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PROGRAMMATIC ENVIRONMENTAL ASSESSMENT OF THE U.S. COAST GUARD RESPONSE BOAT ACQUISITIONS

COMMANDANT

UNITED STATES COAST GUARD (G-ARB)

18 MARCH 2003

Abbreviations and Acronyms

%HA	percent highly annoyed
APLMRI	Atlantic Protected Living Marine Resources Initiative
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CFMC	Caribbean Fisheries Management Council
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
CNMI	Commonwealth of Northern Mariana Islands
CO	Carbon Monoxide
COMDTINST	Coast Guard Commandant Instruction
CWA	Clean Water Act
dB	decibel
DNL	Day-Night Average Sound Level
DO	Defense Operations/Contingency Preparedness
DoD	Department of Defense
DOI	Department of the Interior
DOT	Department of Transportation
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
ELT	Enforcement of Laws and Treaties
EMI	Electromagnetic interference
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIP	Federal Implementation Plan
FONSI	Finding of No Significant Impact
GLMPO	Great Lakes Monitoring Program Office
GSA	General Services Administration
HC	hydrocarbons
Hz	Hertz
IMO	International Maritime Organization
kW	kilowatt
lbs	pounds
mg/m^3	milligrams per cubic meter
MAB	Man and the Biosphere Program
MARPOL	International Convention for the Prevention of Pollution for Ships, November 2, 1973, London
MEP	Marine Environmental Protection
MLB	Motor Life Boat
MMA	Marine Managed Area
MMPA	Marine Mammal Protection Act
MPA	Marine Protected Area
MSST	Marine Safety and Security Team
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NDRS	National Distress and Response System
NEPA	National Environmental Policy Act
NERR	National Estuarine Research Reserve
NMFS	National Marine Fisheries Service
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NO_2	Nitrogen Dioxide
NPS	National Park Service
NSR	New Source Review
OCS	Outer continental shelf
ORMP	Ocean Resources Management Plan
O_3	Ozone
PAH	Polyaromatic hydrocarbons
PEA	Programmatic Environmental Assessment
PCB	Polychlorinated biphenyls
PM	Particulate matter
PM_{10}	Particulate matter $\leq$ 10 microns in diameter
ppm	parts per million
PSS	Port Safety and Security
RB-M	Response Boat-Medium
RB-S	Response Boat-Small
RBS	Recreational Boating Safety
RIB	Rigid Inflatable Boat
ROI	Region of Influence
ROG	Reactive Organic Gases
RPM	revolutions per minute
SAR	Search and Rescue
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
TACM	Toxic Air Contaminants Measure
TANB	Trailored Aid to Navigation Boats
THC	Total Hydrocarbons
tpy	tons per year
U&A	Usual and Accustomed
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
UNDS	Uniform National Discharge Standards
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USCG	U.S. Coast Guard
USFWS	U.S. Fish Wildlife Service
UTB	Utility Boat
UTL	Small Utility Boats
UTM	Utility Boat Medium
VOC	Volatile Organic Compound
$\mu g/m^3$	micrograms per cubic meter
μPa	microPascal

USCG

FINDING OF NO SIGNIFICANT IMPACT

FOR THE

U.S. COAST GUARD RESPONSE BOAT ACQUISITIONS

The Proposed Action includes the acquisition of response boats-small (RB-S) and response boats-medium (RB-M). The purpose of acquiring standard RB-S and RB-M is to add to or replace the aging and increasingly inefficient assets with standard, more reliable, and more environmentally sound assets. These boats would be located at the 44 Groups/Activities, 186 multi-mission stations, and 24 Marine Safety Offices that currently operate non-standard vessels and/or 41-foot Utility Boats. RB-S will replace existing non-standard boats. The RB-M would replace the 41-foot Utility Boats. The Programmatic Environmental Assessment (PEA) discusses, in general, that additional personnel, as well as additional boat allowances, may be needed at unknown locations in the future. However, because the numbers of personnel and boats and the time frame for these site-specific actions is currently unknown, they are not discussed in detail. Any unforeseen new boat allowances and additional personnel needed at specific locations would be addressed in site-specific follow on National Environmental Protection Act (NEPA) documentation as necessary. Furthermore, changes to infrastructure, frequently a response to homeporting decisions, would also be addressed in site-specific follow-on NEPA documentation. The PEA discusses, in general, the possibility of infrastructure changes resulting from this acquisition. However, detailed analysis of any necessary site-specific infrastructure changes will be discussed in follow on NEPA documentation as necessary.

The RB-S and RB-M would operate where the non-standard boats and 41-foot Utility Boats currently operate. The project scope includes all U.S. Coast Guard (USCG) facilities along the coastal U.S., including the Great Lakes states, Hawaii, Alaska, Guam, Puerto Rico, and the U.S. Virgin Islands. The project area includes the coastal zone areas where the 41-foot UTB and non-standard boats currently operate.

This project has been thoroughly reviewed by the USCG and it has been determined, by the undersigned, that this project will have no significant effect on the human environment.

This Finding of No Significant Impact (FONSI) is based on the attached contractor prepared PEA which has been independently evaluated by the USCG and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project and provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The USCG takes full responsibility for the accuracy, scope, and content of the attached PEA.

18 MARCH '03		CHIEF - SEC-3
Date	Environmental Reviewer	Title/Position

I have considered the information contained in the PEA, which is the basis for this FONSI. Based on the information in the PEA and this FONSI document, I agree that the Proposed Action as described above, and in the PEA, will have no significant impact on the environment.

18 MAR 03		Project Manager, G-ARB
Date	Responsible Official	Title/Position

USCG

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

FOR THE

U.S. COAST GUARD RESPONSE BOAT ACQUISITIONS

This U.S. Coast Guard (USCG) Programmatic Environmental Assessment (PEA) was prepared in accordance with Commandant Instruction M16475.1D and is in compliance with the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 Code of Federal Regulations Parts 1500-1508).

This PEA serves as a concise public document to briefly provide sufficient evidence and analysis for determining the need to prepare an environmental impact statement or a finding of no significant impact.

This PEA concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This PEA also contains a comparative analysis of the action and alternatives, a statement of the environmental significance of the preferred alternative, and a list of the agencies and persons consulted during the preparation of this PEA.

3/18/03	Catherine K. Kelly	Environmental Protection Specialist
Date	Preparer/Environmental Project Manager (as applicable)	Title/Position
18 MARCH 03	[illegible]	CHIEF SEC-3
Date	**Environmental Reviewer	Title/Position

In reaching my decision/recommendation on the USCG's proposed action, I have considered the information contained in this PEA on the potential for environmental impacts.

18 MAR 03	[illegible]	Project Manager, G-ARB
Date	Responsible Official	Title/Position

* The USCG preparer signs for NEPA documents prepared in-house. The USCG environmental project manager signs for NEPA documents prepared by an applicant, a contractor, or another outside party.

** Signature of the Environmental Reviewer for the Bridge Administration Program may be that of the preparer's.

PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

OF THE

U.S. COAST GUARD RESPONSE BOAT ACQUISITIONS

Contract No.: DTCG23-02-C-ARB043

Commandant
United States Coast Guard (G-ARB)
2100 Second Street, SW
Washington, DC 20593-0001

18 March 2003

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1. Purpose of and Need for the Action

1.1 Introduction

1.1.1 Overview of the United States Coast Guard and its Missions

The United States Coast Guard (USCG) is the Nation's oldest continuous maritime agency. Throughout its long history, the USCG and its predecessor agencies have responded when called upon to perform many and varied missions: from its earliest days as a "tax-collector" for the newly formed United States (U.S.), through its role in every major military conflict, to its activities to stop illegal aliens and narcotics, and its long history of search and rescue. The foundation of today's modern USCG goes back to the early years of our Nation's development shortly after winning independence. The USCG's multi-mission responsibilities stem from its five core-founding agencies that are now joined together as one agency. Those former agencies include the Revenue Cutter Service, the Lighthouse Service, the Steamboat Inspection Service, the Bureau of Navigation, and the Life-saving Service. Prompted by economics, maritime disasters, and war, a series of laws defined each agency's missions and authority.

The USCG is a military, multi-mission, maritime service that has answered the calls of America continuously for 212 years. Throughout its history, the USCG's roles as lifesavers and guardians of the sea have remained constant, while missions have evolved and expanded with a growing nation (USCG 2002a). Today, USCG operations extend to all maritime regions involving approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors, and more than 2.25 million square miles of U.S. territorial seas and Exclusive Economic Zone (EEZ). The USCG also operates in international waters and other maritime regions of importance to the U.S. where it conducts missions such as search and rescue, law enforcement, alien migrant interdiction, illegal drug interdiction, and national defense.

The USCG has extensive peacetime responsibilities for coastal and port maritime functions and a variety of country-to-country operations. These necessitate a broad spectrum of capabilities to respond to threats and crises. The USCG maintains a high state of readiness and has command responsibilities for the U.S. Maritime Defense Zones. Moreover, its operational capabilities figure importantly in small-scale contingencies, humanitarian assistance efforts, maritime interdiction operations in support of United Nations sanctions, and port security in overseas theaters (USCG 2002b). The USCG is unique in that it is the only maritime service with regulatory and law enforcement authority and military capabilities while being called upon also to provide for humanitarian operations. The USCG performs these roles in deepwater, coastal, and inland areas.

The USCG has a key role in ensuring America's maritime homeland security. Since September 11, 2001, the USCG has increased its maritime security posture using existing cutters, boats, and aircraft and active duty, civilian, reserve, and auxiliary personnel. The USCG has stood up four Maritime Safety and Security

Teams (MSST), one each at Seattle WA, Chesapeake VA, Galveston TX, and San Pedro CA. The MSSTs consist of six Response Boat-Small (RB-Ss) and their associated personnel. Environmental Assessments (EA), conducted for each location, found no significant impacts as a result of standing up the MSSTs. For more information on the MSST EAs, please contact Lieutenant Commander Kirk Schilling in the Office of Defense Operations at (202) 267-1504. In addition, the USCG immediately mobilized more than 2,000 reservists in the largest homeland defense and port security operation since World War II. Between September 11, 2001 and June 7, 2002, the USCG Auxiliary has contributed approximately 210,000 volunteer hours to support USCG missions (USCG 2002a). The USCG has increased its vigilance, readiness, and patrols to protect the country's 95,000 miles of coastline, including the Great Lakes and inland waterways.

The USCG has several roles in defense of homeland security:

- Protect ports, the flow of commerce, and the marine transportation system from terrorism
- Maintain maritime border security against illegal drugs, illegal aliens, firearms, and weapons of mass destruction
- Ensure that U.S. military assets can be rapidly deployed and re-supplied, both by keeping USCG units at a high state of readiness, and by keeping marine transportation open for the transit assets and personnel from other branches of the armed forces
- Protect against illegal fishing and indiscriminate destruction of living marine resources, prevention and response to oil and hazardous material spills, both accidental and intentional
- Coordinate efforts and intelligence with federal, state, and local agencies

To continue the effective and efficient performance of its multiple missions, the USCG proposes to acquire and operate approximately 880 new response boats at various locations to replace and improve upon existing shore-based response boat system capabilities.

1.1.2 Overview of the Shore Based Response Boat System

The USCG has dramatically shifted its mission activities to reflect its role as a leader in maritime homeland security. The USCG's heightened maritime security posture will remain in place indefinitely (USCG 2002c). The USCG remains at a heightened state of alert at over 361 ports and along 95,000 miles of U.S. coastline.

As part of this heightened security, the coastal zone must be safeguarded by an integrated system of shore-based response boats, patrol boats, and aircraft (collectively known as "assets") and command and control capabilities to ensure efficient and effective operations. Two parts of the shore-based response boat system have been identified as deficient: existing non-standard boats and the 41-foot Utility Boats

(41-foot UTB). The replacement for these deficient systems would be the RB-S and Response Boat-Medium (RB-M).

The existing system of shore-based response boat assets, nearing the end of its predicted service life, with many past their planned service life, has excessive operating and maintenance costs and decreasing operational availability due to age. To respond to these circumstances, the USCG has implemented the Shore-Based Response Boat System. Modern USCG response boats system requirements were first examined in the Naval Undersea Warfare Center "USCG Station Boat Fleet Mix Analysis" in 1994. In 1999, the Coastal Zone Mission Analysis report projected a gap in boat capability after Fiscal Year 2002 due to an increasing number of 41-foot UTB reaching the end of their service life (USCG 2002d). In 2001, the Assistant Commandant for Operations conducted further analysis of shore-based response boat requirements, and since the terrorist attacks of September 11, 2001, the USCG has identified a need for more capable response boats in greater numbers. The USCG will continue to evaluate and refine the Shore-Based Response Boat requirements and procedures.

The Shore-Based Response Boat System includes the Response Boat-Small (RB-S) as a replacement for smaller non-standard boats and the Response Boats-Medium (RB-M) as a replacement for the 41-foot UTB. The non-standard boat fleet, consisting of boats smaller than the UTBs, has varying capabilities, designs, and characteristics. These dissimilarities pose substantial safety, support, training, maintenance, and operational problems for the class of boat. Numerous analyses have pointed to distinct advantages (i.e., benefits derived from standardization of training and maintenance) of replacing the non-standard fleet with a standard boat. Agency-wide, acquisition of approximately 700 RB-Ss and 180 RB-Ms would be required. As the USCG continues to refine the Shore-Based Response Boat System, additional boats and personnel may be necessary. Any new boat allowances and additional personnel needed at specific locations would be addressed in follow-on environmental documentation, as necessary. The 41-foot UTB is at the end of its service life. A small number of 41-foot UTBs have been removed from service and replaced with non-standard Utility Boats-Medium (UTM). The UTMs are faster, operationally more flexible, and easier for station crews to maintain. Retaining the USCG's current RB-M capability will require substantial monetary investment to either extend the 41-foot UTBs service life or purchase additional boats like the UTMs.

1.2 Shore-Based Response Boat System and Assets

1.2.1 USCG Missions

The USCG has fourteen mandated missions. These missions fall into four broad categories: maritime law enforcement, maritime safety, national defense, and marine environmental protection. These four general areas are briefly discussed below.

Maritime Law Enforcement

Since its creation to enforce tariff laws in 1790, law enforcement has been a primary responsibility of the USCG. Title 14 U.S. Code (U.S.C.) Section 89(a) gives USCG officers and petty officers authority to make inspections, searches, seizures, and arrests for violations of U.S. laws. USCG law enforcement efforts extend to living marine resources law enforcement, drug interdiction, alien migrant interdiction operations, and general law enforcement.

As a lead Federal agency for at-sea enforcement of national fisheries and marine resource laws and international treaties, the USCG conducts a number of at-sea enforcement activities. Enforcement is carried out to benefit fisheries, to protect important marine habitat, and to protect threatened and endangered species including, for instance, the northern right whale, Kemp's Ridley sea turtle, Hawaiian monk seal, Steller sea lion, and harbor porpoise. During the reporting period of September 11, 2001 through March 8, 2002 (the most recent reporting period), the USCG responded to 115 pollution cases, interdicted 1,529 illegal immigrants, seized 70,560 pounds (lbs) of cocaine, and seized 19,534 lbs of marijuana.

Maritime Safety

The USCG's Search and Rescue (SAR) and international ice patrol services are essential to protecting lives and property. The USCG averages 50,000 calls for assistance each year and saved approximately 3,800 lives in 1999. Between September 11, 2001 and September 11, 2002, (the most recent reporting period) the USCG conducted over 31,500 SAR operations, assisted over 39,000 people in distress, and saved 3,281 lives (USCG 2002e). The USCG responds to all calls of distress, whether from fishing and recreational boats, downed aircraft, or freighters and tankers. Additionally, the USCG continues to support programs to ensure that boats are safe for public use and that they contain appropriate safety equipment.

National Defense

Although it is part of the Office of Homeland Security, the USCG remains an armed force with a national defense mission. Examples of this national defense mission include providing peacetime presence, crisis-response, and combat operations across the spectrum of military engagement scenarios, from small-scale contingencies to major theater wars. These capabilities support joint and combined forces in peacetime, crisis, and war. Missions assigned to the USCG include:

- Military environmental response operations
- Peacetime military engagement
- Maritime interception operations
- Coastal sea control operations

- Port operations, security, and defense

During the most recent reporting period, the USCG conducted more than 35,000 port security patrols and 3,500 air patrols, boarded 2,000 "high interest" boats, and escorted 6,000 boats into and out of port. In addition, it established and maintained 124 security zones in the Nation's ports (USCG 2002c).

Marine Environmental Protection

The USCG protects critical natural resources in the 2.25 million-square mile U.S. EEZ and provides a wide range of prevention, protection, containment, and recovery activities and operations. The USCG also responds to oil spills of all sizes, funds and often directs their cleanup, and assists in identifying responsible parties. During the most recent reporting period, the USCG responded to 115 pollution cases. In the post-September 11, 2001 era, pollution response activities may be needed even more as potential terrorists' activity could include environmental terrorism.

1.2.2 Response Boat Missions

Traditionally, the USCG has employed a multi-mission operational doctrine for boats deployed from coastal stations. This has allowed general-purpose assets to support several mission areas. The response boats conduct several primary missions:

- *Search and Rescue (SAR)* – As mandated by Title 14 U.S.C. Section 88, the USCG is responsible for rendering "aid to distressed persons, boats, and aircraft on and under the high seas and on and under the waters over which the United States has jurisdiction." Response boats are primary assets for conducting coastal zone SAR from most USCG stations.
- *Recreational Boating Safety (RBS)* – In 1971, the Federal Boat Safety Act established a national program encompassing all aspects of boating safety. This act, as amended and codified into Subtitle II of Title 46 U.S.C., tasks the USCG with coordinating a National Recreational Boating Safety Program, promulgating boating safety standards, and enforcing those standards. With an emphasis on prevention, response boats are primary assets for enforcing boating safety standards. Response boats enable USCG personnel to monitor, board, and inspect recreational boats to determine compliance.
- *Marine Environmental Protection (MEP)* – The USCG protects the public health and safety and natural resources from consequences of oil and hazardous material incidents under Title 16 U.S.C. and the provisions of a wide range of specific laws and treaties such as the Clean Water Act and the International Convention for the Prevention of Pollution from Ships, November 2, 1973, London (MARPOL). The USCG's primary emphasis is on prevention. If prevention fails, appropriate response is required to minimize associated damage. In many cases, USCG boats provide the first line of defense in the MEP program. One of the primary missions of response boats is to support the MEP program through patrols and investigations. Once an MEP problem has been identified, response boats may act in a supporting role to the assets used for correction or containment.

- *Enforcement of Laws and Treaties (ELT)* – The ELT program emphasizes protecting living marine resources, preventing illegal drug trafficking, interdicting illegal migrants at sea, and enforcing a wide range of Federal laws and treaties. In addition, the ELT program provides support to other Federal, state, and local law enforcement activities. The authority for the ELT program is primarily set forth in Title 14 U.S.C.; additional authorities are contained in Titles 8, 16, and 46 U.S.C., along with several Executive Orders (EO) and Presidential Decision Directives. While the ELT program has been a mission since the USCG's inception, recent years have seen an increase in drug and alien migrant interdiction within the coastal zone. Response boats support ELT in the coastal zone through conducting patrols, boarding suspect boats, and recovering illegal alien migrants and contraband from the sea.
- *Port Safety and Security (PSS)* – The Magnusen Act and the Port and Waterways Safety Act of 1972, along with Titles 14, 16, 33, and 46 U.S.C., various EOs, provide the basis for the USCG's PSS program. The safety component of the program is primarily concerned with the prevention of accidental damage to boats and port facilities. The security component is primarily concerned with the prevention of intentional destruction, loss, or damage to port assets through terrorism and sabotage. While the USCG's role in homeland security following September 11 is still evolving, it is primarily a component of PSS. Response boats support PSS and homeland security through direct security operations (i.e., patrol and interdiction) and support (i.e., transporting inspectors, investigators, and personnel to commercial boats).
- *Defense Operations/Contingency Preparedness (DO)* – In accordance with Title 14 U.S.C., the USCG operates as a branch of the U.S. Navy in times of war. This happened twice in the 20th century, first in World War I and then again in World War II. Whether under the U.S. Navy or the Department of Transportation (DOT), the USCG takes an active military role, providing support to a wide range of operations including those that have occurred in Korea, Vietnam, Grenada, the Persian Gulf, and Haiti. Authorities for this aspect of the USCG's mission are set forth in numerous sections of Titles 10, 33, and 50 U.S.C., as well as various EOs. In addition, under Title 10 U.S.C., the USCG directly supports operations within the maritime defense zone, a coastal theater. Within the coastal zone, response boats are one of the primary assets for DO. Response boats may be deployed overseas in support of high priority DO, if necessary.

The response boats need to perform these missions in the environmental conditions prevalent in the entire U.S. Coastal Zone.

1.3 Purpose and Need for the Action

1.3.1 Purpose of the Response Boat Project

The USCG proposes to acquire and operate approximately 880 boats to replace and add to its existing inventory of medium and small response boat assets. The purpose of the Proposed Action is to provide the USCG with boat fleets capable of executing a variety of missions that the USCG is called upon to perform primarily in the coastal zone but also in deepwater and inland areas.

1.3.2 Need for Replacing Response Boat Assets

The USCG needs to replace its aging and increasingly inefficient medium and small boat assets in order to meet mission needs:

- Ensure optimal capabilities to carry out the mission programs noted in Section 1.2.2.
- Reduce total ownership costs through use of fleets that are more economical to man, operate, and maintain.
- Facilitate readiness through maximizing boat availability and through reduction of required maintenance time.
- Achieve efficiencies in maintenance and training support that are available from fleets consisting of similar boats.

The 41-foot UTBs first entered service in 1973. The USCG Yard continued to build them until 1983. The 41-foot UTBs replaced 40-foot UTBs, which began service in 1951. The 208 41-foot UTBs that entered USCG service have been primary assets for station-based USCG response within the coastal zone. Exceeding the end of their 25-year predicted service life, the 41-foot UTBs are experiencing increasing maintenance costs and decreasing operational availability due to age. To date, 49 of the 41-foot UTBs have been taken out of service. Some 41-foot UTBs were replaced with new 47-foot Motor Lifeboats (47-foot MLB); the remainder of those taken out of service has been replaced with non-standard UTMs. These UTMs are considered an interim, stopgap solution and do not totally fulfill mission needs. Although the 41-foot UTB has performed admirably over the years, the USCG's role in the coastal zone has changed. While SAR is still an important mission for the 41-foot UTB, recent emphasis has been placed on faster response time and longer patrol endurance and intercept for missions such as enforcement of laws and treaties, port safety and security, and defense operations.

Most boats operating from USCG stations are smaller, non-standard boats. These are typically 18- to 24-foot, open, outboard-powered boats. Over the past ten years, the most predominant non-standard boat has been a Rigid Inflatable Boat or foam-fendered boat with a center console arrangement and twin outboards.

The USCG has more than 350 non-standard response boats assigned to shore units. Typically, every station has at least one of these boats to supplement the primary MLBs or UTBs. These smaller boats require fewer crew members, can get underway more quickly for rapid local response, and can operate in shallower coastal waters. The smaller boats back up the larger boats as quick response assets for short duration missions and to reach areas that are not accessible by the larger boats. In addition, most of these boats can be easily trailered, allowing their deployment to a wide variety of locations. As a class, the non-standard boats have evolved to have very similar roles throughout the USCG. At the same time, it has become evident that station-level support of a large, disparate fleet of boats results in increased

maintenance and training burdens and increased operational risk. Additionally, the lack of system stock spare parts and maintenance information has led to reduced service life. Standardization of these smaller boat assets would allow the USCG to realize a number of benefits including reduced boat cost due to quantity purchase, standard parts support, and standardized training and doctrine.

1.4 Project Scope and Area

The project scope includes all USCG facilities along the coastal U.S., including the Great Lakes states, Hawaii, Alaska, Guam, Puerto Rico, and the U.S. Virgin Islands (see Figure 3-1). The project area includes the coastal zone areas up to 50 miles offshore where the 41-foot UTB and non-standard boats currently operate. The majority of replacements would be on a one-for-one basis at existing facilities. Because of the one-for-one replacement, the USCG anticipates very few circumstances where infrastructure changes would be necessary. Some missions, such as SAR, ELT, alien migrant interdiction, illegal drug interdiction, and national defense, may occasionally occur outside the project area.

The USCG manages regional operations, including its inland, coastal, and deepwater missions, through nine districts. To evaluate the environmental and socioeconomic resources, this Programmatic Environmental Assessment (PEA) divides the project area into six regions of influence (ROI). The boundaries of the six ROIs and the nine USCG districts differ. The ROIs are delineated in order to focus attention on environmental concerns rather than administrative divisions. Moreover, this approach reduces the amount of duplication that would otherwise appear. The regions, identified and discussed in Section 3.0, cover all nine USCG districts.

1.5 Scope of the PEA

A PEA is prepared on broad Federal actions such as the adoption of new agency programs, actions that occur over a broad area, or actions that encompass numerous phases. A PEA is prepared to aid the development of an approach for implementing a broad policy or program. A PEA also may be prepared when an agency contemplates a major decision with wide-reaching impacts but has not yet made specific decisions as to the implementation of that decision. The Response Boat Acquisition meets PEA criteria in several ways: response boat missions occur over broad geographic areas; acquisition and introduction would take place in phases over the next decade; and specific decisions on asset allocation and distribution have not yet been reached.

The objective of this PEA is to document and assess, at a high level, the magnitude and intensity of potential environmental effects of the USCG's proposal to acquire and operate response boats. Additionally, the PEA addresses potential impacts of the continued use of existing assets (the No Action Alternative). Findings derived from the PEA will allow the USCG and the public to compare environmental impacts of the Response Boat Acquisition to taking no action. The decision maker will be

aware of the information contained in the PEA when deciding whether or not to proceed with award of a contract to acquire the two types of response boats described in this PEA.

The only decision being made as a result of this PEA is whether or not the USCG should proceed with procurement of new RB-S and RB-M assets. Such procurement would occur over the next decade and would depend on the availability of funds provided by Congress. While most of the boats would be replacing non-standard boats on a one-to-one basis at existing USCG facilities, future homeporting decisions for the remaining boats will be made in the future. Homeporting decisions may also depend on a number of factors that may change over time, including schedule of asset delivery, further direction from the U.S. Congress, mission requirements, and environmental impacts. In light of these uncertainties, attempts to identify detailed impacts to specific location that might be affected by the procurement action are premature. Moreover, because the acquisition would occur over the next decade, environmental conditions at any potential homeport location are likely to change. The majority of boats discussed in this PEA would be one-to-one replacements at existing USCG facilities. Decisions regarding the homeporting of the remaining boats would be made as the USCG continues to develop response boat systems and procedures. Therefore, decisions concerning basing of those boat assets would be made at a later date and would be supported by additional environmental documentation, as appropriate. To this end, a secondary goal of this PEA is to serve as a tiering document to which subsequent analysis may be built upon. With regional environmental concerns identified in this PEA, the necessary follow-on environmental documentation would be prepared in a timely and appropriate manner in the future.

This PEA identifies known environmental concerns using a wide geographic perspective to assist the USCG in developing follow-on environmental documents. Identification of concerns in the PEA is not intended to be the only identification or evaluation of potential issues. Rather, broad concerns raised in this PEA may be addressed in particular and as appropriate in future analyses, depending on the nature of future proposals related to the Response Boat Acquisition program. This PEA facilitates and expedites preparation of those subsequent NEPA documents.

The project scope includes the current inventories of the USCG's 41-foot UTBs and non-standard boats. The scope also covers the coastal regions of the continental U.S., Alaska, Hawaii, Guam, Puerto Rico, and the U.S. Virgin Islands.

This PEA covers resources relevant to a programmatic level of analysis: marine-related biological resources, water resources, noise, and air quality. Most of the boats to be acquired under this acquisition would replace existing boats on a one-to-one basis at existing USCG facilities. Homeporting decisions of the remaining boats are not part of this PEA and would be the result of the USCG's continual development of response systems and procedures. As appropriate to such future decisions, additional environmental resources may be identified and discussed. These could include resources such as cultural

resources, hazardous materials and waste management, socioeconomics and environmental justice, land use, and marine safety and transportation.

This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality (CEQ) regulations on implementing NEPA (issued at 40 Code of Federal Regulations (CFR) Parts 1500-1508), DOT Order 5610.1C, *Procedures for Considering Environmental Impacts*, and USCG Commandant Instruction (COMDTINST) M16475.1D *NEPA: Implementing Procedures and Policy for Considering Environmental Impacts.*

1.6 Follow-on NEPA Documentation

If the Proposed Action, described in Chapter 2, is selected for implementation, follow-on NEPA documentation may be required for actions such as homeporting the RB-Ss and RB-Ms. Homeporting decisions will be influenced by many factors, including schedule of asset delivery, congressional funding, mission requirements, and environmental impacts. Since the implementation of the Proposed Action would occur over a decade, some of these factors may change. The majority of boat replacements would occur on a one-for-one basis. The USCG is currently formulating plans for all sites where new RB-Ss and RB-Ms would be located. While the majority of replacements would occur at facilities that currently operate small non-standard boats and 41-foot UTBs, some replacements could result in the homeporting of additional boats. Once all homeporting decisions are finalized, follow-on NEPA may be necessary. Specific homeporting decisions may be discussed in different environmental documents at different times throughout the acquisition process (i.e., an EA on a specific District or region, an EA covering specific years, or an EA or CATEX on a case-by-case basis). The USCG would refer to the PEA to determine whether follow-on NEPA documentation is necessary. Homeporting decisions, therefore, would be made in logical groupings rather than as a single plan. These groupings could include: by region, by range of years, or in some cases on an individual basis.

The USCG's current procedure for making homeporting decisions is to evaluate possible alternative sites by key criterion, including mission requirements, infrastructure, cost, quality of life, and environmental impact. When the process concludes, the information will be used to make recommendations to the Commandant of the USCG. When an action is ripe for decision-making, appropriate NEPA documentation will be prepared to provide environmental and socioeconomic information to the decision-maker, and ensure all environmental laws and regulations are considered.

1.7 Public Involvement Process

To meet the spirit and intent of NEPA, public involvement is encouraged as early as possible. The public involvement for this PEA is described below.

1.7.1 Public Scoping Process

Scoping is designed to obtain public comments on the Proposed Action, thereby helping the USCG to determine the environmental and socioeconomic issues to be addressed in the PEA. The scoping process for the PEA involved a mailing to interested state and Federal parties in the ROI. The mailing included an Interested Party Letter describing the proposed project. The Interested Party Letter appears in Appendix A. The mailing list for the Interested Party Letter appears in Appendix B. Interested parties were given 45 days to submit comments. In addition, a Notice of Intent (NOI) was published in the Federal Register, announcing the USCG's intent to prepare a PEA. The NOI appears in Appendix A. Letters and comments appear in Appendix C.

1.7.2 Public Review of Final PEA and FONSI

This Final PEA includes all comments that were received on the Draft PEA. An NOA for the Final PEA and FONSI, if applicable, will be published in the Federal Register.

1.8 Organization of the PEA

Acronyms and abbreviations are used throughout the document to avoid unnecessary length. A list of acronyms and abbreviations used throughout this document can be found on the inside cover of this PEA.

Chapter 1: Purpose and Need for the Action: Consistent with CEQ regulations, this chapter identifies the purpose of and need for the proposed action. The chapter also provides an overview of the action, describes the area in which the Proposed Action would occur, and explains the public involvement process.

Chapter 2: Proposed Action and Alternatives: This chapter describes the Proposed Action, alternatives considered, and the No Action Alternative.

Chapter 3: Affected Environment: This chapter describes existing environmental conditions in the areas where the Proposed Action would occur.

Chapter 4: Environmental Consequences: Using information in Chapter 3, this chapter identifies the potential for significant environmental impacts on each resource area under the alternatives evaluated in detail. Direct and indirect impacts are identified on a broad scale as appropriate in a PEA.

Chapter 5: Cumulative Impacts: This chapter discusses the potential cumulative impacts that may result from the impacts of the Proposed Action, combined with foreseeable future actions.

Chapters 6 and 7: These chapters provide references and a list of document preparers.

Appendices: This EA includes nine appendices that provide additional information. Appendix A includes a copy of the Interested Party letter and a copy of the NOI as published in the Federal Register. Appendix B is a copy of the mailing list that provides the names of those to whom the Interested Party letter was sent. Appendix C includes the written comments to the Interested Party letter and the NOI. Appendix D provides an explanation of the disposal process for excess property. Appendix E includes the spreadsheets for the air quality analysis. Appendix F provides further explanation of the terminology and methodology used in the noise resource section. Appendix G is a descriptoin of the USCG's Ocean Steward program. Appendix H is an excerpt from the Atlantic Protected Living Marine Resources Initiative (APLMRI) Environmental Impact Statement (EIS). Finally, Appendix I includes tables listing the aquatic species within the six ROIs.

2. Proposed Action and Alternatives

2.1 Proposed Action

The U.S. Coast Guard (USCG) proposes to acquire and operate approximately 880 new response boats to add to or replace existing USCG boat capability. Of the boats to be acquired, approximately 700 would be Response Boat Small (RB-S) and the remaining 180 would be Response Boat Medium (RB-M). These boats would augment or replace present boat assets at 44 Groups and Activities, 186 multi-mission stations, and 24 Marine Safety Offices of the USCG. The RB-S would replace non-standard small boats on a one-for-one basis at existing facilities. The majority of the RB-Ms would replace Utility Boats (UTBs) on a one for one basis at existing facilities. Some locations may receive more than one boat. Acquisition of the boats would occur over a period of approximately ten years. Response boat replacements would be used at multiple locations along the coastal regions of the continental U.S., Alaska, Hawaii, Guam, Puerto Rico, and the U.S. Virgin Islands. Personnel currently serving on the UTBs and non-standard boats would be trained prior to transfer to the new boats. This Proposed Action is the USCG's preferred alternative.

The USCG currently has 155 41-foot UTBs and approximately 350 non-standard boats at stations around the country. The current fleet of small utility boats is an assorted mix of models by various manufacturers that have been acquired with more attention to immediate mission needs than to long-term supportability or training considerations. As a result, the current fleet of USCG boat assets lacks the technology, full-mission capability, and standardized training and maintenance necessary for efficient and effective mission performance.

As part of the Proposed Action, the USCG would dispose of the 41-foot UTBs and non-standard boats as their replacements become available. The majority of replacements would occur on a one-for-one basis at existing USCG facilities. The USCG has two principal options for disposal of the present fleets of boat assets.

- *Cannibalize Parts for Reuse.* This disposal method involves placing the boats in dry-dock and using salvageable parts to repair active boats. Because homeporting the RB-Ss and RB-Ms would occur over several years, the parts could be beneficial to units needing to make repairs.
- *Excess to General Services Administration.* The USCG could excess the boats to the General Services Administration (GSA). The USCG has specific guidance for this process. Using this disposal method would involve temporary storage, if necessary, and declaring the boats excess to USCG needs. Subsequent disposition of the boat assets would comply with specific statutory and regulatory procedures that establish a hierarchal process for disposal. That process is discussed in detail in Appendix D.

2.2 No Action Alternative

The continuation of the existing conditions without implementation of the Proposed Action is referred to as the No Action Alternative. For the purposes of this project, the No Action Alternative is defined as the continued use of non-standard boats and 41-foot UTBs until such time that they are no longer serviceable. At that time, the existing non-standard boats or 41-foot UTBs would be replaced on a one-for-one basis. The No Action Alternative serves as the benchmark against which Federal actions can be evaluated. Inclusion of the No Action Alternative is prescribed by the Council on Environmental Quality (CEQ) regulations and, therefore, will be carried forward for further analysis in the Programmatic Environmental Assessment (PEA).

Under the No Action Alternative, the USCG would continue to operate existing assets with periodic upgrades to those assets until their replacement. As in the past, replacement would occur on a one-for-one basis. This would mean that as a UTB or non-standard boat reaches or surpasses the end of its economic service life, it would be replaced with the same type of asset or by an asset with similar capabilities. There are several major problems inherent in this approach. The first is that the USCG would not have an integrated system. Assets would operate at differing levels of efficiency, resulting in decreased efficiency and higher maintenance costs. Moreover, older boats with slower speeds would have longer response times for security concerns, search and rescue (SAR), drug interdiction, oil spill and alien migrant response operations. Also, assets acquired at various times would continue to require different maintenance schedules and a larger parts inventory, thereby increasing overall life cycle costs.

Under the No Action Alternative, potential improvements associated with the acquisition of RB-Ss and RB-Ms would not be realized. Advantages of the RB-S and RB-M include:

- Improved maintenance and training support by obtaining knowledge of one type of boat.
- Decreased risk to crews because the newer boats would have additional safety measurements and would be subject to less maintenance.
- Increased boat service life by acquiring new boats versus repairing older boats.
- Acquisition cost savings through volume purchasing (multiple identical boats versus individual non-standard purchases).
- Decreased maintenance associated with newer boats provides enhanced operational availability.
- RB-Ss and RB-Ms provide enhanced crew safety through the provision of secure seating, an environmentally controlled cabin, and self-fendering capabilities.
- The interoperability of the RB-S and RB-M with Rescue-21 enhances the overall USCG command and control in the coastal zone.
- RB-Ms are substantially faster than the 41-foot UTB, allowing for greater effectiveness on SAR, LE, and other missions requiring a faster response, and the new Homeland Security responsibilities.

- Technological advances in the past decade allow the RB-M to be better equipped than the 41-foot UTB, enhancing mission capabilities.

The result would be further strain on manpower and current assets and a decline in the capability of the USCG to perform their mission responsibilities. This scenario would possibly make it easier for an attack to occur in U.S. waters and longer time-period to respond to the results of such an attack.

2.3 Alternatives Considered but Eliminated

In developing alternatives to the Proposed Action, the USCG has assessed the viability and reasonableness of other alternatives. These are discussed below, along with the reasons for their elimination from detailed analysis in this PEA.

2.3.1 Localized Replacement of Non-standard Boats

The USCG considered the one-for-one replacement of non-standard boats on localized needs. Existing non-standard boats would be replaced on an as-needed basis with new non-standard boats. This alternative does not meet the USCG's established purpose and need, particularly in response to increased Homeland Security demands. The purpose is to replace current boats with more cost efficient, safer, and more environmentally sound boats that meet the mission requirements. Under this alternative, there would be increased strain to boats and manpower and disruption to missions would continue. This alternative was found to be not viable because it would lead to inefficiencies in maintenance and training support, an increased risk to crew safety, and reduced boat service life. Therefore, this alternative was deemed not viable.

2.3.2 RB-M Replacement Alternatives

Several alternatives have been considered for providing RB-M mission capability within the coastal zone:

- Extend service life of 41-foot UTB
- Purchase additional 47-foot Motor Life Boats (MLB) to replace 41-foot UTB
- Acquire non-standard Utility Boats-Medium (UTMs)
- Do not replace and rely on existing 47-foot MLB and RB-S class assets to accomplish missions

Selection of this alternative would not meet the USCG's established purpose and need. The purpose is to replace current boats with more cost efficient, safer, and more environmentally sound boats that meet the mission requirements. The 41-foot UTBs are past their planned service life and are becoming cost-prohibitive to maintain. Many replacement parts are no longer in production, and the frequency of failure of some parts is on the rise. Overall, their operational availability is on a downward slope, reducing the USCG's ability to respond when needed. The 47-foot MLB costs more to operate and is more boat than

necessary for the mission in most areas where the 41-foot UTB is deployed. Additionally, facility changes would be necessary to accommodate the larger boat at several locations. Replacing the 41-foot UTBs with non-standard UTMs would lead to inefficiencies in maintenance and training support, an increased risk to crew, reduced boat service life, and uncertified mission capability. The existing 47-foot MLB are not suitable for performing all 41-foot UTB mission requirements for the reasons previously stated. The RB-S is too small to meet all 41-foot UTB mission requirements. Therefore, these alternatives are deemed not viable.

2.3.3 Reliance on Other Agencies

In developing the Proposed Action and alternatives, the USCG has assessed the viability and reasonableness of mission performance by other agencies. Most notably, the concept of transferring coastal zone missions to the U.S. Navy is not feasible. The USCG is mandated to carry out these coastal missions, and the U.S. Navy has neither the authority nor the resources to execute these missions. Furthermore, under the Posse Comitatus Act (Title 18 United States Code [U.S.C.] Section 1385, further codified in Title 10 U.S.C. Sections 371-78), only the USCG is permitted to perform boardings of boats and, if necessary, arrest the crews (USCG 2002e). Therefore, this alternative was eliminated because it would not meet the purpose and need for this project.

2.4 Comparison of Environmental Effects of All Alternatives

Table 2-1 summarizes the impacts of the Proposed Action and No Action Alternative.

Table 2-1. *Impact Summary Matrix

*** NOTE that this table contains a programmatic *summary* evaluation of impacts. This EA is a first step in a tiered NEPA process. Site-specific analysis will be done where necessary to determine if additional NEPA analysis and documentation is needed once specific sites are known. While it is anticipated that the proposed action will result in the majority of boat replacements being one-for-one replacements with no other changes, site specific infrastructure changes, additional personnel or additional boats are possible at some locations and may trigger site-specific impacts this document currently cannot evaluate at the programmatic level. For more a detailed programmatic environmental analysis of alternatives, see Section 4.0 of this document.**

Resource Area	Proposed Action	No Action Alternative
Air Quality	The regions in which USCG Response boats operate will have varying levels of air quality and regulatory authority to develop and implement air regulations. As a result, air pollution regulations and calculations can be quite complex and site or area specific. The USCG intends to make site-specific compliance and significance determinations during follow- on tiered NEPA analysis. Although some locations may receive more than one boat, the increased efficiency of the engines would result in fewer emissions.	The regions in which USCG current boats and their one for one replacements operate will have varying levels of air quality and regulatory authority to develop and implement air regulations. As a result, air pollution regulations and calculations can be quite complex and site or area specific. The USCG intends to make site-specific compliance and significance determinations during follow- on tiered NEPA analysis. It may; however, be reasonably expected that the continued operation of older boats, may result in increased emissions as the boats age. As new boats replace older boats, this potential impact would decline.

Noise	Due to low speed approach and docking at USCG facilities in primarily industrial environments and the fact that most high-speed missions occur far from shore even though some locations may receive more than one boat, the potential noise from replacement boats would not have significant impacts on humans and terrestrial wildlife. Because sound levels created by the RBSs and RBMs will be well below sound intensities associated with severe disturbance to whales or other marine mammals, and noise disturbance to sea turtles in the water would be temporary in nature, marine wildlife will not be impacted significantly from noise.	Noise impacts from continued operation of current vessels and one for one replacement of older vessels over time would have no significant impact to humans or biological resources for the same reasons indicated under the proposed action alternative. While there could be slightly less noise impacts due to fewer boats in operation at one time, older vessels in need of greater maintenance and repair could be slightly noisier. However, the difference in impact level from the action alternative is minimal for the same reasons indicated in the action alternative.
Biological Resources	Although some locations may receive more than one boat, current USCG environmental policies, regulations, and programs designed to protect living marine species (eg. The APLMRI – Appendix H, Ocean steward – Appendix G and speed guidance designed to avoid collisions with marine mammals would continue to be followed; therefore, neither one for one replacement of boats nor small numbers of additional boats will have significant impacts to biological protected marine resources or habitats. Additionally, these boats are designed to be highly maneuverable. Since part of the USCG's mission is to enforce environmental laws on the water including those protecting marine resources, additional standardized and newer boats may result in slight increased efficiency in carrying out those missions, which would be a minor to moderate beneficial impact..	Older boats may not have as quick a response time as newer boats nor would they be standardized thereby increasing the possibility of less mission efficiency. There could be a minor to moderate negative impact from the inefficiencies of the older non-standardized boats; the impact is not expected to be significant since the boats would eventually be replaced over time with newer albeit not standardized boats and protections currently in place and described under the action alternative would be still be in effect.

Water Resources	Although some locations may receive more than one boat, most USCG facilities are located in urban areas where water resources are readily available. In addition, newer boats would release fewer pollutants into waters. Therefore, no significant impacts to water quality are expected from this alternative.	Although older non-standardized boats would continue to operate for longer periods before being replaced, impacts to surface waters from potential pollutants associated with maintenance problems on older boats would slowly diminish as newer, cleaner, boats replace current boats. Therefore, surface water pollutants would be negligible and non significant.

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3. Affected Environment

3.1 Resources for Analysis

This chapter provides the baseline physical, biological, social, and economic conditions that occur with the region of U.S. Coast Guard (USCG) Response Boat-Small (RB-S) and Response Boat-Medium (RB-M) missions. The information provides the basis for potential impact analysis at a programmatic level. Only those environmental and socioeconomic conditions relevant to the programmatic level discussion are presented. The USCG would replace the majority of current boats on a one-for-one basis at existing facilities. It is anticipated that very few, if any, infrastructure changes would be necessary at any particular location. Therefore, the Affected Environment section will only address the following resource areas: air quality, noise, biological resources, and water resources and will focus on the impacts of boat operations. Because homeporting is not part of the asset acquisition decision, site-specific resources are not discussed. Potential impacts that may result of homeporting decisions would be addressed in follow on NEPA documentation. The USCG will use the PEA to determine the extent of the follow-on NEPA documentation, if necessary. Some environmental resources and conditions that are often analyzed have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- *Soils and Land Use.* Under the Proposed Action, most boats would be replaced on one-for-one basis; therefore, the Proposed Action would only involve minor, if any, physical disturbances, earth moving, or construction activities. However, it is also possible that shore facilities could be affected by future actions. Because it is not known at this time if future decisions may impact existing facilities, potential impacts from those homeporting decisions would be addressed in follow-on NEPA documentation. Accordingly, the USCG has omitted detailed analysis of soils and land use.
- *Socioeconomics.* The Proposed Action does not involve any activities that would contribute to changes in socioeconomic resources. There are a number of federally recognized Indian Tribes, Eskimos, Aleuts, and Native Hawaiians throughout the ROI. The USCG recognizes the rights of the treaty Indian fishers under the Stevens Treaties, as clarified in the well-known *U.S. v Washington* line of cases, beginning with *United States v Washington,* 384 F. Supp.312 (W.D. Wash.1974). In many areas throughout the U.S., the USCG (either the Captain of the Port or his designate) works with the various tribes to identify Usual and Accustomed (U&A) fishing areas, the dates when such areas may be used, and when boats may be traveling through these areas. USCG operations do not encroach upon the rights of American Indians, Eskimos, Aleuts and Native Hawaiians to exercise their traditional religions. Given the programmatic scope of the two alternatives, it is unlikely that the project would affect American Indian or Native Hawaiian, Native Alaskan, or other recognized tribal interests; however, when homeporting decisions are made, these interests would be addressed, as appropriate, in follow-up NEPA documentation. The Proposed Action is not anticipated to impact the current U&A fishing areas in the ROI. The USCG would continue to coordinate with the tribes to ensure that less than substantial direct effects would result from the operations of these boats. As in the case of the Seattle MSST EA, the USCG would continue to consult, as necessary, regarding U&A fishing areas with the appropriate tribal leaders. Given the USCG's commitment to working with the Tribes, security and fishing rights protection need not be

incompatible. The Proposed Action would not have a substantial direct effect on one or more Indian Tribes, or on the distribution of power and responsibilities between the Federal government and Indian Tribes. However, the USCG acknowledges that there could be some effects under a heightened security or emergency situation. No new personnel would be added to current facilities. Therefore, no significant impacts are expected. However, some additional personnel may be necessary at those homeports where more than one boat would be located. In those cases, potential impacts would be assessed in follow-on NEPA documentation. Accordingly, the USCG has omitted detailed examination of socioeconomics from this PEA.

- *Environmental Justice.* Implementation of the Proposed Action would not result in adverse impacts in any environmental resource area that would be expected to disproportionately affect minority and low-income populations. Therefore, there are no significant impacts. Because it is not known at this time if future decisions may impact minorities and low-income populations, potential impacts from those homeporting decisions would be addressed in follow-on NEPA documentation. Accordingly, the USCG has omitted detailed examination of environmental justice from this PEA.

- *Cultural Resources.* The Proposed Action does not involve any activities that would impact cultural resources. Under the Proposed Action, most boats would be replaced on one-for-one basis; therefore, the proposed action would only involve minor, if any, physical disturbances, earth moving, or construction activities. Given the programmatic scope of the two alternatives, it is unlikely that the project would affect American Indian or Native Hawaiian, Native Alaskan, or other recognized tribal interests; however, when homeporting decisions are made, these interests would be addressed in follow-on NEPA documentation. When it comes time to replace the older boats, the USCG would need to evaluate the retiring assets, using guidelines established in Federal legislation and regulation and USCG guidance. The 41-foot UTBs were constructed between 1973 and 1983 at the USCG Yard in Baltimore, MD. Therefore, they are under 50 years old - one of the criteria for determining whether a resource is eligible for the National Register of Historic Places. However, because these boats are not 50 years old, in order for them to be eligible for the register as "historic resources" they must be associated with something *exceptional* in American history. These boats have taken part in a wide variety of actions during their 25 years of service (e.g., some participated in the recovery of Space Shuttle Challenger debris, debris from TWA Flight 800, and the search for John F. Kennedy, Jr's aircraft); however, the role of these small boats in such events was not pivotal. They were part of a much larger effort along with many others whose roles were likely larger and more important that that of these small and medium sized USCG boats. It is unlikely that any one or all the class distinguished it, or themselves, at the "exceptional level" in history. It is also doubtful that these boats are significant for their construction or engineering. Prior to future decommissioning, these assets should be assessed for eligibility per the National Register criteria and proper compliance completed under Section 106 of the National Historic Preservation Act. The concerns expressed by the appropriate State and local agencies and organizations will be considered during the USCG's historical assessment. It is also possible that shore facilities could be affected by future site-specific actions, such as refitting, modifying facilities, or transferring or selling properties. Because it is not known at this time if there would be any effects on these existing facilities, any potential effects would be discussed in future environmental documents.

- *Hazardous Materials and Waste Management.* Under the Proposed Action, most boats would be replaced on one-for-one basis; therefore, the Proposed Action is not expected to generate more hazardous

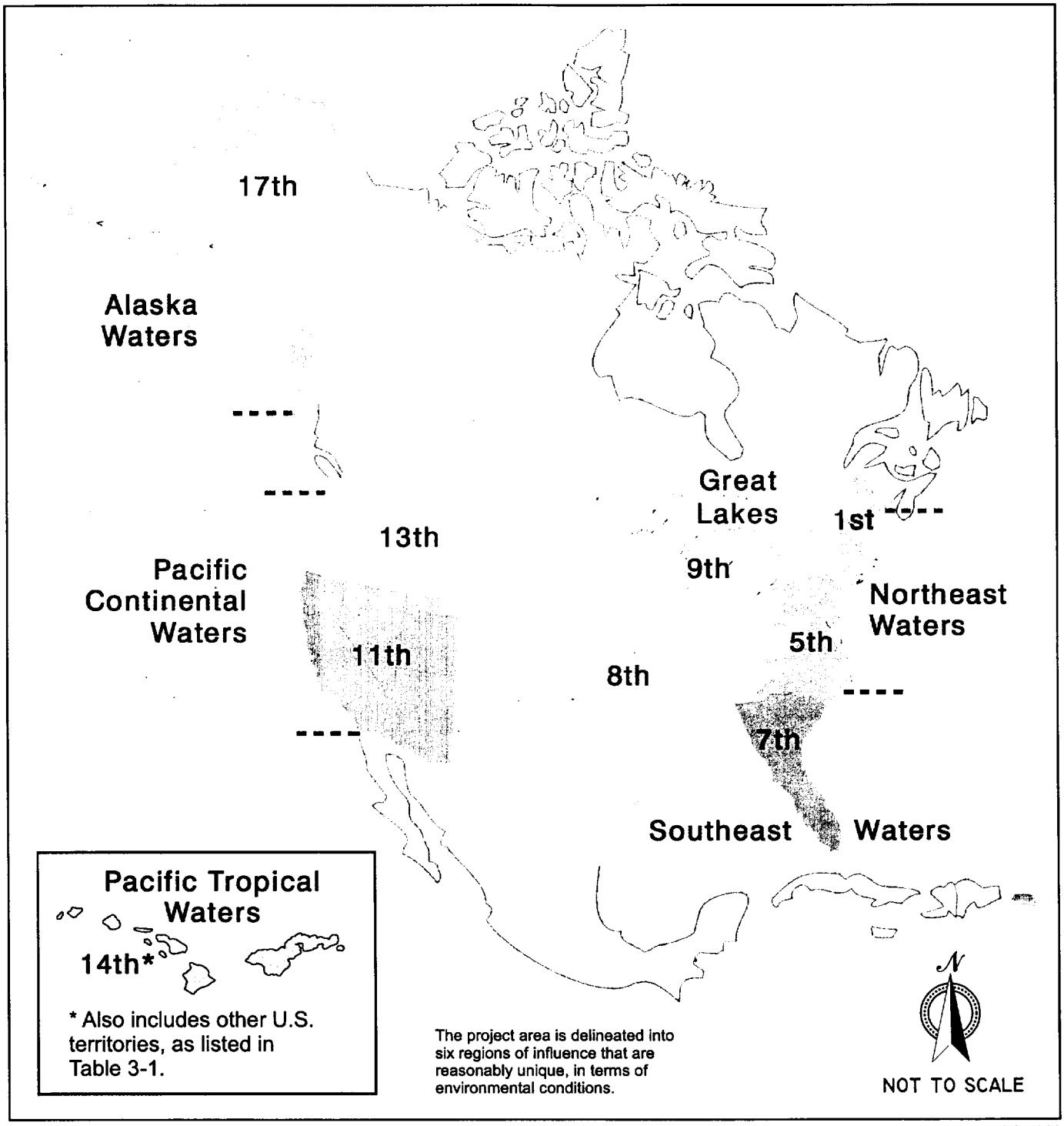
waste than currently. In fact, the amount of waste may be less than current levels as outboard engines do not require the same level of maintenance as existing inboard engines. The small amount of hazardous materials/hazardous wastes that may be generated by additional boats would also be managed by the existing facilities' Hazardous Waste Management Plans. The USCG has an excellent record in regards to oil/fuel spills. Since 1996 (when tracking began) through 2000 (last reporting period), total annual spill volumes decreased by more than 400 percent and more than 53 percent of spills were one gallon in volume (USCG 2000). Furthermore, the USCG has stated that the 41-foot UTB and non-standard boats do not have hazardous materials that would raise concerns during the disposal process. Therefore, the USCG has eliminated hazardous materials and waste management from further discussion.

The chapter is organized by sections on each resource area. The scope of the discussion for each resource is limited to potential impacts resulting from this acquisition. As applicable, each section provides a definition of the resource, a general overview of relevant legislative requirements governing the resource, followed by any standard operating procedures the USCG maintains to protect the resource. The remainder of the section discusses the general conditions of the resources within the region of potential influence.

3.2 Regions of Influence

The region of potential effect for this project includes all coastal areas in which the USCG currently operates of the continental U.S., Alaska, Hawaii, Guam, Puerto Rico, and the U.S. Virgin Islands (see Figure 3-1). To address the substantial differences within different geographical regions and to maintain the programmatic scope of the analysis, the region of potential effect is delineated into the following regions of influence (ROI):

- Northeast Waters
- Southeast Waters (including the Gulf of Mexico and Atlantic Ocean around Puerto Rico and the Caribbean)
- Pacific Continental Waters
- Pacific Tropical Waters (including Hawaii and Guam)
- Alaska Waters
- Great Lakes and internal waters



Source: USCG 2002

Figure 3-1. Regions of Influence

Each ROI is delineated as defined geographical areas that are reasonably unique in terms of environmental conditions. Table 3-1 summarizes the ROIs and how each corresponds to USCG districts. Figure 3-1 illustrates the ROIs.

Table 3-1. Regions of Influence

Region of Influence	Corresponding Portion of USCG Districts	Logistic Commands/Command and Control Facilities within the ROI
Northeast Waters	1st District; entire district 5th District; entire district	Logistic Command (24) Command and Control (10)
Southeast Waters	7th District; entire district 8th District, coastal and 8th District, western rivers	Logistic Command (15) Command and Control (8)
Pacific Continental Waters	11th District; entire district 13th District; entire district	Logistic Command (11) Command and Control (6)
Pacific Tropical Waters	14th District; entire district, including Hawaiian archipelago; American Samoa, Northern Mariana Islands, Guam, Midway Island, Wake Island, Johnston Atoll, Kingman Reef, Palmyra Atoll, Jarvis Island, Howland Island, and Baker Island	Logistic Command (3) Command and Control (5)
Alaska Waters	17th District; entire district, including Alaska, Arctic Ocean, North Pacific Ocean, and Bering Sea	Logistic Command (5) Command and Control (3)
Great Lakes	9th District; entire district	None

Source: USCG 2002f

3.3 Environmental Regulations, Laws, and Executive Orders

RB-S and RB-M operations are subject to environmental protection requirements of Federal legislation, Presidential Executive Orders (EOs), and international treaties that the U.S. has signed and ratified. Table 3-2 is limited to those regulations, laws, and EOs that may reasonably be expect to apply to the Proposed Action. It is not intended to be a complete description of the entire legal framework under which the USCG conducts its missions.

RB-S and RB-M operations are subject to environmental protection requirements of Federal legislation, Presidential EOs, and international treaties that the U.S. has signed and ratified. Non-standard boats would be replaced with RB-Ss on a one-to-one basis at existing USCG facilities. Therefore, few potential environmental impacts, if any, are expected. In some cases, RB-M would be replacing the 41-foot UTB on a one-to-one basis at existing facilities. Again, few potential environmental impacts are expected. The USCG is still formulating

homeporting plans for the remainder of the boats. When specific facilities are identified for homeporting these boats, this PEA will be reviewed to determine if additional NEPA documentation would be required.

It is important to note that Table 3-2 is limited to those regulations, laws, and EOs that may be reasonably be expected to apply to the proposed action and alternatives. It is not intended to be a complete description of the entire legal framework under which the USCG conducts its missions.

Table 3-2. Applicable Executive Orders, Regulations, and Laws [1]

Title, Citation	Summary
Executive Orders	
Executive Order (EO) 11593, Protection and Enhancement of the Cultural Environment	All Federal agencies are required to locate, identify, and record all cultural resources. Cultural resources include sites of archaeological, historical, or architectural significance.
EO 11990, Protection of Wetlands	Requires Federal agencies to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative, and all practicable measures to minimize harm to wetlands has been implemented.
EO 11988, Floodplain Management	If a Federal agency proposes to, conduct, support, or allow an action to be located in a 100-year floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the agency finds that the only practicable alternative requires siting in a floodplain, the agency must, prior to taking action, (i) design or modify its action in order to minimize potential harm to or within the floodplain, and (ii) prepare and circulate a notice containing an explanation of why the action is proposed to be located in the floodplain.
EO 12114, Environmental Effects Abroad of Major Federal Actions	Enables officials of Federal agencies to be informed of pertinent environmental considerations and to take such considerations into account before taking major Federal actions that could have significant impacts on the environment outside the geographical borders of the U.S. and its territories.
EO 12372, Intergovernmental Review of Federal Programs (as amended by EO 12416)	Requires Federal agencies to consult with state and local governments when proposed Federal financial assistance or direct Federal development has an impact on interstate metropolitan urban centers or other interstate areas.
EO 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements	Requires Federal agencies to plan for chemical emergencies. Facilities that store, use, or release certain chemicals are subject to various reporting requirements. Reported information is made available to the public.
EO 12898, Environmental Justice	Requires certain Federal agencies, including the Department of Defense (DoD), to the greatest extent practicable permitted by law, to make environmental justice part of their missions by identifying and addressing disproportionately high and adverse health or environmental effects on minority and low-income populations.
EO 13007, Indian Sacred Sites	Requires Federal agencies to accommodate access to, and ceremonial use of, sacred sites by practitioners and avoid adversely affecting the physical integrity of such sites.

Title, Citation	Summary
EO 13045, Protection of Children from Environmental Health and Safety Risks	Makes it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children. It also directs agencies to ensure that policies, programs, activities, and standards address such risks if identified.
EO 13175, Consultation and Coordination with Indian Tribal Governments	Requires Federal agencies to have an accountable process to ensure meaningful and timely input by tribal officials in the development of policies that have tribal implications.
EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds	Each agency shall "ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern; and support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions."
American Indian Religious Freedom Act, 42 United States Code (U.S.C.) 1996, Public Law (P.L). 95-341	Protects and preserves the rights of American Indians, Eskimos, Aleuts, and Native Hawaiians to exercise the traditional religions. These rights include, but are not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremony and tradition rites.
Archaeological and Historical Preservation Act, 16 U.S.C. 469	Protects and preserves historical and archaeological data. Requires Federal agencies to identify and recover data from archaeological sites threatened by their actions.
Archaeological Resources Protection Act of 1979, 16 U.S.C. 470 et seq., P.L. 96-95	Enacted to preserve and protect resources and sites on Federal and Indian lands. Fosters cooperation between governmental authorities, professionals, and the public. Prohibits the removal, sale, receipt, and interstate transportation of archaeological resources obtained illegally from public or Indian lands.
Clean Air Act, 42 U.S.C. 7401-7671q, July 14, 1955, as amended	This Act, as amended, is known as the Clean Air Act (CAA) of 1970. The amendments made in 1970 established the core of the clean air program. The primary objective is to establish Federal standards for air pollutants. It is designed to improve air quality in areas of the country, which do not meet Federal standards and to prevent significant deterioration in areas where air quality exceeds those standards.
Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464, P.L. 92-583	Establishes a policy to preserve, protect, develop, and, where possible, restore and enhance the resources of the Nation's coastal zone. Encourages and assists states through the development and implementation of coastal zone management programs.
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601-9675, P.L. 96-510, amended by Superfund Amendments and Reauthorization Act of 1986 (SARA), P.L. 99-499	Also known as "Superfund," provides for liability, compensation, cleanup, and emergency response for hazardous substances released into the environment and cleanup of inactive hazardous substances disposal sites. Also established a fund financed by hazardous waste generators to support cleanup and response actions.
Department of Transportation Act, Section 4(f)	Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks and wildlife areas when approving transportation programs or projects.

Title, Citation	Summary
Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq., P.L. 93-205	Protects threatened, endangered, and candidate species of fish, wildlife, and plants and their designated critical habitats. Under this law, no Federal action is allowed to jeopardize the continued existence of an endangered or threatened species. The Endangered Species Act also requires consultation with USFWS and the National Marine Fisheries Service (NMFS) and the preparation of a biological assessment when such species are present in an area that is affected by government activities.
Federal Property and Administrative Services Act of 1949	Guides the process for transferring government property.
Federal Records Act	Requires Federal agencies to preserve Federal records of potential historic value.
Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387	The Clean Water Act is a comprehensive statute aimed at restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Primary authority for the implementation and enforcement rests with the U.S. Environmental Protection Agency (EPA).
Fish and Wildlife Coordination Act, 16 U.S.C. 661 et seq., P.L. Chapter 55	The purpose of this Act is to ensure that wildlife conservation receives equal consideration and be coordinated with other features of water-resources development programs.
Historic Sites Act of 1935, 16 U.S.C. 461-467, P.L. Chapter 593	Establishes a national policy to preserve for public use, historic sites, buildings, and objects of national significance.
Historical and Archaeological Data-Preservation, 16 U.S.C. 469 et seq., P.L. 93-291	Protects and preserves historical and archaeological data caused as a result of Federal construction projects. Directs Federal agencies to notify the Secretary of the Interior when the construction project may cause irreparable loss or destruction of significant resources or data. Provides a mechanism through which resources can be salvaged from a construction site.
Lacy Act of 1900, 16 U.S.C. 701, 702; 31 Stat. 187, 32 Stat. 285	Under this law, it is unlawful to import, export, sell, acquire, or purchase fish, wildlife, or plants taken, possessed, transported, or sold: 1) in violation of U.S. or Indian law, or 2) in interstate or foreign commerce involving any fish, wildlife, or plants taken, possessed, or sold in violation of state or foreign law.
Magnuson-Stevens Fishery Conservation and Management Act, as amended through October 11, 1996, 16 U.S.C. 1801 et seq., P.L. 94-265	Establishes regional fisheries councils that set fishing quotas and restrictions in U.S. waters. Federal agencies must consult with NMFS on all actions, authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH)
Marine Mammal Protection Act of 1972, 16 U.S.C. 1361 et seq., 1401-1407, 1538, 4107	Establishes a moratorium on the taking and importation of marine mammals including harassment, hunting, capturing, collecting, or killing or attempting the above actions. Requires permits for taking marine mammals. Requires consultations with USFWS and NMFS if impacts to marine mammals are possible.
Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1401-1445, P.L.92-532	Regulates the dumping of materials into ocean waters. Provides for a permitting process to control the ocean dumping of dredged materials. Establishes the marine sanctuaries program.
Migratory Bird Treaty Act 16 U.S.C. 703-712	The Migratory Bird Treaty Act implements various treaties and is for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.
National Environmental Policy Act of 1969 (NEPA), as amended; P.L. 91-190, 42 U.S.C. 4321 et seq.	Requires Federal agencies to utilize a systematic approach when assessing environmental impacts of government activities. NEPA proposes an interdisciplinary approach in a decision-making process designed to identify unacceptable or unnecessary impacts to the environment.

Title, Citation	Summary
National Historic Preservation Act, 16 U.S.C. 470 et seq.	Requires Federal agencies to take account of the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object eligible or listed for inclusion in the NRHP. Provides for the nomination, identification (through listing on the National Register), and protection of historical and cultural properties of significance.
National Invasive Species Act of 1996, 16 U.S.C. 4701 et seq., P.L. 104-332	Reauthorizes and amends the Nonindigenous Aquatic Nuisance Prevention Control Act of 1990. Establishes ballast water information and requires guidelines to be issued for the Great Lakes.
Noise Control Act of 1972, 42 U.S.C. 4901-4918, P.L. 92-574	Establishes a national policy to promote an environment free from noise that jeopardizes health and welfare. Authorizes the establishment of Federal noise emissions standards and provides information to the public.
Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701 et seq., P.L. 101-646	Establishes aquatic nuisance species.
Northwest Atlantic Fisheries Convention Act	Implements provisions of international conventions and establishes regulatory framework.
Occupational Safety and Health Act	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.
Port and Waterways Safety Act	Sets boat operating and towing safety requirements and sets out enforcement provisions.
Resource Conservation and Recovery Act, 42 U.S.C. 6901, P.L. 94-580	Establishes requirements for safely managing and disposing of solid and hazardous waste and underground storage tanks. Federal agencies must comply with waste management requirements.

Source: USCG 2002f; USCG 2002g

Note: [1] This table only reflects those laws, regulations and Executive Orders and resource areas that may reasonably be expected to apply to the proposed action and alternatives at a programmatic level.

3.4 Air Quality

3.4.1 Definition of the Resource

This section discusses the proposed Response Boat Acquisition, and how the operation of the new boats may affect air quality. In addition, this section discusses the air quality regulations that affect the geographic areas where these boats are operated, and the process that would be implemented to assure compliance with such regulations.

In general, the shore-based response boats are used to support the USCG's missions of providing marine environmental protection, maritime safety, maritime law enforcement, and national defense. To successfully fulfill these mission objectives, RB-Ss and RB-Ms are required. Operation of these response boats results in emissions of air pollutants as a result of fuel combustion as well as other activities, such as refueling.

There may be some realignment of missions and resources that accompanies the procurement and homeporting of these boats. The USCG is continually developing response system requirements and procedures to meet evolving homeland security demands. Some of these changes may include additional boats and personnel at some facilities. However, the USCG will review this PEA and determine if additional NEPA

documentation would be necessary to support these changes. No environmental impacts from construction, facility heating or cooling demands, or changes in commuting traffic volumes are expected from one-to-one replacement at existing USCG facilities. These potential sources of air emissions are therefore not discussed further in this Programmatic Environmental Assessment (PEA).

Overview of Air Quality Issues

Utility and response boats are classified as "mobile sources." Mobile sources are broadly divided into two groups: on-road and nonroad sources. Watercrafts are included in the nonroad category. The type and quantity of air emissions from mobile sources can vary widely depending on such factors as engine type and manufacturer, associated control equipment, type and quantity of fuel burned, and length of operation. In addition, emissions can vary as a function of the engine mode of operation.

The operation of USCG boats results in emissions of nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), reactive organic gases (ROG), and fine particulate matter (PM_{10}), all predominately formed by combustion of fuel. A summary of these pollutants is provided below:

- NO_2 and SO_2 are gases produced from burning fuel. They are major contributors to smog and acid rain. NO_2 can react with other pollutants in the atmosphere to form ground-level ozone. Some references address total oxides of nitrogen and sulfur (NO_x and SO_x), which are, for the purposes of this PEA, equivalent to NO_2 and SO_2. In this document, both sets of terminology will be used, in accordance with the terminology used in the underlying reference in each case.
- CO is a colorless, odorless gas that can result from incomplete fuel combustion. Carbon monoxide enters the bloodstream and reduces oxygen delivery to the body's organs and tissues.
- ROG can be released from burning fuel or other activities, such as painting or refueling operations. ROG combines with NO_2 in the presence of sunlight to form ground-level ozone. Some references address total hydrocarbons (THC) or volatile organic compounds (VOC), which are, for the purposes of this PEA, equivalent to ROG. In this document, the terminology used in the underlying reference will be used in each case.
- PM_{10} is any type of fine particulate solid in the air in the form of smoke or dust that can remain suspended for extended periods. Fine particulate (i.e., particulate less than 10 microns in aerodynamic diameter) can be absorbed into the bloodstream through the lungs. Studies have shown that short-term and long-term exposure to fine particulate matter can cause acute and chronic health effects.

Implementing Regulations for Air Quality

The Clean Air Act (CAA) and its 1990 amendments (CAAA) establish the Federal regulatory framework for air quality. The CAAA requires Federal agencies to comply with Federal, state, and local provisions for the control of air pollution.

General Conformity

Section 176(c) of the CAAA requires Federal agencies to assure that their actions conform to applicable local or State Implementation Plans (SIPs) for achieving and maintaining the National Ambient Air Quality Standards (NAAQS). A Federal action must not contribute to new violations of NAAQS or increase the frequency or severity of existing violations for criteria pollutants (SO_2, NO_2, CO, ozone [O_3], lead, and PM_{10}). The NAAQS are based primarily on health effect data, but can reflect other considerations, such as human welfare.

The SIP can contain regulations that range from limiting industrial emissions of specific pollutants to regulations governing emission sources from transportation and other sectors. Each geographic region of the U.S. that does not meet the NAAQS is considered a nonattainment area pursuant to the CAAA (Section 102[e]), 42 U.S.C. 7410 et seq. Geographic areas that meet NAAQS are attainment areas. Nonattainment areas can be redesignated as attainment, but certain criteria must be met prior to this redesignation. For example, available ambient monitoring data must demonstrate that the NAAQS have been met, applicable SIP revisions to assure attainment must be approved by the U.S. Environmental Protection Agency (EPA), and the EPA must approve a maintenance plan for the area.

The CAAA require a demonstration of maintenance after the proposed redesignation. During this demonstration period, geographic regions previously designated nonattainment and subsequently redesignated as attainment are called maintenance areas. This demonstration period, or maintenance area classification, is established to ensure attainment of NAAQS in the future.

The emission thresholds that trigger requirements of the conformity rule are called *de minimis* levels. Emissions associated with stationary sources (e.g., gas stations) that are subject to permit programs incorporated into the SIP are not counted against the *de minimis* threshold.

Compliance with the conformity rule can be demonstrated in several ways. Compliance is presumed if the net increase in direct and indirect emissions from a Federal action would be less than the relevant de minimis level. If net emissions increase exceed the relevant *de minimis* value, a formal conformity determination process must be followed. Federal agency actions subject to the general conformity rule cannot proceed until there is a demonstration of consistency with the SIP through one of the following mechanisms:

- By dispersion modeling analyses, demonstrating that direct and indirect emissions from the Federal action will not cause or contribute to violations of Federal ambient air quality standards.
- By showing that direct and indirect emissions from the Federal action are specifically identified and accounted for in an approved SIP.
- By showing that direct and indirect emissions associated with the Federal agency action are accommodated within emission forecasts contained in an approved SIP.

- By showing that emissions associated with future conditions will not exceed emissions that would occur from a continuation of historical activity levels.
- By arranging emission offsets to fully compensate for the net emissions increase associated with the action.
- By obtaining a commitment from the relevant air quality management agency to amend the SIP to account for direct and indirect emissions from the Federal agency action.

Dispersion modeling analyses can be used to demonstrate conformity only in the case of primary pollutants, such as carbon monoxide or directly emitted PM_{10}. Modeling analyses cannot be used to demonstrate conformity for secondary pollutants, such as ozone or photochemically generated particulate matter, because the available modeling techniques generally are not sensitive to site-specific emissions.

Emission Standards for Marine Engines

Emission standards for marine engines were adopted by the Marine Pollution (MARPOL) 73/78 Convention in 1997 as Annex VI "Regulations for the Prevention of Air Pollution from Ships." Marine diesel engines greater than or equal to 130 kilowatts (kW) have been subject to the International Maritime Organization (IMO) standard for NO_x emissions since 2000. In addition, MARPOL has adopted amendments for marine engine emissions, shipboard incineration, and fuel oil quality (Wright 1999).

The USCG Specification for the RB-M requires that RB-Ms comply with the MARPOL standard for NO_x. This standard is expressed by the equation:

$$NO_x \text{ g/kW-hr} = 45*n^{-0.2}$$
(g/kW-hr = grams per kilowatt hour)

where n = the operating speed of the engine in revolutions per minute (RPM). This equates to 10.0 to 10.4 g/kW-hr for diesels in the 1,800 to 1,500 RPM speed range. Because the MARPOL standard is less stringent than the 2004 EPA standard for marine diesels (with which the RB-Ms are also required to comply), it will not be discussed further in this PEA.

Marine diesel emission standards have been promulgated by the EPA in 40 Code of Federal Regulations (CFR) 94 "Control of Air Pollution from Marine Compression Ignition Engines." The EPA standards are more comprehensive and more stringent than the MARPOL amendments for marine diesel emissions. EPA's rule places limits on emissions of NO_2 and hydrocarbons (HC) (combined total), particulate matter (PM), and CO. EPA's rule for regulating emissions from marine diesel engines is applied to engines manufactured after January 1, 2004. Existing engines generally will not be affected by these new standards. Compliance with these standards will be demonstrated through the engine certification process, which is conducted by the engine manufacturer.

The EPA's marine diesel engine standards are based on engine sizes as measured by displacement per cylinder. Current regulations affect diesel engines up to 30 liters per cylinder. Standards for the very large (30+ liter per cycle) engines are currently being developed. The EPA marine diesel standards are summarized in Table 3-3.

Table 3-3. EPA Marine Diesel Emission Standards

Category	Displacement (disp.) (liters/cylinder)	Starting Date	NO_x+ HC g/kW-hr	PM g/kW-hr	CO g/kW-hr
1	power ≥ 37 kW disp. < 0.9	2005	7.5	0.40	5.0
	0.9 ≤ disp < 1.2	2004	7.2	0.30	5.0
	1.2 ≤ disp < 2.5*	2004	7.2	0.20	5.0
	2.5 ≤ disp < 5.0	2007	7.2	0.20	5.0
2	5.0 ≤ disp < 15	2007	7.8	0.27	5.0
	power < 3300 kW 15 ≤ disp < 20	2007	8.7	0.5	5.0
	power ≥ 3300 kW 15 ≤ disp < 20	2007	9.8	0.5	5.0
	20 ≤ disp < 25	2007	9.8	0.5	5.0
	25 ≤ disp < 30	2007	11.0	0.5	5.0

Source: Code of Federal Regulations 40 CFR 94.8
Note: The diesel engines to be selected for use in the RB-Ms would be expected to most likely be in the 1.2 to 2.5 liters per cylinder size range.

Regional Standards and Requirements for Air Quality

The regions in which the USCG operates have varying levels of air quality. The regions also have varying levels of regulatory authority to develop and implement air regulations. If a state or local governing body has more stringent air quality requirements than the Federal law, then that agency's requirements take precedent over the Federal law. In addition, the CAAA requires Federal agencies, such as the USCG, to comply with state, interstate, and local provisions for the control of air pollution. As previously discussed, the NAAQS establishes limits for ambient levels of pollutants, and any area that does not meet these standards is classified as a nonattainment area. Geographic regions previously designated nonattainment and subsequently redesignated to attainment are called maintenance areas. Response boats located or operated in nonattainment or maintenance areas may have more stringent requirements for emission controls as well as operational limitations in order to be in conformity with the local SIP. Figure 3-2 shows the counties nationwide designated as nonattainment for one or more criteria pollutants.

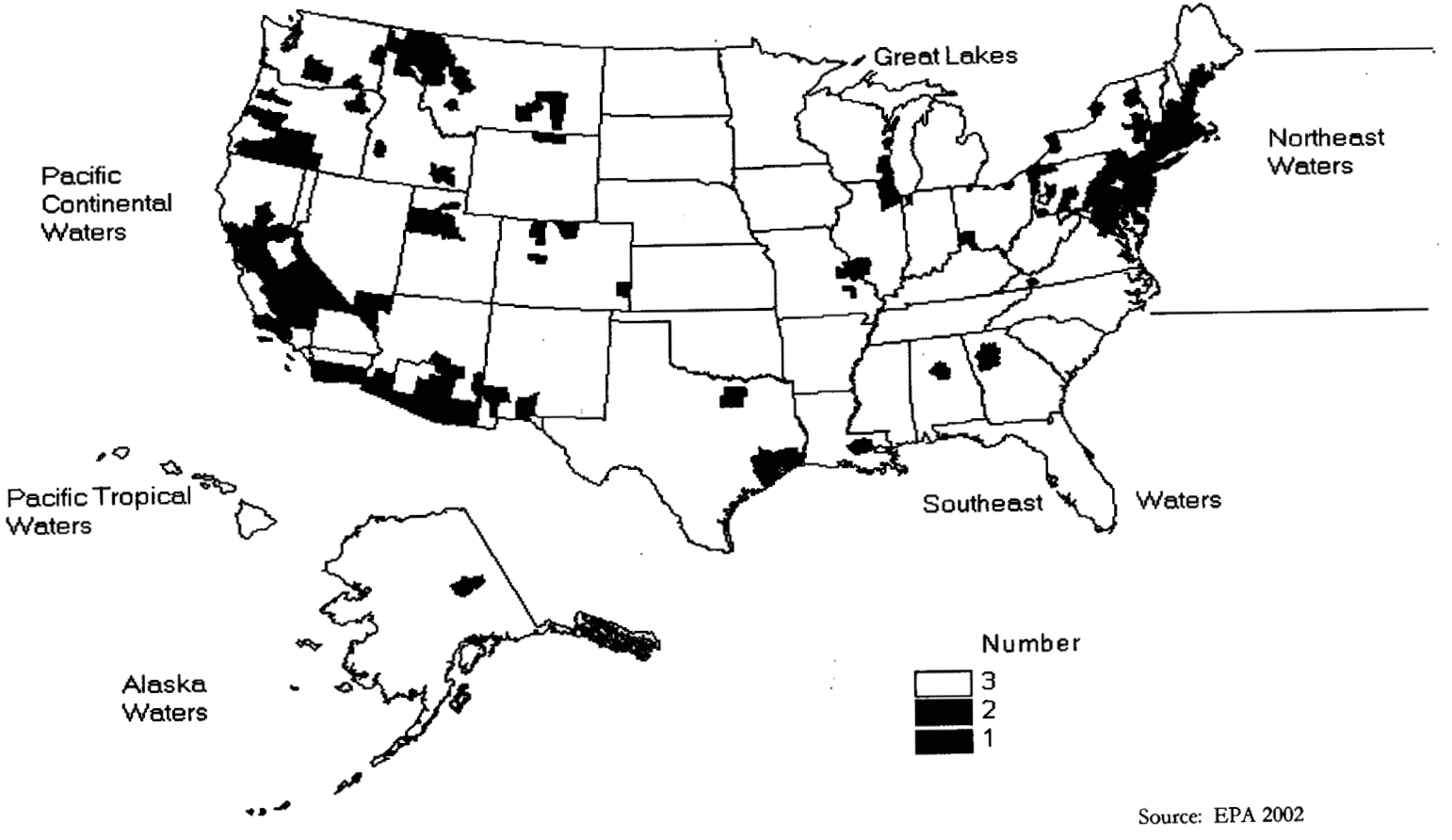


Figure 3-2. Number of Pollutants by County Designated Nonattainment

EPA has also promulgated emissions standards applicable to marine outboard motors, such as those used on RB-Ss. These standards are found in 40 CFR 91.104. The marine outboard motor emission standard limits NOx and HC combined, and is expressed as follows:

$$NO_x \text{ \& HC (g/kW-hr)} = [0.25 * (151 + 557/Ptx^{0.9})] + 6$$
where Ptx = engine rated output in kW

The standards listed above correspond to outboard motors manufactured in 2006 and later. This same standard has been adopted by the State of California, where it applies to outboard motors manufactured in 2001 through 2003. The 2006 Federal standard is used in this PEA because any boat purchased for use in California coastal waters must meet this standard, and because this standard was used by the USCG for the outboard motors purchased in 2002 for the stand-up of six new Maritime Safety and Security Teams (MSSTs) nation-wide and is the same standard for RB-Ss. EAs were written for the MSSTs located in Chesapeake, VA, Seattle, WA, Galveston, TX, and San Pedro, CA. Findings of No Significant Impact have been signed for Chesapeake and Seattle.

3.4.2 Affected Environment

Northeast Waters

A potential problem area in the Northeast region in relation to air quality is located in Westhampton Beach, New York. The ambient air quality in the area is classified as "severe" for ozone, which is almost the worst nonattainment classification status. In addition, the Washington, D.C. metropolitan area is classified as nonattainment for ozone. The Washington, D.C. SIP includes requirements to further reduce ozone-forming pollution by more than nine percent. Table 3-4 shows the status of state-administered general conformity programs in the Northeast Waters region.

The Washington, D.C. area is also classified as a maintenance area for CO. The nonattainment and maintenance areas in this region have not promulgated ambient air quality standards that are more stringent than NAAQS, but have adopted a low-emission vehicle program, motor vehicle inspection programs, initiatives to market reformulated gasoline, and guidelines to further reduce pollution from large point sources. There are no local programs that specifically target marine boats.

Other ozone maintenance areas in this region are Kittery and Portland, Maine. In addition, Boston, Falmouth (Cape Cod), Gloucester, New Bedford, and Woods Hole, Massachusetts, are classified as maintenance areas for ozone. Boston is also a maintenance area for CO. In New Jersey, Sandy Hook is classified as a severe ozone nonattainment area, and Atlantic City and Cape May are classified as ozone maintenance areas. The SIPs for these areas do not currently contain initiatives more stringent than the federally promulgated standards for marine boats.

Table 3-4. Status of State-Administered General Conformity Programs – Northeast Waters

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
Connecticut	Department of Environmental Protection, Bureau of Air Management	N/A	Has not promulgated a General Conformity rule	N/A
Delaware	Delaware Department of Natural Resources and Environmental Control, Division or Air & Waste Management	Regulation No. 35	Conformity of General Federal Actions to State Implementation Plans	15-Jul-97
District of Columbia	Department of Health, Bureau of Environmental Quality, Air Quality Division	Title 20, District of Columbia Municipal Regulation 403 (20 DCMR 403)	Determining Conformity of Federal Actions to State or Federal Implementation Plans	unknown
Maine	Department of Environmental Protection, Bureau of Air Quality	Chapter 141	Conformity of General Federal Actions	23-Sep-97
Maryland	Department of the Environment, Air and Radiation Management Administration	Title 26, Subtitle 11, Chapter 26 (26.11.26)	Conformity	9-Dec-98
Massachusetts	Department of Environmental Protection, Bureau of Waste Prevention, Air Program Planning Unit	None	Has not promulgated a General Conformity rule	N/A
New Hampshire	Department of Environmental Services, Air Resources Division	Chapter Env-A 1502	Conformity of General Federal Actions	16-Aug-99
New Jersey	Department of Environmental Protection, Office of Air Quality Management	None	Has not promulgated a General Conformity rule	N/A
New York	Department of Environmental Conservation	None	Has not promulgated a General Conformity rule	N/A
North Carolina	Department of Environmental and Natural Resources, Division of Air Quality	North Carolina Administrative Code Section 2D.1600	General Conformity	unknown
Rhode Island	Department of Environmental Management, Bureau of Environmental Protection, Office of Air Resources	None	Has not promulgated a General Conformity rule	N/A
Virginia	Department of Environmental Quality, Air Quality Division	Title 9, Virginia Administrative Code Division 5, Chapter 160 (9VAC5-160)	Regulation for General Conformity	21-Oct-97

Source: Polyak 2002

Southeast Waters

The Houston-Galveston-Brazoria Texas Air Basin has a nonattainment classification as severe for ozone. In 1999, Houston topped Los Angeles as the smoggiest city in the U.S. In 2000, Texas metropolis exceeded the EPA's ozone level 21 days. The EPA has targeted this eight-county area in and around Houston as a severe ozone nonattainment area because it has not met Federal air quality standards for nearly 10 years. The EPA has ordered the counties to meet Federal standards by 2007. The Houston area region has not promulgated ambient air quality standards that are more stringent than NAAQS. In addition, there are currently no SIP initiatives that specifically target marine boats. The three county Beaumont-Port Arthur Air Basin has been designated by EPA as a moderate ozone nonattainment area.

Locations classified as maintenance areas for ozone in this region include New Orleans, Louisiana as well as St. Petersburg, Clearwater and Miami, Florida. Also, San Juan, Puerto Rico has a moderate nonattainment classification for PM_{10}. The SIPs for these areas do not currently contain initiatives more stringent than the federally promulgated standards for marine boats. Table 3-5 shows the status of state-administered general conformity programs in the Southeast Waters region.

Pacific Continental Waters

California has implemented ambient air quality standards that are stricter than the Federal laws. Table 3-6 provides a comparison of California ambient air quality standards to the Federal standards.

California is divided into discrete air basins, defined by their natural characteristics. The only extreme ozone nonattainment area in the U.S., which is the worst classification, is the South Coast Air Basin of California. The Los Angeles - South Coast Air Basin has some of the worst air quality in the nation, in terms of the annual number of days exceeding the Federal standards. In 1999, there were 51 days in which one or more of the Federal standards were exceeded somewhere in the basin, 41 days of which were for ozone alone. The highest U.S. location in terms of number of days over the Federal ozone standard is located in this basin (Central San Bernardino Mountains, 30 days). The Los Angeles area is classified as serious nonattainment for CO and PM_{10}.

Sacramento and San Diego are designated as a serious ozone nonattainment areas. In addition, the Sacramento metropolitan area is classified as a moderate nonattainment area for PM_{10} and a maintenance area for CO. Other ozone nonattainment areas in California include Alameda, San Francisco, and San Pedro. Alameda, San Francisco, and San Pedro are also classified as maintenance areas for CO. Another area in this region that has challenges meeting the NAAQS is Monterey, which at one time was classified as nonattainment for ozone but has since been classified as a maintenance area.

Table 3-5. Status of State-Administered General Conformity Programs – Southeast Waters

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
Alabama	Department of Environment Management, Air Division	Chapter 335-3-17-.02	Conformity of Federal Actions to State Implementation Plans – General Conformity	11-May-00
Florida	Department of Environmental Protection, Division of Air Resources Management	Chapter 62-204.500	Conformity	Submitted for approval
Georgia	Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch	Chapter 391-3-1.14	General Conformity	Submitted for approval 15-Nov-94
Louisiana	Department of Environmental Quality	Title 33, Part III, Chapter 14	Determining Conformity of General Federal Actions to State or Federal Implementation Plans	9-Mar-98
Mississippi	Department of Environmental Quality, Air Division	N/A	No NAAQS nonattainment areas	N/A
South Carolina	Department of Health and Environmental Control, Bureau of Air Quality	Revision to the South Carolina State Implementation Plan	Conformity of General Federal Actions to the South Carolina Air Quality Implementation Plan	16-Jun-97
Texas	Texas Commission on Environmental Quality	Chapter 101.3	Conformity of General Federal Actions to State Implementation Plans	11-Mar-98

Source: Polyak 2002

Due to the air quality issues in this region, state and local agencies have established initiatives to address air quality. For example, the EPA and California Air Resources Board are promulgating emission standards for new engines used in boats operating solely in California coastal waters. These regulations apply to new boats only. Existing USCG assets would not be impacted.

Seattle-Tacoma is classified as nonattainment for PM_{10}. This area is also listed as a maintenance area for ozone. The Seattle-Tacoma area has not promulgated ambient air quality standards that are more stringent than NAAQS. In addition, there are no SIP initiatives that specifically target marine boats. Table 3-7 shows the status of state-administered general conformity programs in the Pacific Continental Waters region.

Table 3-6. Comparison of Federal and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary	Secondary
Ozone (O_3)	1 Hour	0.09 ppm (180 μg/m³)	0.12 ppm (235 μg/m³)	(same as primary standard)
	8 Hour	-	0.08 ppm (157 μg/m³)	
Respirable Particulate (PM_{10})	Annual Geometric Mean	30 μg/m³	-	(same as primary standard)
	24 Hour	50 μg/m³	150 μg/m³	
	Annual Arithmetic Mean	-	50 μg/m³	
Fine Particulate ($PM_{2.5}$)	24 Hour	-	65 μg/m³	(same as primary standard)
	Annual Arithmetic Mean	-	15 μg/m³	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m³)	9.0 ppm (10 mg/m³)	-
	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	-	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	-	0.053 ppm (100 μg/m³)	(same as primary standard)
	1 Hour	0.25 ppm (470 μg/m³)	-	
Lead	30 Day Average	1.5 μg/m³	-	(same as primary standard)
	Calendar Quarter	-	1.5 μg/m³	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	-	0.030 ppm (80 μg/m³)	-
	24 Hour	0.04 ppm (105 μg/m³)	0.14 ppm (365 μg/m³)	-
	3 Hour	-	-	0.5 ppm (1300 μg/m³)
	1 Hour	0.25 ppm (655 μg/m³)	-	-
Visibility Reducing Particles	8 Hour (10 a.m. to 6 a.m.)	extinction coefficient of 0.23 per kilometer	No Federal Standards	
Sulfates	24 Hour	25 μg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m³)		

Source: CARB 2002
Notes: ppm = parts per million, mg/m³ = milligrams per cubic meter, μg/m³ = micrograms per cubic meter

Table 3-7. Status of State-Administered General Conformity Programs – Pacific Continental Waters

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
California	Bay Area Air Quality Management District	Not promulgated as a rule	Federal General Conformity Regulation	23-Apr-99
California	Monterey Bay Unified Air Pollution Control District	Not promulgated as a rule	Determining Conformity of General Federal Actions to State or Federal Implementation Plans	23-Apr-99
California	San Diego County Air Pollution Control District	Rule 1501	Conformity of General Federal Actions	23-Apr-99
California	Santa Barbara County Air Pollution Control District	Rule 702	General Conformity	23-Apr-99
California	South Coast Air Quality Management District	Rule 1901	General Conformity	23-Apr-99
California	Ventura County Air Pollution Control District	Rule 220	General Conformity	23-Apr-99
Oregon	Department of Environmental Quality, Air Quality Division	Oregon Administrative Rules (OAR) Chapter 340, Division 250-0010 (OAR 340-250-0010)	General Conformity	22-Mar-00
Washington	Department of Ecology, Air Quality Program	None	Has not promulgated a General Conformity rule	N/A

Source: Polyak 2002

Pacific Tropical Waters

There are no regional air quality issues for this region. Table 3-8 shows the status of state-administered general conformity programs in the Pacific Tropical Waters region.

Table 3-8. Status of State-Administered General Conformity Programs – Pacific Tropical Waters

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
Hawaii	Department of Health, Environmental Management Division, Clean Air Branch	N/A	No NAAQS nonattainment areas	N/A

Source: Polyak 2002

Alaska Waters

There are not as many air quality issues in the Alaska Waters region, as compared to other regions of the country. Even so, Auke Bay has been classified as moderately nonattainment for PM_{10}. The Alaska region has not promulgated ambient air quality standards that are more stringent than NAAQS. In addition, there are no SIP initiatives that specifically target marine boats. Table 3-9 shows the status of state-administered general conformity programs in the Alaska Waters region.

Table 3-9. Status of State-Administered General Conformity Programs – Alaska Waters

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
Alaska	Department of Environmental Conservation, Division of Air and Water Quality	Title 18 Alaska Administrative Code (AAC) 50.725 (18 AAC 50.725)	General Conformity: Incorporation By Reference of Federal Regulations	27-Sep-95

Source: Polyak 2002

Great Lakes

The Detroit metropolitan area is designated as a maintenance area for ozone. In addition, Waukegan, Illinois is designated as a severe ozone nonattainment area. These areas have not promulgated ambient air quality standards that are more stringent than NAAQS. In addition, there are no SIP initiatives that specifically target marine boats. Table 3-10 shows the status of state-administered general conformity programs in the Great Lakes region.

Air Emissions Estimates for the Existing Condition and No Action Alternative

The 159 41-foot UTBs currently in the USCG fleet consume approximately one million gallons of fuel per year, or approximately four percent of all diesel fuel consumed by the USCG Fleet (USCG 2001). The smaller USCG boats, including Rigid Inflatable Boats (RIBs) and 21-foot through 25-foot utility boats consume approximately a million gallons of gasoline per year (USCG 2001). Table 3-11 provides information regarding estimated emissions for existing response boats.

Table 3-10. Status of State-Administered General Conformity Programs – Great Lakes

State	Regulatory Authority	Rule Citation	Rule	SIP Approval
Illinois	Environmental Protection Agency, Bureau of Air	Title 18, Subtitle B, Chapter II, Part 255	General Conformity: Criteria and Procedures	23-Dec-97
Indiana	Department of Environmental Management, Office of Air Management	Title 326 Indiana Administrative Code (IAC) Article 16 Rule 3 (326 IAC 16-3-1)	General Conformity	14-Jan-98
Michigan	Department of Environmental Quality, Air Quality Division	Revision to the Michigan State Implementation Plan	General Conformity Criteria and Procedures	18-Dec-96
Minnesota	Pollution Control Agency	Minnesota Rule 7009.9000	Determining Conformity of General Federal Actions to State or Federal Implementation Plans	15-Jul-97
Ohio	Environmental Protection Agency, Division of Air Pollution Control	Ohio Administrative Code Chapter 3745-102	General Conformity Rules	11-Mar-96
Pennsylvania	Department of Environmental Protection, Bureau of Air Quality	Title 25, Chapter 127.801	General Conformity	29-Sep-97
Wisconsin	Department of Natural Resources	Chapter NR 489	Conformity of General Federal Actions to State Implementation Plans	29-Jul-96

Source: Polyak 2002

3.5 Noise

3.5.1 Definition of the Resource

This section defines noise standards and methodology, discusses the impacts of noise on humans and marine mammals, and describes the existing noise environment in the ROI. The ROI for the noise environment includes coastal zone areas where the 41-foot UTB and non-standard boats currently operate in the vicinity of all USCG facilities along the coastal U.S., including the Great Lakes states, Hawaii, Alaska, Guam, Puerto Rico, and the U.S. Virgin Islands.

Webster's dictionary defines noise as "sound or a sound that is loud, disagreeable, or unwanted." However, the definition of noise is highly subjective. To some people the roar of an engine is satisfying or thrilling; to others it is an annoyance. Loud music may be enjoyable or a torment, depending on the listener and the circumstances. While no absolute standards define the threshold of "significant adverse impact," there are common precepts about what constitutes adverse noise in certain settings, based on empirical studies. Noise is "adverse" in the degree to which it interferes with activities such as speech,

Table 3-11. Summary of Estimated Air Emissions for Existing Response Boats

	NO_x (tpy)	THC (tpy)	PM (tpy)	CO (tpy)
RIBs	50	320	76	2,689
21-foot TANB	3	18	4	147
24-foot UTL	5	31	7	257
25-foot UTL	3	21	5	179
41-foot UTB	175	25	11	37
TOTALS	**236**	**415**	**103**	**3,309**

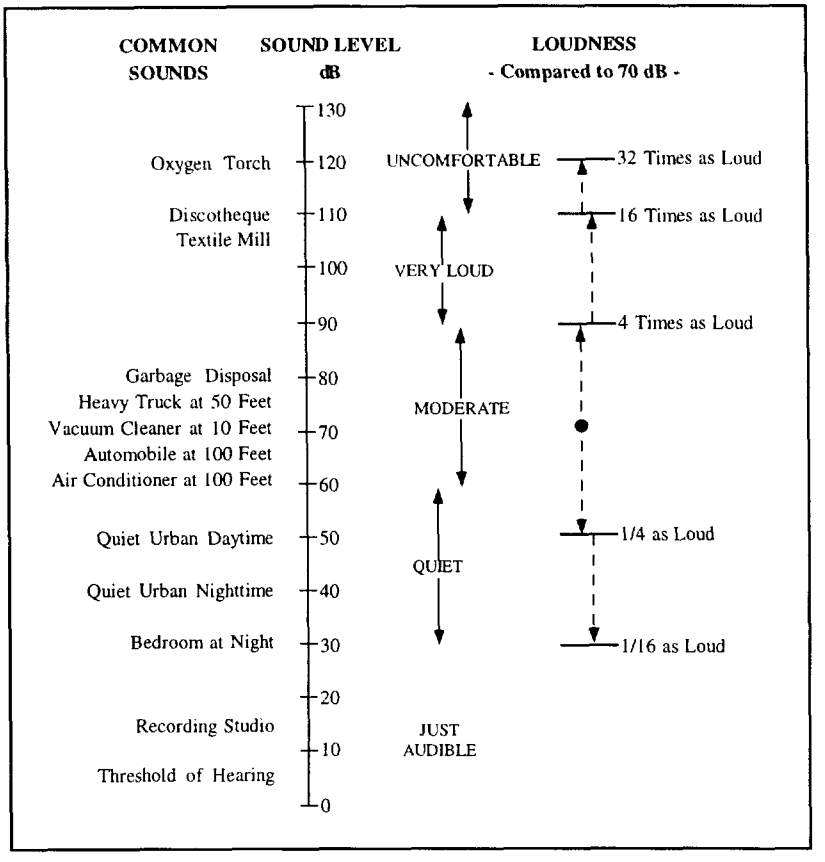
Source: USCG 2001
Notes:
1. tpy equals tons per year
2. TANB equals trailored aid to navigation
3. UTL equals small utility boats
3. Emission factors and fuel consumption rate (thermal efficiency) from EPA Nonroad Emissions Model, Version 2.2.0.
4. See Appendix E for details on emissions calculations.
5. Annual fuel consumption data used in emission estimates was taken from USCG 2001.

sleep, and listening to the radio and television and the degree to which human health may be impaired. Noise can also cause "adverse impacts" to marine mammals, depending on the type of noise and duration. Noise can result in stressful situations that disrupt sleeping, reproduction, feeding habits, and communication.

Overview of Noise Standards and Terminology

Noise is customarily measured in decibels (dB), a logarithmic unit that accounts for large variations in

amplitude and is the accepted standard unit measurement of sound. Figure 3-3 depicts dB noise levels associated with some typical activities. In order to evaluate the total community noise environment, a time-averaged noise level, or day-night average sound level (DNL), has been developed. DNL is the average A-weighted acoustical energy during a 24-hour period with a 10 dB penalty added to nighttime levels (between 10 p.m. and 7 a.m.). The State of California developed the Community Noise Equivalent Level (CNEL) to implement state laws regarding land use around airfields. CNEL is the average A-weighted acoustical energy during a 24-hour period with a 5 dB penalty added to evening levels (between 7 p.m. and 10 p.m.) and a 10 dB penalty added to nighttime levels (between 10 p.m. and 7 a.m.). These penalties account for the intrusiveness of noise events that occur during the evening or nighttime periods when ambient noise levels are generally low. Use of the DNL or CNEL noise metrics are endorsed by the EPA and have been adopted by other Federal agencies.



Source: Harris 1979

Figure 3-3. Typical A-weighted Decibel Scale of Common Sounds

Ambient sound levels vary based upon the setting in which they are measured. For example, in a wilderness setting, ambient sound levels range from DNL 20 to 30 dB; in residential areas, they range between DNL 30 to 50 dB; and in urban residential areas, they range between DNL 60 to 70 dB (FICON 1992). In outdoor areas where quiet is a basis for use, "there is no reason to suspect that the general population would be at risk from any of the identified effects of noise" (i.e., activity interference or annoyance) when sound levels are DNL 55 dB or less (EPA 1978). The American National Standards Institute (ANSI) has also suggested that land uses in "extensive natural wildlife and recreation areas" are likely to be considered compatible with DNL 60 dB or less (ANSI 1990). The methodology employing DNL and percent highly annoyed (%HA) has been successfully used throughout the U.S. in a variety of settings, ranging from urban to rural (see Appendix F for further explanation on noise metrics).

Regulatory Framework for Noise and Standard Operating Procedures

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Noise Control Act (42 U.S.C. 4901, 4918). The USCG

cooperates with state and local governments or the host agency to ensure that the facilities comply with state and local noise standards and land use regulations. Additionally, the USCG Safety and Environmental Health Manual (Commandant Instruction [COMDTINST] M5100.47) establishes requirements for noise, including compliance with local noise ordinances, and for identifying and assessing hazardous noise sources.

Human Response to Noise

Human response to noise varies according to the type and characteristics of the noise source, distance between source and receptor, receptor sensitivity, and time of day. Most people are exposed to sound levels of 50 to 55 dB (DNL) or higher on a daily basis. Studies specifically conducted to determine noise impacts on various human activities show that about 90 percent of the population is not significantly bothered by outdoor sound levels below 65 dB (DNL) (USDOT 1980). Studies of community annoyance in response to numerous types of environmental noise show that DNL correlates well with impact assessments and that there is a consistent relationship between DNL and the level of annoyance.

Human hearing varies in sensitivity for different sound frequencies. The ear is most sensitive to sound frequencies between 800 and 8,000 Hertz (Hz) and is least sensitive to sound frequencies below 400 Hz or above 12,500 Hz. Several different frequency-weighting metrics have been developed using different dB adjustment values. The most commonly used decibel weighting schemes are the A-weighted and C-weighted scales. The characteristics of sound include parameters such as amplitude, frequency, and duration.

Marine Mammal Response to Noise

In ocean acoustics, the convention chosen for a reference pressure level is one microPascal (1μPa) (ONR 2000; Richardson, et. al 1995). This unit differentiates dB in water rather than air. The total ambient noise in the open ocean is about 74 dB-referenced 1μPa (ONR 2000). This ambient noise level is composed of natural and human-generated sounds. Human-generated sound comes from a variety of sources, including boat traffic, geologic exploration, military projects, and aircraft. Sound radiated by the many large ships throughout the world's oceans is the single largest contributor to the increased sound levels (ONR 2000). The effects of these boats are both local, affecting specific limited areas, and global, contributing to an overall increase in ambient noise. Noise levels throughout the world's ocean at frequencies below 500 Hz have increased over the last three decades (Richardson, et. al 1995).

Noise levels associated with supertankers and containerships are 180 to 190 dB-referenced as 1μPa. The USCG boats are considerably smaller, with much smaller engines, so they do not significantly contribute to this type of noise (USCG 2002f).

Existing Noise Outputs for Ships

Boats vary greatly in their noise output. Boat size, hull construction, speed, maintenance, and other factors all affect the noise a boat produces. Generally, as the size, load, and speed of a boat increase, so does the noise it generates. Boat noises, caused by the turning of the screws, engine operations, and onboard machinery, generally fall in a range of 5 to 2,000 Hz, with highest intensities below 100 Hz. Larger USCG boats may generate source pressures of 160 to 170 dB-referenced 1μPa at one meter. A low frequency sound attenuates with distance to about 155 dB referenced 1μPa at about 100 yards from the source and to about 120 dB referenced 1μPa at about two miles from the source and also depends on the physical oceanic environment (e.g., temperature and salinity). Table 3-12 lists sound pressure source levels for various boats (Richardson, et. al 1995; USCG undated).

Table 3-12. Underwater Sound Pressure Levels for Various Boats

Boat (length) and Description	Frequency	Source Level (dB referenced 1μPa-meter)
Outboard drive – 23 feet (2 engines, 80 horsepower each)	630, 1/3 octave	156
Twin Diesel – 112 feet	630, 1/3 octave	159
Small Supply Ships – 180 to 279 feet	1000, 1/3 octave	125-135 (at 50 meters)
Freighter – 443 feet	41, 1/3 octave	172

Source: Richardson, et. al 1995

3.5.2 Affected Environment

The majority of the USCG units are stationed adjacent to compatible areas, which are zoned industrial or commercial. These areas are equipped with a variety of piers that meet the needs of roll-on/roll-off, break bulk cargo, trawlers recreation, commercial fishing, and other large boats.

Noise produced by water boats and supporting facilities while in port or in transit to off-shore areas can combine with other noise sources to affect nearby communities and natural resources. The USCG has established guidelines and developed cooperative agreements to mitigate impacts on neighboring communities. Federal and state laws and local ordinances establish standards and limitations for noise output from ports, airfields, heliports, helipads, power generating plants, and motor vehicles. USCG activities are operated in accordance with all Federal and state laws and local ordinances. Deviation from compliance with Federal and state laws and local ordinances may temporarily occur in an unusual situation, such as a breach in port security.

3.6 Biological Resources

3.6.1 Definition of the Resource

Biological resources include native or naturalized plants and animals, and the habitats, such as wetlands, forests, and grasslands, in which they exist. Sensitive and protected biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or a state. Determining which species occur in an area affected by a proposed action may be accomplished through literature reviews and coordination with appropriate Federal and state regulatory agency representatives, resource managers, and other knowledgeable experts.

Protected and Sensitive Habitats

Protected and sensitive habitats are usually defined as those regions that are identified as marine sanctuaries, critical habitats, fisheries management areas, national parks, wildlife refuges, and estuarine research reserve sites. These regions and areas can be under Federal, state, and in some cases, local jurisdictions.

The USCG has a number of long-standing missions relating to protected and sensitive habitats:

- *National Marine Sanctuary Law Enforcement Program*: among other activities, provides routine surveillance of marine sanctuaries concurrently with other USCG operations and provides specific, targeted, or dedicated law enforcement as appropriate.
- *Ocean Guardian*: a long-range fisheries law enforcement strategy to support national goals for fisheries resource management and conservation (see Appendix G).
- *Ocean Steward*: the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species.
- *Sea Partners*: this environmental and outreach program designed to develop community awareness of maritime pollution issue and to improve compliance with marine environmental protection laws and regulations.
- *Commandant Instruction (COMDTINST) 16004.3:* The National Marine Sanctuary Program states, in part, that the "USCG supports NOAA's philosophy of education to foster involuntary compliance....nevertheless, the sanctuaries require the routine presence of law enforcement resources to deter and detect violations." To do this, the USCG will "provide routine surveillance of marine sanctuaries concurrently with other USCG operations, and provide specific, targeted, or dedicated law enforcement as appropriate."
- *Atlantic Protected Living Marine Resources Initiative (APLMRI)*: the USCG's initiative for protecting and conserving marine plants and animals in the Atlantic and their habitats (see Appendix H for Executive Summary). This program consists of two components:

1. Internal Program – Establishes USCG policy and procedures to support an internal program focused on living marine resource protection, including enhanced enforcement of the Endangered Species Act (ESA) and Marine Mammals Protection Act (MMPA).
2. Conservation Program – Promotes USCG involvement with outside Federal and state agencies, public, and non-government organizations to promote conservation and protection of living marine resources (USCG 1996).

As part of the living marine resources protection initiatives described above, the USCG carries out additional services that have direct and indirect benefits to sensitive species and habitats. The USCG has played and continues to play an active role in responding to oil spills and in facilitating the containment and cleanup process of such spills. For example, in 1989, the USCG served a critical role in coordinating the cleanup effort after the Exxon Valdez oil spill in Prince William Sound, Alaska. In addition to assisting with oil spill prevention and cleanup, the USCG also facilitates research on protected species by allowing refuge, marine sanctuary, and National Marine Fisheries Service (NMFS) personnel to use assets as research platforms (USCG 2002f).

Biosphere Reserves. Biosphere reserves are areas of terrestrial and coastal ecosystems that are internationally recognized within the framework of the United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Man and the Biosphere (MAB) Program. Individual biosphere reserves are listed only at the request of the country in which they are located, and once recognized, remain under the sovereign jurisdiction of the states where they are situated. Areas can be removed from the biosphere reserve list at any time by a request from the country in which they are located (USCG 2002f).

In order to facilitate research on ecosystems in various stages of protection and development, biosphere reserves meet certain conservation and resource use criteria. The country in which the biosphere reserve is located enforces these protective regulations:

- They have a legally protected core area relatively free from outside or human disturbance.
- There is a buffer zone or zones surrounding or contiguous to the core area where human activity is carried out, generally at low intensity and compatible with conservation objectives.
- They have transitional areas outside the buffer zone where human activity is more intensified, but where conservation and economic development are jointly pursued according to the values and guidance of the local community (USCG 2002f).

Eleven biosphere reserves have been designated in coastal regions of the U.S. (USCG 2002f). Table 3-13 shows the biosphere reserves by region. RB-S and RB-M missions occur in the water within or adjacent to most of these reserves.

Table 3-13. International Biosphere Reserves in the RB-S and RB-M Project Area

Region	Biosphere Reserve
Northeast Waters	Virginia Coast
Southeast Waters	Central Gulf Coast Plain Dry Tortugas Everglades Virgin Islands
Pacific Continental Waters	Golden Gate Channel Islands
Pacific Tropical Waters	Hawaiian Islands
Alaska Waters	Aleutian Islands Glacier Bay/Admiralty Island
Great Lakes	Isle Royal

Source: USCG 2002f

Marine Managed Areas. Marine managed areas (MMAs) is a term used by the National Oceanic and Atmospheric Administration (NOAA) to refer to a number of biologically and sensitive marine habitats that are managed by Federal, state, or local agencies. Because the USCG is required to comply with Federal laws and to coordinate with Federal agency activities, the following focuses on those MMAs that are offered some degree of protection under Federal law or by Federal agencies. These MMAs include national marine sanctuaries, critical habitat areas, fisheries management zones, national park system sites, and national wildlife refuges. Joint Federal/state managed areas include national estuarine research reserve system sites; MMAs may or may not overlap with biosphere reserves.

All MMAs designated by NOAA are also official candidate marine protected areas (MPAs) under EO 13158. According to EO 13158, official MPAs refer to "any area of the marine environment that has been reserved by Federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." Under EO 13158, Federal agencies, such as the USCG, are directed to avoid harm to these areas or their resources through activities that they undertake, fund, or approve. No MPAs have been designated at this time. All MMAs designated by NOAA, however, are being considered for designation as official MPAs (USCG 2002f).

All MMAs are offered varying degrees of protection from agencies such as NMFS, NOAA, the Department of the Interior (DOI), USFWS, the National Park Service (NPS), and the USCG. Critical habitat is designated under the ESA as "a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management or protection." Critical habitat can include an area that is not currently occupied by a species but that is needed for the recovery

of that species. Another type of MMA is national marine sanctuary. Designated under the National Marine Sanctuaries Act (16 U.S.C. 1431 et seq.), fourteen national marine sanctuaries have been designated at this time (see Figure 3-4). Most sanctuaries prohibit drilling, dredging, discharging pollutants, and other activities considered to have an adverse effect on wildlife. MMAs that contain coral reefs are offered an additional degree of protection under EO 13089. This EO directs Federal agencies to determine whether their proposed actions could affect coral reefs; to use their programs and authorities to protect and enhance the conditions of such ecosystems; and to the extent permitted by law, to ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.

3.6.2 Affected Environment

Northeast Waters

The Northeast Waters are home to one biosphere reserve and approximately 50 MMAs. The MMAs include two National Marine Sanctuaries, four Federal Fisheries Management Zones, seven National Park System sites, 37 National Wildlife Refuges, and 10 National Estuarine Research Reserves (NERRs). In addition, critical habitat has been designated for the endangered northern right whale in Cape Cod Bay and the Great South Channel off the coast of Massachusetts (see Figure 3-5) (USCG 2002f).

Southeast Waters

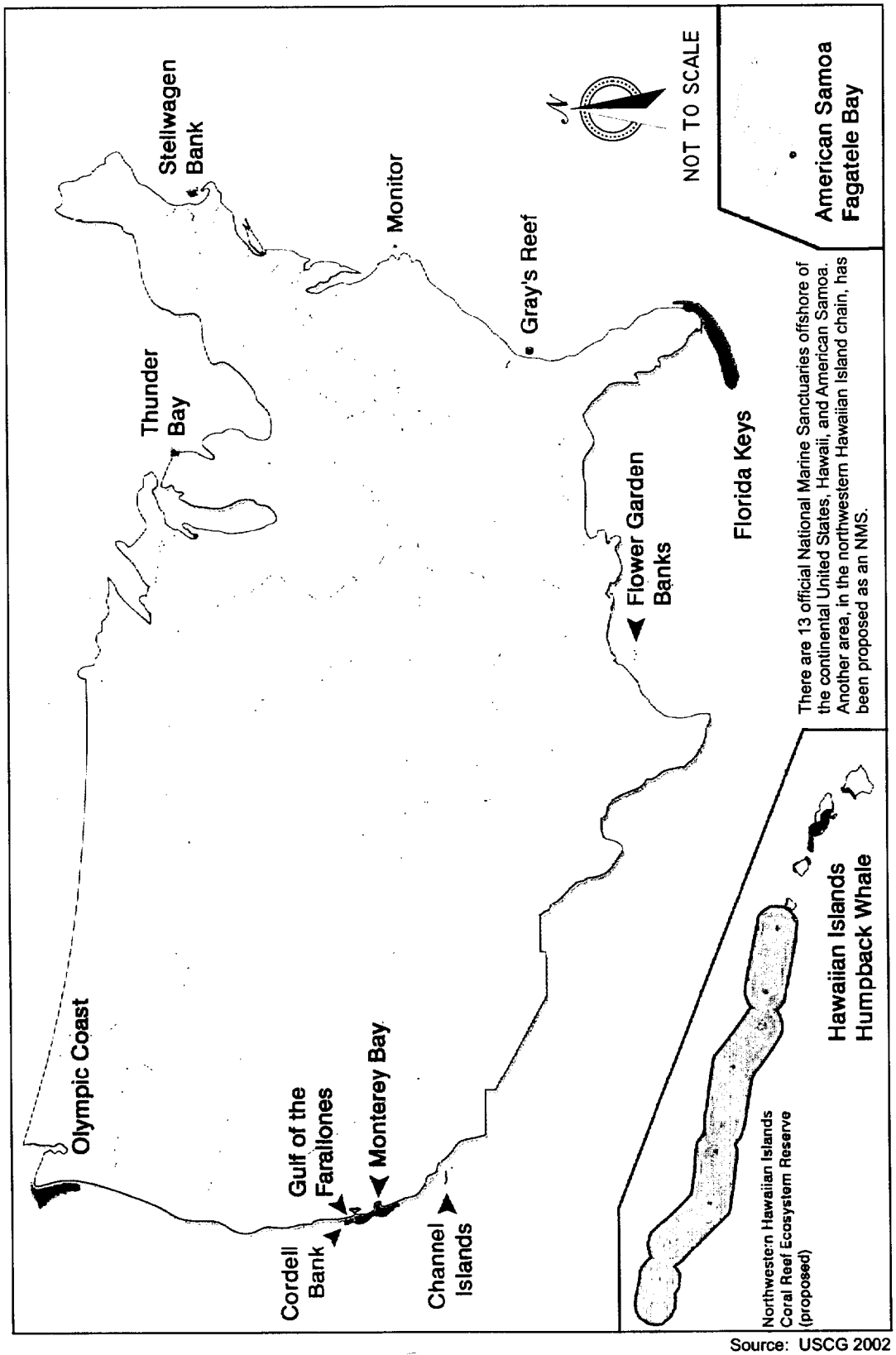
The Southeast Waters are home to four biosphere reserves and approximately 75 MMAs. The MMAs include four National Marine Sanctuaries (see Figure 3-4), nine Federal Fisheries Management Zones, 10 National Park System sites, 52 National Wildlife Refuges, and nine NERRs. In addition, critical habitat has been designated for the right whale and Johnson's seagrass (see Figure 3-5) (USCG 2002f).

Pacific Continental Waters

The Pacific Continental Waters region is home to two biosphere reserves and approximately 30 MMAs. The MMAs include five National Marine Sanctuaries (see Figure 3-4), seven National Park System sites, 16 National Wildlife Refuges, and four NERRs.

Pacific Tropical Waters

The Pacific Tropical Waters region is home to more than 20 MMAs. These include two National Marine Sanctuaries (see Figure 3-4), one reserve in the process of receiving official status as a National Marine Sanctuary, three critical habitat areas for monk seal (see Figure 3-5), two Federal Fisheries Management Zone candidate sites, five National Park System sites, and eight National Wildlife Refuges.



Source: USCG 2002

Figure 3-4. National Marine Sanctuaries

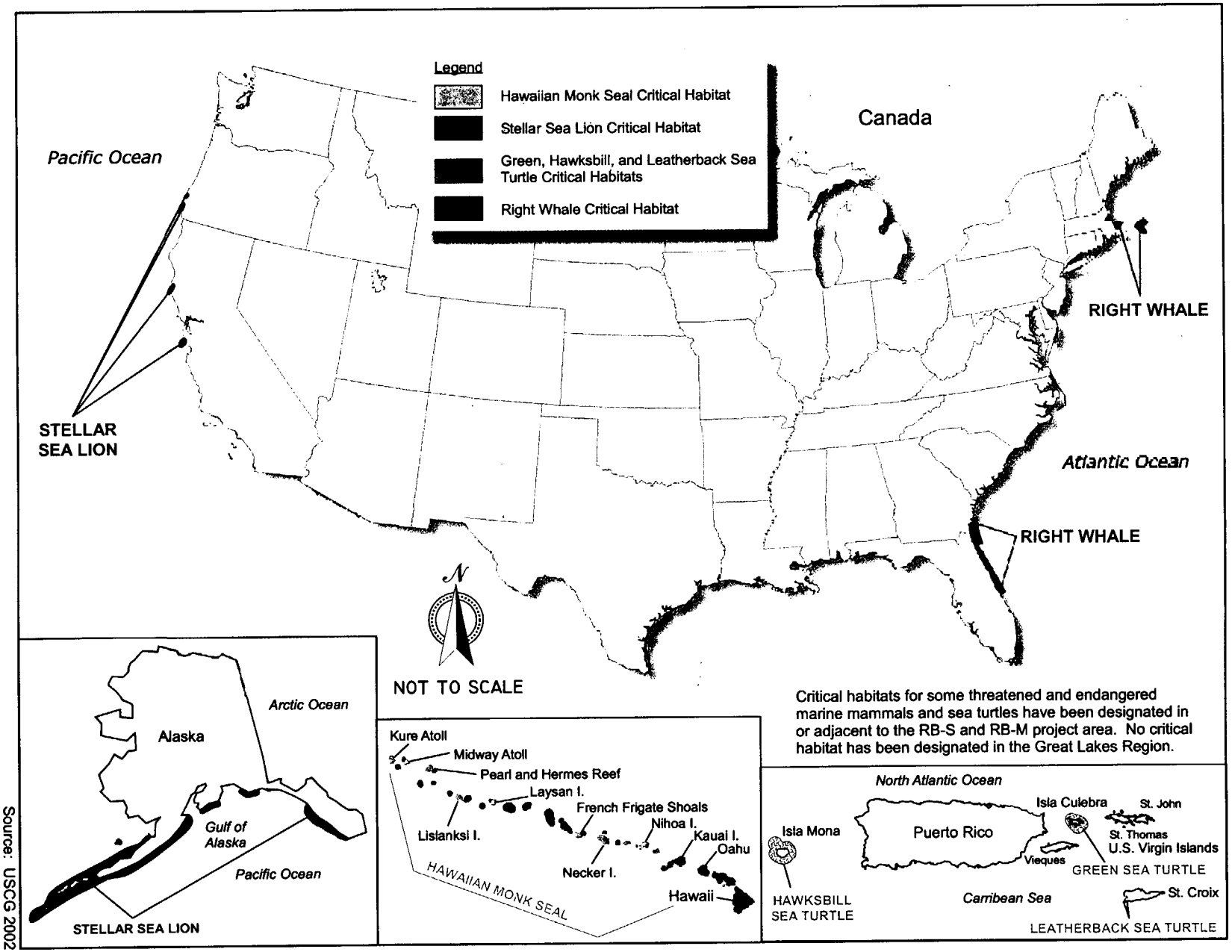


Figure 3-5. Designated Critical Habitat

Source: USCG 2002

Alaska Waters

The Alaska Waters region is home to two biosphere reserves and approximately 25 MMAs. The MMAs include four stellar sea lion critical habitat areas (see Figure 3-5), seven Federal Fisheries Management Zone candidate sites, four National Park System sites, 10 National Wildlife Refuges, and one NERR.

Great Lakes

The Great Lakes region is home to one biosphere reserve and more than 10 MMAs. The MMAs include one National Marine Sanctuary (see Figure 3-4), five National Park System sites, six National Wildlife Refuges, and one NERR.

3.6.3 Marine Mammals and Sea Turtles

Marine mammals are an important consideration for USCG activities. The USCG has a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service (USFWS). As provided in that MOU, the USCG will review this program to determine if operations would result in a significant negative impact on migratory, coastal, or other birds. The location and temporary distribution and abundance of marine mammals and sea turtles are often determined by number of factors including environmental, biotic, and human-generated factors. Environmental factors may include chemical, climate, or physical (those related to the characteristics of a location). Biotic factors include the distribution and abundance of prey, competition for prey, reproduction, natural mortality, catastrophic events (e.g., die-offs), and predation. Human impacts include noise, hunting pressure, pollution and oil spills, habitat loss and degradation, shipping traffic, recreational and commercial fishing, oil and gas development and production, and seismic exploration. It is the interrelationships of these factors that can affect the location and temporary distribution of prey species. This, in turn, is the major influence on diversity, abundance, and distribution of marine mammals.

The USCG has a long-standing role in protecting marine mammals. It enforces all U.S. laws on all U.S. waters, including laws protecting marine mammals and sensitive species. The USCG enforces the ESA, the MMPA, the National Marine Sanctuaries Act, and a number of maritime EOs, and Federal and international laws as applicable. The COMDTINSTs include a number of policies, directions, and procedures that include specific rules to ensure avoidance with marine mammals and avoid impacts whenever possible.

USCG boats operate in areas inhabited by marine mammals, sea turtles, and various threatened and endangered species. Thus, USCG operations and activities might interact with, and potentially affect, these species. To prevent harm to marine mammals and sea turtles, the USCG has standard operating procedures, which incorporate protocols to assist the USCG in avoiding negative impacts to marine mammals and sea turtles.

The USCG's Ocean Steward and Ocean Guardian plans, the APLMRI, and speed guidance also support these goals. The Ocean Steward Plan protects marine mammals by regulating incidental and intentional "takes" (harassment of marine mammals from close or repeated approach by boats. Under the ESA, an "endangered species" is defined as any species in danger of extinction throughout all or a significant portion of its range. A "threatened species" is defined as any species likely to become an endangered species in the foreseeable future. The USFWS also maintains a list of species considered candidates for possible listing under the ESA. Although candidate species receive no statutory protection under the ESA, the USFWS has attempted to advise government agencies, industry, and the public that these species are at risk and may warrant protection under the Act.

The Ocean Steward Plan is complemented by the Ocean Guardian Plan, which works to enforce fisheries regulation and is a way to reduce environmental damage associated with maritime activities. Fisheries enforcement and protection is vital to marine mammals because fish are their prey species.

The APLMRI lists numerous plans designed to aid and protect living marine resources, including the environmental missions mentioned above. Some of these include enhanced enforcement of the MMPA and ESA, clearly defined speed directives, aid to endangered species research, training programs to increase awareness of endangered species, and increased communication between boat traffic.

Northeast Waters

Twenty-five species of marine mammals inhabit this ROI, six of which are endangered. Appendix I includes tables listing all of the aquatic mammals found in the ROIs. Table I-1 lists the species found in the Northeast Waters region.

Endangered Whales. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. RB-S and RB-M operations occur in habitat for all the endangered whale species inhabiting this ROI. Specifically, all east coast homeports from Portland, Maine south to Port Canaveral, Florida are in or near possible habitat for the right, humpback, sei, fin, blue, and sperm whales. The USCG could encounter some of these species during its operations, and, as part of its enforcement role on U.S. waters, it protects these marine mammals.

Other Marine Mammals. Other marine mammal species not listed on the ESA inhabit northeast waters. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. All east coast homeports from Portland, Maine, south to Port Canaveral, Florida are at or adjacent to possible marine mammal habitat. The USCG could encounter some of these other species during its operations. These species include the minke whale (*Balaenoptera acutorostrata*) and various dolphins and seals. The minke has worldwide distribution and is hunted in certain parts of the world. Entanglement mortality for minkes is on the rise (USCG 2002f). Harbor porpoise distribution varies

seasonally, and the population is most common in the Gulf of Maine. Most human-induced mortalities are from incidental catches from the groundfish gillnet fishery, although a small number of individuals are also entrapped and killed in herring weirs (USCG 2002f). Additional threats include loss of habitat and displacement from preferred habitat due to increases in boat traffic (USCG 2002f). This species has received a great deal of Federal attention recently. A ruling to reduce harbor porpoise by-catch in U.S. Atlantic gillnets was published in 1998 (USCG 2002f).

Seals. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. Five species of seals (pinnipeds) inhabit northeast waters where RB-S and RB-M operations assets operate. These are the harbor seal (*Phoca vitulina*), gray seal (*Halichoens griseus*), ringed seal (*Phoca hispida*), hooded seal (*Cystophora cristata*), and harp seal (*Phoca groenlandica*). The range of the seals is limited primarily to the coastal waters of New England. The gray seal and the harbor seal are the most common.

Sea Turtles. Sea turtles are protected under the ESA and the Convention on International Trade in Endangered Species (CITES). There are four sea turtle species found in northeast waters where RB-S and RB-M operations are conducted (Appendix I, Table I-2).

Sea turtles are normally found in tropical and subtropical waters but have occasionally been sighted in the colder waters off New England. All the sea turtle species listed are reported to nest on beaches in the southeastern U.S. Human disturbance is the main cause of the decline of sea turtle numbers. The USCG does not have any RB-S and RB-M operations facilities within sea turtle nesting habitat (USCG 2002f).

Southeast Waters

This ROI consists of a large area, composed of three major marine ecosystems. These ecosystems are off the southeastern coast of the U.S., surrounding Puerto Rico and including the Caribbean Sea, and the Gulf of Mexico. Marine mammals and sea turtles have varying distributions and abundances within this vast region. Because of this, the marine mammals species of this ROI are listed in separate tables. Appendix I, Tables I-3 through I-5 list marine mammal species in the three major marine ecosystems of this ROI; sea turtle species in this ROI are less variable in distribution and are combined in Table I-6. Nineteen species of marine mammals inhabit the portion of this ROI that is found along the southeastern seaboard of the U.S.; four of these species are listed as endangered. Table I-3 lists the marine mammal species found in the Southeast Waters, along the southeastern seaboard of the U.S. critical habitat for the right whale is also found in the southeastern U.S. RB-S and RB-M ROI (USCG 2002f).

The region with the least information on the biology, natural history, and distribution of marine mammal and sea turtle species is Puerto Rico and the Caribbean Sea (USCG 2002f). Some of the islands of the northeastern Caribbean Sea are primary habitat for the mating and calving of endangered marine species.

Marine mammals, including four endangered species known to occur in the region of Puerto Rico and the Caribbean Sea are listed in Table I-4.

The Gulf of Mexico supports a diverse population of marine mammals. Thirty-three species of marine mammals are known to inhabit the Gulf. Federally endangered species are right, blue, fin, sei, humpback, and sperm whales and the two subspecies of the West Indian manatee. The species found in this location are listed in Table I-5.

Endangered Whales. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. Several whales found in the Northeast Waters migrate southward through the southeastern region. These include the endangered humpback, right, and sperm whales (see Figure 3-5). It is worth noting that the portion of the RB-S and RB-M operations area along the southeastern seaboard of the U.S. encompasses right whale reproductive grounds. Pregnant cows migrate each year from feeding grounds in the north to the calving grounds in the southern portion of their range. This includes the waters off Georgia and Florida. Endangered whales found around Puerto Rico and the Caribbean Sea are the humpback and sperm whales. These have been documented in the Turks and Caicos island areas, as well as in the Bahamas and Bermuda. There are eight major islands that make up the archipelago known as the Turks and Caicos chain. The archipelago lies in the Caribbean, at the southern tip of the Bahama island chain. Blue whales have been detected acoustically in the Bahamas and Bermuda (USCG 2002f).

Endangered Manatee. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. The Florida manatee (*Trichechus manatus latirostris*) is listed as an endangered species under the ESA. It is a subspecies of the West Indian manatee and inhabits rivers and coastal waters of peninsular Florida and southern Georgia (USCG 2002f). Long-term studies suggest the occurrence of four relatively distinct regional subpopulations of the Florida Manatee, all in Florida: the Northwest, Southwest, Atlantic (including the St. Johns River north of Palatka), and the St. Johns River group (south of Palatka) (Lefebvre 2001). The subpopulation groups are recovering at different rates (USCG 2002f). Manatee habitats are adjacent to or in RB-S and RB-M operation areas. Exact numbers in Florida are unknown, though population counts from aerial surveys conducted in January 2001 indicate 3,276 individuals (FMRI 2001a). The highest previous count was 2,639 in 1996 (USCG 2002f). A third or more of manatee deaths are human-related, with the primary cause being collision with watercraft (USCG 2002f). Death is generally the result of the impact and not from propeller wounds (USCG 2002f). A lawsuit settlement (USFWS 2001e) resulted in action taken by the USFWS (among other agencies) to evaluate creating more protection areas for manatees. An Advanced Notice of Proposed Rule-Making, announcing the USFWS's intent to evaluate and, if appropriate, propose designation of additional manatee protection areas, was published in the Federal Register on September 1, 2000. On January 7,

2002, a final ruling was published in the Federal Register regarding manatee protection (50 CFR Part 17). The ruling states that two additional protection areas will be established in Florida to further the recovery of the Florida manatee by reducing the level of take. Two manatee refuges will be established in Brevard County, and some watercraft activities will be restricted in these areas. The two protection sites are within the water bodies commonly known as the Barge Canal and Sykes Creek. Watercraft within these water bodies will be required to be operated at reduced speed throughout the year. The USCG enforces speed restrictions to protect the slow moving manatee.

The Antillean subspecies of the West Indian manatee (*T. m. manatus*) is known historically in Floridian waters, but more typically inhabits the waters off Puerto Rico (USCG 2002f).

Other Marine Mammals. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. There are several species of non-ESA-listed marine mammal species that occur in this ROI (see Appendix I, Tables I-3, I-4, and I-5); minke whales occur throughout the ROI (USCG 2002f). The rest of this discussion covers the two ecosystems represented by the portions of the ROI that occur along the southeastern US and the Gulf of Mexico. Bryde's whales are fairly common in the Gulf of Mexico, and there could be a resident population here (USCG 2002f). The pygmy sperm whale (*Kogia breviceps*) and the dwarf sperm whale (*K. simus*) occur throughout the ROI, as do numerous beaked whale species, including Sowerby's beaked whale (*Mesoplodin bidens)*, Blainville's beaked whale (*M. densirostris*), Gervais' beaked whale (*M. europaeus*), and Cuvier's beaked whale (*Ziphius cavirostris*). The short-finned pilot whale (*Globicephala macrorhynchus*) is most commonly sighted along the continental slope (see glossary for definition). Risso's dolphin (*Grampus griseus*) and killer whale (*Orcinus orca*) distribution appears to be widespread. Melon-headed whales (*Peponocephala electra*), false killer whales (*Pseudorca crassidens*), the Atlantic spotted dolphin *(Stenella attenuata)*, bottlenose dolphin (*Turciops truncatus*), the rough-toothed dolphin (*Steno bredanenis*), and spinner dolphins (*Stenella longirostris*) are found throughout a great deal of this ROI.

Sea Turtles. Sea turtles are protected under the ESA and CITES. There are six sea turtle species found in southeast waters where RB-S and RB-M operations are conducted (see Appendix I, Table I-6), and all are protected under the ESA. The five most common species of sea turtles known to inhabit the waters of this ROI are the green turtle (*Chelonia mydas*), the loggerhead (*Caretta caretta gigas*), the hawksbill (*Eretmochelys imbricata*), the Kemp's ridley (*Lepidochelys kempii*), and the leatherback (*Dermochelys coriacea schlegelii*). The hawksbill, Kemp's ridley, and leatherback are listed as endangered; the loggerhead, green, and olive ridley (*Lepidochelys olivacea*) are federally threatened. Human disturbance is the main cause of the decline of sea turtle numbers throughout their ranges. With the exception of the olive ridley, all U.S. sea turtle species are reported to nest on beaches in the southeastern U.S., but only the loggerhead and green do so in substantial numbers. Reports of green sea turtles nesting along the Gulf coast are infrequent, and

the closest important nesting groups are along the east coast of Florida. There are 5 USCG owned properties in the vicinity of turtle nesting sites in FL and one in South Carolina: FL sites are - Hillsboro Lighthouse property, Hobe Sound Old LORAN A Station, Station Ponce De Leon Inlet, ANT Jacksonville, St Johns Light and Radio Beacon. The South Carolina site is near Georgetown Light Station. Loggerheads nest primarily along the Florida panhandle, although some nesting also has been reported from Texas to Alabama. There are three critical habitat designations for turtles in this ROI (see Figure 3-5). The green turtle, which is federally listed as threatened, has critical habitat in waters extending seaward three nautical miles from the mean high water line of the Culebra Islands in Puerto Rico. The hawksbill, which is federally listed as endangered, has critical habitat in waters extending seaward three nautical miles from the mean high water line of Isla Mona and Monito Island, Puerto Rico. The leatherback, which is federally listed as endangered, has designated critical habitat off Sandy Point on St. Croix Island in the Caribbean and around southwest Cape Point. Leatherback, green, and hawksbill sea turtles nest throughout the U.S. Virgin Islands, and green and hawksbill sea turtles are commonly found feeding in the coastal waters of the U.S. Virgin Islands. RB-S and RB-M operations assets could transit these areas but would likely not have extended operations within them. NMFS has issued an incidental take statement authorizing the take, by injury or mortality, of one sea turtle along the Atlantic coast. This level of take represents the total take per year for all USCG boat and aircraft activities in the area (USCG 2002f).

Pacific Continental Waters

Thirty-two species of marine mammals are known to inhabit Pacific Continental Waters (see Appendix I, Table I-7). Of these, six species are listed as endangered (including all the large baleen whales except the gray whale) and three are listed as threatened. The California gray whale was removed from the Federal Endangered Species List in 1994.

Endangered Whales. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. RB-S and RB-M operations occur in habitat for six endangered large whale species and three threatened marine mammal species inhabiting this ROI. Specifically, all west coast homeports, from Port Angeles, Washington, south to San Diego, California, are in or adjacent to possible habitat for protected marine mammal species. The USCG could encounter some of these species during its activities and operations.

Blue whales are found annually in the central California region and can be found in groups near Carmel, California. Fin whale Pacific population numbers are uncertain. Fin whales are typically found in coastal waters in fall and spring and offshore in winter. The humpback is a commonly observed summer migrant in Pacific Continental Waters. The Pacific right whale is not the subject of much regulatory attention, and most sightings are of solitary individuals. The northern Pacific population is estimated at 100 animals,

making it the most endangered large whale in the world. They feed in coastal waters during winter through fall and can be found in nearshore habitats and bays from the Bering Sea to central Baja California. Sperm whales have been recorded year-round in the central and northern California and might be residential in this area. Approximately 15 sperm whales per year are incidentally killed in the California open ocean drift gill net fishery (USCG 2002f).

Other Marine Mammals. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. Several additional non-ESA-listed species inhabit Pacific Continental Waters (see Appendix I, Table I-7). Gray whales migrate seasonally and are quite common in the ROI at certain times of the year. Gray whales have recently begun to be hunted within U.S. waters. They are the focus of a subsistence hunt that NMFS recently authorized in Washington State for the Makah Indian tribe. In 1994, the Makah notified the Federal government they planned to hunt whale again, in accordance with their treaty. However, the International Whaling Commission had not identified the Makah hunt as a subsistence hunt. The U.S. and Russia agreed that 20 bowhead whales intended for hunting by the Alaskan Inupiat people would be exchanged for 20 gray whales intended for Russia's Chukotka people. These gray whales then were allocated to the Makah to be hunted over the next four years. The first animal was taken in 1999 (USCG 2002f). Since that time, a Final Environmental Assessment on Issuing a Quota to the Makah Indian Tribe for a Subsistence Hunt on Gray Whales for the Years 2001 and 2002 was issued July 13, 2001. The new assessment finds that due to the government's treaty obligation and the healthy status of the whale population the tribe's whale hunting will be allowed to continue.

Harbor porpoises are found year-round in coastal and offshore Pacific waters. In certain areas, such as central California, harbor porpoises have a highly localized mortality due to the set net fisheries (USCG 2002f).

Sea Turtles. Sea turtles are protected under the ESA and CITES. Seals are frequently seen on land and routinely commute from onshore haul-out grounds (land areas where seals leave the water and go to rest before returning) to offshore feeding grounds. Steller sea lions (*Eumetopias jubatas*) are listed as federally threatened and are found in nearshore waters out to and beyond the continental shelf. They haul out at various locations; Año Nuevo Island in northern California is the southernmost breeding location for the species. Critical habitat for this species is shown in Figure 3-5. Other non-ESA-listed seals include the harbor and northern elephant seal (*Mirounga angustirostris*) and the California sea lion (*Zalophus californicus*). The harbor seal is a resident of portions of Oregon, Washington, and the central California coast, having numerous pupping and haul-out sites along the open coast. Major pupping and haul-out sites for the northern elephant seal are located along the California coast; the most well known is at Año Nuevo. The California sea lion is most abundant in California waters, and several of the Channel Islands serve as breeding sites (USCG 2002f).

Three species of federally threatened sea turtles inhabit Pacific Continental Waters: the green, loggerhead (*Caretta caretta gigas*), and olive ridley. One endangered species occurs: the leatherback. Of these, the leatherback, loggerhead, and olive ridley are most commonly reported off the west coast.

Sea Otters. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. The southern sea otter (*Enhydra lutris*) is listed as federally threatened. It is not known if California sea otters (*E. l. nereis*) are migrants or residents in certain areas of California (USCG 2002f). Occurrences of southern sea otters along the Oregon-California border are probably of isolated seasonal residents or foragers that ranged north of their generally recognized territory.

Pacific Tropical Waters

Marine mammal and sea turtle distributions and abundances in the waters around Guam are poorly documented. There are documented accounts of pilot whales (*Globicephala macrorhynchus*), sperm and dwarf sperm (*Kogia simus*) whales, as well as of various tropical dolphin species and green sea turtles in Guam waters. Most likely, the waters are visited by several of the species that inhabit Hawaiian waters, but these species would be somewhat transient in this region (USCG 2002f).

Other locations fall within the Pacific Tropical Waters region, including the Johnston Atoll, a National Wildlife Refuge, and other territories. Marine mammal and sea turtle species that can occur in the waters around the Johnston Atoll include the Hawaiian monk seal (*Monachus schauinslandi)* and the green sea turtle (USCG 2002f).

The Hawaiian Islands are the most remote group of islands in the world. Twenty-two marine mammal species, including six endangered whales and the endangered Hawaiian monk seal, inhabit these waters (USCG 2002f) (see Appendix I, Table I-8). Humpback whales are one of the most abundant marine mammals, and the Hawaiian Islands are an important breeding ground. RB-S and RB-M missions occur in habitat for all the five endangered large whale species inhabiting this ROI. The USCG would be very likely to encounter the humpback whale anywhere in Hawaiian waters during the winter. In December 2000, the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve was created by EO 13178. The reserve encompasses an area of the marine waters and submerged lands of the Northwestern Hawaiian Islands, extending approximately 1,200 nautical miles long and 100 nautical miles wide. As part of the establishment of the reserve, EO 13178 contains conservation measures that restrict some activities and establishes reserve preservation areas around certain islands, atolls, and banks, where all consumptive or extractive uses are prohibited.

Endangered Whales. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. Humpback whales are abundant in coastal waters off the main Hawaiian Islands from November through April and number approximately 6,000 in the North Pacific. Their

numbers appear to be increasing, with estimates of about 4,000 animals visiting Hawaii annually (USCG 2002f). The whales occupy tropical waters during winter, when they are breeding and calving, and polar waters during spring, summer, and fall. Humpback whales are found in waters off all seven main Hawaiian Islands (USCG 2002f). Some studies suggest that habitat use patterns of females and calves in nearshore Maui waters might have decreased, perhaps due to increasing boat and human activities (USCG 2002f). As humpback whales are quite vulnerable to disturbance and possibly to boat strikes, regulations in Hawaii prohibit boats from approaching within 100 yards of adult whales and within 300 yards of mother/calf pairs (USCG 2002f).

Other Marine Mammals. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. There are several non ESA-listed marine mammals found in Hawaiian waters (see Appendix I, Table I-8). These include Bryde's whales (*Balaenoptera edeni*), minke whales, pygmy (*Kogia breviceps*) and dwarf sperm whales, killer whales, false killer whales (*Pseudorca crassidens*), pygmy killer whales (*Feresa attenuate*), pilot whales, beaked whale species (*Mesoplodon* and *Ziphius* spp.), melon-headed whales (*Peponocephala electra*), bottlenose dolphins (*Tursiops truncatus*), spinner dolphins (*Stenella longirostris*), rough-toothed dolphins (*Steno bredanenis*), and several species of spotted dolphins, the most common of which is *Stenella attenuata.*

Sea Turtles. Sea turtles are protected under the ESA and CITES. The federally endangered Hawaiian monk seal (*Monachus schauinslandi*) inhabits the seven main islands. Current estimates indicate that the monk seal population is declining and is believed to be approximately 1,000 animals (USCG 2002f). Hawaiian monk seals breed primarily at Laysan Island, Lisianski Island, and Pearl and Hermes reefs. Critical habitat for the Hawaiian monk seal is shown in Figure 3-5. The USCG does not have any current RB-S and RB-M facilities within monk seal critical habitat.

Five species of sea turtles inhabit waters of the Hawaiian Islands: green, loggerhead, leatherback, hawksbill, and olive ridley. Greens and hawksbills nest annually on Hawaiian beaches. An estimated 450 to 475 green turtles nest annually in Hawaii; only 12 to 15 nests are recorded each year. The green sea turtle is considered the most abundant sea turtle in Hawaiian waters. Hawksbills are considered uncommon, and a small number nest on Hawaii and Molokai each year. Adult leatherbacks are commonly sighted near the Hawaiian archipelago. Most records of olive ridley are from entanglements and strandings (USCG 2002f). USCG activities and operations would most likely not be located in Hawaiian waters with sea turtles.

Alaska Waters

Alaskan Waters include nearshore and intertidal ecosystems and offshore areas (i.e., the entire continental shelf of Alaska). The coastal waters of the Bering Sea are dominated by sea ice during most winters.

There is federally approved subsistence hunting for indigenous people in the region for seal and walrus, and some species of whale and polar bear are seasonally present (USCG 2002f). Polar bears can be found in north and northwest Alaska. In winter, they will travel as far south as St. Lawrence Island or St. Matthew Island. During summer, they are more commonly found near the edge of the ice in the Beaufort Sea and the Chukchi Sea. There are approximately 3,000 to 5,000 polar bears in Alaska (USCG 2002f). All coasts north of the Bering Strait are bordered by sea ice every winter, with pack ice often just offshore all summer. Marine mammals that occur here are rare or nonexistent south of the Bering Sea. Twenty-four species of marine mammals are known to inhabit Alaskan waters (see Appendix I, Table I-9). Of these, seven species are listed as endangered (including all the large baleen whales, except the gray whale), and two species (the steller sea lion and the southern sea otter) are listed as threatened. RB-S and RB-M missions are unlikely to occur in bowhead or sperm whale habitat, but the other five endangered whale species and one threatened seal species may be collocated with USCG activities and operations.

Endangered Whales. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. Seven endangered species of baleen whales inhabit these waters: bowhead (*Balaena mysticetus*), humpback, gray, right, sei, fin, and blue whale. Humpback whales summer throughout the central and western portions of the Gulf of Alaska, including Prince William Sound, around Kodiak Island, and along the southern coastline of the Alaska Peninsula. There have been a few documented sightings of humpbacks in offshore waters of the central Gulf of Alaska. The western North Pacific population is small, numbers approximately 400 to 600 animals (USCG 2002f) and winters south of the Japanese archipelago. The central North Pacific group is believed to consist of at least 4,000 whales and winters in the waters around Hawaii. In Alaska, the number of cruise ships entering Glacier Bay has been limited to reduce possible whale disturbances (USCG 2002f). As humpback whales are quite vulnerable to disturbance and possibly to boat strikes, new regulations have been instituted in Alaskan waters to protect these animals. NOAA has issued the completion of a final rule to protect humpback whales in Alaskan waters from disturbance by boats. The rule limits the minimum approach distance to 100 yards, requires a "slow, safe speed" when near a humpback whale, and prohibits disruption of a whale's normal behavior or prior activity (USCG 2002f).

Other Marine Mammals. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. In the Bering Sea, the northernmost major breeding ground for Steller sea lions is on Walrus Island (in the Pribilof Islands), and their northernmost major haul-out is on Hall Island (off the northwestern tip of St. Matthew Island). Population estimates for the western U.S. population fell 80 percent over the last 20 years; in 2000, that number has further declined. The decline in numbers over the last three decades is apparent in all groups of Steller sea lions in regions throughout its range. There is some evidence that the eastern population is recovering. The Steller sea lion is listed as threatened throughout its range in Alaska. However, the western stock of the Steller sea lion was recently

up listed to endangered in May 1997. The delineation is as follows: Steller sea lions are considered a Federal threatened species for populations east of 144 degrees West Longitude and a Federal endangered species for all populations west of 144 degrees West Longitude. In Alaska, all major Steller sea lion breeding grounds associated with terrestrial, air, and aquatic zones are designated critical habitat (Figure 3-5). There are three special aquatic foraging areas in Alaska: the Shelikof Strait area, the Bogoslof area, and the Seguam Pass area (USCG 2002f). The USCG does not have any RB-S and RB-M facilities within Steller sea lion habitat.

Sea Turtles. Sea turtles are protected under the ESA and CITES. The endangered leatherback turtle inhabits Alaskan waters and has been found in the Bering Sea, along the coast of Russia. The Pacific population of leatherbacks appears to be in a critical state of decline (USCG 2002f).

Sea Otters. All marine mammals are protected under the MMPA regardless of if they are listed under the ESA or not. The Alaskan sea otter's recovery has been successful, and its numbers have increased from approximately 2,000 total animals in 1911 to between 110,000 and 160,000 today. Smaller populations exist in the Commander and Kurile Islands, British Columbia, Washington, and California. Sea otters are hunted by Alaska natives for subsistence and products used in handicrafts. They are sometimes caught and drowned in fishing nets. The Exxon Valdez oil spill demonstrated the effects of oil contamination on sea otters. More than 1,000 carcasses were found after the spill, and it is likely that the total number that died was several times greater (USCG 2002f).

Great Lakes

There are no marine mammal resources within the Great Lakes.

3.6.4 Fish

Living marine resource protection is an important USCG mission. As a part of this mission, the USCG undertakes such activities as enforcing domestic fisheries laws, ensuring U.S. compliance with international agreements pertaining to living marine resources, and ensuring the development of viable enforcement schemes designed to protect, conserve, and manage living marine resources. The USCG also works to prevent illegal encroachment by foreign fishing boats of the U.S. EEZ, which is the area between three and 200 miles off the coast of the U.S.

The USCG undertakes such activities as enforcing domestic fisheries laws and ensuring the development of practical enforcement plans to protect, conserve, and manage these resources. The USCG enforces several laws pertaining to fish and fisheries management:

- Magnuson-Stevens Fisheries Conservation Act (16 U.S.C. 1801 et seq.)

- Lacey Act Amendments of 1981 (16 U.S.C. 3371 et seq.)
- Atlantic Tunas Convention (16 U.S.C. 971, et seq.)
- Tunas Convention Act of 1950 (16 U.S.C. 951, et seq.)
- Atlantic Salmon Convention Act (16 U.S.C. 3601, et seq.)
- North Atlantic Salmon Fishing Program (16 U.S.C. 3607)
- Northwest Atlantic Fisheries Convention (16 U.S.C. 5606)
- Antarctic Conservation Act (16 U.S.C. 2401, et seq.)
- High Seas Fishing Compliance (16 U.S.C. 5504)
- Pacific Salmon Fishing Program (16 U.S.C. 3637)
- Sockeye Salmon Act (16 U.S.C. 3631, et seq.)
- Antarctic Marine Living Resources Convention (16 U.S.C. 2431, et seq.)
- Endangered Species Act (16 U.S.C. 1536 et seq.)
- Marine Protection, Research, and Sanctuaries Act (16 U.S.C. 1402, et seq.)
- High Seas Driftnet Fisheries Enforcement Act (16 U.S.C. 1826 and P.L. 102- 582)
- High Seas Fishing Compliance Act of 1995 (PL 104-43)
- National Fishery Management Program (16 U.S.C. 1861)
- Central Bering Sea Fisheries Enforcement Act (16 U.S.C. 1823)
- North Pacific Anadromous Stocks Convention Act (16 U.S.C. 5001, et seq.)
- Fish and Wildlife Conservation Act (16 U.S.C. 2901, et seq.)
- Atlantic Striped Bass Act (16 U.S.C. 1851, et seq.)
- South Pacific Tuna Act of 1988 (16 U.S.C. 973, et seq.)
- Presidential Decision Directive/NSC-36 is U.S. Policy on protecting the ocean environment
- North Pacific Halibut Act (16 U.S.C. 773, et seq.)
- Sponge Act (16 U.S.C. 781, et seq.)
- Coast Guard Primary Duties (14 U.S.C. 2)

The USCG also has two initiatives related to fish and fisheries management:

- Ocean Steward
- Ocean Guardian (includes the Fisheries Enforcement Strategic Plan)

In addition, the USCG is mandated to comply with three Federal statutes in particular that pertain to living marine resource protection, as follows:

- *Coast Guard Primary Duties (14 U.S.C. 2).* Requires the USCG to enforce or assist in enforcing all applicable Federal laws on, under, and over the high seas and waters subject to the jurisdiction of the U.S. These laws include those that pertain to living marine resource protection.
- *National Fishery Management Program Enforcement (16 U.S.C. 1861).* Requires the USCG to enforce the provisions of the National Fishery Management Program.
- *High Seas Fishing Compliance (16 U.S.C. 5504).* Requires the USCG to cooperate with the Commerce Department to develop a report to provide information on high seas fishing vessel activities that undermine the effectiveness of international conservation and management measures (USCG 2002f).

Northeast Waters

The Northeast Fishery Council and the Mid-Atlantic Fisheries Council manage the commercial and recreational fisheries of the Northeast Waters. The commercial yield of fish by weight in the northeast was 680,600 metric tons in 1999, which was 42.9 percent of the eastern U.S., which includes the southeast Atlantic and the Gulf of Mexico. A large percentage of commercially and recreationally harvested fish in this region are overexploited. Appendix I includes tables listing all of the fish species found in the ROIs. Table I-10 lists the commercially important fish species found in the Northeast Waters (USCG 2002f).

In addition to fish species, shellfish have proved to be an important component to the fisheries industry. From Maine to Cape Cod, Massachusetts, approved shellfish growing areas covered more than 1,000 square miles in 1998. Further south, the area from Buzzards Bay, Massachusetts, to Chesapeake Bay, Virginia, has an approved shellfish growing area of approximately 6,300 square miles. From this area alone, approximately 1.1 billion pounds of seafood were landed in 1989 (USCG 2002f).

Commercially important marine arthropods of the Northeast Waters include lobsters, crayfish, crabs, and shrimp. Mollusks, or members of the phylum Mollusca, are also important in the region. Mollusks are bilaterally symmetrical invertebrates such as clams, octopuses, and squid (USCG 2002f).

Phytoplankton, which include photosynthesizing organisms, such as algae, are important primary producers in the northeast marine ecosystem and are thus considered an important basic food source to marine organisms of the region, including commercial fish. Large numbers of phytoplankton and another primary producer, zooplankton, have formed the basis of productive marine ecosystems, such as the Georges Bank, located off the coast of Massachusetts and Maine (USCG 2002f). Certain types of phytoplankton, however, have been known to cause illness to the microbial food web, to fish, and sometimes to humans. One such example affecting waters off the coast of New England is red tide, caused by *Alexandrium tamarense* whose red tint makes the ocean water appear red. A newly discovered alga linked to fish kills off the coast of the Middle Atlantic States is *Pfiesteria.* Harmful algal blooms off

the coast of New England and the Mid-Atlantic States have been linked in particular to shellfish poisoning (USCG 2002f).

The Northeast Waters, like other marine regions of the U.S. and U.S. territories, is affected by invasive species. Invasive species are non-native species whose introduction to an ecosystem harms or is likely to harm the environment, human health, or the economy (EO 13112). Although invasive species can be introduced by a variety of means, ship ballast water is one of the most important pathways for marine species transfer. Ballast water is carried by ships to provide stability and to adjust a boat's trim for optimal steering and propulsion. Ballast water often originates in ports of departure and coastal regions and is subsequently released at sea, along inland coasts, and in destination ports. The effect of invasive species released by ballast water transfer varies among boat types (particularly ballast tank structure), ballast release practices (often controlled by local regulations), and according to cargo and sea conditions (UCSG 2002).

All Federal agencies have been mandated by EO 13112 on Invasive Species to prevent and control introductions of invasive species in a cost-effective and environmentally sound manner. The transfer of invasive species is also controlled by the National Invasive Species Act of 1996 (16 U.S.C. 4701 et. seq.), which issued mandatory ballast management reporting and voluntary ballast exchange guidelines to all boats that enter U.S. waters from outside the EEZ, with the exception of military boats, crude oil tankers that carry out coastwise trade, and some passenger ships that are equipped with ballast treatment systems (16 U.S.C. 4701 et. seq.). The USCG is charged with implementing the National Invasive Species Act, including establishing standards for ballast water management to control the spread of aquatic nuisance species. Managing ballast water and preventing the spread of invasive species is a developing area of study. The USCG and the EPA are working together to speed the development and commercialization of innovative ballast water treatment systems.

Two species of endangered fish might be found in the Northeast Waters. They are the endangered Altantic salmon and the endangered shortnose sturgeon.

Southeast Waters

The Southeast Waters are composed of three major marine ecosystems: off the southeastern coast of the U.S., surrounding Puerto Rico and including the Caribbean Sea, and the Gulf of Mexico. The fisheries in these regions are managed by the Southeast Fisheries Council, the Caribbean Fisheries Management Council (CFMC), and the Gulf of Mexico Fisheries Management Council, respectively. Fish commercially harvested off the east coast of the southeastern U.S. include large coastal sharks, several types of tuna and billfishes, coastal pelagics, reef fish, and sciaenids (or sound-producing fish known as drums or croakers). Many of these species are overexploited. During 1999, total fish landings for commercial fisheries in the

Gulf totaled 884,993.2 metric tons, or 55.7 percent of the total fish landings of the eastern U.S. (USCG 2002f). These species are described in Appendix I, Table I-11.

In the Gulf of Mexico, the bulk of commercial fish landings are from epipelagic fish, which occupy the upper 656 feet of the water column. These include dolphinfish, sailfish, white marlin, blue marlin, and tunas. Commercial fishing in deeper waters targets fewer species and produces landings that historically contribute less than one percent of the regional total weight and dollar value. Some commercially important fish and lobster species are found in coral reefs and seagrass beds. These species include groupers (*Mycteroperca* spp.), hinds (*Epinephelus* spp.), amberjacks (*Seriola* spp.), barracuda (*Sphyraena barracuda*), red snapper (*Lutjanus campechanus*), spiny lobsters (*Panulirus argus)* and shovel-nose lobsters (*Scylliarides aequinoctialis*). The Gulf Coast has approximately 9,000 square miles of shellfish growing waters, of which about 42 percent is approved for harvesting (USCG 2002f). Appendix I, Table I-11 describes commercially important fish in the Gulf of Mexico.

The Caribbean Fisheries Management Council target fewer species than in the Gulf of Mexico. The CFMC has designated essential fish habitat (EFH) in the Caribbean area for 17 species. These EFHs in the Caribbean are described by four management plans: the Reef Fish Fishery Management Plan, the Spiny Lobster Fishery Management Plan, the Queen Conch Fishery Management Plan, and the Coral Fishery Management Plan (USCG 2002f). Appendix I, Table I-11 describes some of the commercially harvested fish of Puerto Rico and the Caribbean.

Coral reefs are particularly prevalent in the Caribbean and the Gulf of Mexico. The waters of Puerto Rico and the Caribbean alone support approximately 100 species of coral. These coral reefs serve as breeding grounds, nurseries, feeding grounds, and refuge for many protected species. They are essential for the continuation of commercial and recreational fisheries in this region and are also important for tourism and other recreational activities. Slow regeneration rates and limited distribution mean that many species are very vulnerable to over harvest and other anthropogenic causes of destruction, which include dredging, anchoring, and military maneuvers. Pollution from agricultural, industrial, and residential origin also has negative consequences on the reefs (USCG 2002f).

A few threatened or endangered species have been identified in the Southeast Waters, including the threatened Johnson's seagrass, the threatened Gulf sturgeon, and the candidate species Alabama shad.

Pacific Continental Waters

The Pacific Fishery Management Council manages fisheries in the Pacific Continental Waters. Many managed species are targeted for commercial fishing and include 83 species of groundfish (including rockfish, flatfish, sharks and skates, and roundfish), highly migratory species (including tuna, swordfish, marlin, sailfish, and oceanic sharks), pacific salmonids (including chinook and coho salmon), and coastal

pelagics (including herring, squid, anchovy, sardine, and mackerel). The Pacific Coast has 455 square miles of shellfish growing water, of which only 30 percent are approved for harvesting. In 1999, fish landings in the Pacific Continental Waters totaled 449,360.2 metric tons, representing 17 percent of the total fish landings in the U.S. Pacific waters. Appendix I, Table I-12 describes the commercially important fish in the Pacific Continental Waters. Several threatened or endangered species have been identified in the Pacific Continental Waters, as well as critical habitats for several endangered and threatened Pacific salmon species (see Figure 3-6). The white abalone *(Haliostis sorenseni)*, chinook salmon *(Onchorhynchus tshawytscha)*, coho salmon *(Onchorhynchus kisucth)*, sockeye salmon *(Onchorhynchus nerka)*, and chum salmon *(Onchorhynchus keta)* have been identified as threatened or endangered species.

Pacific Tropical Waters

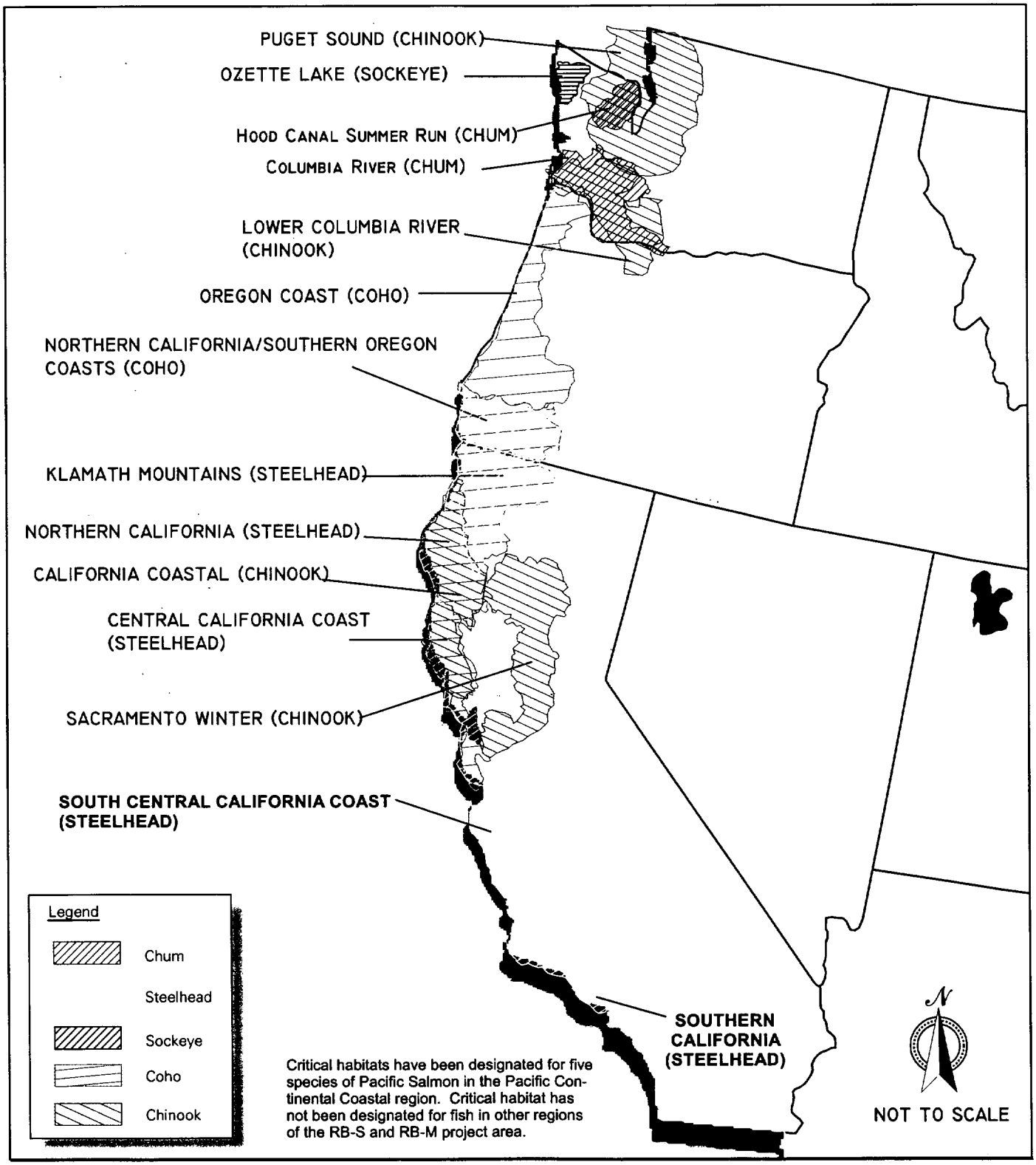
The Western Pacific Fishery Management Council manages fisheries in the Pacific Tropical Waters, which includes Hawaii, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (CNMI). Between 1986 and 1999, commercial landings of fish in the region showed a steady increase. Hawaii commercial fish landings showed the steepest increase in the region, from about 50,000 pounds landed in 1986 to 38,000,000 pounds landed in 1999. The commercial fisheries in Guam increased less rapidly, from 250,000 pounds in 1986 to 24,000,000 pounds in 1999. Some important commercial fish of the region include shad, sharks, pomfret, snapper, lined sturgeon, tuna (particularly albacore), reef fish, sea bass, and mahi mahi. In this region, diverse communities of coral and other marine invertebrates are critical components to the base of the marine ecosystem and specifically to the commercial and recreational fisheries. Appendix I, Table I-13 describes the commercially important fish in the Pacific Tropical Waters. No threatened or endangered species have been identified in the Pacific Tropical Waters.

Alaska Waters

The Bering Sea, Aleutian Islands, and the Gulf of Alaska contain some of the most productive waters on earth. The major commercial fisheries species in the western Gulf of Alaska and the Aleutian Islands are king crab, tanner crab, and shrimp. One of the world's largest flatfish and pollock fisheries is on the southern edge of the Bering Sea shelf. Surface fish stocks, such as salmon and herring, are among the largest in the world. In 1999, commercial fisheries in Alaska grossed a total of 2,037,852.1 metric tons of fish landings. The North Pacific Fishery Management Council manages Alaska fisheries. Appendix I, Table I-13 describes the commercially important fish in the Alaska Waters. Several threatened and endangered salmon species, the Chinook, sockeye, and chum salmon, inhabit the Alaska Waters region.

Great Lakes

There are approximately 180 species of fish indigenous to the Great Lakes region. Those inhabiting the nearshore areas include smallmouth and largemouth bass (*Micropterus salmoides*), muskellunge (*Esox masquinongy*), northern pike (*Esox lucius*), and channel catfish (*Ictalurus punctatus*). In the open water,



Source: USCG 2002

Figure 3-6. Critical Habitat for Pacific Salmon

common species include lake herring (*Coregonus artedii*), walleye (Stizostedion *vitreum*), freshwater drum (*Aplodinotus grunniens*), lake trout (*Salvelinus namaycush*) and white bass (*Morone chrysops*) (Fuller et. al. 1995). Relative abundances in the Great Lakes varies due to the changes in water currents, water temperature, breeding habitat, water chemistry, and lakes size and depth. For example, shallow Lake Erie is the most productive of the Great Lakes due to its warm temperature, while Lake Superior is the least productive fisheries area of the region.

Changes in the species composition of the Great Lakes basin in the last 200 years have been the result of human activities and changes in natural conditions. Many native fish species have been lost by overfishing, habitat destruction, or the arrival of exotic or non-indigenous species, such as the lamprey and the alewife. Pollution, especially in the form of nutrient loading and toxic contaminants, has placed additional stresses on fish populations. Other human-made stresses have altered reproductive conditions and habitats, causing some varieties to migrate or perish. Other effects on lake life result from damming, canal building, altering or polluting tributaries to the lakes in which spawning takes place and where distinct ecosystems once thrived and contributed to the larger basin ecosystem.

3.6.5 Coastal and Other Birds

There are thousands of coastal and marine birds that inhabit and transit the ROI. This section describes the range, listing status, and critical habitat designation for threatened and endangered species. As part of its mission to protect living marine resources, the USCG enforces such laws as the ESA. In enforcing the ESA, the USCG also protects endangered and threatened bird species. The ESA requires agencies to complete a Section 7 consultation with the USFWS if there is an endangered or threatened bird or bird critical habitat in the area affected by the proposed project and if implementation of the proposed action will likely affect the species. Likewise, under EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, Federal agencies such as the USCG are required to consult with USFWS when taking actions that may affect migratory bird populations. Under the EO, agencies are also expected to take reasonable steps that include restoring and enhancing habitat, preventing or abating pollution affecting birds, and incorporating migratory bird conservation into agency planning processes whenever possible. In addition to enforcing laws to protect coastal and marine birds, the USCG must comply with the same laws and regulations. As provided in the USCG Memorandum of Understanding with USFWS, the USCG would review the program to determine if there is a significant negative impact on migratory, coastal, or other birds.

Northeast Waters

Four threatened and endangered coastal and marine birds are found in the Northeast Waters region. These include the bald eagle, brown pelican, piping plover, and roseate tern. They are described below in Table 3-14. Proposed critical habitat for wintering populations of piping plovers is along the coastal

shorelines of North Carolina and south along the eastern coast of the U.S. to the Gulf of Mexico (see Figure 3-7).

Southeast Waters

Five threatened and endangered coastal and marine birds are found in the Southeast Waters region. These include the yellow-shouldered blackbird, whooping crane, bald eagle, brown pelican, piping plover and roseate tern. They are described below in Table 3-15. Critical habitat has been designated for the yellow-shouldered blackbird on Puerto Rico and on Isla Mona to the west of Puerto Rico (see Figure 3-7). Of particular concern to the RB-S and RB-M project is the occurrence of yellow-shouldered blackbirds at Roosevelt Roads Naval and Coast Guard Base in northeast Puerto Rico. Critical habitat has also been designated for the whooping crane along the gulf coast of Texas. Proposed critical habitat for wintering population of piping plovers exists along coastal shorelines throughout the Southeast waters region.

Pacific Continental Waters

Thirteen threatened and endangered coastal and marine birds are found in the Pacific Continental Waters region. These include the short-tailed albatross, bald eagle, Steller's eider, coastal California gnatcatcher, marbled murrelet, brown pelican, western snowy plover, California clapper rail, light-footed clapper rail, San Clemente loggerhead shrike, San Clemente sage sparrow, and California least tern. They are described below in Table 3-16. Critical habitat has been designated in this region for the coastal California gnatcatcher along the southern California coast and for the western snowy plover in 28 areas along the Pacific coast (see Figure 3-7).

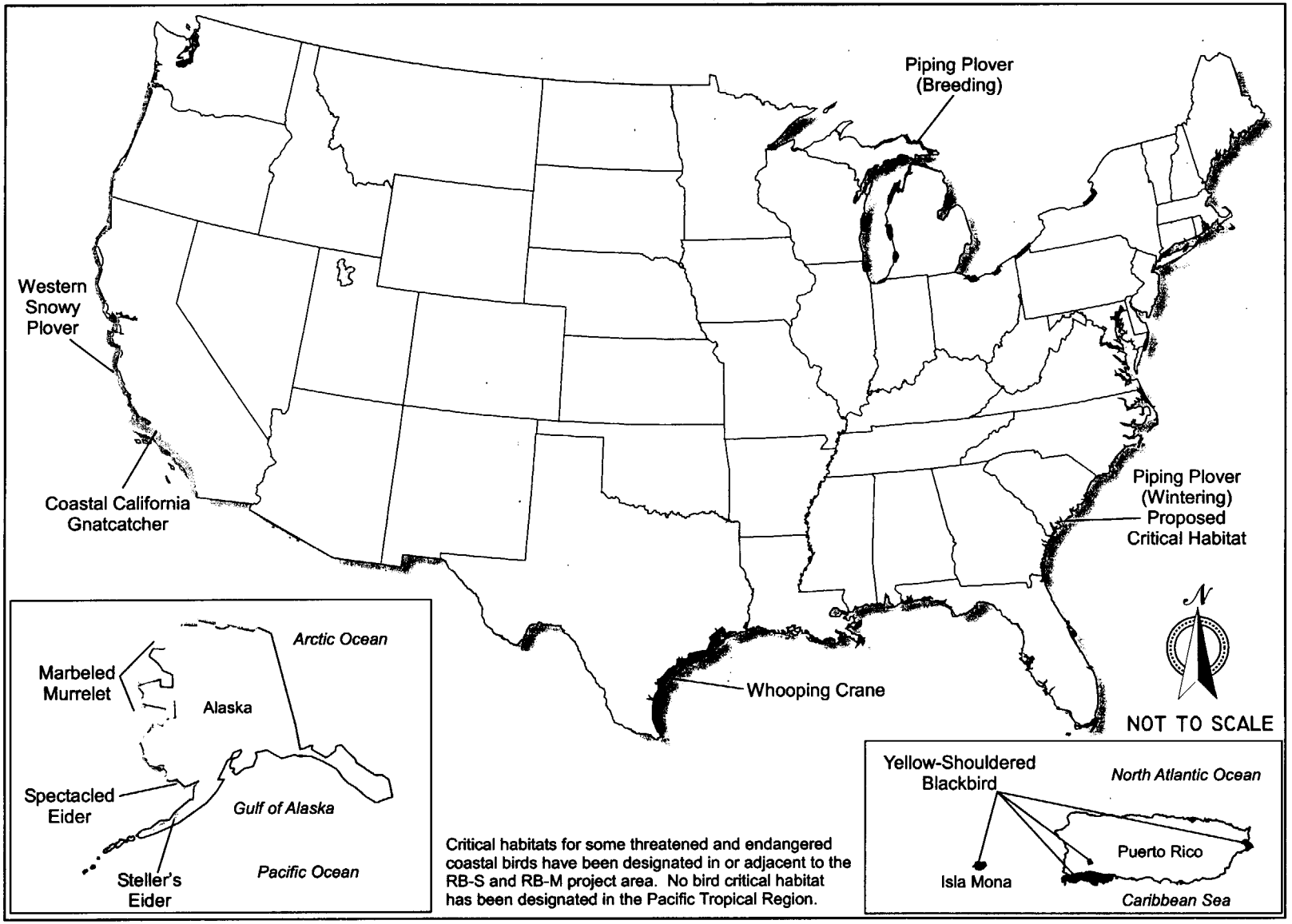
Pacific Tropical Waters

Nine threatened and endangered coastal and marine birds are found in the Pacific Tropical Waters region. These include the Guam broadbill, Hawaiian coot, Hawaiian duck, laysan duck, laysan finch, nihoa finch, Hawaiian dark-rumped petrel, Newell's Townsend's shearwater, and Hawaiian stilt. They are described below in Table 3-17. No critical habitat has been designated for bird species in this region.

Table 3-14. Protected Birds of the Northeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Bald eagle	*Haliaeetus leucocephalus*	T/AD	Occasional	Locally throughout most of North America, including coasts	Occurs year-round in many coastal areas. Breeds in spring, and some individuals migrate south during winter, while many remain in the northeast year-round.
Brown pelican	*Pelecanus occidentalis*	E	Common	Atlantic coast from New Jersey south, and Gulf coast	Some individuals migrate south in winter, while most are year-round residents of the northeast coast.
Piping plover	*Charadrius melodus*	T/PCH	Common	Atlantic coast, Great Lakes, Northern Great Plains, Gulf coast, and Caribbean. Proposed critical habitat for wintering populations along Atlantic Coast from North Carolina south to Florida, and west along Gulf coast to Texas.	Breeds on sandy beaches in isolated colonies on the northeast coast and Great Lakes region from March to September, where they spend the summer. Winters along southeastern coast.
Roseate tern	*Sterna dougallii dougallii*	E	Common	Atlantic coast and Caribbean	Breeds on islands and protected sand spits. Occurs on northeast coast during spring and summer and migrates south as far as the Caribbean during fall and winter.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
E = Endangered
T = Threatened
AD = Proposed Delisting
PCH = Proposed Critical Habitat



Critical habitats for some threatened and endangered coastal birds have been designated in or adjacent to the RB-S and RB-M project area. No bird critical habitat has been designated in the Pacific Tropical Region.

Figure 3-7. Critical Habitats for Coastal Birds

Source: USCG 2002

Table 3-15. Protected Birds of the Southeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Yellow-shouldered blackbird	*Agelains xanthomus*	E/CH	Occasional	Critical habitat areas in southwest Puerto Rico, Roosevelt Roads Naval and Coast Guard Base, and Isla Mona	Resident species in Puerto Rico and Isla Mona. Nesting season April to October.
Whooping crane	*Grus americana*	E/CH	Occasional	Critical habitat is on Texas coast	Winters in the gulf coast of Texas October to April, when they migrate north to Canada.
Bald eagle	*Haliaeetus leucocephalus*	T/AD	Occasional	Locally throughout most of North America, including coasts	Winters along central and southeast coast and Texas coast with year-round populations in Florida and gulf coast east of Texas.
Brown pelican	*Pelecanus occidentalis*	E	Common	Atlantic coast from New Jersey south	Year-round resident in the southeast.
Piping plover	*Charadrius melodus*	T/PCH	Occasional	Breeding: Atlantic coast, Great Lakes, and Northern Great Plains. Winters: S. Atlantic, Gulf Coast, Caribbean. Proposed critical habitat for wintering populations along Atlantic Coast from North Carolina to Florida and west along Gulf Coast to Texas.	Winters on the southeast and gulf coasts and the Caribbean October to March.
Roseate tern	*Sterna dougallii dougallii*	E	Common	Atlantic coast and Caribbean	Breeds in southern Florida May to June, migrates to the Caribbean in the fall.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
E = Endangered
T = Threatened
AD = Proposed Delisting
PCH = Proposed Critical Habitat
CH = Critical Habitat Designated

Table 3-16. Protected Birds of the Pacific Continental Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Bald eagle	*Haliaeetus leucocephalus*	T/AD	Occasional	Locally throughout most of North America, including coasts	Year round resident and breeds in most Pacific continental coastal areas. Some migration occurs from northern California and Oregon to southern California coast, where small population spends the summer.
Short-tailed albatross	*Phoebastria albatrus*	E	Common	Open Pacific Ocean from Alaska to California	Found most commonly in summer and fall. Breeds in Japan, Midway, and Hawaii and migrates north for summer and south for winter.
Steller's eider	*Polysticta stelleri*	T/CH	Occasional	Alaska Coast, accidental south to California. Critical habitat in Alaska.	Accidental in summer in Pacific waters. Migrates north to eastern Alaska.
Coastal California Gnatcatcher	*Poliioptila californica californica*	T/CH	Occasional	Southern California coast. Critical habitat is approximately 513,650 acres in Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties, California.	Nonmigratory inhabiting coastal sage scrub from Los Angeles county south to Baja, California, Mexico.
Marbled murrelet	*Brachyrampus marmoratus marmoratus*	T/CH	Occasional	Alaska coast south to California coast. Critical habitat is not in the Pacific Waters region.	Breeds from northern Washington to San Francisco coast. Winter along entire Pacific coast.
Brown pelican	*Pelecanus occidentalis*	E	Common	Pacific coast	Breeds in southern California March to April and is found from southern Mexico to central California and occasionally from northern California to Washington.

Table 3-16. Protected Birds of the Pacific Continental Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Western snowy plover	*Charadrius alexandrinus nivosus*	T/CH	Occasional	Washington coast south to California coast. Critical habitat is in 28 areas along the coasts of California, Oregon, and Washington.	Summers along Pacific coast and migrates south to Mexico and South America during winter.
California clapper rail	*Rallus longirostris obsoletus*	E	Occasional	San Francisco Bay area, California	Year-round resident on central and southern California coast.
Light-footed clapper rail	*Rallus longirostris levipes*	E	Occasional	Southern California coast	Year-round resident on central and southern California coast.
San Clemente loggerhead shrike	*Lanius ludovicianus mearnsi*	E	Occasional	San Clemente Island, California	Year-round resident on San Clemente Island.
San Clemente sage sparrow	*Amphispiza belli clementeae*	T	Occasional	San Clemente Island, California	Year-round resident on San Clemente Island.
California least tern	*Sterna antillarum browni*	E	Occasional	Central and southern coast of California	Breeds and spends spring and summer on southern and central California coasts. Migrates to Central America and south in fall for the winter.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
E = Endangered
T = Threatened
AD = Proposed Delisting
CH = Critical Habitat Designated

Table 3-17. Protected Birds of the Pacific Tropical Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Guam broadbill	*Myiagra freycineti*	E	Unlikely	Formerly Guam coast (thought to be extinct)	Year-round resident on Guam.
Hawaiian Coot	*Fulica americana alai*	E	Occasional	Hawaii coasts	Year-round resident Hawaiian Islands.
Hawaiian duck	*Anas wyvilliana*	E	Occasional	Pearl Harbor, Hawaii	Year-round resident on selected Hawaiian Islands.
Laysan duck	*Anas laysanensis*	E	Occasional	Laysan, Hawaii	Year-round resident Laysan Atoll, Hawaii.
Laysan finch	*Telespyza cantans*	E	Occasional	Laysan, Pearl, and Hermes atolls, Hawaii	Year-round resident Laysan, Pearl, and Hermes atolls, Hawaii.
Nihoa finch	*Telespyza ultima*	E	Unlikely	Nihoa Island, Hawaii	Year-round resident Nihoa Island, Hawaii.
Hawaiian dark-rumped petrel	*Pterodroma phaeopygia sandwichensis*	E	Common	Pacific Ocean around Hawaii	Found on the Hawaiian Islands from May to mid-November during breeding. Range up to 1,000 kilometers offshore. Wander throughout the central Pacific from mid-November through April.
Newell's Townsend's sharwater	*Puffinus auricularis newelli*	E	Common	Pacific Ocean around Hawaii	Found on the island of Kauai April thought September during breeding. On the open ocean from October to April.
Hawaiian stilt	*Himantopus mexicanus knudseni*	E	Common	Hawaii coasts	Year-round resident Hawaiian Islands.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
E = Endangered

Alaska Waters

Six threatened and endangered coastal birds can be found in the Alaska Waters region. These include the short-tailed albatross, bald eagle, spectacled eider, Steller's eider, Aleutian Canada goose, and marbled

murrelet. They are described below in Table 3-18. Critical habitat has been designated in this region for Steller's eider, the spectacled eider, and the marbled murrelet (see Figure 3-7). While the USCG bases are not likely to interfere with such designated habitats, operations could occur at or adjacent to critical habitat for these birds.

Table 3-18. Protected Birds of the Alaska Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Bald eagle	*Haliaeetus leucocephalus*	T/AD	Occasional	Locally throughout most of North America, including coasts	Breeds in Alaska coastal area and migrates to southern Canada and south during winter.
Short-tailed albatross	*Phoebastria albatrus*	E	Common	Open Pacific Ocean from Alaska to California	Summer visitor, migrates south in fall. Breeds in Japan, Midway, and Hawaii.
Steller's eider	*Polysticta stelleri*	T/CH	Occasional	Alaska Coast, accidental south to California. Critical habitat is at Kuskokwim Shoals in northern Kuskokwin Bay, the Seal Islands, Nelson Lagoon (including portions of Port Moller and Herendeen Bay), and Izembek Lagoon on the north side of the Alaska peninsula; and intertidal zone lands between the Askinuk Mountains and Nelson Lisland in the Yukon-Kuskokwim Delta.	Breeds in eastern Arctic coast of Alaska and migrates south and west to Aleutian Islands and western Alaska coast.
Spectacled eider	*Somateria fisheri*	T/CH	Occasional	Coast of Alaska	Breeds on the coast of Alaska on the Bering Sea and the Arctic Ocean. Migrates south for the winter but winter range is unknown.

Table 3-18. Protected Birds of the Alaska Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Aleutian Canada goose	*Branta Canadensis leucopareia*	T	Occasional	Breeding: coast of Alaska Migration and winter: south to California	During spring and summer is found on the islands of the Aleutian chain off the coast of Alaska. Winters in California and Oregon and also has been seen as far south as Mexico.
Marbled murrelet	*Brachyrampus marmoratus marmoratus*	T/CH	Occasional	Coast of Alaska south to California. Critical habitat is Bering Sea between St. Lawrence and St. Matthews islands' in Norton Sound east of Nome; in Ledyard Bay between Cape Lisburne and Icy Cape; and on the coastal fringe of parts of the Yukon-Kuskokwim Delta.	Summers from Alaska's Kenai Peninsula, Barren islands, and Aleutian Islands south along the coast of North America. May leave northernmost areas during winter.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
E = Endangered
T = Threatened
AD = Proposed Delisting
CH = Critical Habitat Designated

Great Lakes

Only two threatened and endangered coastal and marine birds are found in the Great Lakes region. These include the bald eagle and piping plover. They are described below in Table 3-19. Critical habitat for breeding populations of piping plovers has been designated along 201 miles of Great Lakes shorelines in areas of Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, and New York (see Figure 3-7). An inland boundary for all critical habitat units is 500 meters inland from normal high water line. Critical habitat area is limited to those areas that have the primary constituent elements required to sustain the Great Lakes population. These areas support, or have the potential to support, open, sparsely vegetated, sandy habitats, such as sand spits or sand beaches associates with wide unforested systems of dunes and interdune wetlands. Urban areas, paved areas, buildings, marinas, boat ramps, and natural areas

that do not contain the primary constituent elements are not critical habitat, even if they are within the mapped areas (USCG 2002f).

Table 3-19. Protected Birds of the Great Lakes

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI	Migration Pattern
Bald eagle	*Haliaeetus leucocephalus*	T/AD	Unlikely	Locally throughout most of North America, including coasts	Year-round resident in Great Lakes. Breeds in Great Lakes area, migrates south to inland and Atlantic coastal areas during summer.
Piping plover	*Charadrius melodus*	T/PCH	Occasional	Breeding: Atlantic coast, Great Lakes, and Northern Great Plains; Winter: S. Atlantic, Gulf Coast, and Caribbean. Proposed critical habitat for breeding populations has been designated along 201 miles of Great Lakes shoreline.	Breeding in Great Lakes region spring and summer. Migrates to southeastern and gulf states coast.

Source: USCG 2002f
Notes: Status refers to Federal status under the ESA
T = Threatened
AD = Proposed Delisting
PCH = Proposed Critical Habitat

Wetlands within the areas associated with the RB-S and RB-M operations in the Northeast, Southeast, Pacific Continental, Pacific Tropical, Alaska, and Great Lakes waters exist as a wide variety specific ecological types. As a result of the previously cited Federal and state regulations in Section 2, the USCG is responsible for identifying and locating jurisdictional waters of the U.S. (including wetlands) occurring on USCG installations where these resources have the potential to be impacted by mission activities. Such impacts could include construction of roads, buildings, navigation aids, and other appurtenant structures or activities as simple as culvert crossings of small intermittent streams, rip-rap placement in stream channels to curb accelerated erosion, and incidental fill and grading of wet depressions. Additional analysis and background information involved with construction of homeporting facilities

would be provided on a case-by-case basis. Operations of the RB-Ss and RB-Ms do not occur within jurisdictional wetlands, and therefore are not further evaluated within this PEA.

3.7 Water Resources

3.7.1 Definition of the Resource

Water resources include surface water, storm water, groundwater, floodplains, and wetlands. Federal laws and regulations that the USCG enforces and must comply with that are relevant to surface water include the Oil Pollution Act, portions of the Clean Water Act (CWA), and the Marine Protection, Research and Sanctuaries Act. The ROI for water resources includes four miles off the coasts of the eastern U.S., western U.S., the states bordering the Gulf of Mexico, Alaska, Puerto Rico, and Hawaii.

Surface water resources consist of lakes, rivers, and streams. Surface water is important for its contributions to the economic, ecological, recreational, and human health of a community or locale. Storm water flows, which may be exacerbated by high proportions of impervious surfaces associated with buildings, roads, and parking lots, are important to management of surface water. Storm water also is important to surface water quality because of its potential to introduce sediments and other contaminants into lakes, rivers, and streams.

Outputs in water include discharges or releases from cutters during operations or while in port. Outputs to surface water that could occur in port include resuspension of bottom sediments by dredging operations or by propeller wash, spills from refueling, offloading wastes, or handling hazardous materials. Some of these outputs are governed by regulatory standards and requirements. Facilities, including USCG facilities, are required to prepare and implement Spill Prevention Control and Countermeasures Plans, describing how they will respond to spills (USCG 2002f).

The USCG is required to comply with Uniform National Discharge Standards (UNDS) for discharging different types of effluents. These standards, established under Section 325 of the 1996 National Defense Authorization Act, provide a consistent set of national effluent standards for boats of the Armed Forces, including all USCG assets (USCG 2002f). Effective June 1999, discharges that must comply with these standards include, but are not limited to, graywater, bilge water, and cleaning fluids (40 CFR Part 9 and Chapter VII). Graywater includes wastewater from showers, laundries, and galleys; bilge water may originate from various sources, including small leaks in the hull or leaks from internal tanks and plumbing, and tends to collect in low points inside the hull (USCG 2002f).

Different requirements apply to managing graywater and blackwater, which is sanitary sewage from toilets and urinals. Federal regulations do not prohibit the discharge of graywater, but states may (with the approval of the EPA) establish no discharge zones for waters under their jurisdiction. Currently,

California, Florida, Massachusetts, Michigan, Minnesota, Missouri, Mississippi, New Hampshire, New Mexico, New York, Rhode Island, Texas, Vermont, and Wisconsin have established such EPA-approved no discharge zones for their inland waters (USCG 2002f). Section 312 of the CWA makes it illegal to discharge blackwater inside territorial waters of the U.S. (within three nautical miles) or in the Great Lakes or in navigable rivers.

Under its standard operating procedures, the USCG refrains from discharging graywater less than three nautical miles offshore (USCG 2002f). Under MARPOL requirements, nonhazardous solid waste, such as plastic, paper, and other nonsanitary trash, may be disposed of at sea within certain limits, based on the characteristics of the trash, particularly whether it floats and how resistant it is to degradation. USCG policy on smaller boats is to retain these materials onboard for subsequent disposal on land at appropriate facilities (USCG 2002f). While in port, discharges from the boats into the harbor waters are not permitted. Wastes are only discharged into appropriate on-shore facilities.

In addition, the USCG operates in several ways to help protect surface water resources. As part of the USCG's Maritime Pollution Enforcement and Response mission, USCG assets operate toward the goal of reducing the amount of oil, chemicals, plastics and garbage, and untreated ballast into the marine environment. As part of this mission, the USCG goal is to help reduce the total number of major and medium oil spills, to eliminate substandard and commercial boats from U.S. waters, to reduce the consequence of pollution incidents, and to increase the removal success of spilled oil. The USCG undertakes these activities as part of its mandate to enforce U.S. regulations relevant to the International Convention for the Prevention of Pollution from Ships (MARPOL) within the U.S. EEZ (USCG 2002f). Although the Proposed Action is to acquire and operate boats for homeland security, it is reasonable to assume that these boats may also take part in some of these activities.

Spills from boats at sea are probably unavoidable, but they are extremely infrequent from USCG boats. Between 1973 and 1985, the volume of oil released each year from all USCG assets ranged from one reported (1973) to 5,092 gallons (1979), with an average of four to 74 gallons per release. By contrast, from 1973 to 1993, there were 4,841 to 10,644 releases of crude and refined petroleum products per year into U.S. territorial waters from all sources. In general, the annual volume of releases has been decreasing. The total volume of petroleum products released ranged from a high of 21.52 million gallons in 1975 to a low of 1.88 million gallons in 1992. Based on this data, the releases from USCG sources represented less than 0.03 percent of the total volume of petroleum products released to U.S. territorial waters each year. Most releases from USCG operations were small (less than 100 gallons) and consisted of engine fuel (gasoline or diesel fuel). Small spills of these light fuels do not persist in the marine environment. Most of the hydrocarbons from small gasoline and diesel fuel releases on water evaporate quickly and rarely cause lasting injury to the marine environment (USCG 2002f).

3.7.2 Affected Environment

Northeast Waters

Coastal conditions in the Northeast Waters region are generally considered fair to good when water clarity and dissolved oxygen are considered according to EPA's National Coastal Condition Report. Water clarity is ranked as five on a scale of one to five (with five being the highest ranking), while dissolved oxygen is ranked as four (USCG 2002f).

One surface water issue of particular importance along the Atlantic coastline is the occurrence of "red tide." Caused by algae, this phenomenon results in fish lesions and fish kills in coastal waters. Toxic outbreaks typically last only a few hours, but once fish are weakened, lesions or kills can persist for days or possibly weeks (USCG 2002f).

Southeast Waters

The Wider Caribbean Region (WCR) includes the marine and coastal environments in the Gulf of Mexico, the Caribbean Sea, and parts of the tropical western Atlantic (30 degrees north latitude and within 200 nautical miles of the Atlantic coasts of the states). In this region, there are two general sources of marine pollution. These are land-based activities, which represent at least 75 percent of the pollution load into the marine environment, and ship-based sources, which account for the rest. Pollution from land-based sources is much more pervasive and a much bigger threat to reefs than pollution from ships, although the nature of the threat from both sources is similar. Runoff from land brings huge amounts of sediments, sewage, and toxic chemicals from activities such as agriculture, urban development, and deforestation. Many of these pollutants kill coral. Nutrients also promote the growth of algae, which compete with coral for space on the reef (USCG 2002f).

Water quality on the coast of Puerto Rico varies, depending on proximity to sources of pollutants. Near-shore waters tend to be adversely affected by onshore activities, while water quality improves farther from the coast (USCG 2002f). In 1967, the Commonwealth of Puerto Rico adopted classifications and quality standards for its coastal waters, identifying waters for different types of contact (e.g., swimming or boating/fishing), and developing standards for each type.

Several regions in the WCR have initiatives to protect surface water quality. In 1993, the IMO granted "Special Area" status for the WCR under Annex V of MARPOL 73/78, which addresses trash (or solid waste) generated on ships. In 1994, the IMO began the Wider Caribbean Initiative on Ship-Generated Waste to help Caribbean governments ratify and implement MARPOL 73/78 (USCG 2002f).

The states bordering on the Caribbean Sea, (37 including the U.S.), developed an Action Plan for the Wider Caribbean Region in 1981, under the auspices of the United Nations Regional Seas Program. In

1983, the U.S. signed a protocol to cooperate in combating oil spills. In 1990, the U.S. signed a protocol for Specially Protected Areas and Wildlife, which came into force in 2000. In 1999, the U.S. signed a protocol concerning land-based pollution sources and activities (USCG 2002f).

The marine waters of the northeastern Gulf of Mexico are characterized by the transition from the highly turbid Mississippi River effluent to the typical blue shelf water offshore of the Florida panhandle. The present relatively low overall human population density in the area adjacent to the northeastern Gulf of Mexico results in relatively low inputs of nutrients, heavy metals, and organics, although significant sources of trace metals, oil, polyaromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), have been found in Pensacola Bay, Florida (USCG 2002f).

Within the Gulf of Mexico a large area of the Louisiana continental shelf displays seasonally depleted oxygen levels (oxygen levels in the range of two milligrams per liter or less are called "hypoxic," which means they are severely depleted in oxygen). Most aquatic species cannot survive at such low oxygen levels. The region affected by these seasonal hypoxic conditions, which could threaten the economy of the gulf region, coincides with one of the most important commercial and recreational fisheries in the continental U.S. Oxygen depletion has been associated with habitat loss, fish kills, and increased frequency of harmful algae blooms (USCG 2002f).

The Gulf of Mexico region exhibits one of the highest concentrations of oil and gas activity in the world, and this can influence surface water quality. As of December 2000, 3,968 active offshore oil and gas production platforms were located on the gulf's outer continental shelf (OCS). Most of the recent offshore oil and gas production has occurred off the coasts of Texas and Louisiana. Most future activities are projected to occur in deeper OCS waters of more than 985 feet throughout the Gulf of Mexico (USCG 2002f).

The National Coastal Condition Report presents the results of surface water condition analyses for the estuaries of the waters in Region 7. According to the conclusions of this report, the general condition of surface water of the estuaries off the east coast of the southern U.S. are fair to good when water clarity and dissolved oxygen are considered. Water quality in this area is ranked as four on a scale of one to five, while dissolved oxygen is ranked as five. In the Gulf of Mexico, (District 8) water clarity is ranked as three on a scale of one to five, while dissolved oxygen is ranked as five (USCG 2002f).

Pacific Continental Waters

The Pacific Ocean is the largest of the world's oceans. Except for its extreme northern and southern sections, which are characterized by fjords and numerous islands, and except for the deeply indented Gulf of California, the coastal boundary is relatively regular and the continental shell is narrow. Oil exploration

has led to the construction of oil platforms off the coast of southern California between approximately Long Beach and Santa Barbara (USCG 2002f).

The Draft National Coastal Condition Report portion of the Clean Water Action Plan presents the results of surface water condition analyses for the estuaries in Districts 11 and 13. According to the conclusions of this report, the general condition of surface water of the estuaries off the west coast are ranked as good when water clarity and dissolved oxygen are considered. Both are ranked as five on a scale of one to five (USCG 2002f).

Pacific Tropical Waters

In 1991, the Hawaii and Marine Resources Council developed the Hawaii Ocean Resources Management Plan (ORMP), which contains objectives, policies, implementing actions, and recommendations for a comprehensive, integrated ocean policy and management framework. The boundaries addressed by the ORMP are from the coastal zone to the limit of the 200-mile EEZ.

According to the National Coastal Condition Report, some form of pollution or habitat degradation impairs 56 percent of Hawaii's estuarine area. Data reported in 1998, as required under CWA Section 305(b) concluded that the primary cause of estuarine impairment in Hawaii is due to increased concentrations of total suspended solids and nutrients (USCG 2002f).

In order to complete its 1998 Section 305(b) reporting requirement, Guam assessed 14 miles (12 percent) of its 117 miles of ocean shoreline. The results of this study concluded that all 14 miles of assessed waters were impaired for swimming (USCG 2002f).

Alaska Waters

This District covers nearly three million square miles of open ocean, rivers bays and inlets. It extends from the Canadian border around the Aleutian Chain, above the Artic Circle, and back to the Canadian border. It includes the Pacific Ocean, the Gulf of Alaska, Cook Inlet, Bristol Bay, the Bering Sea, the Chukchi Sea, and the Arctic Ocean. Oil tankers transport crude oil, which is pumped overland from the North Slope of Alaska to the port of Valdez, to ports on the western coast of the U.S. (USCG 2002f).

The Arctic Ocean is the smallest of Earth's oceans. The average depth is only 3,240 feet. The Arctic water from the surface to a depth of 650 feet has the most variable temperatures due to the continual freezing and thawing cycles and because of additions of freshwater from rivers and precipitation. Sea temperatures are colder than air temperatures year-round. Gales (greater than 34-knot winds) occur regularly every two to eight days, with the fewest gales occurring from May through July. Winter and spring gales last an average of four to six hours (USCG 2002f).

Although the surface area of the coastal resources of Alaska is much larger than those of the remaining 49 states, Alaska has been excluded from many past monitoring studies as a result of difficult logistical problems. The vast majority of Alaska's coastal resources are presumed to be in relatively pristine condition due to Alaska's size, sparse population, and general remoteness. In some more populated or industrial areas, coastal water quality has been impaired. Water quality is impaired, for example in coastal areas surrounding port facilities along Prince William Sound, seafood processing facilities in the Aleutian Islands, and cruise ship docking facilities and corridors near Juneau and along the southeastern coastline. The State of Alaska assesses less than one percent of its total coastal resources, but 99 percent of these are reportedly impaired for one or more uses (USCG 2002f).

Great Lakes

Based on available information from various monitoring efforts, ecological conditions in the Great Lakes are borderline poor. The open waters of the approximately 290,000 square miles of the Great Lakes are monitored annually by EPA's Great Lakes Monitoring Program Office (GLMPO) in conjunction with NOAA and U.S. Geologic Surveys (USGS). Probabilistic surveys like those completed for the Northeast, Southeast, and Gulf Coasts do not exist for the Great Lakes region. However, existing monitoring data from long-standing programs have been used to assess the condition of the ecosystem to the extent possible. Water quality is good and has increased in all the Great Lakes except Lake Erie over the last decade. Dissolved oxygen conditions are generally good. However, dissolved oxygen in Lake Erie continues to be a persistent problem. Anoxic conditions (less than 0.5 milligrams per liter) often occur in late August and continue until turnover occurs in the fall.

The Great Lakes states assessed 4,950 miles (90 percent) of their 5,521 miles of Great Lakes Shoreline for their 1998 305(b) water quality reports. Only four percent are threatened for one or more uses. Some form of pollution or habitat degredation impairs the remaining 96 percent. The primary problems in the Great Lakes in the 1990s were sediment contamination, benthic community condition, coastal wetland loss, and fish contaminates. EPA's Great Lakes National Program Office has determined that polluted sediments remain as the largest major source of contaminants to the Great Lakes food chain. Under the Great Lakes Water Quality Agreement, the governments of the U.S. and Canada have identified 43 Areas of Concern. Over 20 percent of the shoreline is considered impaired because of sediment contamination. PCBs, mercury, chlordane, dioxin, and mirex are the primary pollutants. Of the 583 beaches on the U.S. side of the Great Lakes, the GLNPO received monitoring information on 327. Of those, 20 percent were closed at least once during the 1999 season. Most closures were the result of elevated bacteria levels and sewage caused by runoff, stormwater, wildlife, and sanitary and combined sewer overflows or other unknown causes.

4. Environmental Impacts

This section provides the scientific and analytic basis for comparing environmental consequences of the Proposed Action and the No Action Alternative. The probable effects of each alternative on environmental resources are described.

4.1 Air Quality

4.1.1 Significance Criteria

This section discusses the environmental consequences associated with air quality from the Proposed Action and the No Action Alternative. The scope of the Response Boat Acquisition Project and its Region of Influence (ROI) are quite broad and the environmental consequences to air quality are considered on a system-wide basis. For this analysis, the No Action Alternative represents current operating scenarios and the Proposed Action represents operating scenarios as if asset replacement had been fully implemented. The No Action Alternative assumes that the future operability and efficiency of assets equal existing conditions.

Potential changes in air quality at U.S. Coast Guard (USCG) facilities from homeporting new response boats and resulting impacts to a specific air basin could be important; thus, changes in air quality at homeporting locations would be considered in subsequent National Environmental Policy Act (NEPA) documentation. At this time, it is not possible to quantify specific impacts in specific air basins, due to uncertainties in the final distribution of the response boats.

For this assessment, marine boat emissions were determined on a system-wide basis for the following pollutants: reactive organic gases (ROG), nitrogen oxides (NO_x), carbon monoxide (CO), and PM_{10} (particulates less than 10 microns).

The air quality impacts analyses under NEPA must determine whether the proposed changes in regulated pollutant emissions from stationary and non-stationary sources (including motor vehicle and construction activities) would cause a significant impact to local and regional air quality. The air quality impacts analysis is therefore based on a comparison of current or existing baseline conditions to full implementation of the proposed action. Based on the net increases (if any) of each regulated pollutant, the impacts to ambient air quality conditions are qualitatively and quantitatively evaluated to determine significance.

The significance criteria used for proposed actions in regions that are in attainment with national ambient air quality standards are not specifically defined by regulation or Federal guidance. Significance is therefore evaluated on a qualitative level, taking into consideration the local air quality, regulatory environment, proximity to Class I air quality areas (e.g., national parks), and so forth.

For proposed actions in Federal nonattainment or maintenance areas, the General Conformity rule sets forth specific criteria for determining significance. General Conformity significance criteria are discussed below.

The General Conformity Rule requires that Federal agencies consider total direct and indirect emissions of criteria pollutants. Conformity must be shown for those pollutants (or precursors) released in areas designated as non-attainment for those pollutants as well as pollutants for which an area has been redesignated from non-attainment to attainment (i.e., a maintenance area).

The Conformity Rule does not apply to actions where the direct and indirect emissions do not exceed *de minimis* threshold levels promulgated in 40 Code of Federal Regulations (CFR) 93.153(b). Additionally, the rule exempts ongoing activities that are currently being conducted at a facility as long as the Federal action does not increase non-attainment pollutants above *de minimis* levels. As shown in Table 4-1, *de minimis* thresholds vary depending upon the severity of the non-attainment area classification.

Table 4-1. General Conformity Rule *de minimis* Emission Thresholds

Pollutant	**Status**	**Non-Attainment Classification**	**Applicable *de minimis* Threshold (tons/yr)**
Ozone (measured as Nitrogen Oxides [NO_x] or Volatile Organic Compounds [VOCs])	Non-attainment	Extreme	10
		Severe	25
		Serious	50
		Moderate/marginal (inside ozone transport region)	50 (VOCs)/100 (NO_x)
		All others	100
	Maintenance	Inside ozone transport region	50 (VOCs)/100 (NO_x)
		Outside ozone transport region	100
Carbon Monoxide (CO)	Non-attainment/ maintenance	All	100
Particulate Matter (PM_{10})	Non-attainment	Serious	70
	Maintenance	Moderate	100
		Not Applicable	100
Sulfur Dioxide (SO_2)	Non-attainment/ maintenance	Not Applicable	100
Nitrogen Oxides (NO_x)	Non-attainment/ maintenance	Not Applicable	100

Source: 40 CFR 93.153(b)

Stationary air emissions sources are, in general, not included in General Conformity determinations. Any air quality impacts associated with increases in emissions from stationary sources (e.g., paint booths, boilers, stationary internal combustion engines, etc.) will be addressed through local new source review (NSR) permitting requirements. These requirements may include controls and offset requirements that ensure no impacts to ambient air quality.

If the net changes in non-attainment pollutants do not exceed *de minimis* threshold levels, the Conformity Rule also requires an analysis of "regional significance". This includes a comparison of the net emissions changes to the total emissions inventory of non-attainment pollutants for an affected non-attainment area. If the net emissions change associated with the Proposed Action are below *de minimis* thresholds and will not increase regional emissions by 10 percent, the action is not considered regionally significant and is exempt from further conformity rule requirements.

When applicable, another required analysis is a comparison of the Federal action's emissions to any existing State/Federal Implementation Plan (SIP/FIP) emission budgets that have been established for the facility or affected region. If the action would cause an increase in emissions such that the established SIP emissions budgets are exceeded, a conformity determination and other applicable rule requirements would apply.

Once it has been determined that the emissions associated with a proposed action would exceed *de minimis* thresholds or regional significance, the first step is to evaluate whether mitigation measures (e.g., watering of construction sites or paving haul roads) can be undertaken that will reduce expected emissions to below *de minimis* and regional significance levels. If emissions cannot be mitigated to below these thresholds, a formal conformity determination process must be followed.

Federal agency actions subject to the general conformity rule cannot proceed until there is a demonstration of consistency with the SIP through one of the following mechanisms:

- By dispersion modeling analyses, demonstrating that direct and indirect emissions from the Federal action would not cause or contribute to violations of Federal ambient air quality standards.
- By showing that direct and indirect emissions from the Federal action are specifically identified and accounted for in an approved SIP.
- By showing that direct and indirect emissions associated with the Federal agency action are accommodated within emission forecasts contained in an approved SIP.
- By showing that emissions associated with future conditions would not exceed emissions that would occur from a continuation of historical activity levels.
- By arranging emission offsets to fully compensate for the net emissions increase associated with the action.

- By obtaining a commitment from the relevant air quality management agency to amend the SIP to account for direct and indirect emissions from the Federal agency action.

The regions in which USCG Response Boats operate have varying levels of air quality and varying levels of regulatory authority to develop and implement air regulations. As a result, air pollution regulations can be quite complex and site or area-specific. The USCG would make a site-specific compliance and significance determinations during follow-on NEPA documentation.

4.1.2 Proposed Action

For the purposes of estimating the potential net change in emissions associated with the Response Boat Acquisition, this Proposed Action has been discussed in two parts:

- The replacement of the diesel-powered 41-foot Utility Boats (UTBs) with 180 diesel-powered Response Boat – Medium (RB-M) on an approximately 1-for-1 basis; and
- The replacement and supplementation of the existing fleet of approximately 350 rigid inflatable boats (RIBs), trailored aides to navigation boats (TANBs), and small utility boats (UTLs) with 780 Response Boat – Small (RB-S).

Table 4-2 provides estimates of total emissions for diesel UTBs and RB-Ms for the No Action Alternative and the Proposed Action, respectively. For this analysis, it has been assumed that the replacement of these boats would not entail a significant change in mission. Total hours of operation and distance covered for the new boats are presumed similar to current activities. Details of the emissions calculations are presented in Appendix E.

Table 4-2. Estimated Emissions From Diesel-Powered UTBs and RB-Ms for the No Action Alternative and the Proposed Action

	NO_x (tpy)	THC (tpy)	PM (tpy)	CO (tpy)
41-foot UTB (No Action)	175	25	11	37
RB-M (Proposed Action)	92	13	3	73
Net Change in Emissions	-83	-12	-8	+36

tpy = tons per year

Although the new RB-Ms will be faster and more powerful than the existing UTBs, the new generation marine engines will meet Federal 2004 model year emission standards for NO_x, total hydrocarbons (THC), and PM (see Section 3.4) and the new engines are expected to be slightly more fuel efficient than the retiring units. Diesel engine combustion modifications required to meet the future diesel engine NO_x

standards are expected to result in moderate increases in CO emissions. However, moderate increases in CO emissions would not be expected to have a significant environmental impact in any affected area.

Table 4-3 provides estimates of the total emissions for the existing fleet of RIBs, TANBs, and UTLs, as well as estimates of the possible emissions associated with the Proposed Action, which would involve replacing and supplementing the existing fleet of small response boats with 700 new RB-Ss. Because of the uncertainties in this estimate, several conservative assumptions were made in order to avoid under-estimating Proposed Action emissions:

- It has been assumed that some, but not all, of the existing fleet of small response boats would be retired, such that the total fleet would number approximately 1,000 units with full implementation of the Proposed Action.
- It has been further assumed that sufficient staff and support infrastructure would be available and mission requirements would be such that the presumed doubling of the RB-S inventory will be accompanied by a doubling in the small response boat activity and fuel use.
- Emission factors used for estimation of RB-S emissions assume that the new engines would emit the maximum levels of NO_x and THC allowed by the regulatory standard. Certification data from engines certified to this standard to date indicate that actual emissions rates vary from one engine family to another, but all certified engines emit levels of pollution lower than the standard, and, in some cases, significantly lower than the standard (i.e., less than half)

Table 4-3. Estimated Emissions from RB-Ss for the No Action Alternative and the Proposed Action

	NO_x (tpy)	THC (tpy)	PM (tpy)	CO (tpy)
Existing Small Response Boats (No Action)	61	390	92	3,272
RB-Ss and retained RIBs and TANs (Proposed Action)	232	697	204	3,982
Net Change in Emissions	+172	+307	+112	+710

tpy = tons per year

As would be expected, the assumptions listed above result in estimates of emissions associated with the Proposed Action that are significantly higher than estimated emissions from current activities. The Proposed Action emission estimates presented in Table 4-3 should be viewed as upper-bound estimates. Actual emissions would more likely be substantially lower than these estimates. Details of the emissions calculations are presented in Appendix E.

While it is not possible at this time to quantify and evaluate the site-specific or region-specific impacts that may result from the proposed response boat procurement, the following sections describe some of the region-specific considerations that must be included in any follow-up localized NEPA analyses.

The estimated RB-S emissions increases presented in Table 4-3 above appear numerically significant. It is important to keep in mind, however, that these possible emissions increases would be distributed over several thousand miles of coastal waters associated with approximately 200 different USCG facilities. Any determination of significant impact would have to be made on a local basis, taking into consideration the specific equipment and mission changes proposed for that location, as well as local environmental conditions.

Northeast Waters

As discussed in Section 3.4, ozone nonattainment areas in this region include Westhampton Beach, New York, and Washington, DC. The Washington, D.C. area is also classified as a maintenance area for CO. Other ozone maintenance areas in this region are Kittery and Portland, Maine. In addition, Boston, Falmouth (Cape Cod), Gloucester, New Bedford, and Woods Hole, Massachusetts, are classified as maintenance areas for ozone. Boston is also a maintenance area for CO. In New Jersey, Sandy Hook is classified as a severe ozone nonattainment area, and Atlantic City and Cape May are classified as ozone maintenance areas. These areas and others would need to be evaluated during any follow-on NEPA documentation.

Southeast Waters

The EPA has designated an eight-county area in and around Houston, Texas-Harris, Galveston, Montgomery, Waller, Liberty, Fort Bend, Brazoria, and Chambers counties - as ozone nonattainment zones. Locations classified as maintenance areas for ozone in this region include New Orleans, Louisiana, as well as St. Petersburg, Clearwater, and Miami, Florida. Also, San Juan, Puerto Rico, has a moderate nonattainment classification for PM_{10}. These areas and others would need to be evaluated during any follow-on NEPA documentation.

Pacific Continental Waters

The Los Angeles - South Coast Air Basin has some of the worst air quality in the nation, in terms of the annual number of days exceeding the Federal standards. The South Coast Air Basin is classified as extreme nonattainment for ozone and nonattainment for CO and PM_{10}. The Ventura County air basin to the north is categorized as severe nonattainment for ozone. The South Central Coast (Santa Barbara area) and San Diego County air basins further north and south of the South Coast Air Basin are categorized as serious nonattainment for ozone. The central California valley, including Sacramento and the Port of Stockton, is designated as a serious ozone nonattainment area. In addition, the Sacramento metropolitan

area is classified as moderate nonattainment area for PM_{10} and a maintenance area for CO. Other ozone nonattainment areas in California include Alameda, San Francisco, and San Pedro. Alameda, San Francisco, and San Pedro are also classified as maintenance areas for CO. Monterey, California, is classified as a maintenance area for ozone.

As mentioned previously, new marine outboard engines to be used in California coastal waters must meet California, as well as Federal, engine standards for NO_x and hydrocarbons (HC). In addition, the California Air Resources Board (CARB) is currently developing regulations under their Toxic Air Contaminants Measure (TACM) for diesel particulate. Future regulations are expected to impact nonroad diesels, possibly including marine diesels.

Seattle-Tacoma is classified as nonattainment for PM_{10}. This area is also listed as a maintenance area for ozone. These areas and others would need to be evaluated during any follow-on NEPA documentation.

Pacific Tropical Waters

There are no issues specific to this region at this time.

Alaska Waters

There are not as many air quality issues in the Alaska Waters region as compared to some other regions. However, Auke Bay has been classified as moderately nonattainment for PM_{10}. The Alaska region has not promulgated ambient air quality standards that are more stringent than the National Ambient Air Quality Standards (NAAQS). In addition, there are no SIP initiatives that specifically target marine boats or aircraft.

Great Lakes

The Detroit metropolitan area is designated as a maintenance area for ozone. In addition, Waukegan, Illinois is designated as a severe ozone nonattainment area. These areas have not promulgated ambient air quality standards that are more stringent than NAAQS. In addition, there are no SIP initiatives that specifically target marine boats.

4.1.3 No Action Alternative

As described in Chapter 2, the No Action Alternative involves maintaining existing response boat assets to enable performance of USCG with newer models as part of required fleet maintenance. The No Action Alternative emissions estimates for the watercraft affected by the Proposed Action are presented in Tables 4-2 and 4-3. No significant change in emissions would be expected, and the No Action Alternative is considered equivalent to current operations with regard to air emissions and their impacts.

4.2 Noise

4.2.1 Significance Criteria

This section addresses the noise impacts from the Proposed Action and the operation of existing 41-foot UTB and non-standard boats (No Action Alternative). Examples of noise impacts from existing operations include noise boats, construction equipment (temporary), traffic, and industrial equipment, such as generators. Noise impacts are also considered within the ROI around USCG facilities. There may be changes in noise conditions at USCG facilities as a result of the implementation of the Proposed Action; these changes would be assessed in follow-on NEPA documentation.

Noise impact criteria normally are based partly on land use compatibility guidelines and partly on factors related to duration and magnitude of the noise level itself, including the time of day and the conduct of operations. As this PEA does not address specific facilities issues, the noise analysis and comparison is limited to the respective magnitudes of noise emitted by the number of boats in a region.

Because noise impacts occur only at a localized geographic scale, it is not possible to provide numerical noise level estimates that would be representative of noise impacts at a system-wide or regional scale. Data on airborne noise generation by marine boats generally is not available. Most boat operations occur well away from coastal areas. Hence, airborne noise from marine boat operations is rarely an issue of concern.

In regard to noise impacts by boats to marine mammals, fish and sea turtles, there is no scientific consensus regarding absolute thresholds for significance. However, this section applies current scientific knowledge to the assessment of impacts from ocean going boats on marine mammals and turtles. Noise measurements usually are given in decibel (dB) units, but there are many different kinds of decibel measurements. In many cases, different types of dB measurements cannot be directly compared to each other. A dB unit is merely a logarithmic ratio of a measured value versus a reference value. Underwater dB measurements are not equivalent to dB measurements of airborne sounds. The reference pressure used for underwater noise measurements (1 micropascal [μPa]) is much lower than that used for airborne sound measurements (20 μPa). In addition, underwater noise measurements typically do not have any frequency weighting applied, while airborne noise is often measured using one of several frequency weighting scales. In many cases, underwater noise levels are reported only for limited frequency bands, while airborne noise is usually reported as an integrated value over a very wide range of frequencies. Thus, the underwater dB levels mentioned in the following discussions cannot be compared directly to airborne sound dB levels. The impact that a human-made sound can have on sea life depends on its loudness and on the specific acoustic frequency pattern at the location where the marine organisms detect the sound and the distance of the animal from the sound source. Sound intensity decreases with distance

from the noise source, and high frequency components of the noise decrease more rapidly with distance than do low frequency components.

The following are used in this section as thresholds for impacts:

- A readily noticeable or measurable increase in noise level from the existing conditions identified in Chapter 3 would be considered a negative impact.
- A significant adverse noise impact would occur if the number of boat operations were to dramatically increase over existing conditions.
- A substantial increase in noise from the No Action Alternative generated by the Proposed Action would be considered a significant impact. A substantial increase would be one where long-term physical disturbances would cause physical injury or extremely high levels of stress to humans, marine mammals, or turtles.

4.2.2 Proposed Action

The following section discusses the potential noise impacts to the human and marine mammal environments associated with implementation of the Proposed Action throughout the coastal regions of the continental U.S., Alaska, Hawaii, Guam, Puerto Rico, and the U.S. Virgin Islands.

Human Environment

Boat noise impacts to human communities are normally limited due to the low speed approach and docking of boats at USCG facilities. Most high-speed boat operations would occur well offshore and would have minimal impact on noise levels at onshore locations. USCG facilities are located primarily in industrial areas where boat and mechanical noises do not normally affect the community and therefore, there would be no significant impact from existing USCG boat noises.

Marine Mammal Environment

Some USCG boats operate in and pass through whale migration routes and other marine mammal habitat. Reactions to USCG boat noise would be consistent among species in each of the Programmatic Environmental Assessment (PEA) ROIs. For example, critical habitat for right whales is located in both the Northeast Waters and the Southeast Waters regions and humpback populations in Hawaiian waters may be especially sensitive to the introduction of noise as these areas are important reproductive grounds for these species (Richardson et al. 1995). Also, USCG boats pass through the gray whale's migration route in Pacific Continental Waters and the humpback's route in the Northeast, Southeast, Alaska and Pacific Tropical regions.

USCG boats emit the following type of noises that could affect the marine environment:

- Machinery Noise - Mechanical vibrations are transmitted through the hull to the water generating both broadband and narrowband noise.
- Propeller Noise - Cavitation noise is caused by collapsing water vapor made by the rotating propeller blades. Another important form of propeller noise is "singing" caused by propeller blade resonance.
- Flow Noise (Hydrodynamic Noise) - The external flow of water against the hull causes rattles and vibrations as well as breaking bow and machinery stem waves.
- Electrical Noise - Noises from electrical signals results from use of certain machinery, navigation, and electronic equipment. This noise is called electromagnetic interference (EMI).

Most marine animals can perceive underwater sounds over a broad range of frequencies from about 10 Hz to more than 10,000 Hz. Peak acoustic sensitivity of most invertebrates, fish, sea turtles, and baleen whales is below 1,000 Hz. For most toothed cetaceans, seals, manatees, and seabirds, hearing is best at frequencies greater than 1,000 Hz (USCG 2002f). Because the larger USCG boats generate source pressures of 160 to 170 dB at 1 meter, sounds of USCG boats are readily audible to baleen whales, seals, fish, and possibly sea turtles over a large area of the ocean.

Because of this high level of sensitivity, any long-term disturbance to marine mammals from USCG boat noise would be an adverse impact. USCG boat noises are most likely well below sound intensities associated with severe disturbance or injury to whales and other marine mammals at normal operating procedures. Under normal operations, USCG boat noises are unlikely to cause any significant adverse impacts to whales or other marine mammals. There is no scientific information concluding that the noise levels emitted by existing USCG assets or boats have direct significant adverse impacts on marine mammals. Further, any impacts are likely to be short-term. Therefore, the Proposed Action would not significantly affect cetaceans. Sea turtle hearing thresholds are less well understood, but some studies have shown that turtles do not respond favorably to the introduction of loud or low frequency sounds (Richardson et al. 1995). USCG boats may transit near populations of sea turtles, but given that the time of noise exposure would be minimal and not prolonged, turtles would not be significantly impacted.

Furthermore, USCG boats that produce loud low-frequency sounds are few in number and it is unlikely that the RB-S and RB-M boats would interfere with whale communications in a significant manner. Therefore, no significant impacts on marine mammal communication are expected as a result of the implementation of the Proposed Action.

4.2.3 No Action Alternative

Under the No Action Alternative, existing conditions would remain as is and the Proposed Action not be implemented. Existing 41-foot UTB and non-standard boats would continue to operate within the current areas. Boat noise impacts to human communities are normally limited to the low speed approach and docking of boats at USCG facilities. The majority of USCG boat facilities are located in port/industrial areas where boat and mechanical noises do not normally affect the community and, therefore, there would be no significant impact from existing boat noises. Most high-speed boat operations would occur well offshore and would have little impact on noise levels at onshore locations. Furthermore, existing 41-foot UTB and non-standard boats that produce loud low-frequency sounds are few in number and it is unlikely that the RB-S and RB-M boats would interfere with whale communications in a significant manner. Therefore, no significant impacts on marine mammal communication are expected as a result of the implementation of the No Action Alternative.

4.3 Biological Resources

4.3.1 Significance Criteria

There are a number of ways in which the proposed acquisition and operation of the RB-S and RB-M may affect the protected and sensitive habitats within the ROI. These impacts are grouped into three main categories: impacts to the USCG living marine resource protection activities that are within or adjacent to protected and sensitive habitats; impacts to the resource from physical disturbance; and impacts to the resource from accidental emission of pollutants.

Due to the nature of this PEA, impacts can in most cases be discussed only in general terms. When specific homeporting decisions are made, more detailed analyses of potential impacts would be included in follow-on NEPA documentation. Under Proposed Action and No Action Alternative, the USCG would continue to operate according to USCG regulations related to protected habitats, including COMDINST 16004.3, *USCG Participation in the National Marine Sanctuary Program*, COMDTINST 16214.2, *National Marine Sanctuary Law Enforcement Program*, COMDINST M16114.5B, *Boat Crew Seamanship Manual*, and COMDINST M16798.8, *Auxiliary Boat Crew Manual*. Programs like Ocean Steward and Ocean Guardian (Appendix G) and the Atlantic Protection Living Marine Resource Initiative (APLMRI) (Appendix H) would also continue to be followed. Impacts are considered to be significant if USCG activities result in any of the following:

- Temporary or permanent loss of any sensitive, protected or especially unique habitat
- Direct loss or damage of any sensitive resource within a protected or especially significant habitat

- Excessive noise or presence due to normal USCG activities that lessens the habitat value for the inhabitants of these areas

This section also addresses the environmental consequences of the Proposed Action and the No Action Alternative with regard to marine biological resources, specifically threatened and endangered marine mammals and sea turtles and their habitats. The ROI for impacts to biological resources can be either localized or within the entire ROI because some of these resources are not confined to one area. As specific homeporting issues are not addressed in the analysis of impacts, this section focuses on the operation of the proposed RB-S and RB-M (Proposed Action), as well as the existing assets (No Action Alternative). Impact thresholds are reached and could be significant if USCG activities result in the following:

- Permanent loss or significant degradation of any designated critical habitats or any sensitive coastal, pelagic, or benthic habitats.
- Direct loss (take) of a substantial number of individuals of a special status species (including Federal- and state-listed species, protected species, and species of concern). In some cases, the loss of an individual member of a species might be significant.
- Harassment (take) of a special status marine mammal or sea turtle species. There are two levels of harassment defined in the Marine Mammal Protection Act (MMPA). Level A is defined as "any act of pursuit, torment, or annoyance that has the potential to injure a marine mammal or marine mammal stock in the wild." Level B is defined as "harassment having the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."
- Loss of a substantial number of individuals of a nonlisted species or loss that could affect abundance or diversity of that species beyond normal variability.
- Permanent loss of breeding areas and habitat of endangered, threatened, or rare marine species.
- Substantial interference with the movement of any resident marine species (i.e., its migration corridors).

There are also a number of ways in which the proposed acquisition and operation of the RB-S and RB-M may impact fisheries. Direct contact between RB-S and RB-M assets and marine species would result in a disturbance to these species. In the case of threatened and endangered species, this pertains to the USCG's ability to control other human-generated sources of disturbance to such species. Disturbance to fish from noise generated by USCG response boats is not considered significant in that response boats constitute a small percentage of the ship traffic generally found in a given area. In addition, the analysis completed for the APLMRI EIS states that USCG boat noise is less than the strong startle response in

fish, which occurs at 200-205 dB RE 1μPA. Most USCG boats do not normally create more than 160 dB RE 1μPA at 1 meter or less.

Certain RB-S and RB-M activities may affect essential fish habitat (EFH), which refers to those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 U.S.C. 1801). "Waters" is defined as aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish. "Substrate" is defined as sediment, hard bottom, structures underlying the waters, and associated biological communities. "Necessary" is defined as the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem. "Spawning, breeding, feeding, or growth to maturity" is defined as a species' full life cycle.

Impacts are considered to be significant if USCG activities result in any of the following:

- Loss of the USCG's ability to perform its mission to protect fisheries
- Disturbance of fisheries to such a degree that there is a loss of population or take, as defined by the NMFS
- Destruction of EFH

4.3.2 Proposed Action

Protected and Sensitive Habitats

RB-S and RB-M operations can disturb protected and sensitive habitats as they operate within or transit the protected areas. USCG assets disturbing protected and sensitive habitat areas would correlate with the mission demands in or near a particular protected or sensitive habitat and the number of RB-S and RB-M operations in the area. USCG assets can also affect protected and sensitive habitats by accidentally releasing chemicals and other surface water pollutants in or adjacent to these areas. Like other Federal agencies, the USCG is required to report and clean up such spills. In addition, accidental spills at nearby USCG facilities can affect protected and sensitive habitats.

The Proposed Action would offer varying degrees of impacts and levels of protection. Although an impact may occur, these potential impacts are mitigated by the greater efficiency of newer assets and the development and implementation of standard operating procedures (SOPs) by the USCG. These SOPs direct operators to avoid breeding areas and other significant or sensitive habitats or resources. Similar SOPs are in place for other asset operations. As previously mentioned, any potential impacts that may result of homeporting/homebasing would be addressed in follow-on NEPA documentation.

Marine Mammals and Sea Turtles

Northeast Waters. In terms of USCG interaction, there are many marine mammal species that occur in this ROI. Those of note include six species of endangered whales (right, humpback, sei, fin, blue, and sperm whales), as well as five species of seals protected by the MMPA. These are the harbor, gray, ringed, hooded, and harp seal. There are also four species of sea turtles in this ROI: the Endangered Species Act (ESA)-listed threatened loggerhead and green, and the ESA-listed endangered leatherback and hawksbill.

There would be no significant adverse impact to marine wildlife in this region because these boats would have an increased efficiency. There is a region-specific impact issue in the Northeast Waters in which the critically endangered right whale occurs related to potential collisions of RB-S and RB-M with marine mammals or sea turtles. In general, USCG contribution to the conservation of this species is of significant benefit. Programs like the Right Whale Early Warning System, Ocean Steward, and Ocean Guardian, APLMRI, and (standard operating procedures regarding right whales and other sensitive species would continue under this alternative.

Although the new response boats are capable of speeds up to 40 knots, these USCG boats are only a small percentage of a much larger number of commercial and recreational boats that ply these waters on a daily basis. Even though the response boats are capable of going 40 knots, such high speeds would not be used on a continuous basis and would usually be reserved for emergency operations that necessitate high speed. Normal transit speeds would be in the range of 10-15 knots. Additionally, these boats are designed to be highly maneuverable. This maneuverability is a necessity for carrying out their critical missions. The highly maneuverable nature of these boats would assist them in avoiding collisions with protected species.

To guard against any adverse impacts of the RB-S and RB-M operations on protected species, the USCG would continue to adhere to the protective measures in place in the APLMRI (Appendix H). Moreover, the USCG would continue to adhere to the policies and goals stated in the Ocean Steward (Appendix G). Because of the APLMRI and Ocean Steward, the small number and size of boats, the boats' high level of maneuverability, and their low level of speed during normal operations, the replacement of non-standard boats and the 41-foot UTBs with the RB-S and RB-M boats and their operations would not likely result in significant adverse effects to protected marine species.

Southeast Waters. In terms of USCG interaction, there are many marine mammal species that occur in the three portions of this ROI. Nineteen species of marine mammals inhabit the portion of this ROI found along the southeastern seaboard of the U.S., four of which are listed as endangered (the humpback, right, and sperm whale and the Florida manatee). Twelve species of marine mammals inhabit the portion of this ROI found in the Caribbean, including three species of endangered whales (humpback, blue, and

sperm), and the Antillean manatee. The Gulf of Mexico portion of the ROI has the same marine mammal species found in the Northeast ROI, and the Florida manatee occurs here. There are also six species of sea turtles in this ROI, all of which are protected under the ESA. The five most common species of sea turtles in this region are the green, loggerhead, hawksbill, Kemp's ridley, and the leatherback. The hawksbill, Kemp's ridley, and leatherback are listed as endangered; the loggerhead, green, and olive ridley are federally threatened.

The largest single human-caused source of mortality in manatees is collision with boats. There has been one documented fatal collision of a USCG boat and a manatee. The USCG has an active role in enforcing manatee protection regulations, especially speed zones. The USCG adheres to manatee protection regulations, except in emergencies. Therefore, under the Proposed Action, there would most likely be no change in the numbers of such collisions and no significant adverse impacts.

Although there is a possibility that sea turtles may be directly taken through collision with USCG boats, the likelihood of such direct takings is minimal. There are no records of USCG boat collisions with turtles, although such collisions may have gone unnoticed because turtles are small, relative to many USCG boats. The National Marine Fisheries Service (NMFS) has issued an incidental take statement authorizing the take, by injury or mortality, of one sea turtle along the Atlantic coast. This level of take represents the total take per year for all USCG boat and aircraft activities in the area. However, even if collisions do occur, it is unlikely that such interactions would significantly affect populations of turtles because the number of turtles directly affected would be small. Furthermore, even though there are USCG facilities near 5 turtle nesting sites in FL and near one site in South Carolina, it is not anticipated that RB-S and RB-M maritime operations would interfere with turtle nesting sites because normal water operations would not be that close to terrestrial nesting sights and where the boats did traverse waters near these sites, it would likely be at relatively low speeds and would limit noise and the possibility of collision. In addition, the migration of turtles to shallow waters, and eventually on shore to nest, occurs well after nightfall, which is outside of the *normal* operation hours for RB-S and RB-M. Therefore, no significant impacts are expected from boat operations. However, if site specific homeporting decisions for RBS/RBM result in proposed infrastructure or lighting changes at any USCG facilities frequented by the RBS and/or RBM near these nesting sites, the USCG may prepare additional NEPA analysis as necessary.

Although the new response boats are capable of speeds up to 40 knots, these USCG boats are only a small percentage of a much larger number of commercial and recreational boats that ply these waters on a daily basis. Even though the response boats are capable of going 40 knots, such high speeds would not be used on a continuous basis and would usually be reserved for emergency operations that necessitate high speed. Normal transit speeds would be in the range of 10-15 knots. Additionally, these boats are

designed to be highly maneuverable. This maneuverability is a necessity for carrying out their critical missions. The highly maneuverable nature of these boats would assist them in avoiding collisions with protected species.

To guard against any adverse impacts of the RB-S and RB-M operations on protected species, the USCG would continue to adhere to the protective measures in place in the APLMRI. Moreover, the USCG would continue to adhere to the policies and goals stated in the Ocean Steward (Appendix G). Because of the APLMRI and Ocean Steward, the small number and size of boats, the boats' high level of maneuverability, and their low level of speed during normal operations, the replacement of non-standard boats and the 41-foot UTBs with the RB-S and RB-M boats and their operations would not likely result in significant adverse effects to protected marine species.

Pacific Continental Waters. The special status species that inhabit Pacific Continental Waters include six endangered large whale species; three threatened marine mammal species, the federally threatened southern sea otter, the endangered leatherback sea turtle, and three species of federally threatened sea turtles (green, loggerhead, and olive ridley). There is also critical habitat designation in this region for the Steller sea lion. There would be no significant adverse impact to marine wildlife in this region.

Although the new response boats are capable of speeds up to 40 knots, these USCG boats are only a small percentage of a much larger number of commercial and recreational boats that ply these waters on a daily basis. Even though the response boats are capable of going 40 knots, such high speeds would not be used on a continuous basis and would usually be reserved for emergency operations that necessitate high speed. Normal transit speeds would be in the range of 10-15 knots. Additionally, these boats are designed to be highly maneuverable. This maneuverability is a necessity for carrying out their critical missions. The highly maneuverable nature of these boats would assist them in avoiding collisions with protected species.

Additionally, the USCG would continue to abide by its speed guidance published October 22, 1997 for boats operating along the Pacific coast, *Coast Guard Vessel and Speed Approach Guidance* for whales. This guidance states:

"Reduction in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. Speeds as appropriate, yet navigationally prudent, to avoid collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.

Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act."

Additionally, the USCG would continue to abide by the policies contained in the Ocean Steward. Because of the current guidance in place to encourage avoidance of negative contact by USCG boats with marine mammals, the small number and size of the new boats at any particular location, the boats' high level of maneuverability, and their low level of speed during normal operations, these boats would not create the potential for significant impacts to protected species.

Pacific Tropical Waters. In terms of USCG interaction, marine mammal species to note in this area include the endangered humpback whale and five species of threatened and endangered sea turtles. There is also critical habitat designation in this region for the Hawaiian monk seal. There would be no significant adverse impact to marine wildlife in this region.

Although the new response boats are capable of speeds up to 40 knots, these USCG boats are only a small percentage of a much larger number of commercial and recreational boats that ply these waters on a daily basis. Even though the response boats are capable of going 40 knots, such high speeds would not be used on a continuous basis and would usually be reserved for emergency operations that necessitate high speed. Normal transit speeds would be in the range of 10-15 knots. Additionally, these boats are designed to be highly maneuverable. This maneuverability is a necessity for carrying out their critical missions. The highly maneuverable nature of these boats would assist them in avoiding collisions with protected species.

Additionally, the USCG would continue to abide by its speed guidance published October 22, 1997 for boats operating along the Pacific coast, *Coast Guard Vessel and Speed Approach Guidance* for whales. This guidance states:

"Reduction in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. Speeds as appropriate, yet navigationally prudent, to avoid collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.

Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act."

Additionally, the USCG would continue to abide by the policies contained in the Ocean Steward. Because of the current guidance in place to encourage avoidance of negative contact by USCG boats with

marine mammals, the small number and size of the new boats at any particular location, the boats' high level of maneuverability, and their low level of speed during normal operations, these boats would not create the potential for significant impacts to protected species.

Alaska Waters. Marine mammal species to note in this area include seven endangered species of whales, the Steller sea lion, which is federally listed, the endangered leatherback turtle, and the threatened sea otter. There is also critical habitat designation in this region for the Steller sea lion. The populations of the special status species in this region would not be significantly affected by the Proposed Action because the level of USCG protection and law enforcement related to living marine resource protection would stay the same.

Although the new response boats are capable of speeds up to 40 knots, these USCG boats are only a small percentage of a much larger number of commercial and recreational boats that ply these waters on a daily basis. Even though the response boats are capable of going 40 knots, such high speeds would not be used on a continuous basis and would usually be reserved for emergency operations that necessitate high speed. Normal transit speeds would be in the range of 10-15 knots. Additionally, these boats are designed to be highly maneuverable. This maneuverability is a necessity for carrying out their critical missions. The highly maneuverable nature of these boats would assist them in avoiding collisions with protected species.

Additionally, the USCG would continue to abide by its speed guidance published October 22, 1997 for boats operating along the Pacific coast, *Coast Guard Vessel and Speed Approach Guidance* for whales. This guidance states:

"Reduction in vessel speed should be considered when a whale is sighted, known to be in the immediate area, or known to have been sighted within five nautical miles. Speeds as appropriate, yet navigationally prudent, to avoid collision with a whale, and if necessary, reduce speed to a minimum at which the vessel can be kept on course or come to all stop.

Do not approach whales head-on, nor approach within 100 yards. Approach distances may vary if the Coast Guard vessel is assisting in the rescue of an endangered whale or performing duties to enforce the Endangered Species Act or Marine Mammal Protection Act."

Additionally, the USCG would continue to abide by the policies contained in the Ocean Steward. Because of the current guidance in place to encourage avoidance of negative contact by USCG boats with marine mammals, the small number and size of the new boats at any particular location, the boats' high level of maneuverability, and their low level of speed during normal operations, these boats would not create the potential for significant impacts to protected species.

Great Lakes. RB-S and RB-M operations in this region do not interact with marine mammals, sea turtles, or threatened or endangered species; thus, there would be no significant impacts from RB-S and RB-M missions in the Great Lakes region under the Proposed Action or No Action Alternative.

Fish

Under the Proposed Action, the operation of the RB-S and RB-M would result in minor adverse impacts on fisheries and EFH. Minor adverse impacts have been designated due to the potential of boats to take individuals or to cause minor disruptions in feeding or reproduction; however, there is no published literature that collisions with boats are a significant source of injury or mortality for fish (USCG 1996).

4.3.3 No Action Alternative

Under the No Action Alternative, existing assets would continue to operate, with periodic upgrades, until the end of their service life and would be replaced when necessary. An area of concern is the potential for pollutants to impact protected and sensitive habitats. Under the No Action Alternative, the potential for response might not be as efficient. However, there would not be a notable change in the potential of spills from USCG response boats because existing COMDINSTs would be followed and assets would be adequately maintained or would be replaced at the end of their useful service life.

While the replacement of the current boats slowly over time with non-standardized boats is not expected to significantly impact the USCG's ability to carry out its directive of protecting the marine environment and ensuring homeland security, some decrease in efficiencies can be expected and from the operations of older less efficient vessels with more maintenance problems. Under this alternative, the disturbances created in the marine environment as a result of USCG boat operations would not change significantly from current activity; therefore, significant negative impacts from operations under the no action alternative to marine wildlife are not expected. Populations of the special status species in this region would not be significantly affected because the USCG would continue to enforce laws related to living marine resource protection.

Under the No Action Alternative, existing assets would continue to operate, with periodic upgrades, until the end of their service life or would be replaced when necessary. Another area of concern is the potential for pollutants to impact fisheries and EFH. Under the No Action Alternative, the potential for response might not be as efficient. However, there would not be a notable change in the potential of spills from USCG response boats because existing COMDINSTs would be followed and assets would be adequately maintained or would be replaced at the end of their useful service life.

Coastal and Other Birds

Under the Proposed Action, the operation of the RB-S and RB-M would result in only minor adverse impacts, if any, to coastal and other birds. Minor adverse impacts have been designated due to the potential of boats to cause minor disruptions to bird nesting habitats. The USCG has a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service (USFWS). The USCG would adhere to the MOU to reduce any potential impacts to coastal and other birds. As most boats would be replaced on one-for-one basis, significant impacts are not expected.

4.3.4 No Action Alternative

Under the No Action Alternative, existing assets would continue to operate, with periodic upgrades, until the end of their service life or would be replaced when necessary. Another area of concern is the potential for pollutants to impact protected and sensitive habitats. Under the No Action Alternative, the potential for response might not be as efficient. However, there would not be a notable change in the potential of spills from USCG response boats because existing COMDINSTs would be followed and assets would be adequately maintained or would be replaced at the end of their useful service life.

The No Action Alternative is not expected to affect the USCG's ability to carry out its directive of protecting the marine environment. Under this alternative, the disturbances created in the marine environment as a result of USCG boat activities would not change; therefore, minor impacts would continue to be expected. Populations of the special status species in this region would not be affected because the USCG would continue to enforce laws related to living marine resource protection. All impact parameters would have the same level of protection as currently provided, with the exception of possible collision of USCG boats with marine mammals or sea turtles.

4.4 Water Resources

The following section discusses the potential impacts to water resources associated with the implementation of the Proposed Action throughout the coastal regions of the continental U.S., Alaska, Hawaii, Guam, Puerto Rico, and the U.S. Virgin Islands.

4.4.1 Significance Criteria

The USCG enforces and must comply with a number of Federal laws and regulations. In addition, the various states have also enacted a number of laws to protect their surface water resources. Evaluation criteria for water resources include consideration of water availability, quality, and use; existence of floodplains; and associated regulations. Impacts to surface waters would be significant if activities from the Proposed Action resulted in any of the following:

- Availability of water to users
- Effect on water quality and public health

4.4.2 Proposed Action

As discussed in Section 3.3, the quality of the surface waters varies in each ROI. Without specific information regarding the number of additional boats and crew, no reasonable assumptions can be made regarding potential impacts to surface waters. However, in general, it can be stated that the 4-stroke engines that would power the RB-Ss are more efficient and cleaner and would emit less pollutants into the waters than the 2-stroke engines they replace on the non-standard boats. In addition, modern boats are expected to result in greater reliability with a resultant reduction in potential for inadvertent releases. The more efficient cleaning, lubrication, and maintenance systems would result in reductions in volume of hazardous waste generated. Since management of hazardous waste is expected to reduce the potential for impacts on surface water quality due to spills.

Each contact with a boat conducting illegal activities has some potential for resulting in water quality impacts. For example, these contacts can result in releases of oil or other substances from boats that may be damaged after coming under fire. Upgraded weapons systems and more effective national defense capabilities could increase the number of contacts with illegal boats, thereby increasing the potential for water quality impacts. While the potential extent of the number and type of these contacts is unknown, the increased capabilities also may act as a deterrent to illegal activities (USCG 2002f). Therefore, no significant impacts to water quality are anticipated.

Construction at homeporting facilities could result in surface water quality impacts, such as resuspension of existing contaminated sediments or inadvertent discharges of contaminants. Similarly, changes to wastewater or storm water conveyance or treatment facilities related to upgrading homeport facilities cold result in either beneficial impacts (such as modernization) of potentially adverse impacts such as increases in quantities of wastes) (USCG 2002f). Since homeporting decisions are not part of this Proposed Action, impacts of any of these changes mentioned above would be assessed in future project-specific environmental documents.

4.4.3 No Action Alternative

Under this alternative, existing boats would be maintained within their economic life and replaced with equivalent boats on an as-needed basis. Maintenance costs on older boats would continue to rise. Impacts to surface waters would slowly diminish as new, cleaner, more efficient boats replace current boats. Therefore, no significant impact to water resources from the no action alternative are expected.

Under this alternative, the USCG would continue to follow all laws, regulations and COMDTINSTs related to the protection of water resources.

5. Cumulative Impacts

Cumulative effects are defined as "the impacts that result from the incremental impact of the action, when added to other past, present, and reasonable foreseeable future actions" regardless of the entity or agency (public or private) responsible for such action. Cumulative effects can result from individually minor but collectively intense impacts occurring over a period of time.

Under the Proposed Action, the U.S. Coast Guard (USCG) would acquire and operate Response Boat-Small (RB-S) and Response-Boat-Medium (RB-M) as part of the implementation of its various missions. The majority of operations would occur within the coastal zone, though some activity would occur in inland areas. Effects associated with the Proposed Action in these areas would be largely limited to air quality, noise, biological resources, and water resources.

The extent and magnitude of potential cumulative effects cannot be quantified. Operational use of the boats proposed for acquisition would commence over a period of approximately ten years. The new boats would, for the most part, replace existing boats on a one-to-one basis at USCG facilities. Absent substantial changes in mission requirements, which are not presently forecast, use of the new boats would be similar to the use of the existing boats. That is, the operational area locations, types of missions performed, and duration of boat use in each mission (with the exception of homeland security) would not be expected to change. While the overall number of boats in the USCG's inventory would increase over a 10 year period the effects of such that increase would not be separately identifiable when compared to the effects of other boats operating in the same areas.

The USCG's operational areas would not be expected to change in material respects. The characteristics of ports, waterways, and open water would remain as they presently are. In contrast to projects occurring on land, which often result in visible changes to the landscape and produce direct effects to observable resources, the operation of RB-Ss and RB-Ms occurs in media that do not easily reveal measurable changes. Thus, quantification of the changes is difficult.

Past, present, and future actions by the USCG or by others that could contribute to cumulative effects are limited in their number and their nature. Certain kinds of actions tellingly produce effects in water areas, such as inadequate regulation of fisheries, resulting in depletion of certain stocks. Other actions create immediately visible results, such as major releases of oil from damaged tankers.

Overall, the nature of the operational use of the boats proposed for acquisition tends to be relatively benign. As is the practice today, the boats would be operated in accordance with high standards of adherence to maritime safety and maintenance. While the risk of accident or loss due to other causes

cannot be disregarded, the risk of occurrence of events having potential for catastrophic consequences is limited.

Certain types of USCG actions may increase in the future. For instance, activities related to providing protection against terrorist acts are likely to increase. There may also be increased reliance on the USCG to interdict alien migrants and smuggling of illegal drugs into the U.S. In similar vein, actions by public and private entities other than the USCG may change. For instance, based on historic trends and forecasts, it is reasonably foreseeable that there would be more boats operating in the deepwater, coastal zone, and inland areas. This type of increase would likely necessitate stepped efforts on the part of the USCG with respect to protection of living marine resources enforcement and protection services. Should there be increases in the number of permits granted for offshore oil drilling and deep-sea mineral mining, related USCG activities would also increase to address, for example, concomitant greater potential for hazardous waste spills.

Other changes in activities occurring in deepwater, coastal zone, and inland areas could also occur. For many such changes, however, cumulative effects in light of USCG activities cannot be reliably predicted. Examples of such actions include proposals to increase the amounts of hazardous wastes that may be transported between countries and, by elements of DoD, to use low frequency active sonar (as a means to locate and identify adversaries' submarines) and to implement new aircraft programs requiring use of existing or modified special use airspace.

As discussed in Section 4.0, the USCG's proposal to replace its 41-foot Utility Boats and non-standard small boats would be expected to result in only limited direct or indirect effects to air quality, noise, biological resources, and water resources. The Proposed Action would be expected not to contribute, to any measurable degree, to cumulative effects concerning these same resources.

6. List of Preparers

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Years of Experience: 30

7. References

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APPENDIX A

INTERESTED PARTY LETTER AND NOTICE OF INTENT

U.S. Department of Transportation
United States Coast Guard

Commandant
U.S. Coast Guard

2100 2nd Street, S.W.
Washington, DC 20593
Staff Symbol: G-ARB
Phone: 202-267-0649
FAX: 202-267-4331

16475
10 October 2002

Dear Interested Party:

The United States Coast Guard (USCG) is announcing its intent to prepare a Programmatic Environmental Assessment (PEA) for the replacement of response boats. The PEA will assess the decision to acquire, homeport and operate approximately 880 new response boats (approximately 180 Response Boat-Medium [RB-M] and approximately 700 Response Boat-Small [RB-S]) to add to or replace existing USCG boat capability at 43 Groups/Activities, 187 multi-mission stations, and 26 Marine Safety Offices that operate boats throughout the USCG. Response boat replacements will occur at multiple locations along the east and west coasts, the Gulf of Mexico, the Great Lakes, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, and Guam.

Domestic port safety and security has long been a core USCG mission. However, in the wake of the terrorist attacks committed on September 11, 2001, emerging threats to the U.S. homeland have prompted an increased USCG focus on protecting domestic ports and the U.S. Maritime Transportation System from terrorist threats.

The PEA is being prepared because the USCG is proposing to carry out a large acquisition project designed to replace response boat capabilities over a large geographic area. In this context, the project is a broad proposed action with potential national effects. The USCG is following guidance in the "Council on Environmental Quality's Regulations on the National Environmental Policy Act" which requests federal agencies to "integrate the environmental planning process with other planning at the earliest possible times to ensure that planning and decisions reflect environmental values and involve agencies, applicants, and the public, to the extent practicable, in preparing environmental assessments."

The purpose of the PEA will be to provide general environmental information on the proposed action and alternatives to USCG decision-makers, expert agencies, and the interested and affected public and to determine whether the replacement project has the potential for significant environmental impacts. Because the USCG is in the early stages of planning this project, much of the information covered in this PEA will be general in nature.

The PEA will discuss, in general, that additional personnel and boat allowances may be needed at currently unknown locations sometime in the future. However, because the numbers of personnel and boats and the time frame for these site-specific actions is currently unknown, they will not be discussed in detail in the PEA. Any unforeseen new boat allowances and additional personnel, needed at specific locations, will be addressed in site-specific follow on NEPA documentation, as necessary. Furthermore, as changes to infrastructure are frequently a response to homeporting decisions, the PEA will discuss, in general, the possibility of infrastructure changes resulting from this acquisition. However, detailed analyses of any site-specific infrastructure changes will be discussed in follow-on NEPA as necessary.

16475
10 October 2002

Since potential changes to manpower are not known at this time, the PEA will not evaluate in detail socioeconomic, environmental justice, or land use changes. Since major infrastructure changes would be addressed in future site-specific NEPA documents, the PEA will not evaluate land use, cultural resources, or geological resources in detail. The PEA will focus its discussion on the general aspects of the affected environment, such as air quality; water quality, terrestrial and marine vegetation and wildlife, endangered species and their habitat, wetlands, and public safety. For the purposes of this document, the PEA location of these assets throughout the country will be designated on a regional level.

In addition to compliance with NEPA, the purpose for obtaining this information is to ensure that the USCG makes fully informed decisions before choosing its final course of action. Once the USCG has completed the PEA, planning for associated specific actions that will result from implementation of the broader action will begin.

The USCG intends to continue to involve the public in these later associated actions, as appropriate, and will also prepare further, more specific environmental analyses and documentation, as necessary. The PEA will be considered a first-tier EA whereby subsequent tiered NEPA analysis and documentation may be prepared for future individual actions and their site-specific impacts.

Public input is important in the preparation of the PEA. Your concerns and comments regarding the Response Boat Replacement Project and the possible environmental impacts are important to the USCG. You are invited to submit comments by using only one of the following means:

(1) By mail to the Docket Management Facility (USCG 2002-13482), U.S. Department of Transportation, Room PL-401, 400 Seventh Street SW, Washington, DC 20590-0001.
(2) By delivery to Room PL-401 on the Plaza Level of the Nassif Building, 400 Seventh Street SW, Washington, DC 20590-0001 between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 366-9329.
(3) By fax to the Docket Management Facility at (202) 493-2251.
(4) Electronically through the Web Site for the Docket Management System at http://dms.dot.gov.

In choosing among the above means for submitting your comments, please give due regard to the continuing difficulties and delays associated with delivery of mail through the U.S. Postal Service to federal facilities.

Written comments should include your name, address, and the specific regions or port(s) to which the comment relates. The USCG will consider all comments received by close of business November 25, 2002 in the development and completion of each EA.

Sincerely,

BRYON ING
Captain, U.S. Coast Guard
Project Manager, Response Boat - Medium

Persons making submissions by e-mail should use the following subject line: "United States—Morocco Free Trade Agreement" followed by (as appropriate) "Notice of Intent to Testify," "Testimony," or "Written Comments." Documents should be submitted as either WordPerfect, MSWord, or text (.TXT) files. Supporting documentation submitted as spreadsheets are acceptable as Quattro Pro or Excel. For any document containing business confidential information submitted electronically, the file name of the business confidential version should begin with the characters "BC-", and the file name of the public version should begin with the characters "P-". The "P-" or "BC-" should be followed by the name of the submitter. Persons who make submissions by e-mail should not provide separate cover letters; information that might appear in a cover letter should be included in the submission itself. To the extent possible, any attachments to the submission should be included in the same file as the submission itself, and not as separate files.

Written comments, notice of testimony, and testimony will be placed in a file open to public inspection pursuant to 15 CFR 2003.5, except business confidential information exempt from public inspection in accordance with 15 CFR 2003.6. Business confidential information submitted in accordance with 15 CFR 2003.6 must be clearly marked "BUSINESS CONFIDENTIAL" at the top of each page, including any cover letter or cover page, and must be accompanied by a nonconfidential summary of the confidential information. All public documents and nonconfidential summaries shall be available for public inspection in the USTR Reading Room. The USTR Reading Room is open to the public, by appointment only, from 10 a.m. to 12 noon and 1 p.m. to 4 p.m., Monday through Friday. An appointment to review the file must be scheduled at least 48 hours in advance and may be made by calling (202) 395–6186.

General information concerning the Office of the United States Trade Representative may be obtained by accessing its Internet Web site (*http://www.ustr.gov*).

Carmen Suro-Bredie,

Chairman, Trade Policy Staff Committee.

[FR Doc. 02–25876 Filed 10–9–02; 8:45 am]

BILLING CODE 3190–01–P

DEPARTMENT OF TRANSPORTATION

Coast Guard

[USCG 2002–13482]

Response Boat Replacement Project; Programmatic Environmental Assessment

AGENCY: U.S. Coast Guard, DOT.

ACTION: Notice of intent and request for public comments.

SUMMARY: The U.S. Coast Guard announces its intent to prepare a draft Programmatic Environmental Assessment (PEA) for the replacement of response boats. The PEA will assess the decision to acquire, homeport, and operate approximately 880 new response boats (approximately 180 Response Boat—Medium (RB–M) and approximately 700 Response Boat—Small (RB–S) to add to or replace existing Coast Guard boat capability at 43 Groups/Activities, 187 multi-mission stations, and 26 Marine Safety Offices that operate Coast Guard boats. The Coast Guard seeks public and agency input on the scope of the PEA. Specifically, the Coast Guard requests input on any environmental concerns that the public may have related to existing response boats, the proposal to replace these assets, sources of relevant data or information, and any suggested analysis methods for inclusion in the PEA.

DATES: Comments and related material must reach the Docket on or before November 25, 2002.

ADDRESSES: Comments may be submitted in several ways. To make sure your comments and related material are not entered more than once in the docket, please submit them by only one of the following means:

(1) By mail to the Docket Management Facility (USCG–2002–13482), U.S. Department of Transportation, Room PL–401, 400 Seventh Street, SW., Washington, DC 20590–0001.

(2) By delivery to Room PL–401 on the Plaza Level of the Nassif Building, 400 Seventh Street, SW., Washington DC between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 366–9329.

(3) By fax to the Docket Management Facility at (202) 493–2251.

(4) Electronically through the Web site for the Docket Management System at *http://dms.dot.gov.*

In choosing from these means, please give due regard to the continuing difficulties and delays associated with delivery of mail through the U.S. Postal Service to federal facilities.

The Docket Management Facility maintains the public docket for this notice. Comments will become part of this docket and will be available for inspection or copying in Room PL–401, located on the Plaza Level of the Nassif Building at the above address between 9 a.m. and 5 p.m., Monday through Friday, except for federal holidays. You may also view this docket, including this notice and comments, on the Internet at *http://dms.dog.gov.*

FOR FURTHER INFORMATION CONTACT: If you have questions about the project, you may contact CAPT James Maes, Commandant (G-OCS–2) at (202) 267–1085 or *jmaes@comdt.uscg.mil.* For questions on viewing, or submitting materials to the docket, contact Dorothy Beard, Chief, Dockets, DOT, at (202) 366–9329.

SUPPLEMENTARY INFORMATION:

Request for Comments

We encourage you to submit comments and related materials on this notice. Persons submitting comments should include their names and addresses, this notice reference number (USCG–2002–13482), and the reasons for each comment. You may submit your comments and materials by mail, hand delivery, fax, or electronic means to the Docket Management Facility at the address given under **ADDRESSES.** If you choose to submit them by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, and suitable for copying and electronic filing. If you submit them by mail and would like to know if they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and materials received during the comment period. (For additional information about this notice or the PEA, contact Ms. Kebby Kelley at (202) 267–6034 or *Kkelley@comdt.uscg.mil.*)

Background Information

Domestic port safety and security has long been a core Coast Guard mission. However, in the wake of the terrorist attacks committed on September 11, 2001, emerging threats to the U.S. homeland have prompted an increased Coast Guard focus on protecting domestic ports and the U.S. Maritime Transportation System from terrorist threats.

As part of the U.S. response to these threats, the Coast Guard is undertaking a PEA for the decision to acquire, homeport and operate approximately 880 new response boats (approximately 180 Response Boat—Medium (RB–M)

and 700 Response Boat—Small (RB–S) to add to or replace existing USCG boat capability at 43 Groups/Activities, 187 multi-mission stations, and 26 Marine Safety Offices that operate Coast Guard boats. They will be located in multiple locations along the east and west coasts, the Gulf of Mexico, the Great Lakes, Puerto Rico, U.S. Virgin Islands, Alaska, Hawaii and Guam. The PEA will discuss in general that additional personnel as well as additional boat allowances may be needed at currently unknown locations sometime in the future. However, because the numbers of personnel and boats and the time frame for these site-specific actions is currently unknown, they will not be discussed in detail in this PEA. Any unforeseen new boat allowances and additional personnel needed at specific locations will be addressed in site-specific follow on National Environmental Protection Act (NEPA) documentation as necessary. Furthermore, changes to infrastructure are frequently a response to homeporting decisions. The PEA will discuss, in general, the possibility of infrastructure changes resulting from this acquisition. However, detailed analysis of any necessary site-specific infrastructure changes will be discussed in follow on NEPA documentation as necessary.

The Coast Guard's current fleet of 41-foot utility boats is aging and technologically obsolete. In addition, the current fleet of small utility boats is an assorted mix of various makes and models that have been acquired with more attention to the immediate mission requirement rather than the long-term supportability of the vessel or training considerations. Few of the existing fleet of boats meet emerging requirements for homeland security, such as higher intercept speeds and endurance. As a result, the current fleet of Coast Guard boat assets lacks the technology, full mission capability, and standardized training and maintenance necessary for efficient and effective mission performance.

Proposed Action

In accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102(2)(c), as implemented by the Council on Environmental Quality (CEQ) regulations (40 CFR parts 1500–1508), Department of Transportation (DOT) Order 5610.1C (Procedures for Considering Environmental Impacts), and USCG Policy (NEPA: Implementing Procedures and Policy for Considering Environmental Impacts, (COMDTINST (Commandant's Instruction) M16475.1D), the Coast Guard intends to prepare a PEA on the Response Boat Replacement Project. The purpose of this PEA is to develop a high-level approach and direction for implementing this program.

NEPA requires federal agencies to consider all significant aspects of environmental impacts that may result from a proposed action, to inform the public of potential impacts and alternatives, and to facilitate public involvement in the assessment process. The core of our impact assessment process is our Environmental Assessment, or EA. The EA must include, among other topics, discussions of the purpose and need for the proposed action, a description of alternatives, a description of the affected environment, and an evaluation of the environmental impacts of the proposed action and alternatives. Once an EA is completed, and there are no significant impacts found, the lead agency prepares either a finding of no significant impact (FONSI) or a mitigated FONSI. A mitigated FONSI is one in which, although the preferred alternative will have some significant impacts to the environment, the FONSI and EA analysis include mitigation, into the preferred alternative, to reduce such impacts to the point where they are no longer significant.

When preparing a PEA, the agency may evaluate the program based on common geographic locations, similarities of impacts, or states of development. Because no site-specific homeporting decisions—allocated assets to Coast Guard facilities—will be made during this stage of the project, the PEA is expected to facilitate and expedite the preparation of subsequent project-specific NEPA documents.

The PEA will address the general environmental impacts of the Proposed Action and the No Action Alternative, while subsequent analyses will address specific implementing actions, such as homeporting of specific response boats at specific locations. Hence, as the first tier EA, the PEA will cover general issues in a broader-program analysis. Subsequent NEPA documentation will concentrate on the issues specific to the action being considered.

The environment potentially affected by the Proposed Action may be the entire marine and terrestrial coastal region of the continental U.S., Alaska, Hawaii, the Caribbean, Guam, and the Great Lakes where the Coast Guard has facilities, as well as the areas where the response boats currently conduct operations.

Because personnel levels are expected to remain 'status quo,' and only minor infrastructure changes, if any, are expected, the PEA will not evaluate socioeconomic or environmental justice or land use changes in detail in this programmatic document. Since any major infrastructure changes would be addressed in future site-specific NEPA documents, the PEA will not evaluate land use, cultural resources, or geological resources in detail. The PEA will focus its discussion on the general aspects of the affected environment, such as air quality; water quality, terrestrial and marine vegetation and wildlife, endangered species and their habitat, wetlands, and public safety. The PEA will compare the potential environmental impacts and benefits that would result from the proposed action and the no action alternative. For the purposes of this programmatic document, the location of these assets throughout the country will be designated on a regional level.

As required by NEPA, the Coast Guard also will analyze the No Action Alternative as a baseline for comparing the impacts of the proposed project. For the purposes of this document, the No Action Alternative is defined as the Coast Guard keeping the current fleet of 41-foot utility boats and small utility non-standard boats and replacing them on a one-for-one basis as they deteriorate or become obsolete. The 41-foot utility boats are aging and technologically obsolete and as they age, will increasingly not be able to meet homeland security requirements (high speed intercept and endurance). Also, as these boats continue to age, they will require more 'down-time' for maintenance and repairs. The current fleet of small utility non-standard boats is an assorted mix of makes and models that were required for immediate mission requirements. Since they are 'non-standard' boats, maintenance, repairs, and personnel training vary from one type of model to another. This situation results in higher maintenance and repair costs, and additional training for personnel for each make and model. As any boat becomes too outdated to fulfill its mission, it would be replaced on a one-for-one basis. This would further complicate maintenance and repair costs and personnel training and result in continuing inefficiencies.The Coast Guard encourages public participation in the PEA process. The scoping period will start with publication of this notice in the **Federal Register**. Multiple methods for providing comments will be available, including mail, Internet and fax.

Public meetings will only be held if there is sufficient interest shown. Because this is a programmatic

document, meetings, if held, will be at a district or national level. If public hearings are held, the time and place of the hearings will be announced in the **Federal Register**. You may request a public hearing by writing to the address under **ADDRESSES.**

Following the scoping process, the Coast Guard will prepare a draft PEA. A Notice of Availability will be published in the **Federal Register** when the draft PEA is available. Public notices will be mailed or emailed to those who have requested a copy of the Draft PEA. This period will provide the public with an opportunity to review the document and to offer appropriate comments.

Comments received during the draft PEA review period will be available in the public docket and made available in the Final PEA. A Notice of Availability of the Final PEA and FONSI will be published in the **Federal Register**.

Dated: October 3, 2002.

C.D. Wurster,

Rear Admiral, U.S. Coast Guard, Assistant Commandant for Acquisition.

[FR Doc. 02–25792 Filed 10–9–02; 8:45 am]

BILLING CODE 4910–15–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA 2002–12528; Notice 2]

Uniroyal Goodrich Tire Manufacturing, Grant of Application for Decision That Noncompliance is Inconsequential to Motor Vehicle Safety

Uniroyal Goodrich Tire Manufacturing (Uniroyal) has determined that approximately 3,023 P235/70R16 BFGoodrich Radial Long Trail tires do not meet the labeling requirements mandated by Federal Motor Vehicle Safety Standard (FMVSS) No. 109, "New Pneumatic Tires."

Pursuant to 49 U.S.C. 30118(d) and 30120(h), Uniroyal has petitioned for a determination that this noncompliance is inconsequential to motor vehicle safety and has filed an appropriate report pursuant to 49 CFR part 573, "Defect and Noncompliance Reports."

Notice of receipt of the application was published, with a 30-day comment period, on June 25, 2002, in the **Federal Register** (67 FR 42846). NHTSA received no comment on this application.

During the period of the 8th through the 10th and the 12th through the 14th weeks of 2002, the Ardmore, Oklahoma plant of Uniroyal Goodrich Tire Manufacturing produced and cured a number of tires with erroneous marking.

FMVSS No. 109 (S4.3(d)) requires that each tire shall have permanently molded the generic name of each cord material used in the plies (both sidewall and tread area) of the tire. Also, S4.3(e) requires that each tire shall have permanently molded into or onto both sidewalls the actual number of plies in the sidewall, and the actual number of plies in the tread area if different.

The noncompliance with S4.3(d) and (e) relates to the mold. The tires were marked "Tread Plies: 2 Polyester + 2 Steel + 1 Nylon," instead of the correct marking "Tread Plies: 2 Polyester + 2 Steel."

Uniroyal states that of the total 3,023 tires produced, 1,460 have been isolated and will be brought into compliance or scrapped. Uniroyal does not believe that this marking error will impact motor vehicle safety because the tires meet all applicable Federal Motor Vehicle Safety performance standards, conform to the original specifications, and the noncompliance is one solely of labeling.

The Transportation Recall, Enhancement, Accountability, and Documentation (TREAD) Act (Public Law 106–414) required, among other things, that the agency initiate rulemaking to improve tire label information. In response, the agency published an Advance Notice of Proposed Rulemaking (ANPRM) in the **Federal Register** on December 1, 2000 (65 FR 75222). The agency received more than 20 comments on the tire labeling information required by 49 CFR Sections 571.109 and 119, Part 567, Part 574, and Part 575. With regard to the tire construction labeling requirements of FMVSS 109, S4.3(d) and (e), most commenters indicated that the information was of little or no safety value to consumers. However, according to the comments, when tires are processed for retreading or repairing, it is important for the retreader or repair technician to understand the make-up of the tires and the types of plies. This enables them to select the proper repair materials or procedures for retreading or repairing the tires. A steel cord radial tire can experience a circumferential or "zipper" rupture in the upper sidewall when it is operated underinflated or overloaded. If information regarding the number of plies and cord material is removed from the sidewall, technicians cannot determine if the tire has a steel cord sidewall ply. As a result, many light truck tires will be inflated outside a restraining device or safety cage where they represent a substantial threat to the technician. This information is critical when determining if the tire is a candidate for a zipper rupture. In this case, since the steel cord construction is properly identified on the sidewall, the technician will have sufficient notice.

In addition, the agency conducted a series of focus groups, as required by the TREAD Act, to examine consumer perceptions and understanding of tire labeling. Few of the focus group participants had knowledge of tire labeling beyond the tire brand name, tire size, and tire pressure.

Based on the information obtained from comments to the ANPRM and the consumer focus groups, we have concluded that it is likely that few consumers have been influenced by the tire construction information (number of plies and cord material in the sidewall and tread plies) provided on the tire label when deciding to buy a motor vehicle or tire.

The agency believes that the true measure of inconsequentiality to motor vehicle safety in this case is the effect of the noncompliance on the operational safety of vehicles on which these tires are mounted. This labeling noncompliance has no effect on the performance of tires of 2 Polyester and 2 Steel Ply construction.

In consideration of the foregoing, NHTSA has decided that the applicant has met its burden of persuasion that the noncompliance is inconsequential to motor vehicle safety. Accordingly, its application is granted and the applicant is exempted from providing the notification of the noncompliance as required by 49 U.S.C. 30118, and from remedying the noncompliance, as required by 49 U.S.C. 30120.

(49 U.S.C. 30118, 30120; delegations of authority at 49 CFR 1.50 and 501.8)

Issued on: October 4, 2002.

Stephen R. Kratzke,

Associate Administrator for Rulemaking.

[FR Doc. 02–25791 Filed 10–9–02; 8:45 am]

BILLING CODE 4910–59–P

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

[Docket No. RSPA 2002–11270, Notice No. 02–8]

Safety Advisory: Unauthorized Stamping of DOT specification Compressed Gas Cylinders

AGENCY: Research and Special Programs Administration.

ACTION: Safety advisory notice.

SUMMARY: This is to notify the public that RSPA has documented the unauthorized stamping of indentations in the side walls of high-pressure

APPENDIX B

MAILING LIST

Prefix	First Name	Last Name	Title	[illegible]	[illegible]	[illegible]
Ms.	Laurel	Wyckoff	SHPO	Department of Culture, Recreation & Tourism		Baton Rouge, LA 70804
Dr.	Willie	Taylor		U.S. Department of the Interior		Washington, DC 20240
Mr.	Don	Klima	Director, Office of Planning and Review	Advisory Council on Historic Preservation		Washington, DC 20004
				U.S. Coast Guard Maintenance & Logistics Command,		Alameda, CA 94501-5100
				U.S. Coast Guard Maintenance & Logistics Command,		Norfolk, VA 23510-9104
Mr.	Horst	Greczmiel		Council on Environmental Quality	CEQ	Washington, DC 20501
				Maine State Planning Office	CZMA	Augusta, ME 04333
				NH Office of State Planning	CZMA	Concord, NH 03301
				Coastal Resources Management Council	CZMA	Wakefield, RI 02879
				Connecticut DEP	CZMA	Hartford, CT 06106-5127
				New York Department of State	CZMA	Albany, NY 12231
			New Jersey's Department of Environmental	Commissioner's Office of Policy, Planning and Science	CZMA	Trenton, NJ 08625
				Delaware DNREC	CZMA	Dover, DE 19903
				Maryland DNR	CZMA	Annapolis, MD 21401
				Virginia Coastal Program	CZMA	Richmond, VA 23219
				North Carolina DENR	CZMA	Raleigh, NC 27699-1638
				South Carolina DHEC	CZMA	Charleston, SC 29405
				Georgia DNR	CZMA	Brunswick, GA 31520-8687
				Florida Coastal Management Program	CZMA	Tallahassee, FL 32399-3000
Mr.	Jim	Griggs	Director	ADCNR	CZMA	Montgomery, Alabama 36130
				Mississippi Department of Marine Resources	CZMA	Biloxi, MS 39530
				Louisiana DNR	CZMA	Baton Rouge, LA 70802
				Texas GLO	CZMA	Austin, TX 78701
				California Coastal Commission	CZMA	San Francisco, CA 94105
				San Francisco Bay Conservation and Development	CZMA	San Francisco, CA 94111
				Ocean and Coastal Program	CZMA	Salem, OR 97301-2540
				Washington Department of Ecology	CZMA	Olympia, WA 98504-7600
			Michigan DNR	Land & Water Management Division	CZMA	Lansing, MI 48909-7958
				Minnesota Department of Natural Resources	CZMA	Two Harbors, MN 55616
				Wisconsin DOA	CZMA	Madison, WI 53707
				Ohio DNR	CZMA	Columbus, OH 43224
				DNR Division of Water	CZMA	Indianapolis, IN 46204
				Pennsylvania DEP	CZMA	Harrisburg, PA 17105-2063
			Hawaii Office of Planning	Hawaii Coastal Zone Management Program	CZMA	Honolulu, HI 96804
				Division of Governmental Coordination	CZMA	Juneau, AK 99811-0030
				Bureau of Planning	CZMA	Agana, Guam 96910
			Puerto Rico DNER	Bureau of reserves, Refuges, and Coastal Resources	CZMA	San Juan, Puerto Rico 00906-
Ms.	Elizabeth	Higgins	Regional Administrator's Office	Region 1	EPA	Boston, MA 02114-2023
Mr.	Timothy L.	Timmermann	Environmental Scientist	Office of Environmental Review	EPA	Boston, MA 02114-2023
Mr.	Robert	Hargrove	Chief, Strategic Planning and Multimedia	Region 2	EPA	New York, NY 10007-1866
Mr.	Heinz	Mueller	Chief, Office of Environmental Assessment	Region 4	EPA	Atlanta, GA 30303
Mr.	Michael	MacMullen (B-	NEPA Coordinator	Office of Strategic and Environmental Analysis	EPA	Chicago, IL 60604-3590
Mr.	Michael P.	Jansky	Regional Environmental Review Coordinator	Office of Planning and Coordination	EPA	Dallas, TX 75202-2733
Mr.	David	Tomsovic		Region 9	EPA	San Francisco, CA 94105
Mr.	Richard B.	Parkin (ECO-	Unit Manager, Geographic Implementation	Office of Ecosystems and Communities	EPA	Seattle, WA 98101-1127
Rep.	Thomas	Allen	Maine State Representative		House	Washington, DC 20515-1901
Rep.	John	Baldacci	Maine State Representative		House	Washington, DC 20515-1902

Prefix	First Name	Last Name	Title			
Rep.	John	Sununu	New Hampshire State Representative		House	Washington, DC 20515-2901
Rep.	Patrick	Kennedy	Rhode Island State Representative		House	Washington, Dc 20515-3901
Rep.	James	Langevin	Rhode Island State Representative		House	Washington, DC 20515-3902
Rep.	Robert	Simmons	Connecticut State Representative		House	Washington, DC 20515-0720
Rep.	Rosa	DeLauro	Connecticut State Representative		House	Washington, DC 20515-0703
Rep.	Christoph	Shays	Connecticut State Representative		House	Washington, DC 20515-0704
Rep.	Felix	Grucci	New York State Representative		House	Washington, DC 20515-3201
Rep.	Steve	Israel	New York State Representative		House	Washington, DC 20515-3202
Rep.	Peter	King	New York State Representative		House	Washington, Dc 20515-3203
Rep.	Carolyn	McCarthy	New York State Representative		House	Washington, DC 20515-3204
Rep.	Gary	Ackerman	New York State Representative		House	Washington, Dc 20515-3205
Rep.	Gregory	Meeks	New York State Representative		House	Washington, DC 20515-3206
Rep.	Joseph	Crowley	New York State Representative		House	Washington, DC 20515-3207
Rep.	Jerrold	Nadler	New York State Representative		House	Washington, DC 20515-3208
Rep.	Nita	Lowey	New York State Representative		House	Washington, DC 20515-3218
Rep.	Sue	Kelly	New York State Representative		House	Washington, DC 20515-3219
Rep.	Benjamin	Gilman	New York State Representative		House	Washington, DC 20515-3220
Rep.	John	McHugh	New York State Representative		House	Washington, DC 20515-3224
Rep.	Louise	McIntosh	New York State Representative		House	Washington, Dc 20515-3228
Rep.	John	LaFalce	New York State Representative		House	Washington, DC 20515-3229
Rep.	Jack	Quinn	New York State Representative		House	Washington, DC 20515-3230
Rep.	Amory	Houghton, Jr.	New York State Representative		House	Washington, DC 20515-3231
Rep.	Frank	LoBiondo	New Jersey State Representative		House	Washington, DC 20515-3002
Rep.	Jim	Saxton	New Jersey State Representative		House	Washington, DC 20515-3003
Rep.	Christoph	Smith	New Jersey State Representative		House	Washington, DC 20515-3004
Rep.	Marge	Roukema	New Jersey State Representative		House	Washington, DC 20515-3005
Rep.	Frank	Pallone, Jr.	New Jersey State Representative		House	Washington, DC 20515-3006
Rep.	Steven	Rothman	New Jersey State Representative		House	Washington, DC 20515-3009
Rep.	Donald	Payne	New Jersey State Representative		House	Washington, DC 20515-3010
Rep.	Robert	Menendez	New Jersey State Representative		House	Washington, DC 20515-3013
Rep.	Michael	Castle	Delaware State Representative		House	Washington, DC 20515-0801
Rep.	Wayne	Gilchrest	Maryland State Representative		House	Washington, DC 20515-2001
Rep.	Robert	Ehrlich, Jr.	Maryland State Representative		House	Washington, DC 20515-2002
Rep.	Benjamin	Cardin	Maryland State Representative		House	Washington, DC 20515-2003
Rep.	Syeny	Hoyer	Maryland State Representative		House	Washington, DC 20515-2005
Rep.	Jo Ann	Davis	Virginia State Representative		House	
Rep.	Edward	Schrock	Virginia State Representative		House	Washington, DC 20515-4602
Rep.	Bobby	Scott	Virginia State Representative		House	Washington, DC 20515-4603
Rep.	James	Moran	Virginia State Representative		House	Washington, DC 20515-4608
Rep.	Thomas	Davis III	Virginia State Representative		House	Washington, Dc 20515-4611
Rep.	Walter	Jones, Jr.	North Carolina State Representative		House	Washington, DC 20515-3303
Rep.	Mike	McIntyre	North Carolina State Representative		House	Washington, DC 20515-3307
Rep.	Henry	Brown	South Carolina State Representative		House	Washington, DC 20515-4001
Rep.	Joe	Wilson	South Carolina State Representative		House	Washington, DC 20515-4002
Rep.	James	Clyburn	South Carolina State Representative		House	Washington, DC 20515-4006
Rep.	Jack	Kingston	Georgia State Representative		House	Washington, DC 20515-1001
Rep.	Sanford	Bishop, Jr.	Georgia State Representative		House	Washington, DC 20515-1002

Prefix	First Name	Last Name	Title			
Rep.	Michael	Collins	Georgia State Representative		House	Washington, DC 20515-1003
Rep.	Cynthia	McKinney	Georgia State Representative		House	Washington, DC 20515-1004
Rep.	John	Lewis	Georgia State Representative		House	Washington, DC 20515-1005
Rep.	Johnny	Isakson	Georgia State Representative		House	Washington, DC 20515-1006
Rep.	Bob	Barr	Georgia State Representative		House	Washington, DC 20515-1007
Rep.	Saxby	Chambliss	Georgia State Representative		House	Washington, DC 20515-1008
Rep.	Nathan	Deal	Georgia State Representative		House	Washington, Dc 20515-1009
Rep.	Charles	Norwood	Georgia State Representative		House	Washington, DC 20515-1010
Rep.	John	Linder	Georgia State Representative		House	Washington, DC 20515-1011
Rep.	Jeff	Miller	Florida State Representative		House	Washington, DC 20515-0901
Rep.	F. Allen	Boyd, Jr.	Florida State Representative		House	Washington, DC 20515-0902
Rep.	Ander	Crenshaw	Florida State Representative		House	Washington, DC 20515-0904
Rep.	Karen	Thurman	Florida State Representative		House	Washington, DC 20515-0905
Rep.	John	Mica	Florida State Representative		House	Washington, DC 20515-0907
Rep.	Michael	Bilirakis	Florida State Representative		House	Washington, DC 20515-0909
Rep.	C.W.	Young	Florida State Representative		House	Washington, DC 20515-0910
Rep.	Dan	Miller	Florida State Representative		House	Washington, DC 20515-0913
Rep.	Porter	Goss	Florida State Representative		House	Washington, DC 20515-0914
Rep.	Dave	Weldon	Florida State Representative		House	Washington, DC 20515-0915
Rep.	Mark	Foley	Florida State Representative		House	Washington, DC 20515-0916
Rep.	Carrie	Meek	Florida State Representative		House	Washington, DC 20515-0917
Rep.	Ileana	Ros-Lehtinen	Florida State Representative		House	Washington, DC 20515-0918
Rep.	Peter	Deutsch	Florida State Representative		House	Washington, DC 20515-0920
Rep.	E. Clay	Shaw, Jr.	Florida State Representative		House	Washington, DC 20515-0922
Rep.	Sonny	Callahan	Alabama State Representative		House	Washington, DC 20515-0101
Rep.	Gene	Taylor	Mississippi State Representative		House	Washington, DC 20515-2405
Rep.	David	Vitter	Louisiana State Representative		House	Washington, DC 20515-1801
Rep.	W.J.	Tauzin	Louisiana State Representative		House	Washington, DC 20515-1803
Rep.	Chris	John	Louisiana State Representative		House	Washington, DC 20515-1807
Rep.	John	Culberson	Texas State Representative		House	Washington, DC 20515-4307
Rep.	Nicholas	Lampson	Texas State Representative		House	Washington, DC 20515-4309
Rep.	Ron	Paul	Texas State Representative		House	Washington, DC 20515-4314
Rep.	Ruben	Hinojosa	Texas State Representative		House	Washington, DC 20515-4315
Rep.	Silvetre	Reyes	Texas State Representative		House	Washington, DC 20515-4316
Rep.	Sheila	Jackson Lee	Texas State Representative		House	Washington, DC 20515-4318
Rep.	Tom	DeLay	Texas State Representative		House	Washington, DC 20515-4322
Rep.	Henry	Bonilla	Texas State Representative		House	Washington, DC 20515-4323
Rep.	Ken	Bentsen	Texas State Representative		House	Washington, DC 20515-4325
Rep.	Solomon	Ortiz	Texas State Representative		House	Washington, DC 20515-4327
Rep.	Ciro	Rodriguez	Texas State Representative		House	Washington, DC 20515-4328
Rep.	Gene	Green	Texas State Representative		House	Washington, DC 20515-4329
Rep.	Mike	Thompson	California State Representative		House	Washington, DC 20515-0501
Rep.	Lynn	Woolsey	California State Representative		House	Washington, DC 20515-0506
Rep.	Nancy	Pelosi	California State Representative		House	Washington, DC 20515-0508
Rep.	Tom	Lantos	California State Representative		House	Washington, DC 20515-0512
Rep.	Anna	Eshoo	California State Representative		House	Washington, DC 20515-0514
Rep.	Sam	Farr	California State Representative		House	Washington, DC 20515-0517

Prefix	First Name	Last Name	Title			
Rep.	Lois	Capps	California State Representative		House	Washington, DC 20515-0522
Rep.	Elton	Gallegly	California State Representative		House	Washington, DC 20515-0523
Rep.	Brad	Sherman	California State Representative		House	Washington, DC 20515-0524
Rep.	Juanita	Millender-	California State Representative		House	Washington, DC 20515-0537
Rep.	Dana	Rohrabacher	California State Representative		House	Washington, DC 20515-0545
Rep.	Loretta	Sanchez	California State Representative		House	Washington, DC 20515-0546
Rep.	Christoph	Cox	California State Representative		House	Washington, DC 20515-0547
Rep.	Darrell	Issa	California State Representative		House	Washington, DC 20515-0548
Rep.	Susan	Davis	California State Representative		House	Washington, DC 20515-0549
Rep.	Bob	Filner	California State Representative		House	Washington, DC 20515-0550
Rep.	Randy	Cunningham	California State Representative		House	Washington, DC 20515-0551
Rep.	Duncan	Hunter	California State Representative		House	Washington, DC 20515-0552
Rep.	David	Wu	Oregon State Representative		House	Washington, DC 20515-3701
Rep.	Peter	DeFazio	Oregon State Representative		House	Washington, DC 20515-3704
Rep.	Darlene	Hooley	Oregon State Representative		House	Washington, DC 20515-3705
Rep.	Rick	Larsen	Washington State Representative		House	Washington, DC 20515-4702
Rep.	Brian	Baird	Washington State Representative		House	Washington, DC 20515-4703
Rep.	John	Tierney	Massachusetts State Representative		House	Washington, DC 20515-2106
Rep.	Edward	Markey	Massachusetts State Representative		House	Washington, DC 20515-2107
Rep.	Michael	Capuano	Massachusetts State Representative		House	Washington, DC 20515-2108
Rep.	Stephen	Lynch	Massachusetts State Representative		House	Washington, DC 20515-2109
Rep.	William	Delahunt	Massachusetts State Representative		House	Washington, DC 20515-2110
Del.	Donna	Christian-	Delegate of the Virgin Islands		House	Washington, DC 20515-5501
Rep.	Anthony	Weiner	New York State Representative		House	Washington, DC 20515-3209
Rep.	Edolphus	Towns	New York State representative		House	Washington, DC 20515-3210
Rep.	Major	Owens	New York State Representative		House	Washington, DC 20515-3211
Rep.	Nydia	Velazquez	New York State Representative		House	Washington, Dc 20515-3212
Rep.	Vito	Fossella	New York State Representative		House	Washington, Dc 20515-3213
Rep.	Carolyn	Maloney	New York State Representative		House	Washington, DC 20515-3214
Rep.	Charles	Rangel	New York State Representative		House	Washington, DC 20515-3215
Rep.	Jose	Serrano	New York State Representative		House	Washington, DC 20515-3216
Rep.	Eliot	Engel	New York State Representative		House	Washington, DC 20515-3217
Rep.	Philip	English	Pennsylvania State Representative		House	Washington, DC 20515-3821
Rep.	Neil	Abercrombie	Hawaii State Representative		House	Washington, DC 20515-1101
Rep.	Patsy	Mink	Hawaii State Representative		House	Washington, DC 20515-1102
Rep.	Don	Young	Alaska State Representative		House	Washington, DC 20515-0201
Del.	Robert	Underwood	Delegate of Guam		House	Washington, DC 20515-5301
Res.	Anibal	Acevedo-Vila	Delegate of Puerto Rico		House	Washington, DC 20515-5401
Rep.	Barney	Frank	Massachusetts State Representative		House	Washington, DC 20515-2104
Rep.	Norman	Dicks	Washington State Representative		House	Washington, DC 20515-4706
Rep.	Bart	Stupak	Michigan State Representative		House	Washington, DC 20515-2201
Rep.	Peter	Hoekstra	Michigan State Representative		House	Washington, DC 20515-2202
Rep.	James	Barcia	Michigan State Representative		House	Washington, DC 20515-2205
Rep.	Fred	Upton	Michigan State Representative		House	Washington, DC 20515-2206
Rep.	David	Bonior	Michigan State Representative		House	Washington, DC 20515-2210
Rep.	Sander	Levin	Michigan State Representative		House	Washington, DC 20515-2212
Rep.	Lynn	Rivers	Michigan State Representative		House	Washington, DC 20515-2213

Prefix	First Name	Last Name	Title	Organization	Type	Address
Rep.	John	Conyers, Jr.	Michigan State Representative		House	Washington, DC 20515-2214
Rep.	Carolyn	Kilpatrick	Michigan State Representative		House	Washington, DC 20515-2215
Rep.	James	Oberstar	Minnesota State Representative		House	Washington, DC 20515-2308
Rep.	Paul	Ryan	Wisconsin State Representative		House	Washington, DC 20515-4901
Rep.	Jerry	Kleczka	Wisconsin State Representative		House	Washington, DC 20515-4904
Rep.	Thomas	Barrett	Wisconsin State Representative		House	Washington, DC 20515-4905
Rep.	Thomas	Petri	Wisconsin State Representative		House	Washington, DC 20515-4906
Rep.	Davis	Obey	Wisconsin State Representative		House	Washington, DC 20515-4907
Rep.	Mark	Green	Wisconsin State Representative		House	Washington, DC 20515-4908
Rep.	F. James	Sensenbrenner	Wisconsin State Representative		House	Washington, DC 20515-4909
Rep.	Marcy	Kaptur	Ohio State Representative		House	Washington, DC 20515-3509
Rep.	Dennis	Kucinich	Ohio State Representative		House	Washington, DC 20515-3510
Rep.	Stephanie	Tubbs Jones	Ohio State Representative		House	Washington, DC 20515-3511
Rep.	Sherrod	Brown	Ohio State Representative		House	Washington, DC 20515-3513
Rep.	Thomas	Sawyer	Ohio State Representative		House	Washington, DC 20515-3514
Rep.	Peter	Visclosky	Indiana State Representative		House	Washington, DC 20515-1401
Rep.	Tim	Roemer	Indiana State Representative		House	Washington, DC 20515-1403
Rep.	Bobby	Bush	Illinois State Representative		House	Washington, DC 20515-1301
Rep.	Jesse	Jackson, Jr.	Illinois State Representative		House	Washington, DC 20515-1302
Rep.	William	Lipinski	Illinois State Representative		House	Washington, DC 20515-1303
Rep.	Luis	Gutierrez	Illinois State Representative		House	Washington, DC 20515-1304
Rep.	Rod	Blagojevich	Illinois State Representative		House	Washington, DC 20515-1305
Rep.	Henry	Hyde	Illinois State Representative		House	Washington, DC 20515-1306
Rep.	Danny	Davis	Illinois State Representative		House	Washington, DC 20515-1307
Rep.	Philip	Crane	Illinois State Representative		House	Washington, DC 20515-1308
Rep.	Janice	Schakowsky	Illinois State Representative		House	Washington, DC 20515-1309
Rep.	Mark	Kirk	Illinois State Representative		House	Washington, DC 20515-1310
Rep.	Judy	Biggert	Illinois State Representative		House	Washington, DC 20515-1313
Ms.	Terry	Roberts	Chief, California State Clearinghouse	Governor's Office of Planning and Research	NEPA POC	Sacramento, CA 95812-3044
Mr.	Charles H.	Hopkins	Deputy Budget Director	Delaware Executive Budget Office	NEPA POC	Dover, DE 19901
Ms.	Cherie	Trainor	Coordinator, Florida State Clearinghouse	Department of Community Affairs	NEPA POC	Tallahassee, FL 32399-2100
Mr.	James	Setser	Chief, Program Coordination Branch	Georgia Department of Natural Resources	NEPA POC	Atlanta, GA 30334
Ms.	Frances J.	Balajadia	Deputy Director, Bureau of Budget and	Office of the Governor	NEPA POC	Agana, GU 96932
Ms.	Genevieve	Salmonson	Director, Hawaii Office of Environmental		NEPA POC	Honolulu, HI 96813
Mr.	Bernie	Robinson	Assistant to the Governor	The State of Illinois	NEPA POC	Washington, DC 20001
Ms.	Beth	Admire	Chief of Staff	Indiana Department of Environmental Management	NEPA POC	Indianapolis, IN 46206-6015
Mr.	J. Dale	Givens	Secretary	Louisiana Department of Environmental Quality	NEPA POC	Baton Rouge, LA 70884-2263
Mr.	Brooke E.	Barnes		Office of the Commissioner of Environmental Protection	NEPA POC	Augusta, ME 04333
Mrs.	Linda C.	Janey, J.D.	Manager	Maryland State Clearinghouse	NEPA POC	Baltimore, MD 21201-2365
Mr.	Richard	Pfaff	Coordinator, Regional Review	Southeast Michigan Council of Governments	NEPA POC	Detroit, MI 48226
Mr.	Joe	Bagnoli	Liaison for Economy and Infrastructure		NEPA POC	St. Paul, MN 55155
Mr.	Charles	Chisolm	Executive Director	Mississippi Department of Environmental Quality	NEPA POC	Jackson, MS 39289-1305
Mr.	Robert W.	Varney	Commissioner	New Hampshire Department of Environmental Services	NEPA POC	Concord, New Hampshire 03302-
Mr.	Jay	Wickersham	Director, Massachusetts Environmental Policy		NEPA POC	Boston, MA 02202
				Alabama Department of Environmental Management	NEPA POC	Montgomery, AL 36110-2059
				Connecticut Department of Environmental Protection	NEPA POC	Hartford, CT 06106-5127
Ms.	Erin M.	Crotty	Commissioner	New York Department of Environmental Conservation	NEPA POC	Albany, NY 12233-1011

Prefix	First Name	Last Name	Title	Organization	[illegible]	[illegible]
				Oregon Department of Environmental Quality	NEPA POC	Portland, OR 97204-1390
				Wisconsin Department of Natural Resources	NEPA POC	Madison, WI 53703
Mr.	Patrick	Galvin	Director, Division of Governmental	Office of the Governor	NEPA POC	Juneau, AK 99811-0030
Mr.	Lawrence	Schmidt	Director	New Jersey Department of Environmental Quality	NEPA POC	Trenton, NJ 08625-0418
Ms.	Chrys	Baggett	Environmental Policy Act Coordinator	North Carolina State Clearinghouse	NEPA POC	Raleigh, NC 27699-1302
Mr.	Graham	Mitchell	Chief, Office of Federal Facility Oversight	Ohio Environmental Protection Agency	NEPA POC	Dayton, OH 45402-2911
				The Department of Environmental Protection	NEPA POC	Harrisburg, PA 17105-2063
Mr.	Jose	Caballero	President	Puerto Rico Planning Board	NEPA POC	San Juan, PR 00940-1119
Mr.	John	O'Brien	Chief, Statewide Planning Program	Rhode Island Department of Administration	NEPA POC	Providence, RI 02908-5870
Ms.	Omeagia	Burgess	Grant Coordinator	Office of State Budget	NEPA POC	Columbia, SC 29201
Mr.	John	Howard	Environmental Policy Director	Governor's Policy Office	NEPA POC	Austin, TX 78711
Ms.	Ellie L.	Irons	Environmental Impact Review Manager	Virginia Department of Environmental Quality	NEPA POC	Richmond, VA 23240-0009
Ms.	Barbara	Ritchie	NEPA Coordinator	Environmental Coordination Section	NEPA POC	Olympia, WA 98504-7703
Mr.	John	Marx	Administrator, Wisconsin Division of Energy	Wisconsin Department of Administration	NEPA POC	Madison, WI 53707-7868
				National Marine Fisheries Service	NMFS	Gloucester, MA 01930-2298
				National Marine Fisheries Service	NMFS	Juneau, AK 99802-1668
Mr.	Bob	Lohn	Regional Administrator	National Marine Fisheries Service	NMFS	Seattle, WA 98115-0070
				National Marine Fisheries Service	NMFS	St. Petersburg, FL 33702
				National Marine Fisheries Service	NMFS	Long Beach, CA 90802-4213
Ms.	Andree	DuVarney	National Environmental Coordinator	U.S. Department of Agriculture	NRCS	Washington, DC 20013
Sen.	Jeff	Sessions	Alabama State Senator		Senate	Washington, DC 20510
Sen.	Richard	Shelby	Alabama State Senator		Senate	Washington, DC 20510
Sen.	Frank	Murkowski	Alaska State Senator		Senate	Washington, DC 20510
Sen.	Ted	Stevens	Alaska State Senator		Senate	Washington, DC 20510
Sen.	Barbara	Boxer	California State Senator		Senate	Washington, DC 20510
Sen.	Diane	Feinstein	California State Senator		Senate	Washington, DC 20510
Sen.	Christoph	Dodd	Connecticut State Senator		Senate	Washington, DC 20510
Sen.	Joseph	Lieberman	Connecticut State Senator		Senate	Washington, DC 20510
Sen.	Joseph	Biden Jr.	Delaware State Senator		Senate	Washington, DC 20510
Sen.	Thomas	Carper	Delaware State Senator		Senate	Washington, DC 20510
Sen.	Bob	Graham	Florida State Senator		Senate	Washington, DC 20510
Sen.	Bill	Nelson	Florida State Senator		Senate	Washington, DC 20510
Sen.	Max	Cleland	Georgia State Senator		Senate	Washington, DC 20510
Sen.	Zell	Miller	Georgia State Senator		Senate	Washington, DC 20510
Sen.	Daniel	Akaka	Hawaii State Senator		Senate	Washington, DC 20510
Sen.	Daniel	Inouye	Hawaii State Senator		Senate	Washington, DC 20510
Sen.	Richard	Durbin	Illinois State Senator		Senate	Washington, DC 20510
Sen.	Peter	Fitzgerald	Illinois State Senator		Senate	Washington, DC 20510
Sen.	Richard	Lugar	Indiana State Senator		Senate	Washington, DC 20510
Sen.	Evan	Bayh	Indiana State Senator		Senate	Washington, DC 20510
Sen.	John	Breaux	Louisiana State Senator		Senate	Washington, DC 20510
Sen.	Mary	Landrieu	Louisiana State Senator		Senate	Washington, DC 20510
Sen.	Susan	Collins	Maine State Senator		Senate	Washington, DC 20510
Sen.	Olympia	Snowe	Maine State Senator		Senate	Washington, DC 20510
Sen.	Barbara	Mikulski	Maryland State Senator		Senate	Washington, DC 20510
Sen.	Paul	Sarbanes	Maryland State Senator		Senate	Washington, DC 20510
Sen.	Carl	Levin	Michigan State Senator		Senate	Washington, DC 20510

Prefix	First Name	Last Name	Title	Organization Name	Type of Contact	Address
Sen.	Debbie	Stabenow	Michigan State Senator		Senate	Washington, DC 20510
Sen.	Paul	Wellstone	Minnesota State Senator		Senate	Washington, DC 20510
Sen.	Mark	Dayton	Minnesota State Senator		Senate	Washington, DC 20510
Sen.	Thad	Cochran	Mississippi State senator		Senate	Washington, DC 20510
Sen.	Trent	Lott	Mississippi State Senator		Senate	Washington, DC 20510
Sen.	Judd	Gregg	New Hampshire State Senator		Senate	Washington, DC 20510
Sen.	Bob	Smith	New Hampshire State Senator		Senate	Washington, DC 20510
Sen.	Robert	Torricelli	New Jersey State Senator		Senate	Washington, DC 20510
Sen.	Jon	Corzine	New Jersey State Senator		Senate	Washington, DC 20510
Sen.	Charles	Schumer	New York State Senator		Senate	Washington, DC 20510
Sen.	Hillary	Clinton	New York State Senator		Senate	Washington, DC 20510
Sen.	Jesse	Helms	North Carolina State Senator		Senate	Washington, DC 20510
Sen.	John	Edwards	North Carolina State Senator		Senate	Washington, DC 20510
Sen.	Mike	DeWine	Ohio State Senator		Senate	Washington, DC 20510
Sen.	George	Voinovich	Ohio State Senator		Senate	Washington, DC 20510
Sen.	Gordon	Smith	Oregon State Senator		Senate	Washington, DC 20510
Sen.	Ron	Wyden	Oregon State Senator		Senate	Washington, DC 20510
Sen.	Rick	Santorum	Pennsylvania State Senator		Senate	Washington, DC 20510
Sen.	Arlen	Specter	Pennsylvania State Senator		Senate	Washington, Dc 20510
Sen.	Lincoln	Chafee	Rhode Island State Senator		Senate	Washington, DC 20510
Sen.	Jack	Reed	Rhode Island State Senator		Senate	Washington, DC 20510
Sen.	Strom	Thurmond	South Carolina State Senator		Senate	Washington, DC 20510
Sen.	Ernest	Hollings	South Carolina State Senator		Senate	Washington, DC 20510
Sen.	Phil	Gramm	Texas State Senator		Senate	Washington, DC 20510
Sen.	Kay Bailey	Hutchinson	Texas State Senator		Senate	Washington, DC 20510
Sen.	John	Warner	Virginia State Senator		Senate	Washington, DC 20510
Sen.	George	Allen	Virginia State Senator		Senate	Washington, DC 20510
Sen.	Patty	Murray	Washington State Senator		Senate	Washington, DC 20510
Sen.	Maria	Cantwell	Washington State Senator		Senate	Washington, DC 20510
Sen.	Russell	Feingold	Wisconsin State Senator		Senate	Washington, DC 20510
Sen.	Herb	Kohl	Wisconsin State Senator		Senate	Washington, DC 20510
Sen.	Edward	Kennedy	Massachusetts State Senator		Senate	Washington, DC 20510-2101
Sen.	John	Kerry	Massachusetts State Senator		Senate	Washington, DC 20510-2102
Dr.	Lee	Warner	SHPO	Alabama Historical Commission	SHPO	Montgomery, AL 36130-0900
Ms.	Judith	Bittner	SHPO	Alaska Department of Natural Resources	SHPO	Anchorage, AK 99501-3565
Dr.	Knox	Mellon	SHPO	Office of Historic Preservation	SHPO	Sacramento, CA 94296-0001
Mr.	John W.	Shannahan	SHPO	Connecticut Historical Commission	SHPO	Hartford, CT, 06106
Mr.	Daniel	Griffith	SHPO	Division of Historical and Cultural Affairs	SHPO	Dover, DE 19903
Dr.	Janet	Snyder	SHPO, Director	Division of Historical Resources	SHPO	Tallahassee, FL 32399-0250
Mr.	Lonice C.	Barrett	SHPO	Historic Preservation Division/DNR	SHPO	Atlanta, GA 30303-3600
Ms.	Lynda B.	Aguon	SHPO	Guam Historic Preservation Office	SHPO	Hagatan, Guam 96932
Mr.	Timothy	Johns	SHPO	Department of Lands and Natural Resources	SHPO	Honolulu, HI 96809
Mr.	William L.	Wheeler	Associate Director	Illinois Historic Preservation Agency	SHPO	Springfield, IL 62701-1512
Mr.	John R.	Gross	Director	Department of Natural Resources	SHPO	Indianapolis, IN 46204
Mr.	Earl G.	Shettleworth,	SHPO	Maine Historic Preservation Commission	SHPO	Augusta, ME 04333
Mr.	J. Rodney	Little	SHPO	Maryland Historic Trust	SHPO	Crownsville, MD 21032-2023
Mr.	Brian D.	Conway	SHPO, State Historic Preservation Office	Michigan Historical Center	SHPO	Lansing, MI 48909-8240

Prefix	First Name	Last Name	Title	Organization Name	Type of Contact	Address
Dr.	Nina	Archabal	SHPO	Minnesota Historic Society	SHPO	St. Paul, MN 55102-1906
Mr.	Elbert	Hilliard	SHPO	Mississippi Department of Archives and History	SHPO	Jackson, MS 39205-0571
Mr.	James	McConaha	Director/SHPO	NH Division of Historic Resources	SHPO	Concord, NH 03302-2043
Dr.	Rodger E.	Stroup	SHPO	Department of Archives & History	SHPO	Columbia, SC 29223-4905
Mr.	F.	Oaks	SHPO	Texas Historical Commission	SHPO	Austin, TX 78711-2276
Ms.	Kathleen	Kilpatrick	SHPO	Department of Historic Resources	SHPO	Richmond, VA 23221
Dr.	Allyson	Brooks	SHPO	Office of Archaeology & Historic Preservation	SHPO	Olympia, WA 98501
Ms.	Alicia L.	Goehring	SHPO	State Historical Society of Wisconsin	SHPO	Madison, WI 53706
			State Historic Preservation Officer	Historic Preservation Office	SHPO	San Juan, PR 00901
Mr.	Bradley M.	Campbell	SHPO	Department of Environmental Protection	SHPO	Trenton, NJ 08625
Ms.	Bernadett	Castro	SHPO	Parks, Recreation & Historic Preservation	SHPO	Albany, NY 12238
Dr.	Jeffrey J.	Crow	SHPO	Division of Archives and History	SHPO	Raleigh, NC 27699-4610
Mr.	Amos J.	Loveday	SHPO	Ohio Historic Preservation Office	SHPO	Columbus, OH 43211-1030
Mr.	Michael	Carrier	SHPO	State Parks & Recreation Department	SHPO	Salem, OR 97301-1012
Dr.	Brent D.	Glass	SHPO	Pennsylvania Historical & Museum Commission	SHPO	Harrisburg, PA 17120
Ms.	Enid	Torregrosa	SHPO	Office of Historic Preservation	SHPO	Old San Juan, Puerto Rico
Mr.	Frederick	Williamson	SHPO	Rhode Island Historic Preservation and Heritage	SHPO	Providence, RI 02903
Ms.	Janine	Bowechomp		The Makah Tribe	THPO	Neah Bay, WA 98357
Ms.	Rhonda	Foster			THPO	Shelton, WA 98584
Ms.	Genny	Rogers		Skokomish Indian Tribe	THPO	Shelton, WA 98584
Ms.	Adeline	Fredin		Archaeology and History Department	THPO	Nespelem, WA 99155
	Louis	Wynne		Spokane Indian Tribes	THPO	Wellpinit, WA 99040
Mr.	Scott E.	Stuemke		Department of Cultural Resources	THPO	Warm Springs, OR 97761
Dr.	Manfred	Jaehning		Confederated Tribes of the Umatilla Reservation	THPO	Pendleton, OR 97801
Dr.	Thomas	Gates		Yukon Tribe	THPO	Eureka, CA 95501
Ms.	Marcia	Cross		Tribal Preservation Office	THPO	Pablo, MT 59855
Mr.	Tim	Mentz		Standing Rock Sioux Tribe	THPO	Fort Yates, ND 58538
Mr.	Sebastian	LeBeau		Cheyenne River Sioux Tribe	THPO	Eagle Butte, SD 57625
	Kade	Ferris		Turtle Mountain Band of Chippewa	THPO	Belcourt, ND 58316
Mr.	Gerald	White		Leech Lake Band of Chippewa Indians	THPO	Cass Lake, MN 56633
Ms.	Brenda	Boyd		Mille Lacs Band of Ojibwe Indians	THPO	Onamia, MN 56359
Ms.	Valerie	Nickence		Lac Courte Oreilles Band of Lake Superior Chippewa	THPO	Hayward, WI 54843
Ms.	Lisa	Bresette		Red Cliff Chippewas	THPO	Bayfield, WI 54814
	Kelly	Jackson		Lac du Flambeau Band of Lake Superior Chippewa	THPO	Lac du Flambeau, WI 54538
Mr.	David	Grignon		Menominee Indian Tribe of Wisconsin	THPO	Keshna, WI 54135-0910
Ms.	Kathleen	Mitchell		Seneca Nation of Indians	THPO	Salamanca, NY 14779
Mr.	Matthew	Vanderhoop		Wampanoag Tribe of Gay Head (Aquinnah)	THPO	Aquinnah, MA 02535-9701
Mr.	John	Brown		Narragansett Indian Tribe	THPO	Wyoming, RI 02898
Mr.	James	Bird		Eastern Band of Cherokee Indians	THPO	Cherokee, NC 28719
Dr.	Wenonah	Haire		The Catawba Indian Nation	THPO	Rock Hill, SC 29730
Mr.	William	Day		Poarch Band of Creek Indians	THPO	Atmore, AL 36502
Mr.	Earl	Barbry, Jr.		Tunica-Biloxi Indians of Louisiana	THPO	Marksville, LA 71351
Ms.	Donna	McFadden		Mescalero Apache Tribe	THPO	Mascalero, NM 88340
Mr.	Alan S.	Downer, Ph.D.		Historic Preservation Department	THPO	Window Rock, AZ 86515
Mr.	Jonathan	Damp		Zuni	THPO	Zuni, NM 87327
Mr.	Bill	Helmer		Timbisha Shoshone	THPO	Death Valley, CA 92328
	Monza J.	Honga		Hualapia Tribe	THPO	Peach Springs, AZ 86434

Prefix	First Name	Last Name	Title	Organization Name	Type of Contact	Address
Mr.	John	Welch		White Mountain Apache Tribe	THPO	Fort Apache, AZ 85926
Mr.	A.	Einarsen	NEPA Coordinator	U.S. Army Corps of Engineers	USACE	Washington, DC 20314-1000
Mr.	Rhey	Solomon	Director, NEPA Staff	U.S. Department of Agriculture	USDAFS	Washington, DC 20090-6090
Ms.	Camille	Mittleholtz	Environmental Team Leader	U.S. Department of Transportation	USDOT	Washington, DC 20590-001
Mr.	Richard	Sanderson	Director, Office of Federal Activities	U.S. Environmental Protection Agency	USEPA	Washington, DC 20460
Mr.	Mark	Bagdovitz	Chief	Habitat Conservation and Forest Resources	USFWS	Portland, OR 97232-4181
Mr.	Steve	Hilfert	Chief	Ecological Services	USFWS	Albuquerque, NM 87103
Ms.	Lynn	Lewis	Ecological Program Services Program		USFWS	Twin Cities, MN 55111
Mr.	Keith	Taniguchi	Chief	Division of Habitat Conservation	USFWS	Atlanta, GA 30345
Ms.	Susan	Essig	Chief	Division of Habitat Conservation	USFWS	Hadley, MA 01035-9589
Mr.	Leonard	Corlin	Chief	Fisheries and Ecological Services	USFWS	Anchorage, AK 990503
Mr.	James P.	Oland	Field Supervisor	U.S. Fish and Wildlife Service	USFWS	Santurce, PR 00910

APPENDIX C

RESPONSES TO THE INTERESTED PARTY LETTER AND NOTICE OF INTENT

STATE OF CALIFORNIA -- THE RESOURCES AGENCY GRAY DAVIS, Governor

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

October 16, 2002

Bryon Ing
U.S. Coast Guard
Commandant
2100 2nd Street, S.W.
Washington, DC 20593

RE: NOI for Replacement of Response Boats, Multiple locations along West Coast

Dear Captain Ing:

Please place our headquarters office at the above address on your mailing list for all environmental reports and hearing notices regarding the above-mentioned activity. By this letter, we also wish to inform you that the U.S. Coast Guard may need to submit a consistency determination to the California Coastal Commission for the proposed project. This regulatory requirement arises under Section 307 of the CZMA.[1] The consistency determination is a finding that the proposed activities are consistent to the maximum extent practicable with the California Coastal Management Program and information necessary to support that conclusion, including an analysis of the project's consistency with Chapter 3 of the Coastal Act. (See 15 CFR § 930.39 for a full listing of the information required). You can view example consistency determinations on the Internet at http://www.coastal.ca.gov/fedcd/fedcndx.html.

If you have any questions, please call me at (415) 904-5292.

Sincerely,

James Raives
Federal Consistency Staff

cc: North Coast District Office

[1] 16 U.S.C. Section 1456, with implementing regulations at 15 CFR Part 930.

James E. McGreevey
Governor

State of New Jersey
Department of Environmental Protection

Bradley M. Campbell
Commissioner

Office of Program Coordination
PO Box 418
Trenton, NJ 08625-0418
Phone 609-292-2662
Fax 609-292-4608
Larry.schmidt@dep.state.nj.us

201731

October 21,2002

Captain Bryon Ing
Project Manager, Response Boat - Medium
U.S. Coast Guard
Docket Management Facility (USCG 2002-13482)
U.S. Department of Transportation
Room PL-401
400 Seventh Street SW
Washington, DC 20590-0001

RE: **Replacement of USCG Reponse Boats - Medium**
PEA Scoping Comments

Dear Captain Ing:

The Office of Program Coordination of the New Jersey Department of Environmental Protection (NJDEP) has completed its review of your recent letter regarding the preparation of a Programmatic Environmental Assessment (PEA) for the replacement of United States Coast Guard (USCG) Response Boats - Medium. At this time, we have no comments or concerns regarding the response boat replacement project.

The Office of Program Coordination coordinates the departmental reviews of documents prepared pursuant to the requirements of the National Environmental Policy A d **(NEPA).** Please **send six** copies of the completed PEA and any future New Jersey site-specific NEPA documents directly to our Office to insure timely, comprehensive reviews.

Thank you for giving us the opportunity to be part of the scoping process.

Sincerely,

Lawrence Schmidt
Director
Office of Program Coordination

New Jersey is an Equal Opportunity Employer
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MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard o Baltimore Maryland 21230-1718
(410) 537-4120

Parris N. Glendening
Governor

Richard F. Pecora
Secretary

November 25, 2002

Captain Bryon Ing
U.S. Coast Guard
U.S. Department of Transportation
2100 2nd Street, SW
Washington DC 20593

RE: State Application Identifier: MD20021023-1235
Project: Scoping Prior to Programmatic Environmental Assessment

Dear Captain Ing:

Thank you for providing the Maryland Department of the Environment (MDE) with the opportunity to comment on the above-referenced project. Copies of the documents were circulated throughout MDE for review, and it has been determined that this project is consistent with MDE's plans, programs and objectives.

Again, thank you for giving MDE the opportunity to review this project. If you have any questions or need additional information, please feel free to call me at (410) 537-4120.

Sincerely,

Joane D. Mueller
MDE Clearinghouse Coordinator
Technical and Regulatory Services Administration

cc: Bob Rosenbush, State Clearinghouse

MDP
Maryland Department of Planning

Parris N. Glendening
Governor
Kathleen Kennedy Townsend
Lt. Governor

Roy W. Kienitz
Secretary
Mary J. Abrams
Deputy Secretary

October 25, 2002

BR 11/1 — pls fillout & Return (or have EZM done) Attached Survey TKS BR

Captain Bryon Ing
Project Manager, Response Boat Medium
U.S. Coast Guard
U.S. Department of Transportation
2100 2nd Street, S.W.
Washington, DC 20593

STATE CLEARINGHOUSE REVIEW PROCESS

State Application Identifier: MD20021023-1235
Reply Due Date: November 21, 2002
Project Description: Scoping prior to Programmatic Environmental Assessment for the acquisition, homeport, and operation of response boats: additional personnel and boat allowances uncertain now
Project Location: Maryland, Alaska, Hawaii, Guam, Puerto Rico, Virgin Islands
Clearinghouse Contact: Bob Rosenbush

Dear Captain Ing:

Thank you for submitting your project for intergovernmental review. Participation in the Maryland Intergovernmental Review and Coordination (MIRC) process helps ensure project consistency with plans, programs, and objectives of State agencies and local governments. MIRC enhances opportunities for approval and/or funding and minimizes delays by resolving issues before project implementation.

The following agencies and/or jurisdictions have been forwarded a copy of your project for their review: The Maryland Departments of Housing and Community Development, Natural Resources, the Environment; the Maryland Military Department; and the Maryland Department of Planning. They have been requested to contact your agency directly by November 18, 2002 with any comments or concerns and to provide a copy of those comments to the State Clearinghouse for Intergovernmental Assistance. Please be assured that after November 18, 2002 all MIRC requirements will have been met in accordance with Code of Maryland Regulations (COMAR 14.24.04). The project has been assigned a unique State Application Identifier that should be used on all documents and correspondence.

A "Project Survey" form is enclosed with this letter. Please complete and return it within 14 days of the date of this letter. If you need assistance or have questions, contact the State Clearinghouse staff noted above at 410-767-4490 or through e-mail at brosenbush@mdp.state.md.us. Thank you for your cooperation with the MIRC process.

Sincerely,

Linda C. Janey

Linda C. Janey, J.D., Director
Maryland State Clearinghouse for Intergovernmental Assistance

LCJ:BR
Enclosure
cc: DHCD – Orosz*
Docket Management Facility (USCG2002-13482)
MILT – Martin*
DNR – Dintaman*
MDE – Mueller*
MDPT – Whitaker*
MDPC – Tassone*

MDP

Maryland Department of Planning

Parris N. Glendening
Governor
Kathleen Kennedy Townsend
Lt. Governor

Roy W. Kienitz
Secretary
Mary J. Abrams
Deputy Secretary

PROJECT SURVEY

Would you please take a few moments and tell us the source of information used by your agency to apply to **U.S. Department of Transportation** for this grant and/or service. Please complete this form and return it to the State Clearinghouse within 14 days of **October 23, 2002** to the address noted below or by sending the information, including the State Application Identifier listed below, via E-mail to **CLHouse@MDP.state.md.us**

TO: **Maryland State Clearinghouse**
Maryland Department of Planning
301 West Preston Street
Room 1104
Baltimore, MD 21201-2305

DATE: 14 NOV 2002
(Date form completed)

FROM: DAVID WISKOCHIL
(Name of person completing this form.)

PHONE: 202-267-0584
(Area Code & Phone number)

RE: State Application Identifier: MD20021023-1235
Project Description: Scoping prior to Programmatic Environmental Assessment for the acquisition, homeport, and operation of response boats:
additional personnel and boat allowances uncertain now

☐ Chronicle of Philanthropy	☐ GrantsNet	☐ Nonprofit Organization Website
☐ Commerce Business Daily	☐ Health Grants and Contracts Weekly	☐ Previous Grantee
☐ Community Health Funding Report	☐ LISTSERV	☐ Red Book (Catalog of State Assistance)
☐ E-Mail Automatic Notification	☐ Local/State Funding Report and Grant Alert	☐ Seminar or Workshop Attended
☐ Federal Agency Website	☐ Maryland Department of Planning Website	☐ State Agency Website
☐ Federal Assistance Monitor	☐ Maryland Grants (MD Grants)	☐ The Catalog of Federal Domestic Assistance (CFDA)
☐ Federal Grants and Contracts Weekly	☐ Maryland Register	☐ The Foundation Center
☐ Federal Register	☐ NIH Guide for Grants and Contracts	
☐ Please Identify Other Source(s) Not Listed Above:		

Thank you. N/A – CONGRESSIONAL APPROPRIATION

MDPCH-1K

THE NAVAJO NATION

KELSEY A. BEGAYE
PRESIDENT

TAYLOR McKENZIE, M.D.
VICE PRESIDENT

October 28, 2002

Bryon Ing
Captain
U.S. Coast Guard
Project Manager – Response Boat – Medium
2100 2nd Street, Southwest
Washington, DC 20593

Dear Captain Ing:

The Historic Preservation Department-Traditional Culture Program (HPD-TCP) is in receipt of your document regarding 880 new response boats for the U.S. Coast Guard, file code 16475, dated October 10, 2002.

The HPD-TCP, on behalf to the Navajo Nation, has no concern with the proposed project. Furthermore, the Best of Wishes to the U.S. Coast Guard in protecting the shores of our home, The United States of America. Thank you very much for the shield of Freedom and Safety the Guard provides.

In conclusion, the HPD-TCP appreciates the work of the U.S. Coast Guard in consulting the Navajo Nation pursuant 36 CFR 800.1 (c)(2)(iii). Should you have questions or require further decisions, please do not hesitate to contact me at 928.871.7143, FAX to 928.871.7886, e-mail to mac_dine@hotmail.com, or submit correspondences/inquires to the address below. Thank you for your time and cooperation.

Sincerely,

The Navajo Nation Division of Natural Resources - Historic Preservation Department

Marklyn A. Chee
Cultural Specialist
Traditional Culture Program
Post Office Box 4950
Window Rock, Arizona 86515

TCP 02-118
cc: chrono.
U.S. Coast Guard, U.S. Dept. of Transportation

MESCALERO Apache TRIBE

TRIBAL HISTORIC PRESERVATION OFFICE
101 Central Avenue
P.O. Box 227
Mescalero, New Mexico 88340
Phone: 505/464-4494 ext. 279 or 270
Fax: 505/464-9191

Mr. Bryon Ing
USDOT-United States Coast Guard
2100 2nd Street, S.W.
Washington, DC 20593

Dear Mr. Ing:

(X) The ***Mescalero Apache Tribe*** has determined that the proposed PEA for the replacement of response boats **WILL NOT AFFECT** any objects, sites, or locations important to our traditional culture or religion.

( ) The ***Mescalero Apache Tribe*** has determined that the proposed _____ project by _____ **WILL AFFECT** objects, sites, or locations important to our traditional culture or religion. We request that the _____ undertake further consultations to evaluate the effects of the project on these sites.

In the future, we request that you minimally provide us with the following items to aid in our determination:

- Cultural Resource Survey Reports
- Site Forms
- Maps (Both General and Site Specific)
- Research Designs (If Applicable)
- Data Recovery Plans (If Applicable)
- Photographs

Thank you for providing the Mescalero Apache Tribe the opportunity to comment on this project. We look forward to reviewing and commenting on future USDOT-US Coast Guard projects.

CONCUR:

Donna Stern-McFadden
Name

Donna Stern McFadden
Signature

Nov. 15, 2002
Date

Tribal Historic Preservation Officer
Title

COMMENTS:

APPENDIX D

DISPOSAL PROCESS

Appendix D. USCG Boat Asset Disposal Procedures

The following describes the disposal process for small boats.

1. Once a local unit declares a boat or boats as excess property, the unit completes a Report of Survey.

2. The Report of Survey is sent to the Regional Boat Manager. The Regional Boat Manager conducts a screening process to determine whether or not the boat/boats are needed elsewhere in that District.

3. Once the Regional Boat Manager declares the boat/boats as excess within the District, he/she endorses the Report of Survey and sends it to the USCG Boat Manager at Headquarters. The USGC Boat Manager conducts a screening process to determine whether any other District is in need of the boat/boats.

4. If no other District is in need of the boat/boats, the USCG Boat Manager sends the Report of Survey to the Decommission Boat Manager stating that the USCG no longer has any interest in the boat/boats. The Decommission Boat Manager declares the property as excess government property and initiates the GSA Federal Screening Process.

5. GSA advertises the boat/boats to other Federal agencies. The Federal Screening Process is a 21-day process. If no other government agency is interested in the boat/boats, the status changes from excess government property to surplus government property.

6. Once the boat/boats are declared surplus government property, they can be claimed by state agencies through the State Agency for Surplus Federal Property. Each state has its own State Agency for Surplus Federal Property that screens state agencies for eligibility to receive donated government property.

7. If no Federal or state agency is interested, GSA can be directed to auction the boat/boats.

APPENDIX E

AIR QUALITY ANALYSIS

U.S. Coast Guard Response Boat Acquisitions PEA

Proposed Action
Announced in Oct 10 2002 Federal Register Volume 67, Number 197)] [Page 63189-63191]

Replace the 41' Utility Boats (UTBs) with 180 Response Boat Medium (RB-Ms)
Replace non-standard Boats with 700 Response Boat Small (RB-S)

at 44 Groups/Activities, 186 multi-mission stations, and 24 Marine Safety Offices located in multiple locations along the east and west coasts, the Gulf of Mexico, the Great Lakes, Puerto Rico, U.S. Virgin Islands, Alaska, Hawaii and Guam. The PEA will discuss in general that additional personnel as well as additional boat allowances may be needed at currently unknown locations sometime in the future. However, because the numbers of personnel and boats and the time frame for these site-specific actions is currently unknown, they will not be discussed in detail in this PEA. Any unforeseen new boat allowances and additional personnel needed at specific locations will be addressed in site-specific follow on National Environmental Protection Act (NEPA) documentation as necessary. Furthermore, changes to infrastructure are frequently a response to homeporting decisions. The PEA will discuss, in general, the possibility of infrastructure changes resulting from this acquisition. However, detailed analysis of any necessary site-specific infrastructure changes will be discussed in follow on NEPA documentation as necessary.

Alternatives
Only the No Action Alternative is addressed. It is to continue to repair the UTBs and to replace them with non-standard boats of various types as they retire.

Discussion and Interpretation of Data

208 41' UTBs were built between 1973 and 1980
49 UTBs have been retired so far
15 of the retired UTBs were replaced with non-standard Utility Boat mediums (UTMs)
Some retiring UTBs have been replaced with 47' motor lifeboats (MLBs)

Therefore, they are replacing the remaining 159 UTBs with 180 RB-Ms
and replacing an unspecified number of their 500 or so 20-25 ft RIBs, TANBs, and UTLs with 700 RB-Ss
It appears, therefore, that there will be a 30-100% increase in the total number of small Coast Guard watercraft.

It would normally be expected that this increase in the watercraft inventory would be accompanied by an increase in staff, which would, in turn, result in increased commute emissions, as well as an increased need for administrational, maintenance and storage facilities, resulting in construction emissions and increased heating demand. However, there is no funding or planning for additional infrastructure or personnel associated with this Proposed Action.

41' UTB

ref: Dave Wiskochil 202-267-0584 12/12/02

Engine	(2) Cummins Model VT903M
Power	340 HP ea.
Fuel	#2 Diesel
Fuel Capacity	487 gal
Maximum Speed	26 knots
Range	300 nautical mi
Crew	3
Passengers	20
Max Weight	30,000 lb

Emission Factors for 41' UTBs

No applicable emission standard.

Expected emission rate taken from EPA Nonroad Emissions Model version 2.2.0

Factors as listed in NonRoad Model:

NOx g/HP-hr	HC g/HP-hr	PM g/HP-hr	CO g/HP-hr
8.92	1.26	0.563	1.91

(Nonroad Model lists factors in units of g/HP-hr)

Factors converted to g/kW-hr units:

NOx g/kW-hr	HC g/kW-hr	PM g/kW-hr	CO g/kW-hr
11.97	1.69	0.76	2.56

These values are generally consistant with emission factors from other references.

RB-M

ref: USCG Specification DTCG23-02-R-ARB048

Engine	(2) Not Defined Expect 8 cyl turbo, around 16 liters (970 CID)
Power	approx 600 HP ea
Fuel	#2 Diesel
Fuel Capacity	
Maximum Speed	40 knots
Range	250 nautical mi
Crew	
Passengers	
Max Weight	not defined

Emission Factors for RB-Ms

Must meet MARPOL (73/78) Annex VI

Approx 10.2' g/kW-hr for diesels above 130 kW (174 HP) (standard varies depending on operating RPM, but it will be 9.8 to 10.4 for these engines)

Must meet 40 CFR 94, Marine Compression Ignition Engines manufactured after 1 January 2004 for CI engines with 1.2 to 2.5 liters per cylinder (assumed for this application)

NOx&HC g/kW-hr	PM g/kW-hr	CO g/kW-hr
7.2	0.2	5

ref: 64 FR 73300 Dec 29 1999

In order to split the NOx&HC factor into separate NOx and HC factors for these estimates, the HC factor was assumed to be 14% as large as the NOx factor. This is consistant with the ratio in of NOx and HC factors for the older engines, and with the current EPA nonroad engine emission standards.

The assumed factors to be used for this analysis are therefore:

NOx g/kW-hr	HC g/kW-hr	PM g/kW-hr	CO g/kW-hr
6.32	0.88	0.20	5.00

Current Annual Emissions from 41' UTBs

Basis and Assumptions:

1,021,265 gal/yr diesel consumed currently (see note below)
0.408 lb/hp-hr BSFC (Nonroad Model)
0.547 lb/kW-hr BSFC (converted from value above)
19,300 Btu/lb (AP-42 Table 3.3-1)
7.1 lb/gal (typical)
(note, this BSCF works out to a thermal efficiency of 32%)

Source for current fuel use value: "Energy Saving Alternatives for U.S. Coast Guard (USCG) Boats", Report CG-D-08-01, January 2001.

Projected Annual Emissions from RB-Ms

Basis and Assumptions:
Of the 208 41' UTBs built, 49 have been retired, leaving 159 to be replaced by RB-Ms. In addition, some of the non-standard UT-Ms will likely also be replaced by RB-Ms. There will be a total of 180 RB-Ms purchased. Therefore, for watercraft in this size range, the planned replacement will be between 1 to 1 and 1.1 to 1

Changes in overall mission and resulting fuel demand for vessels in this size category are not yet known. Therefore, for this estimate, it will be assumed that the mission demands will be approximately 1.1 times existing mission demands for time/distance.

Modern turbocharged diesel engines achieve thermal efficiencies in the range of 35-37%, compared to 32% efficiencies common in older diesel engines. Therefore, overall fuel use is assumed to be comperable to to current fuel use.

Using EPA Nonroad Model Emission Factors from previous page:

Current 41' UTB Emissions

NOx tpy	HC tpy	PM tpy	CO tpy
175	25	11	37

Projected RB-M Emissions

NOx tpy	HC tpy	PM tpy	CO tpy
92	13	3	73

Conclusion:

Based on these assumptions and calculations, replacement of the 41' UTB fleet with modern RB-Ms will likely result in overall reductions in ozone precursor (NOx & HC) emissions of approximately 50%. Overall particulate emissions are expected to be reduced by approximately 75%.

Carbon monoxide emissions are expected to increase by approximately 100% (i.e. double). However, the environmental concern for CO emissions is for highly localized areas around city intersections. CO emissions from watercraft are generally not environmental concerns and would not be expected to cause or contribute to any exceedence of ambient air quality standards.

Small Response Boat Existing Condition

Watercraft	Inventory	gal/yr
Rigid Inflatable Boats (RIBs)	379	906,033
21' Trailered Aid to Nav. (TANB)	76	49,506
24' Utility Boat Large (UTL)	19	86,565
25' Utility Boat Large (UTL)	25	60,170
	499	1,102,274

Source: "Energy Saving Alternatives for U.S. Coast Guard (USCG) Boats", Report CG-D-08-01, January 2001.

This calculation assumes that all boats up to 25' are powered by gasoline outboard engines, though this has not been confirmed.

Because this analysis treats the No Action Alternative as being equivalent to 'Existing Condition' activities', the motor population. used for emission factors for Existing Condition outboard motors will be a future-year (CY2004) engine technology population. This will result in a more appropriate 'No Action' alternative emission estimate. Note that the CY2004 population means the type of engines that the Nonroad Model assumes will be in use in the year 2004, rather than engines manufactured in 2004.

U.S. EPA Nonroad Emissions Model Version 2.2.0
Emission Factors for CY2004 Outboard Engine Population

NOx g/HP-hr	HC g/HP-hr	CO g/HP-hr	PM10 g/HP-hr	Diurnal HC g/tank	Spillage HC g/refuel
5.0	32.4	272	7.7	3.0	3.6

Emission Factors for Existing RIBs, TANBs, and UTLs (in g/kW-hr)

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	Diurnal HC g/tank	Spillage HC g/refuel
6.7	43.5	365	10.3	3.0	3.6

Additional Data for Calculations

1.3 lb/hp-hr Brake-Specific Fuel Consumption (Nonroad Model)

Small Response Boat Proposed Action

Outboard motor emission factors assume that current and future Coast Guard outboard engines will meet federal 2006 model year emission standards for outboard motors (same as California 2001-2003 model year standards). This was the specification used in recent procurements of Coast Guard 25' MSST boats.

Federal 2006 Outboard Engine Emission Standard (Ref: 40 CFR 91.104

$$NO_x\&HC\ (g/kW\text{-}hr) = [0.25 \times (151 + 557/Ptx^{0.9})] + 6$$

where Ptx = engine rated output in kW

The emission standard is a NOx+HC standard that is expressed by an exponential formula based on the engine horsepower rating. For a 200 HP engine, the formula works out to 46 g/kW-hr NOx+HC.

The ratio of NOx to HC used to allocate this 46 g/kW-hr to individual pollutant emission factors is based onthe measured emissions from seven Model Year (MY)2002 engine families in the 140 kW+ (200 HP+) size range that meet California 2001-2003 (same as federal 2006) emission standards. The CO factor is based on the highest three CO measurements out of the seven engine families that meet the standard.

Emission Factors Used for Future Outboard Motors

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	SOx g/kW-hr
14	32	140	10.3	1.2

Available references documenting emission factors for outboard motors generally provide data for NOx, HC, and CO only. For this analysis, PM10 factor for gasoline outboard engines from the U.S. EPA Nonroad Model Version 2.2.0 was used.

The comparision of existing fleet to Proposed Action emission

1.74 lb/kW-hr BSFC (converted from value above)
20,300 Btu/lb (AP-42 Table 3.3-1)
6.2 lb/gal (typical)
(note, this BSCF works out to a thermal efficiency of 10%)

This BSFC value from the model may be appropriate for pleasure boats, but patrol boats would be expected to be well-maintained and operate at more steady-state throttle settings, resulting in higher efficiency, on the order of 20%.

Modern two-stroke and four-stroke outboard motors achieve thermal effiencies of approximately 22-23%
Lambrecht, Ralph. 2002. "Two-stroke Conventional Wisdom." Boat & Motor Dealer. April. 34-37 http://www.boatmotors.com/outboard/outboard_motor_article.html

Therefore, in order to avoid over-estimating emissions from the No Action Alternative or Current Condition, the current fuel use is converted to kW-hr assuming a thermal efficiency of 20%.

factors on the previous page is not an "apples-to-apples" comparison. The factors for the Existing Condition are EPAs estimates of the Fleet average emission factors in CY2004. In contrast, the factors listed for the Proposed Action are the highest emissions allowed under federal 2006 outboard engine standards. Actual emissions from engines certified vary from one engine family to another, but all certified engine emission levels are less than the values assumed here.

Future Activity Assumption
Future missions and activity levels, overall and at specific locations, are not known. The Description of Proposed Action indicates that 700 RB-Ss will be purchased. Some unspecified number of the existing fleet of 500 RIBs, TANs, and UTLs will be retired.

As a first approximation, it will be assumed that the overall mission changes will result in a doubling of the number of these small vessels, with an overall doubling of the demand for time/distance and fuel. Fuel use is converted to kW output assuming a thermal efficiency of 23%.

A doubling of the inventory of small watercraft would therefore assume that of the existing fleet of 500 RIBs, TAN's, and UTLs, 200 would be retired and 300 would be retained.

Estimated Emissions - Existing Condition

Estimated Emissions - Proposed Action

Estimated Emissions From 700 RB-S Watercraft

NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	Diurnal HC ton/yr	Spillage HC ton/yr
202	462	2020	149	0.8	0.2

Estimated Emissions From 300 RIBs, TANs, and UTLs

NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	Diurnal HC ton/yr	Spillage HC ton/yr
36	234	1963	56	0.4	0.1

Estimated Emissions From 500 Existing RIBs, TANs, and UTLs

NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	Diurnal HC ton/yr	Spillage HC ton/yr
60	390	3271	93	0.6	0.1

Estimated Emissions From 1000 Vessels (700 RB-Ss and 300 RIBs, TANs, and UTLs Assumed Under Proposed Action

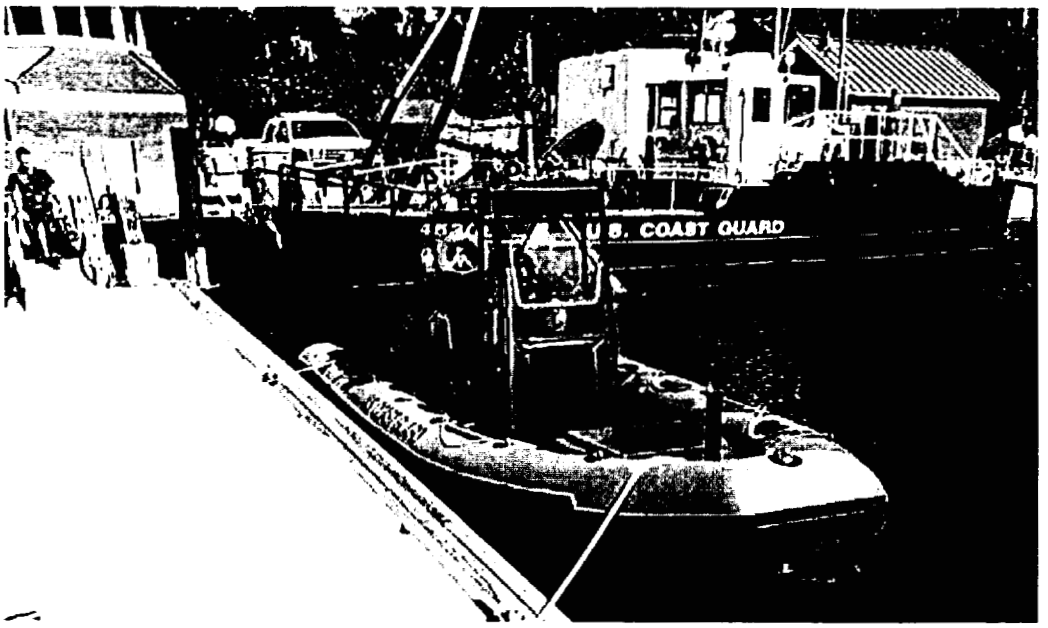
NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	Diurnal HC ton/yr	Spillage HC ton/yr
238	696	3982	204	1.2	0.2

Conclusion:

Based on these assumptions and calculations, replacement and suplementation of small response boat fleet with 700 new RB-Ss could result in significant increases in emissions of all pollutants. However, it should be kept in mind that several conservative assumptions were incorporated into these estimates. Also, the overall increase in emissions indicated by these estimates would be distributed over several thousand miles of coastline and over 200 different Coast Guard Facilities.

Current Condition Breakdown by Vessel Type for Section 3.4 Text Table:

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	Diurnal HC ton/yr	Spillage HC ton/yr
Rigid Inflatable Boats (RIBs)	50	320	2689	76	0.46	0.09
21' Trailered Aid to Nav. (TAN)	3	18	147	4	0.09	0.00
24' Utility Boat Large (UTL)	5	31	257	7	0.02	0.01
25' Utility Boat Large (UTL)	3	21	179	5	0.03	0.01
	60	390	3271	93	0.6	0.1



Rigid Hull Inflatable Boat (RIB)

41' UTB

APPENDIX F

NOISE TERMINOLOGY AND ANALYSIS METHODOLOGY

APPENDIX F

This Appendix presents a detailed discussion of noise and its effects on people and the environment. An assessment of noise requires a general understanding of how sound is measured and how it affects people in the natural environment. The purpose of this appendix is to address public concerns regarding noise impacts.

Section F.1 is a general discussion on the properties of noise. Section F.2 summarizes the noise metrics discussed throughout this Environmental Assessment (EA). Section F.3 summarizes Land-Use Compatibility.

F.1 General

Noise, often defined as unwanted sound, is one of the most common environmental issues associated with aircraft operations. Of course, aircraft are not the only source of noise in an urban or suburban surrounding. Interstate and local roadway traffic, rail, industrial, and neighborhood sources also intrude on the everyday quality of life. Nevertheless, aircraft are readily identifiable to those affected by their noise, and typically are singled out for special attention and criticism. Consequently, aircraft noise problems often dominate analyses of environmental impacts.

Sound is a physical phenomenon, and consists of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. The interpretation of that sound as pleasant or unpleasant depends largely on the listener's current activity, past experience, and attitude toward the source of that sound. It is often true that one person's music is another person's noise.

The measurement and human perception of sound involves two basic physical characteristics, intensity and frequency. The intensity is a measure of the strength or amplitude of the sound vibrations and is expressed in terms of sound pressure. The higher the sound pressure, the more energy is carried by the sound and the perception of that sound is louder. The second important physical characteristic is sound frequency that is the number of times per second the air vibrates or oscillates. Low-frequency sounds are characterized as rumbles or roars, while sirens or screeches typify high-frequency sounds

The loudest sounds that can be detected comfortably by the human ear have intensities that are 1,000,000,000,000 times larger than those of sounds that can just be detected. Because of this vast range, any attempt to represent the intensity of sound using a linear scale becomes very unwieldy. As a result, a logarithmic unit known as the decibel (dB) is used to represent the intensity of a sound. Such a representation is called a sound level.

Because of the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. However, some simple rules of thumb are useful in dealing with sound levels. First, if a sound's intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. For example:

$$60 \text{ dB} + 60 \text{ dB} = 63 \text{ dB, and}$$

$$80 \text{ dB} + 80 \text{ dB} = 83 \text{ dB}$$

The total sound level produced by two sounds of different levels is usually only slightly more than the higher of the two. For example:

$$60.0 \text{ dB} + 70.0 \text{ dB} = 70.4 \text{ dB}$$

Because the addition of sound levels behaves differently than that of ordinary numbers, such addition is often referred to as "decibel addition" or "energy addition." The latter term arises from the fact that what we are really doing when we add decibel values is first converting each decibel value to its corresponding acoustic energy, then adding the energies using the normal rules of addition, and finally converting the total energy back to its decibel equivalent.

An important facet of decibel addition arises later when the concept of time-average sound levels is introduced to explain Day-Night Average Sound Level (DNL). Because of the logarithmic units, the louder levels that occur during the averaging period dominate the time-average sound level. As a simple example, consider a sound level which is 100 dB and lasts for 30 seconds, followed by a sound level of 50 dB which also lasts for 30 seconds. The time-average sound level over the total 60-second period is 97 dB, not 75 dB.

A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually pain at still higher levels.

The minimum change in the time-average sound level of individual events that an average human ear can detect is about 3 dB. A change in sound level of about 10 dB is usually perceived by the average person as a doubling (or halving) of the sound's loudness, and this relation holds true for loud sounds and for quieter sounds.

Sound frequency is pitch measured in terms of hertz (Hz). The normal human ear can detect sounds that range in frequency from about 20 Hz to about 15,000 Hz. All sounds in this wide range of frequencies, however, are not heard equally well by the human ear, which is most sensitive to frequencies in the 1,000 to 4,000 Hz range. To account for the varied frequency sensitivity of people, we use the A-weighted scale that approximates the average, healthy human ear. The A-weighting de-emphasizes the low and high frequency portion of the noise signal and emphasizes the mid-frequency portion. Sound levels measured using A-weighting are most properly called A-weighted sound levels, while sound levels measured without any frequency weighting are most properly called sound levels. However, since most environmental impact analysis documents deal only with A-weighted sound levels, the adjective "A-weighted" is often omitted, and A-weighted sound levels are referred to simply as sound levels. In some instances, the author will indicate that the levels have been A-weighted by using the abbreviation dBA or dB(A), rather than the abbreviation dB, for decibel. As long as the use of A-weighting is understood to be used, there is no difference implied by the terms "sound level" and "A-weighted sound level" or by the units dB, dBA, and dB(A). The A-weighting function de-emphasizes higher and, especially, lower frequencies to which humans are less sensitive. Because the A-weighting is closely related to human hearing characteristics, it is appropriate to use A-weighted sound levels when assessing potential noise effects on humans and many terrestrial wildlife species. In this document, all sound levels are A-weighted and are reported in dB.

Sound levels do not represent instantaneous measurements but rather averages over short periods of time. Two-measurement time-periods are most common – 1 second and 1/8 of a second. A measured sound level averaged over 1 second is called a slow response sound level; one averaged over 1/8 of a second is called a fast response sound level. Most environmental noise studies use slow response measurements, and the adjective "slow response" is usually omitted. It is easy to understand why the proper descriptor "slow response A-weighted sound level" is usually shortened to "sound level" in environmental impact analysis documents.

F.2 Noise Metrics

A "metric" is defined as something "of, involving, or used in measurement." As used in environmental noise analyses, a metric refers to the unit or quantity that measures or represents the effect of noise on people. Noise measurements typically have involved a confusing proliferation of noise metrics as individual researchers have attempted to understand and represent the effects of noise. As a result, past literature describing environmental noise or environmental noise abatement has included many different metrics. Recently, however, various federal agencies involved in environmental noise mitigation have agreed on common metrics for environmental impact analyses documents, and both the Department of Defense (DoD) and the Federal Aviation Administration (FAA) have specified those which should be used for federal aviation noise assessments. These metrics are as follows.

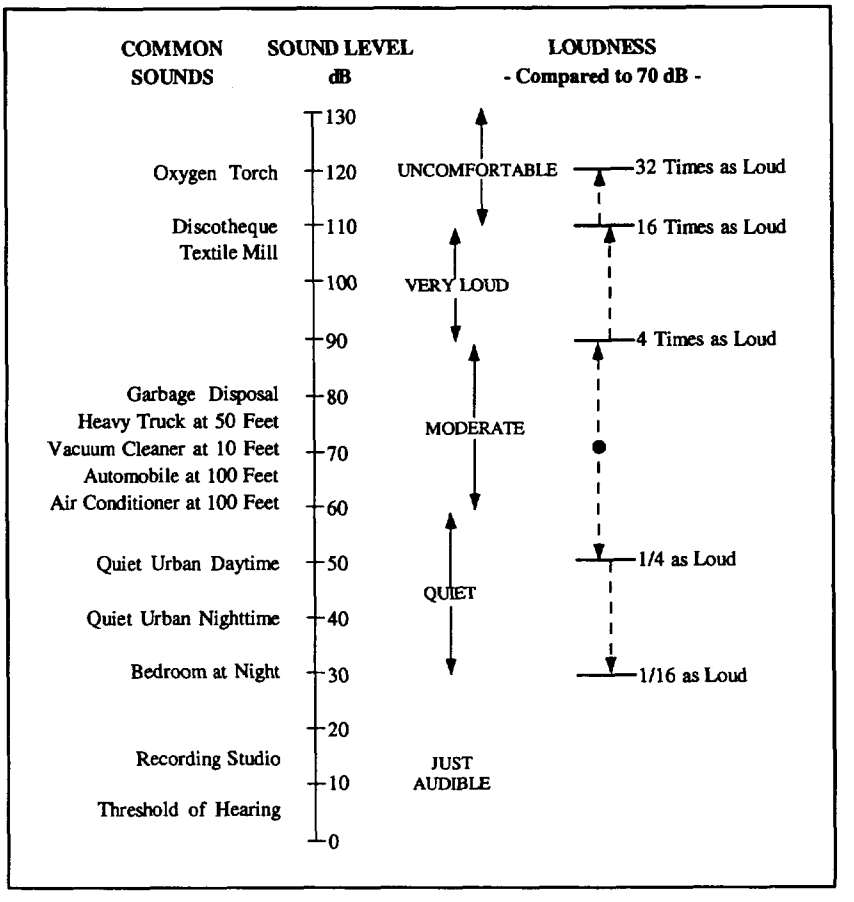
F.2.1 Maximum Sound Level

The highest A-weighted sound level measured during a single event in which the sound level changes value as time goes on (e.g., an aircraft overflight) is called the maximum A-weighted sound level or maximum sound level, for short. It is usually abbreviated by ALM, L_{max}, or LA_{max}. The typical A-weighted levels of common sounds are shown in Figure F-1. The maximum sound level is important in judging the interference caused by a noise event with conversation, TV or radio listening, sleep, or other common activities.

F.2.2 Sound Exposure Level

Individual time-varying noise events have two main characteristics: 1) a sound level which changes throughout the event, and 2) a period of time during which the event is heard. Although the maximum sound level, described above, provides some measure of the intrusiveness of the event, it alone does not completely describe the total event. The period of time during which the sound is heard is also significant. The sound exposure level (abbreviated SEL or LAE) combines both of these characteristics into a single metric.

Sound exposure level is a logarithmic measure of the total acoustic energy transmitted to the listener during the event. Mathematically, it represents the sound level of the constant sound that in one second would generate the same acoustic energy, as did the actual time-varying noise event. For example, since aircraft overflights usually last longer than one second, the SEL of an overflight is usually greater than the maximum sound level of the overflight.



Source: Harris 1979

Figure F-1. Typical A-Weighted Sound Levels of Common Sounds

Sound exposure level is a composite metric that represents both the intensity of a sound and its duration. It does not directly represent the sound level heard at any given time, but rather provides a measure of the net impact of the entire acoustic event. It has been well established in the scientific community that SEL measures this impact much more reliably than just the maximum sound level. Because the SEL and the maximum sound level are both A-weighted sound levels expressed in dBs, there is sometimes confusion between the two, so the specific metric used should be clearly stated.

F.2.3 Day-Night Average Sound Level

Time-average sound levels are the measurements of sound levels that are averaged over a specified length of time. These levels provide a measure of the average sound energy during the measurement period.

For the evaluation of community noise effects, and particularly aircraft noise effects, the day-night average sound level (abbreviated DNL or L_{dn}) is used. Day-night average sound level averages aircraft sound levels at a location over a complete 24-hour period, with a 10-dB adjustment added to those noise events that take place between 10:00 p.m. and 7:00 a.m. (local time) the following morning. This 10-dB

"penalty" represents the added intrusiveness of sounds that occur during normal sleeping hours, both because of the increased sensitivity to noise during those hours and because ambient sound levels during nighttime are typically about 10 dB lower than during daytime hours.

Ignoring the 10-dB nighttime adjustment for the moment, DNL may be thought of as the continuous A-weighted sound level that would be present if all of the variations in sound level that occur over a 24-hour period were smoothed out so as to contain the same total sound energy.

Day-night average sound level provides a single measure of overall noise impact, but does not provide specific information on the number of noise events or the individual sound levels that occur during the day. For example, a DNL of 65 dB could result from a very few noisy events, or a large number of quieter events.

As noted earlier for SEL, DNL does not represent the sound level heard at any particular time, but rather represents the total sound exposure. Scientific studies and social surveys that have been conducted to appraise community annoyance to all types of environmental noise have found the DNL to be the best measure of that annoyance. Its use is endorsed by the scientific community (American National Standards Institute [ANSI] 1980, 1988; U.S. Environmental Protection Agency [EPA] 1974; Federal Interagency Committee on Urban Noise [FICUN] 1980; Federal Interagency Committee on Noise [FICON] 1992).

The results of attitudinal surveys, conducted in different countries, show a remarkable consistency in the percentages of groups of people who express various degrees of annoyance when exposed to different levels of DNL. This is illustrated in Figure F-2, which summarizes the results of a large number of social surveys relating community responses to various types of noises, measured in DNL.

Figure F-2, taken from Schultz (1978), shows the original curve fit. A more recent study has reaffirmed this relationship (Fidell et al. 1991). Figure F-3 shows an updated form of the curve fit (Finegold et al. 1992) in comparison with the original. The updated fit, which does not differ substantially from the original, is the current preferred form. In general, correlation coefficients of 0.85 to 0.95 are found between the percentages of groups of people highly annoyed and the level of average noise exposure. The correlation coefficients for the annoyance of individuals are relatively low, however, on the order of 0.5 or less. This is not surprising, considering the varying personal factors that influence the manner in which individuals react to noise. Nevertheless, findings substantiate that community annoyance to aircraft noise is represented quite reliably using DNL.

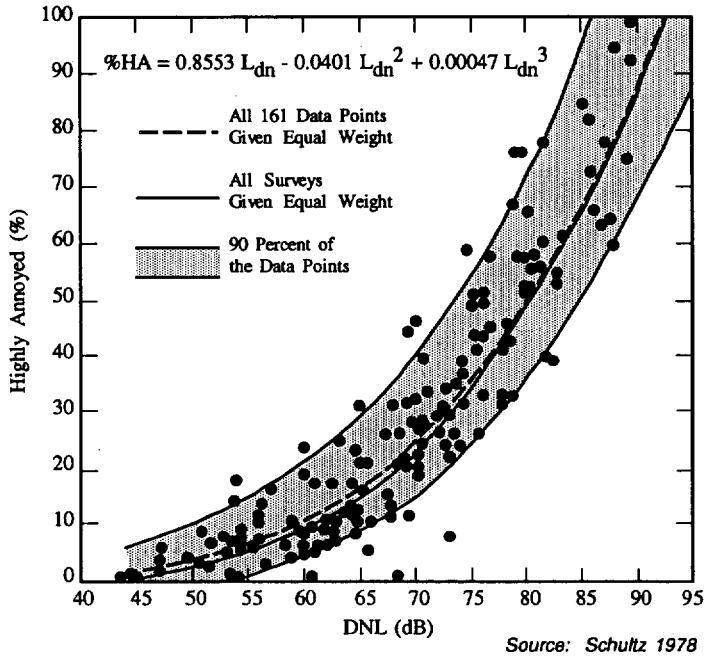


Figure F-2. Community Surveys of Noise Annoyance

F.3 Land-Use Compatibility

As noted above, the inherent variability between individuals makes it impossible to predict accurately how any individual will react to a given noise event. Nevertheless, when a community is considered as a whole, its overall reaction to noise can be represented with a high degree of confidence. As described above, the best noise exposure metric for this correlation is the DNL. In June 1980, an ad hoc Federal Interagency Committee on Urban Noise (FICUN) published guidelines for considering noise in land use planning (FICUN 1980). These guidelines related DNL to compatible land uses in urban areas. The committee was composed of representatives from the DoD, Department of Transportation, Department of Housing and Urban Development; the EPA; and the Veterans Administration. Since the issuance of these guidelines, federal agencies have generally adopted these guidelines to make recommendations to the local communities on land use compatibilities.

The FAA included the committee's guidelines in the Federal Aviation Regulations (Harris 1984). These guidelines are reprinted in Table F-1, along with the explanatory notes included in the regulation. Although these guidelines are not mandatory (see Notes in Table F-1), they provide the best means for evaluating noise impact in airport communities. In general, residential land uses normally are not compatible with outdoor DNL (Ldn values) above 65 dB. The extent of land areas and populations exposed to DNL of 65 dB and higher provides the best means for assessing the noise impacts of alternative aircraft actions.

Table F-1. Land Use Compatibility Guidelines with Yearly Day-Night Average Sound Level

LAND USE	YEARLY DAY-NIGHT AVERAGE SOUND LEVELS IN DECIBELS					
	BELOW 65	65-70	70-75	75-80	80-85	OVER 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals & nursing homes	Y	25	30	N	N	N
Churches, auditoria, & concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business, & professional	Y	Y	25	30	N	N
Wholesale & retail-building materials, hardware, and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic & optical	Y	Y	25	30	N	N
Agriculture (except livestock) & forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming & breeding	Y	Y(6)	Y(7)	N	N	N
Mining & fishing, resource production & extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas & spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits & zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, & camps	Y	Y	Y	N	N	N
Golf courses, riding stables, & water recreation	Y	Y	25	30	N	N

Key:
Y (Yes) = Land use and related structures compatible without restrictions.
N (No) = Land use and related structures are not compatible and should be prohibited.
NLR = Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25 or 30 = Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structures.

Notes:
(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor NLR of at least 25 and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide an NLR of 20 dB; thus, the reduction requirements often are stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low.
(4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal level is low.
(5) Land-use compatible, provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25 dB.
(7) Residential buildings require an NLR of 30 dB.
(8) Residential buildings not permitted.

Source: USDOT 1984 and FAA 1985

In 1990, the FICON was formed to review the manner in which aviation noise effects are assessed and presented. This group released its report in 1992 and reaffirmed the use of DNL as the best metric for this purpose (FICON 1992).

APPENDIX G

OCEAN STEWARD

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
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16214
SEP 28 2000

LETTER OF PROMULGATION

From: Commandant
To: Distribution

1. Protecting our nation's natural resources is one of the Coast Guard's five strategic goals. Along with Maritime Safety, Maritime Security, Maritime Mobility, and National Defense, Protection of Natural Resources is one of the basic reasons the taxpayers fund the Coast Guard each year. Hence, it is one of the outcomes to which our entire organizational effort – programs, policies, and assets – should be dedicated. In our Strategic Plan 1999, I defined the Protection of Natural Resources Strategic Goals as "the elimination of environmental damage and natural resource degradation associated with all maritime activities." A vital aspect of achieving this goal is helping the nation recover and maintain healthy populations of marine protected species. OCEAN STEWARD is our strategic plan for making that happen.

2. OCEAN STEWARD provides the emphasis operational commanders, training commands, and administrative staffs need to prioritize and execute this increasingly important mission. The core idea behind OCEAN STEWARD is the premise that all of us, as members of the Coast Guard, have a responsibility to be good stewards of the ocean. If we adhere to this premise as individuals, then the Coast Guard, as an organization, will make great progress toward achieving OCEAN STEWARD's objectives.

3. As we enter the 21st century, our nation is becoming increasingly concerned about the ocean and the state of its living marine resources. Coast Guard leadership in protecting marine species, however, is nothing new; it dates back as far as the Fur Seal Act of 1897. The Coast Guard remains committed to continuing that tradition of leadership, and OCEAN STEWARD is your guide in this important endeavor.

JAMES M. LOY

Encl: (1) OCEAN STEWARD, Protected Living Marine Resources Strategic Plan

Dist: CG LANTAREA (A, Am, Ao), CG PACAREA (P, Pm, Po), CG DISTRICTS (d, m, o), CG ACADEMY, CG INSTITUTE, CG TRACEN Yorktown, CG TRACEN Cape May, CG TRACEN Petaluma, CG PACAREA TRATEAM, CG RFTC Cape Cod MA, CG RFTC Charleston SC, CG RFTC New Orleans LA, CG RFTC Kodiak AK, CG R&DC

COMMANDANT'S PREAMBLE

The Coast Guard's Strategic Plan 1999 states the nation's waterways and their ecosystems are vital to our economy and health. This is why we made the protection of natural resources, specifically the elimination of environmental damage and natural resource degradation associated with maritime activities, one of our five strategic goals, and made enforcing the federal regulations that result in all living marine resources achieving healthy, sustainable populations one of our performance goals. We already have formal plans in place to help us achieve some of these goals, particularly in the areas of pollution response and fisheries law enforcement. However, if we are to fully achieve our protection of natural resources strategic goal, we must become more involved in the efforts to recover and maintain our nation's marine protected species and the habitats on which they depend.

In recent years, there has been a dramatic increase in public and governmental concern about the state of our oceans and their living resources. Evidence of this includes:

- Increasing fishery management measures designed to reduce bycatch of non-targeted species, such as turtle excluder devices (TEDs), fixed-net pingers, and bycatch reduction devices (BRDs).
- Rising conflicts between advocates for species protection and resource users, such as those existing between Steller sea lion protection advocates and Bering Sea/Gulf of Alaska pollock fishers, and between northern right whale protection advocates and New England fixed gear fishers.
- The recent formation of federal and state government task forces to protect coral reefs, northern right whales, Pacific salmon, and other endangered species.
- National Marine Fisheries Service Report to Congress (1999) concluding, of the 230 stocks for which the status can be determined, 98 are overfished and five are approaching overfished - an increase from 86 overfished stocks in 1997 and 90 in 1998.
- Fisheries closures and restrictions in the Gulf of Maine and the West Coast that have had a devastating economic impact on groundfish fleets.
- Increasing litigation against government agencies (including the Coast Guard) by organizations trying to influence marine resource management policy.
- Funding for the Lands Legacy Initiative, which included $27 million to protect ocean and coastal resources in FY 2000 and a request for $266 million for FY 2001.
- The recent signing, by President Clinton, of Executive Order 13158, strengthening and expanding the nation's system of marine protected areas (MPAs).

The Coast Guard already has effective, coordinated strategies for enforcing our nation's fisheries management regulations, protecting the marine environment from oil pollution, and responding to maritime disasters. However, our approach to marine protected species (MPS), specifically those species and geographic areas that are protected under the Endangered Species Act, the Marine Mammal Protection Act, the National Marine Sanctuaries Act, or similar regulations or executive orders, is less clearly defined. Problems resulting from this include:

- Initial delay in establishing a coordinated plan for accomplishing assigned Atlantic Protected Living Marine Resources Initiative (APLMRI) tasks.

- Difficulty in addressing potential conflicts between high-speed craft and marine protected species in New England.
- Low funding priority for funding assessments to address the impact Coast Guard operations have on marine protected species throughout the Pacific Area.
- Inconsistency in handling cross-directorate MPS issues such as working with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on marine mammal protection initiatives and responding to the Coral Reef Initiative (Executive Order 13089).
- Working level frustration with lack of guidance for dealing with endangered species lawsuits, creation of Memorandums of Understanding (MOU) with NMFS, potential regulation of high-speed craft and whale watch industry vessels, and other MPS issues.

A robust ocean environment is essential to our nation's prosperity, and healthy populations of marine protected species are essential to maintaining a robust ocean environment. Just as protecting our water and air became top national priorities during the last decades of the 20th century, protecting our oceans is becoming a top priority of the 21st century. In the coming years, the nation will look for leaders to exercise responsible stewardship of our ocean resources. The Coast Guard is stepping forward and embracing this role, it is one of the most important roles we will ever undertake.

OCEAN STEWARD PURPOSE

The purpose of Ocean Steward is to help the Coast Guard achieve its strategic goal Protection of Natural Resources and its performance goal of enforcing federal regulations that result in all living marine resources achieving healthy, sustainable populations. Ocean Steward provides a clearly defined strategy for our role in helping the nation recover and maintain healthy populations of marine protected species; it captures the things we are already doing and provides a comprehensive list of objectives we can achieve if we are provided the necessary resources. Ocean Steward complements our fisheries enforcement strategic plan, Ocean Guardian. Together, Ocean Steward and Ocean Guardian provide a roadmap for the Coast Guard's efforts in ensuring our nation's waterways and their ecosystems remain productive by protecting all our nation's living marine resources from degradation.

COAST GUARD STRATEGIC GOAL: PROTECTION OF NATURAL RESOURCES

Eliminate environmental damage and natural resource degradation associated with all maritime activities

The nation's waterways and their ecosystems are vital to our economy and health. If the United States is to enjoy a rich, diverse and sustainable ocean environment, then we must halt the degradation of our ocean's natural resources associated with maritime activities. This includes ensuring our country's marine protected species are provided the protection necessary to help their populations recover to healthy, sustainable levels. Providing adequate protection will require the United States to enact and enforce a wide range of regulations to govern marine resource management and use. Ocean Steward will enable the Coast Guard, as the nation's primary at sea law enforcement agency, to develop and enforce those regulations necessary to help recover and maintain our country's marine protected species. Moreover, Ocean Steward will ensure the Coast Guard is viewed as a leader in regional, national and international efforts to protect the nation's marine ecosystems.

OCEAN STEWARD VISION STATEMENT

The Coast Guard will be a leader in the effort to recover and maintain our nation's marine protected species

OCEAN STEWARD MISSION STATEMENT

We will enforce and comply with marine protected species regulations, work with other agencies and organizations to develop appropriate regulations for marine protected species recovery, and publicize our efforts to gain the support and resources necessary to fully implement Ocean Steward

The Coast Guard will implement a formal MPS strategy, Ocean Steward, with a clear, focused vision. We will educate and train our members to make certain every individual understands that stewardship of the ocean environment is a fundamental part of their duty. We will use existing enforcement authorities, and seek new authorities as necessary, to help reduce the risks of extinction and recover marine protected species populations. We will conduct our own operations so as to minimize our impact on marine protected species. We will assess the impact on marine protected species when developing both internal and external regulations and policies. We will work closely with other federal, state and local governments, as well as environmental and research organizations, to carry out the nation's MPS policies. We will inform the public of both the importance of the mission and the ways in which they can help lessen the impact of human activities on marine protected species. We will widely publicize our strategy and results to inform policymakers and the public of the value of our MPS efforts.

GUIDING PRINCIPLE

We are Stewards of the Ocean

The guiding principle behind Ocean Steward is instilling in every member of the Coast Guard the belief that each individual is a steward of the ocean. This concept must be promoted throughout the entire organization. Our training commands – Training Center Cape May, the Coast Guard Academy, Training Center Yorktown, Training Center Petaluma, and the Regional Fisheries Training Centers – should produce graduates who understand and believe preservation of marine protected species is a fundamental Coast Guard responsibility. Our boarding officers and marine inspectors should know, and want to know, what marine protected species exist in their AORs, the regulations that exist to protect them, and how his or her actions can promote species recovery. Our operations and marine safety units should know, and want to know, the concerns of federal, state and local officials, and should work cooperatively with them. Our stations, cutters and marine safety offices should distribute appropriate educational literature. At every opportunity Coast Guard personnel should let the public know we are on watch protecting their oceans and waterways, and inform them of what they can do to help eliminate the degradation of natural resources associated with maritime activities. Our deck watch officers, aircrews and coxswains should be able to recognize the marine protected species they are likely to

encounter and report sightings to interested organizations. Our staff officers and port operations personnel should ensure, and want to ensure, recovery of marine protected species is taken into account when making policy decisions, and they should prioritize the workloads of their personnel to reflect this emphasis. In short, every member of the Coast Guard must think of himself or herself as a steward of the ocean. Committing to that, both organizationally and individually, we will enable us to reach our overarching Protection of Natural Resources strategic goal.

OCEAN STEWARD STRATEGIES

Raise the Profile of the MPS Mission: We will raise the profile of the MPS mission to the status of missions such as maritime drug interdiction, marine pollution prevention and fisheries enforcement.

Obtain Necessary Resources and Authorities: We will prioritize existing resources, use existing authorities, and seek additional resources and authorities as necessary to implement Ocean Steward.

Partner with Other Agencies: We will work closely with other agencies and organizations involved in the preservation and recovery of marine protected species to eliminate redundancy, and provide a clear link between enforcement and management.

Publicize Our Efforts: We will stress the importance of the Coast Guard's role as part of a comprehensive management scheme and highlight our successful efforts to the public.

Each of these strategies contains sets of near, mid, and long-term objectives. Near-term objectives are those that can be achieved without a major reallocation of resources. Mid-term objectives require addition resources or a significant reallocation of resources. Long-term objectives are those objectives that will require institutional changes such as seeking additional authorities or creation of program offices.

STRATEGY: RAISE THE PROFILE OF THE MPS MISSION

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1. DISCUSSION

If the Coast Guard is to be truly committed to protecting the ocean and its resources, then, in the eyes of our own people, recovery of marine protected species must be just as important as traditional missions such as maritime drug interdiction, marine pollution prevention, and fisheries enforcement. We must go beyond development of single initiatives in response to pressure or crisis. We should approach MPS issues with the same proactive, integrated, long-term strategy we use for addressing counterdrug operations, fisheries law enforcement, and commercial vessel safety. Every member of the Coast Guard must know it is part of our job to help recover and maintain our marine

protected species, just as they know it is our job to rescue those in distress. If we understand this concept individually, we will certainly convey that image organizationally.

2. Key Objectives

a. Near Term

1) Incorporate MPS issues into CG performance planning.	G-CCS
2) Develop Area and District MPS operating and enforcement guidance.	G-O/Areas/ Districts
3) Emphasize area specific MPS issues in the curriculum of all 5 Regional Fisheries Training Centers (RFTC).	G-O/G-W/ Areas/RFTCs
4) Identify ways to increase CG Auxiliary participation in MPS mission.	G-O
5) Identify ways to increase focus on MPS issues in Sea Partners program.	G-M
6) Measure the effectiveness of current MPS initiatives such as compliance with the Mandatory Ship Reporting System (MSR) and manatee speed zone regulations.	G-O
7) Designate MPS points of contact (POC) at HQ/Areas/Districts, and create a CG network for information flow on MPS issues.	G-O/Areas/ Districts

b. Mid Term

1) Increase Endangered Species Act/Marine Mammal Protection Act enforcement pulse ops during critical seasons.	G-O/Areas/ Districts
2) Ensure current and potential MPS missions (patrol of remote coral reefs, removal of derelict fishing gear, assisting in disentanglement of whales, etc.) are included in Deepwater decision making process.	G-O
3) Increase CG participation in environmental cleanup events such as the Center for Marine Conservation's annual International Coastal Clean Up.	G-M/G-O
4) Incorporate MPS mission into curriculum of all entry-level and accession training programs (e.g., Officer Candidate School, the Academy, Cape May, and Civilian Indoctrination).	G-W
5) Incorporate MPS issues into International Maritime Officers Course and Mobile Training Teams.	G-CI
6) Designate MPS POC at appropriate CG units.	Districts
7) Include MPS guidance in Maritime Law Enforcement Manual updates.	G-O
8) Include MPS guidance in Marine Safety Manual updates.	G-M

c. Long Term

1) Create HQ cross-directorate MPS office.	G-M/G-O
2) Incorporate MPS questions into Servicewide Examinations.	G-W
3) Add MPS material to appropriate A School curricula (e.g., BM, QM, and MST).	G-W
4) Add MPS material to appropriate C School curricula (e.g., Boarding Officer Course, Boarding Team Member Course, and Marine Safety Petty Officer Course).	G-W

STRATEGY: OBTAIN NECESSARY RESOURCES AND AUTHORITIES

1. DISCUSSION

As national sentiment builds for increasing the protection of our oceans, the Coast Guard should be at the top of the list of agencies that the public demands to be adequately funded. We should reinforce this by documenting our need for, and requesting, the additional resources required to meet the increasing enforcement and regulatory demands in the oceans environment. The public must view the Coast Guard as a leader in preserving our oceans and their protected species. When it is the right thing to do, we should seek to expand our enforcement and regulatory roles, and not shy away for fear of acquiring additional mandates or becoming the target of legal action. If we can be leaders in maritime search and rescue, drug interdiction and pollution prevention, then we can also become leaders in the recovery of marine protected species.

2. KEY OBJECTIVES

a. Near Term

1) Request funding for implementation of Ocean Steward through annual budgeting and resource allocation processes.	G-I/G-M/ G-O/G-
2) Include resource hour requests for implementation of Ocean Steward in input to the annual Operational Guidance letter.	G-O/Areas
3) Assess the need for more enforcement authority to protect resources of various marine protected areas and sanctuaries.	G-L/G-M/ G-O
4) Monitor and evaluate effectiveness of the Mandatory Ship Reporting System (MSR).	G-M/G-O
5) Monitor R&D efforts to develop new technologies for marine mammal detection and avoidance in order to plan for possible acquisition of feasible technologies.	G-O/G-S

b. Mid Term

1) Develop better measures of effectiveness for MPS enforcement efforts.	G-O
2) Support Resource Proposals that address requirements for MPS activities.	G-CCS
3) Allocate resources required to implement Ocean Steward in the annual Operational Guidance letter.	G-O
4) Propose statutory changes and new regulations to improve CG ability to support the nation's MPS objectives.	G-L/G-M/ G-O

c. Long term

1) Consider seeking expanded authority for regulation of vessels in order to protect marine protected species.	G-L/G-M/ G-O

STRATEGY: PARTNER WITH OTHER AGENCIES AND ORGANIZATIONS

1. DISCUSSION

Our leadership should seek opportunities to help recover and maintain the nation's marine protected species (MPS) by working more closely with the National Oceanic and Atmospheric Administration (NOAA), the National Marine Fisheries Service, the National Marine Sanctuaries (NMS), the U.S. Fish and Wildlife Service, the Department of State, the Department of Defense, state and local governments, non-governmental organizations, industry, research institutions, and international organizations. We should partner with concerned agencies and organizations to ensure MPS issues are considered whenever agencies propose new regulations. We should work closely with NOAA, NMFS, the NMS, state and local governments, and international organizations to ensure we are doing all we can to provide enforcement for various marine protected areas, and to assist them with their education and outreach initiatives. We should reach out to other management agencies and research institutions to assist in providing the data needed to answer important questions about marine protected species.

2. Key Objectives

a. Near Term

1) Maximize assistance to NMFS in investigation and prosecution of protected MPS incidents.	G-O
2) Work closely with NMFS on MPS issues such as fishing gear conflicts, vessel traffic management, and bycatch reduction.	G-M/G-O
3) Work closely with the Navy to monitor research and development efforts to use acoustics for tracking and avoiding endangered whales.	G-O/G-C
4) Use MOUs, as appropriate, to define relations with the National Marine Sanctuaries and other marine protected areas.	G-L/G-M/ G-O
5) Engage other agencies in a discussion of remote marine protected areas.	G-M/G-O
6) Increase our role in federal and international recovery teams and task forces (e.g., the Coral Reef Task Force, the Manatee Recovery Team, and Right Whale Recovery Plan Implementation Teams).	G-M/G-O
7) Emphasize ship-riding opportunities for NMFS and NMS personnel on CG fisheries/MPS patrols.	G-O

b. Mid Term

1) Establish a senior officer liaison billet to NOAA to increase CG input and interaction in developing MPS issues and regulations.	G-M/G-O
2) Establish a senior officer liaison billet to Council on Environmental Quality (CEQ).	G-M/G-O
3) Create opportunities for undergraduate/graduate level marine affairs students to experience CG fisheries and MPS operations.	G-O

c. Long term

1) Consider engaging other agencies in joint rulemaking for MPS regulations.	G-L/G-M

Strategy: Publicize our Efforts

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1. Discussion

The Coast Guard already has many marine protected species success stories to tell. We are partnering with the USFWS to educate the boating public and reduce manatee deaths by enforcing speed zone regulations in Florida. We are working closely with NMFS and environmental agencies to help protect the highly endangered northern right whale. In Hawaii, we remove tons of derelict fishing nets from coral reefs that are critical habitat of the endangered Hawaiian monk seal. Conducting this work, however, is only half of the job.

If the public is to perceive us as stewards of the ocean, then we must highlight our efforts and successes to the press and the public at every opportunity. Local units need to let communities know what we are doing to protect their waters. Districts should emphasize the importance of our MPS mission in maintaining healthy, sustainable ecosystems. Area and Headquarters staffs must cultivate relationships with the press, civic leaders, stakeholders and legislators to ensure they are aware of the valuable work the Coast Guard is doing. The public must recognize we are the nation's most valuable maritime asset in the effort to protect and sustain our oceans and their resources. The more we are seen taking positive, decisive action and producing good results, the more the public will demand we be properly resourced to perform this vital mission.

2. Key Objectives

a. Near Term

1) Maximize publicity of cooperative MPS efforts with federal and state agencies and non-governmental organizations.	G-I/G-L/ G-M/G-O
2) Maximize publicity of Sea Partners MPS initiatives.	G-I/G-M
3) Use inspections and examinations as opportunities to provide MPS information packages to vessels.	G-M/G-O

b. Mid Term

1) Use publicity to generate interest in, and develop ideas for, future marine environment cleanups and other initiatives.	G-I
2) Optimize publicity of CG role in MPS task forces.	G-I
3) Maximize publicity of CG Auxiliary public education efforts in MPS identification, sensitivity, and avoidance measures.	G-I/G-O

c. Long term

1) Develop an interactive forum for public comment and ideas regarding MPS protection.	G-I
2) Raise the profile of the MPS mission to attract recruits with interest in environmental issues.	G-W

APPENDIX H

ATLANTIC PROTECTED LIVING MARINE RESOURCES INITIATIVE
(EXCERPT FROM FINAL ENVIRONMENTAL IMPACT STATEMENT)

The USCG's participation with NMFS and other agencies in enforcement of provisions of the following Federal statutes would continue.

- The Marine Mammal Protection Act (16 USC 1361, *et seq.*)
- The Endangered Species Act (16 USC 1536, *et seq.*)
- The Whaling Convention Act (16 USC, 916, *et seq.*)
- The Magnuson Fishery Conservation and Management Act of 1986, as amended (16 USC 1801, *et seq.*)

The USCG actively participates in enforcement of other Federal and international regulations that deal with protection of threatened or endangered species of marine animals and their critical habitats. Continued enforcement of these regulations results in numerous benefits for living marine resources.

In addition to the protective measures described above, the USCG would use current guidance for safe speed as described in the Inland and International Rules. Under these rules, "safe speed" is defined as "every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances". In determining "safe speed," mariners use the following factors: (1) the state of visibility; (2) the traffic density; (3) the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions; (4) the presence of background light at night, such as from shore lights or from backscatter; (5) the state of the wind, sea, and currents, and the proximity of hazards; and (6) the draft in relation to the available depth of water. This guidance directs mariners to adjust speeds to accommodate hazards that they may encounter during the course of operation. The guidance emphasizes that whales, just like other hazards, require course and speed adjustments.

As described above, the USCG, under the No Action Alternative, would continue with current efforts to protect the marine environment. However, the No Action Alternative does not include a coordinated effort between all organizational components and across all Area and District areas of responsibility (AOR) to oversee and direct activities to protect the marine environment. In addition, the No Action Alternative does not have the organizational structure to evaluate and implement new limits on vessel and aircraft movements nor would a formal Conservation Program be adopted. Observations of protected species would be reported and individual animals would be avoided, but without any regimen or protocol to maximize effectiveness. Given the requirement for the USCG to effectively comply with all environmental laws, determine how it will respond to the July 1996 Biological Opinion (BO), and enhance its compliance with MOUs designed to encourage USCG protection of endangered species and marine mammals, the No Action alternative is not practical or reasonable. Nevertheless, the No Action alternative is analyzed in this DEIS to serve as a baseline that will allow decision makers and the public to compare the environmental effects of the No Action Alternative with the other alternatives.

3.2 Preferred Alternative: Adoption and Implementation of the USCG Atlantic Protected Living Marine Resources Initiative

The Preferred Alternative is the adoption of a formal USCG Atlantic Protected Living Marine Resources Initiative (the Initiative) which has two main components: the Internal Program and the Conservation Program. The Initiative is a mitigation plan that is composed of individual elements to protect and conserve living marine resources more effectively. The Preferred Alternative is an "umbrella" program that encompasses all organizational components of the USCG. The proposed undertakings are developed from recommendations in the Biological Opinions (BO) issued by NMFS in September 1995 and July 1996, the September 1995 USCG EA, and the comments received in response to the EA and DEIS. The implementation of the Initiative would enable the USCG to more effectively comply with environmental

laws and to fulfill the commitments made in MOUs while effectively fulfilling USCG missions. Beginning on 1 January 1997, the USCG would provide an annual progress report to jurisdictional agencies (*e.g.*, NMFS) on implementing the Initiative.

3.2.1 Internal Program

The USCG Internal Program is the first part of the proposed Initiative. This program consists of two distinct elements: operational directives and operating procedures.

Operational Directives

The Internal Program would use USCG directives to establish USCG policy and procedures that support the Conservation Program and protect living marine resources.

A USCG directive is a written communication that initiates or governs action, conduct or procedure. Directives promote consistency, continuity, planning, understanding, and teamwork, and ensure that delegation of authority is followed. Often, Districts will issue regionally appropriate directives to implement USCG policy or general procedure contained in a directive issued from USCG Headquarters. Within the USCG, directives are issued to do the following:

- Establish policy,
- Prescribe a method or procedure,
- Establish standards of conduct,
- Establish or change organizational structure,
- Delegate authority,
- Assign responsibility,
- Establish a form or report, or
- Revise, supplement or cancel a directive.

USCG directives can come in several different forms such as circulars, notices, instructions, regulations, orders, and handbooks. Each type of directive is designed for a particular situation. For example, an "Instruction" is a directive prescribing authority and/or containing information with continuing reference value or that requires continuing action. An instruction remains in effect until it is replaced or canceled by the originator or higher authority. A "Notice", while it has the same force as an Instruction, is a directive of a one time or brief nature which has a self canceling provision.

Under the Preferred Alternative, USCG Atlantic Area (LANTAREA) and District commands would use the Commandant Instruction on Protected Living Marine Resources Program as the basis for developing operating procedures for their respective areas and units (Appendix I). The Commandant's Instruction on the Protected Living Marine Resources Program (PLMRP) would be formally issued because it will provide all USCG commands with a written communication that initiates or governs action, conduct, or procedures, and it prescribes authority, contains information with continuing reference value, and requires continuing action. As an instruction, it would remain in effect until it is replaced or canceled by the Commandant. The USCG Atlantic Area (LANTAREA) and District Commanders would use this Instruction as the basis for the development of more specific operational directives for their respective areas and units discussed in the following paragraphs.

The interim protection programs currently in effect in the USCG Atlantic Coast Districts in the form of District Law Enforcement Bulletins (LEBs) and Instructions (see Appendices J and K) would be revised and adopted into formal Marine Mammal and Endangered Species Act Protection Programs for the Atlantic Coast area Districts (First, Fifth, and Seventh) and the LANTAREA. Guidelines developed for these programs would include requirements to provide (1) a description of areas of special interest, including designated critical habitat and marine sanctuaries (note: Environmental Sensitivity Index Maps have been developed by NOAA, USCG and/or cognizant state agencies for Area Contingency Plans, and are available at all USCG Marine Safety Offices), (2) enforcement procedures, (3) marine animal stranding response protocols, (4) operational control (OPCON) and monitoring responsibilities, and (5) procedures for the disposition of dead or injured protected species. Standardized forms for reporting boat collisions with marine animals, or entangled turtles or whales would be included, as well as the names and telephone numbers for stranding network personnel. Additionally, where USCG units assist in the salvage, rescue, or disposal of a marine mammal, they would be required to submit a letter report to the USFWS and/or NMFS with a copy to the appropriate District. LANTAREA and the Districts would conduct annual verification and updating of USCG procedures related to stranding and phone contacts at NMFS regional offices and stranding networks.

The USCG would complete and implement a Commandant Notice addressing "Endangered Species Act and Marine Mammal Protection Act Consultation on Response Activities". This Notice will require consultation with USFWS or NMFS when pollution response activities could affect species protected by ESA and/or MMPA, and will require changes to Area Contingency Plans to include special spill-response protocols to be used when operating in critical habitats or in proximity to where the spill has the potential to impact a potential resource. This Notice will apply to all USCG units including those in LANTAREA.

Enforcement

As reflected in the LEBs and Instructions, the USCG would refocus its enforcement of the ESA and the MMPA by formally adopting the enforcement guidance described in the First District Instruction, dated 1 July 1996, Prohibitions and Enforcement, section 2 (pages 7 through 10), the Fifth District LEB 20-96, section C, part 2 (pages 8 through 10), and the Seventh District Instruction 16214.5, dated 14 April 1995, section 6 (pages 6 through 8). This enforcement guidance would apply to the Atlantic Coast area Districts (First, Fifth, and Seventh) and the LANTAREA. In addition, these USCG Districts and LANTAREA would intensify their efforts to protect threatened and endangered species by engaging in "pulse operations" that focus enforcement activities on times when waterways are most heavily used (*e.g.*, holiday weekends when recreational boating increases). Pulse operations would be conducted based upon the availability of USCG resources. The availability would be determined by the Area and District Commanders and their staffs (*e.g.*, pulse operations focusing on ESA and MMPA enforcement might not be feasible while USCG resources are responding to emergencies such as the recent TWA flight 800 crash, a major spill such as the recent oil spill off Rhode Island, or during periods of increased illegal migration such as the Muriel boatlift from Cuba).

The USCG would formally implement the interim protective measure developed in the LEBs and Instructions and continue enhanced enforcement of the ESA and MMPA. USCG units would be directed to target significant violators or those vessel operators that act in a manner that may result in injury or harassment of protected species (Appendices J and K). Educating the public about proper boat handling techniques around whales, sea turtles, and manatees would be a fundamental part of the USCG-enhanced compliance efforts. Education would be conducted during outreach programs, such as boat safety training courses.

Lookouts

Standard operating procedures aboard USCG vessels include posting a lookout and identifying and avoiding objects in the water. This measure ensures the safety of the crew, minimizes potential vessel damage, and protects wildlife in the area. Operational directives to USCG vessels would be revised to specify that lookouts who have successfully completed marine mammal training would be posted during all emergency and non-emergency USCG transits made within 20 nm of shore. For example, trained lookouts would be posted during transits in all seasonal high-use areas; areas of known whale concentrations; and critical habitats in Cape Cod Bay, the Great South Channel, and in the calving grounds off the Florida coast and other special areas off Florida and Georgia that are delineated in the conservation recommendations of the 15 September 1995 BO. Exceptions would be made during periods of low visibility (*e.g.*, dense fog or night travel) when posting a lookout would be ineffective. Operational directives to USCG operational commanders would be revised to clearly state that marine mammal training is applicable to bridge watch personnel and boat crews.

Training

To obtain NMFS curriculum certification, the USCG would provide NMFS with the current classroom marine mammal identification training course (Appendix L). After obtaining certification, the Districts would use the course to train lookouts and the USCG would work with NMFS to provide copies to interested organizations, agencies, and individuals. It is expected that training of all lookouts would be completed within one year of curriculum certification.

The USCG would work with NMFS, USFWS, and the established Recovery Plan Implementation Team for each species to develop and implement a field training program that would augment the classroom marine mammal training course. Spotting whales, manatees, and turtles, and maneuvering around them is an acquired skill that is developed through education and experience. Periods of normal onboard duty would be used to conduct field training for sighting techniques, identification, and common behavioral patterns of endangered whales and other species as they are encountered during operations. Cross-agency training programs would also help to increase awareness of the marine environment and its inhabitants. In turn, wildlife observation skills would be enhanced and potential for collisions with wildlife would be minimized.

The USCG would train VTS and Group personnel regarding endangered species in their AOR so that USCG personnel can issue, in a timely manner, NAVTEX and Notices to Mariners when sightings of endangered species are reported in addition to the standard notices described in the No Action Alternative. This training would require a detailed NMFS-developed protocol and information on which species pose a risk of collision or require exclusion zones.

Speed

Operational directives to USCG vessel commanding officers and coxswains have been revised — as interim protective measures — to clearly state that, for non-emergency transits, a speed standard would be followed. Implementation of the Initiative would formally adopt this protective measure. During non-emergency operations, vessels transiting critical habitats, high-use areas, and migratory routes would use a speed that allows the lookout to see and report whales and other endangered or threatened species in a timely manner to allow the vessel to vary course and speed to reduce the potential for a strike. If a whale is spotted, USCG vessels would avoid approaching the whale, and would utilize a speed and course

necessary to permit the vessel to open the distance from the whale or to allow the whale to successfully evade the vessel. Observations by researchers have indicated that right whales can travel at speeds of 5 kt; thus, vessel speeds of 5 kt or less could allow a right whale to successfully evade a vessel. Unless and until another whale species is positively identified, the USCG would treat any large whale sighted as a right whale.

The operational guidance for vessels should use language that mariners are familiar with, understand, and accept by convention. In Inland and International Rules, "safe speed" is defined as "every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances." In determining "safe speed," mariners use the following factors: (1) the state of visibility; (2) the traffic density; (3) the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions; (4) the presence of background light at night, such as from shore lights or from backscatter; (5) the state of the wind, sea, current, and the proximity of hazards; and (6) the draft in relation to the available depth of water. The guidance should also reflect that mariners recognize that speeds must be adjusted to accommodate hazards that they may encounter during the course of operation. The guidance emphasizes that whales, just like other hazards, require course and speed adjustments that may include reducing speed. Terms such as "slow safe speed" and "slowest safe speed," which are used in the BO, have been interpreted for USCG vessel operators (Appendix T) as an interim protective measure who, like other U.S. and foreign-flag mariners, must operate their vessels following the International Rules or Inland Rules. Practical impediments to using specific speed limits include the fact that the "clutch-in speed" of vessels varies. For example, most 110-ft USCG patrol boats "clutch in" at 9 knots. For this reason, a safe speed standard, rather than a strict nautical-mile-per-hour standard, is appropriate.

In response to the 22 July 1996 BO, the USCG worked with NMFS to develop appropriate speed guidance to comply with that portion of the reasonable and prudent alternative that addresses speed and issued that guidance on 15 August 1996. The USCG interim vessel speed guidance which was issued on 15 August 1996 is as follows: To avoid a collision with a whale during the course of normal operations, USCG vessels transiting critical habitat, migratory routes and high-use areas shall use extreme caution, be alert, and reduce speeds, as appropriate. Appropriate reduced speeds should be based on the factors identified in Rule 6 (Safe Speed) of the International/Inland Navigation Rules (COMDTINST M16672.2C). Additional reductions in speed should be considered when a whale is sighted or known to be in the immediate vicinity or within 5 nm of the vessel. In these situations, vessels shall use those courses and speeds as appropriate, yet navigationally prudent, to avoid a collision with a whale, clear the area and, if necessary, reduce speed to the minimum at which the vessel can be kept on course or come to all stop (Appendix T).

Approach Distance

Until such time as NMFS can establish a detailed protocol regarding approaches to whales, operational directives developed as an interim protective measure in response to the 22 July 1996 BO specify that USCG vessels would maintain a safe minimum distance of 500 yd from right whales. In addition, unless another whale species is positively identified, any large whale would be considered and treated as a right whale. The USCG will also maintain a minimum distance of 100 yards from all whale species as another protective measure to avoid accidental interactions with whales. Adjustments to these distances would be made if the USCG is assisting in the rescue of a protected species, including right whales, or performing its duties to enforce the ESA and MMPA. In response to the Reasonable and Prudent Alternative (RPA) discussed in the 22 July 1996 BO, the USCG, after obtaining NMFS approval, issued the interim approach guideline to all USCG vessels (Appendix M)

Notices

The USCG would notify mariners by publishing and broadcasting seasonal notices to all mariners advising caution in endangered or threatened species critical habitat. If a threatened or endangered whale is spotted and reported, USCG would notify other vessels in the vicinity of the whales via VHF radio and advise those vessels to proceed through the area with caution. One disadvantage of such notices is that some people may use those notices to locate whales for closer viewing. The USCG would participate in NAVTEX posting of right whale locations and other whale and turtle concentrations in the southeast and the northeast and investigate expanding NAVTEX to cover all areas of the Atlantic coast.

Charts

The USCG would plot critical habitat and marine sanctuary boundaries on locally held unit navigational, aeronautical, and law enforcement working charts. This procedure would alert the crews of USCG vessels and aircraft to sensitive areas and locations where encounters with wildlife are likely, thereby assisting crews in avoiding harmful interactions with protected species and habitats.

Operating Procedures

The Internal Program's operating procedures for USCG vessels and aircraft in the Atlantic area is designed to prevent, to the maximum extent possible, harmful interactions with protected living marine resources. The operating procedures would allow USCG personnel to conduct mission-fulfilling activities such as marine environmental protection, search and rescue, law enforcement, vessel traffic services, and marine safety while helping to avoid harmful interactions of USCG vessels and aircraft with protected living marine resources.

The USCG would provide guidance and directions to USCG vessels and aircraft during non-emergency operations, when transiting or overflying marine sanctuaries, critical habitats, and areas of intermittent protected species concentrations (*e.g.*, nesting areas, seasonal high-use areas, migratory routes). Guidance would be issued as USCG directives (*e.g.*, by message or Commandant Notice or Commandant Instruction). The areas of intermittent protected species concentrations, such as bald eagle nests and cetacean feeding areas, would be identified during informal consultation with regional USFWS and NMFS offices. (Note: emergency operations are operations for which rapid response is required such as SAR to avoid the loss of life and property, urgent law enforcement incidents, and urgent matters of national security as defined by operational commanders on a case by case basis.)

In addition to the operating procedures mentioned above, both USCG vessels and aircraft would avoid, whenever possible, sensitive pinniped (seal) rookeries two hours before and after low tide. When passing a haul-out site, vessels and aircraft would use appropriate speeds and increase distance altitude if animals appear to be startled. None of the five species of pinnipeds found in Atlantic waters along the United States is endangered or threatened. This measure would be implemented once NMFS has exercised its authority to protect sites that are very sensitive to vessel or aircraft traffic.

Vessels — The USCG would continue to post a lookout. Posting a lookout and identifying and avoiding objects in the water are standard operating procedures aboard USCG vessels of all sizes. This measure ensures the safety of the crew, minimizes vessel damage, and protects wildlife in the area. The Initiative additionally proposes that the USCG would post lookouts who have successfully completed marine mammal training. These lookouts would be posted during all transits, both emergency and non-

emergency, that occur within 20 nm of shore. This would be in addition to posting lookouts during transits in all high-use areas, areas of whale concentrations and critical habitats in Cape Cod Bay, the Great South Channel, and in the calving grounds off the Florida coast and other special areas off Georgia and Florida that are delineated in the conservation recommendations of the 15 September 1995 BO. Exceptions would be made for periods of low visibility such as dense fog or night travel when this practice would be ineffective. During non-emergency operations, vessels transiting critical habitats, high-use areas, areas of known whale concentrations, and migratory routes would be directed to use extreme caution and be alert for marine animals. If a whale is sighted, vessels would (1) give whales a wide berth, (2) use the speed and approach distance protocols developed in consultation with NMFS, per the 22 July 1996 BO, to reduce the possibility of a whale strike, and (3) notify all vessels (USCG and non-USCG vessels) in the vicinity about the locations of whales via VHF radio, and direct them to proceed through the area with caution (operational security measures may require not disclosing the location of the vessel or aircraft, therefore the vessel or aircraft would relay information to a USCG shore facility that would then issue the notification). USCG vessels in the vicinity of sea turtle nesting beaches primarily located in the Seventh USCG District AOR would use extreme caution during April through October, the months when females are abundant just offshore.

As stated previously, USCG vessels would maintain a safe minimum distance of 500 yd from right whales. In addition, unless another whale species is positively identified, any large whale would be considered and treated as a right whale. The USCG also would maintain a distance of 100 yards from all whale species as another protective measure to avoid accidental interactions with whales. Adjustments to these distances would be made if the USCG is assisting in the rescue of an endangered whale, including right whales, or performing its duties to enforce the ESA and MMPA. The USCG approach distance guidance is an interim protective measure which would be adjusted to take into account any NMFS promulgated approach distance regulation (Appendix X).

Aircraft — Pursuant to the guidance in the Air Operations Manual, Commandant Instruction 3710.1., aircraft must maintain an altitude of at least 3000 ft when flying over wildlife habitat. The USCG will modify the Air Operations Manual to bring it in line with current Federal Aviation Regulations (FAR) and the USCG will comply with whatever altitude restrictions are in place (note: NMFS has proposed a 1500 ft protective altitude for northern right whales at 61 Federal Register 41116, published 7 August 1996). As specified in the FAR, USCG aircraft are prohibited from flying over sensitive areas at less than 2000 ft, unless engaged in emergency operations such as an emergency SAR, law enforcement, or spill response operation. At the current FAR altitude of 2000 feet, like the 3000 ft current altitude guidance, the momentary disturbance of marine mammals, turtles, and birds is expected to be negligible. However, during some USCG operations, particularly SAR missions and missions which require surveillance and identification of vessels, it may be necessary to fly below 2000 ft, and often below 500 ft. Such operations have the potential to disturb cetaceans, birds, and mammals. Because low-altitude flying is dangerous for the aircraft and crew, this altitude is maintained for the minimum time necessary to complete the objective of the mission and aircraft time at low altitudes would be limited. The operational impact of directing aircraft to maintain an altitude of 2000 ft in offshore critical habitats and high-use areas except in emergency missions is that more vessels will be required to patrol those areas because the aircraft's capability to identify vessels is diminished. Therefore, aircraft guidance would be written to indicate that a 2000 ft altitude would be maintained in the critical habitat (except during those portions of non-emergency missions requiring surveillance and identification of vessels) wherever possible.

USCG aviation will continue to enhance and update flight charts with regard to wildlife habitat. Most, if not all, USCG aviation charts are approved by the Federal Aviation Administration. These charts include information regarding sensitive areas, such as wildlife reserves. The usefulness of these charts varies, but

most are effective for between 3-6 months. This rapid update ensures accurate charts which promote flight safety. During this regular update, wildlife areas also are updated.

Each air station operations center also maintains a chart depicting the local flying area. This chart is updated on a continuous basis, as changes occur. Operations center personnel would incorporate any pertinent information received from local agencies regarding wildlife areas. Such information would also be distributed directly or through the chain of command, including support organizations such as the USCG Civil Engineering Unit.

Mission Impacts of Operational Directives

Formal restrictions on USCG vessel speeds, whale approach distances, and USCG aircraft altitude may result in major impacts on the USCG's ability to perform its missions. For example, limiting vessel speeds and approaches to large marine mammals will likely detract from the USCG's ability to conduct fisheries enforcement, particularly in areas such as the northwest Atlantic where the closed fisheries areas overlap with the designated critical habitat. This decrease in fisheries enforcement may lead to a rise in violations that would place fisheries resources at risk. Similarly, requiring USCG vessels to travel more slowly will increase the time needed to perform all missions or decrease the time available to perform those missions. Overall, implementing the Initiative may lead to the need to extend the time existing personnel and equipment are employed. Increasing the average work week of USCG personnel could result in a decrease in the effectiveness of overtaxed personnel and equipment. As an indication of potential adverse consequences, the USCG recently decreased the average work week for USCG stations from an average of 90 hours to an average of 68 hours by internally reorganizing and reassigning 500 personnel. It will prove difficult if not impossible to maintain a reasonable average work week if additional hours are needed to implement the Initiative.

Presently, the USCG has made a qualitative determination (based on quantitative estimates - see Appendix W) that implementing the Initiative will have an overall negative impact on USCG operations. Actual quantification of the Initiative's impacts will require establishing and implementing a program to monitor the internal and external impacts. The monitoring program will require at least two years to conduct - the development and implementation phase taking up to six months, the monitoring phase taking at least one year, and the analysis phase taking approximately six months. The monitoring program would measure the impact on the use of USCG resources (*e.g.*, measurements would include the resource hours currently measured in the abstract of operations reporting system that will indicate the amount of time various USCG assets perform their missions) as well as the impact on environmental resources (*e.g.*, the USCG would continue to provide NMFS with data and obtain NMFS assessment of the impacts on marine resources based on their stock assessments and takings data). The analysis phase will provide the USCG the opportunity to reassess the effectiveness and necessity of the various protective measures and determine if adjustments are necessary, whether those adjustments require reinitiation of consultation, and whether the monitoring period should be extended.

3.2.2 Conservation Program

The Conservation Program, which would help promote the conservation of protected living marine resources, consists of procedures involving other USCG activities, including interaction between USCG personnel, other Federal and state entities, and the public, which would help promote the conservation of protected living marine resources.

Sea Partners

Sea Partners Program is a program that was instituted to educate communities at large in developing awareness of marine pollution issues and improving compliance with marine environmental protection laws and regulations. Since 1994 the Sea Partners program has conducted over 4,800 activities involving 20,500 contact hours with the public. This has been done by USCG reservists who have been assigned to each of the 47 USCG Marine Safety Offices located in port communities throughout the nation. The Sea Partners Program provides educational messages on 1) the effects of oil, hazardous chemicals, waste and debris on the marine environment, 2) how marine environmental protection laws and regulations apply to various marine users, and 3) various ways groups and individuals can take action to protect the environment. The Sea Partners Program has targeted a wide range of audiences, including state, local and Federal officials, merchant mariners, offshore industry personnel, ferry operators, recreational boaters, sport and commercial fisherman, seafood processors, local business owners, marina operators, students, scouts, and teachers. Through the Sea Partners program, the USCG has been able to launch a public education and outreach program with the potential to make substantial contribution to protecting the marine environment, and at the same time, has broadened USCG Reserve training opportunities to enhance military readiness and ability to respond to contingencies. The program has been funded by the Department of Defense (DOD) Civil-Military Program during fiscal years 1994-1996 due to its reserve training value, however, for Fiscal Year 1997 the funding for this program was dropped by DOD. The USCG will attempt to regain funding for this program because the service recognizes the merits of the program in educating the public on marine environmental issues. The USCG has included sea turtle conservation information in the Program outreach material and did anticipate incorporating whale and other protected species conservation information in the program as well.

Training/Education of Non-USCG Personnel

The USCG would work with NMFS, recovery implementation teams, and other agencies to develop public information manuals on critical habitats, sanctuaries, and endangered species migration patterns for use by mariners.

- The USCG would include protected species awareness information in basic boat safety training provided to the public.
- The USCG would incorporate whale and turtle conservation information in the USCG Sea Partners marine pollution prevention education efforts (see text box).
- There are two established publications commonly used by mariners for voyage planning purposes. These publications are *Sailing Directions* and the *Coast Pilot*. Depending upon vessel size and areas of operation, most U.S. vessels would have one, if not both, of these publications on board. *Sailing Directions* are maintained and published by the Defense Mapping Agency (DMA) and the *Coast Pilot* is maintained and published by the National Oceanic and Atmospheric Administration (NOAA). The USCG would work with NMFS to develop an educational fact sheet describing critical habitats, whale concentrations and high-use areas, photos of whales, applicable regulations, and reporting procedures. The USCG would then work with DMA (DMA will become the National Imagery and Mapping Agency, NIMA, after 29 October 1996) and NOAA to include this information in *Sailing Directions* and the *Coast Pilot*. Another advantage to using these two publications is that foreign-flagged vessels transiting U.S. waters or operating in and out of U.S. ports carry these publications for voyage planning purposes. The USCG would provide input to the publications and inform NMFS of the status of conservation measures in an annual progress report. The annual progress report for 1996 would be submitted to NMFS by 1 January 1997.

- The USCG would work with NMFS to include protected species awareness information in Commercial Fishing Vessel examination and outreach programs.

- The USCG would work with NMFS to provide copies of USCG training curricula, that has been certified by NMFS, to other agencies (such as the U.S. Navy) organizations, and individuals.

It has been suggested that the USCG consider and adopt an alternative requiring whale species identification and critical habitat information, as well as all regulations applicable to the protection of right whales, be a part of the testing criteria for the public applying for USCG licenses to operate vessels (licensing alternative). Currently all U.S. deck officers are tested using the *Coast Pilot* and, in addition, holders of licenses authorizing extended international voyages may be tested on *Sailing Directions*. Examinations for deck officer licenses are maintained by the USCG National Maritime Center. When protected species information is included in the *Coast Pilot* and in *Sailing Directions*, the USCG would then test license applicants on that material. It should be noted, however, that once an individual is tested for a particular license, there is no requirement for retesting on renewals for that particular license. Therefore, in an effort to provide measures that contribute to the protection of endangered and threatened species, the USCG considers the placement of updated species and habitat information in voyage planning documents (*e.g.*, the *Coast Pilot* and *Sailing Directions*), which are used extensively by mariners throughout their careers, to be more significant and environmentally beneficial than only modifying testing for licenses.

It also has been suggested that as part of this licensing alternative, the USCG make compliance with regulations designed to protect threatened and endangered species a specific condition in the issuance of licenses for operation of vessels. The USCG does not excuse holders of licenses from compliance with any laws or regulations. If any vessel is found to be in non-compliance with the threatened and endangered species regulations, enforcement action would be taken.

Cooperation with Other Agencies and Recovery Teams

- The USCG would continue to actively participate in and support Regional Multi-Agency Recovery Implementation Teams, groups, and task forces .

- The USCG would maintain active membership in the Southeastern Implementation Team for the Recovery of the northern right whale and would continue to contribute to Southeastern United States (SEUS) early warning right whale system (Appendix N). A program of regular reconnaissance flights is one measure that is the subject of a Memorandum of Agreement (MOA) between the First USCG District and the NMFS (Appendix O). USCG aircraft from AIRSTATION Cape Cod currently perform overflights with NMFS personnel aboard. The USCG would continue to participate in the Southeast U.S. Recovery Implementation Team Early Warning System aerial survey program, which it has been part of since 1993. The USCG would work with the New England Implementation Team to address the feasibility of a similar multi-agency effort in the north Atlantic.

- The USCG Districts would develop MOUs with NMFS, the National Marine Sanctuaries Program, and the New England and Southeastern Regional Implementation Teams regarding proposals to develop and implement protective measures described in the Right and Humpback Whale Recovery Plans.

- The USCG would work with NMFS, the New England Right Whale Recovery Plan Implementation Team and the Southeastern Right Whale Recovery Plan Implementation Team regarding the development of a Mid-Atlantic Implementation Team and also consider expanding the areas covered by these teams to include the Mid-Atlantic. Specifically, the USCG would help develop a survey program, organize reports of whale sightings in the area, and develop a system to provide these sightings reports for broadcast.

- The USCG would participate with NMFS, USFWS, and Recovery Plan Implementation Teams to develop and implement a notification program to provide commercial vessels entering major U.S. Atlantic coast ports with timely information on current whale locations and critical habitats. The USCG would also cooperate in development of a plan to alert commercial traffic through port pilots, Captains of the Port, Vessel Traffic Services (where available), and others who are aware of ships' locations and port arrival times. The USCG would develop such a plan with NMFS by 1 January 1997.

- The USCG would continue to work with NMFS, USFWS, the Recovery Plan Implementation Teams, and other Federal agencies to determine the feasibility and applicability of new technology or research and development efforts in recovery strategies for endangered and protected species. The implementation teams and multi-agency efforts provide synergy of effort and resources and, most importantly, the teams can evaluate the potential impacts of any initiative on the marine environment.

- The USCG would continue to participate in the ESA Inter-Agency Working Group (Washington, DC.) currently headed by USFWS.

- The USCG would work with NMFS and USFWS to investigate facility lighting at all beachside USCG stations where turtle nesting occurs. The USCG would ensure, in consultation with NMFS and USFWS, that USCG facility lighting would not have a significant adverse impact on turtle nesting sites. Currently, in Florida, where most known USCG controlled turtle nesting sites occur on the Atlantic Coast, the USCG adheres to local Florida lighting ordinances for marine turtle protection. These ordinances are designed to protect turtles from the effects of artificial light. Additionally, in Florida, lighting is currently evaluated at USCG sites during USCG Environmental Compliance Evaluations (ECEs) (conducted on a three year rotational basis). Under the Preferred Alternative, the use of ECE analyses to examine lighting at beachside stations would be expanded where appropriate.

- On 25 January 1996 an MOA among the USCG, NMFS, the U.S. Navy, and the U.S. Army Corps of Engineers was finalized (Appendix U). The purpose of the MOA is to facilitate right whale conservation efforts along the Georgia and Florida coasts.

Controlling Non-USCG Vessels

A comment on the DEIS proposed that the USCG place environmental conditions or other constraints on the permitting process for regatta or marine events or deny permits for such events in or near whale habitat. Under the Act of April 28, 1908 (codified as 33 U.S.C. 1233), the USCG is authorized to issue regulations to promote the safety of life on navigable waters during regattas and marine parades. Although the USCG currently implements section 1233 through a permitting process, the law neither mentions nor mandates issuing permits as the necessary or appropriate procedure to use. Additionally, the authority for the current marine event permitting process relies on possible hazard to the safety of life on navigable

waters of the United States as the basis for exercising authority to regulate marine events. Currently, USCG policy allows issuing authorities to add conditions or deny permits for marine events based on consideration of environmental concerns (see Appendix V, copy of COMDTINST 16751.3A, Regattas and Marine Parades).

Under NEPA and the ESA, the USCG currently must evaluate each marine event requiring a permit on a case-by-case basis to determine whether the event will be held in or near environmentally sensitive areas (including areas where the presence of endangered/threatened species is likely). If the event is planned in an environmentally sensitive area possibly involving endangered species, the USCG must enter into consultation under Section 7 of the ESA and may have to prepare an EA or EIS depending on the possible impacts to the species. Under the current system, the permit applicant is notified of the results of the consultation and any NEPA documentation that must be completed. For those events requiring a marine event permit under the current procedures, the USCG uses the results of the Section 7 consultation to notify a marine event sponsor of protections for endangered/threatened whales or other protected species. The USCG cannot and will not issue a permit for an event that violates the ESA.

At present, the USCG is responding to the need to reduce the regulatory burden on the public and is considering changing the definition of marine events requiring a USCG permit which would result in fewer events to be permitted by the USCG. However, those events that would still require a USCG permit would continue to be reviewed on a case-by-case basis as described above. Further, the USCG would still require sponsors of certain types of events to notify the USCG of the event and thereby enable the USCG to provide a copy of the notice to other Federal, State, and local agencies regarding navigational and environmental concerns. The information provided would allow the USCG to determine whether or not a permit with appropriate conditions, navigation safety regulations, notice to mariners, or some combination, should be required for the event. These pending changes to the marine event permitting procedures are embodied in an Interim Rule and an announcement of availability of the associated EA published in the Federal Register on 26 June 1996 (61 FR 33027). In consideration of all comments received, the USCG is delaying a decision on the marine event permit procedural changes by postponing the effective date and by reopening and extending the comment period. The USCG will announce the dates by publishing a notice in the Federal Register. The USCG will examine the comments, including expert comments on possible interactions with endangered species, and decide whether to proceed with the pending rule, modify it, or withdraw it. The USCG will also consider the resulting increases in the information collection and reporting burden on additional event sponsors related to broadening the definition of when notice of an event or a permit application must be submitted to the USCG. The USCG will continue the ongoing IR consultation and NEPA processes and address these issues (see also Appendix Q, comment number 6).

The USCG has been asked to consider an alternative to promulgate minimum approach and/or distance regulations — pursuant to the ESA — to keep vessels and aircraft separated from protected species (see Appendix Q, comment number 10b). Specifically, the USCG has been requested to promulgate a 500-yard protection zone around every northern right whale, and a similar 100-yard rule for all other whales (Appendix P). The NMFS, which has the biologists and the resources needed to consider and develop these rules, has already undertaken this proposal and the USCG would continue to support the NMFS efforts to develop a workable protective distance rule. The USCG has specific responsibility for enforcing the ESA and, in the case of whales, NMFS has responsibility for giving marine species their protected status — by listing them as endangered or threatened — and by issuing protective regulations.

Unfortunately, there will be impediments to strict enforcement such as: (1) northern right whales cannot always be identified at 500 yards or, under some conditions of limited visibility, at 100 yards; and (2) distance estimates will be subjective (best estimate based on enforcement officer's training) with no electronic means to validate or support the infraction. Under the existing international regime,

enforcement would be limited to U.S. flag vessels — a small minority of vessels — beyond 3 nautical miles. The International Maritime Organization (IMO), the entity that addresses international vessel traffic and establishes voluntary guidelines has, because of its diverse membership that includes nations opposing any limitations on freedom of navigation or on whaling, been reluctant to address protective zones for whales. The Department of State is the lead U.S. agency for IMO initiatives, and the USCG would endeavor to use that forum (the IMO) to sensitize members of the international community to protect species and habitat.

As an example of this international effort, the USCG would work with other U.S. agencies (*e.g.*, Department of State, U.S. Navy) to develop proposals to designate critical habitat and high-use areas as Particularly Sensitive Sea Areas (PSSAs) and/or Areas To Be Avoided (ATBA) that protect species habitats beyond 3 nautical miles through the IMO.

PSSAs are defined as areas which need special protection through action by IMO because of their significance for recognized ecological or socioeconomic or scientific reasons and which may be vulnerable to damage by marine activity. It should be understood, however, that being designated as a PSSA does not mandate protective action, it is simply an identification of an area in which some IMO measure may have a positive effect.

An ATBA is defined as a routing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all ships or certain classes of ships. The USCG has created five ATBAs in U.S. coastal waters; each was designed to provide some measure of environmental protection. The common theme of the ATBAs, whether primarily for casualty prevention or environmental protection, is that they define a specific geographic area. There are no ATBAs that are intended to protect migrating marine life and it is difficult to envision how one might be instituted for that purpose without creating dangerous confusion in the marine community. The USCG would investigate whether seasonal ATBAs would meet the IMO criteria, and will initiate a Port Access Route Study (PARS) if it appears to be feasible.

There are also a number of other IMO adopted routing measures, for the most part traffic separation schemes (TSSs) associated with precautionary areas, which guide mariners in the approaches to many of our ports. They are intended to separate opposing streams of traffic and require vessels to operate with particular caution where they must converge. There is presently a TSS in the approach to Boston. Although there appears to be no way to completely avoid the whale habitat while entering the Port of Boston, the USCG would investigate whether any modification to the TSS would be beneficial. The USCG would conduct similar investigations in other areas of the coast considered to be high use areas or critical habitat and, if warranted, initiate a PARS to determine whether an IMO adopted routing measure would aid in the protection of endangered marine life.

To create or change a routing measure, the USCG is required by the Ports and Waterways Safety Act to consult with appropriate Federal agencies and states to ensure other uses of the area under consideration are taken into account. This is done by initiating a PARS, which also gathers information from any other interested party. PARS generally take about 18 months to complete. Once the information is gathered, a proposal is developed for submission to IMO. If the proposal is for a TSS, rulemaking is also required, but can be done in parallel with the IMO process. A proposal is submitted to the IMO Subcommittee on Safety of Navigation (NAV), which normally meets annually. If approved at NAV, it is then submitted to the subsequent session of the Maritime Safety Committee (MSC), which meets three times each biennium. The routing measure may enter into force six months after adoption by the MSC.

APPENDIX I

AQUATIC SPECIES IN THE REGIONS OF INFLUENCE

Table I-1. Marine Mammals Inhabiting Northeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
PINNIPEDS				
Gray seal	*Halichoens griseus*	*	Common	Year-round resident
Harbor seal	*Phoca vitulina*	*	Common	Year-round resident
Ringed seal	*P. hispida*	*	Occasional	More common in winter
Hooded seal	*Cystophora cristata*	*	Occasional	More common in winter
Harp seal	*Phoca groenlandica*	*	Occasional	More common in winter
CETACEANS				
Blue whale	*Balaenoptera musculus*	E	Uncommon	Population highest in spring/summer due to northward migration from subtropics
Fin whale	*B. physalus*	E	Common	Population highest in summer and fall due to northward migration from subtropics
Sei whale	*B. borealis*	E	Occasional	Seen only during summer
Minke whale	*B. acutorostrata*	*	Common	Peak abundance during spring and summer
Humpback whale	*Megaptera novaeangliae*	E	Common	Migratory population, with peak abundance mainly during summer but also in autumn
Right whale	*Eubalaena glacialis*	E/CH	Common	Population highest in spring/summer
Sperm whale	*Physeter macrocephalus*	E	Occasional	Rare on continental shelf but abundant in deeper waters
Beaked whale species	*Mesoplodon* and *Ziphius* spp.	*	Occasional/ Uncommon	Endemic to Arctic and cool temperate waters; most common in offshore waters in the fall
Long-finned pilot whale	*Globicephala melas*	*	Occasional	Small population; offshore species typically associated with the continental shelf edge, found north of New Jersey
Killer whale	*Orcinus orca*	*	Occasional	Incidental accounts in area
Pygmy sperm whale	*Kogia breviceps*	*	Uncommon	Occurs in warm temperate waters; sightings and strandings have occurred
Dwarf sperm whale	*K. simus*	*	Uncommon	Occurs in warm temperate waters; sightings and strandings have occurred

Table I-1. Marine Mammals Inhabiting Northeast Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Atlantic white-sided dolphin	*Lagenorhynchus acutus*	*	Common	Mainly present in the spring, summer, and early fall in nearshore areas
Atlantic spotted dolphin	*Stenella frontalis*	*	Uncommon	Prefer tropical and subtropical waters but sighted from southern New England south
White beaked dolphin	*Lagenorhynchus albirostris*	*	Occasional	Mostly seen in western Gulf of Maine and near Cape Cod
Risso's dolphin	*Grampus griseus*	*	Common in more temperate waters	Offshore species typically associated with the continental shelf edge
Striped dolphin	*Stenella coeruleoalba*	*	Occasional/ Uncommon	Offshore species typically associated with the continental shelf edge
Common dolphin	*Delphinus delphis*	*	Common	Mainly present in the spring, summer, and early fall in nearshore areas; less common south of Cape Hatteras
Bottlenose dolphin	*Tursiops truncatus*	*	Common in more temperate waters	Occasional/rare in the more northern areas, more common in southern and more temperate waters; coastal form is found from New Jersey south to Cape Hatteras; offshore variety more common northerly areas; range also extends south
Harbor porpoise	*Phocoena phocoena*	*	Common in New England	Mainly occurs in nearshore waters, especially from New Jersey to Maine; in fall and spring, occurs from North Carolina to Maine but is less common from New Jersey to North Carolina; strandings reported in Florida.

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Protected under MMPA
CH = Critical Habitat in or adjacent to Deepwater project area

Table I-2. Sea Turtles Inhabiting Northeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Loggerhead	*Caretta caretta gigas*	T	Occasional	More common in temperate, tropical, and subtropical waters but found from Newfoundland south; nest in South Carolina, Georgia, and Florida
Green	*Chelonia mydas*	T*	Occasional	Occasionally sighted from Massachusetts south to Texas; most common in nesting areas of the southeast
Leatherback	*Dermochelys coriacea schlegelii*	E	Occasional	Range from Nova Scotia to the southeast; during summer, found along the east coast, from Gulf of Maine south to the middle of Florida
Hawksbill	*Eretmochelys imbricata*	E	Occasional	More common in tropical and subtropical waters; sightings from along the eastern seaboard as far north as Massachusetts, with the exception of Connecticut; sightings north of Florida are rare.

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Florida nesting population listed as endangered

Table I-3. Marine Mammals Inhabiting Southeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Cetaceans				
Minke whale	*Balaenoptera acutorostrata*	*	Common	Seen throughout the ROI
Humpback whale	*Megaptera novaeangliae*	E	Occasional	Migratory population moves along the southeastern U.S. on the way to its wintering grounds
Right whale	*Eubalaena glacialis*	E/CH	Common in winter	Wintering and calving grounds are along Georgia and Florida
Sperm whale	*Physeter macrocephalus*	E	Occasional	Rare on continental shelf but abundant in deeper waters, especially in the spring
Beaked whale species	*Mesoplodon* and *Ziphius* spp.	*	Occasional/ Uncommon	Endemic to cool temperate waters; most common in offshore waters and in the Gulf of Mexico
Short-finned pilot whale	*Globicephala macrorhynchus*	*	Occasional	Typically offshore species associated with the continental shelf edge
Killer whale	*Orcinus orca*	*	Occasional	Incidental accounts throughout area
Pygmy killer whale	*Feresa attenuate*	*	Occasional/ Uncommon	Abundance varies
Pygmy sperm whale	*Kogia breviceps*	*	Uncommon	Occurs in warm temperate waters; sightings and strandings have occurred
Dwarf sperm whale	*K. simus*	*	Uncommon	Occurs in warm temperate waters; sightings and strandings have occurred
Atlantic spotted dolphin	*Stenella frontalis*	*	Common	Prefers tropical and subtropical waters from southern New England south to the Caribbean
White beaked dolphin	*Lagenorhynchus albirostris*	*	Uncommon	Small numbers sighted off the Carolinas
Risso's dolphin	*Grampus griseus*	*	Common	Offshore species typically associated with the continental shelf edge
Short-beaked common dolphin	*Delphinus delphis*	*	Uncommon	Less common (than in northeast Atlantic waters) south of Cape Hatteras

Table I-3. Marine Mammals Inhabiting Southeast Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Bottlenose dolphin	*Tursiops truncatus*	*	Common	Both coastal and offshore variety are common in this ROI
Striped dolphin	*Stenella coeruleoalba*	*	Occasional/ Uncommon	Offshore species typically associated with the continental shelf edge
Spotted dolphin	*S. attenuatta*	*	Common	Offshore species typically associated with the continental shelf edge
Common dolphin	*Delphinus delphis*	*	Uncommon	Mainly present in spring, summer, and early fall in nearshore areas; less common south of Cape Hatteras
Sirenian				
Florida manatee	*Trichechus manatus latirostris*	E	Common	Resident in rivers and coastal waters of peninsular Florida and southern Georgia. Previous records in Carolinas and Texas

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Protected under MMPA
CH = Critical Habitat in or adjacent to RB-S and RB-M area

Table I-4. Marine Mammals Inhabiting Caribbean Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Cetaceans				
Beaked whale	*Mesoplodon* and *ziphidae* spp.	*	Common	Probable year-round resident
Sperm whale	*Physeter catodon*	E	Common	Abundant in these seas
Humpback whale	*Megaptera novaeangliae*	Commo n	E	Migratory population; Reproductive and calving area
Blue whale	*Balaenoptera musculus*	E	Occasional	Acoustically detected
Minke whale	*B. acutorostrata*	*	Occasional	Abundance varies
Pilot whale	*Globicephala* spp	*	Occasional	Abundance varies
Atlantic and Pantropical spotted dolphin	*Stenella* spp.	*	Common	Year-round resident
Spinner dolphin	*S. longirostris*	*	Common	Year-round resident
Striped dolphin	*S. coeruleoalba*	*	Common	Year-round resident
Rough-toothed dolphin	*Steno bredanenis*	*	Common	Abundance varies
Bottlenose dolphin	*Turciops truncatus*	*	Common	Year-round resident
Sirenian				
Antlillean manatee	*Trichechus manatus manatus*	E	Occasional	Year-round resident. Historic range includes southeastern U.S., Caribbean Sea, and South America.

Source: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
* = Protected under MMPA

Table I-5. Marine Mammals Inhabiting U.S. Gulf of Mexico Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Pinnipeds				
California sea lion	*Zalophus californianus*	*	Uncommon	Stray individuals
Caribbean monk seal	*Monachus tropicalis*	Extinct	Unlikely	None
Cetaceans				
Northern right whale	*Eubalaena glacialis*	E	Uncommon	Not likely to occur
Blue whale	*Balaenoptera musculus*	E	Occasional	Abundance varies, could be increasing
Fin whale	*B. physalus*	E	Occasional	Abundance varies but common in the gulf
Sei whale	*B. borealis*	E	Occasional	Abundance varies
Bryde's whale	*B. edeni*	*	Common	Possible resident population; most common baleen whale
Minke whale	*B. acutorostrata*	*	Occasional	Migratory population or stray individuals
Humpback whale	*Megaptera novaeangliae*	E	Occasional	Migratory population
Sperm whale	*Physeter macrocephalus*	E	Common	Could be a resident population
Pygmy sperm whale	*Kogia breviceps*	*	Common	Occur throughout the gulf
Dwarf sperm whale	*K. simus*	*	Common	Occur throughout the gulf
Killer whale	*Orcinus orca*	*	Occasional	Usually occur near the north-central gulf
False killer whale	*Pseudorca crassidens*	*	Occasional	Usually occur near the continental slope
Pygmy killer whale	*Feresa attenuate*	*	Occasional	Abundance varies
Short-finned pilot whale	*Globicephala macrorhynchus*	*	Common	Usually occur near the continental slope
Risso's dolphin	*Grampus griseus*	*	Common	Widespread distribution
Melon-headed whale	*Peponocephala electra*	*	Occasional	Usually occur west of the Mississippi River
Bottlenose dolphin	*Tursiops truncates*	*	Common	Widespread throughout gulf
Rough-toothed dolphin	*Steno bredanensis*	*	Common	Occur year-round, almost exclusively west of the Mississippi River
Striped dolphin	*Stenella coeruleoalba*	*	Occasional	Occur in waters farther offshore (beyond continental slope)
Pantropical spotted dolphin	*S. attenuata*	*	Common	Widespread throughout gulf

Table I-5. Marine Mammals Inhabiting U.S. Gulf of Mexico Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Clymene dolphin	*S. clymene*	*	Common	Occur in waters further offshore (beyond continental slope)
Atlantic spotted dolphin	*S. frontalis*	*	Common	Widespread throughout gulf
Spinner dolphin	*S. longirostris*	*	Occasional	Occur year-round; usually east of the Mississippi River
Fraser's dolphin	*Lagenodelphis hosei*	*	Common	Primarily in deeper waters of the gulf
Sowerby's beaked whale	*Mesoplodon bidens*	*	Occasional	Abundance varies; generally prefer deeper waters
Bainville's beaked whale	*M. densirostris*	*	Occasional	Abundance varies; generally prefer deeper waters
Gervais' beaked whale	*M. europaeus*	*	Occasional	Abundance varies; generally prefer deeper waters
Cuvier's beaked whale	*Ziphius cavirostris*	*	Common	Sighted throughout gulf
Sirenians				
Florida manatee	*Trichechus manatus latirostris*	E	Occasional	Primarily found near the Florida coastline
Antillean manatee	*T. m. manatus*	E	Occasional	Less common than subspecies *latirostris.*

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
* = Protected under MMPA

Table I-6. Sea Turtles Inhabiting Southeast Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Loggerhead	*Caretta caretta gigas*	T	Common	More common in nesting season; also found in Puerto Rico
Green	*Chelonia mydas*	T*/CH	Common	More common in nesting season; found in Puerto Rico and in the U.S. Virgin Islands (where it nests and feeds)
Leatherback	*Dermochelys coriacea schlegelii*	E/CH	Common	Common year-round; found in Puerto Rico and in the U.S. Virgin Islands (where it nests)
Olive ridley	*Lepidochelys olivacea*	T	Uncommon	More common in southern areas
Kemp's ridley	*L. kempii*	E	Occasional	Occurs mainly in coastal areas of the Gulf of Mexico and the northwestern Atlantic Ocean
Hawksbill	*Eretmochelys imbricata*	E/CH	Common	Most common off Florida; Found in Puerto Rico and in the U.S. Virgin Islands (where it nests and feeds).

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Florida nesting population listed as endangered
CH = Critical habitat in or adjacent to RB-S and RB-M project area

Table I-7. Marine Mammals Inhabiting Pacific Continental Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Pinnipeds				
Northern elephant seal	*Mirounga angustirostris*	*	Common	Year-round resident
Harbor seal	*Phoca vitulina*	*	Common	Year-round resident
California sea lion	*Zalophus californianus*	*	Abundant	Year-round resident
Steller sea lion	*Eumetopias jubatas*	T/CH	Occasional	Visitor to area from southern breeding grounds
Northern fur seal	*Callorhinus ursinus*	D	Occasional	Year-round resident
Guadalupe fur seal	*Arctocephalus townsendi*	T	Uncommon	Breed off Baja
Cetaceans				
Blue whale	*Balaenoptera musculus*	E	Common	Population highest in spring due to northward migration from subtropics
Fin whale	*B. physalus*	E	Occasional	Population highest in summer and fall due to northward migration from subtropics
Sei whale	*B. borealis*	E	Uncommon	Seen only in summer during migration
Minke whale	*B. acutorostrata*	*	Common	Migratory population, with peak abundance during spring and summer
Humpback whale	*Megaptera novaeangliae*	E	Common	Migratory population, with peak abundance mainly during summer but also in autumn
California gray whale	*Eschrichtius robustus*	*	Common	Migration population, with peak abundance in winter and spring
Pacific right whale	*Eubalaena glacialis*	E	Uncommon	Only two sightings in southern California
Sperm whale	*Physeter macrocephalus*	E	Occasional	Rare on continental shelf but abundant in deeper waters
Pygmy sperm whale	*Kogia breviceps*	*	Unusual	Occur in warm temperate waters;sightings and strandings have occurred in California
Dwarf sperm whale	*K. simus*	*	Unusual	Occur in warm temperate waters; sightings and strandings have occurred in California

Table I-7. Marine Mammals Inhabiting Pacific Continental Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Baird's beaked whale	*Berardius bairdii*	*	Occasional	Endemic to Arctic and cool temperate waters. Most common in California in the fall
Cuvier's beaked whale	*Ziphius cavirostris*	*	Occasional	Occur in warm temperate waters; have been recorded in area
Hubbs' beaked whale	*Mesoplodon carlhubbsi*	*	Uncommon	Known primarily from stranding records
Short-finned pilot whale	*Globicephala macrorhynchus*	*	Occasional	Small year-round population, with increases during winter
Killer whale	*Orcinus orca*	*	Common	Incidental accounts of transients in area, most likely from northern latitudes. May be some resident pods in area
False killer whale	*Pseudorca crassidens*	*	Unusual	Occur primarily in warm temperate waters
Pacific white-sided dolphin	*Lagenorhynchus obliquidens*	*	Common	Year-round resident
Northern right whale dolphin	*Lissodelphis borealis*	*	Common	Mainly present in the winter and spring
Risso's dolphin	*Grampus griseus*	*	Common	Year-round resident, with peak population in summer and autumn
Short-beaked common dolphin	*Delphinus delphis*	*	Common	Year-round resident
Long-beaked common dolphin	*D. capensis*	*	Common	Year-round resident
Bottlenose dolphin	*Tursiops truncatus*	*	Common	Year-round resident
Striped dolphin	*Stenella coeruleoalba*	*	Uncommon	Known from sightings and strandings
Dall's porpoise	*Phocoenoides dalli*	*	Common	Year-round resident, with peak population in autumn and winter
Harbor porpoise	*Phocoena phocoena*	*	Common	Mainly occur in nearshore waters
Fissiped				
Southern sea otter	*Enhydra lutris nereis*	T	Common	Year-round resident

Sources: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Protected under MMPA
CH = Critical habitat in or adjacent to RB-S and RB-M project area
D = Depleted under the MMPA

Table I-8. Marine Mammals Inhabiting Pacific Tropical Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in Deepwater Operation Areas	Distribution in Deepwater ROI
Pinnipeds				
Monk seal	*Monachus schauinslandi*	E/CH	Uncommon	Most common northwest of the main seven-island chain
Cetaceans				
Humpback whale	*Megaptera novaeangliae*	E	Common	Occurs throughout the main seven island chain January through April
Blue whale	*Balaenoptera musculus*	E	Uncommon	Thought to occur in deeper offshore waters
Fin whale	*B. physalus*	E	Uncommon	Occur in deeper Offshore waters
Pacific right whale	*Eubalaena glacialis*	E	Uncommon	Most likely stray individuals from more northern population
Minke whale	*Balaenoptera acutorostrata*	*	Common in certain areas	Most common northwest of the main seven-island chain
Sperm whale	*Physeter macrocephalus*	E	Common in certain areas	Occur in deeper offshore waters or off the north and eastern shores of the main seven islands
Pygmy sperm whale	*Kogia breviceps*	*	Unusual	Prefer deeper waters but occasionally seen in the channels between the main islands
Dwarf sperm whale	*K. simus*	*	Unusual	Prefer deeper waters but occasionally seen in the channels between the main islands
Melon-headed whale	*Peponocephala electra*	*	Occasional	Occasionally seen in the channels between the main islands
Bryde's whale	*Balaenoptera edeni*	*	Uncommon	Seen only off Midway Atoll
Baird's whale	*Berardius bairdii*	*	Uncommon	Occur in deeper waters
Blainsville's whale	*Mesoplodon densirostris*	*	Uncommon	Occur in deeper waters
Cuvier's beaked whale	*Ziphius cavirostris*	*	Occasional	Most common of the beaked whales
Short-finned pilot whale	*Globicephala macrorhynchus*	*	Occasional	Occasionally seen in the channels between the main islands

Table I-8. Marine Mammals Inhabiting Pacific Tropical Waters (continued)

Common Name	Scientific Name	Status	Likelihood of Occurrence in Deepwater Operation Areas	Distribution in Deepwater ROI
Killer whale	*Orcinus orca*	*	Uncommon	Occasionally seen in the channels between the main islands and at the northwest island chain
False killer whale	*Pseudorca crassidens*	*	Occasional	Occasionally seen in the channels between the main islands
Pygmy killer whales	*Feresa attenuate*	*	Uncommon	Occasionally seen in the channels between the main islands
Rough toothed dolphin	*Steno bredanensis*	*	Uncommon	Occur in deeper waters
Spotted dolphin	*Stennella attenuata*	*	Common	Common along the coastlines
Spinner dolphin	*S. longirostris*	*	Common	Common along the coastlines
Bottlenose dolphin	*Tursiops truncatus*	*	Common	Common along the coastlines

Source: USCG 2002
Notes: Status refers to Federal Status under the ESA
E = Federally listed endangered
T = Federally listed threatened
* = Protected under MMPA
CH = Critical habitat in or adjacent to RB-S and RB-M project area

Table I-9. Marine Mammals Inhabiting Alaska Waters

Common Name	Scientific Name	Status	Likelihood of Occurrence in RB-S and RB-M Operation Areas	Distribution in RB-S and RB-M ROI
Pinnipeds				
Northern fur seal	*Callorhinus ursinus*	D	Common	Found in Pribilof Islands and southern Bering sea
Harbor seal	*Phoca vitulina*	*	Common	Year-round resident throughout Alaskan waters
Bearded seal	*Erignathus barbatus*	*	Common in certain areas	Occur along the continental shelf of Beaufort, Chukchi, and Bering seas
Steller sea lion	*Eumetopias jubatas*	T/CH	Common in certain areas	Distributed around North Pacific rim, northward to Bering Sea and along eastern shore of Kamchatka Peninsula, Gulf of Alaska, and Aleutian Islands
Ringed seal	*Phoca hispida*	*	Common in certain areas	Found in southern Bering Sea
Spotted seal	*P. largha*	*	Common in certain areas	Occur along the continental shelf of Beaufort, Chukchi, Bering and Okhotsk seas
Ribbon seal	*P. fasciata*	*	Common in certain areas	Found in open sea and on pack ice northward in Bristol Bay to Chukchi and western Beaufort seas
Walrus	*Odobenus rosmarus divergens*	*	Common in certain areas	Found in shallow water areas, close to ice or land; geographic range encircles the Polar Basin
Cetaceans				
Blue whale	*Balaenoptera musculus*	E	Occasional	Occur from the Gulf of Alaska to the Aleutian Islands
Fin whale	*B. physalus*	E	Occasional	Occur in high densities in the northern Gulf of Alaska and southeastern Bering Sea from May to October; some movement through the Aleutian into and out of the Bering Sea; in the Gulf of Alaska, appear to congregate in the waters around Kodiak Island and south of Prince William Sound Gulf of Alaska,
Sei whale	*B. borealis*	E	Uncommon	Have been reported primarily south of the Aleutian Islands, in the Shelikof Strait and waters surrounding Kodiak Island, in the Gulf of Alaska, and inside waters of southeast Alaska; occasionally reported from Bering Sea and low numbers on the central Bering Sea shelf

Table I-10. Commercially Important Fish in the Northeast Waters

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Principal Groundfish				
Atlantic cod	*Gadus morhua*	Overfished	Common	Greenland to North Carolina
Haddock	*Melanogrammus aeglefinus*	Overfished	Common	West Greenland to Cape Hatteras
Redfish	*Sebastes spp.*	Overfished	Common	Gulf of Maine, Georges Bank
Silver hake	*Merluccius bilinearis*	Overfished	Common	Newfoundland to South Carolina
Red hake	*Urophycis chuss*	Overfished	Common	Gulf of St. Lawrence to North Carolina
Pollock	*Pollachius virens*	Overfished	Common	Scotian Shelf, Gulf of Maine, Georges Bank
Yellowtail	*Pleuronectes ferrugineus*	Overfished	Common	Labrador to Chesapeake Bay
Summer	*Paralichthys dentatus*	Overfished	Common	Southern Gulf of Maine to South Carolina
Winter	*Pleuronectes americanus*	Overfished	Common	Labrador to Georgia
American plaice	*Hippoglossoides platessoides*	Overfished	Common	Southern Labrador to Rhode Island
Witch	*Glyptocephalus cynoglossus*	Not overfished	Common	Gulf of Maine, Georges Bank; Continental Shelf Edge to Cape Hatteras
Windowpane	*Scophthalmus aquosus*	Not overfished	Common	Gulf of St. Lawrence to Florida
Other Groundfish				
Atlantic wolffish	*Anarhichas lupus*	Overfished	Common	Nova Scotia to Gulf of Maine
Black sea bass	*Centropristis striata*	Overfished	Common	Entire Atlantic Coast
Cusk	*Brosme brosme*	Overfished	Common	Gulf of Maine
Goosefish	*Lophius americanus*	Overfished	Common	Gulf of St. Lawrence to Cape Hatteras
Ocean pout	*Macrozoarces americanus*	Overfished	Common	Labrador to Delaware
Scup	*Stenotomus chrysops*	Overfished	Common	Cape Cod to Cape Hatteras
Spot	*Leiostomus xanthurus*	N/A	Common	Southern New England to Florida
Tilefish	*Lopholatilus chamaeleonticeps*	Overfished	Common	Nova Scotia to south

Table I-10. Commercially Important Fish in the Northeast Waters (continued)

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Weakfish	*Cynoscion regalis*	Overfished	Common	Massachusetts Bay to Florida
White hake	*Urophycis tenuis*	Overfished	Common	Newfoundland to Southern New England
Pelagic Fish				
Atlantic herring	*Clupea harengus*	Not overfished	Common	Labrador to Cape Hatteras
Atlantic mackerel	*Scomber scombrus*	Not overfished	Common	Labrador to North Carolina
Bluefish	*Pomatomus saltatrix*	Overfished	Common	Maine to Florida
Butterfish	*Peprilus triacanthus*	Not overfished	Common	Southern New England to Cape Hatteras
Cero	*Scomberomorus regalis*	N/A	Potential	Massachusetts to south
Cobia	*Rachycentron canadum*	N/A	Potential	New England to south
Dolphin	*Coryphaena* sp.	Not overfished	Potential	Georges Bank to south
Spanish mackerel	*Scomberomorus maculatus*	Overfished	Common	Maine to south
Tuna and Billfishes				
Albacore	*Thunnus alalunga*	Overfished	Common	New Jersey to south
Bigeye tuna	*T. obesus*	Overfished	Common	Gulf of Maine to south
Billfish	*Makaira nigricans*	Overfished	Not available	Common New Jersey to south
Billfish	*Tetrapturus albidus*	Overfished	Not available	Gulf of Maine to south
Billfish	*Istiophorus platypterus*	Overfished	Not available	N. Florida to south
Reef Fish				
Gag	*Mycteroperca microlepis*	Overfished	Common	North Carolina to south
Red porgy	*Pagrus pagrus*	Overfished	Common	North Carolina to south
Scamp	*Mycteroperca phenax*	N/A	Common	North Carolina to south
Wreckfish	*Polyprion americanus*	Overfished	Common	Grand Banks, Newfoundland to south
Yellowtail snapper	*Ocyurus chrysurus*	Overfished	Common	North Carolina to south

Table I-10. Commercially Important Fish in the Northeast Waters (continued)

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Other Commercially Important Fish				
Atlantic croaker	*Micropogonias unduatus*	N/A	Potential	Massachusetts to south
Atlantic menhaden	*Brevoortia tyrannus*	Overfished	Common	Nova Scotia to West Palm Beach, Florida
Atlantic salmon	*Salmo salar*	Overfished	Common	Canada and Maine
Red drum	*Sciaenops ocellatus*	Overfished	Common	Chesapeake Bay to south
Skate	Family Rajidae	Overfished	Common	Gulf of Maine to Chesapeake Bay
Spiny dogfish	*Squalus acanthias*	Overfished	Common	Newfoundland to Georgia
Striped bass	*Morone saxatilis*	Not overfished	Potential	St. Lawrence Estuary to Florida
Weakfish	*Cynoscion regalis*	Overfished	Common	Massachusetts to Florida

Source: USCG 2002
Notes:
Overfished: Fishing mortality above threshold and/or biomass below threshold
N/A: Commercial status not available
"south" distribution includes the southernmost tip of Florida or farther south to the Gulf of Mexico or South America.

Table I-11. Commercially Important Fish in the Southeast Waters

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Atlantic Waters off the Southeastern U.S. Coast				
Silver hake	*Merluccius bilinearis*	Overfished	Common	Newfoundland to South Carolina
Summer	*Paralichthys dentatus*	Overfished	Common	Southern Gulf of Maine to South Carolina
Winter	*Pleuronectes americanus*	Overfished	Common	Labrador to Georgia
Windowpane	*Scophthalmus aquosus*	Not overfished	Common	Gulf of St. Lawrence to Florida
Black sea bass	*Centropristis striata*	Overfished	Common	Entire Atlantic Coast
Weakfish	*Cynoscion regalis*	Overfished	Common	Massachusetts Bay to Florida
Spot	*Leiostomus xanthurus*	Not available	Common	Southern New England to Florida
Tilefish	*Lopholatilus chamaeleonticeps*	Overfished	Common	Nova Scotia to south
Bluefish	*Pomatomus saltatrix*	Overfished	Common	Maine to Florida
King mackerel	*Scomberomorus cavalla*	Overfished	Common	Gulf of Mexico to south
Spanish mackerel	*S. maculatus*	Overfished	Common	Maine to south
Dolphin.	*Coryphaena sp*	Not overfished	Potential	Georges Bank to south
Cobia	*Rachycentron canadum*	Not available	Potential	New England to south
Cero	*Scomberomorus regalis*	Not available	Potential	Massachusetts south
Swordfish	*Xiphias gladius*	Overfished	Potential	Worldwide
Bluefin tuna	*Thunnus thynnus thynnus*	Overfished	Common	Labrador and Newfoundland to south
Yellowfin tuna	*T. albacares*	Overfished	Potential	Worldwide (tropical)
Billfish	*Makaira nigricans*	Overfished	Common	New Jersey to south
Billfish	*Tetrapturus albidus*	Overfished	Common	Gulf of Maine to south
Billfish	*Istiophorus platypterus*	Overfished	Common	N. Florida to south
Bigeye tuna	*Thunnus obesus*	Overfished	Common	Gulf of Maine to south
Albacore	*T. alalunga*	Overfished	Common	New Jersey to south
Skipjack tuna	*Katsuwonus pelamis*	Not overfished	Common	Cape Cod to south

Table I-11. Commercially Important Fish in the Southeast Waters (continued)

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Wreckfish	*Polyprion americanus*	Overfished	Common	Grand Banks, Newfoundland to south
Gag	*Mycteroperca microlepis*	Overfished	Common	North Carolina to south
Scamp	*M. phenax*	Not available	Common	North Carolina to south
Gray snapper	*Lutjanus griseus*	Not available	Common	Northern Florida to south
Yellowtail snapper	*Ocyurus chrysurus*	Overfished	Common	North Carolina to south
Red porgy	*Pagrus pagrus*	Overfished	Common	North Carolina to south
Spiny dogfish	*Squalus acanthias*	Overfished	Common	Newfoundland to Georgia
Striped bass	*Morone saxatilis*	Not overfished	Potential	St. Lawrence Estuary to Florida
Red drum	*Sciaenops ocellatus*	Overfished	Common	Chesapeake Bay to south
Atlantic croaker	*Micropogonias unduatus*	Not available	Potential	Massachusetts to south
Puerto Rico and the Caribbean[1]				
Queen Conch	*Strombus gigias*	Overfished	Common	Caribbean Ocean
Nassau grouper	*Epinephelus striatus*	Overfished	Common	Caribbean Ocean
Goliath grouper (jewfish)	*Epinephelus itajara*	Overfished	Common	Caribbean Ocean
Caribbean SpinyLobster	*Panulirus argus*	Overfished	Common	Caribbean Ocean
Pelagic sharks	*Elasmobranchii*	Overfished	Common	Worldwide
Blue sharks	*Prionace glauca*	Not available	Common	Caribbean Ocean
Porbeagle sharks	*Lamna nasus*	Not available	Common	Caribbean Ocean
Shrimp (6 species)	*Natantia*	Not available	Common	Caribbean Ocean
Snapper (10 species)	*Lutanidae*	Overfished	Common	Caribbean Ocean
Other groupers (4 species)	*Epinephelus*	Overfished	Common	Caribbean Ocean
Grunts (5 species)	*Pomadasyidae*	Overfished	Common	Caribbean Ocean
Blackfin tuna	*Thunnus atlanticus*	Not available	Common	Caribbean Ocean
Wahoo	*Acanthocybium solandri*	Not available	Common	Caribbean Ocean
King mackerel	*Scomberomorus cavalla*	Overfished	Common	Gulf of Mexico to south

Table I-11. Commercially Important Fish in the Southeast Waters (continued)

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Dolphinfish	*Coryphaena sp.*	Not overfished	Potential	Georges Bank to south
Hinds	*Epinephelus spp.*	Not available	Occasional	Virginia to Brazil
Amberjack	*Seriola spp.*	Not overfished	Common	Mostly in Gulf of Mexico. Also located at SE Atlantic Coast. Occasionally can be found in NE Atlantic.
Bluefin	*T. thynus*	Overfished	Common	Atlantic and Pacific oceans
Skipjack	*Sarda orientalis*	Not overfished	Potential	Atlantic and Pacific oceans
Yellowfin	*T. albacares*	Overfished	Common	Atlantic, Pacific, and Indian oceans

Source: USCG 2002
Notes:
Overfished: Fishing mortality above threshold and/or biomass below threshold
N/A: Commercial status not available
"South" distribution includes the southernmost tip of Florida or farther south to the Gulf of Mexico or South America.

Table I-12. Commercially Important Fish in the Pacific Continental Waters

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Dover sole	*Microstomus pacificus*	Not overfished	Common	Mostly off California
Dungeness crab	*Cancer magiste*	N/A	Common	Central coast of California to central coast of Alaska
Hake	*Microgadus proximus*	N/A	Not available	Not available
Jack mackerel	*Trachurus symmetricus*	Not overfished	Common	Baja California to southeastern Alaska
Market squid	*Loligo opalescens*	Overfished	Common	Southern Alaska to northern Mexico
Northern anchovy	*Engraulis mordax*	N/A	Common	Baja California to British Columbia
Pacific albacore	*Thunnus germo*	N/A	Potential	Atlantic, Pacific, Indian oceans
Pacific bonito	*Sarda chiliensis*	N/A	Not available	Not available
Pacific mackerel	*Scomber japonicus*	Not overfished	Common	Gulf of California to southeastern Alaska
Pacific sardine	*Sardinops sagax*	Not overfished	Common	Mexico to Canada
Pacific whiting	*Merluccius products*	N/A	Not available	Not available
Pink shrimp	*Penaeus duorarum*	N/A	Not available	Not available
Sablefish	*Anoplopoma fimbria*	Not overfished	Common	West Coast

Source: USCG 2002
Notes:
Overfished: Fishing mortality above threshold and/or biomass below threshold
N/A: Commercial status not available

Table I-13. Commercially Important Fish in the Pacific Tropical Waters

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Bigeye tuna	*Thunnus obesus*	Overfished	Common	Atlantic, Pacific, Indian oceans
Swordfish	*Xiphias gladius*	Overfished	Potential	Worldwide
Yellowfin tuna	*Thunnus albacares*	Overfished	Common	Pacific, Gulf of Mexico, Caribbean
Blue shark	*Prionace glauca*	N/A	Common	Worldwide, tropical, subtropical, temperate
Marlin	*Makaira spp.*	Not overfished	Potential	Pacific Ocean, between 45 degrees north and south; Atlantic Ocean, between 45 degrees north and 38 degrees south

Source: USCG 2002
Notes:
Overfished: Fishing mortality above threshold and/or biomass below threshold
N/A: Commercial status not available

Table I-14. Commercially Important Fish in the Alaska Waters

Common Name	Scientific Name	Commercial Status	Likelihood of Occurrence in Project Area	Distribution in RB-S and RB-M ROI
Walleye pollock	*Theregra chalcogramma*	Not overfished	Occasional	Bering Sea, Japan, Puget Sound
Pacific cod	*Gadus macrocephalus*	Not overfished	Occasional	Southern California to northern Alaska
Arrowtooth flounder	*Asteresthes stomas*	Not overfished	Common	Central California to Bering Sea
Pacific Ocean perch	*Sebastes alutus*	Not overfished	Occasional	Gulf of Alaska
Sablefish	*Anoplopoma fimbria*	Not overfished	Potential	Pacific Waters, including Gulf of Alaska
King crab	*Limulus polyphemus*	N/A	Potential	Gulf of Alaska, Bering Sea
Tanner crab	*Chinoecetes bairdi*	N/A	Potential	--
King salmon	*Oncorhynchus tshawytscha*	N/A	Occasional	Pacific Coast, California north to Alaska
Pink salmon	*Oncorhynchus gorbuscha*	N/A	Occasional	Puget Sound in south through to Gulf of Alaska
Alaskan halibut	*Hippoglossus stenolepis*	Overfished	Common	Gulf of Alaska
Alaskan shrimp	*Pamdalus spp.*	Not overfished	Common	Gulf of Alaska

Source: USCG 2002
Notes:
Overfished: Fishing mortality above threshold and/or biomass below threshold
N/A: Commercial status not available