessels in north-south tracks ranging from 13 to 20 nm (15 to 23 miles; 24 to 37 km) from shore between Big Sur and the San Mateo coastline. Most cruise ships sail along the northern/central California coast at 15 to 17 nm (13 to 15 miles; 28 to 31 km) from shore unless accessing a port. Ships carrying hazardous materials, such as refined petroleum, chemicals, and munitions, follow north-south tracks between 25 and 30 nm (29 to 34.5 miles; 46 to 56 km) from shore. Loaded tankers are required to stay at least 50 nm (57.5 miles; 93 km) offshore, while unloaded tankers are required to stay 25 nm (29 miles; 46 km) offshore.

The Port and Tanker Safety Act of 1978 provided broader regulatory authority over regulated and non-regulated areas. The act improved the supervision and control of all types of vessels operating in navigable waters of the US, and improved the safety of foreign or domestic tank vessels that transport or transfer oil or hazardous cargoes in ports or places subject to US jurisdiction (NOAA 2005b).

The Oil Pollution Act of 1990 established that parties responsible for discharging oil from a vessel or facility are liable for: (1) certain specified damages resulting from the discharged oil; and (2) removal costs incurred in a manner consistent with the National Contingency Plan (NCP). The liability for tank vessels larger than 3,000 gross tons was increased to \$1,200 per gross ton or \$10 million, whichever is greater. The fine for failing to notify the appropriate Federal agency of a discharge was increased from a maximum of \$10,000 to a maximum of \$250,000 for an individual or \$500,000 for an organization, and the maximum prison term was increased from one year to five years. Civil penalties were authorized at \$25,000 for each day of violation or \$1,000 per barrel of oil discharged, and failure to comply with a Federal removal order can result in civil penalties of up to \$25,000 for each day of violation (USEPA 2005).

### ***State Regulations***

The Ballast Water Management for Control of Nonindigenous Species section of the California Public Resources Code (Cal. Pub. Res. Code §§ 71203-71210.5) mandates that the operator of a vessel minimize the uptake and the release of nonindigenous species. Some of the steps to be taken include: a) discharging only the minimal amount of ballast water essential for vessel operations while in the waters of the state; (b) minimizing the discharge or uptake of ballast water in areas within, or that may directly affect, marine sanctuaries, marine preserves, marine parks, or coral reefs; (c) minimizing or avoiding uptake of ballast water in areas where invasive species or pollution are known to exist; and (d) cleaning the ballast tanks regularly in mid-ocean waters, or under controlled arrangements at port or in drydock, to remove sediments, and dispose of the sediments in accordance with local, state, and law.