

U.S. Department  
of Transportation

United States  
Coast Guard



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United States Coast Guard

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COMDTINST M5090.3  
Dec. 10, 1997

COMMANDANT INSTRUCTION M5090.3

Subj: NATURAL RESOURCES MANAGEMENT

Ref: (a) Commanding Officer's Environmental Guide COMDTPUB 5090.1  
(b) Environmental Management Manual COMDTINST M5090.2 (in draft)  
(c) NEPA Implementing Procedures and Policy for Considering  
Environmental Impacts COMDTINST M16475.1B

1. PURPOSE. This document presents Coast Guard natural resources policy regarding compliance with the natural resources management requirements of Federal and state statutes such as the Clean Water Act, the Endangered Species Act, the Marine Mammal Protection Act, the Coastal Zone Management Act, and the National Environmental Policy Act (Chapters 1 and 2). Chapter 3 provides guidance for Coast Guard shore unit personnel in the implementation of that policy through coordination with the servicing MLC for the optional preparation of Natural Resources Management Plans.
2. ACTION. Area and District Commanders, Commanders of Maintenance and Logistics Commands, Commanding Officers of Headquarters Units, Assistant Commandants for Directorates, Chief Counsel, and Special Staff Offices at Headquarters shall ensure compliance with the provisions of this directive.
3. DIRECTIVES AFFECTED. None.
4. CHANGES. Recommendation and amendments for improvement of this Coast Guard natural resources guidance document shall be submitted to Commandant (G-SEC).

/s/ John T. Tozzi  
Assistant Commandant for Systems

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## CHAPTER 1. INTRODUCTION

### A. Policy

It is United States Coast Guard (USCG) policy to act responsibly for the stewardship of natural resources. There shall be a conscious and proactive concern for the inherent value of natural resources in all USCG actions and activities. This policy shall play an important and identifiable function at all echelons of command.

Further, the USCG shall incorporate ecosystem management principles as the basis for planning natural resource management on USCG shore facilities. To the maximum extent practicable and in the best public interest, the USCG shall inventory, preserve, restore, and enhance natural resources on its administered lands.

### B. Purpose

As a Federal agency, the USCG has been entrusted with the use and management of lands and waters throughout the United States. A critical part of these management responsibilities is ensuring that USCG actions and activities are conducted in an environmentally sound manner and in compliance with applicable Federal, state, and local regulations. The purpose of this COMDTINST is to provide policy regarding natural resources management at USCG shore units, as well as guidance on meeting those requirements. This COMDTINST establishes and outlines the mandatory implementing procedures for Natural Resources Management at USCG shore units based on an ecosystem management, protection, and enhancement approach. It also provides step-by-step assistance to USCG personnel as they develop and implement the unit's optional Natural Resources Management Plan.

### C. Natural Resources Management Plan

A Natural Resource Management Plan (NRMP) is a document that guides ecologically sound and cost-effective management of natural resources to maximize benefits for the facility and the neighboring community. An NRMP promotes the policies and goals of Integrated Natural Resource Management and Ecosystem Management. The NRMP addresses land, forest, fish and wildlife, and outdoor recreation resources management (if applicable).

### D. Definition of Integrated Natural Resources Management and the Ecosystem Approach

#### 1. Introduction

An ecosystem is formed by the interaction of a community of organisms with each other and the environment. All ecosystems consist of three components: producers, consumers, and the abiotic environment (energy and inorganic matter). All organisms in the ecosystem depend, directly and indirectly, on one another for existence (Smith 1980). For example, in a pond ecosystem, the sun's radiant energy warms the water and encourages the growth of microscopic plants and rooted aquatic plants (producers). These plants are eaten by very tiny

aquatic organisms, which in turn are eaten by young sunfish, tadpoles, and aquatic insects (consumers). The insects are eaten by frogs, birds, and adult sunfish (consumers). Herons and bass eat the sunfish and frogs. Cattails, reeds, and water lilies (producers) growing along the pond's edge provide food and shelter for muskrats and nesting sites for red-winged blackbirds and ducks. The remains of dead plants and animals sink to the bottom of the pond and decompose, thereby adding to the supply of organic and inorganic matter which nourish the pond's plant life. The pond ecosystem is depicted in Exhibit 1-1.

2. **Ecosystem Approach**

The ecosystem approach addresses the ecological level and scope of resource management projects. The goal of the ecosystem approach to management is to maintain and improve the sustainability and native biological diversity of ecosystems of various sizes, rather than managing one species at a time.

3. **Integrated Natural Resources Management**

Integrated Natural Resources Management is the policy of managing natural resources for long-term sustainability and diversity, based on sound ecological principles such as the ecosystem approach. It maintains and protects biological diversity, biological integrity, and ecological health, while allowing for appropriate human uses and fulfillment of USCG missions. A Natural Resource Management Plan (NRMP) is a document that guides ecologically sound and cost-effective management of natural resources to maximize benefits for the facility and the neighboring community. The NRMP, using the ecosystem approach, addresses land, forest, fish and wildlife, and outdoor recreation resources management (if applicable).

E. **Overview of USCG Natural Resources Guidance for Shore Units**

1. **Natural Resources Management (COMDTINST M5090.3)**

The overall natural resource management policy and procedures for USCG facilities. Provides templates and checklists for compliance and preparation of optional natural resource management plans.

2. **Environmental Management Manual (COMDTINST M5090.2) (in draft as of 5/1/97)**

The overall policy, rather than a manual that provides hands-on tools, for internal USCG environmental compliance. This instruction presents references for all applicable Federal laws or implementing regulations.

3. **Commanding Officer's Environmental Guide (COMDTPUB 5090.1)**

A synopsis of environmental compliance, environmental restoration, natural and cultural resources management, and environmental planning and documentation for commanding

IMAGE NOT AVAILABILE

EXHIBIT 1-1 - POND ECOSYSTEM



officers and officers in charge of USCG shore facilities and vessels. This publication contains a helpful summary of many of the laws and regulations affecting USCG environmental management.

4. **National Environmental Policy Act (NEPA), Implementing Procedures and Policy for Considering Environmental Impacts (COMDTINST M16475.1B)**

An instruction which provides information pertaining to environmental planning and establishes policy and procedures to ensure timely environmental review for appropriate USCG actions. It also addresses the policy and responsibilities for USCG implementation of NEPA, pertinent regulations, and other related laws and legislation. An Environmental Justice COMDTINST is currently being developed to address USCG policy on Environmental Justice concerns.

5. **Financial Resource Management Manual (COMDTINST M7100.3A)**

The Coast Guard's financial resource management policy. Refer to this manual for information on funding policies for natural resource management.

F. **Responsibilities**

1. **Area and District Commanders, Commanding Officers of Headquarters Units shall:**

- a. Act responsibly in the public interest to improve, preserve, and properly utilize natural resources on USCG-owned or -managed lands.
- b. Ensure resolution of natural resources issues in support of all aspects of the USCG mission.
- c. Monitor and direct unit compliance with natural resources protection statutes and executive orders, and take appropriate action in support of the USCG's natural resources policy.
- d. Identify funding requirements to comply with natural resources regulations at the shore unit level, including those responsibilities under Section 7(a)(1) of the Endangered Species Act (ESA) and costs to develop optional natural resource management plans (see Chapter 2D and Appendix 2 for more information).
- e. Monitor compliance of units with the Presidential Memorandum and Guidance on Landscaping Practices on Federal Grounds.
- f. Use integrated natural resources management approach for all long-term resource management at individual units and within the area of responsibility as a whole.
- g. Ensure that facility response plans and/or spill prevention control and countermeasure plans, developed to prepare for possible spills at shore units under the Oil Pollution Act of

1990 (OPA 90) (see COMDTPUB P16480.1 and COMDTINST M16478.1B, respectively), identify and prioritize protection of specific locations that may fall under an Area Contingency Plan, if available. Part of an Area Contingency Plan, under OPA 90, outlines protection of natural resources from discharges of oil and hazardous substances.

- h. Obtain all necessary permits and consultations (after receiving guidance and support from the servicing MLC unit or G-SEC) under the Marine Mammal Protection Act (MMPA), the ESA, and the Migratory Bird Treaty Act (MBTA).
- i. Maintain records necessary to monitor and evaluate natural resources under facility jurisdiction.
- j. Conduct Section 7(a)(2) consultations under the ESA (after receiving guidance and support from the servicing MLC unit or G-SEC) for local and regional issues, and develop programs to further the conservation of endangered and threatened species.

2. **Maintenance and Logistics Commands shall:**

- a. Assist units with USCG-owned or -managed lands with management and conservation of the soil, water, land, vegetation, grounds, fish and wildlife, wetlands, and floodplains.
- b. Encourage compliance with natural resources protection statutes through technical assistance to the districts. Act as primary technical advisor for natural resource management programs within their geographic area of responsibility, including consultations under Section 7(a)(2) of the ESA and development of optional natural resource management plans.
- c. Request funding sufficient to ensure support of natural resources protection initiatives.
- d. Coordinate with staff at districts on proposals for new and continuing activities that affect natural resources. Ensure an integrated natural resources management approach to management of natural resources on USCG lands.
- e. Acquire knowledge and training, specific to assigned responsibilities (function-specific), to remain up-to-date with applicable Federal and state natural resources regulations.
- f. Provide technical assistance (including development of cooperative agreements with other Federal, state and local agencies) to operating facilities and units.
- g. Assist units with preparation of facility response plans and/or spill prevention control and countermeasure plans to identify and prioritize protection of specific locations that may fall under an Area Contingency Plan, if available. Part of an Area

Contingency Plan, under OPA 90, outlines protection of natural resources from discharges of oil and hazardous substances.

- h. Coordinate every three years with FWS or NMFS (either through the Environmental Compliance Evaluation (ECE) program or other programs) to identify potential habitat, or the occurrence of proposed or listed threatened or endangered species, or critical habitat within shore facilities in the MLC unit's area of responsibility. Conduct surveys to identify and map such species or habitat, if information from FWS or NMFS is not otherwise available. Report all incidents of proposed or listed species or critical habitat on the facility to the unit command and Commandant (G-SEC).
  - i. Advise units to ensure that no exotic plants or animals are intentionally allowed onto USCG-owned or -managed property, unless approved by the State or local agency. Advise on other sustainable landscaping procedures to comply with the Presidential Memorandum and Guidance on Landscaping Practices on Federal Grounds.
  - j. Take appropriate action to avoid direct or indirect adverse impacts of new construction on wetlands.
  - k. Assist units with USCG-owned or -managed lands in documenting the conditions of natural resources and provide recommendations for problem resolution and natural resource management objectives.
  - l. Seek the aid of, and coordinate natural resources management with, Federal, state, and local agencies.
3. **Commandant (G-SEC) shall:**
- a. Plan, develop, promulgate, and update procedures for the management of natural resources by USCG units. This activity will include the development and issuance of instructions, notices, and other directives as necessary to inform MLCs, CEUs, districts, and field units concerning Federal requirements and USCG policy.
  - b. Serve as the USCG point of contact for all new Federal natural resources management requirements, including endangered and threatened species listings, critical habitat designations, wetland regulations, or landscaping requirements.
  - c. Provide technical assistance, upon request, to Headquarters programs and units and MLCs for natural resource management.
  - d. Prepare budget requests that reflect natural resources management requirements, as reported by the MLC, District, and Headquarters units.
  - e. Serve as a liaison between USCG Headquarters and the appropriate resource management agency (FWS or NMFS) headquarters, as well as other interested state and local officials, on natural resource issues affecting shore units. This assistance includes

development of cooperative agreements between USCG Headquarters and other Federal agency headquarters.

- f. Assist Headquarters units with preparation of facility response plans and/or spill prevention control and countermeasure plans to identify and prioritize protection of specific locations that may fall under an Area Contingency Plan, if available. Part of an Area Contingency Plan, under OPA 90, outlines protection of natural resources from discharges of oil and hazardous substances.
  - g. Coordinate natural resource management planning requirements for shore units with other Federal, state, and local agencies. G-SEC should be notified of any Section 7(a)(2) formal consultations and provide assistance where needed.
  - h. Develop a natural resource awareness training program, including sources of resident and non-resident training and education, for shore unit personnel in cooperation with other Federal and state agencies.
  - i. Coordinate every three years with FWS or NMFS, either through the ECE program or other programs, to identify potential habitat or the occurrence of proposed or listed threatened, endangered, species, or critical habitat within the Headquarters units' facility area. Conduct surveys to identify and map such species or habitat, plus all exotic species, if information from FWS or NMFS is not otherwise available. Develop a program to further conservation of endangered and threatened species.
  - j. Evaluate and incorporate new methods and procedures in the preservation, management, and enhancement of natural resources.
4. **Commandant (G-M), District (m), and MSOs shall:**
- a. Cooperate with local USCG units' natural resource management efforts by making environmental sensitivity index maps available to unit personnel.
  - b. Provide information, as needed, to units preparing facility response plans to identify and prioritize protection of specific locations that may fall under an Area Contingency Plan, if available. Part of an Area Contingency Plan, under OPA 90, outlines protection of natural resources from discharges of oil and hazardous substances.
  - c. Coordinate with local USCG units' review of natural resource management proposals of organizations and agencies external to the USCG which may impact on USCG missions.
  - d. As DOT Water Coordinator, G-MOR will forward to other modes, natural resource management proposals of organizations and agencies external to the USCG which may impact on their missions.

## **CHAPTER 2. SUMMARY OF NATURAL RESOURCE LAWS AND SPECIFIC RESPONSIBILITIES FOR USCG**

### **A. Introduction**

This chapter discusses some of the major natural resource laws that impact USCG shore unit activities and expands on specific responsibilities listed in Chapter 1. It provides good management practices for several laws and sources of more information, including USCG policy directives, for others. For a comprehensive review of natural resource laws, see COMDTINST M5090.2

All personnel are responsible for adhering to, and ensuring their subordinates adhere to, the requirements of the laws, regulations, orders, and directives described in this chapter and listed in Appendix 2. Various laws and regulations mandate the USCG to protect the natural environment. These mandates can be found in the U.S. Code (or laws), the Code of Federal Regulations, Executive Orders, and special agreements with other agencies.

Laws, or statutes, as passed by Congress, are codified in the U.S. Code (USC). "All regulation starts as an act of Congress. Statutes define the goals of regulatory programs, identify the agency responsible for achieving them, and contain substantive and procedural guidance as to how the agency is to conduct its work" (Congressional Quarterly, 1990). Laws are implemented through regulations and policies recorded in the Federal Register (FR) and Code of Federal Regulations (CFR). Regulations set standards and establish information requirements. There are three main types of regulations - legislative, interpretive, and procedural. Legislative regulations are prepared when, by congressional mandate or authorization, agencies write what amounts to a new law. Interpretive regulations explain to the public how an agency interprets existing law and policy. Procedural regulations define the organization and processes of agencies.

Executive Orders (E.O.) are directives and statements issued to agencies by the President of the United States. Special Agreements, including Memoranda of Understanding and Memoranda of Agreement, are contracts between two or more agencies in which the agencies agree to certain terms and conditions for carrying out actions.

The USCG issues internal policies and procedures for compliance with Federal regulations, through directives. Publications, while not having the force of policy, are intended to assist personnel in following USCG policies.

B. Clean Water Act (33 USC 1251 to 1387)

1. Introduction

The Clean Water Act (CWA) (33 USC 1251 to 1387) is one of the oldest Federal environmental statutes. Originally enacted in 1948 as the Federal Water Pollution Control Act (FWPCA), it was renamed the CWA in 1977. It establishes a national water pollution control program with the goal "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Section 101 of CWA). From this goal, programs have developed to regulate areas as diverse as dredging or drinking water. The regulatory areas most likely to impact USCG natural resource management involve wetlands, stormwater runoff, and dredging.

2. Wetlands (33 USC Section 404, EO 11990)

Wetlands improve water quality by providing a natural filtering system against pollutants. Activities in tidal and nontidal wetland areas are regulated by the U.S. Army Corps of Engineers (Corps). Exhibit 2-1 depicts the scope of Corps' regulatory jurisdiction.

a. USCG Policy. Refer to COMDTINST 16475.2A, Preservation of the Nation's Wetlands, for policy.

b. Delineation and Filling. The Corps defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." The delineation of a wetland is best left to the Corps or other environmental professionals. Wetland fill permits are issued by the Corps. State programs authorized under the CWA may also have permit authority.

c. Good Management Practices.

Survey the facility to identify and delineate wetlands with assistance from the U.S. Army Corps of Engineers or other qualified natural resources professionals

Leave wetlands undisturbed. Consider the relative importance of wetlands in relation to the unit, and if possible, limit use and disturbance of wetlands and surrounding buffers

Protect the hydrology of wetlands:

do not restrict the inflow or outflow of surface water, sub-surface water, or ground water;

do not change the speed water travels through wetlands, or the residence time of waters; and

IMAGE NOT AVAILABLE

EXHIBIT 2-1 - SCOPE OF CORPS REGULATORY JURISDICTION

do not change the temperature regime by reducing shade in wetlands or upstream (US Forest Service 1995).

Adopt long-term management strategies

Avoid the introduction of non-native species. When planting anywhere on the facility, use native species including ornamental trees and shrubs, and non-woody plants like flowers

Create and maintain forested buffers, at least 50 feet wide, around wetlands.

Locate roads and trails outside of buffers

Limit disturbance and compaction of soil by planning activities and restricting unnecessary access, equipment, and vehicles. If temporary access is necessary, use equipment when soils are frozen or covered with snow. If permanent access is necessary, construct appropriate bridges, elevated roads, etc. Crossings should accommodate flooded and low-water conditions.

Divert runoff and stormflow from road drainage ditches away from wetlands.

Involve wetlands specialists at initial phases of any planning process in order to ensure the maximum opportunity for identifying potential problems and their solutions.

3. **Stormwater (40 CFR 122-125)**

Stormwater runoff is regulated under the National Pollution Discharge Elimination System (NPDES) which also regulates waste discharges. This program regulates "point source" discharges into "waters of the U.S.," as depicted in Exhibit 2-2. Discharges to sanitary sewers are usually covered by the permit issued to the Publicly Owned Treatment Works (POTW) handling the discharge.

- a. USCG Guidance. Refer to COMDTPUB P11300.3, Stormwater Management Guide.
- b. Permits. NPDES permits are issued by the U.S. Environmental Protection Agency (EPA) or the state, if authorized by the EPA.
- c. Best Management Plans (BMPs). BMPs for managing stormwater runoff are available from the EPA for a number of facilities (publication #: EPA 833 R-92-002). Individual states may have similar guidance.
- d. Good Management Practices - Smaller Units. Issues of concern for smaller units can usually be addressed by Good Management Practices. Some examples are:

Washing trailerable boats so the runoff does not enter "waters of the U.S.



IMAGE NOT AVAILABLE

WATERS OF THE UNITED STATES

Exhibit 2-2

Covering hazardous material and waste storage areas to prevent rain from washing residues into storm drains.

Avoiding runoff to drainage areas by considering the surrounding gradient when spreading fertilizers, herbicides, or other pesticides.

Slow the flow of runoff and stormwater down and filtrate water before discharging it into "waters of the U.S."

Plant and maintain vegetation in areas that receive runoff or are susceptible to erosion.

Divert runoff to vegetated areas or filtration devices.

C. **Coastal Zone Management Act (CZMA) (16 USC 1451 to 1464)**

1. **Introduction**

The intent of the Coastal Zone Management Act (CZMA) (16 USC 1451 to 1464) is to encourage states to manage and conserve coastal areas as unique and irreplaceable resources. To assist in accomplishing this goal, Federal agencies are required to ensure that activities conducted within the "coastal zone" are "consistent to the maximum extent practicable" with the approved state plan (15 CFR 930). This statement is confirmed by preparing a "coastal consistency determination" for the project and requesting concurrence with the determination from the state. The state has 45 days to respond and may request one 15-day extension, which is typically granted. The area defined as the coastal zone, and the type of activities covered, can vary from state to state. CZMA requirements also impact USCG operations, but these requirements are explained in other USCG directives.

2. **USCG Policy**

If a project may impact the coastal zone, consult COMDTINST 16004.1A, Coastal Zone Management Coordination Procedures for USCG policy, and the supporting CEU for assistance.

D. **Endangered Species Act (ESA) and Associated Memoranda of Understanding (MOUs)**

1. **Introduction**

The Endangered Species Act (ESA) of 1973 (16 USC 1531 to 1544) protects endangered and threatened species and their habitats. Species diversity is critical to ecosystem health, because each species plays a specific role in keeping the system running. Loss of one species can negatively affect ecosystems and lead to the extinction of other species that could have important environmental or economic potential. Section 7(a)(1) of the ESA requires Federal agencies, in consultation with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) (depending on

the particular species of concern), to carry out programs for the conservation of endangered and threatened species. A list of FWS and NMFS regional offices is included in Appendix 3.

Implementing regulations for the ESA include 50 CFR 17.11-12 (listings of endangered and threatened species under FWS authority), 222 (regulations for species under authority of the Secretary of Commerce, i.e., sea turtles when they are not nesting on shore, or right whales), and 402 (Section 7(a)(2) consultations). The USCG is also a signatory to the 28 September 1994 multi-agency MOU on Implementation of the Endangered Species Act. This MOU establishes a general framework for interagency cooperation and participation in the exercise of responsibilities under the ESA.

## 2. ESA Consultation

- a. Introduction. As mandated in Section 7(a)(2) of the ESA, the USCG must ensure that none of the activities which it authorizes, funds, or carries out is likely to jeopardize the continued existence of threatened or endangered species or results in the destruction of designated areas (critical habitats) that are important in conserving those species. Section 7(d) of the ESA prohibits the USCG and other Federal agencies from making any irreversible or irretrievable commitment of resources which might: 1) prevent the formulation or implementation of reasonable and prudent alternatives to avoid jeopardizing the continued existence of listed species; or 2) result in the destruction or adverse modification of critical habitat.
- b. USCG Policy. In order to avoid negative impacts on endangered and threatened species and their habitats, USCG personnel with responsibility for USCG actions in the habitat (with support from the servicing MLC unit or G-SEC) shall consult with, either formally, or informally, and obtain all necessary permits from the appropriate regulatory agency, as outlined in Chapter 1.F of this COMDTINST. MLCs and G- SEC shall conduct surveys for endangered and threatened species and their habitats, as outlined in Chapter 1.F of this COMDTINST.
- c. Major Construction Activity. According to the ESA implementing regulations, the threshold for USCG and other Federal agency personnel considering whether Section 7(a)(2) of the ESA applies to their activity is "major construction activity." A major construction activity, under the ESA regulations, "is a construction project (or other undertaking having similar physical impacts) which is a major Federal action significantly affecting the quality of the human environment as referred to in the National Environmental Policy Act" (NEPA); this definition can include activities such as construction, operations, or permits issued by the USCG. Additionally, for USCG personnel, any activity including those activities which are categorically excluded under NEPA can be subject to the requirements of Section 7(a)(2) of the ESA.
- d. Informal Consultation. If USCG representatives with responsibility for USCG actions in the habitat (after receiving guidance and support from the servicing MLC unit or G- SEC) are uncertain whether there is the potential for threatened or

endangered species or critical habitat on a unit, the representative shall request informal consultation with the FWS or NMFS.

Informal consultation is an optional process that includes all discussions, telephone conversations, meetings, correspondence, etc., between the FWS or NMFS (depending on the species of concern) and USCG personnel. Informal consultation takes place prior to formal consultation, if formal consultation is necessary. Exhibit 2-3 depicts a flowchart of the informal consultation process under the Endangered Species Act.

Three results are possible from informal consultation: 1) written concurrence from FWS or NMFS that the action is not likely to adversely affect listed species or critical habitat; 2) written concurrence from FWS or NMFS that the action, with specific modifications, is not likely to adversely affect listed species or critical habitat; or 3) written nonconcurrence from FWS or NMFS that the action will not adversely affect listed species or critical habitat. If the action may affect a listed species or critical habitat then a Biological Assessment is required.

- e. Biological Assessment. USCG personnel with responsibility for USCG actions in the habitat (with support from the servicing MLC unit or G-SEC) considering a "major construction activity" which may affect a listed species or its critical habitat shall prepare a Biological Assessment (BA) to evaluate the potential effects of the action. The determination that an action "may affect" (thus making a BA necessary), is made by the USCG or by FWS or NMFS during informal consultation. Once it is determined that the proposed action "may affect," USCG personnel have 180 days to complete the BA. A BA may be used as background information in either formal or informal consultation.

In order to begin the Biological Assessment, or to determine whether one is necessary, USCG personnel may write to the FWS or NMFS to inquire about the presence of any listed or proposed species or any designated or proposed critical habitat in the area. Alternately, USCG personnel may prepare a written notification of any species or critical habitat that will be included in the BA. FWS or NMFS personnel have 30 days to respond to either notification.

The contents of a BA will vary, depending on the type of project proposed. Writers of Biological Assessments should consider the following information: 1) results of an on-site inspection to determine the presence of listed species; 2) views of recognized experts on the species; 3) review of literature; 4) analysis of the effects of the proposed action on the species and habitat, including cumulative effects; and 5) analysis of alternate actions if any are proposed.

Biological Assessments mandated by the Endangered Species Act are often confused with environmental assessments (or an environmental impact statement) mandated by NEPA. A BA focuses on the project's impacts on listed or proposed species and their critical habitats, not on general environmental impacts

IMAGE NOT AVAILABLE

3 INFORMAL CONSULTATION PROCESS

EXHIBIT 2-

f. Formal Consultation. Formal consultation is initiated once the Biological Assessment for a project is complete. To begin formal consultation, USCG personnel shall send a written request for formal consultation to FWS or NMFS and include the following information:

- (1) a description of the action being considered
  - (2) the geographic area that may be affected by the action
  - (3) any listed species or critical habitat that the action may affect, and how the action may affect them
  - (4) cumulative effects on any listed species or critical habitat
  - (5) any EAs, EISs, or BAs which have been prepared for the action
  - (6) any other relevant information on the action, affected species, or critical habitat
- Formal consultation begins when FWS or NMFS receives the written request. Formal consultation lasts 90 days and may be extended with the permission of the requesting Federal agency. Within 45 days of completing formal consultation, the FWS or NMFS must deliver a biological opinion to the Federal agency. Exhibit 2-4 depicts a flowchart of the formal consultation process under the Endangered Species Act.

g. Biological Opinion. A biological opinion is a statement in response to the BA and consultation, written by FWS or NMFS personnel, explaining possible impacts of an activity on listed species or critical habitats. The biological opinion includes three parts:

- (1) a summary of information on which the opinion is based;
- (2) a detailed discussion of the effects of the activity on listed species or critical habitat; and
- (3) FWS or NMFS opinion on whether the activity is likely to jeopardize the continued existence of a listed species, or cause destruction or adverse modification of critical habitat. If the activity is likely to jeopardize the continued existence of a listed species or cause the destruction or adverse modification of critical habitat, the FWS or NMFS issue a "jeopardy" biological opinion; alternately, if the activity will not jeopardize the continued existence of a listed species or cause destruction or adverse modification of a critical habitat, it receives a "no jeopardy" biological opinion.

If either FWS or NMFS issue a "jeopardy" opinion, the writers of the opinion may include reasonable and prudent alternatives. Reasonable and prudent alternatives are minor changes that do not alter the basic design, location, scope, duration, or timing of the activity. If FWS or NMFS cannot develop reasonable and prudent alternatives, the writers will state that, to the best of their knowledge, no reasonable and prudent alternatives exist.

IMAGE NOT AVAILABLE

FORMAL CONSULTATION PROCESS

EXHIBIT 2-4

USCG personnel with the responsibility for USCG actions in the habitat (with support from the servicing MCL unit or G-SEC) shall use the formal consultation process to develop an activity that allows the USCG to continue its mission in a manner that does not significantly impact listed species or critical habitat. A "jeopardy" opinion should always be avoided.

- h. Incidental Take. If FWS or NMFS issues a "no jeopardy" opinion, the writers of the opinion will make a statement regarding incidental "take." To "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a protected species. An incidental take is a take that is the result of, but not the purpose of, an otherwise lawful activity. An incidental take statement includes:
  - (1) the amount and extent of incidental taking on the species;
  - (2) reasonable and prudent measures to minimize impact;
  - (3) measures necessary to comply with the Marine Mammal Protection Act;
  - (4) terms and conditions with which the USCG or other agency must comply; and
  - (5) procedures for handling any actual takings.

If the incidental take limit is exceeded during the activity, the Federal agency (USCG or other) shall reinstate consultation.

- i. USCG Response to a Biological Opinion. Following receipt of the biological opinion, USCG personnel with responsibility for USCG actions in the habitat (with support from the servicing MLC unit or G-SEC) shall notify FWS or NMFS regarding the manner in which they will proceed.

If the USCG receives a "jeopardy" biological opinion, personnel may reinitiate formal consultation on a modified activity; although if the only change is acceptance of the reasonable and prudent alternatives, the USCG must only notify FWS or NMFS. USCG personnel may also apply for an exemption from the jeopardy opinion, although, this process is not recommended. The exemption process under the Endangered Species Act is complicated and exemptions are almost always denied.

### 3. Good Management Practices

- a. Survey the facility for listed or proposed endangered and threatened species and critical habitats with the assistance of the servicing CEU or the local FWS office. Update the survey every three years during the unit's Environmental Compliance Evaluation.
- b. Involve resource specialists and FWS or NMFS at initial phases of planning any activities to:
  - (1) ensure compliance with applicable regulations;
  - (2) ensure opportunities for identifying solutions to existing and potential problems; and



- (3) ensure appropriate management since the listed or proposed species or critical habitats vary significantly in habitat requirements and management strategies.
- c. Adopt long-term management strategies.
- d. Avoid the introduction of non-native species. When planting anywhere on the facility, use native species including ornamental trees and shrubs, and non-woody plants like flowers.
- e. Create and maintain buffers around the location of the species or habitats of concern. Limit disturbance to buffers and habitats to protect the species and critical habitats.

E. **Marine Mammal Protection Act (MMPA) (16 USC 1361 to 1421(h))**

1. **Introduction**

Congress enacted the Marine Mammal Protection Act (MMPA) of 1972 (16 USC 1361 to 1421(h)) to help maintain the stability of the marine ecosystem, and to maintain an optimum sustainable marine mammal population, keeping in mind the carrying capacity of the habitat. Implementing regulations include 50 CFR 10 (prohibitions on taking, possession, sale, etc.), 18 (regulations regarding polar bears, sea otters, walruses, dugongs, and manatees), 216 (regulations regarding whales, seals, and sea lions), and 228 (incidental takes).

2. **Habitat Protection**

As with the ESA in the context of endangered and threatened species, the Marine Mammal Protection Act prohibits "takings" of marine mammals; that is, to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture, collect or kill any marine mammal. Although the MMPA does not mandate designation of critical habitat or preparation of recovery plans, it does mandate conservation plans which should closely align with recovery plans, if available.

3. **USCG Policy**

- a. **Work Scheduling.** As outlined in Chapter 1.F. of this COMDTINST, USCG shore unit personnel shall obtain all necessary permits and consultations with NMFS when scheduling work which may impact marine mammals, such as construction or maintenance near beaches used by marine mammals for breeding.
- b. **Notification.** USCG personnel shall immediately notify the chain of command of any prohibited encounters with marine mammals.

F. **Marine Protection, Research, and Sanctuaries Act (33 USC 1401 to 1445)**

1. **Introduction**

USCG actions and activities conducted within Special Management Areas/Programs (i.e. marine sanctuaries) must meet their specific management plan requirements. USCG Commanding Officers and Officers in Charge are expected to become familiar with the plan(s) requirements and exceptions covering their Area of Responsibility (AOR) and areas of operation. Appendix 3 includes lists of the existing Marine Sanctuaries, National Estuarine Research Reserves, and National Estuary Program contacts. The lists contain locations and points of contact.

The Marine Protection, Research, and Sanctuaries Act of 1972 (33 USC 1401 to 1445) is implemented by NOAA through the Marine Sanctuary Program. Implementing regulations are found in 15 CFR Part 922. The objectives of this law include identification of areas of marine environment of special significance due to their resource or human use values, support of scientific research, and enhancement of public awareness. The CWA, Section 320, established the National Estuary Program, run by EPA. The program objective is to develop a comprehensive conservation and management plan for each estuary of national significance designated by the EPA Administrator.

2. **USCG Policy**

COMDTINST 16004.3, USCG Participation in the National Marine Sanctuary Program, instructs all USCG Commanding Officers to actively participate, in close cooperation with NOAA, in the development of management plans and in the conservation and management of these special areas of the marine environment.

G. **National Environmental Policy Act (NEPA) (42 USC 4321 to 4370b)**

1. **Introduction**

The National Environmental Policy Act (NEPA) (42 USC 4321 to 4370b) is the basic national charter for environmental planning and protection of the environment. NEPA provides a systematic, interdisciplinary process for integrating consideration of natural resource protection and management issues into the planning of USCG activities.

a. Two basic principles of NEPA are:

- (1) Procedures must be in place to ensure that environmental information is available to decision-makers and citizens before decisions are made and Federal actions are taken.
- (2) The NEPA process should identify and assess reasonable alternatives to proposed actions, and for any identified impacts, include appropriate mitigation measures not already included in the proposed action or alternatives.

- b. Compliance with NEPA is required for every proposed USCG action. Some common shore unit activities that may trigger detailed written NEPA documentation include the following:
- (1) Construction projects, including "self-improvement" projects;
  - (2) Master plans which contain natural resource management plans and a long-term list of capital improvement projects;
  - (3) Land restoration projects;
  - (4) Natural resources enhancement projects;
  - (5) Real estate transactions;
  - (6) One-time or recurring special events;
  - (7) Facility demolition projects;
  - (8) Utility system upgrades, grounds keeping, and antenna fields management activities; and
  - (9) Ground disturbing activities and vegetation management activities.
- c. Activities can be categorized according to the complexity of required planning process and documentation characteristics. The fewest requirements are for activities which have attributes consistent with those types of actions listed as "categorically excluded" (CE or CATEX) from detailed NEPA documentation. There must be no potential for these activities to have significant environmental impacts. The second level of NEPA compliance is designed for those actions for which the United States Coast Guard is not sure whether there will be significant impacts on the quality of the human environment. The NEPA document associated with this level is the Environmental Assessment (EA). If the EA analysis determines that there will be no significant impacts for the proposed action a Finding of No Significant Impact (FONSI) is completed and no further documentation is necessary. If the USCG determines, after preparing an EA, that there will be significant impacts on the environment, then the third level of NEPA documentation is needed. This final type of NEPA compliance includes executing a very detailed prescribed systematic and interdisciplinary planning process which culminates in the production of an Environmental Impact Statement (EIS) and approval of a Record of Decision.

Single focus executive orders, and regulations implementing natural resources and environment laws discussed elsewhere in this instruction provide detailed specifications on how to address some of the environmental issues, such as endangered species, wetlands, floodplains, and so on. These mandatory issues must be considered according to their own process requirements regardless of which level of NEPA compliance is completed. Generally, however, the special process requirements associated with the mandatory issues are integrated into the overall NEPA planning process.

- d. All NEPA-type environmental planning processes have the following steps in common:
  - (1) Identify the objective of the activity or the problem to be solved;
  - (2) Formulate different alternatives for achieving the objective or solving the problem;
  - (3) Find out whether regulated natural resources are present in all alternatives and the proposed action;
  - (4) Determine the environmental effects of what is being proposed and for the alternatives;
  - (5) Comply with interagency coordination requirements; and
  - (6) Identify opportunities for reducing or eliminating adverse effects.

2. **USCG Policy**

- a. COMDTINST M16475.1B, National Environmental Policy Act (NEPA) Implementing Procedures, provides information pertaining to environmental planning and establishes policy and procedures to ensure timely environmental review of USCG actions.
- b. Environmental Management Manual, COMDTINST M5090.2.

H. **Presidential Memorandum and Guidance on Landscaping Practices on Federal Grounds**

1. **Introduction**

On 26 April, 1994, President Clinton issued a memorandum, Environmentally and Economically Beneficial Landscape Practices on Federal Landscaped Grounds. Guidance from the White House followed on 10 August, 1995. The goal of this Federal guidance is to promote sustainable landscape design which minimizes impact on the environment while maximizing cost effectiveness. This guidance does not advocate replacement of existing landscapes, unless it is cost-effective to do so.

2. **Implementation**

Major goals of sustainable design include:

- a. Use of regionally native plants. USCG personnel planning landscapes shall use "sustainable landscaping," or plants which are aesthetically pleasing, require minimal care, and match site and soil characteristics.
- b. Design, use, and promotion of construction techniques that have minimal adverse impacts on habitat. USCG planners shall incorporate elements of sustainable design into their architectural and engineering plans and specifications for the planning, design, or construction of USCG projects.
- c. Pollution prevention. USCG managers shall use sustainable landscape design to prevent pollution. Wherever practical, USCG managers will use practices, such as integrated pest management

and use of appropriate plant species, which avoid or minimize the need for using fertilizers and pesticides. Wherever space and mission allow, USCG personnel shall also recycle and/or compost leaves, grass clippings, and landscape trimmings for further use as soil amendments and mulches.

- d. Implementation of water/energy efficient practices. When planning and designing landscaping projects, USCG personnel shall give consideration to watering requirements, existing vegetation, topography, climate, and intended use of the property, in order to conserve water and energy at USCG units.
- e. Creation of outdoor demonstration presentations on Federal lands. Where economically feasible or as part of a larger project, USCG personnel shall use outdoor projects to promote the benefits of economically and environmentally sound landscaping projects.

3. **USCG Policy**

- a. In addition to the responsibilities outlined in Chapter 1.F. of this COMDTINST, Chapter 5 of the USCG Safety Manual, COMDTINST M5100.47, covers integrated pest management requirements.

## **CHAPTER 3. NATURAL RESOURCES MANAGEMENT PLANS**

### **A. Introduction**

This chapter provides guidance on preparing an optional Natural Resources Management Plan (NRMP) for individual shore units. Much of the information needed to complete a NRMP can be gathered by unit personnel. Additional assistance can be provided by CEUs.

The first step in preparing a NRMP is to complete an inventory of the resources located on the unit. Instructions for conducting site inventories are included in Section C of this chapter and a checklist is included as Appendix 4 of this document. The NRMP will then document the resources identified during the site inventory along with management practices and maintenance programs the unit wishes to employ. Appendix 5 contains a template for preparing a NRMP. Examples of management practices and maintenance programs are described in Section D of this chapter.

#### **1. Importance of timing with other projects**

Prepare a NRMP at the same time as the facility master plan if one is prepared. This timing allows proper planning to include natural resources management in future activities. If the facility master plan is already complete, the NRMP should be prepared when project planning is being conducted for upcoming projects, so that background research is only conducted once. For example, information needed for the NRMP will overlap that needed for a NEPA compliance document for construction of new facility buildings. Future NEPA compliance documentation for unit activities can be dramatically reduced by referencing the NRMP, but a NEPA document prepared for a specific activity does not constitute a NRMP. Include in the NRMP any planned modifications to facility structures or grounds, as well as a description of daily operations or other routine maintenance activities which affect natural resources. Also update the NRMP as conditions at the unit change.

#### **2. Recordkeeping for site inventories and NRMPs**

It is important to keep accurate records for all site inventories conducted and information collected for preparation of a NRMP. Keep all background information collected, such as soil surveys, aerial photographs, agency correspondence, and topographic maps. Key field notes and photographs to a site map.

### **B. Regulatory Background**

The Commanding Officer's Environmental Guide (COMDTPUB P5090.1), and the Environmental Management Manual (COMDTINST M5090.2) stress the importance of compliance with applicable environmental regulations. One component of a unit's environmental program is natural resource management - the management, conservation, and restoration of land and renewable natural resources such as forests, wetlands, fish, wildlife, and habitat for fish

and wildlife. Preparation of a Natural Resource Management Plan (NRMP) is an optional activity for USCG units, but one that will facilitate meeting general Coast Guard policy, which is to:

Act responsibly in the public interest to restore, improve, preserve, and properly utilize natural resources on USCG-administered lands;

Act as a trustee for natural resources under USCG authority;

Request funding sufficient to ensure support of an integrated program;

Implement programs to reduce the potential for collisions between aircraft and birds or other animals, and damage to their habitats;

Seek the aid of and coordinate with Federal, state, and local agencies;

Ensure that any action affecting natural resources is given proper consideration in the environmental review and public notification process; and

Maintain records necessary to monitor and evaluate natural resources under their management, and provide requested information to agencies with jurisdiction and to the public.

Other relevant USCG directives include: COMDTINST M16475 (series), National Environmental Policy Act Implementing Procedures; COMDTINST 16475.2A, Preservation of the Nation's Wetlands; COMDTINST 16475.3A, Floodplain Management and Protection; and COMDTINST 16214.1, Consultation Responsibilities Under the Coastal Barrier Resources Act.

#### C. **Site Inventories**

A site inventory is the first step to preparation of an NRMP. This section provides an explanation of the information to be collected during a site inventory. A checklist to use when conducting site inventories is included as Appendix 4. Prior to conducting an inventory, gather as much background information as possible for each resource area.

##### 1. **Land Use**

Describe ecosystems present on the facility and how they are interrelated. Describe interrelationships with adjacent properties.

a. Undeveloped areas. Describe any undeveloped areas of the facility and note any current or past uses by USCG personnel or problems. Describe the plant and animal communities, topography, number of acres, and soils in undeveloped areas on the facility.

b. Agricultural areas. Describe any agricultural areas on the facility. Include number of hectares, topography, soils, and current and past uses (cropland, grazing, etc.).

c. Recreational. Describe any recreational areas on the facility and their use. Describe facility policy regarding public access to recreational facilities or opportunities. Describe season and level of use for each by USCG and civilian personnel. Note

relationships between these activities and natural resources management to ensure sustainability and protection of ecosystems. Note any recreational uses of areas not specifically designated for recreation, such as hiking trails in wooded areas.

- d. Housing areas. Describe housing areas, including any natural areas such as woodlots less than 5 acres (2 hectares) in size. Larger natural areas should be considered as undeveloped areas.
- e. Office buildings. Describe buildings used for office space.
- f. Paved roads, parking lots. Describe all paved areas and note material used (blacktop, concrete, porous blacktop).
- g. Industrial areas. Describe all industrial areas and industrial processes conducted.
- h. Maintenance. Describe activities currently used to maintain each different land use area.

2. **Geology, Topography, and Soils**

Geology, topography, and soils provide insight to the natural resources found in the area. They are good predictors of future conditions, susceptibility to impacts from human activities, and productivity.

- a. Geology and topography. Describe the local geology and topography from soil surveys prepared by the NRCS for each county, geologic maps prepared by the U.S. Geological Survey (USGS), and past engineering reports prepared for the unit.
- b. Soils. Describe soils present on the facility [available from the Natural Resource Conservation Service (NRCS) county soil surveys]. Note and delineate any areas of fill or disturbed soils on site map. Note areas of unstable soils or erosion from wind or water. Note any stained or discolored soils which may indicate potential contamination. Include a copy of the soils map in the NRMP.
- c. Farmland soils. To ensure protection under the Federal Farmland Protection Policy Act (FPPA) describe any farmland soils located on the unit. The NRCS can provide lists and maps of prime, statewide important, and unique farmland soils. It should be noted that farmland soils do not need to be in active agricultural use to be protected under the FPPA. Federal activities which will result in the conversion of farmland soils require the completion of a Farmland Conversion Impact Rating Form (Form AD 1006). This form is available from the county office of the NRCS and the Service can assist in completing the form.

3. **Vegetation and Wildlife**

Descriptions of the plants and animals record current conditions and provide information to plan management activities.



- a. Vegetation. Describe all plant communities not associated with wetlands. Include forests, shrubby areas, open fields, dunes, and areas of mowed grasses. Prepare plant lists and identify the dominant (i.e. most common) plant species in each plant community. For forested areas, describe forest structure (open or heavy underbrush/groundcover, even or uneven-aged stand, etc.). Describe the dominant or most common species of tall trees, shrubs and small trees, and herbaceous or non-woody plants. Note any areas dominated by exotic or pest species (e.g., multiflora rose, honeysuckle, etc.). Note any areas of stressed vegetation.
  - b. Wildlife Habitat. Describe wildlife habitats that are provided by the plant communities on the facility. Field guides and the state natural resource agency can provide information on wildlife anticipated to utilize certain plant communities. Examples of habitat include brush piles, high and low perches, nesting sites, burrows, and rock outcroppings.
  - c. Wildlife. Develop lists of wildlife known or anticipated to inhabit the facility. Note whether any census has been conducted and the results, including any population estimates. Field guides and state natural resource agencies can provide information identifying animals which may inhabit various habitat types.
4. **Groundwater**
- a. Groundwater hydrology. Describe groundwater resources, including major aquifers and depth to water table. The NRCS can provide assistance.
  - b. Groundwater quality. Describe groundwater quality. Note whether any areas of known or potential contamination to groundwater. The NRCS can provide assistance.
5. **Floodplains and Coastal Zone**
- a. Floodplains. Note on site map areas of unit which are located within 10- and 100-year floodplains. Check a Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map to determine if portions of the unit are within the floodplain.
  - b. Coastal Zone. Determine if the unit is within the state's coastal zone.
6. **Wetland, Water Resources, and Aquatic Areas**
- a. Surface water resources. Describe surface water resources including emergent, scrub-shrub, and forested wetlands, manmade and natural lakes and ponds, and perennial and intermittent streams. Refer to FWS National Wetland Inventory maps and National List of Plant Species that Occur in Wetlands (by region), USDA National Hydric Soils List, Natural Resource Conservation Service County Soil Surveys, Munsell Soil Color Charts.

- b. Wetland indicators/characteristics. Wetlands are characterized by the presence of hydrophytic vegetation, hydrology, and hydric soils.

Vegetation - Describe the plant community focusing on species adapted for life in saturated soil conditions (based on FWS' National List of Plant Species Observed in Wetlands for the region), observation of species growing in areas with prolonged saturation, and observations of plant adaptations to saturated conditions, such as buttressed roots. Typical plants include cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains.

Hydrology - Describe the hydrologic features including presence of water at or above the surface, location of permanent or intermittent streams, watermarks on vegetation, drift lines (debris oriented in the direction of water flow), or layers of sediment deposited on leaves.

Hydric soils - Describe soils especially those listed on the National Hydric Soils List. These soils are characterized by dark brown, black, or bluish gray soil color, decomposed plant material, or smell of rotten eggs. Munsell Soil Color Charts are useful in identifying soil colors. [Note: Soil color is not a reliable indicator in sandy soils or soils derived from red parent materials.] Indicators in sandy soils include presence of organic (decomposed plant) material on the soil surface or organic streaking throughout the soil profile.

- c. Vegetated buffer. Describe any undeveloped, vegetated areas surrounding wetlands or water streams.
- d. Unit Activities. Describe any unit operations or planned activities which may affect the quality of wetlands or water resources, or which may require a permit. See the site inventory checklist in Appendix 4 to assist in identifying activities which should be evaluated.
- e. Photographs. Take photographs of surface water resources during both the growing season and dormant season, if possible.

7. **Endangered, Threatened, and Candidate Species**

- a. Obtain lists of state and Federally listed or candidate endangered and threatened species potentially present on the facility. Information can be requested from state natural resource agency, field offices of FWS, and regional offices of NMFS (submit request with a brief description of vegetative communities present and area of interest marked on a USGS 7.5-minute quadrangle map). FWS has jurisdiction over all Federally listed or candidate species, except for marine species under the jurisdiction of NMFS. State natural resource agencies have jurisdiction over all state-listed or candidate species.

- b. Document all correspondence received from state and Federal agencies and indicate locations of known populations, habitats, or sitings of listed or proposed endangered or threatened species or critical habitats.

8. **Climate and Air Quality**

- a. Weather and climate. Describe weather and climate that are typical for the region, including annual average rainfall, seasonal patterns of precipitation, mean high and low temperatures, mean high and low water levels, and potential for major storms like hurricanes. This information is available from NOAA reports in local libraries, the National Weather Service, and NRCS soil surveys.
- b. Air quality. Contact the state and local air quality agency to determine if the unit is in an area of attainment or non-attainment for National Ambient Air Quality Standards under the Clean Air Act. Ask state and local air quality agency if the unit conforms with the State Air Quality Implementation Plan (SIP).

9. **Noise**

- a. Describe unit operations which result in excessive noise levels. Describe operations which result in noise levels above background noise levels past normal working hours.

D. **Management Practices and Maintenance Programs**

Following are commonly accepted as sound ecological practices that apply to a wide variety of conditions. They may be adapted to the specific needs of each facility. While not all of the practices may be useful on every unit, they may present ideas for more applicable practices.

1. **Landscaping Practices**

- a. Mowing.
  - (1) Grass clippings and leaves. Leave grass clippings on lawns after mowing, to decompose and return nitrogen to the soil. Mow over fallen leaves when they are only an inch or so deep. Leave them on the lawn to decompose.
  - (2) Composting. Gather grass clippings and leaves and establish compost piles to decompose them. (Caution - compost piles should contain only plant materials - adding food scraps can attract nuisance wildlife and insects.)
  - (3) Limit mowing. Where consistent with facility operations, allow some grassy areas to remain unmowed. These fallow areas save mowing time, will evolve into meadows with a variety of grasses, herbs, and wildflowers, and provide habitat for songbirds and small animals. If facility plans call for maintaining the areas in grasses, mowing every few years will prevent shrubs and trees from becoming

established. Do not mow these areas between April 1 and August 1 to allow nesting wildlife time to raise their young.

- b. Watering. Plant native species adapted to local precipitation patterns to eliminate watering to the maximum extent possible. Contact local agricultural extension agencies for recommendations of native ornamental shrubs, flowers, and lawn grasses, as well as optimal height of grass after cutting. Place 1 to 3 inches of mulch around plantings and incorporate organic matter into soil annually.
- c. Fertilizing. Apply fertilizers only when needed. Plant native species adapted to local soil condition. Contact local agricultural extension services for recommendations of native ornamental shrubs, flowers, and lawn grasses. Extension services also can recommend organic fertilizers. Follow directions on labels carefully. Place 1 to 3 inches of mulch around plantings and incorporate organic matter into soil annually.
- d. Planting. To reduce maintenance and costs, plant native species resistant to diseases and insects, and suited to local climate and soils. Include nut and berry producing trees and shrubs which provide food for birds and animals. Prune shrubs and trees as needed to removed damaged or diseased branches and maintain healthy growth. Do not prune trees in or around power lines. Contact local power companies for maintenance of these trees. Place 1 to 3 inches of mulch around plantings and incorporate organic matter into soil annually. Water new plantings during periods without rain until they are established.
- e. Pesticide and herbicide use/Integrated Pest Management (IPM). Contact EPA's Office of Prevention, Pesticides, and Toxic Substances for information on a voluntary program to reduce pesticide use and risk using methods such as IPM. Use pesticides in natural habitat areas only when necessary to protect human health or to prevent loss of significant resource values. Ensure that all pesticides and pesticide containers are transported, stored, and disposed of in a manner that will safeguard human health, fish and wildlife, and prevent soil and water contamination. Follow directions on labels carefully. Applicators should meet certification requirements for pesticide use and reporting requirements. Use alternate methods of pest control. For example, use traps to control mice instead of poisoning them; install noise or visual deterrents to ward off nuisance birds; use various groundcover plants as a substitute for grasses in some areas. See Chapter 5 of the USCG Safety Manual, COMDTINST M5100.47.

## 2. Management of Soils

- a. Shorelines and dunes. Consult with the servicing CEU, the U.S. Army Corps of Engineers District Office, and/or the Natural Resource Conservation Service for information on shoreline and dune stabilization techniques.
- b. Slow down and filtrate runoff. To prevent erosion and contamination, install appropriate devices to slow the rate of flow and filtrate sediments out of water.

- c. Maintain paved roads, trails, ditches, etc. to prevent erosion.
- d. Limit use of vehicles off roads and trails.

3. **Management of Vegetation**

- a. Preserve sensitive areas. Fence or barricade plant communities to be preserved and post warning signs. Do not use heavy equipment or otherwise disturb soil within the outer drip line of the branches of trees and shrubs.

4. **Management of Wildlife and Wildlife Habitat**

To prevent compliance issues in the future, the unit may take a proactive approach to habitat protection.

- a. Connect existing habitats. To protect or enhance existing habitats, keep in mind two general principles-larger blocks of habitat are better than smaller blocks, and one big block is better than several small blocks. If habitat areas are already in small blocks, connect areas by allowing vegetation to grow between them or by planting native trees and shrubs. For example, a hedgerow between grassy fields provides a safe travel corridor for birds and small mammals.
- b. Preserve existing trees where possible. Plant native trees and shrubs along walkways, parking lots, or edges of fields, including nut and berry producing species, if possible. Trees provide habitat for songbirds and small mammals and provide shade for USCG buildings and personnel.
- c. Provide artificial nest boxes. Install nestboxes for songbirds, woodducks, and bats along the edges of grassy areas. Purple martins, swallows, wrens, and bats help to control insect pests such as mosquitoes. Encourage local Boy Scout or Girl Scout groups to become involved in the construction and maintenance of these boxes. Provide nesting platforms in ponds or other open water areas for geese and other waterfowl; this practice helps keep waterfowl off of other less desirable structures.
- d. Provide cavities. In forested areas, allow dead trees to remain standing to provide habitat for cavity nesting species such as woodpeckers and squirrels. Allow native understory vegetation to grow and fallen branches and trees to remain on the ground as cover for small mammals and birds. Leaf litter and fallen branches will decompose and add valuable nutrients back into the soil.
- e. Protect beach and dunes. Protect sensitive beach areas, such as dunes or shorebird nesting sites, with appropriate fencing or signing. Restrict human and domestic animal activities near nest sites during the breeding and brood rearing seasons to avoid disturbing adults or young birds.
- f. Consider risks to birds from powerlines and guy wires for antennas to enhance compliance with MBTA and ESA. Large birds of prey (hawks, osprey, eagles) often perch, hunt from, or build

nests on power pole structures. Powerlines can electrocute these birds because their wing span is wide enough to bridge the gap between lines. If electrocutions are occurring, consider placing nesting platforms on "dummy" (non-energized) poles near the actual line. Leave large dead trees standing in forested areas for nest sites and tall perches. Consult with FWS for additional information on preventing powerline strikes.

5. **Management of Groundwater, Wetlands, Water Resources, and Aquatic Areas**

- a. Maintain all stormwater permits and points of contact.
- b. Maintain all stormwater management systems and devices, sewage treatment plants, and landfills in compliance with Federal, state, and local regulations.
- c. Retention. Maintain existing stormwater retention facilities in compliance with Federal, state, and local regulations.
- d. Detention. Maintain existing stormwater detention facilities compliance with Federal, state, and local regulations.
- e. Install and maintain stormwater management facilities. Install and maintain stormwater management facilities needed to control existing or anticipated problems with stormwater runoff, erosion, etc. compliance with Federal, state, and local regulations.
- f. Buffers. Maintain vegetated buffers around wetlands and water resources. Limit activities that may affect these buffers.

6. **Management of Threatened or Endangered Species and Their Habitat**

- a. Maintain current lists of listed and proposed threatened and endangered species or critical habitat which occur on the unit.
- b. Seasonal restrictions. Restrict activities to avoid impacting endangered, threatened, or candidate species or their habitat. For example, schedule dredging to occur before or after the spawning season to protect fish species.

7. **Maintenance of Air Quality**

- a. Permits. Maintain current applicable permits and points of contact in compliance with the Clean Air Act and its amendments.

8. **Management of Noise**

Limit hours during which certain activities are conducted (do not conduct activities before 7:00 a.m. or after 6:00 p.m. Conduct activities away from sensitive noise receptors including schools, churches, residences, and hospitals.

E. **Agency Assistance**

1. **Public Agencies**

- a. USCG Civil Engineering Unit. CEUs should be the first source of technical assistance for USCG personnel on all matters regarding natural resource management within their geographic area of responsibility. Headquarters units should contact G-SEC.
- b. Bureau of Land Management (BLM). The BLM manages Federally owned lands for multiple -use principles, including outdoor recreation, fish and wildlife production, livestock grazing, timber, industrial development, watershed protection, and onshore mineral production. BLM's Wildlife, Fisheries, Rangelands, and Forestland Group assists all BLM states in implementing the Bureau's Fish and Wildlife 2,000 initiatives, coordinating achievement of objectives of the National Fish and Wildlife 2,000 Strategic Plan components, including: anadromous fisheries and aquatic ecosystem monitoring, landscape ecosystem modeling and analysis, nongame (neotropical) migratory birds, raptor research and technical assistance center, watchable wildlife, and waterfowl/wetlands. This Bureau also provides ecosystem management implementation support.
- c. U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service is part of the Department of Interior and is the lead Federal agency in the conservation of the nation's migratory birds, threatened and endangered species, certain marine mammals, and sport fishes.
- d. National Marine Fisheries Service. The NOAA National Marine Fisheries Service provides management, research, and services for the protection and rational use of living marine resources for their aesthetic, economic, and recreational value. The Service provides information on the management, use, and conservation of living marine resources.
- e. National Biological Service (NBS). The NBS (under the Department of Interior) gathers, analyzes, and disseminates biological information necessary for good stewardship of America's living natural resources. NBS has more than 50 small cooperative study units commonly located on university campuses. NBS is developing the Natural Biological Information Infrastructure (NBII) to allow Internet access to biological research data.
- f. United States Department of Agriculture (USDA). The Extension Service has responsibility for and leadership in all general educational programs of the USDA. The Service supplies information on research results including information on the management and utilization of natural resources, including fish, wildlife, forage, timber, recreation, soil and water for owners, managers, processors, and users. The U.S. Forest Service, through its state and private forest program, provides technical assistance in the management of natural resources.

- g. National Park Service (NPS). National Parks and National Seashores are administered by the National Park Service, United States Department of Interior for their recreational, historic, and natural values. The NPS also manages landmarks programs for natural and historic properties, coordinates the Wild and Scenic Rivers System and the National Trail System.
- h. Natural Resource Conservation Service (NRCS) [formerly the Soil Conservation Service (SCS)]. The NRCS, a branch of the USDA, has national responsibility for helping America's farmers, ranchers, and other private landowners develop and carry out voluntary efforts to conserve and protect natural resources. Coordination with NRCS is required when a project may affect soils protected under the Federal Farmland Protection Policy Act (FPPA).
- i. State and local agencies. State agencies can provide descriptions of habitat types and associated wildlife species. Names of these agencies vary by state, but they are usually along the lines of a Department of Natural Resources or Department of Environmental Protection. Most state agencies have a Natural Heritage Program or Division, which compiles and maintains information on threatened, endangered, and candidate species protected by state regulations, and can often provide technical advice or assistance in conducting habitat or species surveys. Local agencies, such as County Planning Departments or Boards, often have a natural resources division which can provide information on natural resources specific to the area in which the unit is located. They may also have done biological surveys of some natural areas in the vicinity of the USCG unit.

2. **How to Find Assistance**

The *Conservation Directory* is published by the National Wildlife Federation on a yearly basis and is a complete annual reference guide to organizations, agencies, and officials concerned with conservation and natural resource management. The directory is updated annually and can be ordered from the NWF at 1400 16th Street, N.W., Washington, D.C. 20036-2266, (202) 797-6800. Information on agencies can also be found on the Internet.

3. **Volunteer Issues**

Because of fiscal law constraints, USCG personnel may not use non-USCG volunteers in any capacity for work on USCG owned- or operated property unless they are registered students. However, volunteers may be used to gather information as part of a study conducted under a Memorandum of Understanding with another agency. If volunteer issues arise, contact your servicing legal office.

F. **Natural Resource Management Plan Outline**

The following outline is recommended for the preparation of a Natural Resource Management Plan (NRMP). This outline can be modified to suit the needs of individual units. A Natural Resource Management Plan Site



Inventory Checklist is provided in Appendix 4. The checklist is designed to aid in the identification of natural resources and management issues which should be addressed in the NRMP. A NRMP template which corresponds to the outline is included in Appendix 5.

1. **Introduction**
2. **Facility Overview**
  - a. Unit Mission and Activities
  - b. Present Land Uses and Management
3. **Facility Inventory**
  - a. Land Use
  - b. Geology, Topography, and Soils
  - c. Vegetation and Wildlife
  - d. Groundwater
  - e. Floodplains and Coastal Zone
  - f. Wetlands, Water Resources and Aquatic Areas
  - g. Endangered, Threatened, and Candidate Species
  - h. Climate and Air Quality
  - i. Noise
4. **Management Practices and Maintenance Programs**

APPENDIX 1

GLOSSARY

**Biological Diversity** - the varieties of life including all plants, birds, fish, insects, and animals, and the communities and ecosystems in which they occur.

**Candidate Species** - defined by ESA as any species which is under formal consideration by the Secretary of Interior for Federal designation as threatened or endangered.

**Categorical Exclusion** - defined by NEPA as a category of actions which do not individually or cumulatively have a significant effect on the human environment.

**Coastal Consistency Determination** - a determination made by the state which examines a planned Federal action within or affecting a coastal zone and documents its consistence with the state's approved coastal zone management plan.

**Coastal Zone** - coastal waters and the adjacent shorelands (including islands, transitional and intertidal areas, salt marshes, wetlands, and beaches) which are covered under the CZMA.

**Code of Federal Regulations** - record of Federal government regulations.

**Conservation** - the wise use and management of natural resources to provide the best public benefits and continued productivity for present and future generations.

**Cooperating Agency** - any Federal agency, other than the lead agency, that has legal jurisdiction or special expertise to comment on the project actions of the lead agency.

**Critical Habitat** - specific designated areas declared essential for the survival of the protected species under the authority of the ESA. Specific areas outside of the currently occupied range of a threatened or endangered species may be determined by the Secretary of the Interior as areas essential for the conservation of the species.

**Detention Facilities** - basins which store water for relatively short periods of time.

**Ecosystem** - an interconnected community of living organisms, including humans, and the environment within which they interact. Ecosystems are not bound by property boundaries or political boundaries such as county or state lines.

**Emergent vegetation** - a plant, usually rooted in water or saturated soils, with some portion of leaves and flowers that project above the surface of the water.

**Endangered Species** - any species which is in danger of extinction throughout all or a significant portion of its range (other than a species of the Class Insect determined to constitute a pest). Federally listed endangered species are officially designated by the Department of the Interior.

**Exotics** - any species not naturally occurring, either presently or historically, in any ecosystem of the United States.

**Extinct** - no longer in existence.

**Floodplain** - the lowland area adjoining inland and coastal waters, including floodprone areas of offshore islands, that would be inundated by significant rain events. For example, the 100-year floodplain is the area that would be flooded by significant rain events which occur, on average, every 100 years.

**Good Management Practices** - practical, economical, and effective management or control practices that will reduce or prevent water pollution, soil erosion and compaction, threats to protected species, and degradation of other natural resources.

**Guidance** - documents which are prepared to assist USCG personnel in implementing USCG policies.

**Habitat** - an area where a plant or animal species lives, grows, or reproduces, and the environment that satisfies any of its life requirement.

**Hectare** - a unit of measure in the metric system equal to 10,000 square meters or 2.471 acres

**Integrated Natural Resource Management** - the policy of managing natural resources for long-term sustainability and diversity, based on sound ecological principles. It maintains and protects biological diversity, biological integrity, and ecological health, while allowing for appropriate human uses.

**Integrated Pest Management** - a combination of techniques which is designed to control pests using minimal chemicals. IPM techniques include prevention, monitoring, mechanical trapping devices, natural predators, biological pesticides, and if appropriate, chemical pesticides.

**Landscape** - the physical and visual context of an area which helps define a sense of place. Includes buildings, plants, and topography.

**Laws** - the rules established by the legislative branch of the U.S. government, codified in the U.S. Code.

**Mean High Water** - an average of the highest levels to which waters rise during storm and flooding events in a given period of time.

**Memorandum of Agreement** - the documentation of mutually agreed to statements of facts, intentions, procedures, and parameters for future actions and matters of coordination.

**Memorandum of Understanding** - documentation of mutually agreed parameters within which interservice, interdepartmental/agency or intraservice support agreements will be developed.

**Multiple Use** - use of natural resources for the best combination of purposes to meet the needs of USCG and the public.

**Native Species** - any species that occurs naturally in a particular region, ecosystem, or habitat without direct or indirect human actions, and has historically occurred for a set period of time in the region.

**Natural Resources** - land and water and their associated flora and fauna.

**Natural Resources Management** - the policy of managing natural resources for long-term sustainability and diversity, based on sound ecological principles.

**Noxious Species** - Noxious species are plant species identified by Federal or state agencies as requiring control or eradication.

**Plant and Animal Community** - an assemblage of plants and animals sharing a common environment and a degree of common history that operates as a highly interrelated unit.

**Policy** - a settled or definite course or method adopted and followed by a government.

**Population** - the members of a species living in a given area.

**Proposed Species** - any species of fish, wildlife, or plant that is proposed in the Federal Register to be listed as threatened or endangered under the ESA.

**Regulations** - issued by government agencies to carry out the intent of the law, published in the Federal Register and subsequently arranged by subject in the Code of Federal Regulations.

**Retention Facilities** - basins which trap water for an indefinite period of time.

**Species** - all of the organisms that are able to breed successfully, that share ties of common parentage, and who share a common pool of hereditary material.

**State Listed Species** - any species of fish, wildlife, or plant that is protected by an appropriate state agency as promulgated in that state's regulations.

**Stewardship** - the responsibility to inventory, manage, conserve, protect, and enhance the natural resources entrusted to one's care, respecting the intrinsic value of those resources and needs of present and future generations.

**Submerged Aquatic Vegetation** - underwater vascular plants which provide habitat for fish and wildlife and food for waterfowl, absorb nutrients, and produce dissolved oxygen.

**Take** - defined by the ESA as an action to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species, or to attempt to engage in any such conduct.

**Threatened Species** - any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Federally listed threatened species are officially designated by U.S. Department of Interior (DOI)

**Upland** - elevated above other lands and generally do not exhibit characteristics of wetlands.

**Vegetated Buffer** - a strip of land that supports plants and reduces impacts to a resource such as a wetland.

**Watershed** - an area drained by a river or stream, or the region draining into a river, river system, or body of water.

**Waters of the U.S.** - (a) all waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide; (b) all interstate waters, including interstate wetlands; (c) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce, including any such waters (I) that are or could be used by interstate or foreign travelers for recreation or other purposes; or (ii) from which fish and shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) that are used or could be used for industrial purpose by industries in interstate commerce; (d) all impoundments of waters otherwise defined as waters of the United States under the definition; (e) tributaries of waters identified in paragraphs (a)(1)-(4) above; (f) the territorial seas; (g) wetlands adjacent to waters (other than waters that are themselves wetlands).

**Wetland** - areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

APPENDIX 2

LIST OF NATURAL RESOURCE LAWS AND IMPLEMENTING REGULATIONS AND USCG  
NATURAL RESOURCE DIRECTIVE

**Bald and Golden Eagle Protection Act of 1940 as amended, 16 USC 668a to 668d, 50 CFR 10** - This statute prohibits taking, possession, and trade in bald and golden eagles.

**Clean Water Act, 33 USC 1251 to 1387** - This act established a national water pollution control program with the goal to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

**Coastal Barriers Resources Act of 1982 as amended, 16 USC 3501 to 3510, 48 CFR 4866** - This established a "Coastal Barrier Resources System" that identifies and maps certain essentially undeveloped coastal barrier features (islands, spits, etc.) and their associated aquatic habitats along the Atlantic and Gulf of Mexico Coastlines, see COMDTINST 16214.1, Consultation Responsibilities under the Coastal Barrier Resources Act.

**Coastal Zone Management Act of 1972 as amended, 16 USC 1451 to 1464, 15 CFR 923** - This act establishes goals and a mechanism for States to control use and development of their coastal zone, including Great Lakes area. It authorizes the states to administer approved coastal nonpoint pollution programs.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 USC 9601 to 9675, 40 CFR 300 through 399** - CERCLA establishes a series of programs for the cleanup of inactive hazardous waste disposal and spill sites nationwide. Requires protection of natural resources, defined as land, plants, animals, air, water, groundwater, drinking water supplies, and other such resources.

**Endangered Species Act of 1973 as amended, 16 USC 1531 to 1544** - This act requires Federal agencies to ensure that their activities (authorized, funded, or carried out) will not jeopardize the existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species. The act also requires each agency to have an active conservation program, under Section 7(a).

**Farmland Protection Policy Act of 1981, 7 USC 4201 to 4209, 7 CFR 658** - The purpose of this act is "to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses." "Farmland" is defined by soil types and does not have to be in active agricultural use to be affected by this act.

**Federal Cave Resources Protection Act of 1988, 16 USC 4301 to 4310, 43 CFR 37** - The purposes of this act are to identify and preserve significant caves on Federal land and to foster increased cooperation and information exchange between government agencies and others on the use of these caves for scientific, educational, and recreational purposes.

**Federal Environmental Pesticide Act and Federal Insecticide, Fungicide, and Rodenticide Act, 7 USC 136 to 136y, 40 CFR 150-186** - This act requires that all pesticides be registered, and that pesticides be used in accordance with the registration; the act restricts the use of certain pesticides.



**Federal Land Policy and Management Act, 43 USC 1701 to 1784** - This act constitutes the original legislation for the Bureau of Land Management (BLM) and it requires that BLM consider the resource management programs of other Federal agencies on adjacent land in conducting their resource planning.

**Federal Noxious Weed Act of 1974, 7 USC 2801 to 2814, 7 CFR 360** - This act provides for the control and eradication of noxious weeds and their regulation in interstate and foreign commerce.

**Fish and Wildlife Conservation Act of 1980, 16 USC 2901 to 2912, 50 CFR 83** - This act provides for conservation, protection, restoration, and propagation of certain species, including migratory birds threatened with extinction.

**Fish and Wildlife Coordination Act, 16 USC 661 to 667d** - This act requires Federal agencies to consult with the U.S. Fish and Wildlife Service, or National Marine Fisheries Service, and with parallel state agencies, whenever water resource development plans result in alteration of a body of water, see COMDTINST 16475.

**Forest and Rangeland Renewable Resources Planning Act, 16 USC 1641 to 1647** - This act establishes the land and resource management planning system for the U.S. Forest Service and also expresses Congressional insistence of inventory and monitoring of natural resources on all public lands in the U.S.

**Lacey Act of 1900 as amended** - The act gives authority, in addition to CFR regulations, to park superintendents and the U.S. Attorney to prosecute criminal or civil violations involving the taking of wildlife, fish, and rare plants on any Federal lands.

**Marine Mammal Protection Act, 16 USC 1361 to 1421h** - This act protects marine mammals and establishes a marine mammal commission.

**Marine Protection, Research, and Sanctuaries Act of 1972, 33 USC 1401 to 1445** - This act authorized the Secretary of Commerce to designate discrete areas of the marine environment as national marine sanctuaries to promote comprehensive management of their unique ecological, historical, recreational, and aesthetic resources, see COMDTINST 16214.2. National Marine Sanctuary Law Enforcement Program and COMDTINST 16004.3, Coast Guard Participation in the National Marine Sanctuary Program.

**Migratory Bird Conservation Act, 16 USC 2913** - The purpose of this act is to aid in the restoration of scarce or extinct species and to regulate the introduction of American or foreign birds or other animals.

**Migratory Bird Treaty Act of 1918, 16 USC 701, 50 CFR 10.13** - This act prohibits taking, possession, and trade of migratory birds, except as permitted by regulations released by the Secretary of Agriculture.

**National Environmental Policy Act (NEPA) of 1969 as amended, 42 USC 4321 to 4370b, 40 CFR parts 1500 to 1508** - NEPA sets the national policy for the protection of the environment. NEPA procedures ensure that environmental

information is available to public officials and citizens before decisions are made and before actions are taken. The NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore and/or enhance the environment, see COMDTINST M16475.1B, National Environmental Policy Act.

**Noise Control Act of 1972, 42 USC 4901 to 4918, 40 CFR 201-211** - This legislation was designed to establish noise standards, and to regulate noise emissions from transportation and construction activities with the goal of protecting all Americans from noise that jeopardizes their health and welfare, see COMDTINST M5100.47, Safety and Environmental Health Manual.

**Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, 16 USC 4701 to 4751, 33 CFR 151, Subpart C** - This act applies to each vessel that carries ballast water and that after operating on the water beyond the Exclusive Economic zone during any part of its voyage enters the Snell Lock at Massena, New York, or navigates north of the George Washington Bridge on the Hudson River, regardless of other port calls in the U.S. or Canada during that voyage.

**Oil Pollution Act of 1990** - This act redefines the requirements of the National Contingency Plan to include fish and wildlife response plans for the immediate and effective protection, rescue and rehabilitation, and minimization of damage and risk to fish and wildlife resources and their habitats.

**Salmon and Steelhead Conservation and Enhancement Act of 1980** - The purpose of this act is to provide for the enhancement and conservation of the salmon and steelhead resources of the United States.

**Soil and Water Resources Conservation Act, 16 USC 2001 to 2009** - Provides for application of soil conservation practices on Federal lands.

**Superfund Amendments and Reauthorization Act (SARA) 40 CFR 300, 300.600** - SARA was passed to amend the authorities and requirements of CERCLA and associated laws.

**Water Resources Planning Act and Water Resource Council's Principles and Standards Act of 1965, 18 CFR 701.200** - This act states a national policy "to encourage the conservation, development, and utilization of water and related land resources on a comprehensive and coordinated basis by the Federal government, states, localities, and private enterprise..." Water Resource Council (WRC) principles and standards for planning water and related land resource uses are revised to achieve national economic development and environmental quality objectives.

**Wild and Scenic Rivers Act of 1968 as amended, 33 USC 1271** - This act established the National Wild and Scenic Rivers System and outlined criteria and procedures whereby free-flowing streams, or portions thereof, could be added to the system which includes wild, scenic, and recreational rivers.

**Wild Bird Conservation Act of 1992, 50 CFR 15** - The purpose of this act is to promote the conservation of exotic birds by assisting wild bird conservation and management programs, ensuring that all trade in species of exotic birds is biologically sustainable, and limiting or prohibiting imports of exotic birds.

**E.O. 11987 Exotic Species, 24 May 1977** - This Executive Order requires Federal agencies to "restrict the introduction of exotic species into the natural ecosystems on lands and waters which they own, lease, or hold for purposes of administration..." and "into any natural ecosystem in the United States," and to "encourage the States, local governments, and private citizens to prevent the introduction of exotic into natural ecosystems of the United States" unless the Secretaries of Agriculture or Interior "find that such introduction or exportation will not have an adverse effect on natural ecosystems."

**E.O. 11988 Floodplain Management of 1977** - The objective of this order is to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development whenever there is a practicable alternative, see COMDTINST 16475.3A Floodplain Management and Protection.

**E.O. 11514 Protection and Enhancement of Environmental Quality of 1970 as amended** - This order declares that "the Federal Government shall provide leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life. Federal agencies shall initiate measures needed to direct their policies, plans and programs so as to meet environmental goals."

**E.O. 11644 Use of Off-Road Vehicles on Public Lands, E.O. 11989 Amendments to E.O. 11644, 24 May 1977** - This order establishes policies and provides for procedures to control use of off-road vehicles on public lands.

**E.O. 11990 Protection of Wetlands of 1977, 3 CFR 121** - This executive order furthers the purposes of the National Environmental Policy Act by directing Federal agencies to "...avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative..."

APPENDIX 3

FISH AND WILDLIFE SERVICE REGIONAL OFFICES

NATIONAL MARINE FISHERIES SERVICE REGIONAL OFFICES

NATIONAL MARINE SANCTUARIES AND  
NATIONAL ESTUARINE RESEARCH RESERVES

NATIONAL ESTUARY PROGRAM CONTACT

**FISH AND WILDLIFE SERVICE REGIONAL OFFICES**

**Region 1, Pacific regional Office (CA, HI and Pacific Islands, ID, NV, OR, WA)**

Eastside Federal Complex  
911 NE 11th Avenue  
Portland, OR 97232-4181  
Regional Director: Michael J. Spear  
503-231-6118

**Region 2, Southwest Regional Office (AZ, NM, OK, TX)**

500 Gold Avenue, SW, Room 3018  
Albuquerque, NM 87102  
Regional Director: Nancy Kaufman  
505-248-6283

**Region 3, Great Lakes-Big Rivers Regional Office (IA, IL, IN, MI, MN, MO, OH, WI)**

1 Federal Drive  
Federal Building  
Fort Snelling, MN 55111  
Regional Director: William F. Hartwig  
612-725-3563

**Region 4, Southeast Regional Office (AL, AR, FL, GA, KY, LA, MS, NC, PR, SC, TN, VI)**

1875 Century Boulevard  
Atlanta, GA 30345  
Regional Director: Noreen K. Clough  
404-679-4000

**Region 5, Northeast Regional Office (CT, DC, DE, MA, MD, ME, NH, NJ,, NY, PA, VA, VT WV)**

300 Westgate Center drive  
Hadley, MA 01035  
Regional Director: Ronald E. Lambertson  
413-253-8200

**Region 6, Mountain-Prairie Regional Office (CO, KS, MT, ND, NE, SD, UT, WY)**

134 Union Boulevard  
P.O. Box 25486  
Denver, CO 80225  
Regional Director: Ralph Morgenweck  
303-236-7920

**Region 7, Alaska Regional Office (AK)**

1011 E. Tudor Road  
Anchorage, AK 99503  
Regional Director: David B. Allen  
907-786-3542

**NATIONAL MARINE FISHERIES SERVICE REGIONAL OFFICES**

**Northwest**

7600 Sand Point Way, NE  
BIN C15700  
Building 1  
Seattle, WA 98115-0070  
Regional Director: William Steele  
206-526-6150

**Southwest**

501 W. Ocean Boulevard, Suite 4200  
Long Beach, CA 90802-4213  
Regional Director: Hilda Diaz-Soltero  
310-980-4001

**Northeast**

One Blackburn Drive  
Gloucester, MA 01930-2298  
Director: Andrew A. Rosenberg  
508-281-9250

**Southeast**

9721 Executive Center Drive  
St. Petersburg, FL 33702-2432  
Director: Andrew J. Kemmerer  
813-570-5301

**Alaska**

P.O. Box 21668  
Juneau, AK 99802-1668  
Director: Steven Pennoyer  
907-586-722

NATIONAL MARINE SANCTUARIES AND NATIONAL  
ESTUARINE RESEARCH RESERVES

The National Marine Sanctuaries and National Estuarine Research Reserves are administered by the NOAA in the U.S. Department of Commerce, 1305 East-West Hwy., 12th Fl., Silver Spring, MD 20910, Public Affairs Office: (301,713-3145 Ext. 153).

**NATIONAL MARINE SANCTUARIES**

**Channel Islands National Marine Sanctuary**, 113 Harbor  
Way, Santa Barbara, CA 93109 (805, 966-7107; Fax: 805,  
568-1582)

Manager: JOHN MILLER

**Cordell Bank National Marine Sanctuary**, Ft. Mason, Bldg.  
#201, San Francisco, CA 94123 (415, 556-3509; Fax:  
415, 556-1419)

Manager: EDWARD UEBER

**Fagatele Bay National Marine Sanctuary**, P.O. Box 4318,  
Pago Pago, American Samoa 96799 9-011(684) 633-  
5155; Fax: 9-011 (684) 633-4195

Coordinator: NANCY DASCHBACH

**Flower Garden Banks National Marine Sanctuary**, c/o  
Texas A&M University Sea Grant Program, 1716  
Briarcrest Dr., Suite 603, Bryan, TX 77802 (409, 847-  
9296; Fax: 409, 845-7525)

Manager: STEVE GITTINGS

**Gray's Reef National Marine Sanctuary**, 30 Ocean Science  
Circle, Savannah, GA 31411 (912, 598-2345; Fax: 912,  
598-2367)

Manager: REED BOHNE

**Gulf of the Farallones National Marine Sanctuary**, Fort  
Mason Building #201, San Francisco, CA 94123 (415,  
556-3509; Fax: 415, 556-1419)

Manager: EDWARD UEBER

**Florida Keys National Marine Sanctuary**, P.O. Box 500368,  
5550 Overseas Hwy., Marathon, FL 33050 (305, 743-  
2437; Fax: 305, 743-2357)

Sanctuary Superintendent: BILLY CAUSEY

**Monitor National Marine Sanctuary**, Building 1519, Fort  
Eutis, VA 23604-5544 (804, 878-2973; Fax: 804, 878-  
4619)

Manager: JOHN BROADWATER

**Monterey Bay National Marine Sanctuary**, 299 Foam St.,  
Suite D, Monterey, CA 93940 (408, 647-4201 )

Manager: TERRY JACKSON

**Hawaiian Islands Humpback Whale National Marine**

**Sanctuary**, 726 South, Kihei, HI 96753 (808, 879-2818;  
Fax: 808, 874-3815)

On-Site Liaison: ALLEN TOM

**Olympic Coast National Marine Sanctuary**, 138 W. First St.,  
Port Angeles, WA 98362-2600 (360,457-6622; Fax: 360,  
457-8495)

Manager: TODD JACOBS

**Stellwagen Bank National Marine Sanctuary**, 14 Union St.,  
Plymouth, MA 02360 (508, 747-1691, Fax: (508, 747-  
1949)

Manager: BRAD BARR

**NATIONAL ESTUARINE RESEARCH  
RESERVES**

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APPENDIX 4

SAMPLE SITE INVENTORY CHECKLIST

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

*Use the following Site Inventory Check List when preparing a Natural Resource Management Plan (NRMP). The checklist is designed to aid the preparer in locating and describing natural resources and management issues which the NRMP should address.*

*The Natural Resource Management Plan does not constitute environmental compliance. Compliance with NEPA and other natural and cultural resource regulations is usually accomplished on a case-by-case basis for individual projects.*

*Any item that is marked with a "YES" should be carefully evaluated when preparing the NRMP. If the item is not applicable to the unit's daily operations or proposed activities, mark "N/A ". If the item may be applicable but more information is needed, mark TBD (To Be Determined) and follow up on that issue in preparing the NRMP. If there is no indication of a problem, simply answer with a "NO."*

Indicate one  
YES, N/A, TBD, NO

1. **LAND USE** (local planning office can assist)
- a. Is the majority of the unit currently undeveloped? \_\_\_\_\_
  - b. Are there recreational facilities on the unit? \_\_\_\_\_
  - c. Are there housing units on the unit? \_\_\_\_\_
  - d. Is there undeveloped forested land on the unit? \_\_\_\_\_
  - e. Are there undeveloped meadows or grass lands on the unit? \_\_\_\_\_
  - f. Are undeveloped areas accessible to CG personnel or the public? \_\_\_\_\_
  - g. Are there undeveloped forested lands adjacent to the unit? \_\_\_\_\_
  - h. Are there undeveloped grass lands adjacent to the unit? \_\_\_\_\_
  - i. Do grounds maintenance activities include mowing? Or the use of pesticides? or herbicides? Describe: \_\_\_\_\_
- 
- j. Is the unit located on or near any public park or recreation area? \_\_\_\_\_
  - k. Will daily operations or proposed activities affect land which is either presently used as a public park or recreation area, or is scheduled for such use in the future? (Contact local or regional planning agency.) \_\_\_\_\_
  - l. Do daily operations or proposed activities impact or restrict access to any public use property or facilities? \_\_\_\_\_

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

Indicate one  
YES, N/A, TBD, NO

2. **GEOLOGY, TOPOGRAPHY, AND SOILS** (Natural Resource Conservation Service can assist)

a. What are the geologic formations on the unit?

\_\_\_\_\_

b. Are there unique geologic or topographic features on the unit?

c. What soil associations are located on the unit?

\_\_\_\_\_

d. What hydric soil association are located on the unit?

e. Are there areas, including beaches, with soil erosion (wind or water) problems?

f. According to NRCS, are there prime farmland soils or soils of statewide or local importance located on the unit? (Note: these soils do not have to be in active agricultural use to be protected under the Farmland Protection Policy Act.)

g. Have farmlands or farmland soils been lost, or will they be lost, through Coast Guard use?

h. Are there proposed activities which may result in the loss of farmland soils? (coordination with the NRCS State Conservationist may be necessary.)

i. Will a NRCS Form AD-1006 need to be completed?

3. **VEGETATION AND WILDLIFE** (local fish and wildlife office can assist)

a. What dominant plant species occur on the unit?

List by forest, shrubby area, meadow, dunes, lawns, and garden.

\_\_\_\_\_

b. Are there any exotic plant species on the unit? (multiflora rose, honeysuckle, etc.) List species and locations:

\_\_\_\_\_

c. Do daily operations, or will proposed activities, require the removal of plants?

d. Are portions of the unit, or surrounding area, used by migrating birds?

e. Are powerlines or antennas present on the facility?

f. Have any birds been injured or killed because of contact with powerlines or guy wires?

\_\_\_\_\_

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

Indicate one  
YES, N/A, TBD, NO

- g. Are there nesting birds on the unit? \_\_\_\_\_
- h. Are areas where birds nest accessible to CG personnel or the public? \_\_\_\_\_
- i. During the last year has wildlife been noted on the unit? List: \_\_\_\_\_

- 
- j. Has wildlife been injured or killed by CG operations at the unit? \_\_\_\_\_
  - k. Are any nuisance species of wildlife causing damage to facility grounds, buildings, or operations? \_\_\_\_\_
  - l. Is the unit located inside or near a wildlife refuge or wildlife conservation area? \_\_\_\_\_
  - m. Have the COE, U.S. Fish & Wildlife Service and state fish & wildlife agencies determined significant adverse impacts to any marshlands, wetlands, and/or wildlife associated with daily operations or proposed activities at the unit? \_\_\_\_\_
  - 4. **GROUNDWATER** (local EPA office can assist)
    - a. Are there any known sources of pollution to groundwater? \_\_\_\_\_
    - b. Are there any abandoned wells on the unit? \_\_\_\_\_
    - c. Are there any dumps (abandoned or in use) on the unit? \_\_\_\_\_
  - 5. **FLOODPLAINS AND COASTAL ZONE** (Federal Emergency Management Agency can assist)
    - a. Is any portion of the facility located in a 10-year floodplain? \_\_\_\_\_
    - b. Is any portion of the facility located in a 100-year floodplain? \_\_\_\_\_
    - c. Is the unit located within the Coastal Zone? \_\_\_\_\_
    - d. Would proposed activities require a coastal zone consistency determination? \_\_\_\_\_
    - e. Is the unit located on or near a barrier island? (If yes, U.S. Fish & Wildlife Service consultation required) \_\_\_\_\_

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

Indicate one  
YES, N/A, TBD, NO

6. **WETLANDS, WATER RESOURCES, AND AQUATIC AREAS** (National Marine Fisheries Service or Corps of Engineers can help)
- a. Are there any wetlands, marshes, or streams on the unit?
    - Are there developed wetlands on the unit? \_\_\_\_\_
    - Are there developed wetlands adjacent to the unit? \_\_\_\_\_
    - Are there undeveloped wetlands on the unit? \_\_\_\_\_
    - Are there undeveloped wetlands adjacent to the unit? \_\_\_\_\_
  - b. Is there a vegetated buffer around wetlands or streams? \_\_\_\_\_
  - c. Are wetlands or streams located adjacent to or near industrial areas on the unit? \_\_\_\_\_
  - d. Will daily operations or proposed activities require any dredging below the MHW line, ordinary high waterline, or near or in any wetlands, waterways, or other contiguous bodies of water? \_\_\_\_\_
  - e. Has there been or will there be any waterway construction (i.e., piers, docks, dolphins, jetties, ramps, etc.)? \_\_\_\_\_
  - f. Will daily operations or proposed activities involve construction in marshlands or wetland areas? \_\_\_\_\_
  - g. Has there been or will there be any fill placed below MHW? \_\_\_\_\_
  - h. If dredging is required, will the dredged material be deposited in a marshland or wetland area on or away from the unit? If dredging is required, will the dredged material be used for beach nourishment? \_\_\_\_\_
  - i. Has there been or will there be any modification of the stream channels or banks of a waterway? \_\_\_\_\_
  - j. Has there been or will there be any diversion of flow in waterways? \_\_\_\_\_
  - k. Will daily operations or proposed activities in adjacent waterways alter shoaling patterns of the waterway? \_\_\_\_\_
  - l. Do daily operations or will proposed activities result in an increase in water turbidity? \_\_\_\_\_
  - m. Does operation of vessels at the facility result in bank erosion due to vessel wake? \_\_\_\_\_
  - n. Are sewage wastewater or other pollutants discharged into an adjacent waterway? \_\_\_\_\_
  - o. Do daily operations or will proposed activities result in upland pollutants flowing into adjacent waterways? \_\_\_\_\_
  - p. Is water runoff laden with silt from an uncovered and unprotected construction site allowed to enter adjacent waterways? \_\_\_\_\_

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

Indicate one  
YES, N/A, TBD, NO

- q. Do daily operations or will proposed activities require construction of a well or water intake structure in a natural waterway? \_\_\_\_\_
- r. Does use of a well or intake structure significantly deplete available water resources? \_\_\_\_\_
- s. Has there been any contamination of underground aquifers as a result of daily operations or proposed activities? \_\_\_\_\_
- t. Are there dockside sewage and bilge water collection systems at the unit? \_\_\_\_\_
- u. Is the temperature of the surrounding water raised by any discharges resulting from daily operations or proposed activities? \_\_\_\_\_
- v. Do daily operations or will proposed activities require the removal of any marine/aquatic vegetation? \_\_\_\_\_
- 7. **ENDANGERED, THREATENED, AND CANDIDATE SPECIES**  
(FWS and NMFS can help)
- a. Are there any known threatened or endangered species inhabiting the unit? \_\_\_\_\_
- b. Does any habitat for threatened or endangered species exist on the unit? \_\_\_\_\_
- c. Is the unit within the range of any known threatened or endangered species? \_\_\_\_\_
- 8. **AIR QUALITY** (local EPA office can help)
- a. Is the unit located in an area of non-attainment for National Ambient Air Quality Standards under the Clean Air Act? \_\_\_\_\_
- b. Is the unit not in conformance with the State Air Quality Implementation Plan? \_\_\_\_\_
- 9. **NOISE** (Unit safety office can help)
- a. Do daily operations or will proposed activities result in excessive noise levels in the area?  
List activities:  
\_\_\_\_\_  
\_\_\_\_\_
- b. Do noise levels from daily operations or will noise levels from proposed activities (above the background noise levels) generally occur past normal working hours? \_\_\_\_\_

UNIT NAME AND LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_

Indicate one  
YES, N/A, TBD, NO

**10. UNIT OPERATIONS**

- a. Do daily operations or will proposed activities require the storage of over 5,000 gallons of fuel? \_\_\_\_\_
- b. Do daily operations or will proposed activities include the construction of radio antennas or high voltage radar or microwave structures? \_\_\_\_\_
- c. Does the unit include landing facilities for Coast Guard aircraft? \_\_\_\_\_
- d. Do daily operations, or will proposed activities, require storage of hazardous wastes? \_\_\_\_\_
- e. Is there a possibility of accidental spills of oils, hazardous or toxic materials from daily operations or proposed activities? \_\_\_\_\_
- f. Are there any areas of known or suspected contamination (stressed vegetation, etc.)? \_\_\_\_\_
- g. Is a remediation project ongoing or planned at the unit? \_\_\_\_\_
- h. Were there any natural resource related findings in your last ECE? \_\_\_\_\_

**11. NOTIFICATIONS OF & COMMENTS FROM PUBLIC AGENCIES & PUBLIC INTEREST GROUPS**

- a. Has the State Coastal Zone Management Officer raised objections to daily operations or proposed activities (Coastal Zone Management Act)? \_\_\_\_\_
- b. Has the U.S. Fish and Wildlife Service raised objections to daily operations or proposed activities? \_\_\_\_\_
- c. Has the U.S. Fish and Wildlife Service requested assistance in protecting fisheries, endangered species or critical habitat? \_\_\_\_\_
- d. Has the Corps of Engineers raised objections to daily operations or proposed activities? \_\_\_\_\_
- e. Has the EPA raised objections to daily operations or proposed activities? \_\_\_\_\_
- f. Will any public park, or recreational area, wildlife or water fowl refuges, or historic sites of national, state or local significance be affected directly or indirectly by daily operations or proposed activities [DOT Act - Section 4(1)]? \_\_\_\_\_
- g. Has any public interest group (for example, the Sierra Club or League of Woman Voters) raised any objections to daily operations or proposed activities? \_\_\_\_\_

Department of  
Transportation  
U.S. Coast Guard

NATURAL RESOURCE MANAGEMENT PLAN  
SITE INVENTORY CHECK LIST

UNIT NAME AND LOCATION: \_\_\_\_\_  
DATE: \_\_\_\_\_



APPENDIX 5

NATURAL RESOURCE MANAGEMENT PLAN TEMPLATE

NATURAL RESOURCES MANAGEMENT PLAN  
(TEMPLATE)

CG UNIT NAME:  
LOCATION:  
EFFECTIVE DATE:

---

1.0 **INTRODUCTION**

This Natural Resources Management Plan (NRMP) guides Coast Guard personnel assigned to \_\_\_\_\_ (*unit name*) \_\_\_\_\_ in managing its natural resources. Natural resources include the land, water, plant and animal communities within the unit itself and within the area of responsibility as a whole. This NRMP summarizes the major natural resources at the unit and recommends long-term resource management activities.

This NRMP was compiled by \_\_\_\_\_ (*list contributors with addresses and telephone numbers*) \_\_\_\_\_.

**2.0 FACILITY OVERVIEW**

U.S. Coast Guard \_\_\_\_\_(facility name)\_\_\_\_\_ is located in the town of \_\_\_\_\_ in \_\_\_\_\_(state)\_\_\_\_\_. It is approximately \_\_\_\_\_ minutes latitude and \_\_\_\_\_ minutes longitude. Facilities include \_\_\_\_\_(describe)\_\_\_\_\_. The \_\_\_\_\_(Station, Group, etc.)\_\_\_\_\_ was established in \_\_\_\_\_(date)\_\_\_\_\_ to provide \_\_\_\_\_(describe history, original mission, etc.)\_\_\_\_\_. There are \_\_\_\_\_(#)\_\_\_\_\_ Coast Guard active duty personnel, \_\_\_\_\_(#)\_\_\_\_\_ Coast Guard reserve personnel, and \_\_\_\_\_(#)\_\_\_\_\_ civilians are assigned to \_\_\_\_\_(facility name)\_\_\_\_\_.

**2.1 Unit Mission and Activities**

Current missions of the unit include \_\_\_\_\_(describe)\_\_\_\_\_. Other activities include \_\_\_\_\_(describe)\_\_\_\_\_.

*Describe any activities (ongoing or planned), especially those that may affect natural resources.*

**2.2 Goals and Objectives**

The USCG policy is to act responsibly for the good stewardship of natural resources. To the maximum extent possible, the Coast Guard shall inventory, preserve, restore, and enhance natural resources on its administered levels. This NRMP provides records of inventory analysis and efforts to preserve, restore and enhance our natural resources. The management practices recommended serve as objectives towards meeting these goals.

**3.0 FACILITY INVENTORY**

A site inventory checklist (see Appendix A) was completed on \_\_\_\_\_ (date) \_\_\_\_\_. This form has been used to identify natural resources on the facility that may be affected by daily operations or proposed activities. This information formed the basis for evaluating natural resources and preparing this NRMP. All natural resources identified on the facility are shown on the base map included in Appendix B.

**3.1 Land Use**

Land uses within the facility consist of \_\_\_\_\_ (describe) \_\_\_\_\_. Surrounding land used include \_\_\_\_\_ (describe) \_\_\_\_\_.

*Describe current land uses (industrial, office, housing, recreation, open space, etc.) on the facility. Label areas on the site map and refer to it. Include vessels stationed at facility, docking facilities, power lines, gas lines, other rights-of-way, and any other important use. Note nearby wildlife refuges, parks, or other natural areas.*

**3.2 Geology, Topography, and Soils**

The land form is \_\_\_\_\_ (gently rolling, mountainous, flat) \_\_\_\_\_ with underlying bedrock consisting of \_\_\_\_\_. The soils include \_\_\_\_\_ (list) \_\_\_\_\_ associations with the following characteristics: Complete following table or attach the NRCS County Soil Survey.

	____ (Soil Name) ____	____ (Soil Name) ____	____ (SoilName) ____
classified as farmland soil			
sand, loam, or clay			
percent slope			
degree eroded (severly, moderately, etc.)			
drainage (well drained, moderately, etc.)			

pH reaction (neutral, acidic etc.)			
color and depth of surface layer			
color and depth of subsurface layer			
are iron deposits or mottling present			
depth to bedrock or fragipan			
important engineering limitations			

Soil erosion problems occur \_\_\_\_\_ (describe locations) \_\_\_\_\_.

### 3.3 Vegetation and Wildlife Communities

Approximately \_\_\_\_\_ hectares of undeveloped areas not associated with wetlands occur on the facility and consists of \_\_\_\_\_ (mixed forest, landscaped areas, mowed grass areas, etc.) \_\_\_\_\_ (see map in Appendix B). Wildlife species which utilize these areas include \_\_\_\_\_ (list species observed or expected to inhabit these areas) \_\_\_\_\_. These communities have the following characteristics: (for each of the plant communities complete the following)

Name of Area \_\_\_\_\_

Dominant trees taller than 20 feet: Type: \_\_\_\_\_ % of Plant Community: \_\_\_\_\_

Dominant shrubs and small trees: Type: \_\_\_\_\_ % of Plant Community: \_\_\_\_\_

Dominant herbaceous, or non-woody plants:	Type:	% of Plant Community:
	_____	_____
	_____	_____
Percent canopy closure if tall trees are present:	_____	_____
Percent ground cover by herbaceous plants:	_____	_____
Density, or stocking, of plants (well stocked, poorly stocked, etc.)	_____	_____
Important features for wildlife (brush piles, down logs, burrows)	_____	_____
Number of dead trees taller than 40 feet:	_____	_____
Non-native species present:	_____	_____
Observed wildlife:	_____	_____
Signs of wildlife:	_____	_____
Number of hectares:	_____	_____
Soil association:	_____	_____
Is water present:	_____	_____
Comments:	_____	_____

*Identify important native species including plants that dominate the area and those that provide food and cover for wildlife (e.g., nut or berry-producing trees and shrubs). List non-native species and note if any problems are associated with them (vine damage to trees, crowding out native vegetation, excess amounts of noxious weeds such as poison-ivy, etc.). In agricultural areas describe crops planted, rotation of crops, agricultural practices used, etc.*

**3.4 Groundwater Resources**

Groundwater is located approximately \_\_\_\_\_ meters below the surface. There area \_\_\_\_\_ (number) \_\_\_\_\_ of wells on the unit, drawing about \_\_\_\_\_ liters per day. Water quality is \_\_\_\_\_ (describe) \_\_\_\_\_. Potential sources of groundwater contamination are \_\_\_\_\_ (list sources or "unknown") \_\_\_\_\_.

3.5 **Floodplains and Coastal Zone**

Approximately \_\_\_\_\_ hectares of the facility are within the 100-year floodplain, and \_\_\_\_\_ hectares are within the 10-year floodplain as determined by the Federal Emergency Management Agency \_\_\_\_\_ (reference *Flood Insurance Rate Map*) \_\_\_\_\_. The facility *is/is not* within the coastal zone, defined as \_\_\_\_\_ (state's definition of coastal zone) \_\_\_\_\_ by the state of \_\_\_\_\_ (state name) \_\_\_\_\_, which does/does not have an approved Coastal Zone Management Program. Adequate buffers exist along approximately \_\_\_\_\_ (%) \_\_\_\_\_ percent of the floodplains and coastal zone.

3.6 **Wetlands, Water Resources, and Aquatic Areas**

Approximately \_\_\_\_\_ hectares of wetlands exist on the facility. These include \_\_\_\_\_ (describe size and location of all tidal and nontidal wetlands) \_\_\_\_\_, which are shown on map in Appendix B. Photographs are located in appendix C. Important wetland species identified include \_\_\_\_\_ (list) \_\_\_\_\_. Wildlife species which utilize these areas include \_\_\_\_\_ (list species observed or expected to inhabit these areas) \_\_\_\_\_. These wetlands have the following characteristics: (for each of the plant communities complete the following)

Name of Area	Type:	% of Plant Community:
Dominant trees taller than 20 feet:	_____	_____
	_____	_____
Dominant shrubs and small trees:	_____	_____
	_____	_____
Dominant herbaceous, or non-woody plants:	_____	_____
	_____	_____
Percent canopy closure if tall trees are present:	_____	_____
Percent ground cover by herbaceous plants:	_____	_____
Density, or stocking, of plants (well stocked, poorly stocked, etc.)	_____	_____

Important features for wildlife (brush piles, down logs, burrows) \_\_\_\_\_

Number of dead trees taller than 40 feet: \_\_\_\_\_

Non-native species present: \_\_\_\_\_

Observed wildlife: \_\_\_\_\_

Signs of wildlife: \_\_\_\_\_

Number of hectares: \_\_\_\_\_

Soil association: \_\_\_\_\_

Comments: \_\_\_\_\_

Is water present at or above the surface: \_\_\_\_\_

Is there a permanent channel: \_\_\_\_\_

Is there an intermittent channel: \_\_\_\_\_

Average height of water marks on trees: \_\_\_\_\_

Is water flowing in same direction as channel through wetland: \_\_\_\_\_

Is sediment deposited on ground in surrounding areas: \_\_\_\_\_

Soil characteristics indicating hydric soils: \_\_\_\_\_

*Describe any streams and their drainage patterns, as well as any seeps or headwater areas and the condition of the shorelines. Note the proximity of any large rivers.*

*Describe fresh and tidal water areas and any observance of submerged aquatic vegetation (SAV) or marine mammals.*

*Describe stormwater management devices and systems. Note locations on map.*

*Describe problem areas that need attention.*

**3.7 Endangered, Threatened, and Candidate Species**

Habitats for endangered, threatened or candidate species *do/do not* exist on the facility.

*Describe in as much detail as possible, any information supplied by FWS, NMFS, or state agency regarding federally or state-listed species. If the facility contains potential habitat for listed or proposed species, a field survey should be conducted to determine if any species of concern are present. Survey design and timing should be coordinated with FWS, NMFS, or state agency, and the results of the survey should be summarized here. All documentation from FWS and NMFS is in Appendix D.*



Note any sightings of eagles, peregrine falcons, waterfowl or other migratory species, as well as marine mammals. If any protected species are known to be present, describe areas which provide critical habitat.

### 3.8 Climate and Air Quality

At the \_\_\_\_\_ Coast Guard facility, the average annual amount of precipitation is \_\_\_\_\_ centimeters including \_\_\_\_\_ centimeters of snow. The precipitation is/is not fairly evenly distributed throughout the year (with the majority falling in \_\_\_\_\_ (months)\_\_\_\_\_). Droughts, lasting \_\_\_\_\_ weeks frequently occur during \_\_\_\_\_ (months). Flooding occurs frequently in \_\_\_\_\_ (months)\_\_\_\_\_. The mean high in January (or which ever is the coldest month) is \_\_\_\_\_ C and the mean low in January is \_\_\_\_\_ C. The mean high and low in June (or which ever is the warmest month) are \_\_\_\_\_ 0C and \_\_\_\_\_ C respectively. (If applicable) The mean high water mark is \_\_\_\_\_ feet above sea level, while the mean low water mark is \_\_\_\_\_ feet above sea level. Hurricanes or other major storms occur about every \_\_\_\_\_ years.

*Discuss in detail any air quality issues, such as emissions from USCG or other aircraft, which affect the facility. Discuss whether the facility is in an area of non-attainment of National Ambient Air Quality Standards under the Clean Air Act.*

### 3.9 Noise

Noise is generated at the facility by \_\_\_\_\_ (describe daily operations and maintenance activities)\_\_\_\_\_. Sensitive receptors on or adjacent to the unit include \_\_\_\_\_ (Describe any wildlife species (e.g., nesting birds) or outdoor recreation areas on or adjacent to the facility such as schools or hospitals which are or could be affected by noise generated by facility operations)\_\_\_\_\_. Activities which produce noise levels above background levels do/do not occur before 7:00 a.m. and after 6:00 p.m.

#### 4.0 MANAGEMENT PRACTICES AND MAINTENANCE PROGRAMS

*Describe the following in detail, include time tables, expected results, expected benefits and expected costs:*

*Describe management and maintenance activities and construction techniques which could benefit natural resources under each heading outlined in Section 3.0 of this NRMP. Each natural feature should be addressed. Some features may require several management practices and other may not require any. This discussion should include interim schedules and treatments that assist in changing from previous practices to desired practices. Examples are provided in Chapter 3 of the Natural Resources Management Guidance Document (COMDTINST M5090.3). These examples may or may not apply to the unit and should be revised as needed.*

*Describe desired grounds maintenance activities, including lawn care and landscaping activities, mowing and watering habits, fertilizer and pesticide applications, etc. Describe programs to control undesirable upland plants, aquatic weeds, and pest species.*

*Describe methods for protecting wildlife and wildlife habitat.*

*Describe stormwater management practices and facilities and how well they function, noting any problems with sedimentation, erosion, or water quality.*

*Describe other methods of protecting wetlands, streams, and aquatic areas.*

*Describe ways to maintain air quality and to control noise impacts from unit operations.*

ENCLOSURE (1) - SITE INVENTORY FORM

ENCLOSURE (2) - MAPS

*(Include Facility Base Map, Soil Maps, Wetland Maps, etc.)*

APPENDIX 6

LIST OF ACRONYMS AND ABBREVIATIONS

**BA** - Biological Assessment  
**BLM** - Bureau of Land Management  
**BMP** - Best Management Practice  
**CE** - Categorical Exclusion  
**CERCLA** - Comprehensive Environmental Response, Compensation, and Liability Act  
**CEU** - Civil Engineering Unit  
**CFR** - Code of Federal Regulations  
**COE** - U.S. Army Corps of Engineers  
**CWA** - Clean Water Act  
**CZMA** - Coastal Zone Management Act  
**DERP** - Defense Environmental Restoration Program  
**DOI** - U.S. Department of Interior  
**EA** - Environmental Assessment  
**EIS** - Environmental Impact Statement  
**EO** - Executive Order  
**EPA** - U.S. Environmental Protection Agency  
**ESA** - Endangered Species Act  
**FIFRA** - Federal Insecticide, Fungicide, and Rodenticide Act  
**FONSI** - Finding of No Significant Impact  
**FPPA** - Federal Farmland Protection Policy Act  
**FR** - Federal Register  
**FRP** - Facility Response Plan  
**FWPCA** - Federal Water Pollution Control Act  
**FWS** - U.S. Fish and Wildlife Service  
**HW** - Hazardous Waste  
**IPM** - Integrated Pest Management  
**MBTA** - Migratory Bird Treaty Act  
**MHW** - Mean High Water  
**MLC** - Maintenance and Logistics Command  
**MMPA** - Marine Mammal Protection Act  
**MOA** - Memorandum of Agreement  
**MOU** - Memorandum of Understanding  
**NEPA** - National Environmental Policy Act  
**NMFS** - National Marine Fisheries Service  
**NOAA** - National Oceanic and Atmospheric Administration  
**NPDES** - National Pollution Discharge Elimination System  
**NRCS** - Natural Resource Conservation Service (formerly the SCS)

**NRMP** - Natural Resource Management Plan  
**NWI** - National Wetland Inventory  
**POTW** - Publicly Owned Treatment Works  
**RCRA** - Resource Conservation and Recovery Act  
**SARA** - Superfund Amendments and Reauthorization Act  
**SCS** - Soil Conservation Service (now the NRCS)  
**USC** - United States Code  
**USCG** - U.S. Coast Guard  
**USDA** - U.S. Department of Agriculture  
**USGS** - U.S. Geological Survey  
**WRC** - Water Resource Council

APPENDIX 7

REFERENCES

- Avian Power Line Intersection Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: the State of the Art in 1994. Publication No. 06-94-33.
- Congressional Quarterly. 1990. Federal Regulatory Directory, Sixth Edition. Washington, D.C.
- Kerwin, Cornelius M. 1994. Rulemaking: How Government Agencies Write Law and Make Policy. Congressional Quarterly: Washington, D.C.
- Olendorff, Richard R., A. Dean Miller, and Robert N. Lehman. 1996. Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996 Raptor Research Foundation Report No. 4. St. Paul, MN.
- ReVelle, Charles and Penelope ReVelle. 1981. The Environment: Issues and Choices for Society. D. Van Nostrand Company: New York.
- Smith, L. 1980. Ecology and Field Biology, Third edition. Harper & Row Publishers: New York.
- U.S. Fish and Wildlife Service (FWS). 1991. Recommendations for Prevention of Electrocution and Bird Strikes from Power Lines. Virginia Field Office, White Marsh, VA.