FINAL

ENVIRONMENTAL ASSESSMENT OF THE STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM SAN PEDRO, CALIFORNIA

COMMANDANT

UNITED STATES COAST GUARD (G-OPD)

FEBRUARY 2003

ABBREVIATIONS AND ACRONYMS

˚F	degrees Fahrenheit
%HA	Percent Highly Annoyed
ANSI	American National Standards Institute
AQCR	Air Quality Control Region
ARG	Architectural Resources Group
CAA	Clean Air Act
CARB	California Air Resources Board
CCMP	Coastal California Management Program
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
COMDTINST	Coast Guard Commandant Instruction
CO	Carbon Monoxide
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DOT	Department of Transportation
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIP	Federal Implementation Plan
FMP	Fishery Management Plan
GSA	General Services Administration
H.R.	House Resolution
Hz	Hertz
ISC	Integrated Support Command
lbs	pounds
MLAAQCR	Metropolitan Los Angeles Air Quality Control Region
MMPA	Marine Mammal Protection Act
MPA	Marine Protected Area
MSST	Marine Safety and Security Team
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mg/m^3	milligrams per cubic meter
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO_2	Nitrogen Dioxide
NRHP	National Register of Historic Places
NSR	New Source Review
O_3	Ozone
Pb	Lead
P.L.	Public Law
$PM_{2.5}$	particulate Matter ≤ 2.5 microns in diameter
PM_{10}	particulate Matter ≤ 10 microns in diameter
ppm	Parts per million
PSD	Prevention of Significant Deterioration
PSMFC	Pacific States marine Fisheries Commission
PSU	Port Security Unit
RBS	Response Boat-Small
ROI	Region of Influence
SAE	Society of Automotive Engineers
SAR	Search and Rescue
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SHPO	State Historic Preservation Office
SO_2	Sulfur Dioxide
U.S.	United States
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USCG	United States Coast Guard
USFWS	United States Fish Wildlife Service
USS	United States Ship
VOC	Volatile Organic Compound
$\mu g/m^3$	micrograms per cubic meter
µPa	microPascal

USCG

FINDING OF NO SIGNIFICANT IMPACT

FOR

U.S. COAST GUARD LOCATION AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM SAN PEDRO, CALIFORNIA

The proposed action includes the stand up and operations of one Maritime Safety and Security Team (MSST). The MSST will be located at the Integrated Support Command (ISC) San Pedro, California. The MSST will consist of 71 active duty personnel and 33 reserve personnel, and six Response Boats-Small (RBS). All six RBS can, but will not necessarily, be operating at once. The RBS will have outboard motors, will be no larger than 25 feet, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (in excess of 40 knots), and will carry between three and six crewmembers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and defensive weaponry. When not in use, RBS may be placed on trailers.

The MSST will normally conduct operations in the Ports of Los Angeles and Long Beach. The MSST is intended for domestic operations, in support of the Group or Captain of the Port (COTP). Operations will closely parallel existing USCG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSST will escort a variety of vessels and maintain specific security zones in the Ports of Los Angeles and Long Beach. They will be capable of operating seven days a week, 24 hours a day, in all weather conditions. They will also operate with, and be supported by, both military and civilian government organizations, commercial and non-government entities. The MSST will be transportable via land transportation, USCG cutter, and USCG or other military aircraft.

This project has been thoroughly reviewed by the U.S. Coast Guard (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 environmental assessment 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 environmental assessment.

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

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

10 March 03		Chief of Defense Ops
Date	Responsible Official	Title/Position

USCG

ENVIRONMENTAL ASSESSMENT

FOR

COAST GUARD LOCATION AND OPERATION OF MARITIME SAFETY AND SECURITY TEAM IN SAN PEDRO, CALIFORNIA

This USCG environmental assessment was prepared in accordance with Commandant's Manual Instruction M16475.1D and is in compliance with the National Environmental Policy Act of 1969 (P.L. 91-190) and the Council of Environmental Quality Regulations dated 28 November 1978 (40 CFR Parts 1500-1508).

This environmental assessment 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 environmental assessment concisely describes the proposed action, the need for the proposal, the alternatives, and the environmental impacts of the proposal and alternatives. This environmental assessment 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 the environmental assessment.

3/6/03	Kelly Kelley	Environmental Protection Specialist
Date	Preparer/Environmental Project Manager (as applicable)	Title/Position
6 MARCH 03	[signature]	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 environmental assessment on the potential for environmental impacts.

10 March 03	[signature], CAPT	Chief of Defense Operations
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.

FINAL

ENVIRONMENTAL ASSESSMENT OF THE STAND-UP AND OPERATIONS OF THE MARITIME SAFETY AND SECURITY TEAM SAN PEDRO, CALIFORNIA

Contract No.: DTUSCG23-00-D-ADW141
Task No.: DTUSCG23-02-F-DDX046

Prepared for:

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

Prepared by:

e²M, Inc.
4215 Walney Road, Suite 4
Chantilly, VA 20151

February 2003

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

Table of Contents (continued)

List of Figures

List of Tables

1. Purpose of and Need for the Action

1.1 Introduction

The United States Coast Guard (USCG) is this nation's oldest maritime agency. Throughout its long history, the USCG (and its predecessors) has responded when called upon to perform its 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 of people from the sea. The USCG's multi-mission responsibilities stem from the combined goals of its five core-founding agencies now joined under one agency. The 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 were passed defining each former agency's missions and authority.

Today, the USCG operates in all maritime regions:

- Approximately 95,000 miles of U.S. coastlines, including inland waterways and harbors
- More than 3.36 million square miles of Exclusive Economic Zone (EEZ) and U.S. territorial seas
- International waters and other maritime regions of importance to the U.S. for missions such as search and rescue, law enforcement, alien migrant interdiction, and national defense

In October 1995, the Secretaries of Transportation and the Department of Defense (DoD), the Chief of Naval Operations, and the Commandant of the USCG signed a Memorandum of Agreement (MOA) identifying the unique national defense capabilities of the USCG:

- Military Environmental Response Operations
- Peacetime Military Engagement
- Maritime Interception Operations
- Coastal Sea Control Operations
- Port Operations, Security and Defense

Domestic port security and protection has long been a core USCG mission. After the end of the Cold War, and in the wake of Desert Shield/Desert Storm, Combatant Commanders recognized a need for deployable Port Security and Harbor Defense units. The USCG's Maritime Defense Zone mission was expanded to include overseas ports and Port Security Units (PSUs) were formed to meet that need. The PSUs missions can be divided into three broad categories:

- Sea Control and Harbor Approach
- Harbor Approach Defense
- Harbor Defense/Port Security

Over the past several years, the PSUs have been deployed multiple times. Last year, PSUs were deployed to the Arabian Gulf in the wake of the United States Ship (USS) Cole incident.

The events of September 11, 2001 significantly changed the nation's homeland security posture. Terrorism is a clear and present danger to the U.S. The USCG and DoD are currently partners in two major actions: Operation Enduring Freedom and Operation Noble Eagle.

Operation Enduring Freedom generally refers to U.S. military operations associated with the war on terrorism outside the U.S. USCG PSUs have deployed in support of this operation.

Operation Noble Eagle generally refers to U.S. military operations associated with homeland defense and civil support to federal, state, and local agencies in the U.S., and includes the increased security measures taken after the September 11, 2001 terrorist attacks. The operation involves joint agency coordination and cooperation to ensure our nation and borders are protected from future attacks. An increased USCG maritime security presence will prevent and deter those who would cause harm to innocent Americans.

The USCG has dramatically shifted its mission activity to reflect its role as a leader in Maritime Homeland Security. The USCG's heightened maritime security posture will remain in place indefinitely.

1.2 Coast Guard Missions

The USCG is unique in that it is the only maritime service with regulatory and law enforcement authority, military capabilities, and humanitarian operations. These missions may occur 24 hours a day in severe environments, from arctic to tropical, whenever and wherever the USCG's presence is required. USCG tasks in the maritime aspects of major theater warfare encompass critical elements of naval operations in littoral regions, including port security and safety, military environmental response, maritime interception, coastal control, and force protection. More than two centuries of littoral warfare operations at home and overseas have honed the USCG's skills most needed in support of the nation's military and naval strategies for the 21st century. The USCG's missions can be described in four general categories: maritime law enforcement, maritime safety, national defense, and marine environmental protection.

1.2.1 Maritime Law Enforcement

Since its creation in 1790 to enforce tariff laws, law enforcement has been a primary responsibility of the USCG. Section 14 United States Code (U.S.C.) 89(a) specifically gives USCG officers and petty officers

the unique authority to make inspections, searches, seizures, and arrests for violations of laws of the U.S. The USCG engages in several areas of law enforcement:

- Living Marine Resources Law Enforcement
- Drug Interdiction
- Alien Migrant Interdiction Operations
- 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: the northern right whale, Kemp's Ridley sea turtle, Hawaiian monk seal, Stellar sea lion, and harbor porpoise. Between September 11, 2001 and September 10, 2002, the USCG responded to over 4,000 oil and chemical spills, interdicted 3,876 illegal immigrants, seized 111,903 pounds (lbs) of cocaine, and seized 37,772 lbs of marijuana (USCG News 2002).

1.2.2 Maritime Safety

The USCG's Search and Rescue (SAR) and International Ice Patrol services are essential to protecting human lives and property. The USCG averages 50,000 calls for assistance each year and saved approximately 4,009 lives in 2001 (Fact File 2002). Between September 11, 2001 and September 10, 2002, the USCG conducted over 31,500 SAR missions, assisted over 39,000 people in distress, and saved 3,281 human lives (Fact File 2002). 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.

1.2.3 National Defense

Today, although included within the Department of Transportation (DOT), 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 missions are essential military components to support joint forces in peacetime, crisis, and war:

- Military Environmental Response Operations
- Peacetime Military Engagement
- Maritime Interception Operations

- Coastal Sea Control Operations
- Port Operations, Security and Defense

Ninety-five percent of the U.S. annual commerce passes through our ports and maritime industries contribute $742 billon per year to the gross national product (USCG 2002a). Between September 11, 2001 and September 10, 2002, the USCG conducted approximately 11,000 Port State Control boardings of foreign flagged vessels (annual average) (Fact File 2002). In addition, the USCG conducted boat and air patrols, escorted vessels in to and out of ports, and established security zones (USCG 2002b).

1.2.4 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 the responsible parties. In the post September 11, 2001 era, an increase in the need for pollution response activities is likely as suspected terrorist targets and tactics focus on water supply and infrastructure. Between September 11, 2001 and September 10, 2002, the USCG responded to 4,000 oil and chemical spills (USCG News 2002).

1.3 Purpose and Need for the Action

In addition to meeting its other mandated missions, the USCG's role in homeland security has recently received extra emphasis. As noted, this mission is not new for the USCG. While it is more visible today than it was prior to the tragic events of September 11, 2001, it remains just as important as when the USCG first began protecting our national sovereignty 212 years ago (USCG 2002a).

As part of Operation Noble Eagle, the USCG is at a heightened state of alert, protecting more than 361 ports and 95,000 miles of coastline, America's longest border. The USCG continues to play an integral role in maintaining the operations of our ports and waterways by providing a secure environment in which mariners and the American people can safely go about the business of living and working (USCG 2002a).

In the wake of the September 11, 2001 terrorist attacks, 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

The Maritime Safety and Security Team (MSST) proposal is a direct response to September 11, 2001. The MSSTs are urgently needed to improve existing domestic port security capabilities. While the MSSTs will be used similarly to the PSUs to augment existing USCG forces in the U.S., the MSSTs will not duplicate existing protective measures. They will provide complimentary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports (USCG 2002c; USCG 2002d).

Under Public Law (P.L.) 107-87, an emergency response supplemental enacted by Congress, monies were appropriated to fund USCG anti-terrorist activities, including the mandated establishment and operation of four mobile MSSTs (funds are available until September 30, 2003). Congress considered this issue carefully. Initially, the Senate suggested six MSSTs:

> "While the President's request includes 'funding' for the establishment of two active duty Maritime Safety and Security Teams, the Committee finds this request to be insufficient. The request would provide for only one team for both the Atlantic and Pacific operating areas, providing little permanent relief to regular operating units so that they can, once again, pursue all of their multi-mission responsibilities. As such, the Committee has provided 'funding' and 522 full-time permanent staff years for the establishment of six such teams. This appropriation will allow for one team with area-wide responsibilities on both the East and West coast. In addition, the Committee directs that the four remaining teams be located in those Port areas that present the greatest Port Security challenges, especially those ports with a substantial concentration of critical Department of Defense facilities and a shortage of alternative floating assets. Those units will be responsible solely to the Port Security needs in those ports and should allow the other operating units in those regions to return to their other critical responsibilities" (Congress 2001a).

The final version of the law (P.L. 107-117 [House Resolution (H.R.) 3338]) contained a compromise reached in the conference committee. The report states:

> "Maritime safety and security teams. The conferees agree that funding for maritime safety and security teams is for establishment of 348 full-time permanent positions for four new teams, including two teams with area-wide operating responsibility (one each for the Atlantic and Pacific operating areas) and two teams to exclusively serve those port areas presenting the greatest port security challenges, especially those ports with a substantial concentration of critical Department of Defense facilities and a shortage of alternative floating assets. The Senate bill included funds for two area-wide teams and four teams for specific ports. The conferees have no objection to the Commandant co-locating the area-wide teams with the port specific teams if he believes that economies of scale and programmatic benefits will result" (Congress 2001b).

In order to determine which ports required additional protection, the USCG, working with other agencies, developed a matrix to assess and 'grade' each U.S. port to aid in the selection of the four top most critical ports to stand up. The elements (presented in alphabetical order) that were assessed included (but were not limited to) (USCG 2002c):

- Cargo Value
- Cargo Volume
- Domestic Cargo
- Hazardous Cargo
- Military Presence
- Population

As a result, the first four ports to be assigned MSSTs are Seattle, Washington; Chesapeake, Virginia; San Pedro, California; and Galveston, Texas. This Environmental Assessment (EA) analyzes the potential impacts of the stand-up and operations of the MSST, San Pedro, California.

1.4 Project Scope and Area

The MSST will be located at the Integrated Support Command (ISC) San Pedro, California. This maximizes the use of existing infrastructure and already assigned personnel. ISC San Pedro is located on the part of Terminal Island known as Reservation Point. Terminal Island is primarily composed of fill from the widening of the ship channel over the years. The Federal Bureau of Prisons leases 0.68 acres of land from the USCG with 27.17 acres of usable land for the USCG. A little over five acres is submerged land (i.e., the boat basin) and rip rap. Terminal Island is made-up of piers, docks, storage facilities, and commercial terminals. ISC San Pedro consists of approximately 25 buildings, storage structures and lots, parking lots, an athletic field, and piers.

There is no vegetation on Terminal Island except for the prison yard and a small field at ISC San Pedro used as a helicopter landing pad and recreation field. The MSST will have administrative and boat storage facilities at ISC San Pedro. A new modular building is being leased by the General Services Administration (GSA). The new modular building, approximately 60 by 100 feet will be necessary to accommodate the additional personnel. This also will include a small maintenance facility (open modular) and boat storage space, to accommodate boats for this mission. The modular building will be installed southwest of Building 50. The boats will be stored in the same general vicinity, on trailers in a grassy open area previously used by personnel during off-duty hours. The boats will be launched by jib crane and tied to the adjacent floating dock. The MSST will operate in the Ports of Los Angeles and Long Beach. The Region of Influence (ROI) will include the Port of Los Angeles out to the first sea buoy and the Port of Long Beach. The MSST may also patrol the coastline from Santa Barbara to San Clemente.

The MSST will normally conduct operations in the harbor or port to which it is assigned. However, the MSST will also be transportable via land transportation, USCG Cutter, and USCG or other military aircraft. In an emergency, the MSST could be re-located to another port. The location and duration of this relocation is impossible to predict and would depend on a number of currently unknown circumstances. Therefore, potential impacts from these types of operations will also be speculative in nature. There are too many variables to adequately assess all potential ports. However, it is expected that the MSST would operate a majority of the time in its homeport. Therefore, this EA focuses on the potential impacts in the Ports of Los Angeles and Long Beach.

1.5 Public Involvement Process

An advertisement in the Long Beach Press-Telegram on May 14, 2002 announced the USCG's intent to prepare an EA, giving information on the proposal and seeking comments. Letters to interested parties also were mailed to appropriate federal, state, and local agencies (See Appendix A [Letter]; Appendix B [Mailing List]; Appendix C [Newspaper Announcement]; and Appendix D [Responses]). However, the USCG will accept comments on this proposed action throughout the environmental process. An announcement on the availability of the Final EA also will be placed in the Long Beach Press-Telegram.

1.6 Organization of the EA

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 EA.

Chapter 1: Purpose and Need for the Action. As a NEPA-required discussion, this chapter 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 the existing environmental conditions in the area in which the Proposed Action would occur.

Chapter 4: Environmental Consequences. Using the information in Chapter 3, this chapter identifies the potential for significant environmental impacts on each resource area under both the Proposed Action and No Action Alternative. Direct and indirect impacts are identified on a broad scale as appropriate in an EA.

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 this document's preparers.

Appendices: This EA includes six appendices that provide additional information. Appendix A includes a copy of the Interested Party Letter and its attachment. Appendix B is a copy of the mailing list that provides the names of those whom the Interested Party Letter was sent. Appendix C is a copy of the language used in the newspaper announcement. Appendix D includes the written responses to the Interested Party Letter. Appendix E, the General Noise Conformity Analysis, provides an explanation of the air quality analysis and presents the results. Appendix F provides further explanation of the terminology and methodology used in the noise resource section. Finally, Appendix G presents a description of the USCG's Ocean Steward program.

2. Proposed Action and Alternatives

2.1 Proposed Action

The USCG proposes to stand-up and operate four Maritime Safety and Security Teams (MSSTs), one of which will be located at the Integrated Support Command (ISC) San Pedro. The term "stand-up" is defined as establishing a new activity. The MSST will improve the existing Ports of Los Angeles and Long Beach security capabilities on an on-going basis. The MSST will not duplicate existing protective measures, but will provide complimentary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports.

The MSST will include 71 active duty personnel, augmented by 33 reservists, support buildings for personnel, and six Response Boats-Small (RBS). Personnel will consist of mostly reassigned personnel, although there may be some newly recruited personnel. It is anticipated that they will reside in Los Angeles County. They will possess the specialized skills, capabilities, and expertise to perform a broad range of port security and harbor defense missions that may be required. Each team will be equipped with six armed RBS powered by outboard motors that can reach speeds of 40 knots in a short period. Depending on operational requirements, there may be two to six boats operating at any one time. The MSST will be capable of operating on a continuous basis, 24 hours per day, seven days per week. The RBS and their personnel can be moved by aircraft or other means in order to respond to events in ports other than the Ports of Los Angeles and Long Beach, should an increased presence be required at another port. The MSST will be interoperable with, and supported by, military and civilian government organizations, commercial and non-government entities.

U.S. Coast Guard (USCG) personnel will follow procedures already familiar to them: establishing port security/port safety zones, moving security zones, and escorting vessels. The USCG performs these traditional port security operations on a daily basis. The MSST will have additional responsibilities:

- Enhance port security and security law enforcement capabilities at economic or military significant ports where they are based
- Deploy for specific episodic events that require an increased security posture of a limited duration
- Exercise security contingency plans in major ports
- Augment the Captain of the Port capabilities

The MSST will be prepared to conduct operations without the need for supplemental training or additional outfitting within all maritime security levels, and will be capable of operating under the threat of chemical, biological, or radiological attack. The MSST will have limited ability to detect chemical,

biological, or radiological attack, and must be able to evacuate a contaminated environment. They will have the ability to conduct emergency gross decontamination of personnel and equipment. In the United States (U.S.), the local emergency response agency is responsible for mitigating incidents involving chemical, biological, and radiological hazardous materials. Overseas support is provided through a Memorandum of Understanding (MOU) with other service branches.

2.2 No Action Alternative

National Environmental Policy Act (NEPA) implementing regulations require that a No Action Alternative be analyzed to provide a baseline for comparison with the Proposed Action and alternatives. The No Action Alternative identifies and describes the potential environmental impacts if the proponent agency does not implement the Proposed Action or one of the alternatives, if applicable.

Congress and the Executive Branch must respond to the recent and critical demand for homeland defense. Port security measures, such as MSSTs, must be created immediately. In the case of the stand-up and operations of the MSSTs, Congress strongly indicated its desire that the USCG establish MSSTs on a priority basis. Public Law (P.L.) 107-117 provided money for the express purpose of having the USCG (in consultation with other agencies) establish four MSSTs. In yet another indication of the urgency Congress assumed to be the situation, funds for the first four MSSTs expire at the end of September 2003.

Congress directed the Commandant of the USCG to establish four MSSTs to be "located in those Port areas that present the greatest Port Security challenges, especially those ports with a substantial concentration of critical Department of Defense (DoD) facilities and a shortage of alternative floating assets these units will be responsible solely to the Port Security needs and provide permanent relief to regular operating units so that they can, once again, pursue all of their multi-mission responsibilities" (Congress 2001b). Funding for personnel and equipment was appropriated, but funds for the first four MSSTs expire at the end of September 2003. The Commandant of the USCG clearly has no choice but to stand up the MSSTs as directed by Congress.

The No Action Alternative, as used in this Environmental Assessment (EA), will not fulfill the USCG's purpose and need to provide additional security to these four ports. Therefore, the No Action Alternative will only be analyzed in this EA to provide a baseline with which to compare environmental impacts of the Proposed Action. If a No Action Alternative was acceptable, several consequences might occur. Under current operations, vessels and manpower are being diverted from other missions in order to provide the additional security for the nation's ports. Under the No Action Alternative, this disruption of other missions would continue. The result would be further strain on manpower and current assets. This

scenario of vessels and manpower being stretched to their limit could make it easier for an attack to occur in one of the "critical" ports. The result might be a potential for significant adverse environmental impacts. Terrorists could strike at military or commercial facilities in these ports creating health and safety hazards for the surrounding populace, impacting appropriate emergency responses, employment and trade, and marine life. The impacts could be immediate (loss of life) or long lasting (disruption of commerce activities that could impact the long-term economy). Recovery time would be dependent on the severity and extent of the loss.

Other consequences will flow from the USCG being unable to fully perform enforcement missions. For example, the USCG is also responsible for drug and alien interdiction and protection of the nation's Exclusive Economic Zone (EEZ). Without adequate vessels and manpower, the USCG will not be able to maintain its high level of effectiveness in stopping illegal aliens and drugs from reaching the nation's shores. The environmental resources in the EEZ (e.g., fishing) may also suffer from the USCG's diminished ability to protect fishing areas from illegal catches, as discussed in Ocean Guardian. In addition, the nation might experience some loss to threatened and endangered species without the full attention of the USCG protection of these species as expressed in Ocean Steward (USCG 2000).

2.3 Comparison of Alternatives

The Proposed Action to stand-up and operate a MSST in San Pedro, CA has the potential for significant positive impacts from both a security and safety viewpoint, as well as easing environmental concerns. First, the RBS will provide added security from terrorist attack for the safety of ships entering/leaving the Ports of Los Angeles and Long Beach, for the numerous commercial interests and for the general population who work and live in and near the Ports. Second, the Proposed Action will provide additional protection from potentially significant environmental damage. While the possibility of standing up six boats may appear to be a large increase, when compared to the number and size of vessels that visit the Ports of Los Angeles and Long Beach everyday, this is actually a small number. It is unlikely that all six boats will be in use at any one time. The boats will usually cruise at 10 to 12 knots, resulting in a small wake that should not negatively impact the surrounding shores. Therefore, no mitigation activities should be necessary for the stand-up and operation of the MSST at San Pedro.

Under the No Action Alternative, the additional safety and security provided by the MSST would not be available. While the USCG will continue with their current level of protection, this level has already been determined to be less than is required for the Ports of Los Angeles and Long Beach. The potential environmental damage from a terrorist attack may be significantly adverse. The No Action Alternative will meet neither Congress's directive nor the USCG's homeland security mission requirements.

2.4 Alternatives Considered but Eliminated

The emergency response supplemental enacted by Congress to address the emergency situation of a very plausible threat of terrorist attack on our country's ports, effectively directs the USCG to establish and operate four mobile MSSTs in four of our "most critical ports." Congress recognized, as did the USCG, that these teams are critical to this nation's homeland security and defense, and it is urgent that they be stood-up quickly. The direction and intent of this legislation and Congressional conference language allows for little in the way of viable alternatives that would meet the purpose and need. Different ports were examined as alternative locations for the stand-up of the first four MSSTs as discussed in Section 1.3 of this EA. However, based on the criteria used to determine the "most critical ports," these locations were not chosen as one of the first four most critical locations.

Other agencies besides the USCG could have been considered for the Proposed Action. However, domestic port security has been a core mission of the USCG for over 200 years. The Memorandum of Agreement (MOA), signed in October 1995 by the Secretaries of Transportation and Defense, the Chief of Naval Operations, and the Commandant of the USCG, identified those unique national defense capabilities of the USCG as a force provider. In addition, the USCG is the only U.S. maritime agency with regulatory and law enforcement authority, also having U.S. military capabilities. The USCG has been using the same tactics for harbor defense and port security procedures as the MSSTs will be using in the Ports of Los Angeles and Long Beach, and other U.S. ports. This recognition of the USCG's unique capabilities coupled with the long-time advantage of providing security for U.S. ports makes the USCG the natural choice to fulfill this mission.

3. Affected Environment

3.1 Introduction

3.1.1 Resources for Analysis

This chapter describes the environmental and socioeconomic conditions most likely to be affected by the Proposed Action and serves as a baseline from which to identify and evaluate potential impacts from implementation of the Proposed Action. In compliance with National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) guidelines, the description of the affected environment focuses on those conditions and resource areas that are potentially subject to impacts. These resources include soils and land use, water resources, socioeconomics, environmental justice, cultural resources, hazardous materials and waste management, biological resources, air quality and climate, noise, and public safety. Some environmental resources and conditions that are often analyzed in an Environmental Assessment (EA) have been omitted from this analysis. The following paragraphs identify the omitted resource areas and the basis for such exclusions:

- *Soils and Land Use.* The Proposed Action would not involve any physical disturbances, earth moving, or construction activities. It is not inconsistent with the Los Angeles Master Plan or the San Pedro Specific Plan. The Port of Los Angeles Master Plan is currently undergoing revision. However, based on the present and foreseeable land use patterns at Terminal Island and the Ports of Los Angeles and Long Beach, the Proposed Action should not impact the Port's Master Plan. The Maritime Safety and Security Team (MSST) will be located at an existing facility. Implementation of the Proposed Action would not alter the existing land. The Integrated Support Command (ISC) San Pedro falls within the jurisdiction of the California Coastal Act. A letter identifying the Proposed Action was sent to the California Coastal Commission on August 9, 2002 (see Appendix A-1). While this was less than the 90 days required, the notice was sent as soon as practical, based on the urgency of the Proposed Action. The stand-up and operations of the MSST will be undertaken in a manner that is consistent to the maximum extent practicable with the California Coastal Management Program (CCMP). Accordingly, the U.S. Coast Guard (USCG) has omitted detailed examination of soils and land use.
- *Water Resources.* The Proposed Action does not involve any activities that would significantly increase the demand on water resources or affect surface water and groundwater. No physical disturbances, earth moving, or construction activities would occur; therefore, the Proposed Action would not affect surface water quantity or quality. Accordingly, the USCG has omitted detailed analysis of water resources. A detailed discussion of wetlands is included in Sections 3.2 and 4.2 Biological Resources. There are no floodplains in the Region of Influence (ROI). The Proposed Action will impact water quality in the ROI because of the emissions of outboard engines. However, the Ports of Los Angeles and Long Beach are highly traveled ports. The addition of six Response Boats-Small (RBS) would not adversely affect the water quality of San Pedro Bay.

- *Socioeconomics.* The Proposed Action does not involve any activities that would contribute to changes in socioeconomic resources. The 33 reservists are currently in the Los Angeles area. The majority of the 71 active duty personnel would be reassigned personnel and, therefore, are already in the Los Angeles/Long Beach area. Any additional personnel would be located in Los Angeles County with a current population of 9,519,338. It is unlikely that the addition of 71 personnel would have a significant adverse impact on the region, due to the relative size of the population affected and the low unemployment rate of the region. Accordingly, the USCG has omitted detailed examination of socioeconomics.
- *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. Accordingly, the USCG has omitted detailed examination of environmental justice.
- *Cultural Resources.* The Proposed Action does not involve any activities that would impact cultural resources. There would be no ground disturbing activities; therefore, there would be no impact to archaeological sites. The only historic property at ISC San Pedro is Building 10, located in the northeast portion of the base. The USCG proposes to install a temporary modular structure in the southwest portion of ISC San Pedro approximately 2,100 feet (0.4 miles) from Building 10. Building 10 and the MSST trailer site are on opposite ends of the base with numerous buildings, parking lots, and an athletic field occupying the space between them. ISC San Pedro has had numerous past tenants and missions. Buildings have been continually constructed over time to accommodate the changes in missions. In 1998, the Architectural Resources Group (ARG) conducted a cultural resource survey to determine National Register of Historic Places (NRHP) eligibility of the cultural resources at ISC San Pedro, both as individual resources and as contributing elements to a historic district. Buildings 10, 12, 14, 19, 32, 36, 40, Quarters A and C, the pier and boat basin sheet pile bulkhead, the industrial wharf, and the saluting battery gun mount were evaluated during this study. Only Building 10 was determined to be eligible for listing on the NRHP. ARG also determined that a district is not present at the site. Because the one eligible building and the new modular building are separated by a large distance and other buildings and Building 10 is not visible from the new modular building, the installation of the new building will not have a direct or indirect affect on Building 10 or its immediate surroundings. Operations associated with the MSST program are similar to on-going USCG operations and, therefore, would not have a direct or indirect affect on Building 10. Therefore, this undertaking will not have an affect on historic properties. Accordingly, the USCG has omitted detailed examination of cultural resources. A letter, with the subject Finding of No Historic Properties Affected for Establishing a U.S. Coast Guard Maritime Safety Security Team in San Pedro, California, was sent to the State Historic Preservation Office (SHPO) on July 1, 2002.
- *Hazardous Materials and Waste Management.* The MSST will abide by existing ISC San Pedro Hazardous Waste Management Plan. ISC San Pedro is a small quality generator, with an EPA small generator permit. The ISC is too small a facility to be classified as a Hazardous Waste Minimization Center. The small amount of hazardous materials/hazardous wastes that will be generated by the Proposed Action will be absorbed into the existing ISC

Hazardous Waste Management Plan. A commercial firm is contracted for disposal. Accordingly, the USCG has omitted detailed examination of land use.

3.1.2 Region of Influence

The MSST will be homeported at ISC San Pedro on Reservation Point on Terminal Island (see Figure 3-1) in the Port of Los Angeles. The MSST will patrol both the Port of Los Angeles and its sister Port of Long Beach. The MSST may also patrol the coastline from Santa Barbara to San Clemente. Together, the Ports of Los Angeles and Long Beach are ranked as one of the 10 busiest ports in the world with revenue of $95 billion in 2001. Combined, the ports of Long Beach and Los Angeles represent the third busiest container port complex in the world, after Hong Kong and Singapore. The RBS will be launched from ISC San Pedro or the Cabrillo Beach boat ramp, a public facility. The ROI for the Proposed Action and the No Action Alternative is geographically defined as San Pedro Bay (Ports of Los Angeles and Long Beach). The ROI includes Los Angeles County. This region encompasses the area where the MSST will spend the majority of its operating time. The MSST can be deployed temporarily in emergencies to other ports.

ISC San Pedro is home to 284 USCG personnel and full time employees. In addition, ISC San Pedro is home to various USCG units:

- USCG Marine Safety Office
- Group Los Angeles/Long Beach
- USCG Station Los Angeles/Long Beach
- USCG Aids to Navigation Team Los Angeles/Long Beach
- USCG Port Security Unit 311
- USCG PACAREA Armory Detachment
- USCG District 11 Public Affairs Detachment
- Director of Auxiliary (South)
- USCGIS Long Beach
- USCGC George Cobb
- USCGES (Exchange)
- USCG Housing Tenants (Quarters A & C)

The USCG has recently signed a lease agreement with the Los Angeles County Lifeguards. The Lifeguards would be a co-tenant on USCG property, but have yet to move on base.

Figure 3-1. Location Map of San Pedro ISC and Vicinity

3.1.3 Environmental Regulations, Laws, and Executive Orders

Table 3-1 presents environmental regulations, laws, and executive orders (EOs) that may reasonably be expected 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.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
EO 11593, Protection and Enhancement of the Cultural Environment	All federal agencies are required to locate, identify, and record all cultural and natural resources. Cultural resources include sites of archaeological, historical, or architectural significance. Natural resources include the presence of endangered species, critical habitat, and areas of special biological significance.	Building 10 is of historic significance; however, the USCG has determined that the Proposed Action will not impact this resource.
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 to engage in all practicable measures to minimize harm to wetlands if new construction has been implemented.	Golden Shore Wetland is adjacent to the Port of Long Beach. There will be no impacts to wetlands as a result of the Proposed Action.
EO 11988, Floodplain Management	Provides direction regarding actions of federal agencies in floodplains, and requires permits from state and federal review agencies for any construction within a 100-year floodplain.	Proposed Action will not involve construction in floodplains.
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.	No federal financial assistance will be provided to San Pedro, Los Angeles, Long Beach, or California as a result of this action. No development, that might have an impact on ROI, will occur as part of the Proposed Action. Appropriate state and local officials were invited to comment during scoping.
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.	No new chemicals will be used or stored as a result of the Proposed Action.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
EO 12898, Environmental Justice	Requires certain federal agencies, including the Department of Defense (DoD), to the greatest extent practicable and 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.	The Proposed Action will not result in 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.	No Indian sacred sites will be impacted by the Proposed Action.
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.	The Proposed Action will not create environmental health and safety risks to children.
EO 13158, Marine Protected Areas	Requires federal agencies whose actions affect the natural and cultural resources protected by a marine protected area (MPA) to identify such actions, and, to the extent practicable and permitted by law, to avoid harming the natural and cultural resources that are protected by an MPA.	No MPAs identified within the ROI.
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 regulatory policies that have tribal implications.	No Indian Tribes were identified within the ROI.
EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds	Requires federal agencies to take steps to protect migratory birds, including restoring and enhancing habitat, preventing or abating pollution affecting birds, and incorporating migratory bird conservation into agency planning processes whenever possible.	The Proposed Action will not significantly impact migratory birds or their habitat.
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 their 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.	No such rights or concerns were raised as a result of scoping.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
Antiquities Act of 1906, 16 U.S.C. 431-433, P.L. 59-209	Provides for the protection of historic and prehistoric ruins and objects of antiquity on lands owned or controlled by the federal government. Authorizes scientific investigation of antiquities on federal lands. Authorizes the establishment of national landmarks.	The Proposed Action will not impact historic and prehistoric ruins or objects of antiquity.
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.	The Proposed Action will not result in construction, and, therefore, will not impact historical and archaeological data.
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.	No protected resources or sites identified on ISC San Pedro. No construction will occur as a result of the Proposed Action.
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 that do not meet federal standards, and to prevent significant deterioration in areas where air quality exceeds those standards.	The Proposed Action meets the conformity criterion for not exceeding *de minimis* thresholds in the affected area. Furthermore, the reasonably foreseeable project emissions of NO_x, and VOCs would not exceed the South Coast Air Basin *de minimis* thresholds applicable to the MSST.
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.	The Proposed Action is consistent with the California Coastal Act. A letter describing the Proposed Action was sent on (July 1, 2002). No objection has been raised.
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.	MSST will be co-located with ISC San Pedro and will comply with their response plan.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
Department of Transportation Act, Section 4(f)	Requires the Department of Transportation (DOT) to avoid or mitigate impacts to public parks, wildlife areas, and historic properties when approving transportation programs or projects.	The Proposed Action will not impact public parks nor result in significant impacts to wildlife areas or historic properties.
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 (ESA) also requires consultation with the U.S. Fish and Wildlife Service (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.	Although threatened and endangered species occur in the ROI, the Proposed Action is not likely to result in significant adverse impacts to protected marine species.
Federal Property and Administrative Services Act of 1949	Guides the process for transferring government property.	The Proposed Action will not result in the transfer of government property.
Federal Records Act	Requires federal agencies to preserve federal records of potential historic value.	No federal records will be impacted as a result of the Proposed Action.
Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1251-1387	The Clean Water Act (CWA) 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).	The Proposed Action would result in fewer emissions as a result of compliance with the new EPA 2006 standards. A minor beneficial impact is anticipated.
Fish and Wildlife Conservation Act 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.	No waters or channels will be modified as a result of the Proposed Action.
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.	Building 10 has been identified as an historic building. It will not be affected by the Proposed Action.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
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.	No construction will occur as a result of the Proposed Action.
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.	The Proposed Action will not impact the enforcement of this 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).	The Proposed Action is within an EFH for two Fishery Management Plans; the Proposed Action is not likely to significantly impact fisheries.
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.	The Proposed Action will not create the potential for significant impacts to these protected species. This does not mean that a strike will never occur.
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.	Channel Islands, the closest National Marine Sanctuary, is 25 miles from the ROI. No waters in the ROI have been designated as a National Estuary.
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.	The Proposed Action is not likely to impact migratory birds nesting, feeding, or migration habits.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
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.	The scope of the Proposed Action requires an EA.
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.	In 1998, ARG conducted a cultural resource survey to determine NRHP eligibility of the cultural resources at ISC San Pedro. Only Building 10 was determined to be eligible. However, the USCG has determined that the Proposed Action will not impact this resource.
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.	RBS will not require ballast water.
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 their health and welfare. Authorizes the establishment of federal noise emissions standards and provides information to the public.	It is not anticipated that the noise generated by the Proposed Action will create greater than minor adverse impacts.
Nonindigenous Aquatic Nuisance Prevention Control Act of 1990, 16 U.S.C. 4701 et seq., P.L. 101-646	Establishes aquatic nuisance species.	RBS will not require ballast water.
North Pacific Anadromodous Stocks Convention Act	Establishes U.S. representation; prohibits taking anadromous fish in the Convention Area of the North Pacific Ocean and provides enforcement and penalties.	The Proposed Action will not impact the enforcement of this convention.
North Pacific Halibut Act	Implements the U.S. and Canadian 1953 Convention for the Preservation of the Halibut Fishery of the Northern Pacific Ocean. U.S. regulations are enforceable by the DOT Secretary and the Secretary of the department in which the USCG is operating.	The Proposed Action will not impact the enforcement of this act.
Northwest Atlantic Fisheries Convention Act	Implements provisions of international conventions and establishes regulatory framework.	The Proposed Action will not impact the enforcement of this regulation.

Table 3-1. Applicable Environmental Regulations, Laws, and Executive Orders (continued)

Environmental Regulations, Laws, and Executive Orders		Impact on the Proposed Action
Pacific Salmon Treaty Act and Sockeye Salmon Act	Both Acts address federal jurisdiction, the adoption of regulations, and enforcement for Pacific Salmon.	The Proposed Action will not impact the enforcement of these acts.
Occupational Safety and Health Act	Establishes standards to protect workers, including standards on industrial safety, noise, and health standards.	The USCG has an equivalent protective measures for personnel.
Port and Waterways Safety Act	Sets vessel operating and towing safety requirements and sets out enforcement provisions.	The Proposed Action will not impact the enforcement of this act.
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.	The Proposed Action will comply with current ISC San Pedro's program.

Source: USCG 2002e; USCG 2002f

3.2 Biological Resources

3.2.1 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
- Ocean Steward: the USCG's national strategy to help the recovery and maintenance of healthy populations of marine protected species
- Sea Partners: this is an environmental and outreach program designed to develop community awareness of maritime pollution issues and to improve compliance with marine environmental protection laws and regulations (USCG 2002f)

Marine Mammals

Marine mammals are an important consideration for USCG activities. A number of factors may impact the distribution of marine mammals, including environmental, biotic, and anthropogenic (human-generated). Environmental factors may include chemical, climatic, 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 United States (U.S.) laws on all U.S. waters, including laws protecting marine mammals and sensitive species. The USCG enforces the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), the National Marine Sanctuaries Act, and a number of maritime EOs, and federal and international laws, as applicable. The USCG's Commandant Instructions (COMDTINSTs) include a number of policies, directions, and procedures that include specific rules to ensure avoidance with marine mammals and avoid impacts whenever possible. The USCG's Ocean Steward and Ocean Guardian programs also support these goals (USCG 2002a). Furthermore, the USCG will continue to abide by its speed guidance published October 22, 1997 for vessels operating along the Pacific coast, "Coast Guard Vessel and Speed Approach Guidance" for whales.

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.

Fish

Living Marine Resource Protection is an important USCG mission. 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
- Endangered Species Act
- Marine Protection, Research and Sanctuaries Act
- National Fishery Management Program
- Fish and Wildlife Conservation Act
- Lacey Act Amendments of 1981

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

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

Coastal and Other Birds

In enforcing the ESA, the USCG also protects endangered and threatened bird species. The USCG must also comply with the Migratory Bird Treaty Act and EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

Wetlands and Floodplains

Biological resources also include wetlands. Wetlands are an important natural system and habitat because of the diverse biologic and hydrologic functions they perform. These functions include water quality improvement, groundwater recharge and discharge, pollution mitigation, nutrient cycling, wildlife habitat provision, unique flora and fauna niche provision, storm water attenuation and storage, sediment detention, and erosion protection. Wetlands are protected as a subset of the "waters of the U.S." under Section 404 of the Clean Water Act (CWA). The term "waters of the United States" has a broad meaning under the CWA and incorporates deep-water aquatic habitats and special aquatic habitats (including wetlands). The U.S. Army Corps of Engineers (USACE) defines wetlands as "those areas that are inundated or saturated with ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 Code of Federal Regulations [CFR] 328).

Section 404 of the CWA authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill materials into the waters of the U.S., including wetlands. In addition, Section 404 of the CWA also grants states with sufficient resources the right to assume these responsibilities.

Floodplains are areas of low-level ground along a river or stream channel. These lands may be subject to periodic or infrequent inundation due to rain or melting snow. Risk of flooding is influenced by local topography, the frequency of precipitation events, and the size of the watershed above the floodplain. Flood potential is evaluated by the Federal Emergency Management Agency (FEMA), which evaluates the floodplain for 100- and 500-year flood events. Federal, state, and local regulations often limit floodplain development to passive uses such as recreational and preservation activities in order to reduce the risks to human health and safety and minimize cost to replace or repair repetitively damaged infrastructure.

3.2.2 Affected Environment

Protected and Sensitive Habitats

Terminal Island is a highly developed area with no native vegetation. Therefore, there is no sensitive habitat for protected or sensitive species of wildlife or plants. MSST operations have the potential to be near formally protected areas. Habitats associated with California state parks do not provide significant habitat for protected species due to the high level of human impact on the sites. The harbor approach contains the ecologically sensitive Point Fermin Marine Life Refuge and Seal Beach National Wildlife Refuge. In addition, 13 percent of California's endangered least terns (state and federally listed as endangered) live in a Least Tern Management Area that covers the southern half of the Pier 400 Stage 1 landfill. A section in the south east corner of this area has been designated a Least Tern Nesting Site (MTS 2002). Shallow water habitats in the harbor feed the terns and also provide a nursery for halibut. Additional areas include five state parks and one National Wildlife Refuge as listed below:

- Will Rodgers State Beach Park
- Dodweiler State Park
- Leo Carillo State Beach
- Huntington Beach State Park
- Bolsa Chica State Park
- Seal Beach National Wildlife Refuge

Marine Mammals

This section includes a brief description of marine mammals within the ROI. Several endangered species of marine mammals are known to occur in the waters off the California coast. These species frequently occur offshore from the ROI of the Proposed Action. Due to the habitat requirements of these species, they do not occur directly in the Port of Los Angeles. Federally endangered marine mammals that have the potential to occur off the California coast include southern sea otters, manatees, Guadalupe fur seals, monk seals, humpback, blue, fin, sei, right, and bowhead whales. None of these species are known to inhabit the Port of Los Angeles.

Marine mammals not designated as threatened or endangered by the USFWS or the National Marine Fisheries Service (NMFS) have been observed in California coastal waters. These include harbor seals (*Phoca vitulina richardsi*), Northern elephant seals (*Mirounga angustirostris*), sea lions (*Zalophus californianus*), and fur seals (*Callorhinus Ursinus*).

Harbor seals inhabit coastal and estuarine waters off Baja California, north along the western coasts of the continental U.S., British Columbia, and Southeast Alaska, west through the Gulf of Alaska and Aleutian Islands, and in the Bering Sea north to Cape Newenham and the Pribilof Islands. Harbor seals are known for laying on rocks, reefs, beaches, and drifting glacial ice. They feed in marine, estuarine, and occasionally fresh waters. Harbor seals generally are non-migratory, with local movements associated with such factors as tides, weather, season, food availability, and reproduction (NOAA 2002).

Male harbor seals generally grow to approximately 5 – 5 1/2 feet in length and weigh between 200 – 250 pounds. The smaller females grow to approximately 4 1/2 – 5 feet and weigh between 150 – 200 pounds. Harbor seals are thought to live to at least 25 years. Males mature at four to six years, females earlier. Pups, weighing between 12 – 20 pounds and measuring about 2 1/2 feet, are born in the spring. Unlike many other seal pups, harbor seals are able to swim from birth, although they are dependent on the mother for milk and nurturing for three to six weeks before they venture out on their own. While tending their young, harbor seal mothers are very protective and will sometimes push the pup beneath the surface or carry it on her shoulders to avoid danger (NOAA 2002).

Northern elephant seals are "earless" or "true" seals. This seal species is one of the largest, with females reaching lengths of up to 10 1/2 feet and weighing up to 1,980 pounds. Males can grow to 18 feet and weigh up to 6,000 pounds. Once hunted to near extinction, elephant seals now populate the coast from the Gulf of Alaska south to Baja California. Elephant seals dive to an average depth of 450 feet, however, they have been recorded as deep as 5,000 feet. They can easily remain submerged for 20 minutes, with a maximum of 119 minutes. The usual diet of a northern elephant seal in the wild consists of squid, small

sharks, rays, and other deep-water species. Because of their bottom-feeding nature, it is not uncommon to see elephant seals come to the Marine Mammal Care Center at Fort Mac Arthur with stingray barbs, Ratfish spines, or cookie-cutter shark bites.

Sea lions are eared seals. They have external ear flaps, small tails, and smooth whiskers. They have the ability to walk on all fours, which makes them highly mobile on land, and when they swim, they do so primarily with their large front flippers, using their rear flippers for steering.

Male adult sea lions can grow to be over eight feet in length and can weigh up to 800 pounds. Females can grow up to six feet in length and weigh 250 pounds. Their habitat consists of sandy or rocky island beaches, mainland shorelines, coastal islands, or caves protected by steep cliffs ranging from Vancouver to Baja California and the Gulf of California. Their large front flippers and the ability to turn their rear flippers under their bodies allow them to pull themselves up onto buoys or docks. Their diet in the wild includes squid, octopus, herring, and anchovies. Sea lions exhibit many behavior traits (excellent sense of balance, mobility, and coordination) that often cause them to be viewed as cute and "cuddly," but it should be noted that they are wild animals. They possess sharp teeth and strong jaws, they grow to be extremely large, and they can move quicker than one might expect on land (NOAA 2002).

Fur seals are eared seals, named for their dense, insulating under-fur. They spend most of their time in deep waters offshore, and are not commonly seen along the coast in the southern California area due to their pelagic lifestyle. Their range extends from the Arctic Ocean to southern California in winter, with summers spent on the Pribilof Islands in the Bering Sea and San Miguel Island off the California coast. Fur seals are similar to California sea lions in appearance, with external ear flaps and large front flippers, however the fur seals have longer fur, which stops at the top of the flipper, and their noses are slightly shorter. Fur seals also have teeth that "interlock" or mesh together, leaving little or no space between them when their jaws are closed. They reach lengths from about four feet to over seven feet, and males can weigh over 600 pounds, while females generally reach about 200 pounds.

Fish

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, the Pacific States Marine Fisheries Commission (PSMFC) and NMFS manage essential fish habitat (EFH) off the coast of California. Coastal areas are essential breeding, nursery, and feeding areas for many marine fish and shellfish. In 1996, Congress amended the Magnuson-Stevens Fishery Conservation and Management Act to require that Fishery Management Plans (FMP) identify the EFH of each fishery and the major threats to that habitat. All FMPs must address the impacts of fishing activities on EFH and, to the extent

practicable, minimize adverse impacts. Federal agencies must consult with fishery managers concerning actions (including the issuance of permits for private activities) that may adversely impact EFH.

Over 130 species of fish are found in the Los Angeles Harbor (MEC 1988). As a general rule, the abundance of fish within the federal breakwater is higher than outside the breakwater and the diversity and abundance of fish decline as one proceeds into the Inner Harbor. Over the years, there has been an improvement of the harbor's water quality and areas in the main channels and basins of the Inner Harbor, which historically were less valuable to fishes, and have become more like areas of the deep Outer Harbor (MEC 1988). An estimate of total fish abundance shows that the Outer Harbor contains, at any one time, approximately 15 million fish (MEC 1988). Three species, the Pacific sardine (*Sardinops sagax*), the northern anchovy (*Engraulis mordax*), and the white croaker (*Genyonemus lineatus*), make up approximately 90 percent of the fish in the Outer Harbor (MEC 1988).

The proposed project is located within an area designated as EFH for two FMPs, the Coastal Pelagics and Pacific Groundfish Management Plans. Of the 86 species that are federally managed under these plans, twelve are known to occur in the Los Angeles Harbor and could be affected by the proposed project (see Table 3-2).

Table 3-2. Pertinent Fishery Management Plans in the ROI

Common Name	Scientific Name	Comment
Coastal Pelagics FMP		
Northern anchovy	*Engraulis mordax*	Most common species in harbor; adult & larvae present
Pacific sardine	*Sardinops sagax*	Abundant species in harbor; predominantly adult
Pacific mackerel	*Scomber japonicus*	One of top ten species in deeper portions of the harbor; adult
Jack mackerel	*Trachurus symmetricus*	One of top ten species in deeper portions of the harbor; adult
Pacific Groundfish FMP		
English sole	*Parophrys vetulus*	Rare; adult; 1of 30,733 fish caught in trawl
Pacific sanddab	*Citharichthys sordidus*	Rare; adult; 1 of 30,733 fish caught in trawl
Leopard shark	*Triakis semifasciata*	Uncommon; adult; 1 of 20,184 fish caught in beach seines
Bocaccio	*Sebastes paucispinis*	Uncommon; juvenile in kelp around breakwater
California scorpionfish	*Scorpaena gutatta*	Common; adult found in rock dikes & breakwater, soft bottom at night
Olive rockfish	*Sebastes serranoides*	Common; juveniles in kelp around breakwater
Cabezon	*Scorpaenichthys marmoratus*	Rare; adult

Source: MEC 1988, MEC 1999

Four of the five species in the Coastal Pelagics FMP are well represented in the ROI. In particular, the northern anchovy is the most abundant species in Los Angeles Harbor, representing over 80 percent of the fish caught (MEC 1988, MEC 1999), and larvae of the species also are a common component of the ichthyoplankton (MEC 1988). It is generally held that this species spawns outside the harbor. There is a commercial bait fishery for northern anchovy in the Outer Los Angeles Harbor. The Pacific sardine is at times one of the most common species in the harbor ranking second behind northern anchovy at some locations (MEC 1988). In a recent survey, sardines were a less significant component of the fish caught (MEC 1999). This species is not known to spawn in the harbor. Sardines also are a component of the commercial baitfish harvest in the harbor. Both these species are important forage for piscivorous fish (i.e., fish that eat other fish). The two other Coastal Pelagic species, the Pacific and jack mackerels are common but not overly abundant as adults in the harbor. The Pacific mackerel's main forage fish in the harbor is very likely northern anchovy.

Of the seven species present from the Pacific Groundfish FMP, only two, the olive rockfish and the scorpionfish, could be considered common in the harbor. The olive rockfish has been found largely as juveniles associated with the kelp growing along the inner edge of the federal breakwater (MEC 1988). The scorpion fish is not a major component of the fish present in the harbor (MEC 1988) but may be under-represented in the catch due to its' nocturnal habits.

The tidewater goby (*Eucyclogobius newberryi*) was federally listed as an endangered species by USFWS on February 4, 1994 (USFWS 1999). On June 24, 1999, USFWS proposed to delist the northern populations of the tidewater goby and to retain the endangered status in Orange and San Diego Counties. This proposal is based on the conclusion that the southern California populations are genetically distinct and represent a distinct population segment. On November 20, 2000, USFWS designated 10 coastal stream segments, totaling approximately nine linear miles of rivers, streams, and estuaries in Orange and San Diego Counties as critical habitat for the tidewater goby.

Tidewater gobies are a California endemic species and are unique in that they are restricted to coastal brackish water habitats. At the time of listing, it was believed that this species historically occurred in at least 87 of California's coastal lagoons, ranging from Agua Hedionda Lagoon (northern San Diego County) to Tillas Slough (mouth of the Smith River), Del Norte County, California. Only 46 goby populations were believed to exist at the time of listing, representing an approximate 50 percent decline of known populations (USFWS 1999). In 1999, an estimated 85 tidewater goby populations were believed to be in existence and the number of historical populations was estimated to be about 110 (USFWS 1999).

Coastal and Other Birds

Varieties of bird species inhabit the ROI and its woodland and shoreline habitats. Although birds are not tied as intimately to their habitats as benthic species such as blue crabs or oysters, they require similarly protective nesting, nursery grounds, and foraging habitats. Bird populations off the California coast have significant commercial, recreational, ecological, and aesthetic values. In addition, many bird species are predators of fish, shellfish, or benthic organisms and, therefore, are important indicators of the health of the food web and the status of different bay habitats.

In winter, Los Angels Harbor hosts up to 16,500 birds from 153 species, with those migrating along the Pacific Flyway joining species present all year. Most birds roost in the inner harbor and feed in the outer harbor. Waterfowl forage in shallow water, endangered brown pelicans (state and federally listed as endangered) in deeper waters. The breakwater annually hosts pelicans (*Pelecanus occidentalis)* foraging on northern anchovies. The area also supports a large population of the state and federally endangered least tern (*Sterna antillarum athalassos*). In total, there are 19 species of state, or federally listed species known to use the region. Table 3-3 provides a summary of these species.

Many other birds species occur in the region. Bald eagles (*Haliaeetus leucocephalus*), federally threatened, migrate through and nest in the area. American kestrel, Anna's hummingbird, barn swallow, belted kingfisher, black oystercatcher, brown pelican, Caspian tern, cormorant, diving duck, elegant tern, grebe, gull, killdeer, loon, mallard, mockingbird, peregrine falcon, royal tern, and western gull are the most commonly observed birds in the ROI (MTS 2002).

Wetlands

As a result of the previously cited federal and state regulations, 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.

Tidal wetlands are dominated by a community of plants that are tolerant of wet, saline soils, and are generally found in low-lying coastal habitats that are periodically wet and usually saline to hypersaline. In fact, no other feature defines a salt marsh better than its plant communities that live there do. The location of plant species within a salt marsh is defined by zone, with cordgrass (*Spartina foliosa*) forming the most seaward edge of the emergent marsh plant community. Of the thousands of plant species in

Table 3-3. List of Federally or State-Listed Bird Species

Species	State Status	Federal Status
Waterbirds		
Eastern brown pelican, *Pelecanus occidentalis*	E	E
Reddish egret, *Egretta rufescens*	T	
White-faced ibi*s, Plegadis chihi*	T	
Wood stork, *Mycteria americana*	T	
Whooping crane, *Grus americana*	E	E
Raptors		
Swallow-tailed kite, *Elanoides forficatus*	T	
Bald eagle, *Haliaeetus leucocephalus*	T	T
Common black-hawk*, Buteogallus anthracinus*	T	
Gray hawk, *Asturina nitidus plagiata*	T	
White-tailed hawk, *Buteo albicaudatus*	T	
Zone-tailed hawk, *Buteo albonotatus*	T	
Northern aplomado falcon, *Falco femoralis septentrionalis*	E	E
Peregrine falcon, *Falco peregrinus*	E	
Cactus ferruginous pygmy-owl, *Glaucidium brasilianum cactorum*	T	
Mexican spotted owl, *Strix occidentalis lucida*	T	T
Shorebirds		
Piping plover, *Charadrius melodus*	T	T
Eskimo curlew, *Numenius borealis*	E	E
Interior least tern, *Sterna antillarum athalassos*	E	E
Sooty tern, *Sterna fuscata*	T	

North America, only cordgrass thrives in the lowest zone of a salt marsh. The middle zone of a tidal marsh is characterized by the occurrence of pickleweed (*Salcornia sp.*). Pickleweed is less tolerant of tidal inundation than cordgrass, but is the most dominant plant of California tidal wetlands. Jaumea (*Jaumea carnosa*) also occurs, but to a lesser extent within the middle zone of California's coastal marshes. The upper zone of a tidal marsh may only be inundated infrequently, in some locations as little as once or twice annually. Such inundation usually occurs during the spring tide cycle (highest annual tides) and during severe storm events. The upper zone of the tidal marsh is characterized by the dominance of salt grass (*Distichlis spicata*), which tolerates only occasional tidal inundation. This upper area of marshes contains the largest plant species diversity of the three zones. Species such as fat hen (*Atriplex patula*), sand spurrey *(Spergularia marina*), marsh rosemary (*Limonium californicum*), and brass buttons (*Cotula cornopifolia*), can be found within the upper zone of salt marshes throughout California. In the southern

portion of the state, species such as Australian salt bush (*Atriplex semibaccata*), sea-bite (*Suaeda californica* and *Suaeda fruticosa*), shoregrass (*Monanthochloe littoralis*), and salt marsh bird's beak (*Cordylanthus* sp.) can be found within the upper salt marsh zone.

Eelgrass beds are generally regarded as highly productive habitats that support a rich assemblage of species and provide a refuge area for larval and juvenile fishes. Eelgrass habitat also is a very important resource for a variety of birds. It is associated with rich bottom fauna important to waterbirds, especially diving birds and mollusk-eaters. In California's bays and estuaries north of Monterey Bay, eelgrass provides spawning habitat for Pacific herring. Large numbers of waterbirds such as scoters, bufehead, scaup, goldeneyes, and American coots eat eggs deposited onto eelgrass by Pacific herring during the mid-winter spawn. In addition, many birds such as surface-feeding ducks and other waterfowl, including the black brant, feed directly on eelgrass.

There are no wetlands on the stationing site or launch sites to be used by the MSST.

Floodplains

Under existing conditions, the 100-year flood would inundate all of the developed areas near Terminal Island and many areas of the adjacent coastline.

3.3 Air Quality and Climate

3.3.1 Definition of the Resource

In accordance with federal Clean Air Act (CAA) requirements, the air quality in a given region or area is measured by the concentration of various pollutants in the atmosphere. The measurements of these "criteria pollutants" are expressed in units of parts per million (ppm) or in units of micrograms per cubic meter ($\mu g/m^3$). Air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the air basin, and the prevailing meteorological conditions.

National Ambient Air Quality Standards (NAAQS) have been established by Environmental Protection Agency (EPA) for criteria pollutants (i.e., for those pollutants that have been determined to be injurious to human health and welfare). Criteria air pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 microns in diameter (PM_{10}), particulate matter equal to or less than 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety to protect public health and welfare. The State of California has promulgated State Ambient Air

Quality Standards for O_3, PM_{10}, CO, SO_2, and NO_2 that are generally more stringent than NAAQS (see Table 3-4).

Table 3-4. National Ambient Air Quality Standards

Pollutant	Standard Value		Standard Type
Carbon Monoxide (CO)			
8-hour Average	9 ppm[b]	(10 mg/m^3)[c,d]	Federal & California
1-hour Average	35 ppm	(40 mg/m^3) [c d]	Federal
1-hour Average	20 ppm	(23 mg/m^3) [c d]	State of California
Nitrogen Dioxide (NO_2)			
Annual Arithmetic Mean	0.053 ppm	(100 μg/m^3) [c,e]	Federal
1-hour Average	0.25 ppm	(470 μg/m^3) [c,e]	State of California
Ozone (O_3)			
8-hour Average[a]	0.08 ppm	(157 μg/m^3) [c]	Federal
1-hour Average[a]	0.12 ppm	(235 μg/m^3) [c]	Federal
1-hour Average	0.09 ppm	(180 μg/m^3) [c]	State of California
Lead (Pb)			
30 Day Average		1.5 μg/m^3	State of California
Quarterly Average		1.5 μg/m^3	Federal
Particulate < 10 micrometers (PM_{10})			
Annual Arithmetic Mean		50 μg/m^3	Federal
Annual Geometic Mean		30 μg/m^3	State of California
24-hour Average		150 μg/m^3	Federal
24-hour Average		50 μg/m^3	State of California
Particulate < 2.5 micrometers ($PM_{2.5}$)			
Annual Arithmetic Mean		15 μg/m^3	Federal
24-hour Average		65 μg/m^3	Federal
Sulfur Dioxide (SO_2)			
Annual Arithmetic Mean	0.03 ppm	(80 μg/m^3)[c]	Federal
24-hour Average	0.14 ppm	(365 μg/m^3) [c]	Federal
3-hour Average	0.50 ppm	(1300 μg/m^3) [c]	Federal Secondary
24-hour Average	0.04 ppm	(105 μg/m^3) [c]	State of California
1-hour Average	0.25 ppm	(655 μg/m^3) [c]	State of California

Notes:

a In July of 1997, the 8-hour ozone standard was promulgated and the 1-hour ozone standard was remanded for all areas, excepting areas that were designated nonattainment with the 1-hour standard when the ozone 8-hour standard was adopted. In July of 2000, the ozone 1-hour standard was re-instated as a result of the federal lawsuits that were preventing the implementation of the new 8-hour ozone standard. As of December of 2001, U.S. EPA estimated that the revised 8-hour ozone standard rules will be promulgated in 2003-2004. In the interim, no areas can be deemed to be definitively nonattainment with the new 8-hour standard.

b ppm – parts per million

c Parenthetical value is an approximately equivalent concentration.

d mg/m^3 – milligrams per cubic meter

e μg/m^3 – micrograms per cubic meter

The CAA and EPA delegated responsibility for ensuring compliance with NAAQS to the states and local agencies. As such, each state must develop air pollutant control programs and promulgate regulations and rules that focus on meeting NAAQS and maintaining healthy ambient air quality levels. These programs are detailed in State Implementation Plans (SIP), which must be developed by the states and approved by the EPA. Each SIP is a compilation of regulations, strategies, schedules, and enforcement actions designed to move the state into compliance with all NAAQS. Any changes to the compliance schedule or plan (i.e., new regulations, emission budgets, controls, etc.) must be incorporated into the SIP and approved by EPA.

The California Air Resources Board (CARB) is responsible for implementation of the CAA and has adopted the federal primary and secondary NAAQS. Los Angeles County is within the boundaries of the South Coast Air Basin; this region also includes Orange County and the non-desert portions of Riverside and San Bernardino Counties. The South Cost Air Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is also known as the Metropolitan Los Angeles Air Quality Control Region (MLAAQCR).

The CAA prohibits federal agencies from undertaking projects that do not conform to an EPA-approved SIP. In 1993, EPA developed the General Conformity Rule, which specifies how federal agencies must determine CAA conformity for sources of non-attainment pollutants in designated non-attainment areas. Through the Conformity Determination process specified in the final rule, any federal agency must analyze increases in pollutant emissions directly or indirectly attributable to a proposed action, and may need to complete a formal evaluation that includes modeling for NAAQS impacts, provision of emission offsets, and potential mitigation for any significant increases in non-attainment pollutants.

In 1997, EPA initiated work on new General Conformity rules and guidance to reflect the new 8-hour ozone, $PM_{2.5}$, and regional haze standards that were promulgated in that year. However, because of pending litigation and resulting delay in implementation of the new ozone and $PM_{2.5}$ ambient air quality standards, these new conformity requirements have not been completed by EPA, and draft rule language is not yet available (USEPA 2001).

The General Conformity Rule and the promulgated regulations found in 40 CFR Part 93, exempt certain federal actions from the Conformity Determination process (e.g., contaminated site clean-up and natural emergency response activities). Other federal actions are assumed to be in conformity if total indirect and direct project emissions of nonattainment pollutants are below *de minimis* levels established under 40 CFR Part 93.153. The threshold levels (in tons of pollutant per year) depend upon the severity of the non-attainment area as designated by EPA. To evaluate whether a proposed action is in conformity, the net change in non-attainment pollutants are calculated, then compared to the *de minimis* thresholds

The General Conformity Rule requires that any federal action meet the requirements of a SIP or Federal Implementation Plan (FIP). More specifically, CAA Conformity is assured when a federal action *does not:*

- Cause a new violation of a NAAQS
- Contribute to an increase in the frequency or severity of violations of NAAQS
- Delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS

The General Conformity Rule applies only to actions in nonattainment or maintenance areas and considers both direct and indirect emissions. The rule applies only to federal actions that are considered "regionally significant" or where the total emissions from the action meet or exceed the *de minimis* thresholds. An action is regionally significant when the total non-attainment pollutant emissions exceed 10 percent of the Air Quality Control Regions (AQCR) total emissions inventory for that non-attainment pollutant. If a federal action meets the *de minimis* threshold requirements and is not considered regionally significant, then a full Conformity Determination is not required.

Federal Prevention of Significant Deterioration (PSD) regulations also define air pollutant emissions from proposed major stationary sources or modifications to be "significant" if: 1) a proposed project is within 10 kilometers of any Class I area; and 2) regulated pollutant emissions would cause an increase in the 24-hour average concentration of any regulated pollutant in the Class I area of 1 $\mu g/m^3$ or more (40 CFR 52.21(b)(23)(iii)).

3.3.2 Affected Environment

Regional Air Quality

Ambient air in South Coast Air Basin is monitored for NO_2, CO, SO_2, ozone, PM_{10}, and $PM_{2.5}$ to determine compliance with NAAQS.

The South Coast Air Basin is currently in attainment for NO_2, SO_2, and $PM_{2.5}$. However, it is classified as "extreme nonattainment" for O_3; and as "serious nonattainment" for CO and PM_{10}. The control of ambient levels of ozone is addressed through the control of ozone precursors, NO_2, and volatile organic compounds (VOCs).

The facility is located in the South Coast Air Basin. However, due to the nature of the activities associated with this facility, air quality within the San Diego County Air Basin and the South Central Coast Air Basin could be affected. The San Diego County Air Basin is in non-attainment for $PM_{10,}$ and serious non-attainment for O_3. The southern portion of the South Central Coast Air Basin is in severe non-attainment for O_3 and non-attainment for PM_{10}.

Climate

The South Coast Air Basin is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and south, and the San Gabriel, San Bernardino and San Jacinto mountains to the north and east. The basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties.

The average annual temperature in Los Angeles County is 66.2 degrees Fahrenheit (ºF) and annual rainfall totals 15.14 inches (NCDC 2002). Table 3-5 summarizes the climate in the City of Los Angeles. Generally, the climate is characterized by hot summers and moderate winters, light annual rainfall, light to moderate winds, and humidity averaging 57 percent. During the summer, the region lies under a high-pressure zone associated with descending dry air from the upper atmosphere, which generally prevents precipitation. Precipitation is markedly greater in the winter months, from November through April; however, autumn brings the Santa Ana winds, which blow from the Mojave Desert toward the ocean. The winds push the marine layer out to sea and become heated by compression as they drop into the basin, resulting in very dry weather.

Table 3-5. Local Climate Summary for the City of Los Angeles

Month	Mean Temperature (°F)	Median Precipitation (Inches)
January	56.7	1.7
February	57.6	1.6
March	57.9	1.5
April	60.1	0.3
May	62.7	0.0
June	65.7	0.0
July	69.0	0.0
August	70.4	0.0
September	69.8	0.1
October	66.9	0.1
November	61.6	1.2
December	57.0	1.2

Source: NOAA 1990

3.4 Noise

3.4.1 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 is the USCG ISC San Pedro on Terminal Island, Los Angeles Harbor, and San Pedro Bay, California.

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, 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, 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 sleep, 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. In order to evaluate the total community noise environment, a time-averaged noise level, or day-night average A-weighted sound level (DNL), has been developed. DNL is the average 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 10 dB penalty gives extra sensitivity to events occurring during this period when ambient noise levels are generally low. EPA and DoD, as well as all other federal agencies having non-occupational noise regulations, use the DNL as their principal noise descriptor for community assessments (Cowan 1994).

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

For USCG facilities, like ISC San Pedro, USCG NEPA Implementing Procedures (Commandant Instruction [COMDTINST] M16475.1-D) require a discussion of the existing conditions in the surrounding communities, including noise regulations. Additionally, the USCG Safety and Environmental Health Manual (COMDTINST M5100.47) establishes requirements for noise, which includes compliance with local noise ordinances, and the identification and assessment of hazardous noise sources. Therefore, noise produced by USCG watercraft or at USCG facilities should be in compliance with USCG, state, and local guidelines. The USCG recommends 86 dBA as the maximum noise-level that watercraft may generate (PWIA 2002).

Most states and territories have developed land use plans and regulations that incorporate noise thresholds and standards in accordance with the Federal Noise Control Act of 1972 (42 U.S.C. 4901, 4918). The State of California's Legislative Code, Harbors and Navigation, Section 654 states that "the exhaust of every internal combustion engine used on any motorized recreational vessel shall be effectively muffled at all times to prevent any excessive or unusual noise." Section 654.05 provides noise level exposure limits for motorized recreational vehicles (watercraft). The maximum operational noise level for watercraft built before 1976 is 86 dB, before 1978 is 84 dB, and after 1978 is 82 dB (LCC 2002). This information can also be found in the USCG's *Reference Guide to State Boating Laws, 6th edition*, 2000. In a review of the Administrative Code of California, no additional noise control codes for watercraft engines or nuisance noise ordinances were found. As a reference, most states have established a maximum noise lever operating range of 75 dBA to 90 dBA at 50 feet, which incorporates the Society of Automotive Engineers (SAE) SAE J-2005 (stationary test) and SAE J-190 (shoreline test). EPA uses 75 A-weighted decibels (dBA) as an acceptable noise level to protect public health and welfare (PWIA 2002).

In the State of California's Legislature's Health and Safety Code, Section 46000, it is stated that noise should be controlled. The Legislature acknowledges that excessive noise is a serious hazard to public health and welfare, and exposure to certain levels of noise can result in psychological, physiological, and economic damage. The State of California also acknowledges its responsibility to protect the health and welfare of it citizens by the control, prevention, and abatement of noise (LCC 2002).

The USCG also cooperates with local governments or the host agency to ensure that the facilities comply with local noise standards and land use regulations. The County of Los Angeles Code has several noise specific codes. Under Title 12, Environmental Protection, the declaration of the noise policy is "to control unnecessary, excessive, and annoying noise and vibration in the county of Los Angeles." The code further states that "the county shall maintain quiet in those areas which exhibit low noise levels and

to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values" (LACC 1978).

In determining what is loud, unnecessary and unusual noise to determine violations, County Code Chapter 13.45.010 considers:

- The level of noise
- Whether the nature of the noise is usual or unusual
- Whether the origin of the noise is natural or unnatural
- The level and intensity of any background noise
- The proximity of the noise to residential sleeping facilities
- The nature and zoning of the area within which the noise emanates
- The density of the inhabitation of the area within which the noise emanates
- The time of the day or night the noise occurs
- The duration of the noise
- Whether the noise is recurrent, intermittent, or constant; and
- Whether the noise is produced by a commercial or noncommercial activity (LACC 2001)

Further, the County has exterior noise standards in which maximum noise levels are determined by land use. These standards are not to be exceeded for any 30-minute continuous period. For example, a Noise Zone II (residential) has a maximum noise level of 45 dB during the hours of 10:00 p.m. to 7:00 a.m., while during the hours of 7:00 a.m. to 10:00 p.m., the maximum noise level is 50 dB. For Noise Zone IV (industrial properties), the noise level not to be exceeded is 70 dBA (LACC 1978).

Therefore, in determining impacts, the criteria used will be 70 dBA, which is the maximum noise level for Noise Zone IV (industrial properties) from the County of Los Angeles Code, exterior noise standards.

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 (Cowan 1994).

Marine Mammal Response to Noise

Marine mammals spotted off the California coastal waters include harbor seals, Northern elephant seals, sea lions, fur seals, southern sea otters, manatees, Guadalupe fur seals, monk seals, humpback, blue, fin, sei, right, and bowhead whales. They are protected under the MMPA. Noise is recognized as a disturbance to whales. Increasingly, attention is being paid to the impacts on whales of anthropogenic (human-generated) noise sources, especially those associated with the military (ONR 2000), as these sources tend to be much louder and can be widespread (Richardson, et al 1995). In addition to human-generated noise, there are numerous natural sound sources in the world's oceans, such as earthquakes, lightening strikes, sea ice activity, precipitation, and waves.

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 in 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 vessel 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 vessels 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 vessels are considerably smaller, with much smaller engines, so they do not significantly contribute to this type of noise.

Existing Noise Outputs for Ships

Noise generated from water vessels has an effect on both above-water and underwater noise receptors. Vessels vary greatly in their noise output. Vessel size, hull construction, speed, maintenance, and other factors all affect the noise a vessel produces.

Above-water Noise. Generally, as the size, load, and speed of a vessel increase, so does the noise it generates. Although the USCG ISC San Pedro operates a variety of vessel types at the facility, the type of watercraft currently used for patrolling operations is a Coastal Control Boat also known as a "Boston Whaler." This patrol boat has a 2-stroke Mercury 175 outboard engine and the capacity to carry a 4-person crew. Because data on airborne noise generated from marine vessels was not available, a qualitative assessment was made when analyzing above-water noise.

Underwater Noise. Vessels vary greatly in their noise output. Vessel size, hull construction, speed, maintenance, and other factors all affect the noise a vessel produces. Generally, as the size, load, and speed of a vessel increase, so does the noise it generates. Vessel 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 cutters 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 3-6 lists sound pressure source levels for various vessels (Richardson, et al. 1995; USCG undated).

Table 3-6. Underwater Sound Pressure Levels for Various Vessels

Vessel (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
Note: USCG cutters range from 110 to 387 feet. These underwater sound pressure levels cannot be directly compared to airborne decibel levels.

3.4.2 Affected Environment

Currently, ISC San Pedro is adjacent to compatible areas, zoned mostly industrial. The base is equipped with a variety of piers that meet the needs of roll-on/roll-off, break bulk cargo, and other large vessels. Los Angeles Harbor is adjacent to the Port of Los Angeles, one of the world's largest, busiest and most successful seaports. Located in San Pedro Bay, approximately 20 miles south of downtown Los Angeles, the port complex occupies 7500 acres of land and water along 35 miles of waterfront. The Port has 29

major cargo terminals, including facilities to handle automobiles, containers, dry bulk products and liquid bulk products (Port 2002a).

While home ported or in transit to off-shore areas, noise produced by water vessels and supporting facilities can combine with other noise sources to affect nearby communities and natural resources. Industrial areas border the ISC San Pedro. 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.

Current Operations

ISC San Pedro is part of the USCG 11th District. The primary operating function of this district is maritime safety and search and rescue, but also includes maritime law enforcement, such as drug law enforcement and alien migrant interdiction operations, environmental protection for the protection of living marine resources, and more recently, national security. The units are established and managed based on their functions according to the mission. Since all units are multi-mission, there is some overlap in the responsibilities of each mission, and therefore, no one type of watercraft is limited to a mission (USCG11 2002).

3.5 Public Safety

3.5.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for property damage, serious bodily injury or illness, or death. Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. Activities that can be hazardous include transportation, maintenance and repair activities, and the creation of highly noisy environs. The proper operation, maintenance, and repair of vehicles and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation process creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns.

3.5.2 Affected Environment

Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of maritime safety in all U.S. waters, including the high seas. The U.S. maritime transportation system is diverse.

Geography, environmental conditions, and the amount and types of vessel traffic are all aspects of the U.S. maritime system.

U.S. ports must provide safe and efficient rapid turnaround capabilities to accommodate expanding trade and the increasing size and speed of oceangoing ships, many of which are foreign. U.S. ports also handle a large volume of coastal and inland traffic. Major members of the U.S. maritime transportation system include federal agencies, commercial groups, state and local groups, and public and community groups (USCG 2002a). Since the events of September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern. It is due to those concerns that the Proposed Action is being considered.

4. Environmental Consequences

4.1 Introduction

This chapter will present the potential environmental impacts of the Proposed Action and the No Action Alternatives. U.S. Coast Guard (USCG) personnel and cutters currently perform security duties in and around the Ports of Los Angeles and Long Beach and occasionally along the California coast from Santa Barbara to San Clemente. The Proposed Action will result in an addition of personnel and equipment to the current number of assigned personnel and inventory.

The Proposed Action is the stand-up and operation of a Maritime Safety and Security Team (MSST) at the ISC San Pedro. The MSST will consist of six Response Boats-Small (RBS), approximately 71 active duty personnel, and 33 reservists.

Under the No Action Alternative, the USCG would continue to conduct safety and security activities at the current level. This section of the Environmental Assessment (EA) assesses potential environmental consequences associated with the Proposed Action. Potential impacts are addressed in the context of the scope of the Proposed Action as described in Section 2.0 and in consideration of the potentially affected environment as characterized in Section 3.0.

4.2 Biological Resources

4.2.1 Significance Criteria

This section evaluates the potential impacts to the biological resources under the Proposed Action and the No Action Alternative. The significance of impact to biological resources is based on: 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource; 2) the proportion of the resource that would be affected relative to its occurrence in the region; 3) the sensitivity of the resource to proposed activities; and 4) the duration of ecological ramifications. The impacts to biological resources are significant if species or habitats of high concern are adversely affected over relatively large areas. Impacts are also considered significant if disturbances cause reductions in population size or distribution of a species of high concern. Threatened or endangered species, if present, will be discussed under each biological resource area.

Protected and Sensitive Habitats

Although a number of wildlife refuges and parks exist in the region, there are no protected areas are within the Region of Influence (ROI). Laws relating to protected and sensitive habitats include the Marine Protection, Research, and Sanctuaries Act, the Magnuson-Stevens Conservation and Management

Act, the Oil Pollution Act, and the Endangered Species Act (ESA). Under either alternative, the USCG would continue to enforce these living marine resource protection laws.

Impacts to protected and sensitive habitats would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any sensitive, protected, or reporting area habitat
- Direct loss or damage of any sensitive resource within a protected or sensitive habitat
- Excessive noise or presence from normal USCG activities that lessens the habitat value

Marine Mammals

Impacts to marine mammals would be significant if MSST activities resulted in any of the following outcomes:

- Temporary or permanent loss of any habitat
- Direct loss (take) of a substantial number of a specific species that would affect the species ability to survive
- Harassment, either Level A defined as pursuit, torment, or annoyance that has the potential to injure, or Level B, defined as causing disruption of behavioral patterns
- Permanent loss of breeding areas and habitat
- Substantial interference with movement of any resident species

Fish

Fisheries may be impacted by a number of factors. The most important factors within the ROI are disturbance from direct contact between USCG vessels, enforcement of applicable fishing laws, and impacts to fish habitat. Additional impacts may result from accidental pollution emissions. The USCG enforces a number of fishing and fisheries laws. In addition, USCG has developed its own initiatives to protect fisheries and their habitat.

Impacts to fisheries would be significant if MSST activities resulted in any of the following outcomes:

- Overfishing resulting in the species' ability to survive
- Permanent loss of breeding areas and habitat
- Substantial interference with movement of any resident species

Coastal and Other Birds

Impacts to coastal and other birds would be significant if MSST activities resulted in any of the following outcomes:

- Harassment of nesting and foraging areas resulting in the species' ability to survive
- Permanent loss of breeding areas and habitat
- Substantial interference with migration

Wetlands and Floodplains

The significance of impacts on wetland resources is proportional to the functions and values of the wetland complex. Wetlands function as habitat for plant and wildlife populations, including threatened and endangered species that depend on wetlands for their survival. Wetlands are valuable to the public for flood mitigation, stormwater runoff abatement, aquifer recharge, water quality improvement, and aesthetics. Therefore, quantification of wetlands functions and values is based on the ecological quality of the site as compared with similar sites, and the comparison of the economic value of the habitat with the economic value of the proposed activity that would modify it. A significant adverse impact on wetlands would occur should either the major function or value of the wetland be significantly altered.

Significance criteria for impacts to floodplains are based on the existence of floodplains and associated regulations. The impact of flood hazards on a proposed action is significant if such an action is proposed in an area with a high probability of flooding.

4.2.2 Potential Impacts

Protected and Sensitive Habitats

Proposed Action. Although a number of wildlife refuges and parks are in the general area, no protected or sensitive habitats are within the ROI. Based on the purpose of, and projected operations of the MSST, they would not normally patrol in or near these areas. An exception to these normal operations would be in the case of an unusual occurrence (i.e., pursuit). Under a normal operational scenario, there would be no loss of sensitive habitats. Therefore, there are no anticipated adverse impacts on sensitive habitats or protected areas because of the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it could make it easier for an attack on the port to occur.

Impacts of selecting this alternative could be considered significantly adverse due to the potential of a terrorist attack, with the potential for significant adverse impacts to protected and sensitive habitats.

Marine Mammals

Proposed Action. The USCG's current Coast Guard Commandant Instructions (COMDTINSTs), regulations, and procedures to avoid marine mammals would continue under the Proposed Action. While the purpose of the MSST is not to provide marine resource protection and law enforcement, the MSST would continue to comply with these regulations. Although several species of marine mammals are known to occasionally utilize Los Angeles Harbor, the increase in the number of total USCG operations is not expected to result in more than minor adverse impacts. An exception to these normal operations would be in the case of an unusual occurrence (i.e., pursuit).

Federally endangered marine mammals that have the potential to occur off the California coast include: southern sea otters, manatees, Guadalupe fur seals, monk seals, and humpback, blue, sei, right, and bowhead whales. None of the species are known to inhabit the Port of Los Angeles. Therefore, the addition of the MSST to the Port of Los Angeles is not likely to result in adverse effects to these protected marine species.

Although standing up the MSST will add six new boats, capable of speeds up to 40 knots, to the Ports of Los Angeles and Long Beach, the USCG vessels are only a small percentage of a much larger number of commercial and recreational vessels that enter this port on a daily basis. The actual increase of six 25-foot vessels is a small increase when compared to the current traffic already using this port. Even though the RBS are capable of going 40 knots, such high speeds will not be used on a continuous basis and will usually be reserved for emergency security operations that necessitate high speed. Normal transit speeds will 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 homeland security mission. The highly maneuverable nature of these vessels will assist them in avoiding collisions with protected species. Furthermore, all six response boats will not be operating together all of the time. Moreover, for all MSST operations other than emergency operations, the USCG will continue to abide by its speed guidance published October 22, 1997 for vessels 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 to encourage avoidance of negative contact by USCG vessels with marine mammals, the small number and size of the vessels, the boats' high level of maneuverability, and their low level of speed during normal operations, the addition of the MSST vessels will not create the potential for significant impacts to these protected species. The Homeland Security mission carried out by the MSST also can be important in protecting these species in that it can help prevent terrorist activities from damaging their marine environment through terrorist attacks that could result in significant damage to, or contamination of their habitat. To guard against any adverse impacts of the MSST vessel operation on protected species, the USCG would continue to adhere to the protective measures in place in the Ocean Steward (Appendix G). Because of the Ocean Steward, the small number and size of vessels, the boats' high level of maneuverability, and their low level of speed during normal operations, the addition of the MSST boats and their operations will not likely result in adverse effects to protected marine species.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it could make it easier for an attack on the port to occur or an attack that could spread from the port to areas frequented by marine mammals. Impacts of selecting this alternative could be considered significantly adverse due to the potential of a terrorist attack with the potential for significant adverse impacts to marine mammals. Recovery would depend on the extent of loss.

Fish

Proposed Action. As part of the Proposed Action, the stationing and operations conducted by the MSST would result in minor adverse impacts on fisheries or essential fish habitats (EFHs). Minor adverse impacts have been designated for the potential of boats to take individuals or to cause minor disruptions in feeding or reproduction. Although, there is no indication in the published literature that collisions with vessels are a significant source of injury or mortality for invertebrates and fish (USCG 1996). The

federally endangered tidewater goby may exist in the Ports of Los Angeles and Long Beach. Because the tidewater goby apparently spends all life stages in lagoons, and may enter the marine environment only when forced out of the lagoon by strong storms, it is not likely to be found on the Ports of Los Angeles and Long Beach. Therefore, no adverse impacts are expected to the tidewater goby as a result of the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it could make it easier for an attack on the port to occur. Impacts of selecting this alternative could be considered significantly adverse due to the potential of a terrorist attack or an attack that might result in a loss or degradation of fishing areas. The potential for loss of EFH's and fish species also could impact the nation's economy. Recovery would depend on the amount and extent of loss.

Coastal and Other Birds

Proposed Action. While several species of federally endangered or threatened birds (i.e., eastern brown pelican, whooping crane, bald eagle, northern aplomado falcon, Mexican spotted owl, piping plover, Eskimo curlew, and interior least tern) are known to use the region, neither the stationing site nor launch sites provide suitable habitat for threatened and endangered species or migratory birds. The MSST normal operations will not be within or adjacent to nesting and foraging habitat for threatened and endangered species, or migratory birds. Although the region supports a large population of least terns, the areas utilized by least terns, shallow areas such as exposed sand flats, will not be utilized by the MSST. Therefore, the Proposed Action is unlikely to impact least terns or their habitat. It is anticipated that only minor adverse impacts, if any, might occur.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it could make it easier for an attack on the port to occur or an attack that might impact birds' habitats. Impacts of selecting this alternative could be considered adverse due to the potential of a terrorist attack, with the potential for significant adverse impacts to coastal and migratory birds. Recovery would depend on the amount and extent of loss.

Wetlands and Floodplains

Proposed Action. The stationing and launch sites are located within 100-year floodplains. However, there are no modifications to the floodplain area. There are no wetlands on or adjacent to these locations. Seagrass beds and associated estuarine wetlands will not be utilized during MSST operations. Due to the shallow water depth in these areas, MSST boats will not be able to operate in the area. Operations in proximity to estuarine wetland areas (i.e., Golden Shore Wetlands) will have to be conducted at low speeds due to the shallow nature of the water and the high likelihood of submerged obstacles. Therefore, there would be no impacts from the Proposed Action.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Increased strain to vessels and manpower and disruption to other missions would continue. Under this scenario, it could make it easier for an attack on the port to occur or an attack that might impact wetlands. Impacts of selecting this alternative could be considered significantly adverse due to the potential of a terrorist attack, with the potential for loss of wetlands and their unique ecosystems. Recovery would depend on the extent and type of damage.

4.3 Air Quality and Climate

4.3.1 Significance Criteria

The potential impacts to local and regional air quality conditions near a proposed federal action are determined based upon the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. Impacts to air quality in National Ambient Air Quality Standards (NAAQS) "attainment" areas are considered significant if the net changes project-related emissions result in one of the following situations:

- Violation of any national or state ambient air quality standard
- Exposure of sensitive receptors to substantially increased pollutant concentrations
- An increase of 10 percent or more in an affected Air Quality Control Region (AQCR) emissions inventory

Impacts to air quality in NAAQS "non-attainment" areas are considered significant if the net changes in project-related emissions result in one of the following situations:

- Violating any national or state ambient air quality standards
- Increasing the frequency or severity of a violation of any ambient air quality standard

- Exceeding any significance criteria established in a State Implementation Plan (SIP)
- Delaying the attainment of any standard or other milestone contained in the SIP

With respect to the General Conformity Rule, impacts to air quality would be considered significant if the Proposed Action would result in an increase of a non-attainment or maintenance area's emission inventory by 10 percent or more for one or more non-attainment pollutants; or if such emissions exceed *de minimis* threshold levels established in 40 CFR 93.153(b) for individual non-attainment pollutants or for pollutants for which the area has been designated as a non-attainment or maintenance area. The Proposed Action would occur in the maintenance area, therefore the General Conformity Rule does apply.

Federal Prevention of Significant Deterioration (PSD) regulations also define air pollutant emissions to be "significant" if: 1) a proposed project is within 10 kilometers of any Class I area; and 2) regulated pollutant emissions would cause an increase in the 24-hour average concentration of 1 $\mu g/m^3$ or more of any regulated pollutant in the Class I area (40 CFR 52.21(b)(23)(iii)). PSD regulations also define ambient air increments—limiting the allowable increases to any area's baseline air contaminant concentrations, based on the area's designation as Class I, II, or III (40 CFR 52.21(c)).

Local and regional pollutant impacts of direct and indirect emissions from stationary emission sources from the Proposed Action are addressed through federal and state permitting program requirements under the New Source Review (NSR) and PSD regulations (40 CFR Parts 51 and 52).

4.3.2 Potential Impacts

Proposed Action. The potential sources of increased criteria pollutant emissions under the Proposed Action would be from: 1) watercraft operations; 2) fuel storage and handling emissions; 3) maintenance and support activities; and 4) personnel travel. The South Coast Air Basin, which includes the ROI, is classified as "extreme non-attainment" for ozone pollution and as "serious non-attainment" for CO and PM_{10}. Due to the nature of the activities associated with the Proposed Action, air quality within the San Diego County Air Basin and the South Central Coast Air Basin could be affected.

An Air Conformity Analysis was conducted for the Proposed Action. The purpose of the analysis is to determine whether the Proposed Action would conform to the applicable SIP, based on upon the criteria established in the General Conformity Rule and promulgated in 40 CFR 93.158. Based upon the conformity analyses, the Proposed Action meets the conformity criterion for not exceeding *de minimis* thresholds in the affected area. Based upon the emission analyses, the reasonably foreseeable project emissions of CO, PM_{10}, NO_x, and VOCs would not exceed the South Coast Air Basin *de minimis*

thresholds applicable to the MSST San Pedro. For the complete Air Conformity Analysis, including a description of the affected environment and potential impacts from the Proposed Action, please refer to Appendix E. Based on the results of the Air Conformity Analysis, no adverse impacts to air quality are expected.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be fully implemented. The USCG could maintain the current level of protection, which has been determined to be insufficient. Impacts of selecting this alternative could be considered significantly adverse due to the potential of terrorist attacks on U.S. ports, with the potential for loss of life and impacts to the environment.

4.4 Noise

4.4.1 Significance Criteria

Noise produced by water vessels and supporting facilities while home ported or in transit can combine with other noise sources to affect nearby communities and natural resources. This section addresses the noise impacts from the Proposed Action and the No Action Alternative. Examples of noise impacts from MSST operations include noise from the RBS, construction equipment (temporary), and traffic. Noise impacts were only considered within the ROI. This section also discusses general noise impacts to marine mammals. The USCG has established guidelines and develops 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.

Currently, ISC San Pedro is adjacent to compatible areas, which are zoned industrial. USCG activities are operated in accordance with all federal and state laws and local ordinances.

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. It is known that the interim watercraft is a Coastal Control Boat but it is unknown what type of RBS will be purchased in support of the MSST in the Proposed Action. In addition, specific engines have not been identified. It is only known that the two-stroke engines will be replaced with four-stroke engines. In making the qualitative statements, engines commonly used by the USCG were chosen. Four-stroke engines have four cycles: intake stroke, compression stroke, combustion stroke, and exhaust stroke. The first three cycles generate the majority of engine noise, with interaction of the piston and crankshaft. Unlike a two-stroke engine, oil is separated, and there are moving valves (Brain 2002).

4.4.2 Potential Impacts

Proposed Action. It has not yet been determined what type of engine will be used, and, therefore, sound exposure levels could not be calculated for noise sensitive areas in proximity to the ISC San Pedro. Research was done on two-stroke and four-stroke engines commonly used by the USCG, however, data on airborne noise generation by marine vessels generally is not available. Manufacturer literature stated that new four-stroke engines were quieter than two-stroke engines, which is likely because of the incorporation of muffling devices into design and the reduced number of combustion firings (Evinrude 2002). According to the Society of Automobile Engineers (SAE), motorboat noise dissipates up to 9.9 A-weighted decibels (dBA) when a boat travels from 50 to 100 feet away (4.8 dBA reduction from 50 to 100 feet, with an additional 5.1 dBA reduction from 100 to 200 feet away). A boat with a new engine meeting SAE standards, traveling a normal operating speed, a minimum of 50 feet away from noise sensitive receptors would meet USCG, Environmental Protection Agency (EPA), and state and local noise ordinances (PWIA 2002). For events in which the boat is idling and noise levels are 90 dBA or less, it would be important to be at least 200 feet from noise sensitive areas, or not prolong idling operations, to minimize impact.

This area is a large geographic area and it would not be practical to provide specific numerical noise level estimates that would be representative of any noise impacts. Low speeds in port areas would continue except during an unusual event (i.e., pursuit). The speed limit for watercraft in Los Angeles County harbors is five nautical miles/hour (LACC 2002). Based on the limited data available for analysis, it is anticipated that above-water noise impacts would be similar to moderately minor adverse within the Port.

In regard to noise impacts by vessels to marine mammals, 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 vessels on marine mammals. As previously discussed in section 3.4, underwater decibel (dB) measurements are not equivalent to dB measurements of airborne sounds. The reference pressure used for underwater noise measurement (one microPascal [1μPa]) is much lower than that used for airborne sound measurements (20μPa).

The impact that a human-made sound can have on sea life depends on its loudness, the specific acoustic frequency pattern at the location where marine organisms detect the sound, and the distance from the noise source. High frequency components of the noise decrease more rapidly with distance than do low frequency components.

Although the Proposed Action would produce an increase in the overall level of boat operations, the size of the vessels proposed are smaller than existing vessels operating in the vicinity of the ISC San Pedro.

MSST RBS noises are most likely well below sound intensities associated with severe disturbance or injury to marine mammals at normal operating procedures. In addition, the number of marine mammals that frequent the ROI is low. Since there is no scientific information concluding that the noise levels emitted by existing larger USCG vessels have direct significant adverse impacts on marine mammals, it is not anticipated that the noise generated by the RBS will create greater than minor adverse impacts.

No Action Alternative. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be fully implemented. The USCG could maintain the current level of protection, which has been determined to be insufficient. Impacts of selecting this alternative could be considered significantly adverse due to the potential of terrorist attacks on U.S. ports, with the potential for loss of life and impacts to the environment.

4.5 Public Safety

4.5.1 Significance Criteria

If implementation of the Proposed Action were to substantially increase risks associated with the safety of ISC San Pedro and MSST personnel, contractors, or the local community, or substantially hinder the ability to respond to an emergency, it would represent a significant impact. Furthermore, if implementation of the Proposed Action would result in incompatible land use with regard to safety criteria, impacts to safety would be significant. Impacts were assessed based on the potential effects of construction and demolition activities.

Public safety is one of the USCG's primary missions, as the USCG is the prominent overseer of maritime safety in all U.S. waters, including the high seas. The U.S. maritime transportation system is diverse. Geography, environmental conditions, and the amount and types of vessel traffic are all aspects of the U.S. maritime system. Since the events of September 11, 2001, the safety of the country's ports and its maritime system has received increased scrutiny and concern. It is due to those concerns that this Proposed Action is being considered.

It is extremely difficult to determine the level of significance and degree of impact in losing one or more ships and associated loss of life; therefore, no attempt to do so is made in this section.

4.5.2 Potential Impacts

Proposed Action. The Proposed Action will increase the USCG's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSST's operations will closely parallel USCG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic

ports. The MSST will escort a variety of vessels and maintain specific security zones in each port. It is capable of operating seven days a week, 24 hours a day, in all weather conditions. It will operate with, and be supported by, both military and civilian government organizations, commercial and non-government entities. Beneficial impacts may be reasonably expected from the Proposed Action.

No Action Alternative. Under the No Action Alternative, the USCG will continue to provide port security at the current level. However, no additional boats and crews will be assigned to the Ports of Los Angeles or Long Beach except in unusual circumstances. Under the No Action Alternative, existing conditions would remain as is and the MSST would not be stood up. The USCG would maintain the current level of protection, which has been determined to be insufficient. Impacts of selecting this alternative would be considered significantly adverse due to the potential of terrorist attacks on U.S. ports, with the potential for loss of life increasing.

5. Cumulative Impacts

5.1 Cumulative Impacts Methods

Cumulative impacts are defined as "the impacts that result from the incremental impact of the action, when added to other past, present, and foreseeable future action" (40 Code of Federal Regulations [CFR] 1508.7). Cumulative impacts can result from individually minor but collective impacts occurring over a period of time (see Table 5-1).

This cumulative impact analysis considers reasonably foreseeable programs, projects, or policies that may impact operations at Integrated Support Group (ISC), San Pedro, add to the operations of the Maritime Safety and Security Team (MSST), create a significant impact in Los Angeles or Long Beach and the surrounding areas. For the purposes of this Environmental Assessment (EA), only those resources identified in Chapter 3 that may be impacted by the Proposed Action will be carried over into this Cumulative Impacts discussion. Information about on-going and future projects and programs has been identified from web searches, other National Environmental Policy Act (NEPA) documents, local newspaper articles, and discussions with knowledgeable U.S. Coast Guard (USCG) personnel. Based on professional judgment, potential impacts are identified as minor, moderate, or high, and beneficial and adverse whenever possible.

All projects are identified and briefly discussed in Table 5-1. Projects that are currently in the planning stages, or will not be finalized until further studies have been completed and have no target dates, have been dismissed from further consideration. These projects, if completed, will be concluded at some future unknown date, long after the MSST has become operational. Based on professional judgment, potential impacts are identified as minor, moderate, or high, and beneficial and adverse whenever possible.

Projects Deleted from Further Consideration

Route 47 (Terminal Island Freeway), construction of an interchange at Ocean Blvd Overpass: Money was appropriated for this project in January 2002. The project is currently in the design phase. Construction is scheduled for completion in March 2004 (State 2002). The Proposed Action will be completed and operating before this project starts construction. In comparison, potential impacts from the stand-up and operations of the MSST will be minor.

Table 5-1. Programs and Projects Evaluated for Potential Cumulative Impacts

Proposed (or Existing) Action	Potential Cumulative Impacts
Route 47 (Terminal Island Freeway); construction of an interchange at Ocean Blvd Overpass	Construction will occur long after Proposed Action. MSST impacts will be minor.
Alameda (Railway) Corridor	Construction will occur long after Proposed Action. MSST impacts will be minor.
Pier 100 (Phase I of West Basin Marine Terminal Projects)	Project currently under construction. MSST impacts will be minor.
West Basin Marine Terminal Projects (Phase II and III, also known as "China Shipping")	Construction will occur long after Proposed Action. MSST impacts will be minor.
Least Terns Habitat Maintenance	Yearly occurrence; MSST impacts minor.
Deepwater Project	Project will occur long after Proposed Action. MSST impacts will be minor.

Alameda Corridor: This is a 32-kilometer railway that will carry freight from the ports of Los Angeles and Long Beach to Southern California railheads. Four overpasses and three underpasses will be built to improve vehicular mobility, and nearly 200 at-grade intersections of roads and railways will be replaced by grade-separated crossings (Port 2002b). Local officials estimate that the Alameda Corridor will support 700,000 new jobs in Southern California by 2020 (TFHRC 2002). The EA for the Alameda Corridor project is currently under California Environmental Quality Act (CEQA) internal review. (AQMD 2002a) This project is consistent with the State Implementation Plan (SIP) as it results in fewer emissions than the applicable emissions budgets for all milestone, attainment, and planning horizon years (SCAG 2002). The Proposed Action will be completed and operating before this project starts construction. In comparison, potential impacts from the stand-up and operations of the MSST will be minor.

Least Terns: At the Port of Los Angeles, mitigation efforts for the California least tern, listed on both the federal and state threatened and endangered species lists, have been a success. The port has maintained an annual nesting site for the historic bird since the early 1980's. Every year, the port prepares the nesting site by grading, removing vegetation, placing decoys and providing chick shelters. Since 1997, the port's Pier 400 has been designated as home to a protected nesting site. Numbers of nesting pairs and fledglings increase yearly (Port 2002c). These birds have shown a high degree of adaptation to this large, well-trafficked port. Under normal operations, the MSSTs will be patrolling at a slow speed (10-12 knots); this will not result in long-term adverse impacts to the nesting habitat.

Pier 100 (Phase I of the West Basin Marine Terminal Improvement Projects): On April 19, 2002, the Corps of Engineers, Los Angeles District approved the permit to allow the construction of a 1,200-foor-long concrete wharf. This would include driving 644 24-inch wharf piles, dredging and disposing of 46,000 cubic yards of sediment and the construction of a new wharf with 124,000 cubic yards of

backfilling and rock mixed with 22,000 cubic yards of clean fill material. There is a requirement to compensate for the 1.29 acres of impacted wetlands. The EA for the project drew several conclusions (USACE 2002):

- Air quality impacts during construction were not found to be significant
- Long-term minor adverse impacts to the substrate in the project area
- Long-term minor impacts to currents and circulation
- Long-term minor impacts to turbidity levels
- Long-term minor impacts to water quality parameters (temperature, salinity patterns and other parameters)
- Short-term, adverse impacts to bethnic organisms during dredging
- Short-term, minor impacts on planktonic organisms because of turbidity during dredging/driving piles
- Short-term adverse minor impacts on aquatic habitat from noise
- Short-term minor adverse impacts to Essential Fish Habitat (EFH)
- Long-term adverse impacts as a result of loss of marine habitat to be offset by use of mitigation credits from the Inner Harbor mitigation bank
- Long-term minor impacts to avifauna and marine mammals; mitigation credits would compensate for any long-term unavoidable impacts
- No adverse impacts to federally or state listed endangered or threatened species
- Emission reduction measures implemented as part of the project would offset proposed construction emissions to remain below the South Coast Air Quality Management District thresholds.

Draft Environmental Impact Statement (EIS)/Supplemental EIS for a Permit Application for the Proposed West Basin Marine Terminal Improvement Projects (also known as, China Shipping) in the Port of Los Angeles, Los Angeles County, CA: The Notice of Intent was published in the Federal Register on July 5, 2002. On July 16, 2002, the Corps of Engineers, Los Angeles District held a public meeting; comments closed on August 5, 2002 (USACE 2002). An earlier phase of this project was covered under the Port of Los Angeles Channel Deepening Project. The Port approved the project in January 1998 and it will be completed December 2002. These proposed actions (Phase II and III), consists of construction of wharfs at Berth 100-102 bridge construction, potential realignment of adjacent roads and railways, and creation of a new landfill. Other improvements will include improvements to Berths 118-131 and 136-151 such as construction of new wharfs, construction of new facilities and buildings, potential widening of the navigation channel, construction and operation of additional intermodal rail and infrastructure and consolidation of existing facilities, buildings, and operations at both locations.

The Draft EIS is expected to be published sometime in the fall of 2002 (USEPA 2002). The project itself will not start construction for at least another year. Peak daily construction emissions are expected to be significant for all criteria. Stationary and indirect sources are not expected to be significant (AQMD 2002b). The MSST will be stood-up and operational by the time the Draft DEIS is made available for public comment. The USCG's impact will be negligible in comparison.

Deepwater Program: The award for this program was made in July 2002. It is not known if additional and/or new assets will be added to ISC San Pedro. It is anticipated that additional NEPA documentation will be required.

Pertinent Projects

As of this time, no current projects nor projects that would be simultaneous with the stand-up of the MSST were identified. The Proposed Action will not be adding to the severity of any existing projects or projects that will commence during the stand-up of the MSST. While the possibility of standing up six boats may appear to be a large increase, when compared to the number and size of vessels that visit the Ports of Los Angeles and Long Beach everyday, this is actually a small number. Furthermore, all six boats are unlikely to be in use at any one time. It is unlikely that the addition of the MSST in San Pedro would result in any significant impacts. Supporting documentation for the above projects should include MSST operations.

6. List of Preparers

Jayne Aaron
engineering-environmental Management, Inc. (e^2M)
M.A. Environmental Policy and Management
B.A. Environmental Design
Years of Experience: 10
Responsible for: Cultural and Historical Resources

Edgar Deskins
e^2M
B.S. Biology
Years of Experience: 11
Responsible for: Air Quality and Physical Resources

Melissa Ellinghaus
e^2M
M.E.S. Environmental Policy
B.S. Biology
Years of Experience: 3
Responsible for: Socioeconomics

David Fischer
e^2M
B.S. Occupational Safety & Industrial Hygiene Management
Years of Experience: 3
Responsible for: Noise

Gino Giumarro
e^2M
M.S. Natural Resources Planning
B.S. Wildlife Biology
Years of Experience: 4
Responsible for: Fish, Marine Mammals, Wildlife

Gus Hare
e^2M
B.S. Environmental Science
Registered Environmental Professional
Years of Experience: 7
Responsible for: Noise

Brian Hoppy
e^2M
Program Manager
B.S. Biology
Certificate of Environmental Management
Years of Experience: 12

Joan Lang
e^2M
Project Manager
B.A. History and Political Science
Years of Experience: 20

Cheryl Myers
e^2M
A.A.S. Nursing
Years of Experience: 25
Responsible for: Graphics and Editing

THIS PAGE INTENTIONALLY LEFT BLANK

7. References

ANSI 1990 — American National Standards Institute (ANSI). 1990. *Sound Level Descriptors for Determination of Compatible Land Use.* ANSI S12.40-1990. New York, N.Y.: Acoustical Society of America.

AQMD 2002a — South Coast Air Quality Management District (AQMD). 2002. On-going Projects for which AQMD has or will conduct a CEQA Review. Available: *http://www.aqmd.gov/hb/attachments.* Accessed September 11, 2002.

AQMD 2002b — South Coast Air Quality Management District (AQMD). 2002. Tosco Los Angeles Refinery Wilmington Plant CARB Phase 3 Proposed Project: Addendum to the Final Environmental Impact Report. Available: *http://www.aqmd.gov/ceqa/documents/2001/nonaqmd/toscoII/add.doc.* Accessed September 11, 2002.

Brain 2002 — Brain, Marshall. 2002. How Stuff Works. How Two-Stroke Engines Work. Available: *http://www.howstuffworks.com/twostroke1.htm.* How Car Engines Work. Available: *http://www.howstuffworks.com/engine1.htm.* Accessed July 23, 2002.

Congress 2001a — U.S. Congress (Congress). 2001a. Committee Report; 107th Congress; 1st Session; Senate Report 107-107.

Congress 2001b — U.S. Congress (Congress). 2001b. Committee Report; 107th Congress; 1st Session; House Report 107-350 (to accompany HR 3338).

Cowan 1994 — Cowan, James P. 1994. *Handbook of Environmental Acoustics.* 1994.

EPA 1978 — U.S. Environmental Protection Agency (EPA). 1978. *Protective Noise Levels: Condensed Version of EPA Levels Document.* EPA-550/9-79-100. Springfield, VA. National Technical Information Service.

Evinrude 2002 — Bombardier, Inc (Evinrude). 2002. Available: *http://www.evinrudeoutboards.com/evinrude/web/jsp/mainPage.jsp?Params=N.US.100000.0#.* Accessed July 23, 2002.

FICON 1992 — Federal Interagency Committee on Noise (FICON). 1992. *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.

LACC 1978 — Los Angeles County Code (LACC). 1978. Code Title 12.08.020: Declaration of policy – nuisances deemed misdemeanors. Available: *http://www.ordlink.com/codes/lacounty/index.htm.* Accessed July 31, 2002.

LACC 2001 — Los Angeles County Code (LACC). 1978. Code Title 12.08.390: Loud, unnecessary, and unusual noises. Available: *http://www.ordlink.com/codes/lacounty/index.htm.* Accessed July 31, 2002.

LCC 2002 — Legislative Council of California (LCC). 2002. The 29 Legislative Codes of California Internet Site. Harbors and Navigation, Section 654.00. Available: *http://www.leginfo.ca.gov/calaw.html.* Accessed August 2, 2002.

MEC 1988 — MEC Analytical Systems (MEC) 1988. *Biological Baseline and an Ecological Evaluation of Existing Habitats in Los Angeles Harbor and Adjacent Waters.* Volumes I to III. Prepared for the Port of Los Angeles.

MEC 1999 — MEC Analytical Systems (MEC) 1999. *Port of Los Angeles special study. August.* Prepared for the Port of Los Angeles.

MTS 2002. — Marine Transportation Systems: Los Angeles/Long Beach Harbor Inc (MTS) 2002. *Harbor Safety Plan: For the Ports of Los Angeles and Long Beach.* Available: *http://www.marexlalb.org/hspmain.htm.* Accessed: August 8, 2002.

NCDC 2002 — National Climatic Data Center (NCDC). 2002. Climate Data Online. Available: *http://lwf.ncdc.gov/oa/climate/online/ccd/nrmlprecp.html* and *http://lwf.ncdc.gov/oa/climate/online/ccd/meantemp.html*. Accessed September 2002.

NOAA 1990 — National Oceanic and Atmospheric Administration (NOAA). 1990. NWS Climate Table. Available: *http://www.nws.noaa.gov/climatex.html*. Accessed May 2002.

NOAA 2002. — National Oceanographic and Atmospheric Administration (NOAA) 2002. *Draft U. S. Pacific Marine Mammal Stock Assessments: 2002*. NOAA-TM-NMFS-SWFSC Technical Memorandum.

ONR 2000 — Office of Naval Research (ONR). 2000. Draft Environmental Impact Statement for the North Pacific Acoustic Laboratory. Arlington, Virginia. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Protected Resources, Silver Spring, Maryland. State of Hawaii, Department of Land and Natural Resources, Honolulu, Hawaii. May 2000.

Port 2002a — Port of Los Angeles (Port). 2002. The Port of Los Angeles Environmental Programs. Cabrillo Shallow Water Habitat. Available: *http://www.portoflosangeles.org/Environmental/habitat.htm*. Accessed August 5, 2002.

Port 2002b — Port of Los Angeles (Port). 2002. The Port of Los Angeles Environmental Programs. Improved Infrastructure. Available: *http://www.portoflosangeles.org/Environmental/infrastructure.htm*. Accessed August 5, 2002.

Port 2002c — Port of Los Angeles (Port). 2002. The Port of Los Angeles Environmental Programs. Least Terns. Available: *http://www.portoflosangeles.org/Environmental/least.htm*. Accessed August 5, 2002.

PWIA 2002 — Personal Watercraft Industry Association (PWIA). 2002. The Facts About Personal Watercraft. Available: *http://www.pwia.org/factsabout.html*. Accessed July 23, 2002.

Richardson et al. 1995 — Richardson, W.J., C.R. Greene, C.I. Malme, and D.H. Thomson (Richardson et al.). 1995. Marine Mammals and Noise. Academic Press.

SCAG 2002 — Southern California Association of Governors (SCAG). 2002. Executive Summary: Final 2002 Regional Transportation Improvement Program, August 2002. Available: *http://www.scag.ca.gov/rtip/final02/final_vol1.pdf*. Accessed September 11, 2002.

State 2002 — State of California (State). 2002. Press Release: New Year Brings More Congestion Relief for California. Available: *http://www.ca.gov/state/govsite/gov_htmldisplay.jsp?sFilePath=/govsite/press_release/2001_01/20010119_pr01027_TransportationProjectsApproved.html&sCatTitle=Press%20Release&iOID=12982&sTitle=Press%20Release%20%20%20%20-%202001/01/19&BV_SessionID=@@@@1918065184.1032185641@@@@&BV_EngineID=dadcfdkmjidlbemgcfkmchchi.0*. Accessed August 6, 2002.

TFHRC 2002 — Turner-Fairbank Highway Research Center (TFHRC). 2002. Public Roads: "Highways and the New Wave of Economic Growth". Available: *http://www.tfhrc.gov/pubrds/julang99/hwaygro.htm*. Accessed August 5, 2002.

USACE 2002 — U.S. Army Corps of Engineers (USACE). 2002. West Basin Terminal Improvements Projects: Berth 100 and West Basin EIS. Available: *http://www.spl.usace.army.mil*. Accessed August 5, 2002.

USCG 1996 — U.S. Coast Guard (USCG). 1996. NEPA Final Environmental Impact Statement (Volume I) for the U. S. Coast Guard Living Marine Resources (APLMR) Initiative. Also by Battelle Ocean Sciences. October 31, 1996.

USCG 1997 — U.S. Coast Guard (USCG). 1997. Coast Guard Vessel and Speed Approach Guidance.

USCG 2000 — U.S. Coast Guard (USCG). 2000. U.S. Coast Guard Living Marine Resource Protection: Ocean Steward. Available: *http://www.uscg.mil/hq/g-o/g-opl/mle/OceanSteward.pdf.* Accessed August 2002.

USCG 2002a — U.S. Coast Guard (USCG). 2002a. U.S. Coast Guard/G-I Web page "Homeland Security and the New Normalcy." Available: *http://www.uscg.mil/overview/homeland%20security.htm.* Accessed May 18, 2002.

USCG 2002b — U.S. Coast Guard (USCG). 2002b. U.S. Coast Guard/G-IPA Web page "Homeland Security." Available: *http://www.uscg.mil/news/homeland_security/homeland_security.htm.* Accessed May 18, 2002.

USCG 2002c — U.S. Coast Guard (USCG). 2002c. U.S. Coast Guard (G-OPD) Handout provided by Lt. Galman. April 26, 2002.

USCG 2002d — U.S. Coast Guard (USCG). 2002d. U.S. Coast Guard (G-OP) "Concept of Operations" presentation and handout.

USCG 2002e — U.S. Coast Guard (USCG). 2002e. Statement of Work: NEPA Compliance for Coast Guard Location and Operation of Marine Safety and Security Teams in Seattle, WA, Chesapeake, VA, Galveston, TX, and San Pedro, CA.

USCG 2002f — U.S. Coast Guard (USCG). 2002f. U.S. Coast Guard Final Programmatic Environmental Impact Statement for the Integrated Deepwater System Project. March 22, 2002.

USCG 2002g — U.S. Coast Guard (USCG). 2002g. Coast Guard Missions. Available: *http://www.uscg.mil.* Accessed May 1, 2002.

USCG11 2002 — U.S. Coast Guard (USCG) 11th District. 2002. USCG 11th District Internet Site. Available *http://www.uscg.mil/D11/ops/index/htm.* Accessed August 1, 2002.

USCG Fact File 2002 — U.S. Coast Guard Fact File (Fact File). 2002. Coast Guard Fact File. Available: *http://www.uscg.mil/hq/g-cp/comrel/factfile.* Accessed August 9, 2002.

USCG News 2002 — U.S. Coast Guard News (USCG News). 2002. News and Information. Available: *http://www.uscg.mil/news/cgnews.shtm.* Accessed September 9, 2002.

USCG Undated — U.S. Coast Guard (USCG). Undated. Shipboard Marine Engines Testing for the U.S. Coast Guard, Final Report. Volpe National Transportation Systems Center and U.S. Coast Guard Headquarters Naval Engineering Division. The report is undated; testing conducted in 1996.

USDOT 1980 — U.S. Department of Transportation (USDOT). 1980. Guidelines for Considering Noise in Land Use Planning and Control, Federal Interagency Committee on Urban Noise. June 1980.

USEPA 2002 — U.S. Environmental Protection Agency Federal Register (USEPA). 2002. Intent to Prepare a Draft Environmental Impact Statement/ Subsequent Environmental Impact Report for a Permit Application for the Proposed West Basin Marine Terminal Improvement Projects in the Port of Los Angeles, Los Angeles County, CA. Available: *http://www.epa.gov/fedrgstr/EPA-IMPACT/2002/July/Day-05/i16886.htm.* Accessed September 11, 2002.

USEPA 2001 United States Environmental Protection Agency (USEPA) Office of Air Quality Planning and Studies (OAQPS). 2001. General Conformity, Presentation by Dave Stonefield at the EPA Rule Writer's Presentations to AFMC Air Quality Managers, Environmental Research Center, USEPA Research Triangle Park, NC. 6 December 2001.

USFWS 1999 U.S. Fish and Wildlife Service (USFWS). 1999. Endangered and threatened wildlife and plants; proposed rule to remove the northern populations of the tidewater goby from the list of endangered and threatened wildlife. U.S. Fish and Wildlife Service. Federal Register 64(121): 33816-33825.

APPENDIX A

INTERESTED PARTY LETTER

U.S. Department of Transportation
United States Coast Guard

Commandant
U. S. Coast Guard

2100 2nd Street, SW
Washington, DC 20593-0001
Staff Symbol: G-OPD
Phone: 202-267-2039
FAX: 202-267-4278

16475

JUN 6 2002

Dear Interested Party:

The United States Coast Guard is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of Maritime Safety and Security Teams (one each) in Seattle, WA; Chesapeake, VA; Galveston, TX; and San Pedro, CA. Preparation of the EAs is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. These first four Maritime Safety and Security Teams (MSSTs) are being established to increase the Coast Guard's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSSTs' operations will closely parallel Coast Guard traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. In addition to the four MSSTs mentioned above, the Coast Guard is planning to stand up MSSTs in other critical ports around the country. Additional NEPA analysis will be prepared for any future ports as necessary.

The EAs will address the overall environmental impacts of establishing and operating each of the first four MSSTs including the implementation of minor shore side infrastructure to accommodate 106 MSST personnel, equipment and the operation of 6 new 25' response boats in each of the above-mentioned ports. The urgency of the MSST security mission has resulted in an implementation schedule that directs the Seattle, WA MSST to be operational by July 1, 2002; Chesapeake, VA MSST to be operational by August 1, 2002; Galveston, TX MSST to be operational by September 1, 2002; and San Pedro, CA to be operational by September 1, 2002. Public input is important in the preparation of these EAs. Your concerns and comments regarding the implementation of these MSSTs and their possible environmental impacts are important to the Coast Guard. You are invited to submit comments by July 5, 2002 using only one of the following means:

(1) By mail to:

Headquarters, U.S. Coast Guard
Captain Wayne Buchanan
Chief, Office of Defense Operations (G-OPD)
Room 3121
2100 Second Street, SW
Washington, DC 20593

(2) Or, by fax to LCDR Kirk Schilling at (202) 267-4278.
(3) Or by E-mail to KSchilling@comdt.uscg.mil.

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

Written comments should include your name, address, and the specific location to which the comment relates. The Coast Guard will consider all comments received by July 5, 2002 in the development and completion of each EA.

Sincerely,

W. BUCHANAN
Captain, U. S. Coast Guard
Chief, Office of Defense Operations

Encl: (1) MSST Overview

Maritime Safety and Security Team (MSST) Overview

Background:
In October 1995, the Secretaries of Transportation and the Department of Defense, the Chief of Naval Operations and the Commandant of the Coast Guard (CG) signed a Memorandum of Agreement that identified the unique national defense capabilities of the CG. Domestic port security and protection has long been a core CG mission. However, in the wake of September 11th, emerging threats to the U. S. homeland has prompted an increased CG focus on protecting domestic ports and the U.S. Maritime Transportation System from warfare and terrorist threats.

Maritime Safety and Security Teams:
The CG's answer is Maritime Safety and Security Teams (MSSTs). While other solutions are underway or being considered, the stand-up (establishment and operations) of the MSSTs at Seattle, WA; Chesapeake, VA; San Pedro, CA and Galveston, TX are the actions that will be considered in these Environmental Assessments.

Each MSST will consist of 73 active duty personnel and 33 reserve personnel (these will consist of mostly reassigned personnel although there may be some newly recruited personnel as well), support buildings for personnel, and six response boats for each MSST. All six boats can, but will not necessarily, be operating at once. The response boats will have outboard motors, will be no larger than 25 feet, will be highly maneuverable, will be capable of quickly reaching and sustaining high speeds (40 knots), and will carry between three and six crewmembers. Other requirements will include, but not be limited to, communication equipment, protection for the crew, and appropriate weaponry. When not in use, the response boats are capable of being placed on boat trailers.

Maritime Safety and Security Teams will normally conduct operations in protected waters such as a harbor or port. MSSTs are primarily intended for domestic operations, in support of the Coast Guard Group commanders or Captains of the Port (COTP). Operations will closely parallel existing CG traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. The MSSTs will escort a variety of vessels and maintain specific security zones in each port. They are capable of operating 7 days a week, 24 hours a day, in weather conditions from tropical climates to near artic conditions. They will operate with, and be supported by, both military and civilian government organizations, commercial and non-government entities. MSSTs will be transportable via land transportation, Coast Guard cutter, and Coast Guard or other military aircraft worldwide. MSST personnel will be employed for operations consistent with training and readiness. In summary, the MSST will:

- Augment a Coast Guard Group or COTP to enhance port safety and security, and law enforcement capabilities at economic or military significant ports.
- Deploy for specific episodic events that require an increased security posture for a limited duration.

- Transport all equipment and material via aircraft or ground or cutter transportation. Exercise security contingency plans in major ports.
- Detachments may also augment COTPs as Sea Marshals and deploy for port familiarization and training.

Locations:
Each MSST will be located at or near an existing Coast Guard command in the vicinity of a regionally significant economic or military port. The criteria used to select these ports and the priority in which the MSSTs are stood up is based on a number of factors, including, but not limited to, the level of current port protection available, the amount and type of cargo transiting the port facilities, and the concentration of critical Department of Defense facilities. Additional ports are currently being evaluated.

Co-locating MSSTs with or near existing Coast Guard commands, will maximize the use of existing infrastructure (i.e.: electric, water and communications) and already assigned personnel, although in some cases, additional personnel may be necessary. We anticipate maximizing the use of existing facilities for MSST personnel during working hours (e.g., leasing existing facilities, renovating existing buildings, etc.); however, in San Pedro, CA, there is the possibility that we will stand up some temporary trailers on already developed property. We do not anticipate any new construction. We anticipate MSST personnel will reside in the local area.

APPENDIX A-1

LETTER TO STATE HISTORIC PRESERVATION OFFICE

U.S. Department of Transportation
United States Coast Guard

Command
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-
Phone: (202) 267
Fax: (202) 267
Email:

AUG 9 2002

16475

Dr. Knox Mellon,
State Historic Preservation Officer
Office of Historic Preservation, Dept Parks & Recreation
P.O. Box 942896
Sacramento CA 94296-0001

Dear Dr. Mellon:

The US Coast Guard is preparing an environmental assessment for the establishment of a Maritime Safety Security Team (MSST) in San Pedro, CA. This undertaking is subject to section 106 of the National Historic Preservation Act, as amended in 1992 (16 USC 470 *et seq.*). This letter fulfills the U.S. Coast Guard's obligation under section 106 by providing the information required for 36 CFR Part 800.11 to make a determination under 800.4(d)(1), *Finding of No Historic Properties Affected.*

Description of the Undertaking

The MSST is being established to increase the Coast Guard's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSST's operations will closely parallel Coast Guard traditional port security operations, but will provide complementary, non-redundant capabilities that will close significant readiness gaps in our nation's strategic ports.

The Coast Guard is establishing a MSST at the Coast Guard Integrated Support Command (ISC) San Pedro, California. The MSST will consist of 71 active duty personnel and 33 reserve personnel, support buildings for personnel, and six response boats. The response boats will have outboard motors, be no longer that 25 feet, highly maneuverable, capable of quickly reaching and sustaining high speeds (40 knots), and carry between three to six crewmembers. Not all response boats will necessarily be in use at the same time, and will be placed on boat trailers when not in use.

The MSST will operate in support of both military and civilian government operations, commercial and non-governmental entities by escorting a variety of vessels and maintaining specific security zones in port. They are capable of operating 7 days a week, 24 hours a day, in weather conditions ranging from tropical climates to near arctic conditions.

Area of Potential Affect

The MSST will be located at the ISC San Pedro, California. This maximizes the use of existing infrastructure, and already assigned personnel. ISC San Pedro is located on the part of Terminal Island known as Reservation Point. Terminal Island is primarily composed of fill from the widening of the ship channel over the years. The Federal Bureau of Prisons leases 0.68 acres of land from the Coast Guard with 27.17 acres of usable land for the Coast Guard. A little over 5 acres is submerged land (i.e. the boat basin) and rip rap. Terminal Island is made up of piers, docks, storage facilities, and commercial terminals. ISC San Pedro consists of approximately 25 buildings, storage structures and lots, parking lots, an athletic field, and piers.

A new modular building approximately 60 by 100 feet with an attached small maintenance facility (open modular) and boat storage space will be necessary to accommodate the additional personnel and boats for this mission. The modular building will be installed southwest of Building 50 and boats will be stored on trailers in the same general vicinity, in a grassy open area previously used by personnel during off-duty hours. The boats will be launched by jib crane and tied to the adjacent floating dock.

Steps Taken to Identify Historic Properties

The following is a brief summary of the history of the ISC San Pedro from the ISC Master Plan, 1971.

Terminal Island is composed of two islands: Isla de la Culebra de Cascabel (Rattlesnake Island) and La Isla del Muerto (Deadman's Island). In 1873, as part of the early development of the Port of Los Angeles, a jetty was constructed between the two islands to protect the harbor from southeasterly storms. Dredge spoil from the widening of the main channel was added to Rattlesnake Island over the following years to form Terminal Island.

In 1916, the federal government acquired title to Deadman's Island and fortified it as a result of World War I. When the main channel was again widened in 1928, Deadman's Island was removed. The spoil from it and the dredging was used to create Reservation Point, a southerly extension of Terminal Island.

The Lighthouse Service became the first tenant of Reservation Point with the construction of the lighthouse keeper's home in 1933, and an industrial depot was added later that same year. Two buildings (10 and 14) remain from this time.

The Public Health Service opened a quarantine station on the southwest corner of the point in 1933. The buildings comprising quarters A, B, and C as well as the Personnel Reporting Unit (Building 32) were part of this station. The Coast Guard occupied these buildings when the quarantine station moved in 1963.

In 1938 the Immigration and Naturalization Service built an immigration center consisting of a large building and boat landing. INS converted the building into a detention center in the late

1960s/ early 1970s. The boat landing has been transferred to the Coast Guard and is now used as a picnic pavilion (Building 19).

During World War II, the Navy constructed a brig on the point. After the war, the brig was converted into a Federal Prison, which still occupies the entire eastern half of the point.

In the early 1950's the Coast Guard expanded the base on Reservation Point by constructing the boat basin and the barracks/administration building (Building 20). This portion of the point had been used by the Army Quartermaster Corps during the early part of World War II and was transferred to the Coast Guard in 1943.

In 1998, the Architectural Resources Group (ARG) conducted a cultural resource survey to determine National Register of Historic Places eligibility of the cultural resources at ISC San Pedro as individual resources and as contributing elements to a historic district. Buildings 10, 12, 14, 19, 32, 36, 40, Quarters A and C, the pier and boat basin sheet pile bulkhead, the industrial wharf, and the saluting battery gun mount were evaluated during this study. Only Building 10 was determined to be eligible for listing on the National Register. ARG also determined that a district is not present at the site.

On 11 September 1998, the Coast Guard sent a letter to the SHPO stating that only Building 10 (Engineering Offices) was eligible for listing. The Cultural Resources Survey and National Register form for Building 10 was attached to the letter. The response from the SHPO on 29 October 1998 concurred with the Coast Guard's determination. SHPO assigned the project number: USCG-9809-15A.

No Historic Properties Affected.

The only eligible property at ISC San Pedro is Building 10 located in the northeast portion of the base. The US Coast Guard proposes to install a temporary modular structure in the southwest portion of the ISC San Pedro approximately 2,100 feet (0.4 miles) from Building 10. Building 10 and the MSST trailer site are on opposite ends of the base with numerous buildings, parking lots, and an athletic field occupying the space between them. The ISC San Pedro has had numerous past owners and missions; buildings have been continually constructed over time to accommodate the changes in mission. Because the one eligible building and the new modular building are separated by a large distance and other buildings and building 10 is not visible from the new modular building, the installation of the new building will not have a direct or indirect affect on Building 10 or its immediate surroundings.

Operations associated with the MSST program are similar to on-going Coast Guard operations and therefore would not have a direct or indirect affect on Building 10. Therefore, this undertaking will not have an affect on historic properties.

Please provide comments on our determination of no historic properties affected. If your comment indicates a difference of opinion on this determination, please feel free to contact Ms. Kebby Kelley at 202-267-6034 in order to continue consultation to resolve the difference of opinion. Please provide your comments within 30 days from the date your office receives this letter.

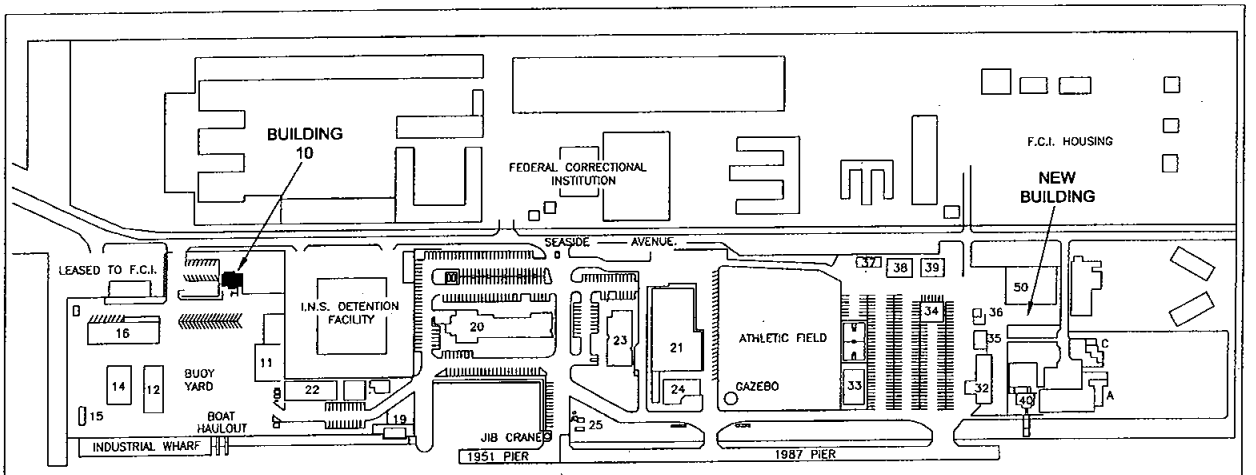
Thank you in advance.

Sincerely,

W. R. BUCHANAN
Captain, U.S. Coast Guard
Chief, Office of Defense Operations

Enclosures: (1) Map of ISC San Pedro
(2) Aerial Photograph of ISC San Pedro

Copy: G-LEL, G-SEC, MLCPAC(s)



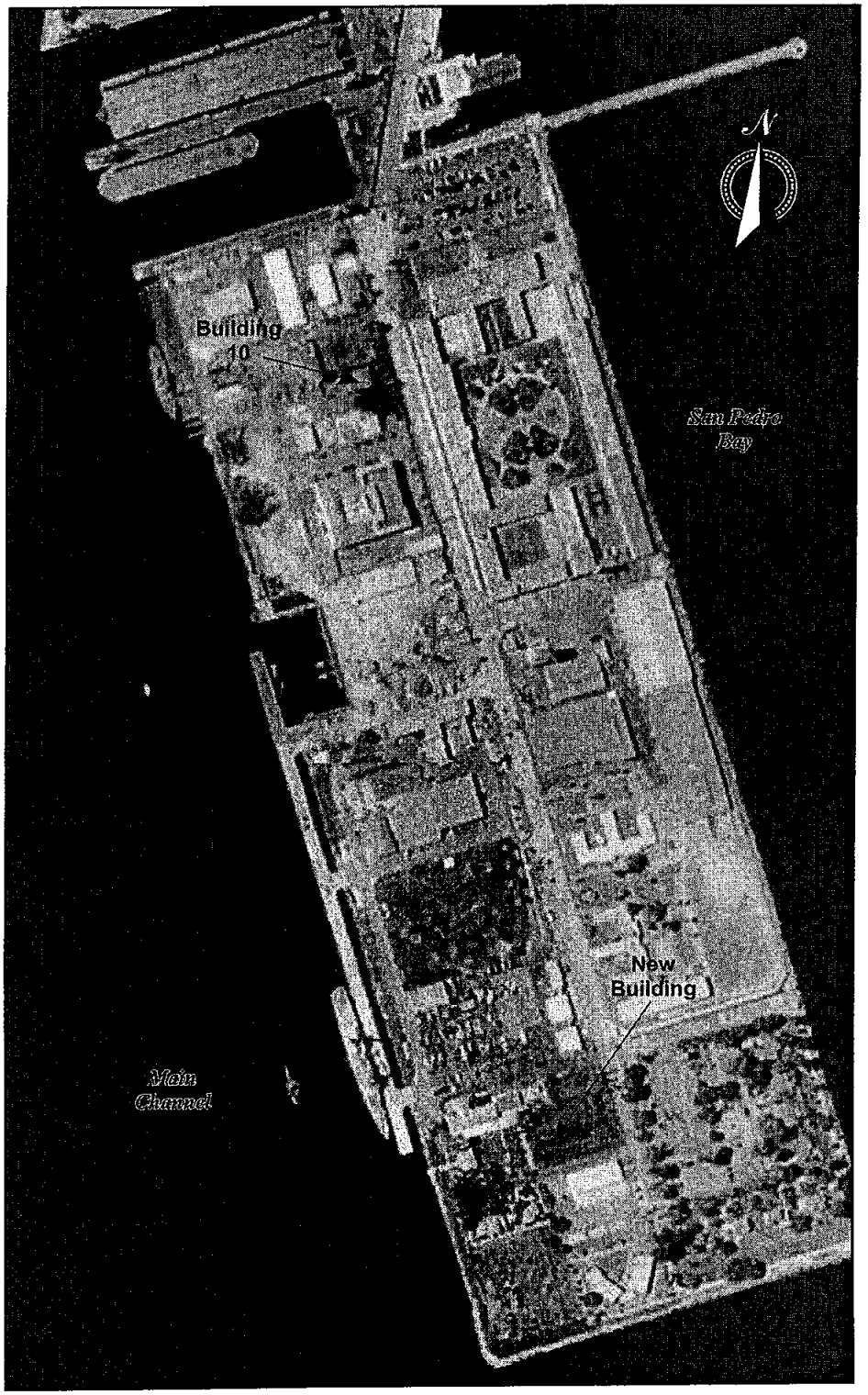
10	ISC ENGINEERING/HAZ WASTE/SAFETY	21	WAREHOUSE/SUPPLY/ARMORY	36	GROUNDS MAINT SHED
11	GROUP LA-LB ENGINEERING	22	STATION LA-LB	37	PORT SECURITY UNIT
12	CARPENTRY/RIGGING SHOP	23	MEDICAL/DENTAL CLINIC	38	WORK LIFE/HOUSING
14	MACHINE SHOP	24	ISC CMD/HOUSING	39	PORT SERVICES/AUXILARY
15	WLM CST	25	ARMORY MAGAZINE	40	PUBLIC AFFAIRS/CGI
16	ELECTRIC/ELECTRONIC SHOP	32	PERSONNEL REPORTING UNIT/TRAINING RM/MSST	50	PSU EQUIP STORAGE BLDG
19	PAVILION	33	EXCHANGE	A	QUARTERS
20	MSO-GRU LA-LB/GALLEY	34	PORT SECURITY UNIT	C	QUARTERS
		35	QTRS GARAGES		

United States Coast Guard
INTEGRATED SUPPORT COMMAND
SAN PEDRO, CA

0 150 300 600

EXISTING SITE MAP JUNE 2002

ENCLOSURE(1)



ENCLOSURE(2)

APPENDIX B

INTERESTED PARTY MAILING LIST

Establishment of the Marine Safety and Security Team at San Pedro, CA
Environmental Assessment
Interested Party Mailing List

Dr. William Hogarth
Regional Administrator
National Marine Fisheries Service
Southwest Region
501 West Ocean Blvd., Suite 4200
Long Beach, CA 90802-4213

Mr. David Tomsovic
US EPA Region 9
CMD-2
75 Hawthorne St.
San Francisco, CA 94105

Director
California Office of Planning and Research
State Clearinghouse
1400 10th Street, Suite 121
Sacramento, CA 95814

Ms. Terry Roberts
Chief, California State Clearinghouse
Governor's Office of Planning and Research
1400 Tenth Street, Room 222
Sacramento, CA 95814

Mr. Daniel Abeyta
State Historic Preservation Officer
Office of Historic Preservation
Department of Parks and Recreation
P.O. Box 942896
Sacramento, CA 94296-0001

Mary Ann Martin
Chairperson, Augustine Band of Mission Indians
84-481 Avenue 54
Coachella, CA 92236

Debbie Drake
Asst. Secretary of Conservation Programs
The Resources Agency
1416 9th St., Room 1311
Sacramento, CA 95814

Anthony Jack
Chairperson, Big Valley Rancheria
P.O. Box 430
Lakeport, CA 95453

Claudia Brundin
Chairperson, Blue Lake Rancheria
P.O. Box 428
Blue Lake, CA 95525

John James
Tribal Chairman, Cabazon Tribal Business Committee
84-245 Indio Springs Drive
Indio, CA 92201

Michelle Salgado
Spokesperson, Cahuilla Band of Mission Indians
P.O. Box 391760
Anza, CA 92539-1760

Tony Pinto
Chairman, Cuyapaipe Band of Mission Indians
4054 Willows Road P.O. Box 2250
Alpine, CA 91903-2250

Mary Ann Martin Andreas
Chairperson, Morongo Band of Mission Indians
11581 Potrero Road
Banning, CA 92220

Ronald Jaeger
Regional Director Pacific Regional Office
Bureau of Indian Affairs
2800 Cottage Way
Sacramento, CA 95825

Mark Macarro
Spokesman, Pechanga Band of Mission Indians
P.O. Box 1477
Temecula, CA 92593

Henry Duro
Chairman, San Manuel Band of Mission Indians
P.O. Box 266
Patton, CA 92369

Anthony Largo
Spokesman, Santa Rosa Band
of Mission Indians
325 N. Western Ave
Hemet, CA 92343

Robert Salgado
Spokesman, Soboba Band of Mission Indians
P.O. Box 487
San Jacinto, CA 92581

Virgil Townsend
Superintendent, Southern California Agency
Bureau of Indian Affairs
2038 Iowa Ave Suite 101
Riverside, CA 92507-0001

Honorable Gray Davis
Governor of California
State of California
State Capitol, 1st Floor
Sacramento, CA 95814

Mary Belardo
Chairperson, Torres-Martinez Desert Cahuilla
Indians
P.O. Box 1160
Thermal, CA 92274

Mr. Wayne Nastri
Regional Administrator
US EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

CMDR Louis Gray
Govenmental Liaison
City of Los Angeles Police Dept
150 N. Los Angeles St. Rm 611
Los Angeles, CA 90012

CPT Gary Williams
Anti-Terrorism Division
City of Los Angeles Police Dept
150 N. Los Angeles St. Rm 702
Los Angeles, CA 90012

Emergency Preparedness Department
Community Preparedness and Interagency
Liaison
200 N. Spring St Rm 1533
Los Angeles, CA 90012

CPT Mike Grossman
Emergency Operations Bureau
LA County Sheriff
1275 N. Eastern Ave
Los Angeles, CA 90063

Honorable James Hahn
Mayor of the City of Los Angeles
200 N. Spring St
Los Angeles, CA 90012

Director
FEMA Region IX
Presidio of San Francisco Bldg 105, POB
29998
San Francisco, CA 94129

LA County of Health Services
Bioterrorism Preparedness & Response
313 N. Figuera St
Los Angeles, CA 90012

Sheriff Leroy Baca
Los Angeles County
4700 Ramona Blvd
Monterey Park, CA 97154

Mr. Nicholas Tonisch
President LA Board of Harbor Commissioners
425 S. Palos Verdes St
San Pedro, CA 90731

Director Planning and Research
LA Board of Harbor Commissioners
425 S. Palos Verdes St
San Pedro, CA 90731

California Coastal Commission
45 Fremont St, Suite 2000
San Francisco, CA 94105

APPENDIX C

NEWSPAPER ANNOUNCEMENT

PUBLIC NOTICE

Environmental Assessments for Maritime Safety Security Teams (MSSTs)
US Coast Guard

The United States Coast Guard is announcing its intent to prepare an Environmental Assessment (EA) for the establishment of Maritime Safety and Security Teams (one each) in Seattle, WA; Chesapeake, VA; Galveston, TX; and San Pedro, CA. Preparation of the EAs is being conducted in accordance with the National Environmental Policy Act (NEPA) of 1969 (Section 102[2][c]) and its implementing regulations at 40 Code of Federal Regulations, Part 1500. These first four Maritime Safety and Security Teams (MSSTs) are being established to increase the Coast Guard's ability to protect critical domestic ports and the U.S. Maritime Transportation System from warfare and terrorist attacks. The MSSTs' operations will closely parallel Coast Guard traditional port security operations, but will provide complementary, non-redundant capabilities that will be able to close significant readiness gaps in our nation's strategic ports. In addition to the four MSSTs mentioned above, the Coast Guard is planning to stand up MSSTs in other critical ports around the country. Additional NEPA analysis will be prepared for future ports as necessary.

The EAs will address the overall environmental impacts of establishing and operating each of the first four MSSTs including the implementation of minor shore side infrastructure support to accommodate MSST personnel and equipment and the operation of approximately 6 new Response Boats-Small (RB-S) in each of the above-mentioned ports. The urgency of the MSST national security mission has resulted in an implementation schedule that directs the Seattle, WA MSST to be operational by July 1, 2002; Chesapeake, VA MSST to be operational by August 1, 2002; Galveston, TX MSST to be operational by September 1, 2002; and San Pedro, CA to be operational by September 1, 2002. Public input is important in the preparation of these EAs. Your concerns and comments regarding the implementation of these MSSTs and their possible environmental impacts are important to the Coast Guard. You are invited to submit comments by May 31, 2002 using only one of the following means:

(1) By mail to: Headquarters, U.S. Coast Guard
Captain Wayne Buchanan
Chief, Office of Defense Operations (G-OPD)
Room 3121
2100 Second Street, SW
Washington, DC

(2) Or, by fax to LCDR Kirk Schilling at (202) 267-4278.
(3) Or by E-mail to KSchilling@comdt.uscg.mil.

In choosing among the above means for submitting your comments, please give due regard to the recent 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 port(s) to which the comment relates. The Coast Guard will consider all comments received by May 31, 2002 in the development and completion of each EA.

* An Affidavit of Publication verifies that the above Public Notice was posted in the Long Beach Press-Telegram on May 14, 2002.

APPENDIX D

RESPONSES TO INTERESTED PARTY LETTER

July 2, 2002

Mr. Wayne Buchanan
Captain, U.S. Coast Guard
Chief, Office of Defense Operations (G-OPD)
Room 3121
2100 Second Street, SW
Washington, DC 20593

425 S. Palos Verdes Street
Post Office Box 151
San Pedro, CA 90733-0151
Tel/TDD 310 SEA-PORT
www.portoflosangeles.org

Dear Captain Buchanan:

Your letter of June 6, 2002 to Mayor Jim Hahn of the City of Los Angeles relative to an Environmental Assessment for the establishment of a Maritime Safety and Security Team (MSST) in San Pedro, at the Port of Los Angeles, has been referred to me for reply. The Port of Los Angeles, also known as the Los Angeles Harbor Department, is part of the City of Los Angeles.

For many years the Port has had an excellent working relationship with the Coast Guard. Especially since the September 11 terrorist attacks the Port has worked closely with the Captain of the Port to develop policies and procedures to ensure the safe and secure operation of the Port for its many and varied users. The Coast Guard has also been a key participant in the Mayor's Port Security Task Force, established shortly after the September 11 terrorist attacks.

The Port welcomes the establishment of an MSST at the Port of Los Angeles. We believe the MSST will complement the existing resources of the Coast Guard and the Port Police in providing a higher level of protection to the Port from warfare and terrorist threats. We have been advised informally from the Captain of the Port's office that the new MSST will likely be able to operate within the existing footprint of the Coast Guard base here at the Port.

Please feel free to contact Bill Stein, Director of Administration at the Port of Los Angeles, at (310) 732-3700 or by e-mail at bstein@portla.org if you have any questions.

Yours very truly,

LARRY A. KELLER
Executive Director

LAK:BS:mo

ba18

cc: Troy Edwards, Deputy Mayor, City of Los Angeles
Noel Cunningham, Chief, Port Police, Port of Los Angeles
Ralph Appy, Director, Environmental Management, Port of Los Angeles

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
GOVERNOR

Notice of Intent

Tal Finney
INTERIM DIRECTOR

June 19, 2002

To: Reviewing Agencies

Re: Maritime Safety and Security Team Overview
SCH# 2002064006

Attached for your review and comment is the Notice Intent (NOI) to prepare an Environmental Assessment for the Maritime Safety and Security Team Overview draft.

Responsible agencies must transmit their comments on the scope and content of the NOI, focusing on specific information related to their own statutory responsibility, by July 5, 2002. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Captain Wayn Buchanan
U.S. Coast Guard, Headquarters
Office of Defense Operations (G-OPD) Room 3121
2100 Second Street, SW
Washington, D.C. 20593

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Becky Franklin

for: Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
916-445-0613 FAX 916-323-3018 www.opr.ca.gov

Form A

Notice of Completion & Environmental Document Transmittal

SCH# 2002064006

Mail to: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: Establishment of Maritime Safety and Security Teams Overview

Lead Agency: U.S. Coast Guard, Headquarters Contact Person: Captain Wayn Buchanan

Street Address: Office of Defense Operations (G-OPD) Rm 3121 Phone: 202-267-4278

City: 2100 Second Street, SW, Washington, DC Zip: 20593 County:

Project Location:

County: City/Nearest Community: San Pedro

Cross Streets: Zip Code: Total Acres:

Assessor's Parcel No. Section: Twp. Range: Base:

Within 2 Miles: State Hwy #: Waterways:

Airports: Railways: Schools:

Document Type:

CEQA: ☐ NOP ☒ Early Cons ☐ Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other

NEPA: ☐ NOI ☒ EA ☐ Draft EIS ☐ FONSI Other: ☐ Joint Document ☐ Final Document ☐ 2002

RECEIVED JUN 18 2002 STATE CLEARING HOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan ☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan ☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.) ☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☒ Other

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational
☐ Recreational

☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
☐ Hazardous Waste: Type
☒ Other:

Funding (approx.): Federal $ State $ Total $

Project Issues Discussed in Document:

☐ Aesthetic/Visual ☐ Agricultural Land ☐ Air Quality ☐ Archeological/Historical ☐ Coastal Zone ☐ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal ☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☐ Noise ☐ Population/Housing Balance ☒ Public Services/Facilities ☐ Recreation/Parks ☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☐ Toxic/Hazardous ☐ Traffic/Circulation ☐ Vegetation ☐ Water Quality ☐ Water Supply/Groundwater ☐ Wetland/Riparian ☐ Wildlife ☐ Growth Inducing ☐ Landuse ☐ Cumulative Effects ☐ Other

Present Land Use/Zoning/General Plan Designation:

Project Description:

Protect critical domestic ports and the U.S. Maritime Transportation system from warfare and terrorist attack.

Revised 3-31-99

23

State Clearinghouse Contact: Becky Frank (916) 445-0613

State Review Began: 6-18-2002

EARLY CONSULTATION
SEND COMMENTS DIRECTLY TO LEAD AGENCY BY: 7-5-2002

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2002064006

Please forward late comments directly to the Lead Agency

AQMD/APCD

(Resources: 6/22

Project Sent to the following State Agencies

- X Resources
- Boating & Waterways
- X Coastal Comm
- Colorado Rvr Bd
- Conservation
- X Fish & Game # 5
- Delta Protection Comm
- Forestry & Fire Prot
- X Historic Preservation
- X Parks & Rec
- Reclamation Board
- Bay Cons & Dev Comm
- X DWR
- OES (Emergency Svcs)

Bus Transp Hous

- X Aeronautics
- X CHP
- X Caltrans # 7
- Trans Planning
- Housing & Com Dev
- Food & Agriculture
- Health) Services

State/Consumer Svcs

- General Services

Cal EPA

- ARB – Airport Projects
- ARB – Transportation Projects
- ARB – Major Industrial Projects
- Integrated Waste Mgmt Bd
- SWRCB: Clean Wtr Prog
- SWRCB: Wtr Quality
- SWRCB: Wtr Rights
- X Reg. WQCB # 4
- Toxic Sub Ctrl-CTC

Yth/Adlt Corrections

- Corrections

Independent Comm

- Energy Commission
- X NAHC
- Public Utilities Comm
- Santa Monica Mtns
- X State Lands Comm
- Tahoe Rgl Plan Agency

Other:

-----Original Message-----
From: Ron Spicer [mailto:ronspicer@hotmail.com]
Sent: Wednesday, July 10, 2002 2:29 PM
To: kschilling@comdt.uscg.mil
Cc: roperc@lapd.lacity.org
Subject: LAPD response to USCG MSST proposal

Lt. Commander Schilling,

I am responding to the U. S. Coast Guard's request for input about the development of the Maritime Safety and Security Teams (MSST). I apologize for the response delay.

The Los Angeles Police Department supports efforts to improve on-water safety, enforcement, and protection efforts and is willing to work with the USCG in their efforts. Provided the MSST mission does not include any on shore or other land-based operations, the LAPD has no concerns. If you anticipate the need to conduct dry land operations, we would like to discuss jurisdictional procedures and responsibilities. The LAPD is also willing and would desire to participate in joint training or exercises concerning the safety of the Port of Los Angeles.

The best contact for any further information about the LAPD's responsibilities in the Port of Los Angeles area is Captain Julie Nelson, Commanding Officer, Harbor Area at (310) 548-7601. If you any questions regarding this correspondence, feel free to contact me of my commanding officer, Captain C. G. Roper at (213) 473-7799.

Sergeant Ron Spicer
Los Angeles Police Department
Emergency Operations Section
(213) 847-4258

APPENDIX E

CLEAN AIR ACT

GENERAL CONFORMITY ANALYSIS

EXECUTIVE SUMMARY

Agency: United States Coast Guard (USCG)

Action: The U.S. Coast Guard (USCG) proposes to stand-up and operate four Maritime Safety and Security Teams (MSSTs) nationwide, one of which will be located at the Integrated Support Command (ISC) San Pedro on Terminal Island. Terminal Island is primarily a man-made island composed of fill from the widening of the ship channel over the years. The term "stand-up" is defined as establishing a new activity. The MSST will improve the existing Ports of Los Angeles and Long Beach security capabilities on an on-going basis. This analysis evaluates whether the Proposed Action is compliant with the Federal and state General Conformity Rules.

Contact: LCDR Kirk Schilling [email: KSchilling@comdt.uscg.mil]

Designation: Clean Air Act General Conformity Analysis

Project Abstract: The MSST will be located at ISC San Pedro, which is located at the part of Terminal Island known as Reservation Point. Terminal Island is made up of piers, docks, storage facilities, and commercial terminals. ISC San Pedro consists of approximately 25 buildings, storage structures and lots, parking lots, an athletic field and piers. A new modular building will be constructed to accommodate MSST staff, and will include boat storage and a small light shop for the MSST.

The USGC's Proposed Action would introduce six 25-foot SafeBoat watercraft powered by twin 225 HP Honda outboard motors. These small patrol boats are categorized by the USCG as Response Boats – Small (RB-S).

The stand-up of the MSST in San Pedro would necesitate the addition of new personal, including 71 active duty personnel and 33 reservists.

Conformity Analysis: After careful and thorough examination of the facts contained herein, and following consideration of the views of those agencies having jurisdiction by law or special expertise with respect to air quality impacts and the California State Implementation Plan (SIP), the project proponent finds that the Proposed Action is consistent with the objectives as set forth in Section 176(c) of the Clean Air Act, as amended, and its implementing regulation, 40 CFR Part 93, Subpart B, *Determining Conformity of General Federal Actions to State and Local Implementation Plans*, and said actions conform to the applicable SIP in accordance with the law. Specifically, the emissions analyses concluded that total net emissions increases in NO_x, VOC, CO, and PM_{10} associated with the Proposed Action would be below the applicable *de minimis* thresholds.

This Conformity Analysis demonstrates that the proposed stand-up of the MSST in ISC San Pedro would not cause or contribute to any new violations or increase the frequency or severity of existing violations of the National Ambient Air Quality Standards (NAAQS), nor delay the timely attainment of the Federal ozone standards in the region. This Conformity Analysis also determined that the Proposed Action would be consistent with the applicable SIP measures through compliance with South Coast Air Quality Management District rules and permitting requirements.

This Conformity Analysis is based upon the total direct and indirect emissions associated with the stand-up of the MSST at ISC San Pedro. Future personel levels and watercraft activity levels associated with the MSST at ISC San Pedro may differ from those analyzed in this conformity analysis. Therefore, this analysis applies as long as total emissions remain at or below *de minimis* thresholds. If the Proposed Action is changed so that there would be an increase in the total direct and indirect emissions reported in this analysis, a new conformity analysis will be performed.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. Introduction

The Clean Air Act Amendments (CAAA) of 1990 require Federal agencies to ensure that their actions conform to the applicable State Implementation Plan (SIP). The SIP is an EPA-approved plan that provides for implementation, maintenance, and enforcement of the National Ambient Air Quality Standards (NAAQS). The SIP includes emission limitations, rules, schedules, and specific control measures to attain and maintain the NAAQS. Conformity to a SIP, as defined in the CAAA, means conforming to the SIP's purpose of reducing the severity and number of violations of the NAAQS to achieve attainment of such standards.

As a Federal agency and proponent of a "Federal Action," the USCG must complete a conformity analysis to determine whether the stand-up, operations and associated regulated pollutant emissions with the introduction of six 25-foot SafeBoat watercraft at the Maritime Safety and Security Team (MSST) operation stationed at the Integrated Support Command (ISC) San Pedro will conform to the State of California SIP. Other elements of the Proposed Action include the introduction of 71 active-duty staff and 33 reservists, the construction of a small modular building, and increased vehicle emissions due to the additional commuting by new personnel. All elements of the Proposed Action could impact areas within the South Coast Air Quality Management District (SCAQMD) non-attainment area. Therefore, a conformity analysis is required.

1.1 Background

The Clean Air Act (CAA) and its amendments were passed by Congress and corresponding rules were promulgated by EPA because it has been determined that certain pollutants have the potential to cause an adverse affect on public health and the environment when certain concentrations are exceeded in ambient air. In order to control and regulate these "criteria pollutants" and better maintain healthful air, NAAQS were established for six criteria pollutants. These pollutants include: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter less than 10 microns in diameter (PM_{10}), sulfur dioxide (SO_2), and lead (Pb). Ozone is not typically emitted directly from emission sources, but rather is formed in the atmosphere by photochemical reactions involving sunlight and other emitted pollutants or "ozone precursors." These ozone precursors consist primarily of nitrogen dioxide (NO_2), and volatile organic compounds (VOCs), which are emitted directly from a wide range of stationary and mobile sources. Therefore, ozone concentrations in the atmosphere are controlled through limiting the emissions of VOCs (also identified as hydrocarbons or HCs) and NO_2.

Air quality conformity provisions first appeared in the CAA of 1977. These provisions stated that no Federal agency could engage in, support in any way, provide financial assistance for, license, permit, or

approve any activity that did not conform to an SIP after approval and promulgation. Section 176 (42 United States Code [U.S.C.] 7506c) of the CAA, as amended in 1990, further explained conformity to an implementation plan as meaning conformity to the plan's purpose of eliminating or reducing the severity and of violations of the NAAQS, and achieving timely attainment of these standards. In November 1993, the EPA promulgated regulations and requirements that clarify the applicability, procedures, and analyses necessary to ensure that Federal facilities comply with the CAA.

In establishing the Final General Conformity Rule, 40 Code of Federal Regulations (CFR) 93 Subpart B, EPA requires Federal agencies to evaluate a proposed Federal action and ensure that it does not:

- Cause a new violation of a National Ambient Air Quality Standard (NAAQS)
- Contribute to an increase in the frequency or severity of violations of NAAQS
- Delay the timely attainment of any NAAQS, interim progress milestones, or other milestones toward achieving compliance with the NAAQS

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) emitted 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 General Conformity Rule requires that Federal agencies do a conformity applicability analysis to determine whether a formal Conformity Determination is required. Where the direct and indirect emissions associated with a proposed action do not exceed *de minimis* threshold levels promulgated in 40 CFR 93.153(b), the Proposed Action is deemed to be in conformity and no further action is required. Table E-1 presents the applicable *de minimis* thresholds under the General Conformity Rule.

If net changes in non-attainment pollutants do not exceed these *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 General Conformity Rule requirements.

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

Criteria Pollutant	Status	Degree or Classification	*de minimis* Limit Threshold (tpy)
Ozone (NO_x or 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
		Moderate	100
	Maintenance	N/A	100
Sulfur Dioxide (SO_2)	Non-attainment/ maintenance	All	100
Nitrogen Dioxide (NO_x)	Non-attainment/ maintenance	All	100

Note: tpy = tons per year
Source: 40 CFR 93.153 (b)(2)

1.2 Purpose

The purpose of this Conformity Analysis is to document compliance with CAA requirements in accordance with 40 CFR 93, Subpart B. This Conformity Analysis will analyze the air quality impact of emissions of non-attainment pollutants (i.e., CO, PM_{10}, and ozone precursors - NO_x and VOC) resulting from the Proposed Action. Further, this evaluation will determine whether the Proposed Action at the MSST in San Pedro and the areas affected by watercraft patrols will conform to the California SIP. This Conformity Analysis for the Proposed Action is done in coordination with the Commandant of the USCG, SCAQMD, and the MSST operation in San Pedro.

1.3 Document Organization

The remainder of Section 1.0 presents the purpose and background for the document, describes the Proposed Action in San Pedro and summarizes the existing air quality conditions in the region.

Section 2.0 of this document outlines the regulatory requirements of the General Conformity Rule and their relationships to this Conformity Analysis.

Section 3.0 details the applicability of the General Conformity Rule to the Proposed Action in San Pedro, and the results of emissions estimates. Section 4.0 provides the conformity analyses results for the Proposed Action, and an assessment of the project's consistency with the applicable SIP requirements. Finally, Attachment E-1 details the emissions calculation methodologies, assumptions, and results used for this Conformity Analysis.

1.4 Existing Air Quality

1.4.1 Affected Area

Nearly all of the motor vehicle commuting and boat patrol activities associated with the MSST operation in San Pedro will occur within the South Coast Air Basin. Based on historical ambient air quality monitoring records, the South Coast Air Basin has been designated by the EPA as an "Extreme" non-attainment area for ozone, non-attainment for carbon monoxide, and serious non-attainment for PM_{10}. The SCAMQD Area is in attainment for SO_x, NO_2, and Pb.

A small fraction of the commute emissions (reservists) will occur outside of the South Coast Air Basin Non-attainment Area. Boat patrols will occasionally be required in the Santa Barbara and San Diego coastal areas, which are also ozone non-attainment areas. However, because the Proposed Action-related emissions are lower, and the *de minimis* thresholds higher, for these remote emissions, impacts of the Proposed Action will clearly be *de minimis* in those areas and it is necessary only to evaluate conformity for the South Coast Air Basin Non-attainment Area.

Figures E-1 through E-3 shows the California south coast area where the proposed MSST will operate. The figures show the locations of the South Coast Air Basin and nearby non-attainment areas.

Because the emissions from watercraft occur offshore, a possible question arises as to whether the Proposed Action will be in a non-attainment area. Maps published by EPA and the California Air Resources Board (CARB) delineate non-attainment areas only over land.

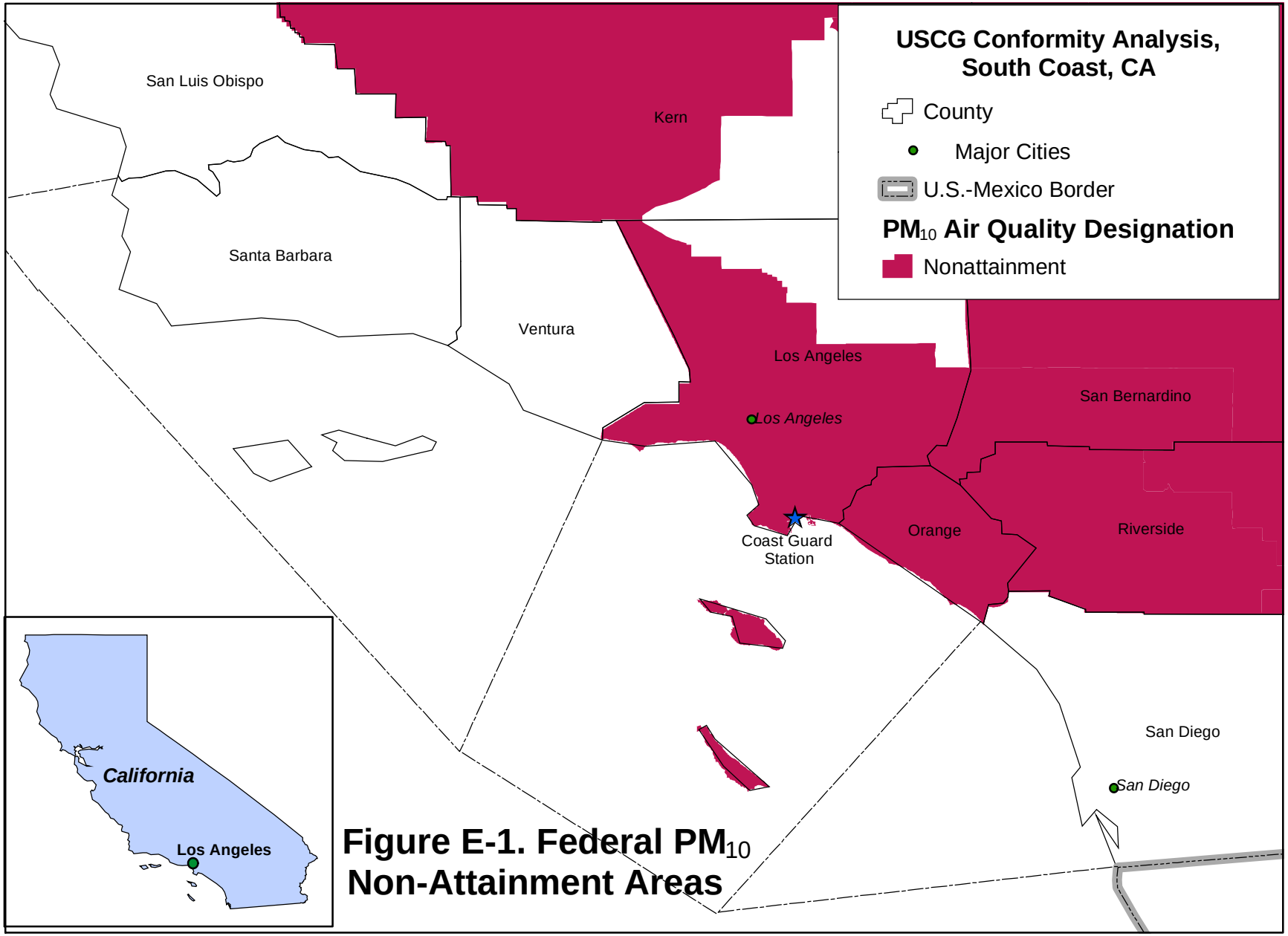


Figure E-1. Federal PM_{10} Non-Attainment Areas

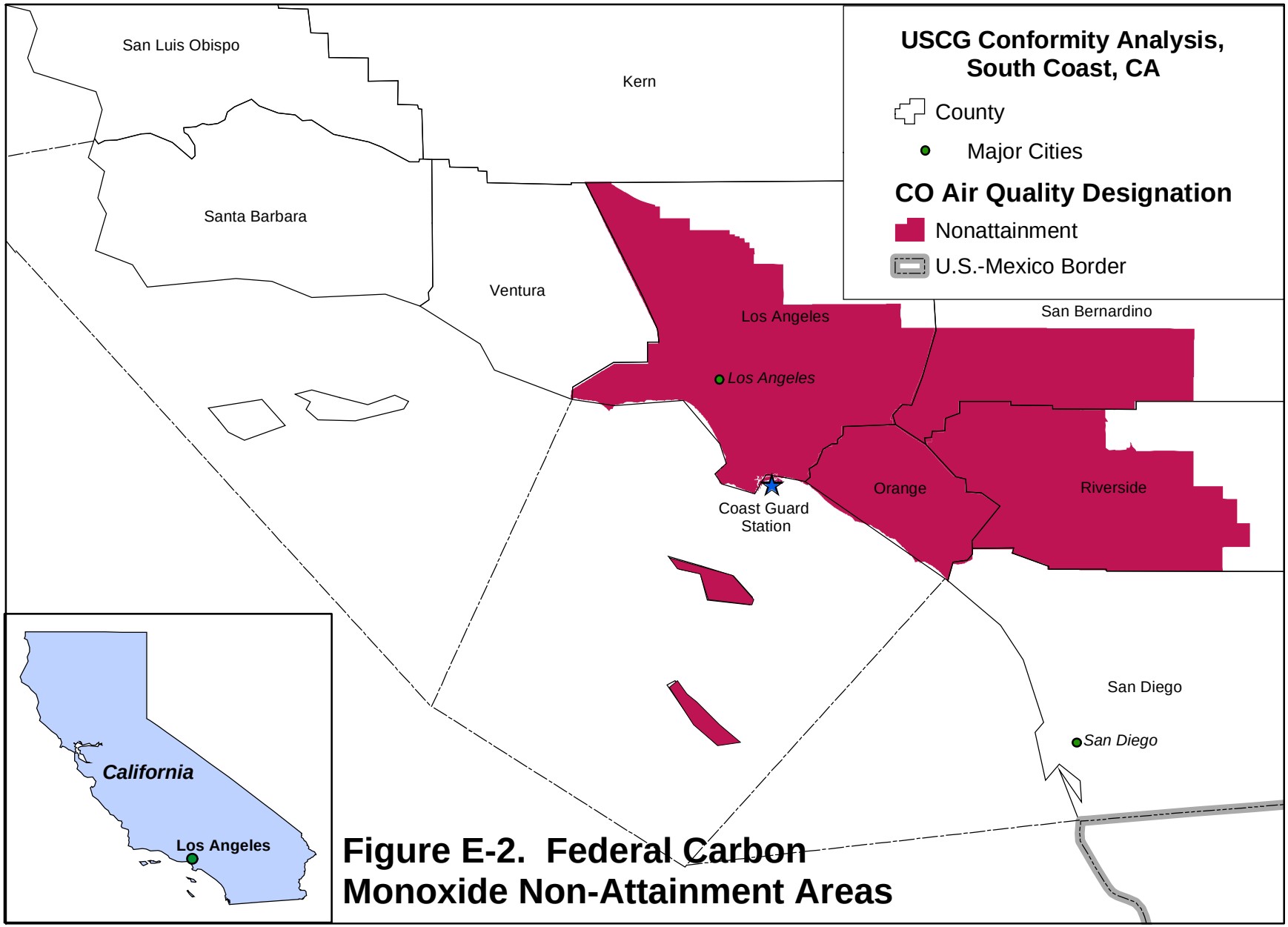


Figure E-2. Federal Carbon Monoxide Non-Attainment Areas

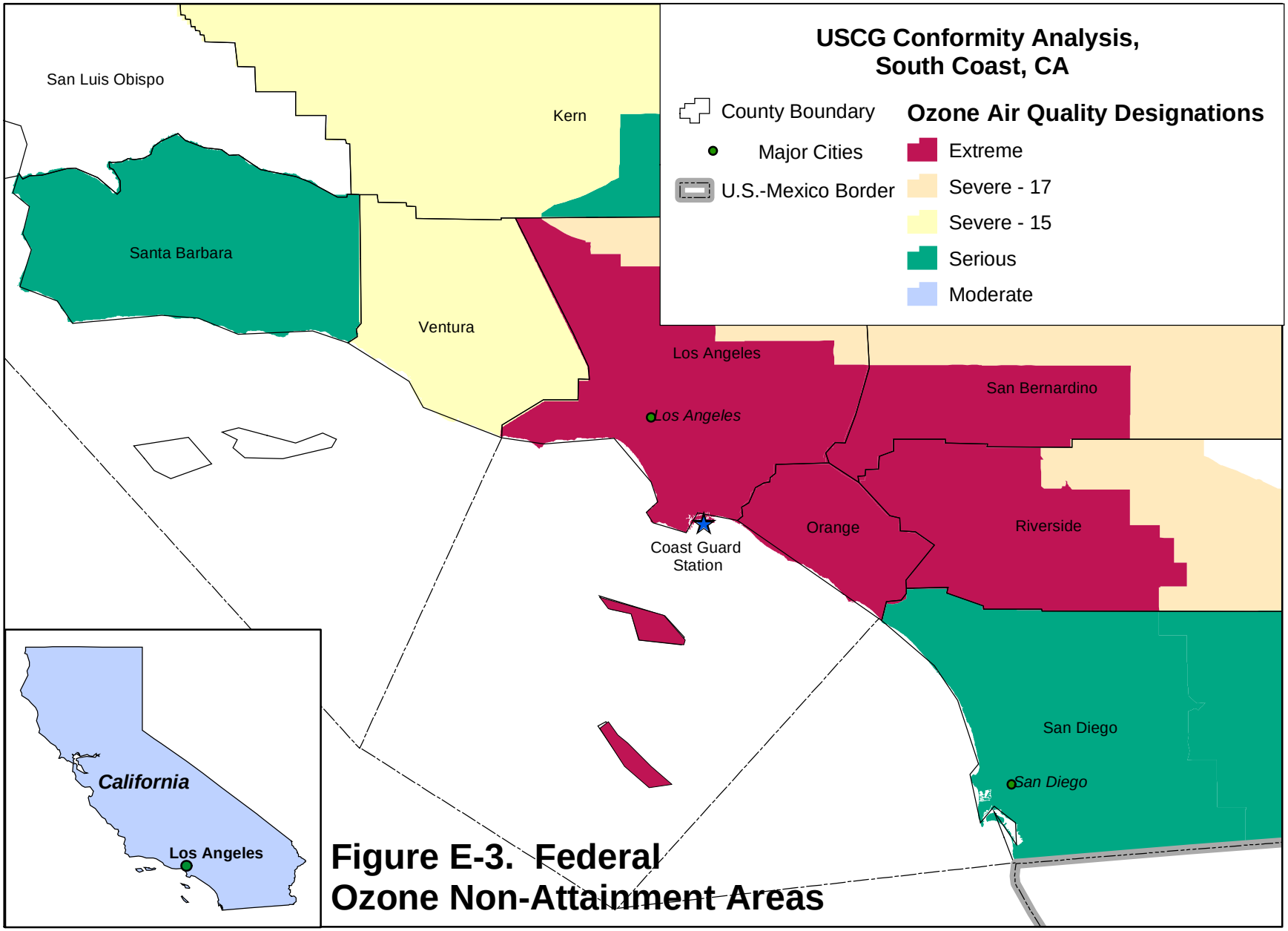


Figure E-3. Federal Ozone Non-Attainment Areas

Representatives from e²M consulted with Sylvia Oey of CARB regarding offshore non-attainment areas. Ms. Oey, in turn, consulted with legal and conformity experts at CARB, EPA Region IX, and SCAQMD. Though there were some differences of opinion, the final conclusion, as relayed by Ms. Oey, is as follows:

1. For the purposes of a conformity analysis or determination, the Proposed Action emissions should be evaluated using the same geographic areas used by the air districts to inventory emissions for their air quality management plans for the SIP.

2. CARB has instructed coastal air districts to inventory offshore emissions out to the "Coastal Water Boundary" as defined in California Title 17.70500, regardless of how far offshore the District's authority extends (distance varies by air district).

For the purposes of its inventory, SCAQMD defined its air basin boundaries by drawing lines perpendicular to the coastline at the edges of the air basin, out to the Coastal Water Boundary (Acurex 1996). Figures E-1 through E-3 follow this same convention, as suggested by Ms. Oey.

A complication arose with regard to the line delineating between the Ventura County Severe ozone non-attainment area and the Santa Barbara County Serious ozone non-attainment area. A perpendicular line would cut through the offshore islands in a manner that would contradict the county jurisdiction of those islands as defined in California Government Code 23000 et seq. The issue is further complicated by the fact that EPA and CARB designate these islands as being in ozone attainment. Because the distinction between the offshore areas of these two non-attainment areas is not critical for the current analysis (because patrols are anticipated to be infrequent and in response to a perceived threat (??)), no attempt was made to draw this line on Figures E-1 through E-3.

1.4.2 Nonattainment Pollutants

Ozone is a secondary pollutant formed in the atmosphere by photochemical reactions of previously emitted pollutants (mainly VOCs and NO_x) and sunlight. A brown odorless gas, ozone can cause irritation of the respiratory tract in humans and animals, and can damage vegetation. The maximum effect of the precursor emissions on ozone formation may be many miles from the source because ozone is a byproduct of a photochemical reaction.

Particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) may be emitted directly from combustion sources, or may result from mechanical wearing of automotive brakes and tires, or road surfaces. Fine particulate poses a greater health hazard than large particulate because it penetrates more deeply into the lungs.

Carbon monoxide (CO) is emitted from combustion sources as a product of incomplete combustion. CO displaces oxygen in the blood. Very high concentrations of CO are considered unhealthy for unborn fetuses. High concentrations of CO are generally localized occurances, found in the vecinity of busy intersections during cold weather.

1.4.3 South Coast Air Quality Management Distric General Conformity Rule

On September 9, 1994, SCAQMD adopted the General Conformity Rule and incorporated it by reference as SCAQMD Rule 1901. Rule 1901 cites the General Conformity Rule and establishes the following definitions:

- The "State agency primarily responsible for the applicable implementation plan" as used in 40 CFR 51, Subchapter C shall mean SCAQMD.
- The "MPO" as used in 40 CFR 51, Subchapter C shall mean Southern California Association of Governments (SCAG).

2. General Conformity Determination Requirements

2.1 Regulatory Background

The EPA has promulgated rules that establish the conformity determination criteria and procedures for Federal actions, pursuant to Section 176(c) of the CAA. The General Conformity Rule (40 CFR 93, Subpart B) defines the conformity criteria and procedures for Federal agencies that propose non-transportation projects.

The General Conformity Rule applies to Federal actions in areas that are failing to meet one or more of the Federal air quality standards (designated as non-attainment areas), and/or areas that are subject to attainment maintenance plans (designated as maintenance areas). As noted in Section 1, the Proposed Action will occur in the SCAMQD Air Basin, which is designated by the EPA as an extreme non-attainment area for ozone, a non-attainment area for CO, and a serious non-attainment area for PM_{10}. Therefore, a conformity applicability analysis, and determination, if warranted, will evaluate the conformity of the Proposed Action for each non-attainment pollutant based upon future VOC and NO_x emissions.

The following subsections describe the General Conformity Rule procedures and criteria, and how they specifically pertain to this Conformity Analysis.

2.2 Exemptions and Applicability

2.2.1 Source Exemptions

The General Conformity Rule provisions identify specific Federal actions or portions of actions that are exempt from the conformity procedural requirement, because the EPA has deemed these actions to conform. These actions include those that must undergo thorough air quality analysis to comply with other statutory requirements, actions that would result in no emission increase, or an increase in emissions that are clearly *de minimis*; or actions presumed to conform by the agency through separate rule-making actions. These exemptions include the transfer of ownership of real property under 40 CFR 93.153(c)(2)(xiv and xx), as well as leasing agreements pending environmental restoration under 40 CFR 93.153(c)(2)(xix).

2.2.2 *de minimis* and Regional Significance Thresholds

In addition to the specific source exemptions identified in the General Conformity Rule, Federal actions may be exempt from the conformity demonstration requirement if the action meets the applicability criteria for *de minimis* emission levels and regional significance thresholds. The applicability determination procedures define the applicable emission sources for the Federal action, quantify the total direct and indirect emissions of non-attainment pollutants from these sources, and then compare these emission rates against the appropriate *de minimis* emission levels or regionally significant thresholds. If the total direct and indirect emissions reach or exceed these applicability threshold values, a conformity determination must be prepared by the Federal agency before undertaking the action.

The General Conformity Rule defines direct and indirect emissions based upon the timing and location of the emissions. Direct emissions are those that are caused or initiated by the Federal actions, and occur at the same time and place as the action. Indirect emissions are those that occur in the future or at a distance from the Federal action. In addition, the General Conformity Rule limits the scope of indirect emissions to those that can be quantified and are reasonably foreseeable by the agency at the time of analysis, and those emissions that the Federal agency can practicably control and maintain control of through its continuing program responsibility.

The definitions of direct and indirect emissions do not distinguish among specific source categories; point, area, and mobile sources are given equal consideration in the conformity requirements. All substantive procedural requirements of the General Conformity Rule apply to the total of the net increases and decreases in direct and indirect emissions resulting from the action.

If the total of direct and indirect emissions from the action meet or exceed the *de minimis* or regional significant thresholds, the agency must perform a conformity determination to demonstrate the positive conformity of the Federal action. The *de minimis* emission levels vary by the criteria pollutant and the severity of the region's non-attainment conditions. Regionally significant thresholds represent 10 percent of the applicable SIP emissions inventory for non-attainment pollutants.

Section 3.0 presents the specific emission thresholds and the applicability analysis results for the USCG's Proposed Action for MSST operation in San Pedro.

2.3 CAA Conformity Criteria

If the Proposed Action is not exempt from the conformity demonstration requirements, the General Conformity Rule defines conformity and provides five basic criteria to determine whether a Federal action conforms to an applicable SIP. These criteria assess conformity based upon emission analyses and/or dispersion modeling for the pollutants in non-attainment. If the Federal action meets the conformity criteria and requirements, the action is demonstrated to conform to the applicable SIP. If the action cannot meet the criteria and requirements, the appropriate regulatory agency (i.e., SCAQMD for the Proposed Action) must develop an enforceable implementation plan to effectively mitigate (e.g., completely offset) the Proposed Action to meet the conformity requirements. The Federal action cannot proceed unless positive conformity can be demonstrated.

The General Conformity Rule provides the option to select any one of several criteria to analyze the conformity of the Proposed Action. Presented in 40 CFR 93.158, the criteria are primarily based upon the type of pollutant and the status of the applicable SIP. If the applicability analysis concludes that further conformity analyses are required to demonstrate positive conformity (i.e., de minimis or regional significance thresholds are exceeded) the following conformity criteria (paraphrased below) can be used to demonstrate conformity for a proposed action in a non-attainment area:

1. The total direct and indirect emissions for the Proposed Action are specifically identified and accounted for in the applicable SIP's attainment or maintenance demonstration [40 CFR 93.158(a)(1)].
2. The total direct and indirect emissions of ozone precursors are fully offset within the same non-attainment or maintenance area through a revision to the applicable SIP or a similarly enforceable measure so that there is a no net increase in emissions [40 CFR 93.158(a)(2)].
3. The State has made a revision to the area's attainment or maintenance demonstration after 1990 and the State **either**:
    a. Determines and documents that the action, together with all other emissions in the non-attainment (or maintenance) area would not exceed the emissions budget specified in the applicable SIP; **or**

b. Determines that the action, together with all other emissions in the non-attainment (or maintenance) area would exceed the emissions budget specified in the applicable SIP but the State's Governor or designee for SIP actions makes a written commitment to the EPA to demonstrate CAA conformity through specific measures and scheduled actions [40 CFR 93.158(a)(5)(i)(A & B)].

4. The Federal action fully offsets its entire emissions within the same non-attainment area through a revision to the SIP or a similar measure so that there is no net increase in non-attainment pollutant emissions [40 CFR 93.158(a)(5)(iii)].

5. The State has not made a revision to the approved SIP since 1990, and the total emissions from the action do not increase emissions above the baseline emissions which are either:

   a. CY1990 emissions or another calendar year that was the basis for the non-attainment area designation) [40 CFR 93.158(a)(5)(iv)(A)] or

   b. Historic activity levels and emissions calculated for future years using appropriate emission factors and methods for future years.

6. Dispersion modeling analysis demonstrates that direct and indirect emissions from the Federal action will not cause or contribute to violations of Federal ambient air quality standards.

2.4 Other State Implementation Plan Consistency Requirements

This Conformity Analysis must also demonstrate that total direct and indirect emissions from the Federal action are consistent with the applicable SIP requirements and milestones:

- Reasonable further progress schedules
- Assumptions specified in the attainment or maintenance demonstration
- SIP prohibitions, numerical emission limits, and work practice requirements

3. Applicability Analysis

This section of the conformity determination describes the applicability analysis of the proposed stand up and operations of the 25-foot SafeBoat watercraft for MSST operations in LA/LB Harbor to the General Conformity Rule requirements.

3.1 Sources Included in the Conformity Analysis

In accordance with the General Conformity Rule, total direct and indirect emissions to be evaluated for the Proposed Action include several types of stationary and mobile sources. Emissions would occur during both various phases of the Proposed Action. Direct Proposed Action emissions would include

exhaust from the boat motors as well as emissions from the tow vehicles used to transport the boats to remote patrol assignments. As defined by the General Conformity Rule and applied to the proposed MSST operations in LA/LB Harbor, indirect emissions would include increases in privately-owned vehicle commute emissions resulting from increased personnel at the USCG Station in San Pedro.

3.2 Total Emission Calculations

The estimates of the net changes in non-attainment pollutant emissions that would result from implementation of the proposed MSST operations in LA/LB Harbor and the affected patrol area are presented in Attachment E-1 of this Conformity Analysis. These calculations are based on the proposed future operations and support of the MSST watercraft in San Pedro. The analyses results indicate that air pollutant impacts could result from construction activities, on-road motor vehicles, and boat patrols. The net changes in direct and indirect emissions associated with the Proposed Action are presented below.

3.2.1 Construction

Planned construction associated with the Proposed Action includes the erection of a modular building approximately 60 feet by 100 feet to accommodate MSST support staff. There will also be a small open modular shelter for light maintenance activities. Emissions associated with the delivery and installation of these modular structures will be minimal and temporary and have been omitted from this analysis.

3.2.2 On-Road Vehicles

The MSST operation in San Pedro will result in a staffing increase of 71 active duty and 33 reservists. The active duty personnel are full time staff working five days a week. The reservists assigned to this unit originate from locations throughout the state of California and drive to the USCG Station monthly for weekend drills. Emissions were calculated based on information provided by MSST personnel, indicating an average commute of 20 miles one-way for active duty staff, working 240 days per year. The non-attainment area commute for reservists was defined as 100 miles each way (from San Pedro to the northern edge of the non-attainment area), twelve times per year.

Three ¾-ton pickup trucks will tow watercraft on trailers. MSST staff estimate that the trailered boats will be deployed up to 15 times a month. Tow vehicle emissions were calculated from the USCG Station to the edge of the air basin (approximately 100 miles each way). The estimated emissions associated with these on-road vehicles are presented in Table E-2.

Table E-2. Estimated Emissions from On-Road Vehicles

NOx tpy	VOC tpy	CO tpy	PM_{10} tpy	SO_2 tpy
1.13	1.30	15.84	1.09	0.08

tpy – tons per year

3.2.3 Watercraft

The MSST will have a total of six 25-foot. SafeBoat watercraft. Two watercraft will normally patrol local harbors, an average of six hours per day. Patrol times will increase for one to two days during military load-outs. Three watercraft will operate from trailers towed by ¾-ton gasoline pickups. The sixth watercraft will be the backup unit.

Regulated pollutant emissions from proposed operations were calculated for the patrol area and the operation of two watercraft running six hours a day seven days a week with four 12-hour patrols per month. These emissions estimates are presented in Table E-3 and the calculations are presented in Attachment E-1 to this Conformity Analysis.

Table E-3. Estimated Emissions from Watercraft In South Coast Air Basin

NOx tpy	VOC tpy	CO tpy	PM_{10} tpy	SO_2 tpy
2.77	6.33	27.68	0.26	0.25

tpy – tons per year

3.3 Applicability Analysis Results

The results of the applicability analysis indicate that the emissions for MSST operations in LA/LB Harbor (within South Coast Air Basin) will not exceed the de minimis thresholds of 10 tpy for NO_x emissions, 70 tpy for PM_{10}, or 100 tpy for CO. Therefore, a Conformity Determination is not required for this proposed project in order to show positive conformity within the SCAMQD Area (See Table E-4).

Table E-4. Comparison of Estimated Emissions from Proposed Action to *de minimis* Thresholds

Emission Source	NO_x tpy	VOC tpy	CO tpy	PM_{10} tpy	SO_2 tpy
Watercraft	2.77	6.33	27.68	0.26	0.25
On-Road Vehicles	1.13	1.30	15.84	1.09	0.08
Total	**3.90**	**7.63**	**43.52**	**1.35**	**0.33**
***de minimis* Thresholds**	**10**	**10**	**100**	**70**	**----**

tpy = tons per year

3.4 Regional Significance

In addition to *de minimis* thresholds, Federal actions must also be compared to regional significance thresholds, where regional significance is defined as 10 percent of the emissions inventory for the affected area.

Regional significance should be evaluated for all future target planning years identified in the SIP. Target year inventories used in this analysis were taken from the SCAQMD 1997 Air Quality Management Plan (AQMP). The AQMP is updated every two years, though it may take considerable time for the AQMP to be approved by CARB and EPA. Target year inventories in future AQMPs will be only a few percent different from the values from the 1997 AQMP used in this analysis. Therefore, a proposed action that is several orders of magnitude below this significance threshold will therefore be several orders of magnitude below significance for any future AQMP target year inventory. Table E-5 compares the Proposed Action emissions to the significance thresholds for the SCAMQD non-attainment area.

4. Conformity Analysis Results and Conclusions

This section presents the results of this Conformity Analysis for the proposed stand-up and operation of the MSST in LA/LB Harbor. The purpose of this analysis is to determine whether the USCG's Proposed Action for the MSST would conform to the applicable SIP, based upon the criteria established in the General Conformity Rule and promulgated in 40 CFR 93.158.

The regulatory basis and specific criteria for this analysis was presented in Section 2.0. This section presents the methods and results of this Conformity Analysis for the following criteria: demonstration

Table E-5. Comparison of Estimated Emissions from Proposed Action to Regional Significance

Emission Source	NO_x tpy	HC tpy	CO tpy	PM_{10} tpy	SO_x tpy
Watercraft	2.77	6.33	27.68	0.26	0.25
On-Road Vehicles	1.13	1.30	15.84	1.09	0.08
Total Proposed Action	**3.90**	**7.63**	**43.52**	**1.35**	**0.33**
Regional Inventory[a]	254,328	281,068	1,219,366	163,451	23,148
Proposed Action Percent of Regional Inventory[b]	**0.0015%**	**0.0027%**	**0.0036%**	**0.0008%**	**0.0014%**

Note: tpy = tons per year

[a] Lowest value for this pollutant in any target year South Coast Air Basin inventory, as published in Attachment A to SCAQMD 1997 Air Quality Management Plan.

[b] Regional Significance is defined as 10% of regional emissions for any target year. Proposed action emissions are three to four orders of magnitude below the significance threshold for lowest target year emission inventory for each non-attainment pollutant.

that direct and indirect emissions associates with the proposed Federal action will not exceed the conformity *de minimis* thresholds in any affected Air Quality Control Region, and therefore in any affected non-attainment or maintenance area. This criterion is satisfied by the information presented in Tables E-4 and E-5.

Based upon the conformity analyses results summarized in the previous sections, the proposed MSST in San Pedro meets the conformity criterion for not exceeding *de minimis* thresholds in the affected area.

Based upon the emission analyses, the reasonably foreseeable project emissions of CO, PM_{10}, NO_x, and VOCs would not exceed the South Coast Air Basin *de minimis* thresholds applicable to MSST San Pedro.

This Conformity Analysis is based upon the total direct and indirect emissions associated with the proposed MSST project in San Pedro. The detailed supporting calculations are provided in Attachment E-1 to this Conformity Analysis. Future activity levels and operations associated with MSST San Pedro may differ from those analyzed in this Conformity Analysis. However, this conclusion applies as long as total emissions and net emissions changes remain below *de minimis* emission levels as analyzed herein. If the Proposed Action is changed so that there is an increase in the total direct and indirect emissions over the *de minimis* levels for ozone precursors, a new conformity analysis will be performed.

Compliance with the requirements of the General Conformity Rule has been demonstrated based upon the promulgated air conformity regulations and SIP provisions in effect at the time of this Conformity Analysis.

5. References

Oey 2002 — Oey, Sylvia. 2002. Personal communication between Ms. Sylvia Oey, CARB, and Mr. Russ Henning, engineering-environmental Management, Inc., regarding offshore non-attainment areas. 24 September 2002.

Acurex 1996 — Acurex Environmental Corporation (Acurex). 1996. *Marine Vessel Emissions Inventory and Control Strategies*. For the South Coast Air Quality Management District. 12 December 1996.

THIS PAGE INTENTIONALLY LEFT BLANK

ATTACHMENT E-1

PROPOSED ACTION EMISSIONS

San Pedro California MSST

Scenario

Based on estimates from Lt. Cooper, Executive Officer at San Pedro Coast Guard Facility
(telecon with Russ Henning of e2M, 11/27/02)
2 boats in harbor, 6 hrs/day 7 days/wk
3 boats on trailers for remote assignments; assume maximum of two in water 6 hrs/day,
all outside South Coast Air Basin (SOCAB).
1 spare boat
3 F-350 Ford gasoline pickups tow the trailers. Used about 15 days per month.

During military load-outs, the Harbor boats will patrol 12 hr/day for 1-2 days. The frequency of such events is dependent on world events, but will be at least 1-2 per month for the near future.

The trailered boats could be deployed to any location on the west coast of the United States, but their duties will be primarily from Santa Barbara to San Diego.

The 12 knot speed presented in the DOPAA is an average speed rather than an actual speed. The boats would rarely actually travel at 10-12 knots because that is a transition speed between displacement and planing for a boat of this size. As a result, that speed generates a significant wake, and results in unnecessary fuel consumption and emissions.

Boats will patrol at 7-8 knots in the harbor, with occasional periods of travel of approximately 35 knots relocate, or to go out or return from escort assignments. Staff estimate 80% of the time is spent at low speed, and 20% of the time is spent a cruising speed. There are also occasional momentary bursts of up to 50 knots to intercept other watercraft.
Boats patrolling up to Santa Barbara and down to San Diego will spend most of their time at cruising speed (approximately 35 knots) with a smaller fraction of time at low speed.

One new modular building, 60 ft by 100 ft will be constructed for boat storage and will include a small maintenance shop. Emissions from transporting and erecting the modular building will be minimal and temporary, and have been neglected.

There will be a total of 71 active duty and 33 reservists associated with the Proposed Action. These will all be new staff to the San Pedro Coast Guard facility. The reservists will come to San Pedro only one weekend per month for exercises.

Assumptions:

Assume that the two harbor patrols will be in SOCAB 100% of the time, running 6 hr/day, 329 days/yr.
Assume that the two harbor patrols will be on 12 hour Military Load-out patrols the other 36 days/yr

Assume that the boats that patrol the coastline will operate only in South Central Coast and San Diego County, with activity split 50/50 between these two air basins.

Assume that all commuter vehicles are in SOCAB 100% of the time.
Assume that pickups with boat trailers will commute out of SOCAB 15 days per month.

No historical data on fuel use for comperable Coast Guard watercraft were available for San Pedro. However according to Chief Petty Officer Mark Wilkins (telecon 11/26/02) Coast Guard MSST patrols in Galveston Harbor use about 45 gal in a 12-hour day.

Based on mileage data from comperable engines, see "Power Requirements" worksheet, these outboard motors have a thermal efficiency of approximately 22.6%.

$$\frac{(3.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 32\ \text{kW}$$

Based on tests of outboard boat efficiency, see "Power Requirements" worksheet, a 24 foot boat uses approximately 10.3 gal/hr at a cruising speed of 32 MPH. If we assume 80:20 ratio of cruising to idle speed for the deployed boats, as opposed to 20:80 for the Harbor Patrol boats, then the deployed boats would be expected to consume approximately 8.75 gallons per hour.

$$\frac{(8.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 75\ \text{kW}$$

Assume that the average total power demand for patrol boats over their 12-hour shifts will be:

50	HP avg. engine load to patrol harbor =	37 kW
100	HP avg. engine load to cruise along coast =	75 kW

Boat Activity in SOCAB:

	Two harbor patrol boats, 6 hr/day, 329 days/yr		
	Two harbor patrol boats, 12 hr/day, 36 days/yr		
Totals	4,812 boat-hrs in SOCAB or:	**179,367**	**kW-hrs**

Boat Activity in Two Adjacent Air Basins:

	Two coast patrol boats, 6 hr/day, 180 days/yr		
Totals	1,080 boat-hrs per basin or:	**80,514**	**kW-hrs per basin**

On-Road Motor Vehicles

This analysis will compute emissions associated with 71 active duty staff vehicles commuting an average of 40 miles per day (20 miles each way), one person per car, 240 days per year. Reservists will be assumed to originate outside of the SOCAB air basin, so their mileage will be based on 12 round trips per year from the edge of the air basin (approximately 200 miles in the air basin each round trip)
The three Ford F-350 pickups will be assumed to travel to the edge of the air basin 15 times per month (approximately 200 miles in the air basin each round trip).
Fleet makup and age assumptions are listed and emission factors are computed on the "Commute" sheet in this workbook.

Motor Vehicle Activity in SOCAB:

71 active duty staff, 40 mi/day, 240 days/yr.	681,600	vehicle miles traveled
3 Ford F-350s, 200 miles/trip, 180 trips/yr	108,000	vehicle miles traveled
33 reservists, 200 miles/trip, 12 trips/yr	79,200	vehicle miles traveled

Motor vehicle activity in air basins outside of SOCAB will be negligible and has not been evaluated.

Emissions From Watercraft

The specification for the Proposed Action motor procurement requires that current and future MSST engines meet federal 2006 model year emission standards for outboard motors (= California 2001-2003 MY standards).

Emission Factors **Not** Used in This Analysis - Presented for Comparison Purposes Only

Emission Factors from U.S. EPA NonRoad Model Version 2.2.0
For 4-Stroke Inboard Engines, Technology M3

Exhaust Emissions				Refuel	Diurnal
NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr	PM10 g/kW-hr	HC g/day	HC g/day
10.36	5.41	173.75	0.08	1.8	3.0

The NonRoad Model does not include emission factors for 4-stroke outboard motors. Furthermore, the NonRoad Model emission factors do not anticipate the federal MY2006 outboard engine emission standards (which the Proposed Action motors must meet). These factors are moderatly lower than the factors used in this analysis for NOx and HC, and moderately higher than the factor used in this analyis for CO. This PM10 factor is significantly lower than the factor used in this analysis, and may be more representative of a 4-stroke outboard than the factor used in this analysis. However, if the currently-selected engines were to be replaced by 2-stroke engines at some time during the life of the Proposed Action, the NonRoad Model PM10 factor listed above would likely underestimate 2-stroke outboard engine emissions.

Emission Certification Data Submitted by Honda Motor Corp. to EPA and CARB for the BF200A/BF225A Series engines.

NOx g/kW-hr	HC g/kW-hr	CO g/kW-hr
6.39	3.54	139.05

These factors are representative of the engines selected this year for the MSST watercraft. However, they may not be representative of any future engines that may replace these engines.

The emission factors to be used for this analysis are generic factors which are higher than the engine certification factors for the particular engines selected for the Proposed Action. The generic factors are computed to correspond to the federal 2006 emission standards, as discussed on the following page.

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

NO_x &HC (g/kW-hr) = [0.25 x (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 on the measured emissions from seven MY2002 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 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	1.3	1.2

A comparison of these default 'compliant' emission factors to the actual certification data for the engines selected for these boats indicates that this estimate will conservatively over-estimate NOx, HC and CO for these new engines, and should be conservatively high for any future engines that may replace these engines during the life of the Proposed Action.
Available references documenting emission factors for outboard motors generally provide data for NOx, HC, and CO only. For this analysis, PM10 and SOx factors for gasoline engines were taken from U.S. EPA AP-42 Table 3.3-1 dated 10/96.

Estimated Emissions From Watercraft

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual SOCAB	2.77	6.33	27.68	0.26	0.25	Note (1)
Annual non SOCAB*	1.24	2.84	12.43	0.12	0.11	Note (2)

* Non-SOCAB emissions are emissions that occur in each of San Diego and South Central Coast Air Basins

(1) 179,367 kW-hrs per year in SOCAB, see Assumptions section of this worksheet.

(2) 80,514 kW-hrs per year per air basin, see Assumptions section of this worksheet.

Diurnal and refueling emissions for these watercraft are estimated to be only 17 lbs per year.

Emissions From Commuter and Tow Vehicles

Emission Factors Used for the Commuter Fleet

	NOx g/mi	HC g/mi	CO g/mi	PM10 g/mi	SOx g/mi	
Commuter Vehicles	1.2	1.4	16.4	0.93	0.1	Note (1)
Tow Vehicles	1.4	1.4	17.4	2.58	0.1	Note (2)

(1) These are national average emission factors using a fleet mix that is typical of commuter traffic.
These factors have not been refined to reflect local smog check programs, etc.
The fleet mix and emission factor calculation is done on the "Commute" sheet in this workbook.

(2) These are emission factors for Light-duty gasoline trucks (LDGV2, GVW 6000-8500 lbs)
The emission factor calculation is done on the "Commute" sheet in this workbook.

Estimated Emissions From Commuters in SOCAB

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Commuter Vehicles	0.97	1.14	13.77	0.78	0.07	(active duty and reservists)
Tow Vehicles	0.16	0.16	2.07	0.31	0.01	
Totals	1.13	1.30	15.84	1.09	0.08	

See Assumptions section of this worksheet for discussion of vehicle miles traveled.

Total Estimated Annual Emissions From Proposed Action

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr
Annual SOCAB	3.90	7.63	43.52	1.35	0.33
Annual non SOCAB*	1.24	2.84	12.43	0.12	0.11

* Non-SOCAB emissions are emissions in each of San Diego and South Central Coast Air Basins

General Conformity De Minimis Thresholds

	NOx ton/yr	HC ton/yr	CO ton/yr	PM10 ton/yr	SOx ton/yr	
Annual SOCAB	10.00	10.00	100.00	70.00	--	Extreme O_3 Nonattainment
Annual non SOCAB*	25.00	25.00	--	--	--	Severe O_3 Nonattainment

* Non-SOCAB emissions are emissions that occur in San Diego and South Central Coast Air Basins
Cells with "--" in them indicate federal attainment for this pollutant in this area. No Conformity Determination is necessary for this pollutant in this air basin.

General Conformity Regional Significance Thresholds (10% of regional budget)

Where future year emissions budgets were readily available, these budgets were used in the Regional Significance calculation. Where the future year budgets were not readily available, actual 1999 air emissions inventories for the counties were used as an approximation of the regional inventory. Because the Proposed Action is several orders of magnitude below significance, the conclusion would be the same, regardless of which data set is used.

South Coast Air Basin Target Year Emissions Budgets

	Point and Area Sources Combined					
Year	NOx (tpy)	VOC (tpy)	CO (tpy)	PM10 (tpy)	SO2 (tpy)	PM (tpy)
2003	289,701	307,976	1,466,296	163,451	23,148	298,844
2005	273,797	295,803	1,368,130	165,009	23,860	301,833
2006	269,217	292,522	1,334,750	165,776	24,225	303,289
2007	263,129	289,153	1,303,014	166,531	24,568	304,749
2008	259,913	286,718	1,279,905	167,327	24,926	306,264
2010	254,328	281,068	1,219,366	168,864	25,674	309,235
2020	261,979	298,997	1,222,834	175,284	29,379	321,025

Source: Attachment A to SCAQMD 1997 Air Quality Management Plan

Determination Significance (Significance Threshold = 10%)

Minimum - all years	254,328	281,068	1,219,366	163,451	23,148	298,844
Proposed Action %	**0.0015%**	**0.0027%**	**0.0036%**	**0.0008%**	**0.0014%**	

EPA Tier Historical Inventory of Adjoining Air Basins - 1999 Air Emission Inventory

The counties of Ventura, Santa Barbara, and San Luis Obispo make up the South Central Coast Air Basin. This entire area is not designated as ozone non-attainment, but the air basin has been treated as an 'affected area' for this analysis.

The Proposed Action emissions outside of the South Coast Air Basin were assumed to be evenly split between the two adjoining air basins. Therefore the non-South Coast Proposed Action emissions allocated to each of the other two

	Point and Area Sources Combined					
	NOx (tpy)	VOC (tpy)	CO (tpy)	PM10 (tpy)	SO2 (tpy)	PM (tpy)
South Central Coast	130,764	45,511	324,026	64,935	21,532	19,194
Santa Diego Air Basin	116,430	81,719	615,683	105,429	5,951	29,936

Source: US EPA - AirData NET Tier Report

Determination Significance (Significance Threshold = 10%)

Proposed Action %	**0.0010%**	**0.0062%**	**0.0038%**	**0.0002%**	**0.0005%**	South Central Coast
Proposed Action %	**0.0011%**	**0.0035%**	**0.0020%**	**0.0001%**	**0.0019%**	Santa Diego Air Basin

LCDR Kirk Schilling on 5 November stated:

two boats, 12 hr/day each, 7 days a week
two or three boats, 24 hr/day for two days during Military Load Outs (about twice a month)
patrol at 7-8 knots, accelerate to above planing speed occasionally to relocate.

Assumed worst-case 104 new staff commuting 20 miles each way

Contacted each of the two conformity locations to confirm assumptions.

San Pedro

Joan Lang met with Lt Cooper, Executive Officer (310) 732-7579 in mid-July 2002
Lt Cooper on 11/27/02 and obtained the following information:

Staff: 72 Active duty staff supporting the MSST will all be new staff.
33 Reservists will come in only one weekend per month for exercises.

Commute: Active duty staff live anywhere from 5 to 40 miles from the station.
An estimate of 20 miles cummute each way should be conservative.

Boats: Six Safeboats International 25-foot Response Boat Small (RBS)
All MSSTs except Galveston got Safeboats with enclosed cabins because
anyone but Galveston might get deployed to a cold climate.

Safeboat 25-foot (Defender Class) RBS w/twin 225 HP outboards photo by Neil Rabinowitz

Motors: twin 225 HP Honda outboard motors

Fuel Use: Not enough experience to estimate daily fuel consumption, but they know that
these boats consume 15 gal/hr when cruising at 35 knots.
They expect to cruise at 35 knots up to 20% of the time as they go out to pick up
escorts or return from escort missions, and as they relocate within the harbor
area.
The boat holds 125 gallons of fuel.

Duty: Two boats on harbor duty. Lt Cooper stated that 6 hr/day each would be a
realistic estimate of how much time they will be running, rather than 12 hr/day.
Patrols may increase to 8-12 hours per day during military loadouts, but he
would not anticipate a patrol of 48 consecutive hours (as previously assumed)
Two or three boats will be subject to deployment anywhere from San Francisco
to San Diego. These boats will generally NOT cruise to their assignments
but will be trailered to their assignments behind Ford F-350 gasoline pickups.
I should assume that the trucks with boat trailers will travel out and back
15 days per month.

Safeboat 25-foot (Defender Class) RBS w/twin 225 HP outboards photo by Neil Rabinowitz

Safeboat 25-foot (Defender Class) RBS on trailer photo by Neil Rabinowitz

Power Reqirements for MSST Boats

http://www.boatmotors.com/outboard/outboard_motor_article.html
Lambrecht, Ralph. 2002. "Two-stroke conventional wisdom." Boat & Motor Dealer. April. 34-37

Mr Lambrecht gave results from comparitive testing of 2002 model year 2-stroke outboards vs 4-stroke outboards. He did not cite who did the tests or what motors were tested. His point was that there is little difference in mileage and speed, and the 2-strokes meet emission standards.

	Calculations				
	gal/hr	gal/hr	Thermal Efficiency		Average
20.7' boat					
225 HP outboards					
4.5 to 4.7 mpg at 28 mph	6.0	6.2			
2.7 to 3.2 mpg at 52 mph top speed	16.3	19.3	(a)	22.9%	22.9%
24' boat					
225 HP outboards					
3.1 mpg at 32 mph	10.3	10.3			
2.4 to 2.6 mpg at 46 to 48 mph top speed	18.5	19.2	23.9%	23.0%	23.4%
20' boat					
135 HP outboards					
4 to 4.2 mpg at 21 mph	5.0	5.3			
3 to 3.5 mpg at 37 to 43 mph top speed	12.3	12.3	21.5%	21.4%	21.5%
4.45 mpg at 28 mph (best economy)	6.3	6.3			

Safeboat 25-foot (Defender Class) RBS w/twin 225 HP outboards photo by Neil Rabinowitz

If we assume that the engines were putting out rated horsepower at top speed, then we can compute the thermal efficiency of these outboards based on the gallon per hour throughput and the rated output. Gasoline has 130,000 Btu/gal and there are 2546.5 Btus in a horsepower-hour.
a) The 3.2 mpg at 52 mph cannot be used in efficiency calculations because this was not the maximum speed for this engine/boat combination, so the engine was putting out less than 225 HP, and there is no way to know how many HP it was producing, so the thermal efficiency cannot be computed.

Overall Average Thermal Efficiency
22.6%

For the 200 HP engines used in this analysis, a 23% thermal efficiency will be assumed.

The power demand is hard to predict, because gas mileage likely starts fairly high at really low speeds, then dips somewhere in the 10-20 mph range, then maxes out at around 30 mph as the boat rises out of the water, then drops again as the boat approaches maximum speed.

From what I am seeing so far, my initial 50 HP guess for patrol load may have been accurate. Howerver, to accommodate averaging in occasional relocations at above planing speed, I will assume an average load of 75 HP over the 12 hour day.

Average power output based on fuel consumption while on patrol - Galveston:

Chief Petty Officer Mark Wilkins said on 11/26/02 that they use about 45 gal in a 12-hour day.

$$\frac{(3.75\ \text{gal/hr})\ (130{,}000\ \text{Btu/gal})\ (22.6\%\ \text{thermal efficiency})}{3413\ \text{Btu/kW-hr}} = 32.28\ \text{kW}$$

$$= 43.30\ \text{HP}$$

Commute Emissions Factors

This analysis has not been refined with site-specific effects of the local smog check program, assumptions for hot and cold starts, etc. National average emission factors are used as a first approximation. The vehicle mix is considered generally representative of commuters, rather than a profile of vehicles used by this specific demographic of employees. If it is determined that the results of this analysis are critical to the Conformity Analysis, a more refined estimate will be generated.

Description of POV Fleet and VMT Contributions Assumed for This Analysis

	POV VMT %	POV Avg Age
Light-duty gasoline vehicles (passenger cars)	LDGV	60%	5
Light-duty gasoline trucks (SUVs, pickups GVW <6000 lb)	LDGT1	30%	6
Light-duty gasoline trucks (GVW 6000-8500 lbs)	LDGT2	6%	5
Heavy-duty gasoline trucks (GVW > 8500 lbs)	HDGV		
Light-duty diesel vehicles (passenger cars)	LDDV	3%	6
Light-duty diesel trucks (SUVs, pickups GVW <8500 lb)	LDDT		
Heavy-duty diesel trucks (GVW > 8500 lbs)	HDDV		
Motorcycles	MC	1%	5
		100%	

EFs in g/mi from MOBILE5 Tables based on vehicle age in the year of interest.

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	14.6	1.3	1	0.072	0.71	14.6	1	1	0.072	0.71
Safe	21.9	1.9	1.6	0.096	1.08	20.5	1.6	1.3	0.096	1.08
LDGT2	17.8	1.5	1.5	0.098	2.58	16.9	1.2	1.2	0.098	2.58
HDGV	0	0	0	0	0	0	0	0	0	0
LDDV	1.4	0.5	1.1	0.116	0.8	1.4	0.5	1.1	0.116	0.8
LDDT	0	0	0	0	0	0	0	0	0	0
HDDV	0	0	0	0	0	0	0	0	0	0
MC	22.1	4.7	0.9	0.032	0.08	22.1	4.7	0.9	0.032	0.08

Reference: Tables 4-2 through 4-53, (AF IERA, July 2001)

Weighted Average Factors - adjusted for VMT weighting by vehicle class

	POV Low Altitude g/mi - 2000					POV Low Altitude g/mi - 2005				
	CO	HC	NOx	SOx	PM	CO	HC	NOx	SOx	PM
LDGV	8.76	0.78	0.6	0.0432	0.426	8.76	0.6	0.6	0.0432	0.426
LDGT1	6.57	0.57	0.48	0.0288	0.324	6.15	0.48	0.39	0.0288	0.324
LDGT2	1.068	0.09	0.09	0.00588	0.1548	1.014	0.072	0.072	0.00588	0.1548
HDGV	0	0	0	0	0	0	0	0	0	0
LDDV	0.042	0.015	0.033	0.00348	0.024	0.042	0.015	0.033	0.00348	0.024
LDDT	0	0	0	0	0	0	0	0	0	0
HDDV	0	0	0	0	0	0	0	0	0	0
MC	0.221	0.047	0.009	0.00032	0.0008	0.221	0.047	0.009	0.00032	0.0008
Fleet Facto	**16.661**	**1.502**	**1.212**	**0.08168**	**0.9296**	**16.187**	**1.214**	**1.104**	**0.08168**	**0.9296**

Fleet age data are assumed, and follow the "typical" example calculations provided in the IERA reference. The fleet age is assumed to stay constant. That is, the 'average' POV LDGV in 2000 is a 1995 model (5 years old), and the 'average' LDGV in the 2005 emission estimates is a 2000 model (five years old). Note that PM emission factors include both exhaust and "fugitive" emissions (paved road, brake & tire dust, etc.). National average motor vehicle emission factors generated by MOBILE5 are tabulated in the reference: "Air Emissions Inventory Guidance Document For Mobile Sources at Air Force Installations", July 2001 Air Force Institute for Environment, Safety, and Occupational Health Risk Analysis, Risk Analysis Directorate Environmental Analysis Division, Brooks AFB, Texas.

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, where 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. Whether that sound is interpreted 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 carried by the sound and the louder is the perception of that sound. 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:

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

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

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

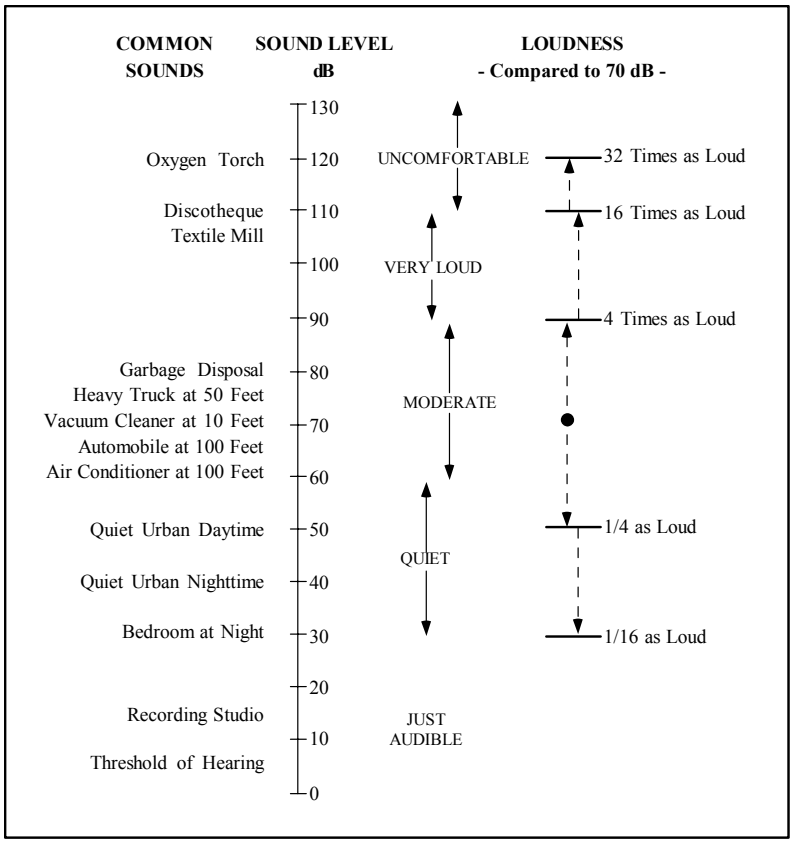
Defense (DoD) and the Federal Aviation Administration (FAA) have specified those which should be used for Federal aviation noise assessments. These metrics are as follows.

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.



Source: Harris 1979

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

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 would, in one second, 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.

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).

There is, in fact, a remarkable consistency in the results of attitudinal surveys about aircraft noise conducted in different countries to find 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 is taken from Schultz (1978) and 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.

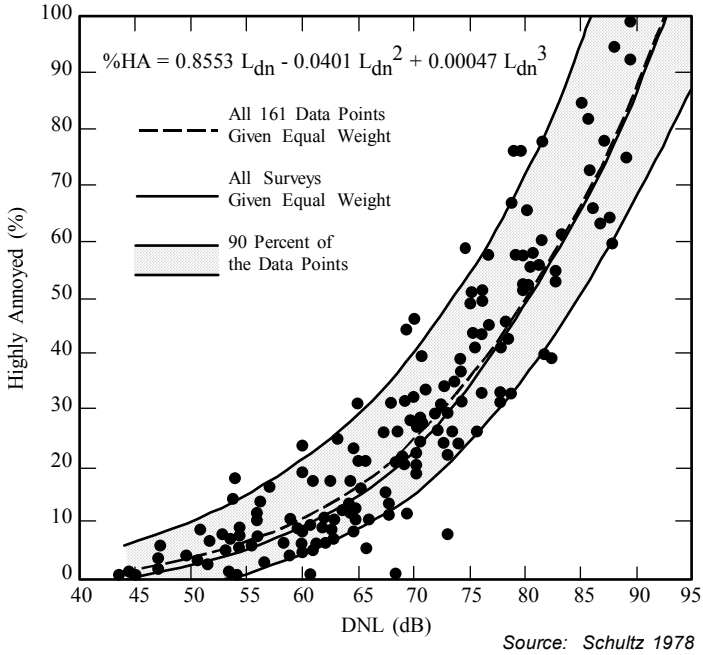


Figure F-2. Community Surveys of Noise Annoyance

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, and 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.

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).

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

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

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
Staff Symbol G-OPL-4
Phone: (202) 267-2041
FAX: (202) 267-4082

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

---

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-I /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

---

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